Spatial-social solutions for Dutch post war neighbourhoods

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Colophon

Spatial-social solutions for Dutch post war neighbourhoods

Master Thesis
Joël Eichler
j.e.eicher@gmail.com
www.eichler.nl

TU Delft – Faculty of architecture
Master: Urbanism chair
Chair: Spatial planning and strategy
Team: Urban regeneration

Main mentor (research)
Paul Stouten
Second mentor (design)
John Westrik
Third mentor (history and design)
Paul Meurs

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Julianalaan 134, Room P
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(cover picture: Valentijn *et al,* 2002:200)

I Preface

This thesis is the final work of the graduation of my master studies in urbanism at the TU Delft.

The subject of the thesis is based on my own fascination and background. I have been born, and spend most of my life, in one of the post war neighbourhoods of The Hague. It even was in the list of 40 Dutch neighbourhoods that got the predicate 'probleemwijk' (= deprived neighbourhood). Because of my experience with it I became fascinated by the adaptations made to the neighbourhood and their spin-off. I became intrigued by the relation between the physical interventions and their social effects, how to value a physical intervention and its effect.

The research is mainly based on post war neighbourhoods in Amsterdam, Rotterdam and The Hague, the reason to focus on post war neighbourhoods is because many deprived neighbourhoods nowadays descent from that era. Because of the selection of a neighbourhood in The Hague as my design location most distinction lays on The Hague.

My thanks go out to my mentors for giving me advice in my research and who stimulated me to look furter than I was used to. Also I thank my attendant at the municipaty of The Hague, Eit Hasker, for guiding me during my internship and his idea to compare Zuidwest and Mariahoeve. As for the other colleages at the municipality, thanks for your support and for letting me function as one of your own.

Of course my thanks goes out to my soon to be wife Marlinde, who helped me with her support and love, and read my report at least twice to check for mistakes.

Last but not least my thanks goes out to everyone whom I forgot to thank.

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III Summary

The post war neighbourhoods are currently a big issue on the Dutch regeneration agenda. Many deprived and post war neighbourhoods are having major structural problems on the physical, social and economic level. As seen from the current standards, the post war neighbourhoods are vulnerable because they do not meet the current demands of the general public. The effects and side-effects of the interventions done to improve the neighbourhoods are an important point of discussion in the urban regeneration process. The physical, social and economic interventions are all valued differently by the involved actors and should be valued ambiguous to decide the direction of the neighbourhood improvement.

This thesis will not only study the neighbourhoods with problems on a physical, social or economic level, but will also anticipate on neighbourhoods that could be problematic if there will not be fast changes. To be able to do that the main focus will be on possible interventions to improve a post war neighbourhood from a regeneration- as well as from a sustainability point of view. The interventions have effects on the physical state of the neighbourhood, but also change the social and economic state. The spin-off effects of the interventions on a physical, social and economic level are often hard to predict before an intervention takes place. With the use of interventions that are already tested, the results will be easier to predict. An additional problem is the knowledge of the actor choosing the intervention, because of his expertise he often focuses only on the physical or social or economic spin-off. This thesis tends to value the interventions in a multi-perspective way.

As a guide trough the research, a research question has been used, this question takes the interventions as well as the spin-off effects and the preconditions in account: *What urban design and planning instruments can be used to modernize and improve the spatial-social conditions of Dutch post war neighbourhoods?* To be able to answer this question, several sub-questions were formed and answered during the research. These questions will be answered in the conclusions at the end of the report:

- What are the positive and negative effects of several previous urban renewal projects in Dutch post war neighbourhoods?
- What are the current methods and strategies used by urban planners, municipalities, housing associations, the government or other actors to improve spatial social conditions of Dutch post war neighbourhoods?
- What is the relation between physical shortcomings and social problems at neighbourhood scale?
- What is the relation between physical social interventions in post war neighbourhoods and the advancement spin-off? (paper)

After the Second World War there was a vast shortage of houses, many houses were destroyed or damaged and the demand only got bigger and bigger. With a large scale government program there was put a big effort in making as many houses of sufficient quality in a short period of time. The city centres were full, so most of these neighbourhoods were planned in the polder land at the border of the city; where there was sufficient amount of space and infrastructural connections. These neighbourhoods were very successful with the general public in those

times. The post war period only was from 1945 to 1970, but because of the high building speed and the large number of houses built, the post war housing stock is still almost one third of the total of 6.5 million houses in the Netherlands. Post war neighbourhoods are not only remarkable in the urban context for their amount, but even more for their characteristics. They have a remarkable appearance because of the urban structure, the thorough planning and comparable layout. During the post war period three main extension methods were used;

- The use of pre-war development plans which facilitated a recess of the existing city structure (Garden city ideas)
- Neighbourhood-unit (wijkgedachte)
- Functional neighbourhood

The typical characteristics for these extension methods were, much low quality (semi-)public space, believe in a designable society, monotonous housing in fixed grid with little ornaments, separated functions, high percentage of porch houses, and maybe most important; a high percentage of social housing.

Since the 1990's the concentration of low income households grew rapidly in the post war neighbourhoods. Because of the depart of the middle- and high income groups to new neighbourhoods with bigger houses and better quality, the houses in the post war neighbourhoods became cheaper and attracted more and more low income households. The low income groups had been kept out of the post war neighbourhoods when the houses were delivered, but now they were getting the upper hand. They did not necessarily wanted to live in those neighbourhoods, but they had no choice, because no other neighbourhood offers such a large amount of cheap houses in the social rent sector. This led to deprivation of a concerning number of post war neighbourhoods, from the Dutch list of deprived neighbourhoods most of the neighbourhoods are from the post war era, although the post war housing stock is only one third of the total Dutch housing stock.

Post war neighbourhoods and deprived neighbourhoods are experiencing a large variety of problems. To be able to make a positive change in the neighbourhoods, the problems should be known first. Physical interventions are needed, but the quality of the post war housing stock is questionable. Some say it is still suitable in size and quality, others even claim demolition is the only option. The social problems are on a completely other level than the physical problems. The social field seems to have an almost unending list of minor and major problems which together can form a significant problem. Many of these problems are visible in the neighbourhood, but maybe even more problems are not visible and could only be found doing an extensive neighbourhood research. Because of the partial vagueness of the social theme it is sometimes hard to measure, but there are social problems present in every neighbourhood.

Although the focus of the research lies on the physical and social field, the economic field is not to be neglected. Impoverishment, unemployment and a large social rented mass in a neighbourhood could be approached as social or physical, but the roots are in fact of economic nature. Not every problem can be placed in a specific field; even most of the problems affect more fields at the same time. Some problems or solutions have such a double effect that it would be illogical to place them just in one field. Within the combination of the different fields lies the solution for post war neigbourhoods. When

interventions can be valued on a physical, social and economic level, an integrated approach can be developed.

With the rise of social studies and research in urban regeneration, several problems and solutions have been requalified. Where physical problems were solved with physical interventions and social problems with social interventions, the researched correlation between those two has increased. In the post war period the neighbourhoods were already planned to facilitate social improvement with physical interventions, nowadays the importance of social problems in those neighbourhoods is even bigger. In the current view of many researchers the problems in post war neighbourhoods have a social cause and thus a social solution. To solve the problems of the neighbourhood, one should start with solving the problems of the neighbourhoods' inhabitants. Only on individual level some progress could be gained when using social investments. There is little proof that social interventions really have sufficient effect. Though physical investments do have a measurable relation with fewer problems, and they can even affect the social conditions in a positive way; upgrading the housing stock leads to a higher self-appreciation of the inhabitants. So thinking, social problems can only be solved by social interventions is rather short-sighted, so an integrated approach is needed.
Not all problems can be solved on neighbourhood level, for some problems regional or national interventions are needed. Most of the time local interventions will improve the situation, but for a real solution structural changes should be made that are not laying in the power of the deciding parties of a neighbourhood modernization.

The rising individualism and market effect have effects on the current society and urban regeneration. The once flourishing community based society is changing; this also led to a change of the actors involved in urban regeneration. The role of the municipality reduced to steering the process, and housing associations took over the role of developer.

Using case studies the current methods and strategies are researched. The examined neighbourhoods all descend from the post war period recently restructured in a vigorous way or will be in the near future. Mariahoeve is not yet modernized, only some minor interventions recently took place. Because of the little interventions the neighbourhood will be used as the design location. The methods and strategies found in the research, with a positive effect and suitable for Mariahoeve, have been used to design an improvement plan for Mariahoeve.
Where most neighbourhood designs were orthogonal, specifically in the The Hague of Dudok, van der Sluijs made a design which had the same repetitions of blocks and lines, but made use of many curves and different angles. Every building form still consisted of an accumulation of straight blocks, but most had bends and edges in it. This was inspired by the Scandinavian 'park city' ideology, a variant on the well known garden city ideology. The building took until 1968 before the neighbourhood was completed. It consisted out of a collection of one family houses, middle high-rise and some high-rise. In the design the urban planner strived for an as differentiated neighbourhood as possible. Since the completion of the neighbourhood in 1968 there were some minor additions and changes, but in comparison to other post war neighbourhoods they are almost negligible. Nowadays there are some problems; the facility level in the neighbourhood is

concerning, there is ageing of the population, a rising number of ethnic households, impoverishment, physical decay of the houses and public space and a staggering sense of safety. These problems are mostly in an early state, but action has to be taken to prevent them from driving the neighbourhood to a deprived state.
Several social and physical strengths were chosen that are applicable for Mariahoeve, but that are also characteristics for other post war neighbourhoods. The social strengths and problems are; Identity, sense of safety, mixed neighbourhoods, demography and impoverishment. The physical ones are; public space, quality of the housing stock, demolition and reconstruction, neighbourhood facilities and routing. The social and physical strengths are researched in an extensive way to serve as an example for Mariahoeve as well as for other post war neighbourhoods.

The social concept of identity is very important for the current state and future of a neighbourhood. The complexity of the concept lays in the difficulty to decide the identity of a neighbourhood because it is based on the opinion of many different people. Neighbourhood identity cannot be gained when the inhabitants do not feel safe. The lack of sense of safety is not only caused by teenagers hanging around and other social causes, but also the physical appearance plays an important role. A dark, polluted and poorly organized area also causes or adds to the sense of unsafety. Neighbourhoods are clustered on several levels; the neighbourhood in itself is a cluster within the city, the inhabitants feel connected because they live in the same neighbourhood. Related to mixed neighbourhoods, is the issue of the importance and impact of the demography of a neighbourhood. In this case demography is interpreted as the difference in age. Because of the kind of houses in post war neighbourhoods, they attract many elderly and single person households. According to the current housing demands, the families with children do not fit in most of the houses. The size of the houses also influences the impoverishment in the neighbourhood. At the beginning of the post war neighbourhoods they were the neighbourhoods for the middle class. Nowadays the situation is completely different; because of the changing public housing demands, the houses in post war neighbourhoods were judged too small and therefore decreased in worth. Now mostly the 'bottom' of society lives there, because the small post war houses are the only ones they can afford. To reduce this impoverishment at local level physical interventions can be done. But to help the individuals to get out of their poor state, social interventions should be taken.

To avoid problems in the neighbourhood the physical environment could be built in a way to discourage unwanted behaviour as much as possible. When the post war neighbourhoods were built, public space was of most importance for the neighbourhood. It was meant to be the backbone of the neighbourhood community. Currently the situation is completely changed. With the current rising individualism no one feels responsible for the maintenance of the public space, so the housing associations and municipality have to keep it up again. The post war neighbourhood is left with a tremendous amount of public green space that is not used and poorly maintained. This could be used for new developments, and adjusted to the current needs of the inhabitants. One of the main problems of post war neighbourhoods is the quality of the housing stock; anyway that is how it seems because of the large percentage of demolished houses to improve the neighbourhoods. It is questionable if the quality of the housing stock indeed is in such a bad

shape. In the post war period the houses were built according to the demands of the middle class families, this meaning a house with a sufficient size for a family with extra room for children. In the Netherlands, demolition of part of the housing stock has become a mainstream solution to improve deprived neighbourhoods or post war neighbourhoods. The reasons for the decision are mostly not technical, but of a living quality nature. Every year about 7.000 houses are demolished and reconstructed, in almost all of the cases these are houses of the post war period. Demolition has an enormous impact; the environmental impact of life cycle extension by renovation, transformation and reuse is in general less than replacement by new construction. The technical reasons for demolition are limited as well, the idea that houses are built for a lifespan of 50 to 100 years is out-dated. When still deciding to demolish part of a neighbourhoods` housing stock, it is important to keep in mind the effects on the current inhabitants. People will have to move to be able to demolish houses and those people have to go somewhere. The effects of people having to move because of a large scale demolishing project are called spill over effects (waterbedeffect). Beside persuaded moving, the spill over effect also describes the replacement of problems connected to less fortunate households. Because of that, it could also be used as an intervention to reduce problems in neighbourhoods with clustered problematic households.

Beside a large change in the housing stock there also have been large devaluations of the neighbourhood facilities. In the current network-society the quarter centres are of less importance, clustering of these centres in one large regional centre happens more and more. Nowadays most local shop spaces in post war neighbourhoods are empty or used by ethnic entrepreneurs who are having a small bakery, call shop, local market or barbershop. Not only shops are important for the neighbourhood on the local level, but other kinds of facilities are also crucial. To provide better relation between different facilities, the routes should be improved as well. In the post war neighbourhoods routing was strictly organized; because of the separation of functions roads also had been planned as separate parts of the neighbourhood. All these networks should be combined and interconnected in the overall network; for the future of an area it is important to have an integrated position in the urban network. Especially because the post war neighbourhoods are planned for moderate car use, the current network should be adapted to let it be able to cope with the large amount of cars used today. This leads to the problem of parking; every car needs a parking space and when the public space has to be left open, new solutions should be sought.

The design is based on the report as well as on the research done during an internship at the municipality of The Hague. It is a modernization proposition for the neighbourhood Mariahoeve in which deprivation is not an issue, but interventions are needed to prevent it from developing in that direction. The results of the design are found in the conclusions and are addressing physical as well as social and economic improvements of the neighbourhood. Furthermore the main structure is improved and the changes are taken as an opportunity to densify the neighbourhood without having a negative influence on the current inhabitants. The structural changes and densification will improve the neighbourhood in many aspects and will stop the current downward spiral heading for deprivation. In that way Mariahoeve can function in advance as an example for other post war neighbourhoods.

1 Introduction

1.1 Motivation

In the current spatial composition of the Netherlands it is clearly visible that most of the big cities had a tremendous growth of urban land use in the past decennia. The neighbourhoods that have been realized in the post war period were often constructed fast and only to the monotonous standards of their current time. The liveability of many of these neighbourhoods has been shrinking rapidly over the last decades. Because of the large amount of relatively small and cheap houses concentrated in one neighbourhood, they have the risk of becoming a neighbourhood with a prospectless future (Dekker & Bolt, 2005). In many cases this is an important cause for concentration of physical, social and economic problems, which causes a further decay of the neighbourhood thus enlarging the problems. Many post war neighbourhoods are suffering from a lot of problems, but also a large number is only just starting to feel the threat of problems. To be able to keep these 'good' post war neighbourhoods in a good condition, the problems should be prevented. This thesis plan tries to find the instruments to prevent these problems to occur.

The post war neighbourhoods are currently a big issue on the Dutch regeneration agenda. As paragraph 1.4.1 will describe, many deprived- and post war neighbourhoods are having major structural problems on the physical, social and economic level. The national government is concerned about their future and promised large investment to improve and rescue the neighbourhoods with the largest accumulations of problems. To distribute the money and attention a list of 40 deprived neighbourhoods (probleemwijken) has been developed. The

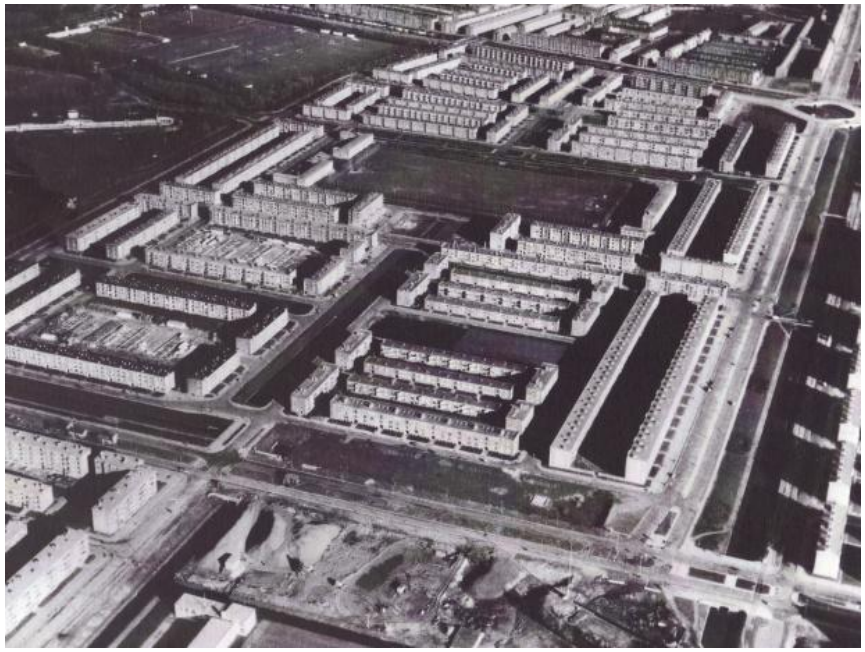


Figure 1: Typical post war allotment
(source: Agricola et al., 2002:86)

neighbourhoods on the list were considered in need of extra help, which created a strange position for other neighbourhoods, though they have problems, but they do not have 'enough' problems. In proportion the nominated deprived neighbourhoods can be lucky because the established criteria put them as winners of extra funding. This could be justified if the criterion for the selection of the worst neighbourhoods was perfect, but unfortunately this is far from true. There is no explicit selection criteria concerning the position of the district in the city and region and related potentials, specifically the economic potential (Stouten & Hulsbergen, 2007). Because of these insufficient criteria, we chose to emphasize post war neighbourhoods instead of deprived areas. Most of the deprived neighbourhoods have been built in the post war period. But when focussing on Dutch

deprived neighbourhoods, the thesis would be too much concerned with the discussion to decide if a neighbourhood is deprived or not. Emphasizing post war neighbourhoods, deprived neighbourhoods still play an important role and the reasons for deprivation can still be researched. Although 'post war' concerns everything built after 1945, the term post war used in the thesis focuses on the 1945-1970 period. That period is known for its specific way of planning and therefore it is called 'post war' or 'early post war' in the literature.

As seen from the current standards the post war neighbourhoods are vulnerable because they do not meet the current demands of the general public. These post war neighbourhoods are vulnerable because they contain some potential failure factors like porch houses of mediocre or poor quality, much semi-public space and separate roads for different traffic which makes natural social control almost impossible (Adriaanse, 2008:49). The thesis will not only study the neighbourhoods with problems on a physical, social or economic level, but will also anticipate on neighbourhoods that could be problematic if there will not be fast changes. To be able to do that the main focus will be on possible interventions to improve a post war neighbourhood from a regeneration- as well as from a sustainability point of view. These interventions will be reviewed with a multi scale approach at city, neighbourhood and street level. Various methods and strategies will be included; small interventions on a social or physical level, but also large scale interventions like housing diversification will be reviewed, for instance demolishing a significant part of the housing stock is often needed (Kleinhans, 2004). We will research the reasons why and compare the methods and strategies. The goal for this research is to get a clear overview and insight of the current strategies, methods and instruments used to modernize a post war neighbourhood.

1.2 Problem statement

From the view of an urban planner or urban designer certain problems and changes are dealt with in a mostly spatial way. Their so called 'toolbox' consists of a wide range of modes to improve the neighbourhood in a spatial way (i.e. Krier, 2003; Lynch 1960; Meyer *et al*, 2006; Roberts & Sykes, 2000). The improvements have effects on the physical state of the neighbourhood, but also change the social and economic state. The spin-off effects of the interventions on a physical, social and economic level are often hard to predict before an intervention takes place (i.e. van Bergeijk, 2008; Bus 2001; Kleinhans, 2004; Priemus, 2004, Roberts & Sykes, 2000). Because every neighbourhood is different, it remains impossible to predict the exact results of a certain intervention on the different levels. Especially the effects of interventions in neighbourhoods that are still functioning well are hard to predict, because most interventions took place in a problematic situation. The spatial effects of a physical intervention may become clear, but the social and economic effects are often unclear. The problem statement for the thesis will be:

> *Nowadays urban planners can use a wide range of strategies, methods and interventions to improve the spatial quality of a certain problematic neighbourhood. However, this mostly involves the physical and visual quality and lacks to focus on the social and economic effects. Also it tends to focus on solving*

current problems instead of preventing a problematic situation to occur.

Beside the social and economic effects also other preconditions are important for the living quality of the inhabitants. These preconditions will play a minor role in the thesis, but will be mentioned to get a complete overview of the problem.

1.3 Research questions

The main question will concentrate on the problem statement and the sub questions will get deeper into the specific problems in the main question.

1.3.1 Main question

The basic idea of the problem statement is the relation between physical interventions, their spin-off and the moment of intervention. Although this could be approached from different angles (see paragraph 2.1.5) the thesis will be written from the point of view of an urban planner or urban designer. The other views will be described as well, but only for the purpose of comparison. The main question is:

Figure 2: Porch house demolition

What urban design and planning instruments can be used to modernize and improve the spatial-social conditions of Dutch post war neighbourhoods?

1.3.2 Sub questions

Several sub questions are needed to know the in depth attributes of the main question and to be able to answer them. All of the sub questions address a certain topic of the main question and will be described in the following chapters. Together they decide the focus of the question and the research. The sub questions are:

1. *What are the positive and negative effects of several previous urban renewal projects in Dutch post war neighbourhoods?*

To answer this question case studies will be done, also previous interventions in the neighbourhood as well as planned interventions will be researched. To be able to do this the internship plays an important role.

2. *What are the current methods and strategies used by urban planners, municipalities, housing associations, the government or other actors to improve spatial social conditions of Dutch post war neighbourhoods?*

Also for this question the case studies as well as the available literature will be used.

3. *What is the relation between physical shortcomings and social problems at neighbourhood scale?*

An in-depth neighbourhood analyses will be done to find the current shortcomings

4. *What is the relation between physical social interventions in post war neighbourhoods and the advancement spin-off? (paper)*

This last sub question describes the relation between the physical and the social in urban regeneration. The question formed the basis for a paper, which is attached in the appendix.

The first two concentrate on methods, strategies and effects of urban renewal projects. In the third and fourth question the comparison between the physical and the social aspects is made. Together these questions are described and researched in the following chapters. The fourth question is answered in a separate position paper; part of this paper is also used in this thesis.

1.4 Societal and scientific relevance

1.4.1 Societal relevance

Because the focus on post war neighbourhoods, the research could be of large societal importance. The deprived post war neighbourhoods are a big issue in today's urban regeneration assignment (as seen in figure 3) and that is even clearly sensible in the media. Almost one third of the Dutch housing stock is from the post war period (Hereijgers & van Velzen, 2001:29) and thorough changes are going on in those neighbourhoods. Momentarily the Netherlands have by far the largest housing demolishment count of the north western part of Europe (Thomsen & van der Flier, 2008:12), together this is good for an annual 7000 houses of which the vast majority is from the post war period (Tellinga, 2004:18).

The thesis intends to create a framework to improve the living conditions of the inhabitants of the deprived neighbourhoods and starts its attentions at the roots; the post war neighbourhoods that are not yet experiencing large problems. It is a collection of tools and methods, and tries to focus on one specific neighbourhood; Mariahoeve. The lessons learnt from the literature, case studies and design could be used for other neighbourhoods in a later stage.

Figure 3: Newspaper clippings

1.4.1 Scientific relevance

The scientific relevance mainly consists of the collection of methods and regeneration strategies in the thesis. The knowledge of all the writers synthesized in one thesis combined with my own reflection could be a significant addition to the body of knowledge for Dutch post war neighbourhoods. The case study and design will also add to this. The thesis intends to fill the gap in the body of knowledge at the combination of different spatial strategies and methods with their spatial social spin-off in Dutch post war neighbourhoods. This gap mainly lays at the combination of physical, social and economic interventions and their spin-off on the different fields, the valuation of the different fields and their effect on deprivation. Especially because of the focus on preventing instead of curing, the research could be of great value. When an intervention could be convincing before a problem occurs a neighbourhood gets the possibility to stay in shape instead of getting up and down.

1.5 Methodology

The first months of the graduation focussed completely on literature research. With the thesis plan and the paper as research goals. The literature used has been: Overall urbanism literature, Academic papers, PHD Theses, Academic books, Research and governmental reports, (semi academic) books, MSc Theses on; post war neighbourhoods, Dutch urban planning, deprivation, social problems in neighbourhoods, physical problems in neighbourhoods, demolition or renovation, mixed neighbourhoods, public space, sense of safety, case study locations and governmental policy.

During the literature research, background information as well as research by professionals and academics is taken into account. By comparing these sources an own position can be founded, and combined it could be an addition to the body of knowledge. The research results will be combined in a set of guidelines in order to guide the final thesis. Because of the in-depth research on post war neighbourhoods, a lot of municipal, provincial and governmental literature will be used. Although this kind of literature is not academic at all, it helps to form a complete and well founded research on the topics in this thesis. On the other hand a lot of papers and academic works will be used, which will provide a multitude on insights and guidelines for the neighbourhood research and design. These academic works often include examples of other neighbourhoods, sometimes even in other countries. This makes the literature less relevant for the location research, but is of large importance for the broader view and the ability to use other cases as a comparison.

To make a good selection in the vast amount of literature on urban regeneration in post war neighbourhoods, the design location functioned as the backbone of the research. But first the location had to be chosen; this choice (described in the next paragraph) is made based on the first impression there was about post war neighbourhoods together with my own experience. There are several themes derived from the current issues in the design location. Available literature should fit in one or more of those themes to be of importance for the research. The themes are found on the next page:

- Urban regeneration
- Post war neighbourhoods
- Deprived neighbourhoods
- Neighbourhood identity
- Mixed neighbourhoods
- Changing population
- Impoverishment
- Lack of facilities
- Sense of safety
- Quality of the housing stock
- Demolition and reconstruction
- Changing road networks
- Quality of public space

The choice for these themes will be explained in the next paragraph. Because of the limited number of themes based only on one neighbourhood, the guidelines formed during the thesis are just a part of the whole. They tend to contribute to the body of knowledge and should be used as a set of ideas. The research does not have the ambition to form a handbook, but just a part of the whole.

The theoretical framework is formed by the position paper and the thesis report combined. Several sources will be used, academic and non-academic, national and international. Because the spatial social problems are characteristic for the Netherlands in its current form, the main focus will lay on Dutch literature. Also case studies (Yin, 2003) will be taken into account. Because there are many locations comparable with the current situation in Mariahoeve, useful lessons could be learned from those cases. In the case studies both neighbourhoods that already had a recent large scale restructuring, as neighbourhoods that resemble Mariahoeve in a clear way are used. The neighbourhoods with recent restructuring will be used to research the effects of interventions and review possible interventions, the comparable neighbourhoods for small improvements and comparable interventions. For the overall information and the need for international accepted knowledge, also international literature has been used.

Literature research was the main instrument for the background study of the thesis, but other research techniques will be used as well. For getting information about the different strategies and methods in the Dutch urban regeneration practice not only literature, but also teachers, mentors and professionals will help. By discussing the themes with them or interviewing, valuable information could be gained. Concerning the design location literature and professionals from the municipality will probably be able to give most information, but interviews with inhabitants and case studies will be needed as well. During an internship at the municipality of The Hague this information was gained, the neighbourhood analyses and a case study has been part of this internship as well. With different media like forums, personal interviews or the use of research by others, the main ideas of the inhabitants could be found.

The design is based on knowledge gained from literature, but for gaining a sufficient design visual research techniques will be used as well. GIS and mapping are used for a founded evaluation for the implementation of the interventions. Visiting the location and taking pictures is used to understand the neighbourhood; map analyses improved this understanding.

For the numeric basis of the research and history of the location, vast data collection is needed. This concerns data from GIS, CBS and other numeric data sources. Also historic maps, former neighbourhood plans and designs and geographical data will be needed, Most of the numeric data used for the research on neighbourhood scale has a minor disadvantage. For a neighbourhood different sizes can be taken, you can base it on the cities conditions and use the different neighbourhoods with different names. This seems quite logical but has a minor problem; the CBS (Dutch Central Agency of Statistics) uses the four digit postal codes to define a neighbourhood. Because of that all statistics are only available per postal code neighbourhood.

1.6 Location selection

For the design location a neighbourhood in The Hague is chosen. The city is fascinating because it went through a moderate level of transformations and growth for a Dutch city. Another important reason to choose this city is because of my personal affliction to the city, since I was born and raised there. To be able to use the research, the methods and the design as a generic example, a neighbourhood at the border of the city will be chosen, because most of the post war neighbourhood are situated at the border of a city. It can be connected with the city centre, but should not be dependent of it. Possible neighbourhoods are Rivierenbuurt, Leijenburg, Mariahoeve, Schilderswijk, Moerwijk, Waldeck or Laakkwartier. The size of the area will have to be the neighbourhoodscale which will be about one square kilometre. The main reason for this basic assumption is that a design for the neighbourhood will be made; with a limited neighbourhood size the design can take in account every scale level. It is preferable that there have not been many interventions in the last decade, because in that case the design would be more like an extra design instead of an independent design. It should be as untouched as possible, and being deprived is not a necessity. As long as the neighbourhood is from the early post war era and is having problems on social and physical areas it could be used very well.

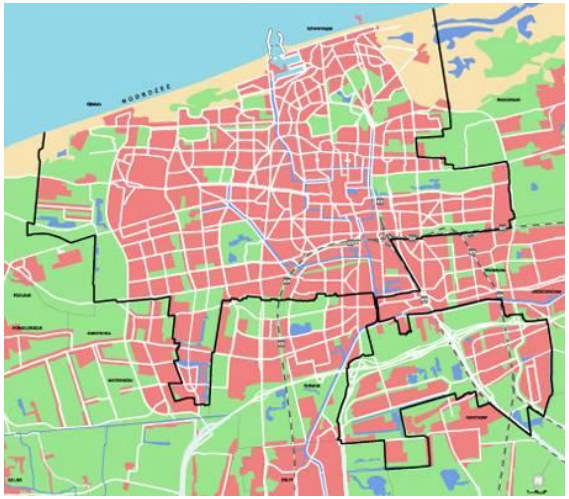


Figure 4: The Hague (source: Gemeente Den Haag 2003)

The best design location is the post war neighbourhood Mariahoeve. It is a neighbourhood with little problems at the moment. But it started to get in a downward spiral (DSB, 2006); the inhabitants are experiencing a decrease in the liveability, quality of housing stock, welfare and the different ways of living are causing friction. (WSA, 2006) The neighbourhood has been planned as a mixed neighbourhood, but the combination with the declining quality of the housing stock and other problems like aging of the population, increasing inflow of households with different ethnic background, impoverishment and

In the field of urban regeneration there is a vast amount of information and knowledge available, for the one year the graduation period lasts it is impossible to read it all. With the project focus on Dutch post war neighbourhoods, the information amount is getting smaller, but is still way to large. To be able to take in account all the important literature for the graduation project, a deliberate choice will have to be made from the available literature. To be able to do this, themes from the neighbourhood are chosen to use as a guideline trough the research. The themes (mentioned in the previous paragraph are as follows on the next page:

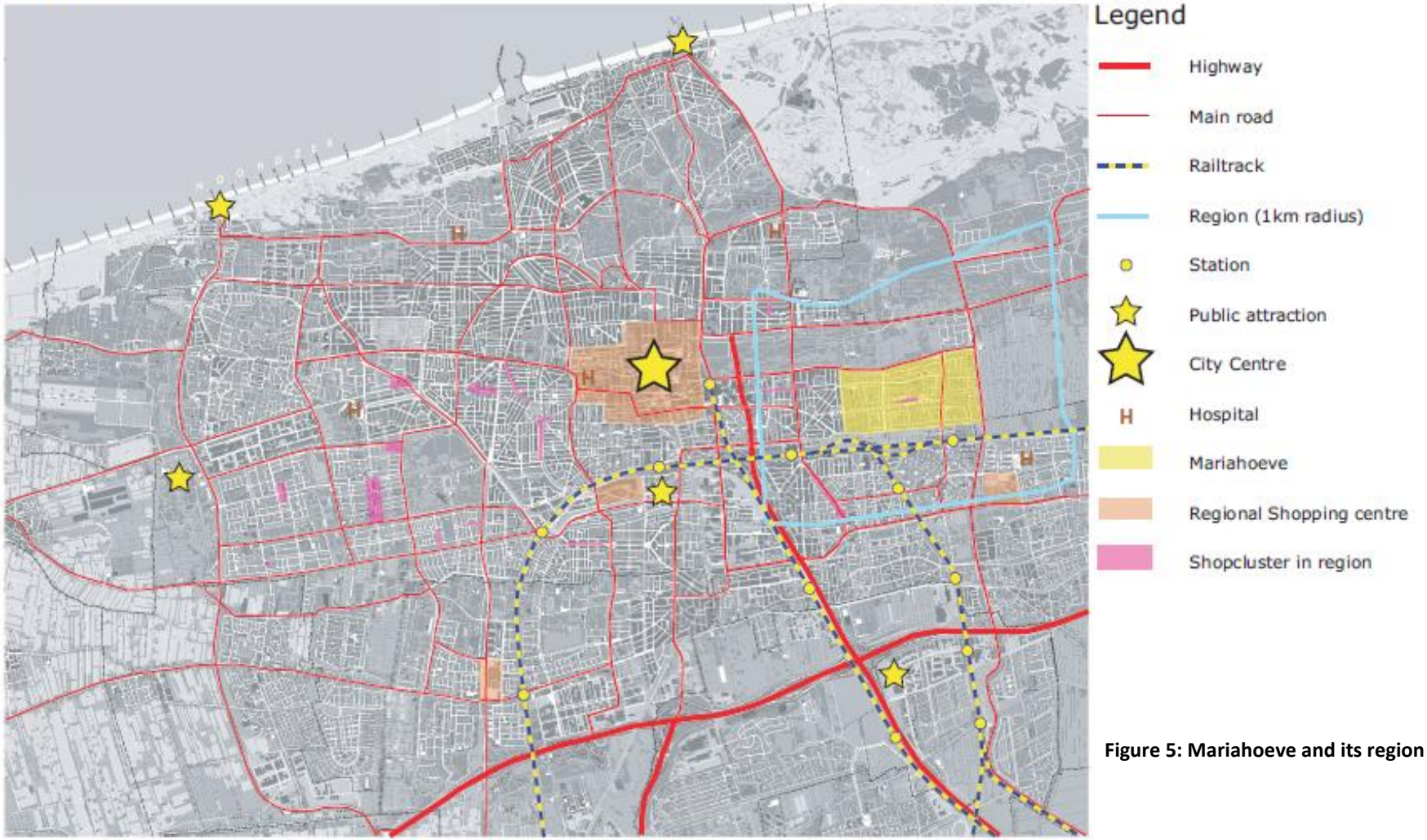


Figure 5: Mariahoeve and its region

Urban regeneration:	Foundation and guidelines
Post war neighbourhoods:	*Main focus*
Deprivation of neighbourhoods:	*Comparable situations*
Neighbourhood identity:	*Problem in Mariahoeve*
Mixed neighbourhoods:	Becoming more mixed (British school)
Changing population:	*New neighbourhood needs*
Impoverishment:	*Downward spiral*
Lack of facilities:	Bad shopping facilities
Sense of safety:	Important for neighbourhood devaluation
Quality of the housing stock:	*Still in good shape?*
Demolition and reconstruction:	*Maybe demolition needed*
Changing road networks:	*Large scale improvement*
Quality of public space:	A lot of unused green and bad squares

Beside the cited literature also other literature, connected with the problems is read. The possible solutions and design instruments also have an effect that should be taken in account in the literature. For instance if there will be a physical adaptation (DSO, 2008) to the structure of the public space, road network or housing stock, information about these topics should be gained.

1.7 Involved disciplines and mentors

1st Spatial planning & Strategy specialist: Paul Stouten
For his expertise in urban regeneration, specifically his PhD thesis about urban regeneration in a deprived neighbourhood.

2nd Urban design specialist: John Westrik
For guidance while designing the interventions in the neighbourhood in The Hague

3rd Historical and cultural specialist Paul Meurs

For his acknowledgement of the historical and societal and thorough cultural and historical neighbourhood studies for among others Mariahoeve

1.8 How to read

The first chapter that, functions as an introduction, is where the basic for the research is explained. Starting with the motivation which is closely related with the problem statement from which the research questions are derived. The relevance explains the current situation and the relevance of the research. The first in depth information could be found in paragraph 1.6, the location selection, where the reason for selecting Mariahoeve is explained.

The second chapter explains the current situation in the Netherlands in an extensive way. First the basic definitions and explanations of post war neighbourhoods and deprived neighbourhoods. Then the types of

problems are discussed and the way they interrelate. In particular paragraph 2.1.5 is of importance for the research, it explains the relations between physical, social and economic problems and interventions, and takes a position in the debate about which field causes the problems and which could solve the problems. The paragraph about urban strategies explains what happened in the Dutch urban landscape since the post war period. In paragraph 2.1.7 the definition and meaning of strategic planning is explained. Paragraph 2.2 explains the role of the different actors in the Dutch field of urban regeneration.

In chapter three the locations are researched, starting with Mariahoeve and its history and current situation. The case studies in Amsterdam, The Hague and Rotterdam are introduced and compared with Mariahoeve.

Chapter four explains the physical social relations based on the situation in Mariahoeve. The themes derived from Mariahoeve are discussed in this chapter from a social and a physical point of view. All the paragraphs are possible threats or chances for Mariahoeve, but also count for many other neighbourhoods. To be able to make a sufficient design, more knowledge about these topics should be gathered. Most of this is already collected in chapter four.

The fifth chapter explains the proposed interventions for Mariahoeve. Starting with the main structure, the new overall changes are discussed and explained. Based on the main structure, the local changes will be explained and made visual. The third paragraph explains some of the interventions which are used in Mariahoeve.

Sixth is the conclusions chapter. First it gives the conclusions of chapter one to five, followed by the design conclusions in the next paragraph.

Through the report fifty interventions are found in the blue frames. These interventions are found in several sources and useful for all post war neighbourhoods. They address physical, social and economic interventions to improve the situation of post war neighbourhoods.

2 Urban regeneration

The use of ‘urban design instruments’ as described in the research question is mainly meant for urban designers and urban planners. Urban designers use the instruments, which of course are not actual instruments but strategies and methods, to design an urban area in a way to modernize and improve it. Planning is concerned with deliberately achieving some objective and it proceeds by assembling actions into some orderly sequence (Hall, 1974:3). So urban planners use the instruments to be able to create an improved neighbourhood, to do so urban planners principally need a longer time span for their plans to provide sufficient results. Urban planning is oriented towards process rather than towards the production of one shot plans (Hall, 1974:17). These two fields together can provide a sufficient design for a neighbourhood for the short as well as for the long term, but they need the right instruments. In the Netherlands there is no distinction between urban planners and urban designers, they are combined in the word/profession ‘urbanist’. To avoid misunderstanding the term urban designer will be used in the rest of the thesis. In this context the urban designer is a normal urban designer with the extra task to create a plan for the neighbourhood or city.

The instruments are meant to modernize and improve the neighbourhoods. To be able to value ‘improvement of the neighbourhood’, the future should be taken in account. A plan could work for a few years and afterwards only give bigger problems; in that case it is no real improvement for the neighbourhood, but more of a way to postpone the problems. In a way most interventions could be interpreted as a way to postpone problems, every neighbourhood needs maintenance to stay in shape and be able to provide a desirable liveability for its inhabitants. In this case the maintenance is seen as an intervention to postpone problems. An improving design should be a sustainable design that also anticipates on the future. Sustainable is as Castells (2000) states: *intergenerational solidarity*, so a sustainable design should have a positive effect on the next generation(s). This implicates that it should at least be an improvement for our children and a plan for only five or ten years would not be sufficient. Castells (2000) describes sustainability as follows;

“A city or ecosystem, or complex structure of any kind, is sustainable if its conditions of production do not destroy over time the conditions of its reproduction” (p. 1).

So it is sustainable when the creations do not have a negative influence on the balance of the physical, social, economic and environmental state. The Brundtland commission stated that sustainability means that it ensures that development meets the needs of the present generation without compromising the future generations in their own needs (WCED, 1987). Also this definition involves the complete needs of future generations. This contrasts with the Dutch word ‘duurzaamheid’ which also could be interpreted as ‘durability’ which focuses more on the materialistic aspects of sustainability. Something is durable if it lasts long, but that has nothing to do with future generations.

The use of the urban design instruments combined with sustainability to improve a neighbourhood is also discussed by Roberts & Sykes (2000). They describe integrated regeneration with a focus on sustainability as multi-sector, multi-actor, multi-scale and multi

disciplinary. All these factors involved, it is a very broad field that could be divided in several themes. Urban regeneration involves all changes in the urban structure. To be successful it has to be sustainable in a physical, social and economic way. Part of urban regeneration is urban revitalization; this is a multifunctional spatial development approach that is carried out within the existing urban fabric (Spaans, 2002:292). This spatial focus in the existing urban fabric is crucial for the current urban regeneration process in the Netherlands. Because of the large amount of houses built in the post war period and the state of those houses and neighbourhoods, urban revitalization will be needed to guarantee a liveable future.

The broad field of urban regeneration should be closely described to provide a sufficient framework for the research in the thesis. Roberts & Sykes (2000) describe urban regeneration in a very complete way:

> "Urban regeneration: Comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change"(p. 17).

The sustainability is visible in the part about the 'lasting improvement' and also the different fields; economic, physical, social and environmental (Hulsbergen, 2009:18) are taken in account. Most of the focus will lay on physical, social and economic effects. Environmental effects only play a marginal role in this thesis and 'sustainability' already takes in account the environmental effects. The thesis will emphasize the trends in urban regeneration of Stouten (2000);`

- Physical and environmental aspects; including housing issues
- social and community issues
- economic and financial issues
- employment, education and training
- spatial and design issues; (housing) typologies and changes of the urban fabric

These will be used as reference for the focus of the thesis.

2.1 Why Urban regeneration

With the staggering quality of the post war neighbourhoods (as described in paragraph 4.2.2) the demand for interventions is rising. The interventions, which can take place in different fields as mentioned in the previous paragraph, can be used to improve the neighbourhood and to prepare it for the time to come. This is a call for sustainable urban development which is according to Stouten & Hulsbergen (2007:10) a very complex task, and basically a matter of integrating relevant sectors (economic, social, and environmental), actors (users, owners, policy makers, building industry), scales (neighbourhood, city, and region) and disciplines (social, spatial and technical). To improve the insight on these topics they will be addressed in the following paragraphs and chapters.

2.1.1 Post war neighbourhoods

After the Second World War there was a vast shortage of houses, many houses were destroyed or damaged and the demand only got bigger and bigger. With a large scale government program there was put a big effort in making as many houses of sufficient quality in a short period of time. The city centres were full, so most of these neighbourhoods were planned in the polder land at the border of the city; where there was sufficient amount of space and infrastructural connections. These neighbourhoods were very successful with the general public in those times. Their popularity was predominantly because of the relatively good quality of the houses and neighbourhood. The neighbourhoods had much more green open space, an open structure and houses with direct sunlight from wall to wall (van Kempen *et al*, 2008:24*)*. In the post war era which took place from 1945-1970 the Dutch housing stock more than doubled. Before there were 1.5 million houses and 3.5 million afterwards (Hereijgers & van Velzen, 2001:29). This explosive growth of housing stock has been decisive for the urban layout of today; still the post war housing stock is almost one third of the total of 6.5 million houses in the Netherlands.

There is some discussion possible about what is the post war era. Literary it is the period after the war, which means 1945 till now, but because it marks a certain development in urban planning the period is limited. The introduction of the central heating 1965 meant a revolution in housing because it made better floor plans and high rise possible. This could have been chosen as the end of the era, but the building plans with post war ideologies like the garden city and the functional neighbourhood kept going on, so the choice is made to make 1970 the final year of the post war period. Also in literature the final year is often different; Agricola *et al* (2008) choose 1970 as the final year, but chose in 1997 1968 as the final year (Agricola *et al*, 1997). In 1970 a new way of planning started as well, which was the basis for the cauliflower neighbourhoods (bloemkoolwijken), because of this a later time than 1970 should not be chosen for the post war era.

The size and conditions for a neighbourhood to be called ‘post war neighbourhood’ is depending of different criteria. When using the postal code method there are 1.012 post war neighbourhoods, an extra condition in this case is that there should be 650 post war houses in the neighbourhood to be called ‘post war neighbourhood’. Because of the fact that the postal code boundaries can make strange neighbourhood divisions, another way to make the distinction is to make the precondition that at least fifty percent of the houses should be from the post war period. In that case there would be 354 post war neighbourhoods (Boven, 2008:9). Both the amounts 1.012 and 354 are large enough to have a big impact on the current vision of urban regeneration.

Post war neighbourhoods are not only remarkable in the urban context for their amount, but even more for their characteristics. They have a remarkable appearance because of the urban structure, the thorough planning and comparable layout. During the post war period three main extension methods were used;

- The use of pre-war development plans which facilitated a recess of the existing city structure (Garden city ideas)
- Neighbourhood-unit (wijkgedachte)
- Functional neighbourhood

(Hereijgers & van Velzen, 2001; Boven, 2008)

Figure 6: Garden city de Wijert (source: Hereijgers & van Velzen, 2001:24)

The first extension method also is a quite logical way of extending the existing city structure. It used the existing plans made by the municipalities before the war and kept on building. Even before the war extensive city expansion visions were made to be able to anticipate on a possible future growth. These visions sometimes even anticipated on a doubling or tripling of the current city size (Agricola *et al*, 2002). Using that method the urban extension was connected to the city and there was an ability to foresee in a step-by-step transition from old to new houses. Because these neighbourhoods were based on pre war plans, they also made use of the pre war ideology; the garden city. This urban ideology was based on the ideas of Ebenezer Howard. The main ingredients are low-rise buildings, (private) green, and a village-like character. The Dutch neighbourhoods Hoogvliet, Ommoord, Buitenveldert and Zuidwest are built using this ideology and will be reviewed in paragraph 3.2. Comparable with the garden city is the Scandinavian variant the 'park city', this ideology is used in Mariahoeve and is based on the acceptation of high rise buildings, green view axes and much uniform public green (Argiolu *et al*, 2008; Boven, 2008).

Neighbourhood-unit or in Dutch 'wijkgedachte' is the second main extension method. This ideology coming from the United States, had a much more social heart than its predecessors. The neighbourhoods were designed to facilitate forming communities and individual personal development (Tellinga, 2004:18). The neighbourhood-unit also anticipated on a perfect neighbourhood size and composition. Every neighbourhood had its own centre and the facilities were as much clustered as possible to 'force' the inhabitants to meet and interact and form a social community. Even at building level the tenants were drawn together because of the large amount of porch houses. The concept was seen as the solution for the fractured society after the Second World War. The neighbourhoods had a comparable size and green borders; Hoogvliet and Zuidwest are examples of the neighbourhood-unit. But the ideology did not last long, in the mid fifties it became clear that people

Figure 7: Neighbourhood unit (source: Rif.nl)

could not be forced to stay in their own bordered community. (Boven, 2008; Hereijgers & van Velzen, 2001).

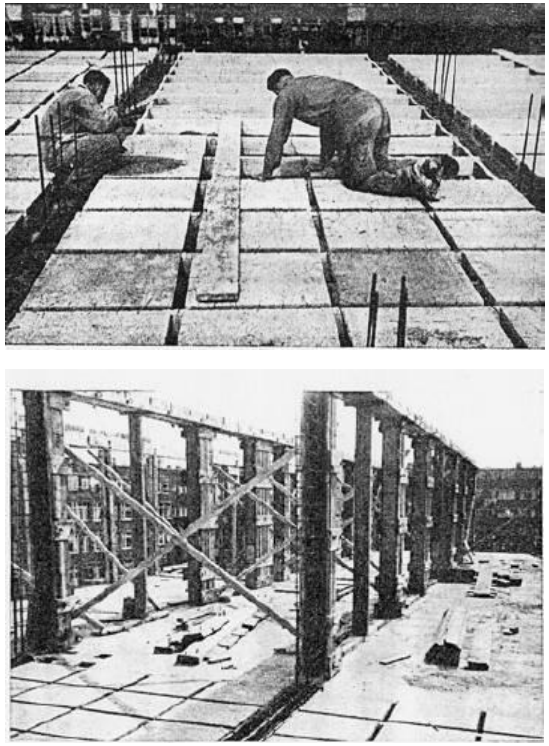
Figure 8: Functional neighbourhood Bijlmer (source: www.affordablehousinginstitute.org)

The third extension method came from the ideas of Le Corbusier, and was called the functional neighbourhood or in Dutch 'functionele stad'. These ideas were spread out by a Dutch CIAM group (De 8 en opbouw), and pledged for a strict separation of functions like; housing, business, traffic and recreation. Together with a good surveyability of the neighbourhood, a spatial way of planning and a lot of high-rise it is basically the translation of the *'plan Voisin'* of Le Corbusier. Remarkable of this way of planning is the lack of private green space. In Buitenveldert and Ommoord of the case study areas of paragraph 3.2, the functional neighbourhood way of planning is visible (Boven, 2008:148).

Beside the main ideologies there were more influences on the post war neighbourhood design. In the early plans densification along roads was still to found as an extension method. It is quite logical in comparison with the other methods. From history, houses were oriented towards streets, the street was the place everyone met and there was no nuisance to cope with. Only after the post war period the car was winning territory in a fast way and because of the additional risks and nuisance the benefit of living alongside streets was decreasing. A second reason for building along streets was the combination of space and connection; these basic conditions for creating an urban extension are combined in a great way alongside roads. The roads between cities had a mildly urbanized surrounding and living alongside a road meant a perfect connection to a city and region. But just densification along roads was not enough, because of the large demand for new houses, polders around cities had to be urbanized. At a later stage the contractor based catalogue building got a crucial role in post war development. Because of the quick need for additional houses and the shortage of materials, technologies were developed by contractors to build a house in a systematic way with prefabricated elements. The large contractor firms developed their own techniques and mass production housing became possible. Unfortunately the systems were limited, the houses could be chosen from a catalogue, but a whole neighbourhood out of the same catalogue in the same system becomes monotonous. In most systems different façade types could be chosen,

but the shape and the size stayed the same (van Battum, 2002). In all case studies and in Mariahoeve the impact of catalogue building is very large.

In figure 10 the development of the post war neighbourhood's trough time is made visible in a graphic way. The green is for the housing production, the peak marks the highest housing production at end of the post war period. In the period before the aim was to build as much houses as possible, but the capacity to do that lacked (Hereijgers & van Velzen, 2001). Interesting is also the discovery of a gas bubble in the north of the Netherlands, which made central heating possible and thereby gave an important motivation for building more high-rise. Interesting about the post war period is that there were no closed building blocks built. This building type is used before and after the post war period, but during the post war period openness seemed to be more important and therefore the blocks got openings (de Boer & Lambert, 1987). From 1984 a black part of the graph is introduced, this is the demolishing of the housing stock. The housings associations are



Figures 10: Catalogue building
(source: Battum, 2002:24)

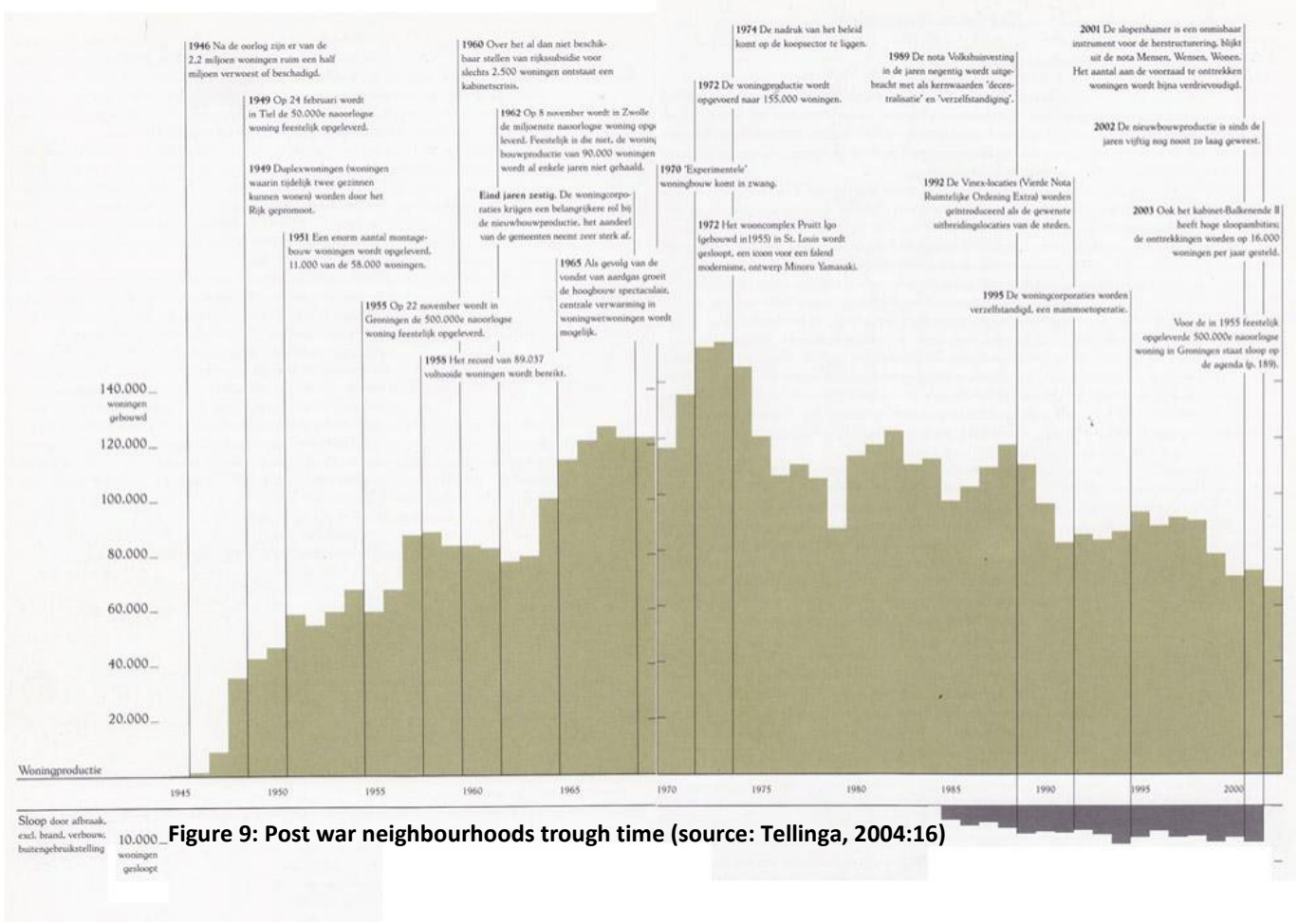


Figure 9: Post war neighbourhoods trough time (source: Tellinga, 2004:16)

the main cause for this sudden large scale demolishment (Thomsen & van der Flier, 2008). The main part of the demolished houses were post war houses, these 'young' houses already got demolished because an accumulation of problems involved in post war neighbourhoods. The composition of post war neighbourhoods has been changed rapidly. At first they were neighbourhoods with a differentiated population character; many public servants, educated workers and even graduated workers lived there (Engbersen & Engbersen, 2008:61). But the composition changed rapidly, causing many problems.

As van Kempen *et al* (2008:25) describes there were problems on all fields;

Physical:	Small for families with children, sometimes partly in decay
Social:	Lack of union or community, moderate liveability
Economic:	Unemployment, little employment in the neighbourhood
Safety:	Rising crime rate, nuisance by youth

These problems together have been causing the post war neighbourhoods to drop in popularity on the housing market and by its own inhabitants, which caused an even bigger decrease in popularity. Another reason for the decline is the monotonous layout of the neighbourhoods; this is in conflict with the demands of the housing market and thus causes a further decrease of the popularity. This low popularity attracts only the prospectless households and other low income groups to the neighbourhoods which is the cause for the increasing homogeneity of population. The size of the houses is no longer adequate for their former target group and predominantly singles are attracted to the houses. Together with the problems this is causing a decrease of the facilities and atmosphere in the neighbourhood (Bus, 2001:25). Bolt *et al* (2008) have put the problems in each other's context, all causing problems on the housing market for post war neighbourhoods.

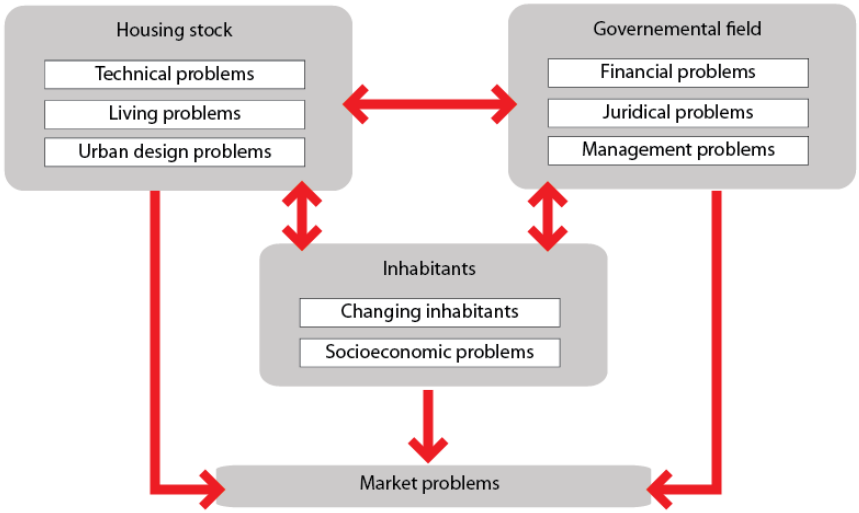


Figure 11: Categories of problems in post war neighbourhoods (Based on: Bolt *et al*, 2008:17)

According to Bolt *et al*. (2008) the problems could be divided in housing stock, policy and government and inhabitants related problems. These problems all are partially afflicted to the physical, economic and social state of the neighbourhood; these themes are further discussed in paragraph 2.1.4.

Fortunately not all post war neighbourhoods are experiencing these problems. Many positive developments around the post war

neighbourhoods caused improvements for certain neighbourhoods and improved their position. Since the Second Policy Document of Spatial Planning of 1970 the main policy was to cluster the new urban development in cores outside of the cities. Later in the Fourth Policy Document of Spatial Planning (Vinex) of 1993 the main policy was to cluster new urban developments in between the existing city and the development cores of the Second Policy Document. This caused the post war neighbourhoods to not be at the border of a city anymore, but they are now central in the city which is also positive for the accessibility (Hereijgers & van Velzen, 2001:50). Figure 12 shows the change of the position of the post war neighbourhoods in a schematic way.

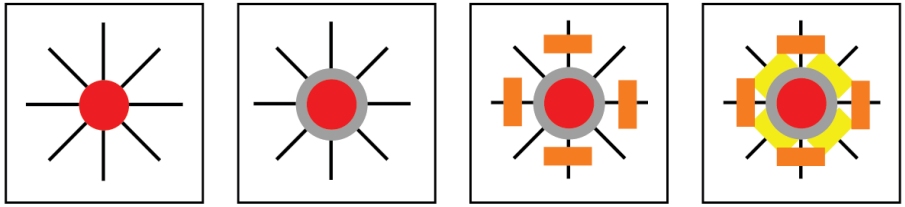


Figure 13: City shape changes trough time

The green layout, which played an important role in the garden city as well as in the functional neighbourhood, is another positive thing about the post war neighbourhoods (Harbers *et al*, 2008:9). The fully grown green structure -in contrast with the small, young green structure in new neighbourhoods- in combination with the underlying water structure are forming the backbone of the post war neighbourhoods and could be important elements for future restructuring. Also the cultural worth, mainly found in the well designed urban structure, shoud be taken in account (Moscoviter *red.* , 2007:18). Finally the neighbourhoods are important for the low- and middle income groups, who can afford the houses and can enjoy the neighbourhood and its benefits (Bolt *et al*, 2008:16).

2.1.2 Deprivation of neighbourhoods

The last 15 years the concentration of low income households grew rapidly in the post war neighbourhoods (Bolt *et al*, 2008:16). Because of the depart of the middle- and high income groups to new neighbourhoods with bigger houses of better quality, the houses in the post war neighbourhoods became cheaper and attracted more and more low income households. This has already happened before when in the eighties many people moved from their pre-war house to a bigger and better house in one of the satellite cities or an urban renewal area. The low income groups had been kept out of the post war neighbourhoods when the houses had been delivered, but now they were getting the upper hand (Kenneth & Forrest, 2003). They did not necessarily wanted to live in those neighbourhoods, but they had no choice, because no other neighbourhood offers such a large amount of cheap houses in the social rent sector (Bolt *et al*, 2008:27). Because of their obligation to live there, they have little affection with the neighbourhood, which makes them indifferent to the state of it. The growth of low income households enlarging the social homogeneity of the neighbourhoods is exactly the opposite of what the neighbourhoods were meant for at their deliverance. The neighbourhoods of the fifties and sixties were designed so people from different status, financial position and family composition would be able to live together (Tellinga, 2004:19). This works in some cases; post war neighbourhoods that have been designed as a mixed heterogeneous neighbourhood, do not have the problems with

homogeneity. They seem to be more robust during quick social and economic changes (Engbersen & Engbersen, 2008:63). Mariahoeve is one of those neighbourhoods. It is experiencing some minor problems with the population, but the neighbourhood is still attractive because of the different housing types and their location. Mariahoeve certainly is not a deprived neighbourhood, there is just some attention needed to prevent it from getting deprived in a long time.

Figure 14: Heterogeneous district (source: www.htmfoto.net)

Not only the state of the population is causing problems, but also the effects of car use on the neighbourhoods can be problematic. The neighbourhoods are designed for some cars, but not the large amount of cars used today. The number of cars per household in post war neighbourhoods is, given their economic status quite low and not directly problematic, but the roads in post war neighbourhoods are often used by people from outside which causes a lot of traffic. Together with the own cars it causes noise nuisance, air pollution and smell nuisance, which are of direct influence on the public health (Verdonk & van Koperen, 2007:13). Because of the accumulated problems in some of the post war neighbourhoods, they are used more and more as a stage for campaigns and advertisements for political parties, dominated with themes like crime, corruption and liveability (Tellinga, 2004:18). This adds to the bad identity of post war neighbourhoods and even stimulates further decay. Unless the problems, the deprived post war neighbourhoods are not as problematic as some foreign examples of deprived neighbourhoods, there is no situation to be identified with a ghetto (Stouten, 2004:462). Especially in the neighbourhoods that are not suffering from the problems other post war neighbourhoods have, the negative attention could be problematic. The global layout of those neighbourhoods looks alike that of the problematic neighbourhoods, this causes the general public to have a negative idea when it is not just.

To make a distinction between normal post war neighbourhoods and deprived neighbourhoods the minister for Housing, Neighbourhoods and Integration (Wonen, Wijken en Integratie; WWI) selected the 40 most deprived neighbourhoods. These neighbourhoods will get extra funding to be able to make drastic improvements to the neighbourhood. Most of the 40 neighbourhoods are from the post war period, but there are also some older neighbourhoods (Engbersen & Engbersen, 2008:52). To be able to make a founded selection the department of WWI first created a list of criteria:

Indicators:
Socioeconomic

1. Income
2. Occupation
3. Education

Physical

4. Small houses
5. Old houses: (< 1971)
6. Cheap houses: social rent sector

Problems:
Social/liveability

7. Vandalism: daubing
8. Vandalism: destruction
9. Social nuisance: neighbours
10. Social nuisance: neighbourhood
11. Unsafety

Physical

12. Satisfaction: house
13. Satisfaction: neighbourhood
14. Tendency to move

Physical nuisance

15. Noise nuisance
16. Pollution
17. Traffic
18. Safety

(VROM, 2007)

The used list, just like the previous 56 and 140 neighbourhoods lists, lacks a founded basis for the used indicators (Harms, 2007:25). In particular the physical criteria are questionable. The technical state of the houses is not mentioned, just the size, age and way of paying it (social rent). This does not cover physical arrears; the wealthiest neighbourhoods have houses from before 1970 and the relation between cheap or small houses is not explained in the list either, specifically because the social rented mass is in much better shape than the private rented mass (Gent *et al*, 2007:45). Finally the tendency to move is no exact factor either. There is no proven link between the tendency to move and the physical, social or economic state of the neighbourhood (Gent *et al*, 2007:46).

Another problem in the list of 40 neighbourhoods is that it is based on strict geographical borders. This abstract division can cause some areas to be a part of the deprived neighbourhood while they should not, or to leave some areas out. Research proves that the socioeconomic problems occur in small concentrations in the neighbourhood (Stouten, 2008:4) so calling a whole neighbourhood problematic is hard to justify. The way of paying the fee for a house is of larger importance than just seeing social rent as a reason for problems. Inhabitants that rent are less connected to their surrounding than inhabitants that have possession of their own house, because their possessions value is dependable of it. The labeling of the neighbourhoods and the connected attention by the government also causes anoother negative effect; it is almost impossible to come up to the expectations (Engbersen, 2009:42).

Because of the spatial, mostly post war, urban layout of the deprived neighbourhoods, they carry a lot of possible potentials for future development;

- Near city centre
- Near main infrastructure
- At the border of urban area
- Mixed functions
- Network of main roads
- Main structure of waterways

- Main green structure
- Old ribbon shaped structures
- Infrastructure of super neighbourhood importance

(Harbers *et al*, 2008:21)

These potentials can be used to improve the deprived neighbourhoods on a local or neighbourhood scale. A list approach is not necessary in this case and the problems can be solved from their roots. Using those methods, neighbourhoods could slowly climb out of their deprived.

2.1.3 Problems

Post war neighbourhoods and deprived neighbourhoods are experiencing a large variety of problems. To be able to make a positive change in the neighbourhoods, the problems should be known first. These solutions often begin humbly (Jacobs, 1968:105), but they have the possibility to have a large spin-off. Because of the combination of problems in post war and deprived neighbourhoods, some solutions also could solve different problems at the same time. Therefore the problems should be analyzed to be able to come up with a sufficient set of solutions. In particular in deprived neighbourhoods, where there is a bigger chance on problems than in other neighbourhoods and the problem concentration is bigger as well (Marlet *et al*, 2009:12).

Improvements in post war neighbourhoods cannot be found as a uniform fix solution. Every neighbourhood has its own specific features and therefore needs its own set of solutions. These problems are not only on physical but also on social and economic scale. It is impossible to give a generic revitalizing concept for post war neighbourhoods (Sacon, 1998:2). But knowing the overall problems and their possible solutions could improve the process of revitalizing post war neighbourhoods and increase the success of those solutions, because it has been tested on other cases before. According to Priemus (2004) improving neighbourhoods can be done using three pillars of revitalization; physical (improving building and streets), Economic (employment) and social (education, safety, health care). These themes will be discussed in the following paragraph and also the combination of those three will be discussed.

Where Priemus (2004) mentions the physical improvements as the first way to improve neighbourhoods, Marlet *et al.* (2009) are doing the opposite. In figure 14 a graph is shown where the distinction is made between; economics, urbanity, employment, safety, demography and living environment. In the graph the focus lays on the red employment and safety, which are social/economic fields. The discussion between the several problem fields and their importance to post war neighbourhood revitalizing will be held in paragraph 2.1.5.

2.1.4 Types of problems

Physical

Physical interventions are needed, but the quality of the post war housing stock is questionable. Some say it is still suitable in size and quality, others even claim demolishment is the only option. To be able to make a statement in this discussion the physical problems in post war neighbourhoods are collected in this paragraph.

Bolt *et al* (2008:18) describe the following problems in post war neighbourhoods;

Technical; Concrete rotting, low quality sound insulation and moist mould

Living quality; Lack of facilities (like central heating), small rooms, old fashioned sanitary installations, lack of storage room, no elevators and lack of community rooms

Urban design; light, open structure is often experienced as boring, windy and empty

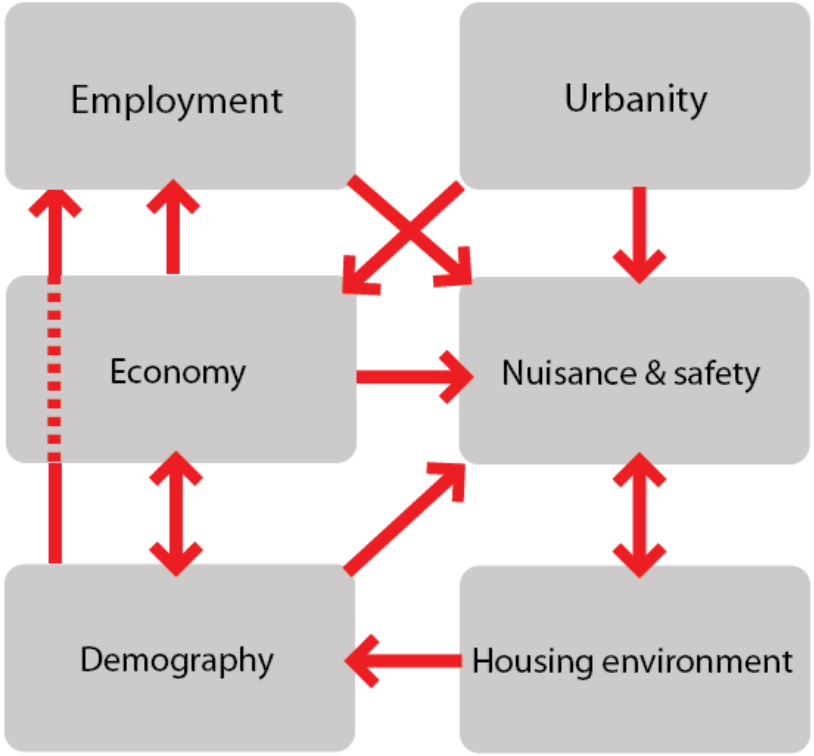


Figure 15: Problem fields and their relation (Based on: Marlet et al, 2009:38)

Several problems in the list are open for discussion and not every post war neighbourhood is suffering all or many of these problems, but the long list implicates a significant problem in the physical field.

Knowing these problems many housing associations are already demolishing or revitalizing their part of the housing stock in most of the post war neighbourhoods. But in spite of the large percentage they own, still the ageing privately owned housing stock is a big problem

1

Intervention: Join houses
Goal: Enlarge houses
Source: Enschedelaan (Meurs *et al,* 2009:113)
Description: Larger houses are more attractive, according to Battum (2002:7) a post war porch house could be redistributed with 200% vertically for families, 200% horizontally for elderly and 100% for single and two person households

(Thomsen & van der Flier, 2007:1). The privately owned housing stock is a small part of the post war neighbourhood housing stock, but because of their bad condition and the unclear ownership, they are a threat to post war neighbourhoods. Another problem often heard is the one sidedness of the housing stock; partly this is mentioned in the list of Bolt *et al* in the 'boring' urban design. This one sidedness is not only in the differentiation between high rise and low rise housing as often thought, but more in the structure of ownership. Because of the ideology of building for the neighbourhood in the post war period, many houses are in the social rented mass (van Kempen *et al*, 2008:24). This has a negative impact on the neighbourhood in a physical and social way. Although the private rent sector is much smaller than the social rent sector the problems are even bigger. Most of the social rented housing stock had some maintenance in the eighties, but the private rented sector predominantly had no maintenance and is in decay even more. Re-differentiation of the housing supply of post war neighbourhoods becomes an important issue for improving these neighbourhoods to aim a less one-sidedness (Stouten, 2004:459).

Figure 16: Model post war living room (source: Valentijn, 2002:42)

Another important way to improve the physical problems is maintenance of the housing stock, according to Marlet *et al* (2009:9) that is the only improvement of post war neighbourhoods with a proven positive effect on the problems of the near future. The first nine ways of maintenance combined with other interventions are collected by Harbers *et al* (2008:26);

2

Intervention: Fast & Smart
Goal: Enlarge houses
Source: Lacaton & Vassal (van Hal, 2009)
Description: By adding an extension at the outside of the house, the inhabitants can stay in their house, while it is being enlarged

Source: www.lacatonvassal.com

- Superficial maintenance (for instance painting)
- Partial rebuilding
- Radial rebuilding
- Incorporate new facilities
- Demolition and reconstruction
- Redesigning the public space
- Privatizing and collectivizing of green
- Changing vegetation
- Changing housing orientation; aim at green and public space
- Fast & Smart

The last intervention 'fast & smart' is a new technique that is being used in France. The main idea behind fast & smart is that the house will get an extensive improvement (for instance enlargement) while the tenants do not have to leave their house and thus have little nuisance from the intervention (van Hal, 2009). During the neighbourhood design certain ideologies have been the basis for the current layout of the neighbourhood. These ideologies, described in paragraph 2.1.1, can be used when designing new interventions and extensions in a new plan. The physical state in that case will be updated, but still connected in a visual and structural way. Although many proposed interventions only have effect on the small scale, combined or clustered they will have a large effect.

Social

The social problems are on a completely other level than the physical problems. The social field seems to have an almost unending list of minor and major problems which together can form a large problem. Many of these problems are visible in the neighbourhood, but maybe even more problems are not visible and could only be found doing an extensive neighbourhood research. Because of the partial vagueness of the social theme it is sometimes hard to measure, but there are social problems present in every neighbourhood. Some important problems are;

Social problems;	Asocial behaviour, conflicts between groups, decreasing social cohesion, quick demographic changes, ageing population
Socioeconomic;	Low education, many social security dependant inhabitants
Publicity;	Low position on neighbourhood market, bad neighbourhood reputation, negative identity

(Bolt *et al*, 2008:18)

The most important factor in the social field is contact and relations between inhabitants of a neighbourhood. Society benefits from regular contacts between neighbours.

Figure 17: Neighbourhood party (source: Nio *et al.* 2008:55)

It is important that inhabitants learn to break trough cultural and religious borders and learn to know and appreciate each other by the common characteristics they own (Charifi, 2009). The social neighbourhood environment is changing, because of modern communication techniques and improved transport contacts over large distances are easier to gain and maintain. This has negative influence on the contacts in the neighbourhood (Blokland, 2008:4) which changes the way people behave towards each other. Single encounters can contribute to a sense of home in the neighbourhood and could even contribute to overall safety in the neighbourhood. Unless the other social benefits, it cannot benefit the neighbourhood cohesion (Blokland, 2008:31). The composition of the population could be the reason for an improvement or decrease in contacts in the neighbourhood. People from the same age or cultural background are easier drawn together. This does not count for the amount of income; it does not affect the social network in a good or bad way (Dekker & Bolt, 2005:21). With a good network of contacts and a combined trust of the inhabitants, 'social capital' could be formed. When a neighbourhood is able to take care of their own public space and its inhabitants problems, it has 'social capital' (Mulder & de Zeeuw, 2006:5). Veenstra (2005:72) refers to 'social capital' as; "features of a social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions". This capital also has a negative counterpart; 'social exclusion'. Where social capital implicates a good relation between inhabitants of a neighbourhood, could social exclusion be the reason that individuals can not develop themselves and will not be part of the public society. Murie & Musterd (2004:1441) define social exclusion as; "an encompassing normative concept to address a lack of participation in (urban) societies; it is mainly regarded as something that should be reduced and, although it is not an issue that is reserved to the urban area, there is a common concern about social exclusion in cities and urban regions". This counts specifically for the elderly and the upcoming generation of single households using the modern communication techniques to have and keep distant 'friends' instead of looking for friends in their own neighbourhood. An increase of excluded inhabitants would cause a problem for themselves, but also for the liveability of the neighbourhood. As Stouten (2000) states are migration, criminality and social safety and health the main indicators to measure liveability, and as mentioned above is social safety and maybe even social health and criminality affected by social exclusion.

Although migration plays an important role in the evaluation of liveability, ethnicity has a doubtful role in social networks and their appreciation. Murie & Musterd (2004:1442) are mentioning a clear link between social exclusion and integration although Engbersen & Engbersen (2008:63) state that ethnicity plays no role in the formation of the right mix of the neighbourhood. There seems to be a link between integration, ethnicity and social problems, but this will be discussed further in paragraph 4.1.3. In later paragraphs the consideration is made whether physical, social and economic problems and intervention interrelate. To be able to do that we have to keep in mind that the social field is hard to mould and is not always in our hands (Möring, 2008:15).

3

Intervention: Improve entrance
Goal: Improve safety, overview and appearance
Source: Schuilenburg (Meurs *et al,* 2009:125)
Description: With a more visible and transparent entrance, the building becomes more attractive and its surrounding gets a better sense of safety because of the improved overview and decreasing sinister corners

Source: Meurs *et al,* 2009:124

Economic

Although the focus of the research lies on the physical and social field, is the economic field not to be neglected. Impoverishment, unemployment and a large social rented mass in a neighbourhood could be approached as social or physical but have in fact economic roots. The most common problems according to Bolt *et al* (2008:18) are;

Financial problems;	Raising rent and service costs, delays of paid rent, service costs and vacant houses
Juridical problems;	Control of public space
Management;	Renewal problems, development of coalitions

In the mentioned list some very important economic problems are left out. For instance unemployment, this is not only caused by low or bad education of a neighbourhoods' population. Disappointing experiences, discrimination, mutual incomprehension between employer and employee, fear, unwillingness to work, lack of discipline or laxity could also play a role (Hulsbergen & Vellinga, 2001:40). Also economic factors of business and labour at neighbourhood level play a very important role in the neighbourhood economy. In the eighties several projects to improve the employment of the neighbourhood inside it now seem to have failed. The neighbourhood should not be seen as an island in which every need of the inhabitants should be met (Meijeren *et al*, 2008:131). Neighbourhoods however should accommodate as many facilities in a close range to reduce mobility and enlarge the social cohesion because of more encounters.

In management, as seen above, renewal problems and development of coalitions are mentioned. But management consists of more than just those two overall management challenges. Also on the smaller scale and the bigger scale management plays a significant role for the development of a neighbourhood. On the small scale sufficient maintenance should be performed, on the large scale the right choices should be projected. Power (1997) believes the decay of neighbourhoods has a physical reason, but management functions can work as a catalyst to enlarge the problems or to improve the neighbourhood. The basis of many social problems is economic or could be solve in an economic way. For instance by selling the former rented house to the tenant, involvement in the social processes in the neighbourhood could be improved by 16-21% (SEV, 2002), employment productivity also rises with 21% and they perform improvements to their house like insulation (Marlet *et al*, 2009:17). So an economic intervention, often meant to provide the housing associations with more money to improve the neighbourhood, has a positive effect on the economic as well as the social and the physical field.

Figure 18: Shop owners (source: Agricola *et al*, 2002:87)

Small scale local interventions could also be used to improve the problems of the local entrepreneurs and their lack of possibilities to start an own business in the neighbourhood. Micro funding could be of interest for post war and deprived neighbourhoods (Rozema & Oude Groeninger, 2009:27). Many people approved for possible micro funding are living in post war neighbourhoods. Encouraging new businesses also brings a risk. Also turnover related rent could be a possibility (Rozema & Oude Groeninger, 2009:29). As Jacobs (1968:249) calls the 'primary economic conflict' there is a conflict between the interests of the already established entrepreneurs and those whose interests are with the emerging of new economic activities. Mixed use, the combination of housing and business in one building, could also be an economic tool to improve the neighbourhood. It means a group of potential clients very near and increased activity after opening hours, which is good for the businesses. And facilities or employment near the homes, which is an improvement for the people living in the houses.

Physical/social/economic

Not every problem can be placed in a specific field; even most of the problems affect more fields at the same time. Some problems or solutions have such a double effect that it would be illogical to place them just in one field. For instance the restructuring of a neighbourhood has affect on many levels. It is in fact a purely physical intervention, but it also offers new chances for the people in the neighbourhood (Bregman, 2009). The solution is physical, but it affects the physical and the social. Thus while reviewing an urban intervention; the effects should be sought in different fields as well as a certain problem could have solutions in a different field than the problem.

Restructuring the neighbourhood has more advantages on neighbourhood scale; it prevents the 'white and black refuge'; white

people getting out and black people getting in. It offers the inhabitants new opportunities to enhance their housing career in the neighbourhood (Kleinhans, 2005).

4

Intervention: Attracting expats by international facilities
Goal: Attract high income groups
Source: Sociaal economische agenda (Gemeente Den Haag, 2008:34)
Description: Because expats have an above average income, it is attractive to have them in a neighbourhood to create more bearing surface for facilities

Also economic changes can affect other fields. Neighbourhood facilities offer a place to meet neighbours and thus have effect on the social field. Social contacts within the own neighbourhood are, in particular for some social groups, still of large importance (Meijeren *et al*, 2008:132). The neighbourhood economy is also of essential for the liveability of the neighbourhood. Research shows that about half of the entrepreneurs live in the same neighbourhood as where their business is located. Because they own a business they get more grips on their lives and are also more attached to the neighbourhood (Rozema & Oude Groeninger, 2009:26-29).

More attachment to the neighbourhood could also be gained by selling social rent houses to private owners. When owning a house one gets more concerned about the surrounding environment and one is more willing to get involved in neighbourhood activities (Kleinhans & van Marissing, 2008:38). This also improves the social field with an economic solution.

5

Intervention: Use unused premises for entrepreneurs
Goal: Improve local economy
Source: BOG Atlas (Gemeente Den Haag, 2009)
Description: When using empty premises as (temporary) office space for local entrepreneurs, they have the possibility to be visible in the neighbourhood, the vacancy is resolved and the local economy will be improved

2.1.5 Different angles

With the rise of social studies and research in urban regeneration, several problems and solutions have been requalified. Where physical problems were solved with physical interventions and social problems with social interventions, has the researched correlation between those two increased. In the post war period the neighbourhoods were already planned to facilitate social improvement with physical interventions (Hereijgers & van Velzen, 2001), nowadays the importance of social problems in those neighbourhoods is even bigger. The VROM-raad for instance claims that the physical interventions should be used just as much as the social interventions (2006:12).

6

Intervention: Adjust floor plan
Goal: House improvement
Source: Koesteren en Ontwikkelen (de Nijl Architecten, 2007)
Description: By adjusting the floor plan it can be modernized to the current wishes. By reducing the number of rooms it will be possible to enlarge the living room or bathroom. Also increasing the amount of light in the kitchen is one of the possibilities for some housing types

In the current view of many researchers the problems in post war neighbourhoods have a social cause and thus a social solution. To solve the problems one should start with solving the problems of the neighbourhoods' inhabitants (Hulsbergen & Vellinga, 2001:21). Van der Land & van der Laan Bouma-Doff (2008:114) accumulate the social plea with a research that focused on the neighbourhood satisfaction of the inhabitants. The result was that the main reasons for qualifying the neighbourhood in a good or bad way are to be found in the social quality of the neighbourhood as well as in the own social contacts within the neighbourhood. Möring (2008) even takes it too the next level by claiming that "the cause of the bad condition of many old neighbourhoods is a social problem, closely connected with the basic characteristics of immigration" (p.15). The statement is highly questionable because a correlation is not yet a causal connection. There is a correlation present between social and physical problems, but claiming that the physical state of a neighbourhood is of no importance to the condition exceeds the limits of acceptation. In particular while the investments of housing associations have no proven effect (Marlet *et al*, 2009:8). Thus the social problem could not even be solved with social interventions. Policies and neighbourhood programs to stimulate contacts between inhabitants tend to fail and have almost no proven effect, investments in individual inhabitants would be more effective (Gijsberts *et al*, 2009).

Restructuring the neighbourhood, in contrast to social interventions on neighbourhood scale, does have an effect. According to Marlet *et al* (2009:47) thanks to the change in the neighbourhoods' housing stock, the overall problems improved on a physical and social level. In this case the reason for the improvement could be the upgrading of the physical neighbourhood, or the change of the population because of the decrease of social housing and increase of middleclass houses. Thus the reason could be purely physical or partly social as well, but the physical developments do mean an improvement for the neighbourhood. It is clear that social problems cannot only be solved by social interventions; physical improvements can make a change as well. Even if it only shows that there are developments going on and that the inhabitants are taken seriously (Stouten, 2008:4). Social interventions can even enlarge the problems; community centre's can enlarge the social cohesion, but they can also attract nuisance or cause the idea of social exclusion of certain groups. A playground can improve the liveability by day, but cause nuisance at night (Marlet *et al*, 2009:24).

As seen above; social investments are likely to have no effect and could even have negative effect on the problems in the neighbourhood. Only on individual level some progress could be gained when using social

investments. Though physical investments do have a measurable relation with fewer problems (Marlet *et al*, 2009:46) and they can even affect the social conditions in a positive way; upgrading the housing stock leads to a higher self-appreciation of the inhabitants (Veldboer *et al*, 2008). This is visible in Hoogvliet in Rotterdam, the inhabitants experiencing an improved liveability, mainly caused by the increased safety and reputation of the neighbourhood.

7

Intervention: New gallery railing
Goal: Improve appearance neighbourhood
Source: Knikflats Ommoord (BIQ, 2008)
Description: Adding new gallery railings to a high rise building has a major effect of its appearance. Because the railing covers about one third of the façade and is easy replaceable, it is a relatively cheap way to improve the layout of the building

Not all problems can be solved on neighbourhood level, for some problems regional or national interventions are needed. Most of the time local interventions will improve the situation, but for a real solutions structural changes should be made that are not laying in the power of the deciding parties of a neighbourhood intervention.

2.1.6 Urban strategies

The basic methods in Dutch urban design changed over time, as seen in paragraph 2.1.1. In the post war period four different ways of urban extending were used. After the post war period new methods and strategies were formulated to deal with the renewed assignments; managing and improving the post war neighbourhoods and at the same time take care of the neighbourhoods from the pre war era, and the development of new neighbourhoods.

After the post war period, the urban renewal (stadsvernieuwing in Dutch) era rose. The urban renewal strategy has been executed between 1975 and 1993 and praised and appreciated in the seventies and eighties. The inner-city regeneration strategy is recognizable by the project based approach, the participation of inhabitants and specific rent measures. These interventions have been of large influence on the quality of the neighbourhood and the elimination of physical arrears (Stouten, 2008:1). The downside of the urban renewal strategy became clear after the eighties. It still made important improvements to the existing urban structure in pre- and post war neighbourhoods, but also had some negative effects. Because of the urban renewal interventions in the street patterns, the social cohesion in the neighbourhood decreased (Harbers *et al*, 2008:20). Individual premises were replaced by bigger complexes, but the small businesses located in those premises did not return. The new built houses were of cheap social rent quality, and thereby contributed to the homogeneous appearance of some neighbourhoods. The introduction of new places, public gardens and side streets did mean an improvement for the urban structure and is still valued (Harbers *et al*, 2008:20).

Since the nineties a new strategy came; the urban regeneration period (Stedelijke vernieuwing in Dutch). This new strategy goes from 1990 till now and therefore is quite hard to evaluate, because the results are not yet that visible. In this new strategy there is a renewed attention and appreciation for details, forms and materials, which was unthinkable in the previous decades. The new strong points of the strategy are striving for closed building blocks, which did not happen at all in the post war period. This means the return of the residential street and a clear border between public and private. A second characteristic is the treatment of ground floors (plinth) to avoid blind facades. This enlarges the connection to the street and liveability. The second characteristic is clearly visible in the developments in post war neighbourhoods (Harbers *et al*, 2008:20).

During the development of the two strategies the role of the citizens has become more active. Since 1980 the citizens took more responsibility for the management of public space and are taking more initiative in urban revitalization efforts (Spaans, 2002). Also the physical economic structure changed in the last decades. The strategy changed from the focus on housing problems of present residents (building for the neighbourhood) to strategies with emphasis on the privatization of the urban and regional housing market. At the same time planning on the larger scale of city and region received more attention (Stouten & Hulsbergen, 2007:1). The change of strategy shows that there is almost no relation with the post war neighbourhood-unit strategy, and a comparable strategy could not be operated in a successful way these days. Inhabitants and entrepreneurs are living in other networks and on other scales nowadays (Bouwmeester, 2007:4). The current vision on social contacts is changed as well. Meeting each other on the street is encouraged but not obliged and the introduction of community schools also increases the possibility of social contacts. But the effect of these measurements are not overrated anymore, going to school together does not automatically have class-bridging contacts as a result (Veldboer *et al*, 2008:80).

Figure 19: Plastered house (source: Valentijn, 2002:90)

8

Intervention: Sand-blast facade
Goal: Improve appearance neighbourhood
Source: Enschedelaan (Meurs *et al,* 2009:113)
Description: When sand-blasting the façade, its appearance becomes like it was when built. This causes the assumption that the building was recently built, when it is not. It is a relatively cheap way to improve the look and has an interesting side effect

More important than the social changes are the policy changes over the last decades. As Stouten (2004) claims; "Urban renewal and revitalization are confronted with new challenges on urban planning because the fundamental change of conditions caused by privatization, decentralization and deregularization and changes on the system of housing provision"(p.462). With the growing privatization combined with the individualization of society the roles in the field of urban regeneration are changing. The municipality or housing associations no longer decide where people are going to live, they can only facilitate it. The market forces dictate the interventions nowadays and that is also reflected in the urban sprawl. Most households can decide where they want to live instead of having to live somewhere (van der Knaap, 2002:13). According to van der Knaap the choice for a house no longer depends to the city centre either. He defends that households nowadays have their own house as frame of reference instead of the city centre. People searching for a house are less focused on the city, but predominantly on the house they are willing to buy or rent. Nevertheless when they live in the house, dissatisfaction with the living conditions is most of the time determined by the neighbourhood (van der Land & van der Laan Bouma-Doff, 2008:115).

The rising individualism has even more effects on the current society and urban regeneration. The once flourishing community based society is changing; people are less involved in communities and clubs and are putting their own needs up front. One of the biggest obstacles for current urban design and urbanity is the NIMBY phenomenon. Not In My BackYard means the fear of change near the house of inhabitants of a neighbourhood (Kuenzli *et al*, 1999:2). They fear to have nuisance and a bad influence on their own living conditions and therefore they are working against the development plans. Often united in residents-organizations they try to stop or change the developments. This slows the developments down, but has one minor upside; it unites inhabitants of a neighbourhood thus improving the social cohesion.

9

Intervention: Increase number of pools and running courses
Goal: Increase share individual sports
Source: Structuurvisie (Gemeente Den Haag, 2005:50)
Description: Because of the decreasing interest of team sports and the growing interest in individual sports, the individual-sports facilities should be increase to motivate people to do sports. For The Hague alone 3200m² pool water is needed to meet the request

2.1.7 Strategic planning

In urban design strategic planning is an essential factor to reach a complete design, in particular in the Netherlands where the task of the urban planner and urban designer are combined in the job of 'stedenbouwkundige'. Strategic planning takes in account all kinds of different input to improve the living condition of the inhabitants. Planning in the urban context has a spatial and geographical component; the general objective is to provide a spatial structure of activities or land uses which in some way are better than the pattern existing without planning (Hall, 1974:7). The planning should be versatile; the ideal planner would also have to be a good economist,

sociologist, geographer and social psychologist (Hall, 1974:15). Using those capabilities a plan should be made flexible adjustable to change; “no town or city is immune from either the external forces that dictate the need to adapt, or the internal pressures that are present within urban areas which can precipitate growth and decline” (Roberts & Sykes, 2000:9). Not only on flexibility should be anticipated, but also on the foreseen changes in the urban structure like; demographic changes, trends, raising individualism or migration. Though it is an illusion to plan for the future and acting to know the demographic and physical circumstances in 10-15 years, so flexibility remains obliged (Stouten, 2008:5; Boven, 2008:156).

The planning scale is also decisive for the success of a plan; while planning a neighbourhood not only the location, but the whole region should be taken in account (TNO, 2007:14). Not only the physical characteristics, but also the social and economic characteristic should be reviewed on a regional level before making decisions on the neighbourhood level. For liveability issues a neighbourhood approach seems most logical, but that does not count for education, employment, policy or regional planning. Not only different geographical scales, but also different scales of decision making parties should be integrated in a plan (Boven, 2008:156). Beside the popularity of multi scale planning, the attention for sustainable planning grew as well. Stouten (2007) classifies two new strategies in urban regeneration; “The first condition concerns sustainability and the second the integration of physical, social and economic programs” (p. 261).

The current strategies are not the only method to solve the present and future problems in urban planning or urban design. Also other strategies could improve the current conditions, maybe even in a more effective way. For instance Tellinga (2004:19) introduces the idea to build for the low income households in the new neighbourhoods, while the opposite is happening right now. Strategies like that could be researched and tested to be able to be a mainstream strategy.

2.2 Actors in Dutch urban regeneration

To get a grip on the processes in Dutch urban regeneration, an in-depth research on the involved actors would be needed. Spatial organization could be interpreted as the result of a complex team effort of individual actors, which leads to a certain spatial structure (van der Knaap, 2002:11). In the next paragraphs the different actors and their relations are dealt with.

2.2.1 Role of national government

Since the Second World War the role of the national government has been changed in a tremendous way. Right after the war the national government started rebuilding the country and expanded the existing cities with a large building assignment for housing and industry. Because of the pressure of the present shortages of housing and employment the government kept most of the decisions for themselves to avoid losing time to unnecessary bureaucracy. The government made itself responsible for all of society, from cradle to grave. The shortage of housing was nominated as public enemy no. 1 which meant there should be a sufficient amount of houses as soon as possible, of course this also meant an increase of industry employment to provide a sufficient amount of jobs. The government made the decisions and the

municipalities got the task to lead the detailed planning and building process (Hereijgers & van Velzen, 2001:64). The provinces got a comparable task as the municipalities, but on a larger scale. The housing associations were privately owned businesses, but were incorporated by the state to speed up the building process and to provide the government with sufficient decisive power. To be able to state clear aims and goals in their policies they try to address the average Dutchmen, this results in the government aiming too much on the middle class groups and tend to neglect the lower income groups (Stouten, 2008:1).

When the welfare state started to show some cracks, reorganization seemed necessary, this meant that the municipality had to be more independent from the government and the power of the housing associations was enlarged. All together the market effect started its rise in the process of the urban division of roles. With policy documents, like the first Law for Spatial Planning in 1965, the government could give their aims. Using that, the housing associations were able to make their own plans which had to be executed in corporation with the municipality. The role of the government thereby became more global and the goal was more to steer the whole process. With measurements like centrally arranged rent, changes in surcharges, fixed percentages for new social rented mass or encouraging social mixing the government can steer or help the other actors (Bolt *et al*, 2008:27). National problems, like the explosively growing mobility, are also handled by the national government. With the compact city policy they made an effort to reduce the growing mobility (van der Knaap, 2002:57). This attempt failed, mobility is still growing, so another way of approaching that problem should be found. The main strategies are still decided by the policy document, the ViNEx is a clear example of the power of the government, they have been built all over the Netherlands by the different municipalities, but the main concept was initiated by the government. With the currently privatized building associations the power of the government remains limited, but they still have an important part in the steering of the production, the planning, the maintenance, the distribution and the financial aid. Nowadays vision, setting goals and initiative are one of the main objectives for the national government (VROM-raad, 2009c:31)

Figure 21: ViNEx (source: Abbing *et al*, 2005:142)

2.2.2 Role of municipality

Thanks to the way the government divided the decisive authority in the post war period, the municipalities were able to direct the development processes within their borders in an accurate way. They were the main employer for the housing associations, but since the housing

associations became privatized again their roles became almost equal, although the municipality still has the steering power, the housing associations are revolting (Buddingh, 2009). The current assignment in the development and renewal within their municipality could be divided in two main tasks:

- Care: Take care of the inhabitants that cannot take care of themselves
- Direct: The municipality nowadays functions as a director of the public's interest and steers most of the other actors

Because of the recent directors role the municipalities are still undergoing some difficulties with their role, specifically on the field of own image; they are used to solve everything by themselves and find it hard to contract most of the things out. The organization; they are the spiders in the web of public and private, bigger and smaller parties and they have to direct them to come to a sufficient result. Most of the design they do not make themselves anymore, but they contract it out to private parties (SEV, 1999:29). The modes to steer; they are not yet used enough to the role of director in particular because they are not always they owner of the land that has to be developed (Hereijgers & van Velzen, 2001:67). When a municipal urban strategy seems to be successful, other municipalities often follow very quickly with a comparable implementation of the solution. Cities copy each others' solutions, often very swiftly (Jacobs, 1968:104).

Municipalities still are the executers of governmental plans and strategies, but in many cases they have the possibility to use a strategy, instead of the obligation to use one. For instance the Big Cities Policy which aims to improve the liveability of deprived urban areas by increasing the number of high-income households and thereby decreasing the share of problem-causing low income households (Dekker & Bolt, 2005:1). Using that policy, municipalities have the possibility to force the sprawl of low income households and thus reduce the size of segregated areas (Pinkster, 2008:11). When someone would like to live in a neighbourhood where the Big Cities Policy is active, they should have a permanent income from a job, retirement or social security (Bolt *et al*, 2008:29).

10

Intervention: Integrated community schools
Goal: Improve guidance of students
Source: Masterplan Erasmusveld Leywegzone (Gemeente Den Haag, 2008:15)
Description: Integrated community school are a combination of a school, day-care and several sports- and cultural facilities. Children can be taken care of from the morning to the afternoon and are able to attend sports or cultural education when desired. In this way the children will be educated in a broader way

Momentarily there is an extensive restructuring going on in many cities with large post war neighbourhoods; together with the housing associations the municipalities are using substantial demolition to renew a part of the housing stock (Thomsen & van der Flier, 2007:1).

The problem in this development is that the municipalities tend to forget the needs of the weak in the areas of demolition, as seen before one of the two main tasks of the municipality is taking care of the less fortunate. The structural changes have a large impact on the social wellbeing of the current inhabitants who are suffering from restructuring. This is a common problem for municipalities because according to Hulsbergen & Vellinga (2001:14) their view on neighbourhoods is often also quite doubtful; they are not recognized for their part of the cities vitality and force, but as a relatively unchangeable element of the city.

The importance of a role as director at local level is clear, but the way how to do that could be improved. When understanding their place in the web of actors it could and should become the most effective link in the web. In particular since the Nota Ruimte (VROM, 2004) enlarged the independence of municipalities by giving them the possibility to enlarge for the needs of the existing inhabitants without a separate approval of the government.

2.2.3 Role of housing associations

As described in the previous paragraphs, there have been some changes in the position of the housing associations between the other actors in urban regeneration. Before the Second World War they were private corporations connected to one of the several compartments in the Netherlands (de Boer & Lambert, 1987). After the war they were practically embodied with the central government and became non-profit institutions to meet the demand for housing as efficient as possible. Since the 'Nota Volkshuisvesting' in the nineties the housing associations were slowly getting privatized again (Hereijgers & van Velzen, 2001:68). There are still some strings attached; for building private housing there is a maximum investment, they are not allowed to deliver services for people beside their own group of costumers. Since the policy document 'Nota Wonen' the advantages of the housing associations are even further reduced. In the most recent policy document 'Nota Ruimte' (VROM, 2004) the housing associations are only referred to once; as a private market party and possible partner. The obligations towards the national government are still partly present. In the selection of 40 deprived neighbourhoods, the minister claimed that a large part of the funding for the nominated neighbourhoods will be invested by the housing associations. This is quite contradictory because on the one hand they are privatized, but on the other hand the government still depends on them to do investments in neighbourhoods the government chose. While writing there is a discussion going on about the roles of both the housing associations and the governmental parties. The minister of WWI (Housing, Employment and Integration) wants to reduce the freedom of the housing associations because of some recent abuses. The housing associations want to be less influenced by the municipalities and are refusing to keep the obliged percentage of social housing by the municipality (Buddingh, 2009).

The effectiveness of the interventions done by housing associations is also questionable. The recent research of Marlet *et al* (2009:10) shows that the interventions done by the housing associations had no effect on the reduction of nuisance, unsafety or decay of the neighbourhood what so ever. The standard procedures should be requalified to make sure the investments are used in the right way. A way to improve the effectiveness of the housing associations' interventions could be to

change the way of judging interventions. They are judging interventions from the view of their complete real estate portfolio; if they would judge it on neighbourhoodscale it could give more clarity on possible disinvestments (Tellinga, 2004:20).

All together the housing associations are powerful players; their role is just not exactly clear. When their role and aims are clearer, maybe the effectiveness of their interventions will grow as well. With clear boundaries of responsibility, it will be clearer who has to solve a certain problem and the number of meaningless interventions will drop.

2.2.4 Inhabitants

The most important actor, at least in number and interest, are the inhabitants. They are in need of sufficient housing in a decent neighbourhood, beside their own house they are interested the neighbourhood. Since the sixties they became more and more independent; they want to have part in the decisions about 'their' space (Hofland, 2004:37). Nowadays their independence is accepted by the other actors and they are allowed to have a vote in the discussion (Engbersen & Engbersen, 2008:73). In particular active inhabitants are important actors, because they can take initiative to develop neighbourhood projects, which makes bottom-up regeneration possible (Hulsbergen & Vellinga, 2001:iii). Since they are no investors or only partially organized in residents comities, their voice is not always recognized, but can sometimes decide whether an urban intervention should happen or not. Especially in Hoogvliet (see paragraph 3.2.3) the voice of the inhabitants is visible, they chose the interventions for the neighbourhood and therefore were a very important actor.

11

Intervention: Attract inhabitants with higher education and income
Goal: Improve social condition
Source: Sociaal economische agenda (Gemeente Den Haag, 2008:24)
Description: In case of a rise of the share of low educated and low earning people, the amount of unemployment, unhealthy living, debts, undesired behaviour and early school retirement rise disproportionate. Having more high educated and earning people within the neighbourhood, will prevent this from happening

2.2.5 Other actors

Beside the main actor there are several actors who also play an important role in urban regeneration. A rising star in this group of actors is the property developer. Since the privatization of housing associations it became a more important player in urban regeneration. Because there is a fair market effect, they are not only active when called in, but they are even initiators of new urban developments. The only important change between housing associations and property developers is that housing associations have ground positions and the property developers do not -yet-. The positive side of property developers for urban regeneration is their knowledge of the housing

market and their fast way of acting. Only one threat is their probable lack of interest for society; their main interest is gaining profit, the social state of the neighbourhood is of less importance for them (Hereijgers & van Velzen, 2001:71).

Business investors are an uprising party as well. This started in the fifties with the rise of the consumption-culture (Hofland, 2004:38). It led to a growing number of large shops, supermarkets and malls which made it harder for the small entrepreneurs to survive. These big shops together with other large businesses like banks, restaurants and insurance companies are the new investors in the urban market. Also private investors and pension funds are influential players in the field. Nevertheless the oppressed local businesses should not be neglected; they are still playing an important role for the liveability of a neighbourhood.

The role of the designer is changing as well. Where in the post war period the designers were the ones who decided the exact neighbourhood layout, nowadays every detail is discussed with the initiators and investors. Not only the inhabitants, but also the designers are often overlooked in important design decisions (Tellinga, 2004:16). Specifically in the post war neighbourhoods, where the housing association have much of the housing stock, the influence of the designer is rather small.

12

Intervention: Install buildingbrigade
Goal: Improve and control maintenance
Source: Pandbrigade (Personal interview)
Description: The The Hague Pandbrigade is an overall organization of the municipality, housing associations, energy supplier, police, fire-brigade, tax-collectors office and foreigners office. They check every house, one by one, neighbourhood by neighbourhood. By connecting the figures of all the different organizations with each other, problems will be revealed and resolved.

3 Current methods and strategies

Using case studies the current methods and strategies will be researched. Most of the examined neighbourhoods are recently restructured in a vigorous way and from the post war period. Mariahoeve is not yet restructured, only some minor interventions recently took place. Because of the little interventions the neighbourhood will be used as the design location. The methods and strategies with a positive effect and suitable for Mariahoeve, will be used to design an improvement plan for Mariahoeve.

3.1 What is happening in Mariahoeve

To be able to find the right interventions for an improvement plan for Mariahoeve, the current situation should be researched first. When the strengths and weaknesses are known, the suited interventions can be chosen. First the history and development of the neighbourhood are discussed, followed by the current state of the neighbourhood.

3.1.1 History of Mariahoeve

Already in 1940 made Dudok a design for the future developments of The Hague; Mariahoeve was part of this design, but from his design only the size is used. There was a rail line planned right through the neighbourhood, the NS (Dutch Railway Company) even did not allow crossings in that period, so the plan for the neighbourhood was to literary cut in two. This unreasonable plan had little support and was postponed. When the building land of The Hague got scarcer there was renewed attention for a possibility for Mariahoeve. At the same time the NS found out that the planned train track trough Mariahoeve had insufficient support and therefore had been cancelled. This gave new perspective for planning the neighbourhood and the municipality decided to ask DSO (The Hague municipal urban development department) for some designs. Van der Sluijs' design was chosen out of the six designs for Mariahoeve, which was a remarkable choice because it was completely different from the mainstream designs. Where most neighbourhood designs were orthogonal, specifically in the The Hague of Dudok, van der Sluijs made a design which had the same repetitions of blocks and lines, but made use of many curves and different angles. Every building form still consisted of an accumulation of straight blocks, but most had bends and edges in it. This was inspired by the Scandinavian 'park city' ideology, a variant on the well-known garden

Figure 22: Design Mariahoeve 1953 (source: van der Sluijs, 1953)

city ideology. The odd neighbourhood structure caused that van der Sluijs was declared mad by Dudok and many other urban planners, but nevertheless in 1958 they started to build the neighbourhood. As seen on figure 20; the neighbourhood is cut up by main roads, which combined with the soccer fields, divide Mariahoeve in six quarter. Every quarter was built up following the same recipe:

- Green core
- Three high rise buildings in the green core
- Several quarter shops
- A school or public building
- Enclosed buildings of four layers at the north side
- Single family row houses at the south side

This recipe is repeated five times, but never in the same way. Van der Sluijs had several Scandinavian influences:

- Design with respect for individual
- Clear borders and cores per neighbourhood and quarter
- Differentiation on quarter level of type, height and target groups
- Use of high rise to safe space on ground level
- Free composition of buildings in green space
- High quality finishing and furnishing
- Harmonious architecture and landscape
- Public gardens where private and public green were blended
- Careful relation of building and public space

(Steenhuis & Meurs, 2005:2)

Figure 23: Building Mariahoeve (source: Steenhuis & Meurs, 2005:3)

The building took until 1968 before the neighbourhood was completed. It consisted out of a collection of one family houses, middle high-rise and some high-rise. In the design the urban planner strived for an as differentiated neighbourhood as possible (de Boer & Lambert, 1987:116). The one family houses are scarce, partly because of the villa neighbourhood Marlot which can be seen on figure 21 in the top left. There was a large building task for social rented mass, so most of the houses were in that sector. This meant a large amount of middle high-rise porch houses, also some high-rise was clustered in several places, but there were far more porch houses. The plan for Mariahoeve was that people of every class would be able to live together, so a balanced housing distribution was crucial.

Figure 24: Plan Mariahoeve (source: de Boer & Lambert, 1987:115)

The neighbourhood was situated at the edge of the city and surrounded by grassland, forest and infrastructure. The park city encouraged much open green space, but to be able to function as a transit zone to their surroundings, even more green was placed. This gave Mariahoeve a very 'green' character and that is still visible in the neighbourhood. Another reason for the green character is the plans for future main roads along and trough Mariahoeve. A main road was planned through the 'Schenkstrook' area south of the neighbourhood (Groot & Herlé, 2008:15), and another one along the Reigersbergenweg. Both roads never came, which results in a wide green strip nowadays. Another striking change over the last years is the oil refinery that was situated in the north east corner of the neighbourhood. From 1965 to 1988, 7.4 million m³ has been won in Mariahoeve, but because of the dangers is has disappeared. Nowadays there are two homes situated over the former refinery location.

In the centre of the neighbourhood, a park is situated with the neighbourhood centre next to it. The centre was supposed to be a large scale centre with a neighbourhood exceeding character. Because of that, the district centres could remain modest. But in the negations for the new centre with the investor it went wrong, and the investor had to find his luck somewhere else. This led to the current Leidschenhage centre which is a major shopping centre and is much used by the current inhabitants of Mariahoeve. The centre of Mariahoeve was developed in a more modest way to function as a centre for the neighbourhood. Since the completion of the neighbourhood in 1968 there were some minor additions and changes, but in comparison to other post war neighbourhoods they are almost negligible. (paragraph text based on: van der Sluijs, 1989; Valentijn, 2002)

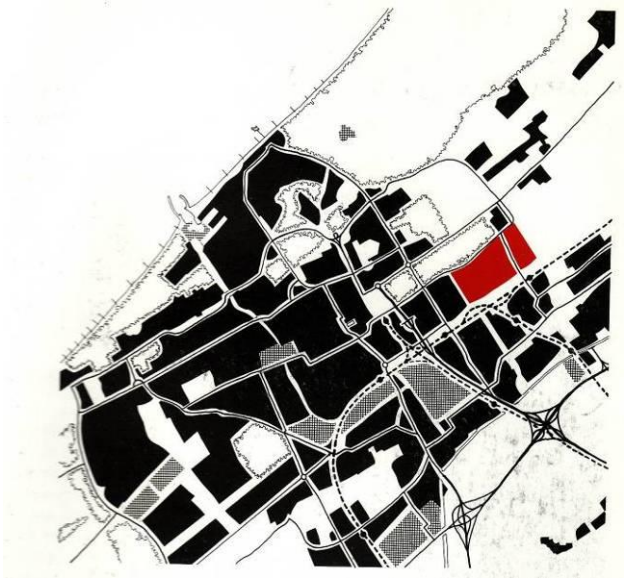


Figure 25: Location Mariahoeve (source: de Boer & Lambert, 1987:123)

3.1.2 Current situation

Houses: **7.783**
Inhabitants: **12.703**
Built: **1958-1968**
(de Boer & Lambert, 1987; DHIC, 2009)

Mariahoeve did not undergo many changes since it was built, but to keep the neighbourhood as liveable as a neighbourhood should be, there could be some adaptations made. The neighbourhood has 50% of social housing, that is a quite high percentage in comparison with The Hague (39%) or many other neighbourhoods, but for a post war neighbourhood it is not high at all (Ardriaanse, 2004). Partly because of that, and because of the location in the city, the inhabitants and the urban layout, it is no deprived neighbourhood. Also the large amount of green public space adds to the positive impression of the neighbourhood. Mariahoeve is 214 ha., and 44 ha. of that is green public space (de Boer & Lambert, 1987:116). Of the 12.703 inhabitants there is an ethnicity of 38% of which a large English speaking community because of the nearby British School. There are 7.783 houses of which 10% is ground bound and there are 1.72 tenants per household, while the Dutch average is 2,4 and the The Hague average is 2 (DSB, 2006; RPB, 2006). It is remarkable that many elderly live in Mariahoeve; 30% against 14% in The Hague, many of them have lived in Mariahoeve since it was built. Another remarkable characteristic is that 61% is a single person household, against 47% in The Hague. Both the remarkable characteristics could be declared because of the high percentage of small (=<90m^2) houses. 70% could be marked small (WSA, 2005).

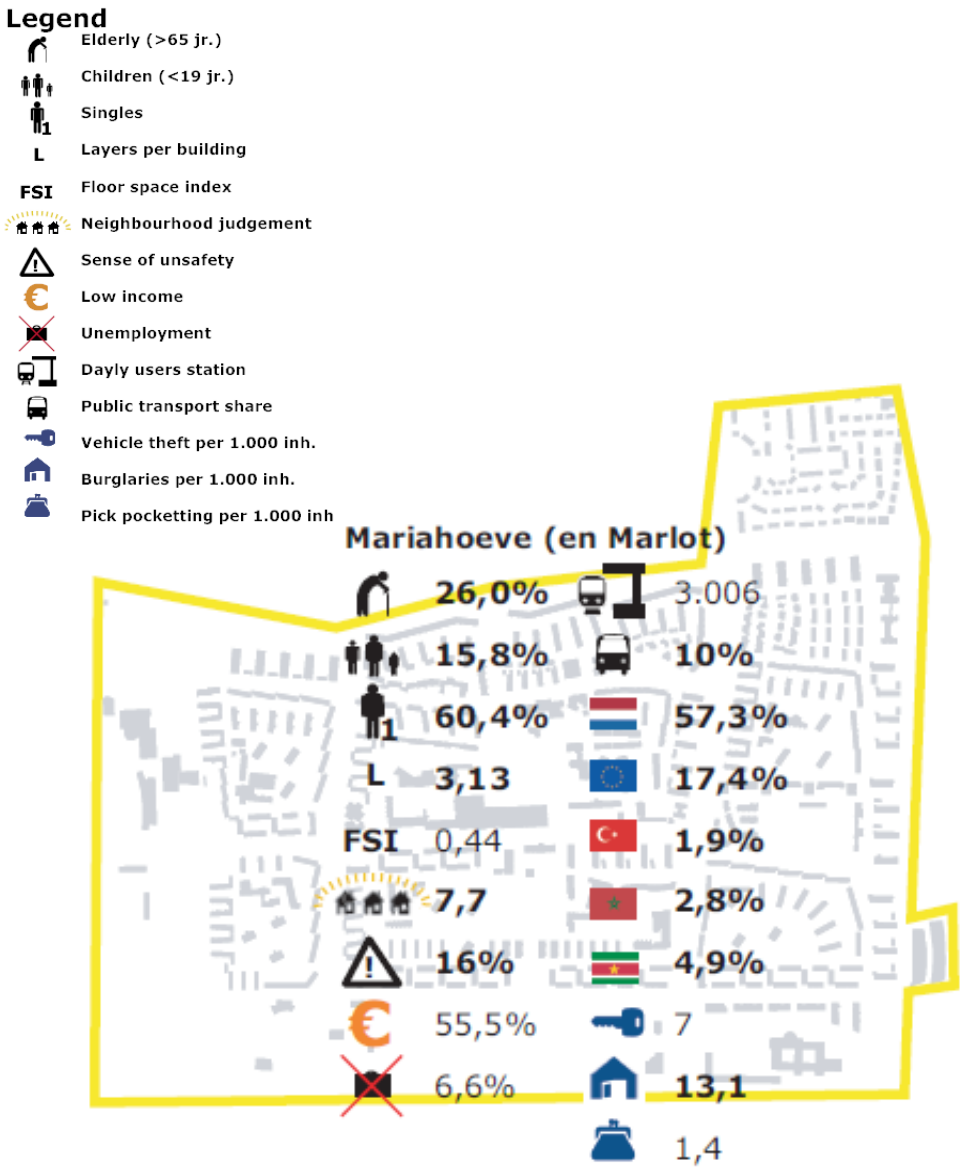


Figure 26: Striking figures Mariahoeve

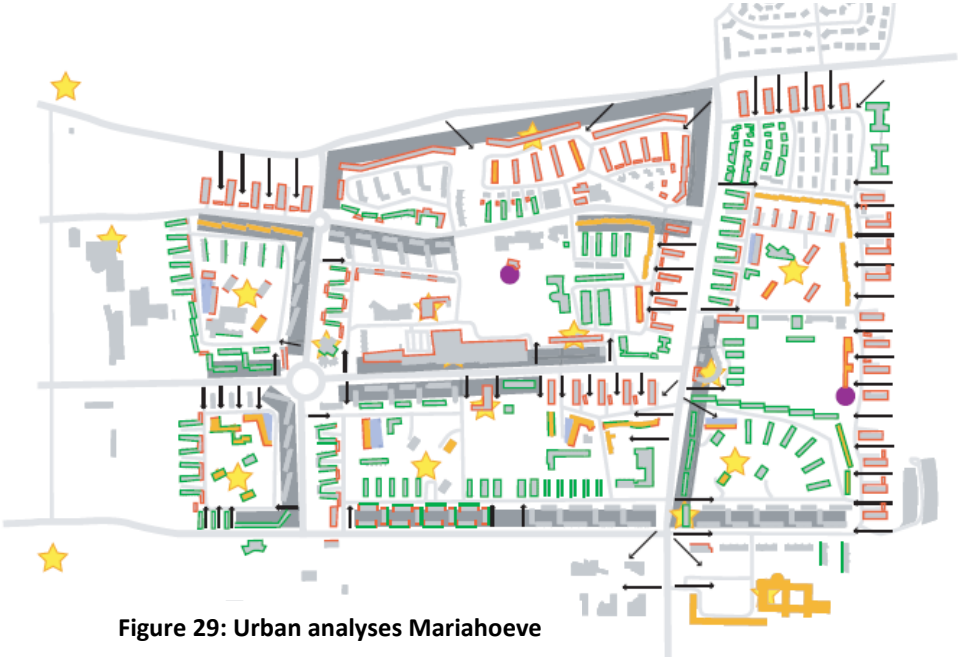


Figure 29: Urban analyses Mariahoeve

Mariahoeve is strictly bordered by the different functions around the neighbourhood. In the north there is the royal palace and a large scale city park. This strict border is also a great opportunity because of the large amount of green space next to the neighbourhood and the tourist attraction of a palace nearby. The east and south are bordered by infrastructure, a regional road at the east and the train track in the south. These borders are extremely strict and almost impossible to cross, but they are of great worth for the accessibility of the neighbourhood. In the west there is a strip of sports facilities which is no strict border but more of a transit zone to the rest of the city.

The facility level in the neighbourhood is concerning, there is only 1 shop per 320 inhabitants instead of 1 per 110 in The Hague (WSA, 2005). The quality of the shops is also degrading and that has its

Figure 28: Bad public space (source: http://foto.denhaag.org)

influence on the public space. As seen in figure 26 the quality of the centre is not sufficient. Many shops are replaced by non public small companies or just went out of business. The number of facilities is staggering, in 1995 there were 60 shops, in 2000 only 41 were left (Adriaanse, 2004), and the process is still going on. With future interventions the plan is to give the neighbourhood centre more of a centre look with high-rise (DSO, 2008). Also the park next to the centre will be used to achieve this goal. Nowadays with all the green in and around the neighbourhood, it hardly draws attention (Adriaanse, 2004). Because of that there are plans for emphasizing the park more as some kind of 'Central park' for Mariahoeve, with stylish buildings at the edge and a high quality facility level (WSA, 2006). The cultural facility level is almost not present in Mariahoeve; the only cultural-related facility in the neighbourhood is an art loan centre.

There are more transformations planned, but there is a risk of doing damage to the spatial identity, and the (temporary) relocation of elderly could be problematic as well (DSO, 2008). Because of that, transformations will have to be dealt with care, specifically because there is a large percentage of elderly in Mariahoeve. With the transformations the preferred identity will be emphasized, because currently Mariahoeve lacks a known identity. With inhabitants, the municipality, housing associations and other specialized professionals a search has been done for the strong and weak aspects of the neighbourhood. With emphasis on the strong aspects an identity could be brought forward (Bosboom *et al,* 2007). Another aim of the transformation is to create the possibility for a housing career within the neighbourhood for young people and to have enough houses for singles and elderly, who are the main inhabitants of the neighbourhood (DSO, 2008). Although there are different types of housing (see figure 28) the division could be better.

Although the neighbourhood always had a good reputation, and up to 70% valued the neighbourhood as 'very positive' (SAC, 2005:2) there are some indicators for decay. There is ageing of the population, and a rising number of ethnic households, impoverishment, physical decay of the houses and public space and a staggering sense of safety (Argiolu *et al*, 2008:103). These themes will be discussed in the next chapter.

Figure 30: Three kinds of housing (source: http://foto.denhaag.org)

Figure 31: Historical layers

13

Intervention: New allotment gardens
Goal: Nota Volkstuinen: More open space
Source: GDH (2008:13) Nota Volkstuinen
Description: By the rise of elderly and by more interest from ethnic minorities and young families, an increase in allotment gardens is expected. Also a lot of allotment gardens are being replaced due to a lack of space

14

Intervention: Replace/ abolish allotment gardens
Goal: Create space
Source: Locatiestudie volkstuinen Erasmusveld (DSO, 2007)
Description: Allotment gardens can be replaced or abolished to create space on valuable ground. If they are replaced, new gardens should be 100-160m² and reachable in 10-15 minutes from the garden owners homes, because 50% of the users is older than 65 years old an therefore less mobile

3.2 Case studies

To compare the current methods and strategies in post war neighbourhoods some neighbourhoods have been chosen to function as a case study. The neighbourhoods will have been chosen because of their comparable situation to Mariahoeve. The findings will be used to get a better understanding of the situation in Mariahoeve and to be able to propose interventions for it. In the case studies either there already has been a large scale transformation or improvement of the neighbourhood or the neighbourhood is similar to Mariahoeve. By comparing the effects of the changes the effectiveness of the interventions can be derived. Important factors in the structure of Mariahoeve can be researched and compared. There will be an emphasis on themes like routing, centres, potentials of the surroundings and use of green open space because potential improvements for Mariahoeve can be found in those themes. To be able to make a thorough comparison all neighbourhoods will be researched using the same starting point: *case study research* by Yin (2003). To make a visual comparison a comparable method will be used as in the TNO (2007) research. At this stage the neighbourhoods are only introduced, in the final thesis the case studies will be completed. Because of the potential intervention in the routing, shopping centre, part in surrounding and the use of green space there will be additional attention for these subjects in the case studies.

3.2.1 Amsterdam - Buitenveldert

Houses: **11.199**
Inhabitants: **18.870**
Built: **1957-1969**
(Argiolu, 2008, Adriaanse, 2004)

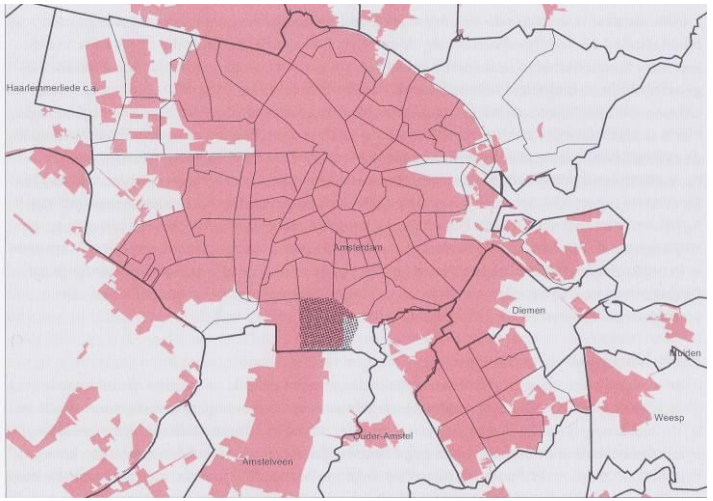


Figure 30: Buitenveldert in Amsterdam (source: Argiolu, 2008:97)

The Amsterdam neighbourhood Buitenveldert is in many ways comparable with Mariahoeve. Buitenveldert is often taken together with Mariahoeve as succeeded examples of post war neighbourhoods. It is a green neighbourhood with a differentiated housing stock (figure 31) and a non-mediocre population proportion. Just like Mariahoeve there are many expats living in the neighbourhood, striking is the large Jewish community which is part of 67% native Dutchmen. Buitenveldert is well connected to parks around the city of Amsterdam which is also

in clear comparison with Mariahoeve. The housing stock is divided in three parts of equals size, the social rent, private rent and bought houses (Adriaanse, 2004)

Buitenveldert is designed according to the garden city ideology and influenced by the CIAM trends during the building period. The garden city element is clearly comparable with the park city ideology of Mariahoeve, also Buitenveldert consists of 30% green public space (figure 32). The large amount of green public space also translates in a high percentage of elderly which is also visible in Mariahoeve. In spite of the different housing differentiation the percentage of ground bound houses in Buitenveldert is quite comparable; 12% is ground bound which comes close to the 10% of Mariahoeve (Adriaanse 2008).

Figure 33: Buitenveldert 1970 (source: beeldbank.amsterdam.nl)

The neighbourhood is easily accessible because of the highway that runs alongside of it, but it is also accessible by bus and light rail and both the train and the new Noordzuidlijn stop nearby. Inside the neighbourhood there is a raster of secondary roads that are connected to the highway and surrounding cities. Because of the

32: Amsterdam Buitenveldert (source: http://www.zuideramstel.amsterdam.nl)

green space at both sides the neighbourhood is mainly north-south oriented. A green axis cuts the neighbourhood in two and connects the Amstelpark at the eastside with the Amsterdamse Bos at the west side. South of the neighbourhood is a comparable axis which divides Buitenveldert from Amstelveen in the South. The centre lies at the north quarter and is situated near the Zuidas. This massive central business district is located around the highway and lies directly north of Buitenveldert. This new development makes Buitenveldert an even more attractive neighbourhood to live and creates bearing surface for a large number of facilities in the neighbourhood. Beside the Zuidas also the RAI event location and VU University are located directly north of Buitenveldert. This makes the neighbourhood also attractive for students and offers additional working places. South of Buitenveldert, Amstelveen offers a wanted residential environment and an attractive shopping centre. (Stadsdeel Zuideramstel, 2009)Even Schiphol is situated near Buitenveldert which also makes the neighbourhood more attractive. All these importance to make Buitenveldert as successful as it is right now.

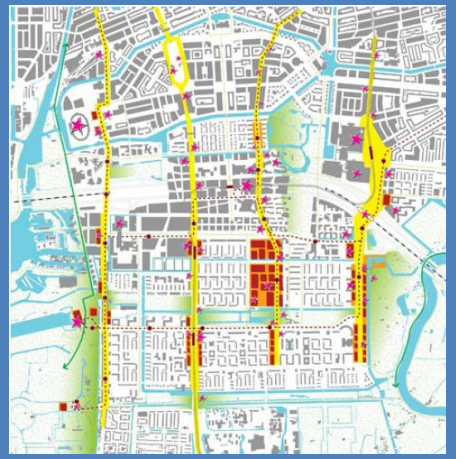
Figure 35: Structure Buitenveldert

Together with Amsterdam West, Buitenveldert was designed and built. According to the AUP of van Eesteren, Buitenveldert was meant for the more wealthy people, in contrary with the Western garden cities, which were meant for the labour force. Because of the long time between the design in 1935 and the building in the sixties there are two underlying ideologies to distinguish in the neighbourhood. The first is the garden city ideology from the design period and the second is the functional neighbourhood ideology from the sixties. (Argiolu *et al.*, 2008) The last ideology is clearly visible in the high rise structure placed in the green field as seen in figure 34. With the shortage of houses after the war the municipality was obliged to add extra social housing to Buitenveldert, which made it as it is right now. Momentarily the demographic situation is comparable with Mariahoeve; the percentage of elderly is quite high and the share of ethnic minorities is small but slowly rising.

Figure 34: Typical structure

15

Intervention: Improve infrastructure
Goal: Adjust roads on current use and functions in the vicinity
Source: Buitenveldert (Stadsdeel Zuideramstel, 2009:4)
Description: Because of a different way of road use since the design of post war neighbourhoods and new facilities in the neighbourhood, the road network can be evaluated and improved



3.2.2 Rotterdam - Ommoord

Houses: **12.625**
Inhabitants: **24.147**
Built: **1965-1972**
(BIRD, 2009, Wonen Rotterdam, 2009)

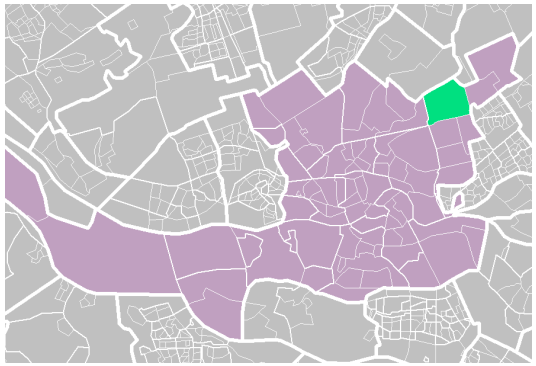


Figure 37: Location in Rotterdam (source: www.wikipedia.nl)

The neighbourhood Ommoord could be seen as the Mariahoeve or Buitenveldert of Rotterdam. This post war neighbourhood is quite wealthy compared to the other post war neighbourhoods in Rotterdam. Even until the seventies the housing inspection came by the house of a potential tenant to check if its house was clean and tidy enough to earn the privilege to rent a house in Ommoord. There are little problems at the time, but also in this case improvements are needed to stay in shape. Because the neighbourhood was built a little later than Mariahoeve it still counts as a post war neighbourhood and is designed as such. The female designer Stam-Beese also opposed against the strong uniformity found in the first post war neighbourhoods. She respected the need for systematic building systems, but disliked the comparable layout of the houses. According to her, people need to be able to orientate in their location, this is very hard when every surrounding looks alike. To achieve this and still be able to use systematic building, she designed buckled high rise complexes which form different spaces in between (van der Horst, 2001:107).

Figure 36: Structrure Ommoord

In the design Stam-Beese denied the existing land structure and started from scratch like she was used to do in Russia. With her Bauhaus education she followed the ideology of the functional neighbourhood like van Eesteren did in Buitenveldert. Unless her efforts to create different places in the design of Ommoord, she did not manage to avoid the uniformity. The neighbourhood could be divided into a core with high rise and a ring of single family houses around it. The roads are dividing the core from the ring and also spit the ring in different parts; together this gives the neighbourhood a clear structure. In the core two shopping centres are located, which both give the east and west side an own core. According to Stam-Beese the porch houses were lacking explicit quality; they did not have a garden nor a nice view. Because of that she chose to only design high rise or low rise, but none in between.

Figure 38: Buckled high rise

Around the neighbourhood there is a lot of green open space and even the river Rotte runs north of it, accompanied by the Ommoordse veld park it delivers an important place for recreation. At the east side another green strip borders the neighbourhood. According to the functional neighbourhood principles living, working and recreation were separated. Another result of this ideology is the large amount of open green space in Ommoord, unfortunately the maintenance became too much which caused the green space to be neglected (van der Horst, 2001:111). Because of the neighbourhood's location along the higway, and its accessibility by the metro, the connection with other parts of the city is relatively fast. As long as people have the possibility to be move they do not have to find their leisure within the neighbourhood, which caused declining bearing surface for the facilities. The elderly on the other hand are dependable of the facilities in the neighbourhood. This situation is comparable with Mariahoeve; both neighbourhoods have a quite high amount of elderly. Currently Ommoord is a safe neighbourhood; in the annual safety index of the municipality; it got an 8.1 which is very good. The only safety problems the neighbourhood has are nuisance of vandalism and pollution by inhabitants (Gemeente Rotterdam, 2009). The vandalism could partly be caused because of the high rise buildings, which summon a sense of anonymity. Because of the large size of the high rise compared to the human scale they can cause a sense of unsafety (Argiolu, 2008:28).

16

Intervention: Decrease blind ground floor facades
Goal: Improve social situation and sense of safety
Source: Ommoord, (BIQ, 2008:13)
Description: To increase the eyes on the street and improve the sense of safety of the surroundings, blind ground floor facades can be opened. By adding ground bound houses and transparent entrances, the situation can be improved

The buckled high rise could be an interesting example for Mariahoeve, which also has some buckled high rise. Recently four of the buildings were refurbished for 70 million euros, which is 100.000 per house. The houses were improved by placing better insulation, technical facilities and kitchens. In the ground floor façade the garage boxes are replaced by more open facilities and some new apartments at ground level. To create a better understanding between the tenants, common parts are introduced and extra elevators are placed to make it easier to recognize your fellow tenants. By selecting a certain group of future tenants, the housing association tried to reduce future nuisance (Kei, 2009:3).

Figure 39: Buckled high rise after refurbishment (KEI, 2009:3)

17

Intervention: Vary high and low rise
Goal: Adjust to human scale
Source: Ommoord, (Argiolu *et al,* 2008:28)
Description: Because of the absence of a reference point of the human scale in high rise areas, people can start to feel void. By varying in height this can be prevented

3.2.3 Rotterdam - Hoogvliet

Houses: **15.000**
Inhabitants: **37.000**
Built: **1951-1970**
(Tellinga, 2004)

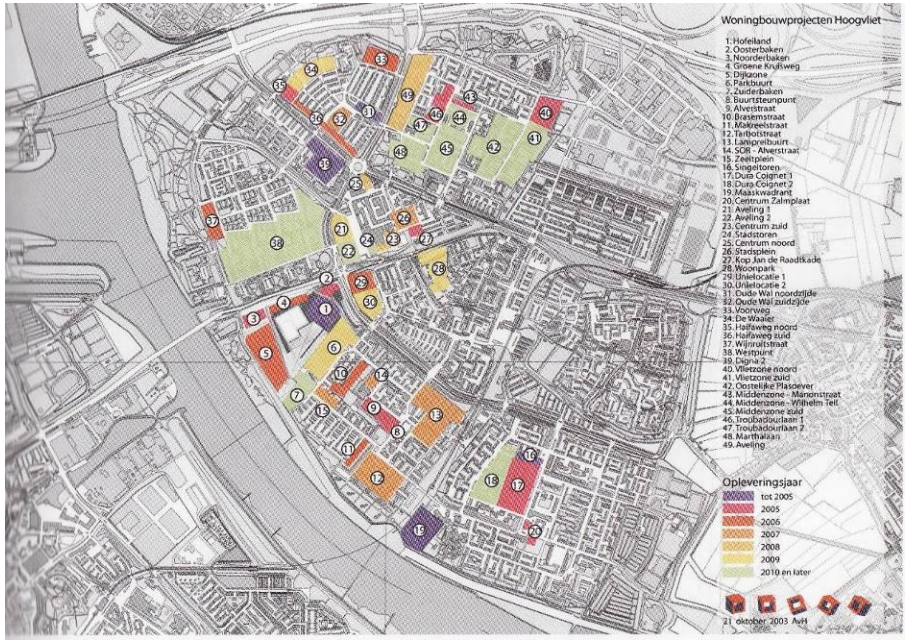


Figure 40: Restructure locations Hoogvliet (source: Tellinga, 2004:115)

Because the incomparable layout and location of Hoogvliet, it does not function as a structural case study, but as a practical one. In the recent restructuring process the inhabitants were involved in an extensive way. The case study is to see if this approach could be interesting for Mariahoeve. When coming across other interesting factors, these would be included as well.

The Rotterdam neighbourhood Hoogvliet is built in a period which lies between the building period of Zuidwest and Mariahoeve. The layout of the neighbourhood mostly resembles to Zuidwest with the strictly structured placing of the housing (Kuenzli *et al*, 1999:9). The neighbourhood has been built as labour neighbourhood for the petrochemical industries next to Hoogvliet (figure 38). Because of that, the distance from the city centre (18 kilometres!) did not play a big role in the decision for its location (Argiolu *et al*, 2008:143). The building started from the north and the density over there is quite high in comparison with the rest of the neighbourhood. Halfway the development of the neighbourhood the dense designs for neighbourhoods became less popular and therefore the south part is built as a low density low rise area. Because the distance to the city centre a neighbourhood centre was of large importance for Hoogvliet. The planned metro line would give this centre an extra impulse from the region, but the metro was replaced and only had a stop in the suburbia in the south, which meant a lack of bearing surface for the centre (Kuenzli *et al*, 1999:11). The image of the petrochemical industries was changing in time due to pollution, stench, oil crises, an explosion and reducing job offers and gave Hoogvliet a negative image. The social cohesion also was on a low level and the quality of the housing stock became too low. Therefore they decided to do a large restructuring of Hoogvliet which meant the demolition and rebuilding of 5000 houses (figure 38). In the process the inhabitants were involved in a high degree, this caused a positive position of the inhabitants and an increase of the social cohesion because of the collective thinking (Tellinga, 2004:16). The inhabitants are not consulted by masses, but only enthusiastic individuals were asked (Graaf, 2008) The restructuring which was labelled WIMBY, which means Welcome Into My BackYard, made a great improvement to the neighbourhood in a physical and

social way and therefore could be an interesting example as case study for Mariahoeve. Although not everyone agrees on that, it is one of the most successful post war restructuring of the past decades. In particular because of the active involvement of the population of Hoogvliet many believe that the result is mediocre because of the lack of professional nerve in the interventions.

The restructuring of the neighbourhood took place at high speed, this caused some difficulties in the process. First every inhabitant was promised a possibility for a temporary house and a new house after the restructuring period. Because of the large number of houses that was being demolished or improved, there was a temporary shortage of houses. Secondly there were some delays because of the involvement of the inhabitants and corporation of housing associations, the municipality and private parties (Steunpunt Wonen, 2003:27). Positive lessons to be learnt are the involvement of artists in a soon to be demolished neighbourhood and the clear appointments with the inhabitant about their involvement (not their own house, but the neighbourhood as a whole (Lafort, 2008).

18

Intervention: Involve inhabitants in changes
Goal: Create bearing surface for interventions
Source: Hoogvliet (Tellinga, 2004:16)
Description: The bearing surface for interventions incrwases when the inhabitants are involved. Because of the coörporation, the social cohesion between the inhabitants improves as well. It improves even more when resistance is summoned, but that is not aplicable as an instrument

Figure 40: Hoogvliet (source: aanzichten.nl)

3.2.4 The Hague - Den Haag Zuidwest

Houses: **32.000**
Inhabitants: **65.000**
Built: **1945-1959**
(Agricola, 2002, Tellinga, 2004; Gemeente Den Haag, 2007)

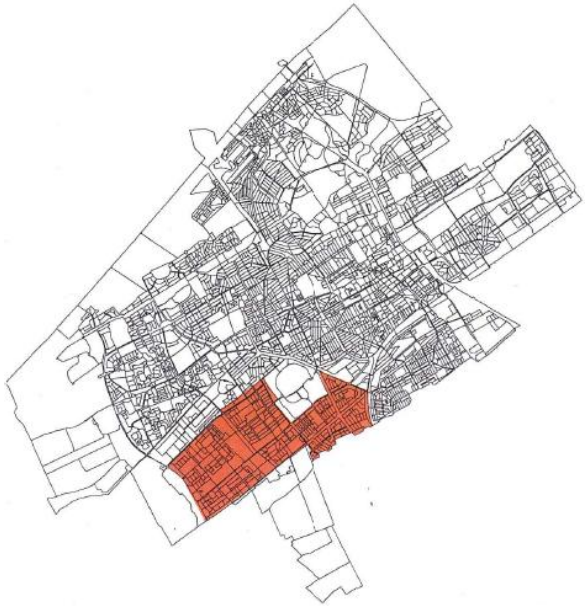


Figure 41: Den Haag Zuidwest in The Hague (source: Valentijn, 2002:18)

Den Haag Zuidwest is a large neighbourhood of combined neighbourhoods, in the quick rebuilding after the Second World War these neighbourhoods have been built at high speed. Zuidwest is the main processor of Mariahoeve in the The Hague context. When the building for Mariahoeve started, Zuidwest was practically ready. The design for Mariahoeve even was a statement against the orthogonal urban structure in Zuidwest (DSO, 2001:9). Dudok designed the neighbourhood with the ideology of the garden city in mind, and it was one of the first examples of Dutch garden city design. Because the recent restructuring, the comparable problems and the location in the same city, Den Haag Zuidwest can be a functional case study to compare with Mariahoeve. In particular the effects of the performed interventions are very useful to measure and to evaluate the relevance for Mariahoeve. Because of that, an internship at the municipality of The Hague is used to compare both neighbourhoods and to gain more insight in the current situation of both neighbourhoods.

Figure 41: Structure Zuidwest

The large shopping centre in Zuidwest has recently been restructured, also there are several smaller centres and some minor shopping streets. The neighbourhood has a clear ecologic structure; the Zuiderpark lies at the border of the neighbourhood and provides it with numerous leisure possibilities. Between this park and the Uithof park at the other side of the neighbourhood, a green axis goes right through Zuidwest. Another green axis crosses the axis half way and together they divide Zuidwest in four parts with a broad green buffer in between. Thanks to the vast green structure, almost all parks are connected with each other. The

houses are spread out in the neighbourhood in an extremely structured way, with a vast structure, a raster of streets and a green axis cross through the neighbourhood (DSO Den Haag, 2003:6). The block based structure repeats itself through all of Zuidwest, with a combination of two parallel long blocks with in between a short block at right angles to it at both sides. The repetition even got in a more extreme stage by using stamp allocation in the western part of the neighbourhood. These stamps vary a little and are repeated two to eleven times in one district. The road structure in the neighbourhood is divided in major roads, at the side of the green axis and the neighbourhood, and minor roads in the districts. The water often accompanies a road as a canal, which gives the road a spacious layout and also takes care of the storage of water. At other parts the houses are built along the road and function as a wall which emphasizes the road as an axis. Around nodes some high rise buildings are placed to mark the node and to profit from the well accessible location. In some cases this high rise has a striking shape or layout which makes it a beacon for its surrounding and thereby adds to the identity of the district or neighbourhood.

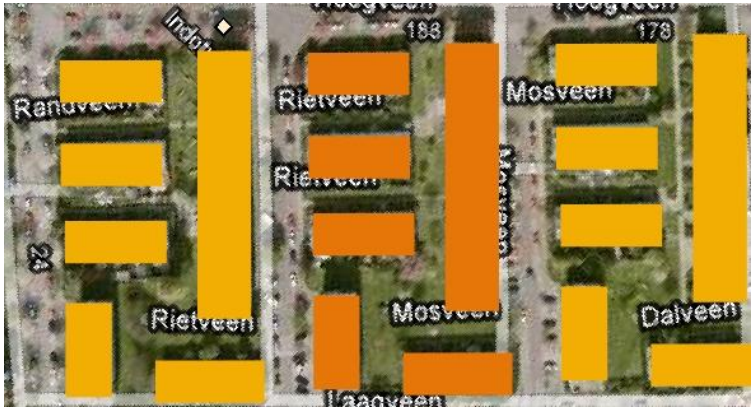


Figure 43: Stamp structure

Because of the large number of small apartments the percentage of elderly and ethnic minorities is quite high; 25% elderly and 45% ethnic minorities (DHIC, 2009). Together with the 25% of the workforce that makes use of social security for unemployed, it put the neighbourhood in a tough spot and led to decay. Only 6 of the former 27 shopping centres remained vital which caused a large shortage of facilities in Zuidwest (Harbers *et al.*,2008:94). The neighbourhood even got nominated for the lists of deprivation by the Dutch government (VROM, 2007a). To get out of the downward spiral there has been a recent major restructuring with the demolition of 8000 houses (more than the yearly total for the whole country!) and 6500 new houses which are mostly meant for the private owned sector. For this major operation 1.4 billion euro will be spent, of which most will paid by the future inhabitants because of the market based approach (Gemeente Den Haag, VROM, 2008:27) Beside the demolition and reconstruction, also some successful revitalisation took place. Even some porch houses were refurbished (see figure 45) and are now ready for the coming decades without losing the existing structure and quality.

Figure 42: Revitalization porch house Steenwiiklaan

Another way to improve the neighbourhood is by densification at empty fields. In Zuidwest this happened on former soccer fields and in the green axis cross, but because the densification stayed at the borders (like at the Dedemsvaartweg), the existing green kept its value and sight axis stayed intact.

Figure 44: Restructuring fields DHZW

Because of the rapid change of population and negative media attention the neighbourhood had problems with the identity. Also there was a lack of cultural facilities, which is currently a problem in Mariahoeve as well. In Zuidwest, a new neighbourhood office with a library, cultural education facilities and a striking layout is used to reduce those problems (figure 45). Around this location several other cultural facilities will be realized. The neighbourhood attracted a dependence of the famous The Hague cultural facility the 'Koorenhuis' as well. Other interesting things Mariahoeve could learn from Zuidwest are the clustering of schools, open ground facades, large squares and emphasizing the hinterland with the use of rhythmic building along roads.

Figure 45: New neighbourhood office
(source: Gemeente Den Haag, 2007a)

19

Intervention: Restructuring
Goal: Replace small houses by bigger ones
Source: Morgenstond (OTB, 2004)
Description: To imrove the attractiveness and flow trough a neighbourhood new bigger houses should be built to meet the current demands of the housing market. When there are too many low quality, small houses in the neighbourhood restructuring could be an option

20

Intervention: Make diligence visible
Goal: Let entrepreneurs stand out
Source: Zuidwest (De Beuk, 2009:12)
Description: When making local entrepreneurs visible, unemployment will be discouraged, eyes on the street are available at working hours and it will improve the liveliness of the area. Also giving local entrepreneurs a place to work encourages them

4 Physical-social relations

The relations between physical and social problems and solutions are, as shown in paragraph 2.1, quite versatile. To provide more in-depth information about the problems and solutions for post war neighbourhoods, the research focussed on several strengths and problems from as well the social as the physical field. Also the economic field plays a role in these strengths and problems, but is less present and therefore included in the physical and social field. The strengths and problems are based on research on the current state and future of Mariahoeve. These characteristics are not only present in this neighbourhood, but in most other post war neighbourhoods and therefore possible solutions could be used in other neighbourhoods as well.

4.1 Social strengths and problems

For the social state of a neighbourhood the social cohesion of a neighbourhood is a good guideline. Kearns & Forrest (2000) collected the five most important factors of social cohesion;

- Social networks and social capital, based on a high degree of social interaction
- Common values and civic culture
- Place attachment and identity
- Social order and social control, based on absence of general conflicts between large groups
- Social solidarity, based on equal access to services and welfare benefits

In the next paragraphs most of these factors are discussed based on the problems and strengths found in Mariahoeve.

4.1.1 Identity

The social concept of identity is very important for the current state and future of a neighbourhood. The complexity of the concept lays in the difficulty to decide the identity of a neighbourhood because it is based on the opinion of many different people. Lynch (1960) makes the necessity of this concept clear in his book *The image of the city*;

> "There seems to be a public image of any given city which is the overlap of many individual images. Or perhaps there is a series of public images, each held by some significant number of citizens. Such group images are necessary if an individual is to operate successfully within his environment and to co-operate with his fellows" (p.46).

Thus the identity of a neighbourhood is important for the neighbourhood itself, but also for the individuals living inside the neighbourhood. Within the city every neighbourhood has its own identity that is based on its physical appearance, its history and the people living inside the neighbourhood. Because of the uniqueness of every neighbourhood, they all have a own quality and function for the city as a whole (Hulsbergen & Vellinga, 2001:iii). The current identity is hard to change, in particular at a short term. Because the history of a neighbourhood plays an important role in the formation of the identity, specifically the short term history, and that cannot be changed. The neighbourhood identity can only slowly improve, but deteriorating the identity can be done very fast. Only some bad media attentions can

cause a neighbourhood or city to lose all of their progressions in improving their identity (Permentier & van Gent, 2008:74). A clear recent example is Oosterwei in Gouda; because some problems with a public transport company, the city has been marked as problematic in the media (NOS, 2008). Branding can bu used to form an identity when there is no strong one yet. In Mariahoeve this is used a few years ago to change the identity of a boring neighbourhood. If branding is succesfull is not clear yet, but in Hoogviet it doubled the demand for houses (Blom *et al,* 2008:94).

Inhabitants of a neighbourhood need to connect to their neighbourhood to improve the social cohesion. To be able to connect they are in search of anchors to identify with the neighbourhood, for a successful connection the reputation of a neighbourhood is crucial, otherwise inhabitants would not want to connect (Bouwmeester, 2007:6). The anchors could be both physical and social, contacts and communities could be a social way to connect and buildings and patterns could be a physical way to connect. Lynch (1969) focuses on the physical side when claiming: “to the definition of what might be called imageability: that quality in a physical object which gives it a high probability of evoking a strong image in any given observer” (p. 9). The imageability in this context is the connection trough physical anchors.

When having a positive identity for the neighbourhoods’ own inhabitants a social sustainability could be developed. When the inhabitants like to live and work in the neighbourhood and have a prospect on progress of the neighbourhood, they are getting their thrust in the neighbourhood and its future. This is called social sustainability, where sustainable means lasting value (Beckhoven *et al*, 2008:94). When trying to improve the social factor of identity even the small improvements can help improving the overall identity. The so called ‘porch talks’ housing associations are initiating could even improve the social cohesion and thus could add to the improvement of the identity (Lelieveldt & van der Kolk, 2005:27). A more effective way to improve the social sustainability would be to encourage ‘public familiarity’. This can be developed when, because of repetitive chance encounters on the street, you start to recognize, and to gain knowledge about the other, without counting them to your acquaintances (Blokland, 2008:12). In figure 46 the context of public familiarity is shown between; anonym, private, intimate and public. When inhabitants gain public familiarity in the neighbourhood, the sense of safety (see next paragraph) raises, as well as the social part of the identity for the neighbourhood. Raising public familiarity raises the social cohesion which encourages the inhabitants to be more active in their neighbourhood. However with the current bureaucracy and procedures much perseverance is needed to gain results (Hulsbergen & Vellinga, 2001:1).

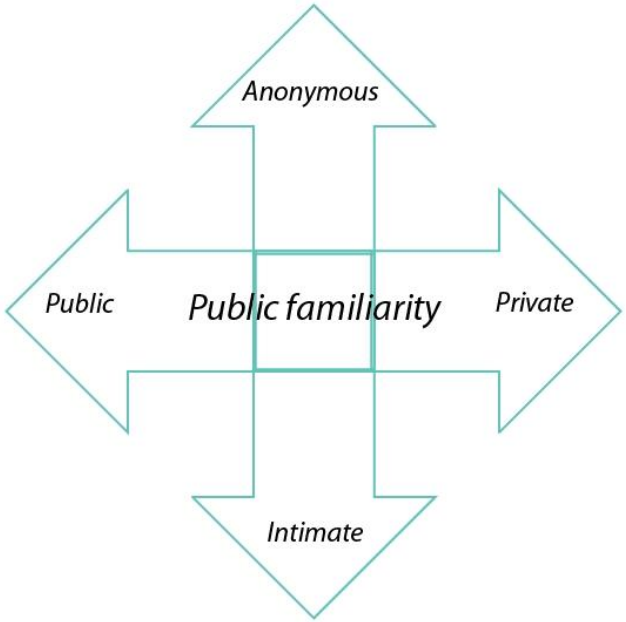


Figure 46: Public familiarity (Based on: Blokland, 2008:6)

21

Intervention: Evolutionary revolution
Goal: Flexible urban regeneration process
Source: Döll & Meurs (2003:12)
Description: When designs are open for change to the design over time and have a long application period, the neighbourhood character will stay intact and changes of insight can be used to improve the design over time

22

Intervention: Separation in little neighbourhoods with own identity
Goal: Strengthen contact between inhabitants
Source: Buitenveldert (Stadsdeel Zuideramstel, 2009:7)
Description: When a neighbourhood has an own identity, it lets the inhabitants feel they share a similarity. This improves the social condition of the neighbourhoods. Especcially in case of a large neighbourhood the subdivision in smaller neighbourhoods wuth a strong identity could be helpfull

23

Intervention: Define identity
Goal: Improve the consensus in the neighbourhood
Source: DSO (2008:9)
Description: When a neighbourhood lacks an own identity and is found boring by outsiders, an identity could be sought and emphasized to let the inhabitants be able to be proud on their neighbourhood

4.1.2 Sense of safety

Neighbourhood identity cannot be gained when the inhabitants do not feel safe. As seen in the previous paragraph, social sustainability cannot be gained when people do not feel connected to the neighbourhood (Beckhoven *et al*, 2008:95). There should be a safe 'social climate' in the neighbourhood; this is defined by Adriaanse (2008:46) as moral norms, social competences and correcting mechanisms. These aspects of 'social climate' refer to the safety in the neighbourhood. With no common moral norms, people would easily frustrate people in their vicinity, even without tending to aggravate them. Because they do not know why or how the other gets frustrated, they cannot really help it and the only thing to do is learn each other's moral norms. This is mainly a problem between different cultures, and is where integration would be needed. Another lack of moral norms would be if people just do not care about the other, this rebellious attitude often appears by teenage boys who are causing nuisance to others because they are bored or want to act sturdy in front of their friends (Dautzenberg *et al*,

2008). Because of the reputation of groups of teenagers hanging around (hangjongeren), even if they do not misbehave their presence is still interpreted as threatening which also adds to the sense of unsafety. The social competences and correcting mechanism described by Adriaanse (2008) are to be found in the more local and global scale. Social competences are the ability to have good contacts with your neighbours; paragraph 4.1.3 will further explain this. The correcting mechanisms are the policies, police, neighbourhood watch and other mechanisms which are used to avoid and stop nuisance.

Figure 47: Unsafe situation

The lack of sense of safety is not only caused by teenagers hanging around and other social causes, but also the physical appearance plays a role. A dark, polluted and poorly organized area also causes or adds to the sense of unsafety (van Dorst, 2005:110). To be able to feel safe at all, the inhabitants of a neighbourhood should first create a kind of thrust with the neighbourhood. According to Jacobs (1961:66) this kind of trust is formed over time by many, many little public sidewalk contacts. So the neighbourhood should be trusted, which is caused by social contacts (Jacobs, 1961; Blokland, 2008) and the urban appearance (Lynch, 1969; van Dorst, 2005; Wittebrood & van Dijk, 2007), to be able to feel safe in the neighbourhood. But this trust could decrease because of those same social and physical factors.

Van den Brink (2008) claims that the physical appearance plays a relatively small role in the formation of sense of safety. In his experience as a police officer most of the problems had a social cause. The problems indeed are social of nature, but they are facilitated by the physical urban structure. Bad-lit or deserted places or public parts of high-rise are places that easily facilitate unwanted behaviour (Wittebrood & van Dijk, 2007:10). Research proves the importance of the physical neighbourhood for providing a sufficient sense of safety; Bergeijk *et al* (2008:179) found a connection between the physical appearance of the neighbourhood and the sense of safety and decay in the living environment. Wittebrood & van Dijk (2007:56) found out that physical restructuring helps to decrease the decay, violence, theft and sense of unsafety in a neighbourhood. All decreased with 19-45% in the cases they researched. The impact of physical interventions thus could have a substantial positive impact on the sense of safety, but also the social preconditions are important.

24

Intervention: Add houses instead of basements
Goal: Improve sense of safety
Source: Naoorlogse bouwsystemen (Battum, 2002:6)
Description: *To improve the sense of safety and the eyes on the street, basements can be replaced with houses if the floorlevel is high enough*

4.1.3 Mixed neighbourhoods

> "Clustering in society is something we understand intuitively. Humans have an inborn desire to form cliques and clusters that offer familiarity, safety and intimacy" (Barabási, 2002:49).

Neighbourhoods are clustered on several levels; the neighbourhood in itself is a cluster within the city, the inhabitants feel connected because they live in the same neighbourhood. Though the neighbourhood cluster nowadays is very weak, most people do not know each other and even with public familiarity most of the other inhabitants are unknown for an individual. To increase the internal network of the neighbourhood cluster, internal connection should be encouraged; this should avoid public anonymity, which causes missing links in the network. By replacing public anonymity with public familiarity, the social cohesion in the neighbourhood cluster will improve which adds to the identity and sense of safety within the neighbourhood (Wassenberg & Blokland, 2008:67). Social cohesion can also enhance the liveability and increase the tolerance between smaller clusters in the neighbourhood. In particular in multiethnic this tolerance is often lacking between many clusters (Dekker & Bolt, 2005:1). Ethnic diversity is of negative influence on the contacts with the neighbourhood and between clusters (Gijsberts *et al*, 2009) Mutual incomprehension causes the different clusters to create a poorly founded aversion against each other or a disinterest in the other. This works between clusters, but also between neighbours. Currently this is a big problem, specifically in deprived neighbourhoods, but also in other post war neighbourhoods. These kind of problems in multiethnic neighbourhoods will only grow in the future because all western countries will experience a growth in diversity in the near future (Zonderop, 2008), so it is a structural problem within Dutch neighbourhoods.

Beside the neighbourhood cluster many smaller clusters appear; clubs, colleagues, families and friends in the neighbourhood can all be seen as small clusters within the neighbourhood cluster. Most of the smaller clusters function within the neighbourhood, but also reach outside of the neighbourhood. The most important way of neighbourhood clustering is clustering based on background. This could be religious but maybe even more important ethnic clustering. Many inhabitants cluster, based on their mutual ethnicity, in groups of volunteers, friends, families or other kinds of clusters (Charifi, 2009). This clustering plays an important role for the individual identity, competences and connection to the neighbourhood and thus is of great importance. But cliquing in small groups does not pay to society and can even provoke mutual incomprehension between clusters. This kind of clustering forms no problem as long as there is a sufficient amount of connections with other clusters (Charifi, 2009).

Ethnic diversity in neighbourhoods seems to cause more problems than ethnic clustering. Putnam (2007:1) researched ethnic diversity in neighbourhoods in the US. He concluded that in ethnic diverse neighbourhoods thrust (even of one's own race), altruism, Community Corporation and number of friends are lower. This cannot be translated to the Dutch situation in a direct way, but it could be comparable in the Netherlands. Gijsberts *et al*. (2009) deny this, they do not believe that the level of ethnicity could be of influence in mutual trust between people, also they attribute the worse social conditions to the fact that

Figure 48: Ethnic diversity (source: Agricola, 2002:72)

those neighbourhoods most of the time are deprived neighbourhoods. They are basing the lack of social cohesion on social, physical and economic problems but not on the ethnic diversity. While Putnam (2007) claims that immigration and ethnic diversity tend to reduce social solidarity and social capital. Also Stouten (2004:464) claims the seemly problems with ethnic groups are mainly caused by the fear of the middle class and the bad media attention. The inhabitants of multiethnic seem to experience far less problems than the media and some politicians want us to believe. The multi ethnicity may not be the main problem, but the economic state of many ethnic families is way below average, this pledge for the explanation of Gijsberts *et al.* (2009) who claim that ethnicity most of the time is accompanied by bad social state. But this does not count for all ethnic groups, recent research of Marlet *et al.* (2009:48) claims the negative effects of Antilleans and Moroccans are even bigger than usual. They cause more nuisances, even when the share of the rising unemployment is deducted; still a substantial rise of nuisance was measured. But this ethnic labelling is very dangerous, there may be a substantial part of those ethnic groups that cause problems, but that is no reason to discriminate. Using those facts should be done with severe caution.

25

Intervention: Increase amount of houses for middle and high incomes
Goal: Close the leak between supply and demand
Source: Structuurvisie (Gemeente Den Haag, 2005:20)
Description: The job offer in The Hague is mainly based on middle and high incomes, although the house offer is mainly based on low and middle incomes. By increasing the amount of houses for middle and high incomes, the leak can be plugged

In post war neighbourhoods the negative effects of mixed neighbourhoods are even bigger, because of the closed ground floors (blinde plinten) there is insufficient interaction with the street which makes it even harder to meet each other (Harbers *et al*, 2008:10). Also multiethnic facilities are quite rare; many ethnic groups have their own small supermarket, phone house or barber. The only inter ethnic interactions could take place in public space or in facilities for the whole neighbourhood. This causes a trend of little spontaneous mixing between clusters with different socioeconomic positions (Veldboer *et al*, 2008:125). In current regeneration strategies there is a striving for a diversity of class and income; social rented mass is replaced by middle class houses for buyers. This interesting development tends to improve the social structure in the neighbourhood, but diversity of lifestyles has

a negative influence on social cohesion (Kleinhans & van Marissing, 2008:35) and most middle class groups do not want to live in a deprived or post war neighbourhoods, and if they do they often have little contact with other social classes (Veldboer *et al*, 2008:13).

26

Intervention: More stairways for high rise buildings with gallery
Goal: Increase social cohesion
Source: Ommoord (BIQ, 2008:6)
Description: Because of the many users of the little stairways in a galery high rise building, the contacts are impersonal. By adding more stairways, the group of users gets smaller thus the contacts will get more personal

Mixed neighbourhoods do not only form problems, the new cultures are interesting to see and learn of and because of the diversity the neighbourhood gets more colourful. There is also an opportunity in diversity, by giving certain clusters their own place, they will identify with the neighbourhood which will enlarge the social coherence. When the physical gathering point is connected to others then the physical network forms a guide for the social networks to improve.

4.1.4 Demography

Related to mixed neighbourhoods, discussed in the previous paragraph, is the issue of the importance and impact of the demography of a neighbourhood. In this case demography is interpreted as the difference in age; other demographic differences are left out or already discussed. Demography is discussed because of the importance for the neighbourhood; every age category has its own demands and additions for the neighbourhood, and in making the choice for certain interventions this should be taken in account. Many post war neighbourhoods have a remarkable demographic mix. There are many elderly and one or two person households without children. This is caused by the size of the houses, only some (predominantly non-western) families do not have such a big problem with the size and are living with more people in one house (Hereijgers & van Velzen, 2001). In the case of post war neighbourhoods the reason for the demographic mix is mainly physical; because of the size of the houses. A comparable phenomenon takes place in new neighbourhoods, the predominantly ground bound family houses attract families with young children. The different demographic groups all have their contribution to the neighbourhood, so a well balanced mix should be pursued. According to Marlet *et al.* (2009:149) specifically the high income groups, self-

employed, families with children and elderly are important for a neighbourhood, mainly because of the community encouraging effect and social control they are responsible for. Single parent household are less desirable, they are not directly problematic, but the risk of having economic and social problems is a lot bigger than in other settings (Fokkema & Dijkstra, 2009:5).

Figure 50: Many elderly (source: Nio et al, 2008:39)

Because of the ageing of the baby-boom generation and the staggering number of children per family the percentage elderly people will grow. These drastic changes in demography have a large impact on the neighbourhood (Roberts & Sykes, 2000:296). New facilities are needed and other facilities have to disappear because of a lack of support. In restructuring strategies these developments are anticipated with creating more houses and facilities for the elderly. But the increase of elderly also has a negative side; elderly people are not able to physically take care of their direct environment, and a too large concentration of elderly in one neighbourhood would decrease the dynamics in the neighbourhood. When restructuring it is important to keep a part of the elderly to maintain the social cohesion, but adding new young people would improve the balance in the neighbourhood (Agricola *et al*, 2008:149). For every neighbourhood there is a demographic balance that suites best, finding this would help to decide what kinds of interventions are needed in the neighbourhood.

27

Intervention: Add elevator to porch houses
Goal: Increase comfort and target groups
Source: Welchen 7 (Meurs *et al,* 2009:107)
Description: When adding an elevator to a porch house, the comfort increases and it will be appropriate for elderly. When adding an elevator per porch is to costly, galleries can be added to reduce the number of elevators needed

4.1.5 Impoverishment

At the beginning of the post war neighbourhoods it were the neighbourhoods for the middle class, there were even occasional checks for some houses to see if your previous house was decent enough to live in the 'new' neighbourhood (de Boer & Lambert, 1987). Nowadays the situation is completely different; because of the changing public housing demands, the houses in post war neighbourhoods were judged *too small* and therefore decreased in worth. Now mostly the 'bottom' of society lives there, because the small post war houses are the only ones they can afford. This brings a huge problem for the post war neighbourhoods, which is partly described in paragraph 2.1.2, many inhabitants of past war neighbourhoods do not want to live in their neighbourhood, but they have no choice. This causes them to have no affection to the neighbourhood or its inhabitants. But it would be of great interest for those people to be involved in the neighbourhood. Social contacts for this particular group are not found in their direct vicinity, but trough shared religious, cultural, ethnic or social background (Pinkster, 2008:67). These people at the bottom of a society should be attracted to the neighbourhood and should be a part of it. They often feel unimportant and unwanted, which can cause negative or even criminal behaviour, but when given a purpose they flourish and get an increased self acceptance (Rozema & Oude Groeninger, 2009). An important obstacle for that development is that these people customarily find it difficult to get capital for new development work; this kind of social discrimination can effectively prevent many people from developing their work (Jacobs, 1968:220). In particular these people should be given a chance like described in paragraph 2.1.4. Not only in an economic way this problem could be reduced, also by empowerment can individuals develop themselves and their surroundings. But not in every instance could empowerment be the solution, part of the study Marlet *et al* (2009:17) did, showed positive effects of empowerment on facilitating participation and social cohesion. Some even had a positive effect on the physical conditions of the neighbourhood. But also a significant part showed no change or improvement at all, so empowerment is not always a well functioning tool.

The reduction of impoverishment cannot be done in a physical way, but the development of impoverished individuals or groups could be supported to help impoverished to get out of their position by themselves.

28

Intervention: Help with debt repayment
Goal: Decrease social problems
Source: Haar *et al* (2008:26)
Description: When neighbourhoods have many inhabitants with debts, it will be mentionable. Because people with debst invest less in the neighbourhood and have a less positive view on life, help with debt repayment could be a helpful instrument

4.2 Physical strengths and problems

As described in paragraph 2.1.5 is the basis for neighbourhood problems of a physical nature. To avoid problems in the neighbourhood the reasons for the problems should be taken away, thus physical interventions should be done. In this paragraph the main physical strengths and problems of post war neighbourhoods will be discussed.

4.2.1 Public space

The definition and use of public space had a drastic change over the past decades. When the post war neighbourhoods were built, public space was of great importance for the neighbourhood. It was meant to be the backbone of the neighbourhood community; the public space around your home is where you met your neighbours and where you would go for recreation on a nice day. The predominantly green public space was used by all the inhabitants of the neighbourhood and therefore also kept up by the inhabitants. Officially the municipality was responsible for the maintenance of the parks and green along roads, and the housing associations for the public space between the building blocks. The housing associations only had a supervising task because the neighbourhood community felt the urge to maintain that (semi) public space by themselves (Hereijgers & van Velzen, 2001:87). Under the influence of socialism this went on for some decades, but currently the situation is completely changed. With the current rising individualism no one feels responsible for the maintenance of the public space, so the housing associations and municipality have to keep it up again. The post war neighbourhood is left with a tremendous amount of public green space that is not used and poorly maintained, because there is just too much public space to maintain (Waarheid, 2009:112). With spatial interventions the unused public space is getting new value by upgrading it to modern demands, it is made private to reduce the maintenance costs and decay, or is used for new physical developments (Meyer, 1996:50). Green space is not the only public space in post war neighbourhoods in need of an intervention; also streets and squares are often in need of restructuring because it is not used in the right way or not even used at all. With the current demands for public space there even is a shortage for sufficient public space. This kind of public space should be a place where you would naturally meet each other without having that intention, it should improve public familiarity. In the urban renewal period already densities decreased, but there is still a need for more public space (Stouten, 2004:461).

29

Intervention: Lift ground floor
Goal: Cover blind ground floor facades
Source: Hoograven (Archined, 2009)
Description: When lifting the ground floor the blind ground floor facedes are covered without noticing it

To be able to create or restructure public space for the current demands a decent analysis of the current accommodations and their use is needed. Intensification is often a possibility (Mulder & de Zeeuw, 2006:11). To come to a decent plan for public space regeneration, first the intended users should be analyzed. Just projecting a plan for the public space would not work if you do not know the neighbourhood and its inhabitants. People do not use open space because it is there and because city planners or designers wish they would (Jacobs,

1961:90). Designing for the inhabitants and other possible users remains important, even in an individualizing society; public space or semi-public space is still the place to meet your neighbours. Even the most urbane does care about the atmosphere of the street or district where he lives (Jacobs, 1961:117). When basing the design for public space on its users, in post war neighbourhoods it would be logical to design for ethnic groups as well. In particular where the density is high and the streets are narrow, they experience a lack of meeting places and the neighbourhood appreciation is lower (Stouten, 2004:462). Because their houses are often quite small for the number of people living in it, public space is an important place of stay for ethnic groups. And because of the often large families living together in one neighbourhood, also large public spaces are needed in post war neighbourhood. A neighbourhood park with a large grass field to have a family barbeque could be of great importance for the social cohesion to the neighbourhood of ethnic groups. Another desirable function of public space should be that if it is meant to be a meeting place, it should be multi functional, on a logical location (for instance on a route) and with a sustainable perspective (Kleinhans & van Marissing, 2008:39). These location whether could be strictly organized, so the user can recognize what they use the place for; for instance a barbeque place, soccer field or terrace. But as said before is it impossible to plan exactly how the users will use the public space, so an unorganized part of public space where people can meet on a casual basis, is also important for the neighbourhood (Blokland, 2008:12).

Not only ethnic groups have special demands for public space, but every group in a neighbourhood needs to have an own place. In such a place you could meet people which you are most eager to meet, people like you. This could be jeu de boules tracks for the elderly, playgrounds for children or soccer- or skate parks for teenagers (Engbersen & Engbersen, 2008:75). But also coffee houses for Moroccan men, dog field for single adults or just benches with internet access for businessmen. Still, when designing specified spaces, undefined public space remains necessary to give the ability for the spontaneous activities.

The in paragraph 4.1.1 described identity could be of great help while designing and defining public space. A certain identity could be emphasized by public space or the identity could be used to define the layout of the public space. Because of the size of most public space projects the phasing is crucial; when restructuring a shopping street, square or park there should be some small improvements first, so the user knows there is a positive development going on and will keep on using the public space (Bouwmeester, 2007:19).

30

Intervention: Append front gardens
Goal: Gradual separation of public green space
Source: Hoogvliet (Jongert *et al* 2009:116)
Description: The unmaintainable public green space can be split into public, semi public and private gardens. When appending fron gardens to the houses, the gardens will be maintained and the houses will increase in value

4.2.2 Quality of the housing stock

One of the main problems of post war neighbourhoods is the quality of the housing stock, anyway that is how it seems because of the large percentage of demolished houses to improve the neighbourhoods. It is questionable if the quality of the housing stock indeed is in such a bad shape. In the post war period the houses were built according to the demands of the middle class families. This meant a house with a sufficient size for a family with extra room for children. With the community based ideology, the living room was the most important room in the house, the bedrooms were comparably small and the children slept together in one or two rooms. Also the houses were monotoneuous because of the system building and small amount of architects (Control Media, 2009:39). With the current individualization every child wants its own room, with many children having a television or computer on their room, the rooms became an important place of stay in the house. This conflicts with the way the post war houses are designed, which means the houses are only sufficient for single- or two person households with a possibility for one child. For the current demands there is quite little room for a second child. Not only is the use changed over time, but the demands for special rooms as well. The current middle class wants bigger houses than the relatively small post war neighbourhood housing stock. At the end of the post war period, a gas bubble was found in the Netherlands. This improved the possibilities for heating, which made more flexible floor plans possible (Tellinga, 2004).

Because of the large building task and the relatively little time and materials the post war neighbourhoods are built with marginal quality. To maintain the building speed and be able to build as cheap as possible, concrete of little quality was used. Also the insulation used was not that great. This translates to current problems with post war houses; there are many problems with sound nuisance, insulation, rotting concrete and moist mould. The ideology also pledged for little details and ornaments which gave post war neighbourhoods an austerely layout, specifically in comparison to current newly built neighbourhoods. This has its upside; it emanates some kind of relaxation, while current developments are a blatant whole of buildings of individual quality. With sufficient maintenance these problems could be solved, because this leads to a decrease of problems in the next period, even on other levels like neighbourhood appreciation (Marlet *et al*., 2009:11).

Figure 51: Rotting concrete (source: www.betonmonteur.nl)

The in this paragraph described 'quality' is a relative concept. The mediocre demand of the market has been taken as indicator, but to evaluate the quality of post war neighbourhoods, the current inhabitants should be emphasized. Ethnic minorities, a large part of most post war neighbourhoods, are in comparison to Dutch people quite positive about the quality of their house and built environment. Because their relatives are living in comparable houses, they themselves are living in a comparably moderate house; this is in contrast to Dutch people, who know many people with a bigger and better house (Dekker & Bolt, 2005:21). Also elderly are just not in need of large living space, they prefer smaller houses, only the technical state of post war houses could be a problem. People already living in a post war neighbourhood often would like to stay in their current house. They are used to the house, neighbourhoods and the problems and found rest with it. This happens mostly to the elderly; they do not like change and are willing to stay in their house and neighbourhood. For some people a trusted neighbourhood is of more worth than optimal sound insulation (Kromhout *et al*, 2007:42). Houses, streets, neighbourhoods, cities; everything wears away. But there is also such a thing as positive wearing out, the matter forms to the needs for life (Hofland, 2004:41). Besides in post war neighbourhoods it is often the neighbourhood that offers the desirable living quality and not the house (Moscoviter, 2007:59) People adjust to the possibilities in their neighbourhood and the neighbourhood adjusts to them. In such a case maintenance could be a good intervention, as long as the rents will not rise too much, but demolishing and building would break the current patterns. The new development would just be a new tabula rasa with a risk on new monotonous development (Döll & Meurs, 2003:5). Improvement of post war neighbourhoods also costs, in comparison with the energy to build it, al lot of energy (Zeelenberg & Liedelmeijer, 2009:9). So a good reason for intervention will be needed.

4.2.3 Demolition and reconstruction

"In the past, building quality and public health played a decisive role in improvement of the housing stock, mainly by slum clearance. More recently functional and economic considerations tend to dominate. Though environmental aspects like energy consumption and building waste are of growing importance, sustainability does not seem to be a major aspect in decision making about demolition or life cycle extension up till now" (Thomsen & van der Flier, 2008:1)

Figure 49: Demolished house

In the Netherlands demolition of part of the housing stock has become a mainstream solution to improve deprived neighbourhoods or post war neighbourhoods. The reasons for the decision are mostly not technical, but of a living quality nature. As seen in the previous paragraph, the demands of the current housing consumer are much higher than fifty years ago. A significant part of the social rented mass built in the post war period cannot match the current demands (Bolt *et al*, 2008:31). Because of the monotonous layout and housing types, restructuring is often claimed to be needed. One forgets in this case that buildingtypes like galery high rise or porch houses are historical break troughs and therefore are of cultural value (Döll & Meurs, 2003:7). Demolition and reconstruction helps to improve the quality, differentiation and sustainability of the housing stock (Bregman, 2009). According to Thomsen & van der Flier (2008:7) the most important motives to demolish in the Netherlands are; insufficient market demand (23%), functional deficiencies (20%) and motives related to urban planning (16%). These together form the 'living quality' reason. Only the motives related to urban planning are partially based on other reasons, but the figures for an exact division are lacking. Another important motive for demolition is structural deficiencies (30%), in earlier times this was almost 100 % of the motives. Every year about 7.000 houses are demolished and reconstructed, in almost all of the cases these are houses of the post war period (Tellinga, 2004:18). The rest of the demolished houses could be classified under the 30% of structural deficiencies and are generally from the pre war period. The social rented mass is owned by various housing associations. These housing associations count for 75% of the demolished dwellings (Thomsen & van der Flier, 2008:12). These figures together mean that the yearly percentage of demolished post war period dwellings is more than 75%.

When the neighbourhood identity is improving, demolition is already justified according to Agricola *et al.* (2008:140), but not only neighbourhood identity is improved by demolition and reconstruction. According to Marlet *et al.* (2009:10) do newly built houses in an existing neighbourhood improve the liveability of the neighbourhood; although this should be completely attributed to the change of the population. Tenants of the newly built houses are generally more satisfied with the neighbourhood, but are not more attached to the neighbourhood, this is partly caused by the remarkable fact that they see their current house as an in between station in their housing career and they are planning to move sooner than other people in the neighbourhood(Bergeijk, 2008:242).

Demolition has an enormous impact, not only on the neighbourhood, but also on the environment. The environmental impact of life cycle extension by renovation, transformation and reuse is in general less than replacement by new construction (Thomsen & van der Flier, 2008:6). And when using renovation the current tenants can stay in the same house, so it will not affect the social cohesion in the neighbourhood and has no personal impact on the tenants. Though renovating in occupied state could give stressful situations, so temporary replacement of the tenants should be considered (Kromhout *et al*, 2007:46). If renovation is feasible it seems to be in particular dependant of the technical state of the houses. When there are problems with the foundation or the frame, the possibilities are reduced (Kromhout *et al*, 2007:42). Because of the large expansions in the post war period and the large share of housing associations in the

current deprived and post war neighbourhoods, the demolition rate in the Netherlands is much higher than in neighbouring countries. In the nineties and the first years of this century the rate in most countries was below 0.1 %. Since this century only Germany tried to keep up with the Netherlands (0.25%), but the demolition rate in that country is still below 0.15%. In the graph in figure 53 the Dutch demolition rate is compared with the demolition rate in neighbouring countries.

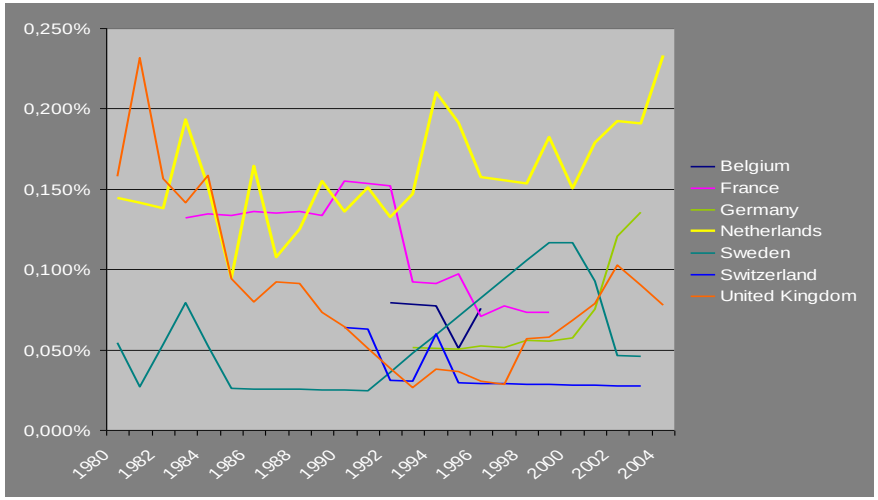


Figure 50: Demolition rate NL compared to neighbouring countries (source: van der Flier & Thomson, 2006)

When deciding to demolish part of a neighbourhoods` housing stock it is important to keep in mind the effects on the current inhabitants. People will have to move to be able to demolish houses and those people have to go somewhere. The effects of people having to move because of a large scale demolishing project are called spillover effects (waterbedeffect). This is the effect on other areas than the demolished area in an intended or unintended way (Slob *et al*, 2008:11). These effects are very hard to measure and when unintended better to avoid. To minimize the spillover effects three mains steps in the neighbourhoods restructuring should be made; cheap newly built houses – demolition – mid-priced newly built houses (Kleinhans & van Marissing, 2008:36). When using these steps people do not have to move outside of the neighbourhood and the spillover effects are avoided. Conditional for this prevention is free space in the neighbourhood; the cheap newly built houses cannot be realized without (temporary) densification. Intended spillover effects are also a possibility; this is part of the gentrification strategy. With this strategy displacement of an existing lower income population is provided, and they are replaced with more affluent households (Cameron, 2003). Using gentrification, the social state of the neighbourhood could improve because part of the problematic lower income households is dispersed, when less clustered the problems are fewer as well.

When focusing on the spill over effects, first the inhabitants of the control-neighbourhoods, the neighbourhoods where the demolition will take place, will be examined in the Dutch context. About 30% of the inhabitants remains in the neighbourhood after their house is demolished, this percentage chiefly consist of elderly (75% of the total), ethnic minorities and people who felt really attached to the neighbourhood stayed. 10-20 % even left the city; the remaining part found a house somewhere else in the city (Slob *et al*, 2008:21). The characteristics of the neighbourhoods' people flee to are:

- High percentage social rented mass
- High percentage non-western ethnic minorities
- Small distance to previous neighbourhood
- Low average income

(Slob *et al*, 2008:33)

These are comparable characteristics as those of most of the neighbourhoods that are restructured. So there is a chance the same thing will happen to the moved people again; the next neighbourhood could also be nominated for partial demolition and they will have to move again. To prevent that from happening, some municipalities like for instance The Hague, made clear what the plans for demolition in the coming years are with a guarantee map (figure 54). But this could be misused by the so called demolition nomads; they move from soon to be demolished house to soon to be demolished house to get a cheap rent and some move payment every time they have move out, this practices should be avoided (Slob *et al*, 2008:40).

Most of the time the inhabitants are quite negative about the new inhabitants because of the spill over effects, but there is no negative influence of the new inhabitants from the control-neighbourhood, their share is too small to make a difference in to the situations of the receipt-neighbourhood (Slob *et al*, 2008:61).

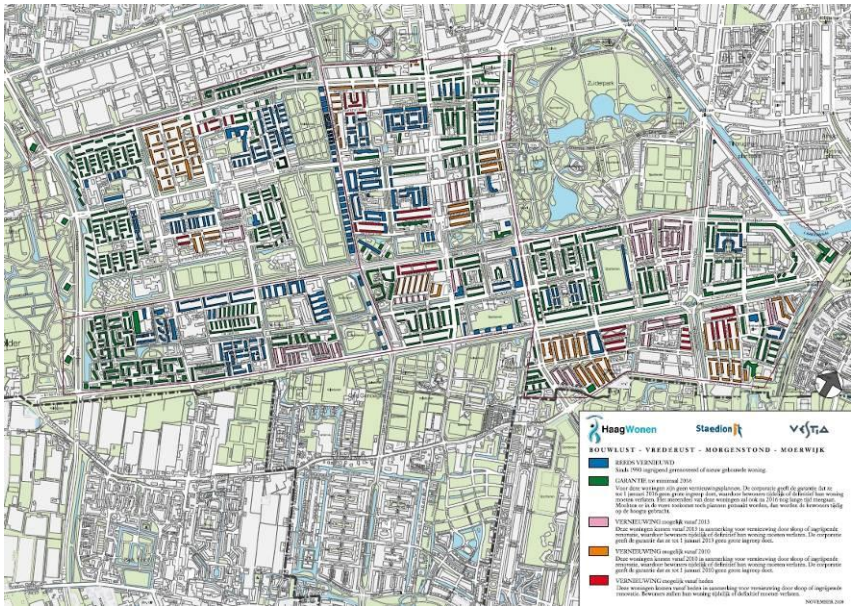


Figure 51: Guarantee map The Hague Southwest (source: Haag Wonen, Staedion, Vestia, 2008)

Technical reasons for demolition are limited, the idea that houses are built for a lifespan of 50 to 100 years is outdated. Technically most houses could survive much longer if maintained sufficiently (Bolt *et al*, 2008:40), because of that beside maintenance adaptation to changing needs and preferences through time will be inevitable (Thomsen & van der Flier, 2008:5). Another argument against demolition is the social cohesion in the neighbourhood. With interventions as big as demolition, large damage is done to the social cohesion in the neighbourhood. Demolition certainly will not bring lasting social cohesion (Stouten, 2008:4). Only before the demolition takes place the cohesion can be improved because of the joining effect of fighting for a collective cause.

31

Intervention: Append houses
Goal: New function for empty ground floor
Source: Battum (2002:7) Naoorlogse bouwsystemen
Description: Most post war neighbourhoods have abandoned quarter centres with empty facility space on ground floor. When turning them in to houses, the liveability increases and the will have a new use

32

Intervention: Add thermal- and sound insulation
Goal: Make houses more comfortable
Source: Hoogvliet (Jongert *et al*, 2009:116)
Description: To improve the physical conditions of a post war house in reasonable conditions, the thermal- and sound insulation could be improved by adding internal insulation

Beside demolition and renovation there are more interventions possible to improve the neighbourhood. There are different gradations of frame renovation; from façade renovation to supporting frame renovation. Renovation will be the best choice when the neighbourhood is of cultural worth, or the social structure is valuable (Kromhout *et al*, 2007:42). Depending on the neighbourhood, the severance of the intervention could be chosen. A possible intervention is joining houses to create more luxurious and spacious houses, although this only improves the size and does not improve the technical state of the houses (Agricola *et al*, 2008:140). Another way of improving the neighbourhood is by adding new houses on unused or unneeded land, for instance building on existing land which is not currently used for housing; like soccer fields or allotment gardens.

Figure 52: Renovation with stripped facade

Maybe the most important reason to chose for demolition or renovation nowadays is sustainability; sustainability in a functional, environmental and financial way. Thomsen & van der Flier (2008:1) conclude that life cycle extension by renovation and reuse of existing stock is generally more sustainable. But of course that depends on the situation. Unless this finding, currently there are drastic interventions in the composition of the housing stock (Kleinhans, 2005).

33

Intervention: Broaden involvement current inhabitants
Goal: Let restructuring be accepted
Source: Hoogvliet (Graaf, 2008)
Description: By finding several enthousiastic inhabitants who will take part in the discussion for the new to come restructuring, the bearing surface will be expanded

4.2.4 (Lack of) Neighbourhood facilities

In the post war period neighbourhoods were designed with a strict separation of functions. This meant also a separate centre. Every neighbourhood had its own centre and on a larger scale there was a neighbourhood exceeding centre with some larger shops. The centre kept the neighbourhood together, neighbours met at the local bakery, grocery store, school or playground and the neighbourhood derived its identity from it (Bouwmeester, 2007:4). In the current network-society the neighbourhood centres are of less importance, clustering of these centres in one large regional centre happens more and more. The rise of the supermarkets and large malls are encouraging this movement of clustered centrality even more (Hereijgers & van Velzen, 2001:86). For the small shop owners in the neighbourhood centres it is and was hard to survive the competitions with the bigger and often cheaper shops. This was even harder because of the demographic developments in the neighbourhood itself. The occupation per house started very high but dropped along with the increase of demands for living space. In 1945 the average Dutch house occupation was 6.2 people per house. Already in 1970 this was dropped to 3.7 and currently it is 2.4 people per house. In The Hague this number is even lower with only 2 people per household (CBS) Only about one third of the potential costumers for a local shop has remained (Hereijgers & van Velzen, 2001:47,48). And because of the impoverishment in the post war neighbourhoods the potential costumers also have less to spend and are more likely to go to a cheaper shop, but the smaller the shop, the more it is dependant of the neighbourhood (TNO, 2007a). This caused even more local shops to be forced to close their business, only 2.1 selling points per 100 houses are left (Harbers *et al*, 2008:94). Nowadays most local shop spaces in post war neighbourhoods are empty or used by ethnic entrepreneurs who are having a small bakery, call shop, local market or barbershop. The ethnic entrepreneurs got that possibility because of the cheap rent for that kind of shop space. Although the ethnic shops mostly attract people of the same ethnicity, they also function as a place to meet your neighbours and thus add to the improvement of social cohesion.

35

Intervention: Increase number of cultural facilities
Goal: More culture in the neighbourhood
Source: DGH (2005:10) Structuurvisie achtergronden
Description: In many post war neighbourhoods there is a small number of cultural facilities, although the demand for it is quite high. Adding those could be an interesting addition to the neighbourhood

34

Intervention: Fields for dogs in every neighbourhood
Goal: Decrease nuisance
Source: Mariahoeve, (Röwekamp *et al*, 2009:39)
Description: In most neighbourhoods dog dropping are at the top of the nuisance list. By adding a dog field to every nieghbourhood, this problem will be reduced

Not only shops are important for the neighbourhood on the local level, but other kinds of facilities are crucial as well. Neighbourhoods need to have medical facilities nearby, specifically in a neighbourhood with many elderly. Schools are even more crucial for a neighbourhood; it is the school where children get friends (preferably from their neighbourhood so they can play together after school) and where mothers meet. Education is the most important factor affecting the size and characteristics of social networks on a local scale (Dekker & Bolt, 2005:5). The importance of schools is clearly visible in the recent developments of community schools; these schools combine the regular school with day-care, welfare and free time activities. These community schools are an effective measurement against education arrears, and are helping the parents to be more flexible in working and taking care of their children (Engbersen & Engbersen, 2008:67). Community schools are an effective mean to improve the neighbourhood, as long as they do not follow the trend of centralization and clustering. The neighbourhood school is still of importance for the neighbourhood, and if community schools only operate on a higher level, this could cost the neighbourhood more than it gains.

Figure 53: Shopping street

4.2.5 Neighbourhood routing

In the post war neighbourhoods routing was strictly organized; because of the separation of functions roads also had been planned as separate parts of the neighbourhood. The orthogonal housing structure with long rows of mostly middle high-rise houses left little room for different road structures. For the routing for bikes and pedestrians there were more possibilities. Because the absence of closed building blocks it was possible to walk trough blocks to take a short cut to your destination. The inner gardens you had to cross were (semi-) public, so there were no dead ends along the route. The main roads were at the borders of the neighbourhoods, or cut trough it to divide a large neighbourhood into smaller neighbourhoods. The road network was planned radial, from the neighbourhood to the city centre, which is still visible in the public transport lines. Roads were separated from the built up area and

even the traffic flows were separated. This made the main roads and their direct environment to an unpleasant place (Hereijgers & van Velzen, 2001:87). Because of the unpleasant effects of the roads most of them were planned at the edges of the neighbourhood. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together (Lynch, 1960:47). These local road networks were a part of the city scale network, but within the neighbourhood there too are networks that are of large importance for the bigger scale networks. For urban vitality pedestrian areas, bike paths, squares and parks are large importance (Rooij, 2005:257). All these networks should be combined and interconnected in the overall network; for the future of an area it is important to have an integrated position in the urban networks (Stouten & Hulsbergen, 2007:11).

To be able to improve the neighbourhood routing a decent analysis should be done to find out what networks and routes are present. Not only planned visible routes are important, but also the unplanned natural routes. The unpleasantness of the streets should be improved; the boulevard concept could give some possible solutions to achieve that. The post war neighbourhoods are planned for moderate car use, the current car use exceeds this amount by far which had led to another problem. When improving the neighbourhood routing the car deserves special attention because the roads have a bordering effect, but cars are needed to provide the desired mobility for the inhabitants. When facilitating new routing, two urban arrangements could be used; the first offers stability to large extends, it interprets the neighbourhood as a 'gesamtkunstwerk'. This most resembles the planning strategy in the post war period, except the functions were more divided. The second involves the acceptation of dynamics; it aims on creating preconditions for further developments of urban dynamics (Meyer, 1996:381), Mariahoeve most resembles this arrangement. Although for car traffic the first arrangement is needed, unstructured car traffic would lead to dangerous situations, could the second arrangement be used for pedestrians and cyclists.

36

Intervention: Partly demolition for routing
Goal: More space for routing and better views
Source: Osdorp: Complex 50 (Meurs *et al,* 2009:70)
Description: Making holes or passages in a bordering buiiding to create new routes or introduce new lines of sight

37

Intervention: Cycle path to green space or centre
Goal: Improve attractiveness cycling
Source: Nota Mobiliteit (DSO, 2009)
Description: In the coming decade The Hague will increase the bike use with 30% and many other municipalities have comparable goals for cycling in the future. To achieve that bike paths should be made more attractive, well connected, well accessible and comfortable

38

Intervention: Running path through neighbourhood
Goal: Increase social cohesion
Source: Hoograven (Archined, 2009:2)
Description: A collective facility like a recognizable running path trough the neighbourhood will bind it together and gives the neighbourhood a new identity.

5 Design

For the future improvement of Mariahoeve a multi-dimensional approach is used. First the main structure has been researched and improved. Using this large scale approach, the small scale has been taken in account to make the right choices on the regional scale. As a second step the changes are researched and proposed on the smaller scale, these changes involve the centre, the stations and an overall densification of the neighbourhood. As a third layer part of the fifty proposed interventions are applied to the neighbourhood and the effects are evaluated. The results of the internship research (appendix B) of Mariahoeve are used as a base for further design research. The starting point of the design were the recommendations of the internship research which are shown on figure 57.

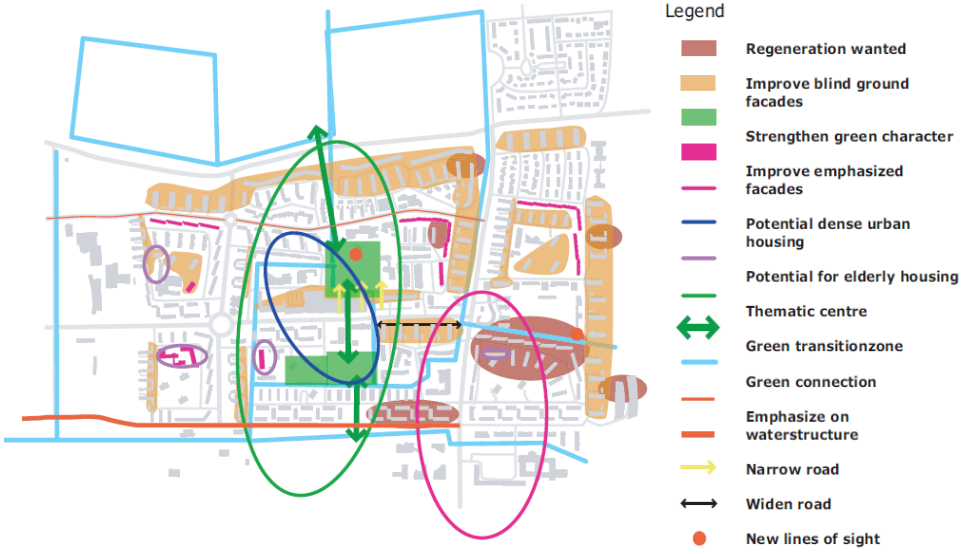


Figure 57: Recommendations internship

5.1 Main structure

The first step of the proposed improvement of Mariahoeve is the evaluation of the main structure. This involves the main structure in the neighbourhood itself as well as the region. On five different levels the main structure has been examined which led to minor and major improvements at the neighbourhoodscale. When the main structure has been decided the design changes at the lower scale could be developed.

5.1.1 Public space

The public space in Mariahoeve has, even for a post war neighbourhood, a pretty green character. Most main roads have a broad profile, and the quarters all have a green core and green surroundings. The neighbourhood itself is also surrounded by green. On one hand the large amount of green public space in the neighbourhood symbolizes a connection with its surrounding, but on the other hand is the use for green public space less because of the green surrounding. As seen in paragraph 4.2.1, the maintenance of the public space became problematic over the past decades and nowadays the use of large amounts of public space has to be reconsidered.

The quarters are all built up out of a green core with the buildings placed in the green field (see figure 58). The buildings being enfolded by green was common during the post war building period, urban designers were afraid to get comparable situations as in the courtyards of pre-war housing blocks (Van der Laan, 2004:26). The chaos formed by small private gardens and sheds alongside the houses, together with the upcoming community spirit, was the reason to place the building blocks in a field of green. Also in line with the trend in its time was the

location of the park; alongside the centre as a green connection with the surroundings (de Hoop *et al*, 2009:28). Because of the low amount of children and the increased number of cars, the quarters are more used by cars than for recreation purposes. The marginal maintenance of the parks adds to this by rejecting recreation because of its appearance.

Figure 58: Current condition of public space

The public space consists of little used green space, alternated by parking places. These parking places are often occupied by company vans which lead to increased attention to this unpleasant public space (van Veen & van de Hulsbeek, 2009:1). For the future development of the public space in Mariahoeve, the changed conditions since the post war period should be taken into account to research the possibilities for a new use of public space. Like in many other post war neighbourhoods (VROM-raad, 2009:11) the use of public space is not in proportion with the amount present. The case study of Zuidwest also brought another interesting fact to light about Mariahoeve, there is practically no public square or arranged meeting place present in the neighbourhood, the neighbourhood centre only has a small internal public space and the quarter centres only have small squares. The central park also lacks a clear meeting point, while in Zuidwest many squares are present (see figure 59 and 60). Even some of the parks function as a 'green' square to improve the possibility to meet neighbours and friends.

Figure 59: Squares in Mariahoeve

Figure 60: Squares in Zuidwest

Within the field of public space as a part of the main structure the spearheads are squares, the parking places and the 'semi' public space around the building blocks. The squares will be emphasized by making clear choices for certain centres. Some of the local centres are untenable because of the economic changes and the focus on the neighbourhood centre. By changing some of the quarter centres to housing and emphasize on other squares by giving the centre a special use, the available squares will become more used and more important. Some of those squares will be enlarged to cope with the rising number of users (see figure 61). The neighbourhood centre also gets a new square which gives emphasis on the function as shopping centre, the cultural facilities and the possibility for a market. The need for parking places will keep on growing in the future, especially when the densification will take place. Although there are currently enough parking places in Mariahoeve (SAC, 2005:7) the new need for parking places gives an opportunity to remove part of the parking places from the public space. With the use of built parking places, double ground use can be achieved and the public place will be more open (figure 62). In paragraph 5.1.4 and 5.2.5 the solutions for parking on neighbourhood level will be explained in a further way.

Figure 61: New squares in Mariahoeve

Figure 62: Use of built parking places

As the third spearhead the semi-public space around the houses is of great importance for the open and spacious layout of Mariahoeve. The current amount of public space is unmaintainable because most inhabitants will not take care of public space that is not theirs. By giving some of the semi-public space to the inhabitant, the maintenance will be less; they will improve it and also have an improved affection for the public space around. Especially in cases of ground bound houses this is well applicable. Clear fencing will have to be placed, so the difference between private, semi-public and public space will become clear, in that case every party will know what is his responsibility (Bijlsma *et al*, 2008:86). To keep the spacious layout at quarter level, it is important that the fencing will be low or transparent, so there will still be a visual connection.

5.1.2 Ecology

As a park city neighbourhood the ecological condition of Mariahoeve is quite good. Especially because it is still located at the border of the city, there is a lot of valuable ecological land around it. At the north side it is bordered by the 'Haagse Bos' a park of large dimensions for a city, at the east side the green agricultural land of the 'Duivenvoordse polder' starts and even the railroad at the south is accompanied by a ecological reserved strip around the ancient river the 'Schenk' (see figure 63).

39

Intervention: (half) Deepened parking
Goal: Remove cars from public space
Source: Parkeren in woonwijken (van Veen & van de Hulsbeek, 2009)
Description: Because of the large numbers of cars in the public space, the space is fragmented. The visual connections are less present and it makes is harder for children to play. With half deepened or deepened parking, the cars are cleared from the public space and optimal use of public space will be possible again. Moreover a double use of the same part of ground is possible

Figure 63: Ecology of Mariahoeve

It is clear that Mariahoeve follows the characteristics of a post war neighbourhood by having a green border (de Hoop *et al*, 2009:32). It also has the internal characteristics with several small parks, one per quarter (see figure 58). These parks are unconnected with other ecological areas and are even bordered by closed buildings. Although the roads have a green character, they still have a broad profile which prevents the green spaces in the current situation of being interrelated. To develop a high quality of public green space within and around the neighbourhood, the independent green areas should be connected and become interdependent. To achieve the high quality ecology, a connection should be made with the nearby ecological main structure (BOOM, 2006:22). Because of the enclosed condition of the quarter parks the only possible improvement, without having to demolish a lot of houses, was to leave them unconnected and just improve the quality to meet the wishes of the current inhabitants. To be able to still make a connection, the current water structure will be used. This is currently barely visible and barely used. Alongside part of the water structure a ecological connection will be made between the 'Haagse Bos' at the north and the 'Schenkstrook' at the south (see figure 64). The water structure will be discussed further in the next paragraph.

Figure 64: New EMS of Mariahoeve

The new part of the Ecological Main Structure in the region will connect the water, green and pedestrian traffic of the two ecological areas. In this new EMS the water and green will get priority above crossing roads, which will cause the roads to be as narrow as possible and use

bridges over the water. Also for recreational purposes the new EMS will be of great importance. Nowadays the neighbourhood parks are barely used, because the inhabitants prefer the larges parks in the surroundings. With this new connection, a new 'green' route is born to go to the parks in the surroundings. The EMS will function as a finger from the external green areas into the neighbourhood.

Figure 65: Current central neighbourhood park

This causes the current central neighbourhood park to have even less use than it had before, and thereby it creates a great opportunity. Because the inhabitants have no need for the park (see figure 65), it can be used for new development with a green and spacious character. With respect for the current green and spacious condition, a new typical Mariahoeve quarter can rise, with a core of three high rise buildings in a green field as seen in figure 66. Paragraphs 5.1.4 and 5.2.5 will go into more detail of this new development.

Figure 66: Development of the park. Left: old situation, Right: New situation

The use of the surrounding ecological areas could also be improved. The sports strip at the west of Mariahoeve also functions as a green border, but lacks a real ecological use. By giving it more emphasis, and improve its connection with the surroundings, the strip can function as a secondary EMS alongside Mariahoeve. Schenkstrook at the south of the neighbourhood could be improved as an ecological and recreational area. The shore of the river can be used as ecological region and accompanied by a bike path to improve recreation. Also the present allotment gardens could be part of this structure and function as a part of the public park (Gemeente Den Haag, 2008a:4). Extra functions in this strip will attract more people to it, so the ecological zone will be of more importance for the neighbourhood.

5.1.2 Water

Even before Mariahoeve was designed, the water played an important role in that region. The river Schenk is one of the only left over signs of the 'Bezuidenhoudse polder' which is the historical basis for Mariahoeve and has its existence since 1403 (REO, 1992:240).

40

Intervention: Connect local green space with larger green areas in the region
Goal: Improve biodiversity and green network
Source: Buitenveldert (Stadsdeel Zuideramstel, 2009:5)
Description: To improve the, often low quality, public ecological space in post war neighbourhoods a connection can be made with the larger parks in the region. This improves the use of the parks and improves the biodiversity in both the parks

Because the removal of the polder was no possibility, an internal network of ditches was needed to be able to build Mariahoeve as seen in figure 67 (van der Sluijs, 1989:97). Since water was still seen as a hazard without important spatial added value, the present ditches are hidden and do not play an important role in the urban layout. Nowadays the qualities of water in the neighbourhood are more valued than ever and the need for water storage in the neighbourhood is comprehended.

Figure 67: Current water structure in Mariahoeve

As discussed in the previous paragraph, part of the water structure will be used for the EMS. This changes the use of the water and therefore its layout. When crossing a road a bridge will be used instead of the current construction with a culvert to cross a road. This gives more emphasis on the water and enlarges the storage in a minor way. Because of the growing amount of rain per year and the large surface that is hardened in neighbourhoods, many neighbourhoods will have to create extra water storage to prevent flooding. For Mariahoeve this is a task to create 12.120 m^3 for the current situation (Gemeente Den Haag, 2006:37) and up to 16.000 m^3 for the future (Groot & Herlé, 2008:53).With the redesign of the water main structure of Mariahoeve, it should be taken in account that a possibility has to be created to

store this water. Although there are other ways to decrease the need for water storage (PBL, 2009a:63) spatial solutions are by far the most thorough. A choice can be made between creating new water storage, deepen the current water and use the surrounding of water as temporary retention area. Since deepening will only help temporary and the use of retention area costs a lot of space plus both measurements do not expand the network, creating new water storage is by far the best option. This is if there is room for an intervention like this. Because of new possibilities along the Vlaskamp/Diamanthorst (see next paragraph) room is created for a new canal inspired by one of the case studies; Zuidwest. In Zuidwest the canals are spacious and a structural element in the urban layout of the neighbourhood (see figure 68).

Figure 68: Spacious cannel in Zuidwest

While introducing this element in Mariahoeve the emphasis will shift from infrastructure to water which is a great benefit for the surroundings of the new canal. Because the road is bended on some parts, the canal bends with the road and is not completely straight, in contrary to its example in Zuidwest. Because it is not straight is fits better in the Mariahoeve context and completes the present water structure (see figure 69). The new canal provides an extra water storage of 40.000m³ which is a lot more than the needed 16.000m³. If in the future still more water storage will be needed, around the fire station, British school, the Schenk or the Landscheidingsweg are possibilities for water retention (Gemeente Den Haag, 2006:35), but it seems unlikely that this would still be needed with the proposed expansion of the water network.

Figure 69: New water structure for Mariahoeve

41

Intervention: Green roofs
Goal: Improve water discharge
Source: Bouwen en openbare ruimte 07/08 (Boelee, 2010:61)
Description: Grass or other plantation on roofs has many benefits. It is a cheap way for insulation, gives a more pleasant view from surrounding high rise, adds to the ecosystem and most importantly slows down the need for water discharge. Because the green roof keeps the water for some time, the peak load on the sewer is spread out more, which will decrease the risk of sewage flooding

42

Intervention: Canals as structural element
Goal: Improve water storage
Source: Den Haag Zuidwest
Description: In case of wide roads a part of the road area could be used as a canal. This improves the water storage in a great way and is an interesting structuring element in the urban context as well

5.1.3 Infrastructure

Momentarily infrastructure plays the most important role in the urban layout of Mariahoeve. The neighbourhood is bordered and divided by main roads with a broad profile. The north, east and south side of the neighbourhood is bordered by important roads in the the Hague infrastructure. Also the dividing road along the station, the Hofzichtlaan, is an important part of the regional infrastructure. The main trainstation, city centre, highway, beach and nearby shopping centre are accessible by these roads as seen in figure 70.

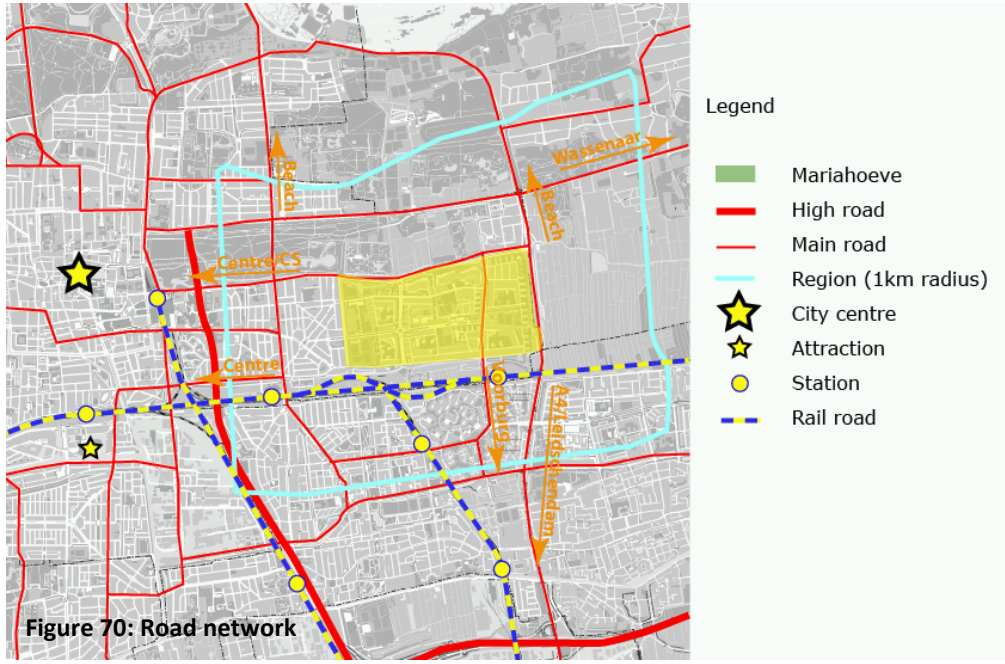


Figure 70: Road network

It is logical that these roads have a broad profile, but remarkable are the dimensions of the internal roads the Reigersbergenweg, Vlaskamp/Diamanthorst and Het kleine Loo (seen in orange in figure 71). These three roads are completely out of proportion with their use load. The reason for this disproportion could be found in failed regional plans. In 1962 the idea rose to connect Scheveningen with Zoetermeer trough the Reigersbergenweg in Mariahoeve (van der Sluijs, 1989:101). To anticipate on these ideas the Reigerbergenweg got an extremely broad profile for a local road and the roads that crossed the road also became broader than actually needed. Only the Kleine Loo had acomplementary reason to have a broad profile; this was the central road where a tram line was planned (van der Sluijs, 1989:96).

Figure 71: Current infrastructural network

The local quarter infrastructure is quite contradictory to the main roads; the internal network has been kept as marginal as possible, with little connections to the main roads (de Boer, 1987). Where the main roads are meant for car traffic, the pedestrians and cyclists were supposed to have the upper hand in the quarters. Mariahoeve, which according to Bijlsma *et al* is part of the heterogeneous post war neighbourhoods (2008), also acts like one. The ecological network is independent from the infrastructural network, but with its green layout it seems that the infrastructural network is part of the ecological network. Still long lines, like along roads, are crucial for a sufficient experience of the present ecology (VROM, 2006:4). So it could be interesting to make clear where the infrastructure crosses the ecology and to let the infrastructure keep its green character and function as some kind of sub-ecological network. To be able to do that, the car traffic should be pushed back to a minimal, so an intervention in the current situation is needed.

Figure 72: Changes in road network

Of old, infrastructural interventions were have been leading for urban changes (Meurs, 2000:135), in the case of Mariahoeve this is also well applicable. Although the main route network will stay intact, some of the roads will get a new use (see figure 72). The Reigersbergenweg will get a smaller profile so there will be more room for densification. To keep the large number or trees around the road intact, the road will be relocated a little as well. The Diamanthorst/Vlaskamp will get a smaller profile as well and will make room for the proposed canal of the previous paragraph. The road will function as a local road with corresponding maximum speed and layout. The Kleine Loo will not be changed because of the use of the tram, but the use of the road will be discouraged by making it a local road as well. The continual traffic will be forced to choose one of the outer main roads which will decrease the nuisance and bordering effects of the roads within the neighbourhoods. Although the Hofzichtlaan already is an important road, it will become the main road of Mariahoeve with the centre and station alongside of it and corresponding buildings. These interventions lead to a completely new hierarchy with crowded roads at the outside and quiet roads at the inside of the neighbourhood (figure 73) which also meets the city's policy (Gemeente Den Haag, 2009a:17)

To improve the quarter infrastructural network, every quarter gets preferably two exits to the main roads. This will discourage the use of the quarter roads and will encourage cycling and walking. To be able to do this some exits will be closed, but also some extra will be added because some quarters only had one entrance, which can be of great trouble in case of an accident or building activities (figure 72). Also the use of T-crossings will be encouraged because it improves the safety in the quarters (Alleman *et al*, 2005:10).

Figure 73: New road network

Another important change in the infrastructural main structure is the introduction of a bike network (see figure 74). This will encourage cycling which both adds to a sustainable environment (BOOM, 2006:41) and is part of the city's policy (Gemeente Den Haag, 2009a:17) where a 50% growth of bike use is the ambition. Because of the vicinity of the city centre, the Bezuidenhoutse weg already is the most used bike path of The Hague with 2309 only in the morning rush (Gemeente Den Haag, 2007b:12). A new network which connects to this path, would be an great way for Mariahoeve to step forward as a green and pleasant neighbourhood. When cyclists are enouraged to cycle through the neighbourhood, it will gain a better reputation and identity. Also for the people in the neighbourhood itself it is a great encouragement to take the bike when they see a well functioning bike network. The new network will consist of two routes; a green route, which goes along the nice ecological parts and follows the EMS and a safe route which is fast and well lit. The green route connects the most important destinations in the neighbourhood with the Haagse bos which will facilitate a green route to the city centre. Also a new route to the Duivenvoordse polder will be introduced. The safe route is fast and connects the destinations in the neighbourhood in a faster and better lit way than the green route. Both routes will be recognizable by the colour of the asphalt and the signs along the route as seen in figure 75.

Figure 74: Bike network

Figure 75: Coloured bike path

The current public transport network functions quite well. There is sufficient coverage (figure 76) and with the station as future Stedenbaan station, the number of passengers will only grow. Still the station is a little hidden, so this can be improved to make it a real part of the neighbourhood (see paragraph 5.2.2). The tram will keep the same track, but a future improvement could be to introduce a RanstadRail at that track. Because the vehicles are more spacious and it is possible to take your bike into the tram, this could be a large improvement.

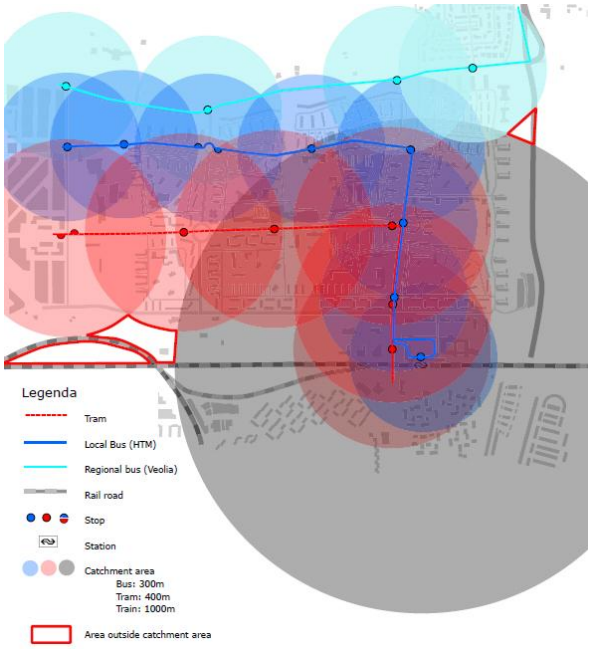


Figure 76: Public transport coverage

43

Intervention: Bundling traffic on main routes
Goal: Less traffic on neighbourhood roads
Source: Nota Mobiliteit (Gemeente Den Haag, 2009a)
Description: Lead continuing traffic trough main roads so the local roads will be kept more quit and with less nuisance of sound and pollution

44

Intervention: Fit in a new small-scale network
Goal: Improve neighbourhood network
Source: Osdorp (Bijlsma et al, 2008:86)
Description: When the use of the local neighbourhood network is outdated a new network could be an interesting way

45

Intervention: Motivate cycling
Goal: Improve health of inhabitants
Source: Nota Mobiliteit (Gemeente Den Haag, 2009a)
Description: Improve the cycling infrastructure by marking and creating new routes and add bridges and tunnels to cross hard borders

5.1.4 Quarters

Mariahoeve is divided is several quarters. For the neighbourhood analysis for the internship research (found in Appendix B) the neighbourhood is divided in three quarters; Kampen, Burgen en Horsten and Landen (see figure 77).

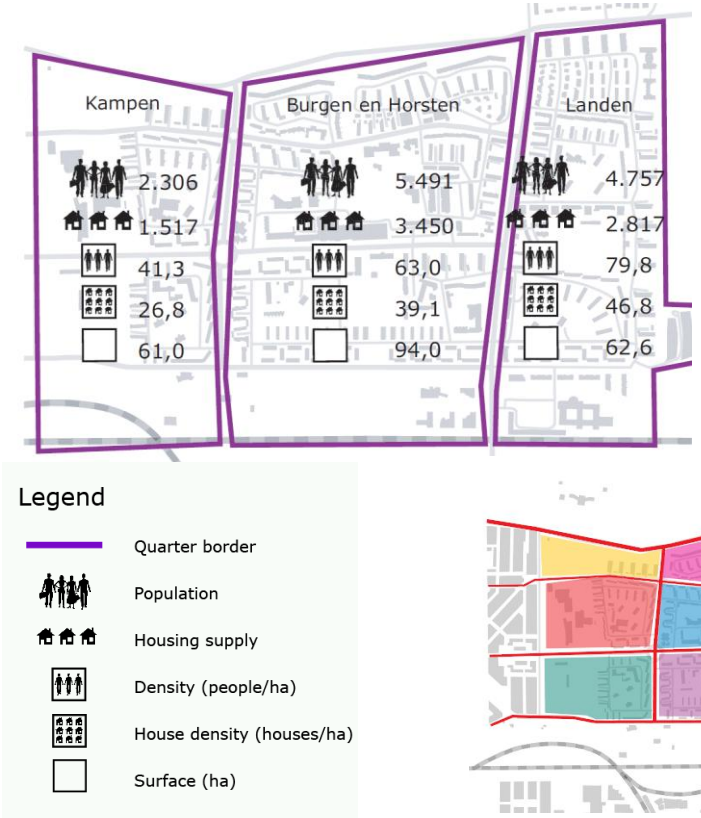


Figure 77: Quarters with their numbers

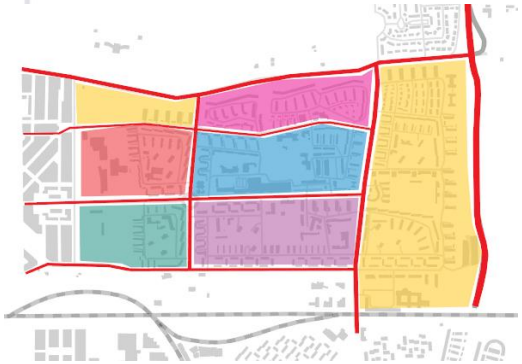


Figure 78: Current situation of spatial quarters

Figure 79: Typical buildings

Figure 80: Typical buildings in new situation

But the quarters that are important for the urban layout are smaller, their spatial units are divided by the main roads and are all built up according to the principal of high borders, high cores and low in between area (figure 78 and 79). This setup causes the quarter to be more quiet and clean, because the nuisance of the external roads is shielded by the high borders (BOOM, 2006:45). The same principles are used for the new additions, as seen in figure 80. The quarters were designed as self-sufficient units with own shops and schools. Nowadays there is no more use for local shops and schools, so the shops were neglected and the schools got a regional or no function (Röwekamp *et al*, 2009:7). Because of the development of the neighbourhood centre, the quarter centres became less interesting and many shop owners quit their business. To revitalize the facility level in the neighbourhood, some of the centres will be improved and others will disappear to make room for housing (like discussed in paragraph 5.1.1). The schools also lost their local use, so some of the schools could be expanded as

regional schools while others can make room for new houses or office space for small companies. To improve the local shopping centres the schools can be used, for instance the British school attracts a lot of expats (Gemeente Den Haag, 2008b:34) who have special shopping demands. Because of that the shopping centre near the British school will expand (as seen in figure 81) to make room for more specialized shops and international oriented offices. Only the local centre in Landen north will be maintained as it is, the others will be used for new housing or small offices.

Figure 81: New centres

The road network in the quarters is marginal, although the car plays an important role in the public space. There are many garages and cars parked along the street or on parking fields. The quarters are not meant for continuing traffic (de Boer, 1987) but with some minor interventions the neighbourhoods can even be friendlier for inhabitants, pedestrians and cyclists. Like the wishes of the municipality to have more space and quietness and less cars on the streets (Gemeente Den Haag, 2009:19). For instance the way of parking influences the urban layout as well as the health of the inhabitants. With parallel parking less cars can be parked, but research shows it also improves the health of children living in the neighbourhood because they walk more (de Vries, 2009). With the use of compact building and underground parking, the quarter cores can remain green and spacious while the housing quality improves. In the densification paragraph (5.2.5) this will be elaborated and made visual.

46

Intervention: Adding end buildings

Goal: Densification without loss of structure

Source: Transformatie van woonwijken (Bijlsma et al, 2008:86)

Description: Adding new buildings to the ends of other buildings can be an easy way to densify. Often there are little or no windows in the end of a building block and by adding a new building to it the urban structure stay comparable, but the density increases

To meet the wishes of the municipality of The Hague to grow 32.500 inhabitants in the coming decade (Gemeente Den Haag, 2005:7) ways should be found to expand or densify. Divided trough the share of surface Mariahoeve has compared to The Hague as a whole, Mariahoeve should accommodate an additional 1.250 inhabitants. (Total growth/(Surface The Hague/surface Mariahoeve)=32.500/(8065/310)=1.250)(Source figures: DHIC, 2009). To achieve this, first possible expansion areas were examined as seen on figure 82. Some of these 'new' quarters are unwanted because of the value of the land. For instance the north quarters in Marlot/Reigersbergen are a protected city sight (Gemeente Den Haag, 2005:16). Although Dudok wanted to expand in that direction, and build next to the royal palace, van der Sluis also did not want to build there because of the value of the area and the lack of need for it (de Boer, 1987). Only the expansion at the east side of the Landscheidingsweg could be an interesting option, momentarily it is empty grassland with allotment gardens. Because it is near to the station, this area becomes even more interesting. But because of the spacious setup of Mariahoeve it is quite easy to accommodate the complete growth as densification, so an expansion will not be needed and the surrounding land can remain green. If in the future again comes the need to expand, than the Duivenvoordse polder certainly will be an interesting opportunity to expand.

Figure 82: Expansion possibilities

5.2 Local changes

With the major changes made because of the main structure interventions, room is made to change things in a local level. These changes also involve changes with a large spin-off, but still they are filed under the 'local changes' chapter because the intervention only takes place on one location. Because the local nature of these interventions they can be developed in different stages, this constant change is what makes a city interesting (VROM-raad, 2009b:9).

The principles of van der Sluijs to design Mariahoeve are revaluated and translated to modern times to have well founded guidelines for the local changes and intervein with respect for the historical context. These principles are:

1. Mixed housing on quarter level
2. High borders, high core and low in-between area per quarter
3. Use high rise to gain more space on ground level
4. Free composition of buildings in green
5. Quarters and centre are meant for slow traffic
6. Centre should have an open setup
7. Building strips are placed alternated

5.2.1 Centre

For every neighbourhood the centre is one of the most important parts. It is where everyone meets while doing their daily shopping and where appointments are made (WSA, 2005:12). For people from outside the neighbourhood, the centre also often is the place they know, because over there the interesting shops and cultural facilities are found. Unfortunately the above statements do not count for Mariahoeve. Although it is the place where people meet, it is not the centre with the allure that you expect for a decent neighbourhood like Mariahoeve (de Boer, 1987:120). Because some problems during the development of the centre, most interesting shops are now located in Leidschenhage (see figure 83) and Mariahoeve only has some small local shops and supermarkets.

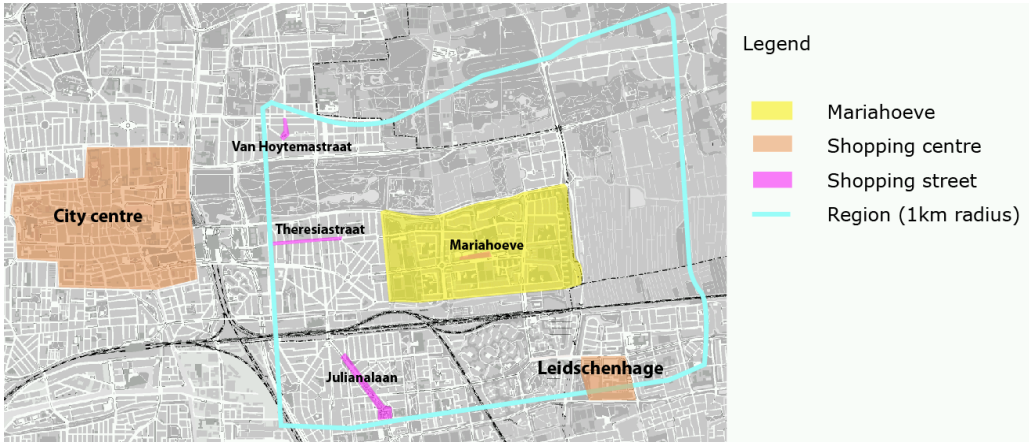


Figure 83: Centre and other centres

In the case of Mariahoeve it went even more wrong. The current centre ran completely counter to the plans and ideas for the centre of van der Sluijs. He projected the centre on both sides of the road (van der Sluijs, 1989:97) and it should have had an open setup (Steenhuis & Meurs, 2005:11). This is completely contrary to the current setup on one side of the road, with a completely internal orientation and blind ground facades (see figure 84). Van der Sluijs also wanted the neighbourhoods and centres as car-free as possible (Steenhuis & Meurs, 2005:7), this is also completely neglected in the current design, the first years of the centre it was even possible to drive through it by car. Currently the centre looks like a large parking place from the outside; with large parking courts at the back side and on the roof (figure 86)

Figure 84: Outside of centre

Figure 85: Centre in 1968 (Source: Valentijn *et al,* 2002:195)

Figure 86: Parking places behind centre

Despite the negative sides on the current setup of the centre it functions quite well. There is a suffient amount of shops present and it is well accessible. Also it has two supermarkets which caused a lot of competition with the other smaller centres in Mariahoeve (de Boer, 1987:118). Nowadays that competition is won by the neighbourhood centre and most of the quarter centres will disappear. So the centre functions well, but does not fit in the urban structure and lacks allure. And even a number of important functions are still missing; for instance a place for a market, a square to meet, an outside terrace and cultural facilities. These functions are all lacking in the current situation. Also the park is suffering from the current centre; it is closed from the road

by it and only the centres back side faces the park. Altogether enough reason for a large scale intervention to improve the centre.

Figure 87: Current situation

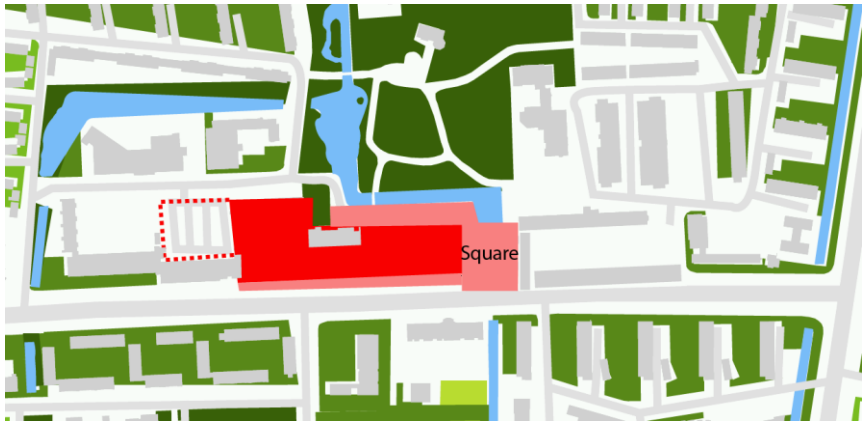


Figure 88: Proposition of municipality

For the redevelopment of the centre two variants were the most interesting. These are to resore the connection with the outside world and a more thorough one where the centre will be replaced. First the one with the restored connection; in this plan the connection with the park will be restored by removing the bridge and replacing it with a square. The shops will remain foccused internally, but the outer facades are more opened up (see figure 88)

Momentarily the plans of the municipality also resemble these principles. The intervention is quite small and especially focusses on the visual improvements. The centre is still not open, not extravert and still lacks cultural facilities. Also it misses the connection with other important facilities in the vicinity; for instance the station, which is added later and is a new centre of gravity for the neighbourhood. This brings us to the second option where the replacement of the centre creates completely new opportunities. The buildings east of the centre are momentarily barely used and are open for replacement. When using that free space to shift the centre to the Hofzichtlaan, a new hierarchy is empasized. Taking in account the density, the future densification (paragraph 5.2.5) and the importance of the station the neighbourhood centre should be more east. This brings us to a great new opportunity; a connection with the station. Having a connection with the station, it wil improve the use and atractiveness of the centre because travellers will be seduced to do their shopping at the centre. The location along the Hofzichtlaan also provides more allure for the neighbourhood because now the centre is visible for continuing traffic (figure 90). Of course the accesibility improves as well since it is situated along a main road.

Figure 89: New plan 2D

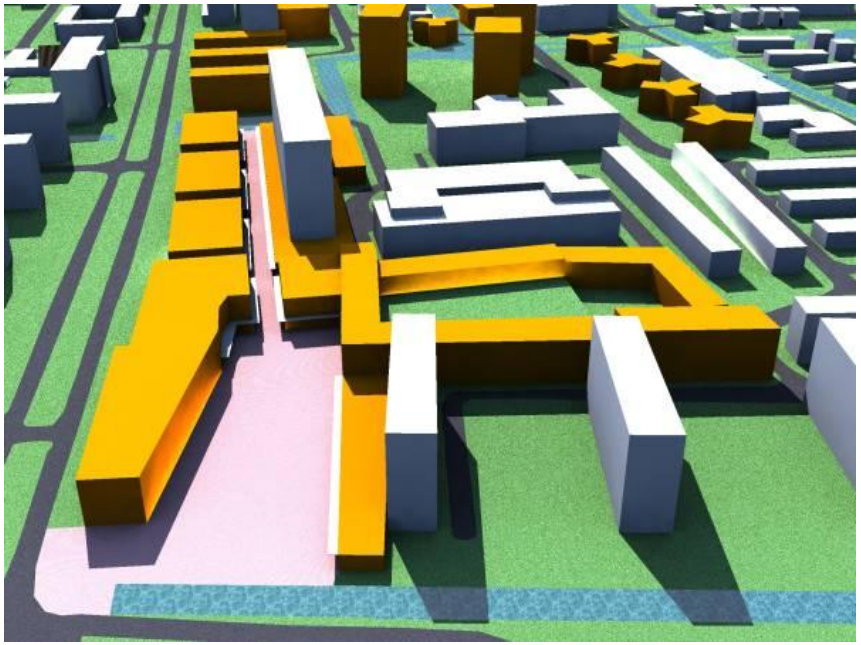


Figure 90: New plan from the Hofzichtlaan

For the new centre a high level of mixed functions will be introduced. Shops, as well as offices, cultural facilities and housing will be combined, which will increase attractiveness and reduce the mobility (PBL, 2009b). The current high rise housing will be maintained and shops will be added at ground level, this removes the blind ground floor facades. At the back where expedition is needed housing shields the blind facades from the road (figure 91). Along the high rise along the Hofzichtlaan a new large scale supermarket is planned. The large scale supermarket has a sub-regional function thus attracts people from the region and from the station to Mariahoeve (figure 92). With this function the centre can also compete with the nearby centre Leidschenhage because it offers other facilities and is closer to the station. The increase of traffic can be easily coped with because it is along the Hofzichtlaan and the entrances of the parking garage can be located along the Kleine Loo. On top of the supermarket new housing could be realized, like is done in Almere and shown in figure 93.

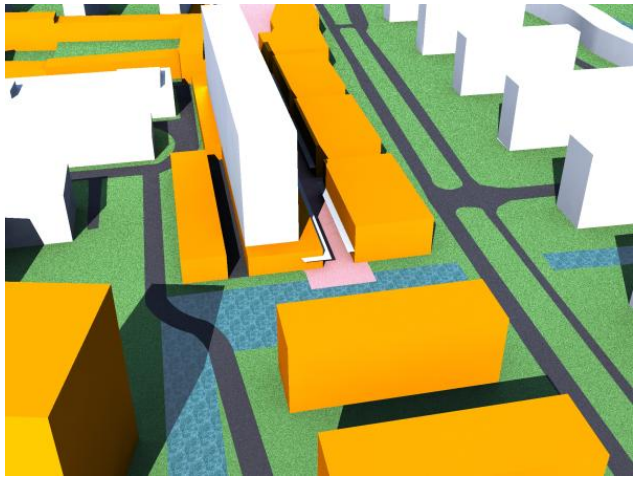


Figure 91: Housing along blind facades

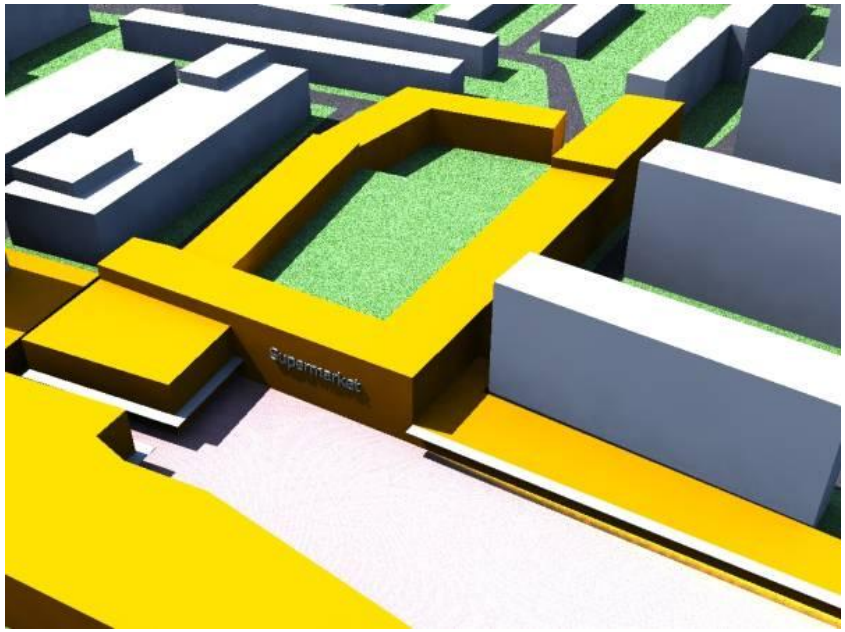


Figure 92: New supermarket

Figure 93: Housing on roof (Almere)

At the corner of the Hofzichtlaan and the Kleine Loo a square will be placed for markets, terraces and other neighbourhood activities. At the station side of the square a cultural centre will arise with room for studios, galleries theater and a cinema. This cultural centre will meet the needs of the region (Gemeente Den Haag, 2005:10) and will be a landmark that connects the centre to the station (figure 94). Next to the cultural centre three identical units will be the optimum of mixed use. At one side it will be a shop along the shopping street, along the Kleine Loo it will be office space and above the shops, offices and internal expedition, houses will be located (figure 95).

Figure 94: View from Hofzichtlaan

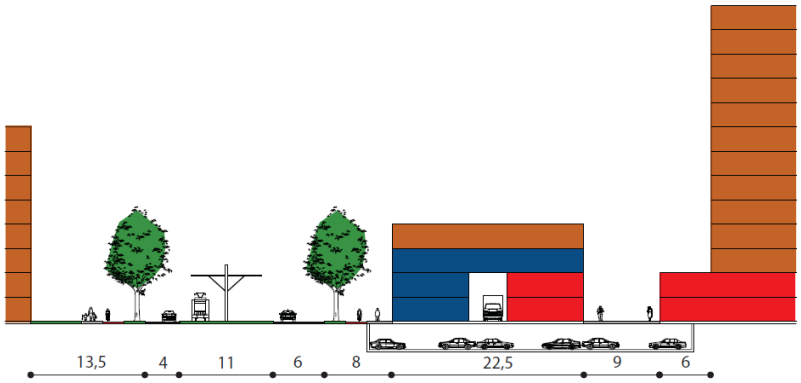


Figure 95: Section at centre

To maintain sufficient routing for the cyclists and pedestrians a connection trough the centre is made and other smaller connections will be present as well. At the end of the shopping street a small terrace square will be placed along the ecological qualities of the park and water structure. The new centre has an improved location without devaluating the current urban concept, has improved functions and the replacement also makes room for a whole area of new housing possibilities facing the park. All parking needs will be accomodated by a underground parking garage with room for 540 cars (figure 96).

47

Intervention: Central concentration
Goal: Combine different functions in the centre
Source: Buitenveldert (Stadsdeel Zuideramstel, 2009:7)
Description: By combining various shopping functions, offices, ecology and housing in the centre an urban living environment it becomes an interesting hub that is attractive for the surrounding houses and sufficient public transport

Figure 96: Parking garage

5.2.2 Station

The Mariahoeve station is built in 1966 and has been apart from the neighbourhood ever since (de Boer, 1987:118). It is situated inside and along the Aegon builing and is not visible from the street. Despite its worth for Mariahoeve it never showed its worth. It is part of the office strip that is situated in the Schenkzone which is the link between Voorburg and Mariahoeve. Although the station is called Mariahoeve, the Voorburg entrance looks more like the main entrance because the entrance at the Mariahoeve side is hidden underneath the office builing (figure 97).

Figure 97: Entrance station

Figure 98: Bridge as landmark

Making the station more visible could mean a new landmark for the neighbourhood and even a real entrance to Mariahoeve. Since Mariahoeve lacks recognizability by the continuing traffic it would be interesting to use the railway-bridge over the Hofzichtlaan as an entrance landmark (figure 98). Because of the current form of the building the station is situated in, it is hard to open up the station towards the road (figure 99). In different variants possible station locations were researched, but since the current location seemed the most practical, a way is found to improve the current situation.

Figure 99: Current situation station area

By demolishing part of the office building the station square becomes visible from the road. When a recognizable entrance building is added the whole will be recognizable as a station and since it opened up towards Mariahoeve it will be able to become part of it (figure 100). The visual connection with the centre adds to this in a great way. The new station will use the same entrance, but with an entrance building in front of it, it will introduce a square for meeting, making appointments and to complete the station as a recognizable part of the neighbourhood (figure 101). New housing can be added facing the station. Corresponding to the urban athmosphere summoned by the station the housing will be dense, but part of it will be low to be able to have the visual connection with the station.

Figure 100: Station new situation

Figure 101: New station entrance

5.2.3 Park

Currently the central neighbourhood park ‘De Horst’ is probably the least used part of Mariahoeve. Because of the large quality green spaces around the neighbourhood and the small park in every quarter, there is little need for a neighbourhood park. The park is closed in by backsides of buildings and therefore even hard to find (figure 102). Because its meaningless position in the neighbourhood, it is badly maintained which discourages the use even more (figure 103). An intervention is definitely needed in this case, the shifted centre already helped to open it up but that is not sufficient to revive it.

Figure 102: Park current situation

Figure 103: Bad condition

The choice has to be made what is the value of the park. Will it be improved by opening it up towards the roads and improving the ecological worth (the municipalities view) or will the lack of meaning for the neighbourhood be accepted? In this design the lack of use is accepted and a more interesting destination has been sought. According to the VROM-raad a blend of red and green could create daring solutions for improvement of the public space (2009a:14). That is what is proposed to improve the park. Currently there are five neighbourhoods with a typical Mariahoeve setup (figure 79) of three high rise towers in a central green field. This gives a great chance for the park; by accepting the little value of the current park and making it a high quality quarter park, a typical sixth Mariahoeve neighbourhood is born (figure 104). In this way densification is made possible without creating a dense area and the neglected park is upgraded to a vivid quarter park that functions as a pocket park.

Figure 104: New park

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Intervention: Building on attractive locations
Goal: Use attractive locations for new developments
Source: Buitenveldert (Stadsdeel Zuideramstel, 2009:7)
Description: By building on attractive locations with car, there will be more people with the ability to enjoy the beauty of the location and the new buildings will attract others as well. As long as it is implemented with respect for its surrounding it could give a hidden attractive location the attention it deserves

Now every quarter has its own core with high rise and the new houses added are located in a perfect environment of green space and next to the centre. The EMS goes along the park, so it can be of high ecological value and still be enjoyed by many people living in it. The additional buildings along the park are a link to the Swedish background of the design of the neighbourhood. This kind of housing was once planned along the Catharinaland (figure 106) but could not be built because of the economic cut downs.

Figure 105: New park 3D

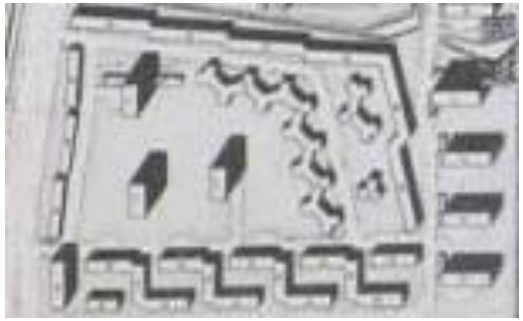

Figure 106: Star shaped housing in 1953 Mariahoeve plan

5.2.4 Main roads

As seen in the infrastructure paragraph some of the roads changed from main road to local road (green) or from main road to urban road (purple) (figure 107). In this paragraph the changes per road will be discussed. There has been an explosive growth of car ownership, which has multiplied fifteen times since 1960 (van Schooten, 2009). Because of this growth it was hard to predict what kind of infrastructural system would be needed. Nowadays it is clear that most of the roads in Mariahoeve are wide enough, and that they are often even too wide.

Figure 107: Infrastructural changes

Reigersbergenweg

Because of the future connection of the Reigersbergenweg with Zoetermeer and Scheveningen, the road got a very wide profile. Nowadays it is clear the connection will not be realized and the road is just an extremely wide local road. Because of that it can have a very green and spacious character which is valued by the inhabitants of Mariahoeve. Since densification is a great way to meet the task of new housing, the broad profile of the Reigersbergenweg could be easily used to fulfil part of this task (figure 108). To maintain the most of the current trees and thus the green character of the road, the road will be replaced a little to the west. This action creates a broad strip which can be used for new development.

Figure 108: Reigersbergenweg

In the strip new housing will be added at the end of the current low rise rows which are placed perpendicular to the Reigersbergenweg. Because of the sun and shadow, van der Sluijs planned low rise at the west side of every quarter, by adding new houses at the edge of this a slightly higher edge and thus a little more shade will be introduced. But this will remain minimal (figure 109) and will be largely compensated by the adding of new houses.

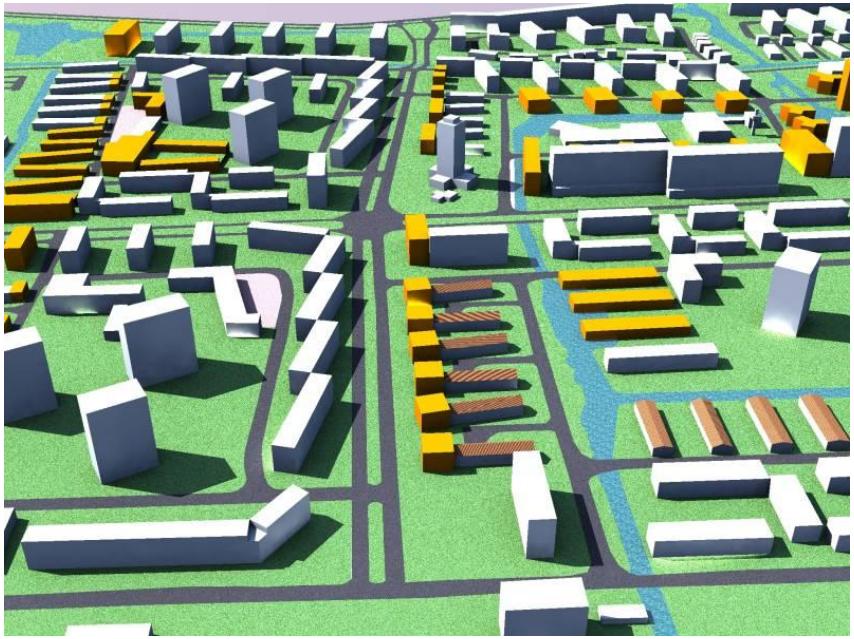

Figure 109: New development along Reigerbergenweg

At the south part square, four storey blocks will be added at the end of the row houses. The flat will be finished with a perpendicular placed six storey flat to connect it to the hook building forms west of it. North of the Kleine Loo two rows of four storey gallery apartments will be added, followed by three small towers with four storeys.

Figure 110: New situation

Figure 111: Section new Reigersbergenweg

Vlaskamp

Perpendicular to the Reigersbergenweg lays the Diamanthorst which later goes on as the Vlaskamp (the complete road is mentioned as the Vlaskamp in this paragraph). As discussed in the water paragraph 5.1.2, the road is currently way too broad (figure 112) and could be narrowed to make room for a new canal. To be able to this, the road will have to be replaced a little so a canal will fit next to it (figure 113).

Figure 112: Vlaskamp

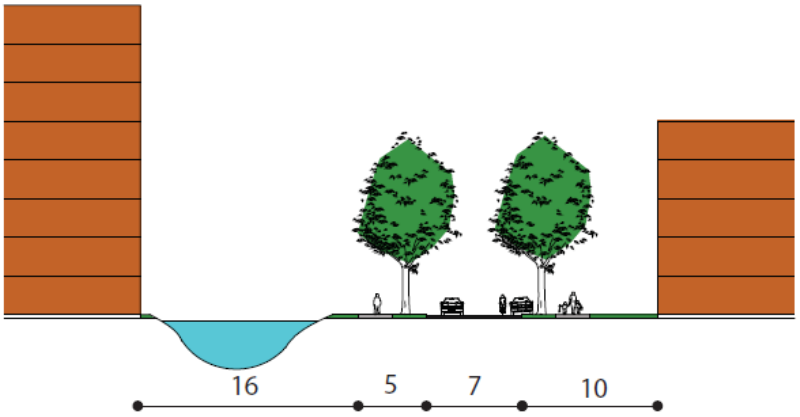

Figure 113: Vlaskamp section

To emphasize the canal the crossings over the water will be done using a bridge instead of a culvert. By making the road narrower on the one hand it will become less of a border between the quarters north and the quarters south of the canal, but because of the canal even a harder border returns (figure 114). So enough crossings will be crucial, but the canal will add much value to the road which is a lot more important than the minor disadvantage of the bigger border.

Figure 113: Vlaskamp new situation 3D

Figure 114: Vlaskamp new situation 2D

Kleine Loo

The Kleine Loo goes perpendicular to the Reigersbergenweg and the Hofzichtlaan and goes central through the neighbourhood (figure 114). As central road it only goes along the centre and a church and it had has a dead end at the Hofzichtlaan, so the importance of the road is marginal, especially when the centre will be shifted towards the Hofzichtlaan.

Figure 115: Het Kleine Loo

Although the road is of little importance for car traffic, it is of major importance for public transport because the tram runs over it. In the new situation the layout of the road will remain comparable, only the tram and the road separation will get a more green character (figure 116).

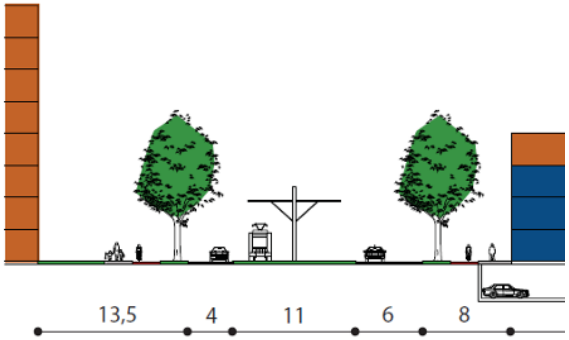

Figure 116: Het Kleine Loo section new situation

The building along the Kleine Loo will especially change at the central area where the centre was situated. Over there the former centre area will be used for new housing. The current high rise will remain intact and where the centre had been localized, six storey housing will be placed perpendicular to the road so the park will become visible from the road (figure 117). Although the road should become less crowded because of the shifted centre, it will stay mildly crowded because the entrance of the parking garage will be alongside the road.

Figure 117: Het Kleine Loo new situation

Hofzichtlaan

The Hofzichtlaan will undergo a major change of meaning. Currently it is a boring road through Mariahoeve with backsides facing it and a green character (figure 118 and 119). Most of the continuing traffic uses the road and therefore will have a boring impression of the neighbourhood. The future developments will change this drastically and turn it into an urban boulevard which will give Mariahoeve a vivid identity, this is in line with the policy of the municipality to bundle car traffic on main roads (Gemeente Den Haag, 2009:17).

Figure 118: Hofzichtlaan

The Hofzichtlaan connects the new opened up station with the new shifted centre and therefore becomes the most important road of Mariahoeve. It will provide Mariahoeve its identity for outsiders, because it is an important connection with Leidschendam and Voorburg, and the other important roads, the Bezuidenhoutseweg and the Landscheidingsweg, have a green buffer zone between Mariahoeve and the road. Especially the part between the station and the centre calls for a higher density than the rest of the neighbourhood. Therefore

Figure 119: Hofzichtlaan old and new situation

the Hofzichtlaan and the low rise at the Catharinaland quarter will be replaced by five storey apartment buildings (figure 120).

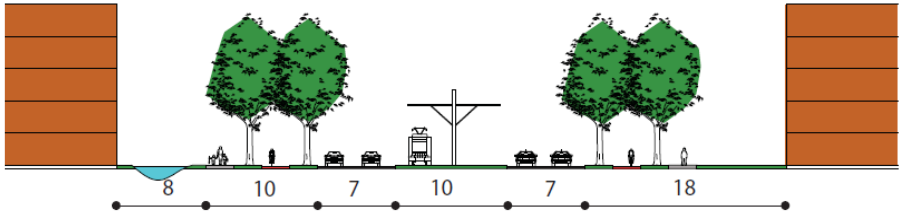

Figure 120: Hofzichtlaan section

Facing the centre also a small office building will be replaced by a five storey building and another five storey building will be added next to it. Further on the perpendicular placed low rise blocks will be ended by rows of four storey apartments to maintain the urban boulevard profile (figure 119 and 121).

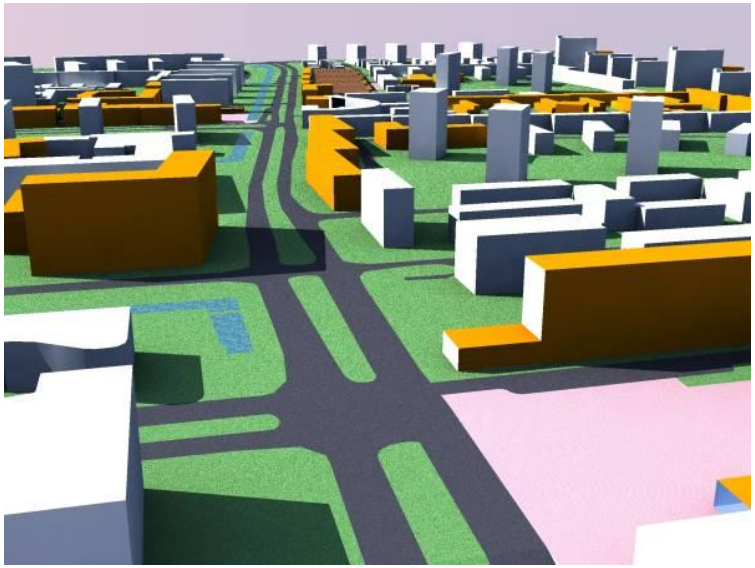

Figure 121: Hofzichtlaan new situation 3D

5.2.5 Densification

As seen in paragraph 5.1.4, the choice is made to use densification to give the city the ability to grow. The reason for this densification is not only the task from the municipality, but even more the improvement of the neighbourhood. Since the last few years the neighbourhood came in decline, and interventions are needed to prevent the neighbourhood to become deprived (see figure 122). When action will be taken now, Mariahoeve can still be a liveable neighbourhood. To prevent the deprivation from happening, densification could be a suitable solution. Because of the decrease of population caused by the decrease of people per household (as discussed in paragraph 4.2.4), the bearing surface for facilities and public transport are still dropping. Moreover the current housing stock is below average, which attracts low income households who can cause problems when being concentrated (paragraph 4.1.5). Since gentrification is not a suitable solution for post war neighbourhoods (Bakker, 2009), other ways for improvement should be found (see paragraph 4.2.3). When adding high quality housing to the neighbourhood the bearing surface for facilities will rise, and the current number of low income household will be acceptable because they will not get the upper hand.

By making a choice against gentrification but in favour of densification, a slow transformation will be introduced which will add a new historical layer instead of demolishing one (Meurs, 2006:2). This densification can respect the

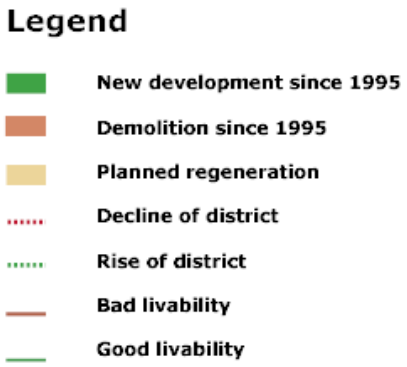

Figure 122: Decreasing liveability

current urban context and be an addition to this, like the transformation of the park in paragraph 5.2.3. The spacious post war structure can be used to add buildings in the existing rhythm and according to the current principles (Bijlsma *et al*, 2008:26). It is a challenge to do this according to the current demands of sufficient parking space, high quality cascaded housing, social mixing and safety, while conserving the current structure (Meurs *et al*, 2009:13).

Isabellaland/Catharinaland

This is used to realize a new quarter at the current location of a school and a deserted soccer club between the Isabellaland and the Van der Sluijsplantsoen. The new quarter, in which the school had to be replaced, followed the same principles as other Mariahoeve quarters. It is bordered by an alternating wall, has a low in-between area and a high core that is positioned as a free composition to get more green space on ground level, like proposed in paragraph 5.2 (see figure 123 and 124)

Figure 123: Isabellaland current situation

Figure 124: Isabellaland new situation

This quarter will also follow the principle of mixed housing at quarter level, the low houses will be spacious single family houses and the 'high' apartment blocks will consist of luxurious apartments. The alternating wall will be meant for smaller apartments with ground bound houses with a garden at ground level, Thus various housing types will be combined throughout the quarter (see figure 125).

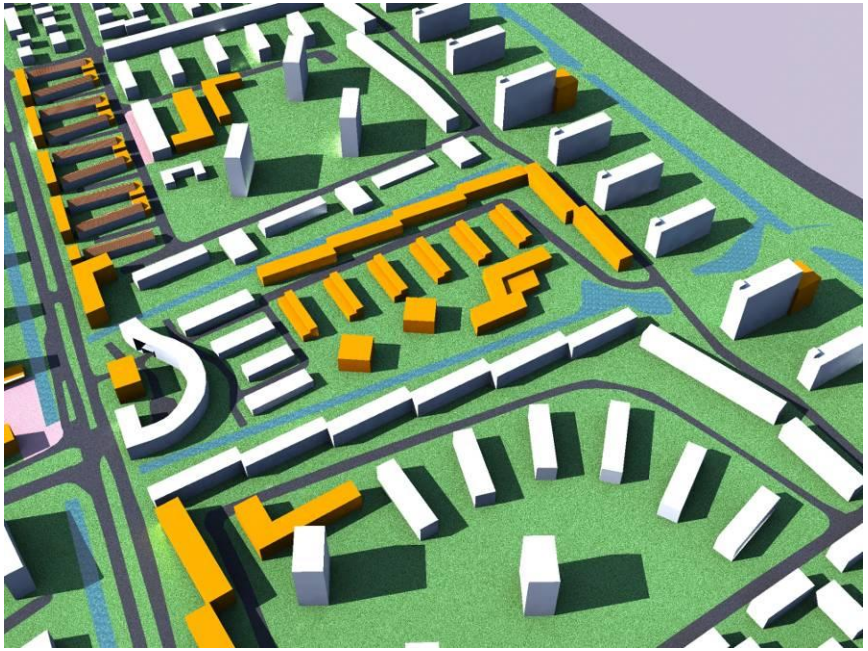

Figure 125: Isabellaland new situation 3D

Other changes in the Landen quarter are new head buildings to three of the flats along the Isabellaland, replacement of the Catharinaland quarter centre by housing, and adding a floor to the porch houses along the Margarethaland, to get a higher density because it is near the station (see figure 126 and 127). The changes to the Catharinaland quarter are limited because of its valuable urban structure (see figure 128).

Figure 126: Catharinaland new situation 2D

Figure 127: Catharinaland new situation 3D

Figure 128: Catharinaland

Gradaland

At the Gradaland quarter the centre will be maintained because of the elderly in the vicinity. The centre will be expanded with housing to cover up the blind ground floor facades at the back side (see figure 130). At the head of the row houses, head houses will be added instead of the garages which are currently bordering the street (see figure 129). To cope with the growing need for parking places and to be able to give the former garage owners a new parking place, a large semi underground garage will be introduced. The garage will cover the complete central park and will have room for all the cars of the Gradaland quarter at the west side of the Isabellaland (see figure 129).

Because of the garage the park can be more spacious than before and the cars will be parked in a safe way, furthermore the application of parking garages to achieve double ground use is the best way to improve the quality of the green space at quarter level (van Vliet & Siemonsma, 2009).

Figure 130: Gradaland New situation

Figure 129: Gradaland section

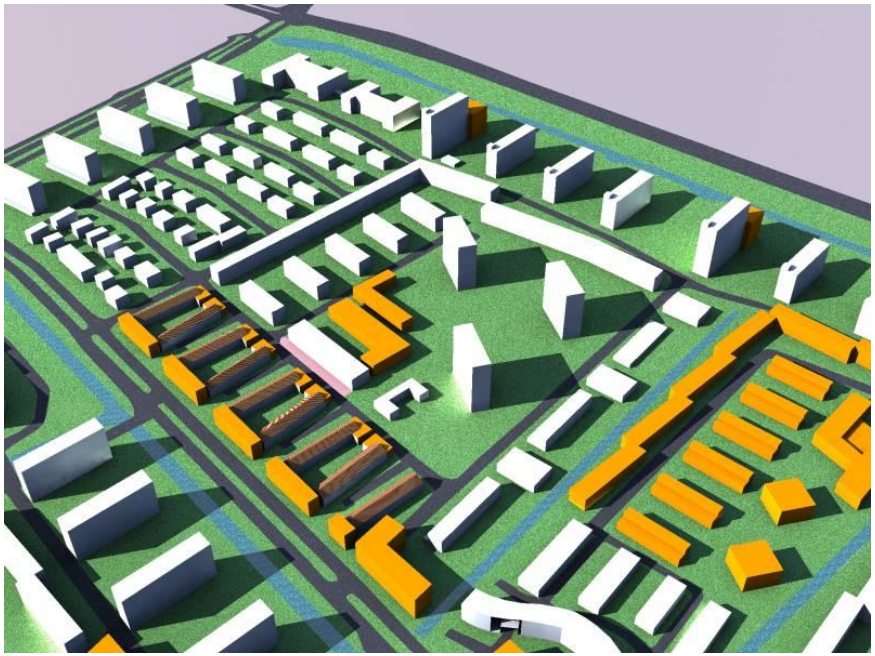

Figure 131: Gradaland new situation 3D

Hongarenburg

The improvement already has begun at the Hongarenburg, where porch houses were replaced by single family houses (see figure 132). Because that development will only lead to a lot of demolition and decrease of the population, the process will not be continued. Because of the bad condition of the porch houses along the Hongarenburg, they will be demolished as well, but replaced by apartment buildings with ground bound houses in the plinth. In that way the population can grow, but the wishes for houses with a garden are granted too. Both the centres will lose their use as a shopping centre; one will be replaced by water and new housing. The other will be used for small scale offices for entrepreneurs and will have an addition of two small apartment blocks. Alongside the sports fields a new apartment block will be realized as well (see figure 133 and 134)

Figure 132: Recent new development along Hongarenburg

Figure 133: Hongarenburg new situation 2D

Figure 134: Hongarenburg new situation 33D

Gerstkamp

The Gerstkamp suffers from many garages along the road which cause the surrounding housing to have barely any relation with the surroundings (see figure 135). By letting the inhabitants park their car in their front yard and along the park, the garages can be replaced by houses. When covered parking places will still be needed, it is possible to have a parking garage underneath these houses, but is no necessity. The ditch bordering the west side of the quarter will be a little replaced to be able to realize a new housing along the Boekweitkamp and the Kleine Loo. This new housing is all built according to the existing structure in its vicinity (see figure 136 and 137).

Figure 135: Garage boxes at gerstkamp

Figure 136: Gerstkamp new situation 2D

Figure 137: Gerstkamp new situation 3D

Haverkamp

Like in the Gerskamp quarter, the Haverkamp quarter also suffers from a large number of garage boxes. In this case they are also replaced by housing. Part of the housing also will be demolished because of its poor quality on a location with large potential. It will be replaces by new row houses that will have their car parked in the front yard. To achieve this, the ditch will have to be replaced a little (figure 138). Because of the vicinity of the British school the quarter centre will be redeveloped as an international centre with international shops and international oriented offices. Also there will be room for additional educational facilities at the centre (see figure 139). New housing is added behind the centre with a built parking garage to be able to have double ground use. At the north side, a new high rise flat will arise within the rhythm of the other flats in the North West edge of the neighbourhood. This will be in line with the municipality's policy to build on attractive locations (Gemeente Den Haag, 2005:35).

Figure 138: Haverkamp new situation 2D

Figure 139: Haverkamp new situation 2D

The densification process will be a slow process, so it will be able to adapt to changes and opportunities (Döll & Meurs, 2003:14). These proposed changes can be done in fifteen to twenty years, so there will be enough time to adapt. Since densification will be used more and more in the future it will be an interesting example for other neighbourhoods. The era of building from scratch in empty fields has come to an end (van Hal, 2009) and unless the current economic crisis will encourage building in bulk again (VROM-raad, 2009b:16) densification will be the future of urban design.

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Intervention: Peak up housing
Goal: Increase density without changing footprint
Source: Lage Land Rotterdam (Jongert et al, 2009:116)
Description: Peaking up existing housed will give the ability to increase the size of a house or the number of houses without changing the footprint and sometimes even without forcing the inhabitants to move temporarily (ter Borch, 2007). Usually an additional load of 10-12% (Battum, 2002:7) is possible, so with a light construction peaking up is easily possible

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Intervention: Bring like-minded together
Goal: Increase social contacts and reduce irritations
Source: Sociaal economische agenda (Gemeente Den Haag, 2008:20)
Description: Because of rising individualism club membership is decreasing. To give like-minded the opportunity to meet and be together it could be encouraged to live together. This will improve social contacts and reduce annoyance of neighbours. This could be useful for people with the same ethnicity, way of life, hobbies, job or age.

5.3 Interventions

Within this report the fifty interventions are found in the blue frames, these interventions are just a few of the possible interventions possible to use in a post war neighbourhood. Collecting them al would cost too much time for this research. Since it is also very interesting to have already fifty interventions collected that are suitable for most post war neighbourhoods, the collection is a valuable first step towards a complete post war neighbourhood intervention toolbox. The discussed interventions are useful on physical as well as on social or economic grounds. The interventions are applicable as part of the answer for sub question 2 (paragraph 1.3.2) and because of the verified character of the interventions, they are also partly applicable to answer question 1. In figure 140 some of the interventions are tested in Mariahoeve. In fact every intervention would be applicable in Mariahoeve, but only some of the interventions are needed for the current situation of the neighbourhood. The interventions found in figure 140 are the ones with the highest priority for Mariahoeve.

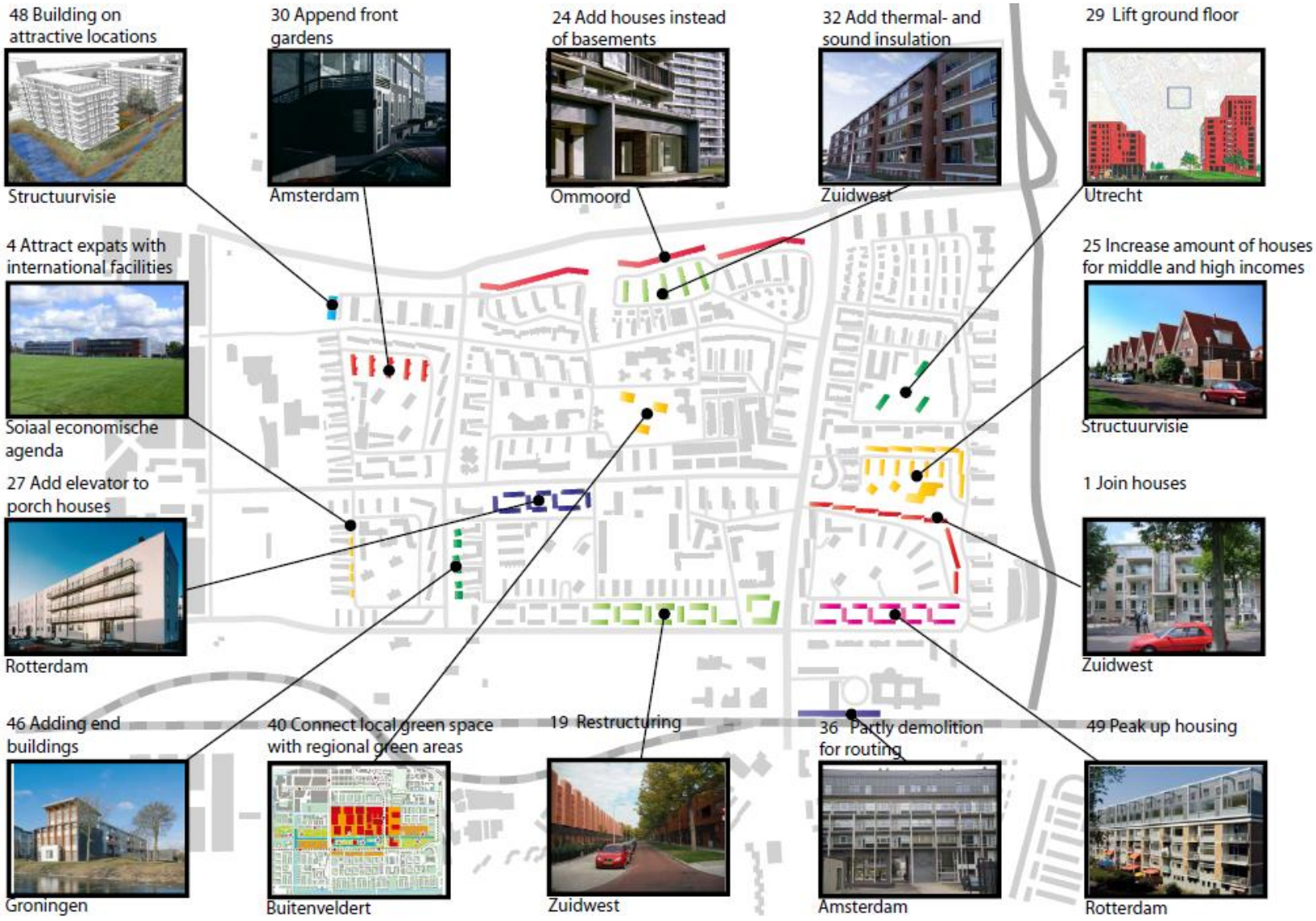

Figure 140: Interventions applied

6 Conclusions

As a conclusion for the thesis, the findings are compared and the questions answered. In the first paragraph the thesis will be concluded and the outcome will be evaluated. It mainly covers the research part of the thesis, while the design conclusions are found in the second paragraph. The third paragraph looks back on the research process.

6.1 Overall conclusions

The conclusions to the research are of a bilateral nature. On one hand there are the conclusions of the research, formed by the answering of the research questions and complementary conclusions. On the other hand the conclusions are worked out in the design for Mariahoeve. Because the research is accumulated to Mariahoeve, the design is a conclusion in a visual form. In this paragraph only the first part of the conclusions, the answering of the research questions, is discussed.

To be able to answer the main research question first the sub questions should be answered. The answers found in this conclusion are a little blunt because there is no room for discussing the context of the answers. To get insight to the context, the proposed paragraphs should be read. The research question that is to be answered in the end is:

What urban design and planning instruments can be used to modernize and improve the spatial-social conditions of Dutch post war neighbourhoods?

This question is cut up into four sub questions which will be answered first. The first sub question is:

1. *What are the positive and negative effects of several previous urban renewal projects in Dutch post war neighbourhoods?*

To answer this question the case studies and internship are of utmost importance. The case studies gave insight in the effects of the interventions used in those neighbourhoods. This only had one major disadvantage; the relatively short period since the interventions. Because of the long time before an effect on an urban intervention can be evaluated, preliminary conclusions have to be drawn. Some of the effects of the interventions are listed in the collection of fifty interventions based on the case studies and other sources, but it lacks profundity because of the large number of discussed interventions. More insight can be gained when researching the cases studies in a more extensive way. This showed that the region of the neighbourhood is crucial for its development, as seen in Buitenveldert and Mariahoeve, when the region offers good preconditions, the need for improvement is far less. The case study of Hoogvliet made clear that social interventions can be important to improve a neighbourhood, but they still have an unclear effect. During the restructuring process a lot of effort is put in management of the social condition. This seemed to help and caused a lot of publicity because it was a unique way of restructuring, but in the end the social focus does not seem to have created a better neighbourhood. Ommoord shows a great effect of valuing the current urban layout and still making an improvement. The refurbishment of the buckled high rise showed how physical and social interventions can have mutual goals and how the preservation of the urban structure, combined with renewal, offers a new layer within the value of an area. Finally the case of Zuidwest and the internship to compare Zuidwest with Mariahoeve, gave a lot of insight in the effects

of interventions. Most of this is found in Appendix B in a visual way, for instance the effects of restructuring in an area and the results for the liveability, infrastructure and facilities. Interesting is the outcome that later added buildings are most of the time less valued at a later stage, thus interventions should fit within the urban structure in a perfect way to be accepted. In this case the region is important as well, an expansion of the centre does not attract more customers when the centre does not exceed another centre nearby. A final lesson could be that restructuring should be done on small parts and not on complete fields. The effects are too large and with the lack of historical layers in such an area in combination with the lack of open space, like found in the vinex-areas, the new development will not be too popular on the housing market and will probably drop in value quite fast.

Beside the lessons learnt from the case studies, literature also offered interesting insights. In paragraph 2.1.2 it becomes clear that the deprived state of a neighbourhood should be avoided in the formation of new neighbourhoods, as well as projects in existing neighbourhoods. During the post war period the monotonous layout and mass production took its toll for its near future. Already during the in paragraph 2.1.6 described urban renewal period the neighbourhoods were in anxious need of interventions to prevent them from deprivation. The improvements of the urban renewal period were a great improvement to the post war neighbourhoods, but did not solve most of the problems. The used quick fixes only kept the neighbourhood up for a short period. Two main lessons that could be learned from the experience with post war neighbourhoods and later initiated projects to improve them; differentiation is of high importance. Because the future is unclear, the neighbourhood should anticipate on a variable future and thus offer a variable collection of houses and functions. Secondly quick fixes often have little effect; because of the hurry during the post war building process, many problems occurred and the small interventions during the urban renewal period only helped for a short period.

2. *What are the current methods and strategies used by urban planners, municipalities, housing associations, the government or other actors to improve spatial social conditions of Dutch post war neighbourhoods?*

For the current methods and strategies the case studies are needed as well, but part of it is already described in the previous question. In paragraph 2.2 the different actors and their way of working are described. This paragraph makes clear that the roles of the actors had been changing and are still changing. The housing associations are getting more decisive power because they currently own the money, but the government is trying to decrease this power again, because of dropping trust in housing associations. The market had its introduction during the post war period and is gaining more influence ever since. Current methods and strategies have to adjust to the market to be successful; this differs a lot from the post war period when the government and municipalities called the shots. Chapter 3 gives a further insight in the current methods and strategies, but then based on the different cases. The number of methods and strategies are endless and to make a complete list of it would be almost impossible. To make a step in the right direction, a collection of fifty possible interventions for post war neighbourhoods is made. This collection is just a small part, but already offers an interesting collection of tools to improve a neighbourhood. With the constant development of policies, the

housing market and research, the view on urban regeneration also is changing constantly. Because of that the interventions will change all the time.

3. *What is the relation between physical shortcomings and social problems at neighbourhood scale?*

This discussion has become more and more important with the rise of the social sciences in urban regeneration. Many researchers nowadays have a social background, and they are studying the social state of the neighbourhood. Because of their social background, they tend to focus only on social causes and solutions for potential deprivation. In paragraph 2.1.3 to 2.1.5 this discussion is clarified. By comparing different types of problems and their solutions it seemed that there is no such thing as a purely social or physical cause for deprivation. Both fields interrelate and can influence each other. For instance a physical intervention can improve the social state. With the case studies these relations can be explained. The buckles high rise in Ommoord serves as a perfect example. The refurbishment only involves the improvement of the physical appearance and functionality, but had a wide spin-off. The added entrances improved social contacts between tenants and the addition of houses at the ground floor improved the sense of safety. Thus by physical improvements the social problems could be solved as well. The other way around, the physical appearance can be the cause for social problems. Since the social situation improved because of the physical refurbishment, it could be derived that the physical shortcomings have effects on physical as well as on social level. Usually social problems do not affect the physical shortcomings, only when the social situation causes vandalism and a reduction of interest in the living environment. The negative effects on the physical appearance are usually only superficial. It has some negative effects on the public space and appearance of the house, but most of the physical degrading happens just because it wears off as a natural process.

4. *What is the relation between physical social interventions in post war neighbourhoods and the advancement spin-off? (paper)*

Knowing both the physical and social fields are the cause of deprivation of post war neighbourhoods, the effects of the interventions can be evaluated. In the paper (found in the appendix) the discussion of question three plays an important role as well. But for the thesis this question has its focus on Mariahoeve. As described in chapter four, there are several strengths or problems of Mariahoeve that are also applicable for many other post war neighbourhoods. Many social interventions have no proven effective use and when neglecting physical improvements in these interventions the chance of failure is even bigger. The physical interventions are, more than the social interventions, different per neighbourhood. Every situation asks for a suited solution, and that is what makes the discussion about the physical interventions as broad as it is. The physical and social fields interrelate, and most problems ask for a multi-field intervention to be able to make a real improvement.

As seen in the sub questions, the design and planning instruments can be researched in a broad field. When concentrating on post war neighbourhoods the different strategies and actors trough time are researched. The literary instruments used are the interventions used to improve the neighbourhood, both from a physical and a social background. The thesis makes clear the physical interventions are of

large importance to improve a post war neighbourhood, but the help of social and economic interventions is needed. This is why interventions of all kinds are applied in the proposition for Mariahoeve.

During the research the focus was on physical, social and economic interventions in Dutch post war neighbourhoods. Most of the findings from this research cannot directly be translated to other kinds of neighbourhoods, but they might work the same way. To keep the focus these effects are not researched. Also ecological effects and health are mostly left out the research; they just play a minor role in the design for Mariahoeve. Additional research for these effects could be an interesting addition to value the interventions, but the expertise lacks to give founded analyses. The economical field is discussed but could be researched in a large extend as well.

6.2 Design conclusions

As a second part of the conclusions, the design will be discussed. Because the gained knowledge is implemented and tested in Mariahoeve, the design is a great way to conclude the effects of the research. The conclusions made in this paragraph are based on chapter five, in which the design is explained. This paragraph just gives a short overview of the design and what its effects are.

First the overview of the densification is shown in figure 141 and 142. The first picture shows the current situation and the second one shows the future situation if every proposed intervention is being executed.

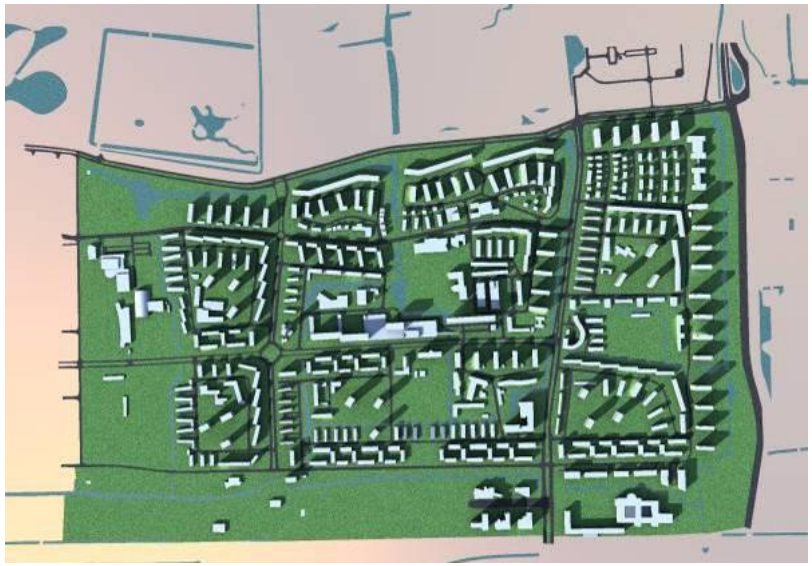

Figure 141: Mariahoeve current situation

Figure 142: Mariahoeve future situation

The new design, which is shown in 2D in figure 143, not only involves the densification, but also a massive change of the urban layout. The centre has been replaced to the Hofzichtlaan as the new face for Mariahoeve. It is no longer hidden inside a hidden building, but opened for all the traffic that is passing through the neighbourhood. The improved facilities offered in the centre and new office space only add to the improvement. The station is valued as a crucial part for the neighbourhood and will also have a new function as entrance to the neighbourhood. With the centre and station along the Hofzichtlaan, this road will be developed as an urban road with extra office space for local entrepreneurs (as seen in figure 144). This small scale office space will be introduced through the whole neighbourhood and will also replace some of the local shops. The main focus for local entrepreneur office space will be between the centre and the station, because that area will have an urban identity with important functions nearby.

To meet the rising parking demands, especially with the growing number of cars thanks to the densification, new solutions should be sought. Parking all the cars in public space will no longer be an attractive option with the current and future amount of cars. The new developments involve new parking solutions as well. In this case built parking space often gives the solution. This is more costly, but according to many the only way to maintain a reasonable quality of the public space and safety for the car. If possible the cars will be parked in the front yard, but since many multi family complexes in the neighbourhood this often is not a possibility. In that case underground parking or parking in the buildings ground level will be nescecarry. Although it is relatively costly it offers by far the most

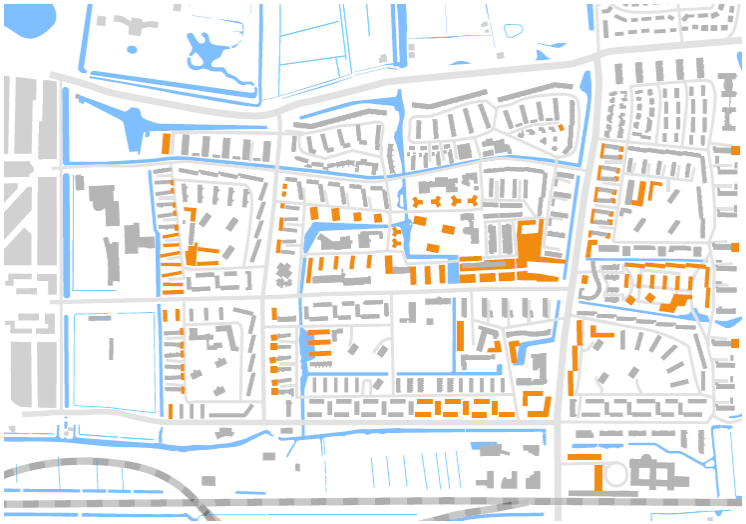

Figure 143: Mariahoeve future situation

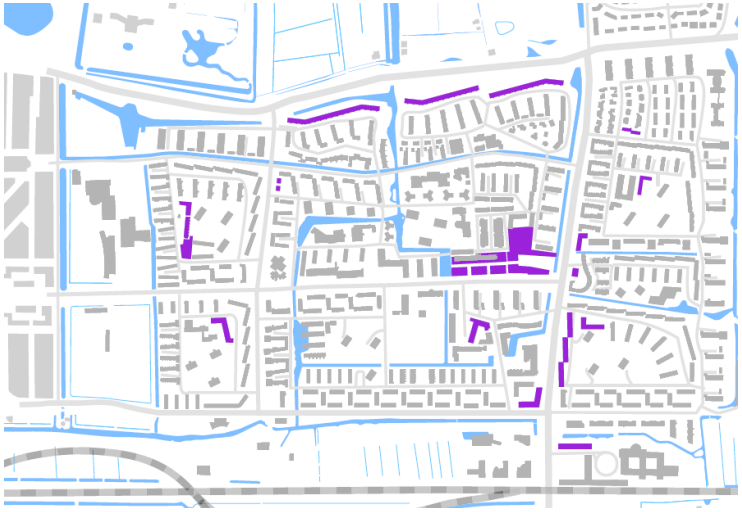

Figure 144: New locations for local entrepreneurs

sustainable solution. Especially around the centre a lot of underground parking takes place. This is because the large parking garage with 540 places will be realized underneath the centre. The garage will serve the shopping public and the surrounding inhabitants. On other locations also some underground parking takes place to improve the public space and often also to be able to get rid of garage boxes. Half underground parking also is often used in Mariahoeve. The Gradaland gets a large half-underground parking garage, which will serve the complete quarter. On some locations there is such an amount of unused public space left, that parking in public space will not be a problem.

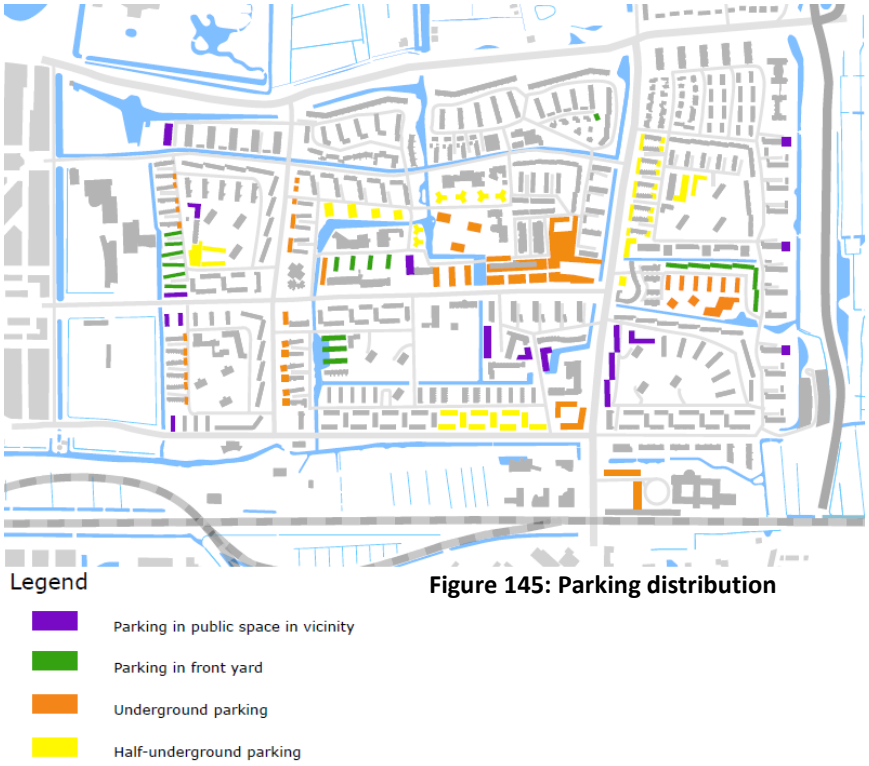

Figure 145: Parking distribution

Altogether the changes and additions to the urban layout of Mariahoeve will have a large positive impact on the liveability and bearing surface of the facilities. However the densification will not have too much effect on the individual quarters, in the sense of a more crowded situation. The densification mainly takes place in newly developed areas, along roads and instead of former development, thus there is little change on quarter level. For the densification some demolition will be needed. First of course the existing centre will have to be demolished; the building is lacking quality for housing and has the wrong scale for local entrepreneurs. Furthermore an unnecessary school will be demolished to be

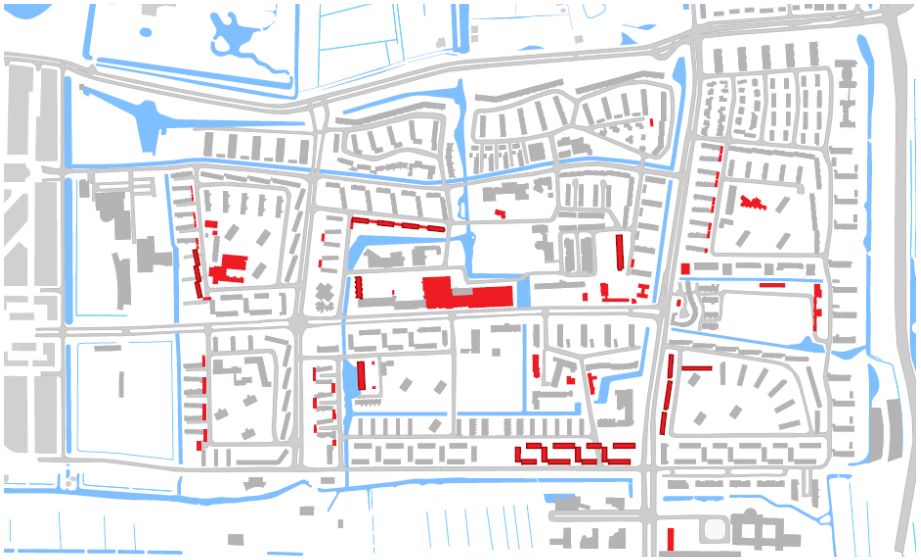

Figure 146 Necessary demolition

replaced by part of the new international centre and some housing. Most of the other demolition involves garage boxes and some demolition and reconstruction. The garage boxes form a blind ground floor façade and therefore an addition to the reduction of the sense of safety. When demolishing them, they will be replaced by new high quality single family houses, or they will just make room for new ecological public space. The covered parking places will be replaced to the parking garages or the locations assigned for local entrepreneurs.

Altogether a total of only 352 houses worn out (4,5%) will be demolished and a total of 1758 houses will be added. This densification will mean an increase of 20% within the current structure and without large changes within the quarters on local level. Because of the demand for ground bound houses, suited for families and high income household, the amount of ground bound houses will rise with over 65% on top of the current condition.

Figure 147: New houses

The main structure has been the base for most of the changes and densifications. In figure 148 it shows what the reasons have been for the development divided in infrastructure, water, Ecological Main Structure and local situation.

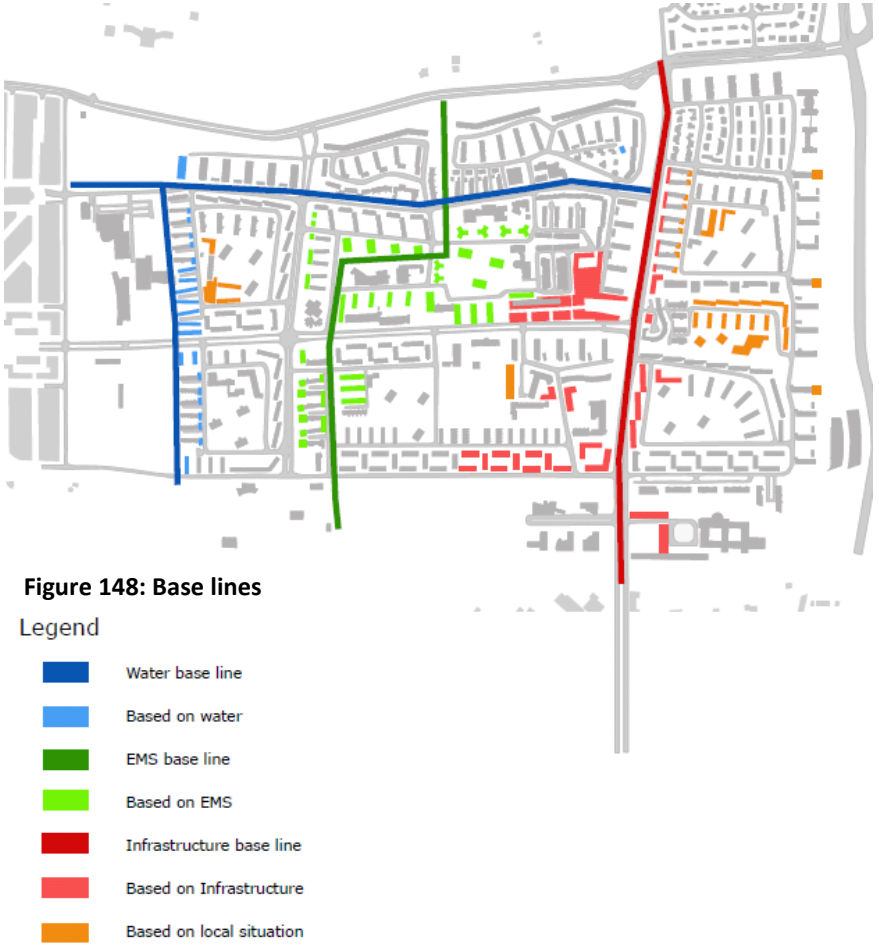

Figure 148: Base lines

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V Appendix

A Position paper

The position paper is available as a separate document and was enclosed in the P2 report

The paper is available for download at www.eichler.nl

B Internship booklet

Because of the size of the booklet, it is found as a separate document.

The booklet is available for download at www.eichler.nl