GEWOON ALMERE HAVEN CENTRUM

Analysing on city planning, architecture, technology, demographics and values

Studio 20C Hertiage - Almere Haven
P1 Report

Tutors
ir. Lidwine Spoormans
dr. ir. Wido Quist
mr. Nicholas J. Clark

Authors
Rada Ruijter
Sean Huizinga
Linde Petit dit de la Roche

07 -11 -2019

TABLE OF CONTENTS

INTRODUCTION

When designers, engineers and sociologists were thinking about a name for the first urban development in Almere, it needed to be a ´normal name for a normal town´. Numerous suggestions were reviewed; Zuidermere, Almere-Zuid, Almere-Gooi, or Almere-Walden. It was engineer Dirk Frieling that came up with the suggestion that lead to its current name. It just came to his mind that if you wanted a harbour – and that was their wish – that you needed to call it Almere-Haven. This would automatically lead to a harbour. Almere Haven was chosen as the final name; a normal Dutch name for a normal town.

This normalness can still be felt when walking in Almere Haven. It is one of the things that inhabitants mostly value and its part of the neighbourhoods identity. Giving this research a flashy name felt for this reason not in place. A 'normal' name was chosen suitable to the area and the research. All with the Dutch proverb in mind; 'Doe maar gewoon, dan doe je al gek genoeg'.

Motive

This research was carried out to get a better insight into the origins of Almere Haven Centre and its development over time. Characteristics and opportunities were identified this way as well as the heritage values. This gives an unique element to the research as it tries to identify values for a new town that have not been identified before. It is one out of two studies towards Almere Haven. The other research focusses towards the neighbourhood 'de Werven' which was the first residential neighbourhood of Almere Haven.

Initial to the data research, research on site was carried out. Through this it was tried to get a more human-insight into Almere Haven from a bottom-up approach. Social problems, qualities, opinions and visions were the result of this on site research, that got interwoven together with the hard data in this final document. More information about this research can be found in a publication that will be published short-term.

This research forms the basis for further research towards the potential of densification in existing urban structures and buildings. It leads to a design task that will be carried out by students of the Technical University in Delft as the final design assignment for an architecture master.

Methods

The research can be divided between field- and desk research. Field research was done by interviewing inhabitants and by surveys. Desk research was done by first collecting documents that gave insight in the formation of Almere Haven. Multiple archives were consulted such as the National Archive, The New Institute, The Flevoland Archive, the Batavialand Archive and the archive of the municipality of Almere. More desk research was done towards individual specific subjects. All the data was then analysed and processed in text and drawing.

Structure

This research rapport is divided in six main-topics. Every topic continues where the last topic stopped. It is advised to read the rapport chronologically, but this is not needed.

The first chapter focusses towards the city of Almere and how it was initiated. Briefly the history of this development is put in context including its main ideas and concepts. Current and future development is elaborated as well.

The second chapter is focussed towards the society of Almere, Almere Haven and its formation. Insight is given into the main social-goals and how they were intended to be achieved. Additionally the demographics are analysed and the neighbourhoods liveability.

The third chapter focusses towards the neighbourhood of Almere Haven Centre. The different important elements that form the centre are analysed and visualised from how it was intended, how it was realised, how it developed and how it currently is. Also the climate and conclusions from the resident research are given.

The fourth chapter focusses towards the architecture of Almere Haven Centre. Iconic buildings and their architects are mentioned, from where one of the most important building blocks is analysed on an architectural and technical level.

Elements out of the topics above return in the fifth chapter, the value statement. Here the characteristics of Almere Haven Centre and one of its buildings are identified. Out of this valuation, value statements and dilemmas are extracted.

In the last chapter a reflection of the research is given, next to the definition list, the literature list and figure list.

Fig. 1. The location of Almere Haven in Almere and the location of Almere in the Netherlands.


M1
allGo
We gaan!
STAD
Station Centrum
De Werven
Haven
Centrum
De Meenten
De Hoven
De Grienden
De Wierden
De Marken
De Gouwen
De Steiger
Busstation 't Oor
Stedenwijk Zuid
Stedenwijk Midden
Passage
Stadhuisplein
Station Centrum
havenmetro
Station Centrum
- M1 station centrum
MAN
6030

1.1 SOUTH FLEVOLAND POLDER

Between 1200 and 1800, the Southern Sea was of great economic importance to the Netherlands. The villages and small cities surrounding this sea became rich by trading goods over sea and together with sea-fishing it resulted in economic stability. It was only Amsterdam who kept its important trading position after 1800. The other small cities and villages became picturesque tourist attractions, so that the sea lost its main economic importance.

Even before the time of Christ inhabitants of the lower parts of the Netherlands tried to protect themselves against floods. Plans to protect themselves from the dangerous Southern Sea date back to the 17th century. Until the 19th century numerous engineers designed plans to close off this sea. Lack of knowledge and technical development prohibited this. Until Cornelis Lely presented a feasible plan in 1891 for closing and reclaiming the Southern Sea; Plan Lely (Raa, 1989).

Plan Lely

On June the 14th 1918 - after decades of plan making and public discussions - the history of a new piece of Dutch territory started in which the government played the most crucial role as developer. On that date in the registers of the government a new law was published, the 'Wet op de Afsluiting en Droogmaking van de Zuiderzee' (Law on the closure and draining of the Southern Sea). After the construction of the 'Afsluitdijk' an area of 232.000 hectares was planned to be drained.

There were different motives for starting such a big project and realising this new land. Protecting the inhabitants from flooding, enlarging the Dutch farmlands by 10% for food production, to improve fresh water management, and to decrease the distances between the West, North and East of the country.

The original Plan Lely intended to realise a polder landscape divided in four polders. This made it one of the largest construction project in sea ever constructed. The realisation of the plan, later renamed to the 'Zuiderzeewerken', took more than 75 years. The original plan of engineer Lely was almost completely constructed, except for polder the Markerwaard which was never realised. The polder on which Almere is situated was the last one to be realised; the Southern Flevopolder (Geurts, 2018).

The road to urbanization

A polder begins with the building of the enclosing dykes. Then the pumps are switched on to pump the polder dry. It took seven months starting in 1967 to pump the South Flevoland Polder dry revealing 43.000 hectares of new land. Vegetation was planted in order to dry out the deeper layers and to make the land suitable for men and machine. Reeds were sown from aeroplanes and drainage ditches and canals were dug. After the water was removed and after settlement of the ground, it was finally ready to be built on.

Despite the fact that three million dwellings were built after the Second World War, housing shortage remained due to the growing population. Especially in the Randstad this resulted to big problems. In order to reduce the housing shortage it was decided in the fifties and sixties to adopt an 'overspill' policy. This meant that inhabitants of the big cities who wanted better quality and reasonably priced housing without long waiting lists, had little choice but to move to an overspill town. First Lelystad and later Almere were developments resulting from this housing shortage (Nawijn, 1988; Raa, 1989)

Peetvaders van Almere

The development of Almere was led out of Lelystad by the ´Rijksdienst voor de IJsselmeerpolders´ (RIJP). This government institution was part of the Ministry of Traffic and Watermanagement. Within this institution the project office 'South-West city' was established in 1969. To prevent overlap with Lelystad new employees were attracted by newspaper advertisements. Engineers, but also sociologists, economists and traffic experts were attracted. This project office was situated in Almere and grew till a size of around 80 people (CASLa Almere, 2001; Nawijn, 1988)

Some of these 80 people working at the project office - especially the employees that worked there in the first couple of years after establishment - are achieved with the title 'peetvader'. A peetvader is seen as a person that was of extreme importance for the foundation of the city of Almere. Some only contributed to Almere in the beginning, such as Wil Segeren, while others contributed to Almere far after the disestablishment of the project office,

een nieuwe stad bouwen in een nieuw land
hoe zal Almere er uit gaan zien?

Vandaag nog een ruwe schets, een denkbeeldige vlek op de kaart. Morgen een stad waar een kwart miljoen mensen werken, wonen, leven.

Voor het nieuw op te richten „Projectbureau Almere" vraagt de Rijksdienst voor de IJsselmeerpolders

academici

die mee willen denken, werken, experimenteren. Zowel mensen met ruime ervaring als pas afgestudeerden kunnen aan de slag bij het bureau dat - administratief en technisch personeel inbegrepen - een dertigtal medewerkers zal omvatten.

De voorkeur gaat uit naar afgestudeerden in de:

planologie
stedenbouwkunde
architectuur
tuin- en landschaps-architectuur
civiel- en cultuurtechniek
verkeerskunde
sociologie
economie

Salarisgrenzen tussen f 1798,– en f 3805,– per maand, exclusief 6½% vakantieuitkering.
Voor de projectcoördinator max. f 4159,– per maand.
AOW-premie is voor Rijksrekening.
Indien gewenst is een woning te Lelystad beschikbaar.

Telefonische inlichtingen bij Ir. W. A. Segeren van de Rijksdienst voor de IJsselmeerpolders onder nr. 05202-2441, toestel 10.

Schriftelijke sollicitaties onder vacaturenummer 1-1998/0156 zenden aan de Rijks Psychologische Dienst, Prins Mauritslaan 1, 's-Gravenhage.

Fig. 1. The original advertisement that was published in the newspapers around june 1971, to attract employees for the project office.

1.2 POLYNUCLEAR CITY

such as Han Lammers. From interviews it can be concluded that all of them saw the development of Almere as something unique, that was done on an experimental and improvised way. Plans were made on one day and the next day they were already realised. It was the type of project that will never be realised the same way again (CASLa Almere, 2001).

Polynuclear city

The first plans for a South-West city – the name Almere was not yet present at that time – were drawn in the late sixties. They were based on a city-size for a quarter of a million inhabitants. This enormous number meant that it would become the fourth city of the Netherlands. Because of this scale it was decided to build Almere around a number of 'nuclei' (or cores). This system would make phasing easier. It was also decided to make Almere a garden city, so that it would be more attractive over existing cities. This was an interesting choice as high-rise apartment buildings were the most common at that time. Another important decision was that of giving preferential treatment to public transport, as opposed to private cars. This resulted in separate lanes for public transport and a well-planned network.

The urban planning of Almere in general was one of the first dilemmas the RIJP was faced with. It needed to be a city-concept that was suitable for the intended large population of 250.000. It also needed to be flexible towards future developments, different identities, accessibility and last it needed to be economically feasible. The following different options were elaborated; an even spread of buildings; one core without any spreading; one core with spreading; multiple cores without spreading; and multiple cores with spreading. At the end the overall main goals was to establish a differentiated living environment with at least 90% single-family homes.

Given all the aspects above, at the end the concept with multiple cores with spreading was chosen, this could also be called the polynuclear city-concept. Benefits of this concept were the greenzones inbetween and the possibility to make diverse living environments with their own identity. Another important consideration was that by realising the city this way, it was possible to finish individual centres in a limited amount of time.

The sizes of these different cores was chosen with regard to education, the needed (minimal) facility-level per core and the minimal amount to establish a micro-society. Other cities were studied in order to conclude the minimal population needed for facilities to function and thrive. Finally it was concluded that 25% of the population would live in the biggest core and 25% of the population in cores not bigger than 20.000 inhabitants. The total amount of cores was estimated between five or seven, depending on the amount of inhabitants (Ministerie van Verkeer en Waterstaat, Rijksdienst voor de IJsselmeerpolders, & Rijksdienst, 1970; Nawijn, 1988; Raa, 1989)

Planning the city

Positioning the first core of Almere was difficult as there were numerous aspects to be kept into consideration. As there would not be a lot of facilities, it needed to be close to the 'old' land. Furthermore its location needed to be central so that it could become an overspill area for Amsterdam but also for Utrecht and 't Gooi. The ground composition needed to be taken into consideration as it was not possible to build everywhere. The presence of water was seen as an attractive added value for the first core and the terrain of the location needed to be passable.

After analysing it was concluded that the best location for the first core was West of the Gooimeer-area. Its minimal inhabitant size was estimated at 30.000 so that a school community and (local) shopping centre could function. The most important core – the city centre – was visioned in the centre of Almere, in the IJmeer-area. The location of the other cores was not established, to maintain some freedom so that in the future a suitable location corresponding with the cores identity could be sought after. Between the cores undefined green zones were planned to separate the individual cores (Ministerie van Verkeer en Waterstaat et al., 1970).

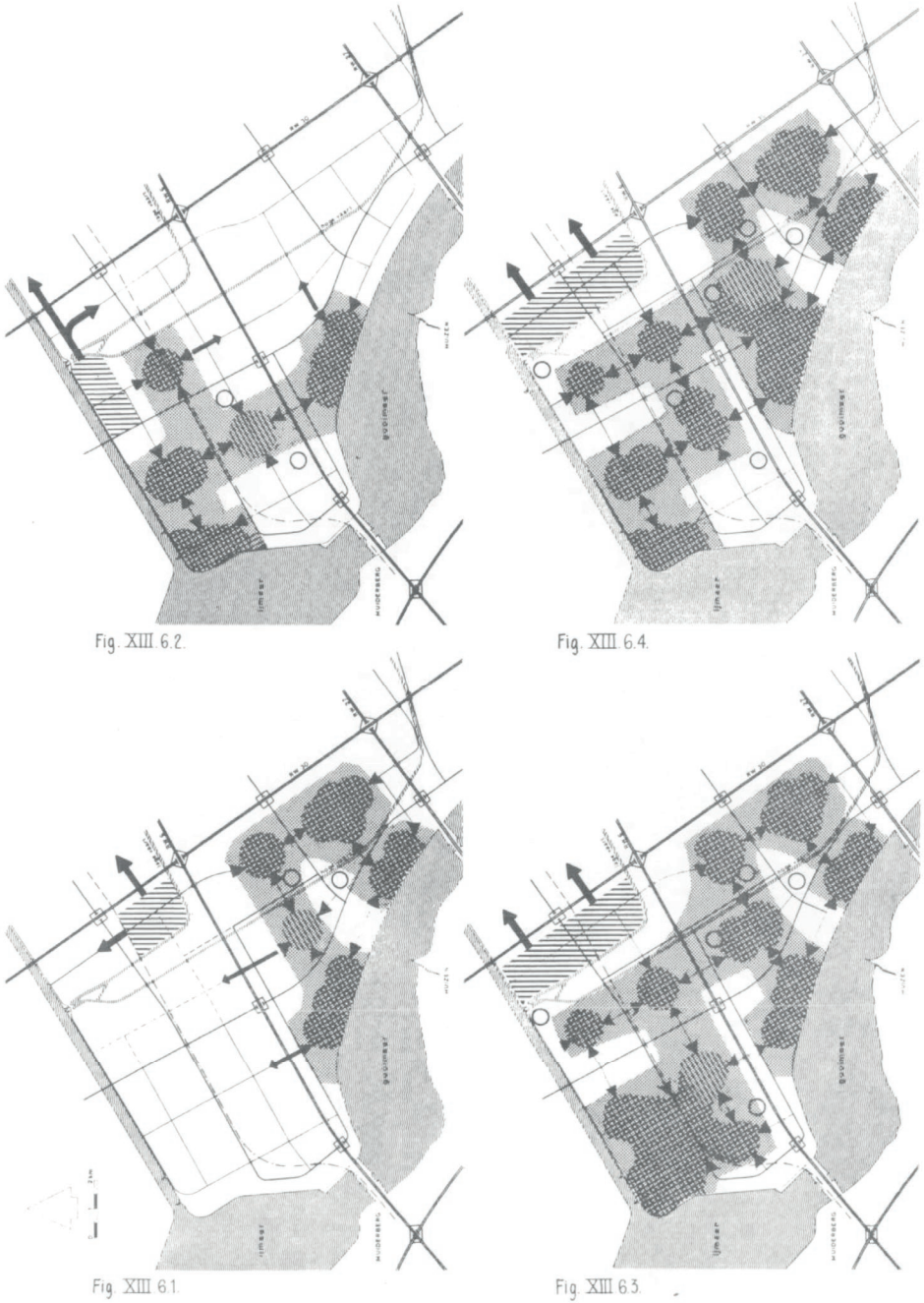


Fig. 2. Different proposals on how to place the different cores in the South Flevoland polder accoarding to the polynuclear city-concept.

1.3 PAST AND PRESENT

Development over time
Almere was started with three centres; Haven, Stad and Buiten. These city districts were formed by the trends present at that time. Almere Haven was the first built district in the middle of the seventies, and designed to look like a traditional Southern Sea town with around 20.000 inhabitants. Small scale development was in fashion at that time. The built of Almere Stad was started at the end of the seventies. Mainly due to economic developments this and later districts, were planned according to the 'rationalism' style. A clear 'backbone' that formed the centre with modern buildings gave this district the atmosphere of a far larger city. In the third core, Buiten, the rationalism style was very continuously implemented. This can mainly be seen because of the square grid pattern that lies in the landscape like a checkerboard. All centres were realised with the nuclear city concept in mind; separate cores separated by bodies of green (Raa, 1989).

Nowadays the city has extended massively and the population has exceeded 200.000 inhabitants. The number of at least 30.000 inhabitants was never reached, because it was decided to start with Almere-Stad as fast as possible to guarantee the polynuclear city. According to the initial ideas there are currently seven city-cores all with their own identity. Almere Buiten for example has a polder atmosphere while Almere Hout is situated close to- and within woods. More cores are begin developed and older cores are under development and expanding. The built of new cores and the expansion of older cores leads to cores merging into each other. This is against the initial idea as it undermines Almere as a garden city. On the other hand, Van der Veen stated in an interview – one of the peetvaders – that the polynuclear city-concept was mainly chosen to establish a hostile environment with some facilities in a limited amount of time. He believed that the concept was of big importance for the beginning of Almere, but that it also had to be let go again (CASLa Almere, 2001; Gemeente Almere, 2019b)

Future development
The once young city is now getting in an adult phase. Most of the spatial- and urban structures that were designed in the seventies, are now realised. The original structure with cores situated between green and water still results to this day to a liveable garden city. This does not mean that there are no challenges for Almere. Climate change, socioeconomics, economic growth and the task to build 60.000 houses are challenges Almere is faced with today. The housing task will result in new and different city cores, as stated before, such as Almere Nobelhorst, Oosterwold and Pampus.

Over time the concept of the garden city will be let go and transformed into a 'Growing Green City'. The meaning of this new concept is that the in-between zones of green and water will be maintained, but also strengthened. The green will need to be used for food production, energy generation, (health) care, education, water management and recreation. The poly nuclear city-concept will be maintained and strengthened.

The connections between the cores and the old land will be strengthened by expanding the existing and creating new connections for car, public transport and by bicycle (1). The planned IJmeerverbinding (2) – which will lead to a direct connection with Amsterdam – is an example to improve accessibility. Different location are furthermore reserved for future energy-production in the form of solar parks (3).

Housing developments in new cores will happen on multiple locations. On the East-side (4) there is a zone reserved for landscape development in combination with agriculture; the Eemvalley, based on a river the Eem that flowed there 10.000 years ago. Low density building development will occur on the outsides of the Eemvalley. One of the biggest developments on the West-side will be Almere Pampus (5). This development will start within a couple of years. Developments outside of the dyke is also seen as a possibility at Almere Haven (6), Almere Buiten (7) and Almere Pampus (8). Smaller scale housing developments within existing cores will occur at Almere Stad (9), Almere Poort (10) and Almere Hout (11).

On the long term Almere should become a city that produces food, green energy and water. Furthermore it needs to be a city with a circular economy so that all waste is reused over and over (Gemeente Almere, 2017).

Fig. 3. This reservation card shows the current- and future developments in Almere, such as new city cores or new connections.

17
SOCIETY

2.1 INTRODUCTION

On June the 14th 1918 - after a fifty-year period of plan making and public discussions - the history of a new piece of Dutch territory started in which the government played the most crucial role as developer. On that date in the registers of the government a new law was published, the 'Wet op de Afsluiting en Droogmaking van de Zuiderzee' (Law on the closure and draining of the Southern Sea).

On this piece of new land a new large city was planned; the city of Almere. This city was intended be the answer to the needs of the modern man and its quest for space and to feel home. In time a city was created accoarding to the modern insights of city planning and social structures. Although different specialists came up with their visions about a good living environment, in the end is the inhabitant that makes his or her city. Understanding its social qualitys and weaknesses is a must to understand the city as a whole.

Methods and literature

The social and human aspects of a city (district) are harder to coprehend than for example understanding its infrastructure. For this reason it is important to know how this chapter was structured and which methods were used to gain the needed information.

with a timeline that includes all important events that occured in Almere Haven from its initial idea unitl the final realization. It gives a first insight and overview of when and how things happend.

For this timeline data is used that was directly writtend down by the designers of Almere in the booklet 'Almere, 250.000 inwoners in 25 jaar' (Almere, 250.000 inhabitants in 25 years). Secondly the booklet 'Almere; hoe het begon' (Almere, how it began) was used to fill in the gaps and to for the later time periods. The timeline is enriched with important events accoarding to the municipality and the government.

Second the initital views and goals will be discussed, because what were the thoughts and ideas? who did they want to reach this new city of Almere? and more importantly, how? The statements given in this chapter directly come from the first published documents even before Almere Haven was designed. These publications are 'Verkenningen omtrent de ontwikkeling van de nieuwe stad Almere in Flevoland' (Explorations about the development of the new city of Almere in Flevoland) and 'Almere, 250.000 inwoners in 25 jaar'. These publications were the first vision documents towards the city of Almere from wehere it all started.

Understanding the social aspects of the city is difficult as most of the time it is hard to quantify. By analysing the demographics and comparing them to the rest of Almere, another new city and the whole of The Netherlands in the past, present and future trend can be spotted.

The data used in thie subchapter directly come from the munucipalities, CBS (Central Bureau of Statistics), Kadaster, Police and from published rapports, such as 'Samenvatting bewonersonderzoek Centrum Almere-Haven' (Summary inhabitantresearch Centre Almere Harbour).

In the last subchapter the liveablity of Almere Haven is described by analysing the data from the 'Leefbarometer' received form the Ministry of Internal Affairs. This liveablility is further elaborated by looking towards the cultural activities and safety.

Fig. 1. The West-oriëntated part of the main shopping street in Almere haven these days.

2.2 TIMELINE

Southern Flevoland

1958	In the rapport of the commission 'Westen des Lands' the urbanization of the south-western part of Southern Flevoland is assumed.
1961	Publication of the structure plan for the Southern IJsselmeer polders.
1966	The government publishes the 'Tweede nota over de Ruimtelijke Ordening'. In this document it states that the construction of the 'IJmeercity' in Southern Flevoland can be started with in 1975 to coop with the overflow from the northern part of the Randstad
October 25th 1967	Dike closure Southern Flevoland
May 1968	Southern Flevoland falls dry.
May 14-30 1968	Four airplanes perfom 806 flights to sew 20.000 kilograms of cane seed in Southern Flevoland.
July 1968	Southern Flevoland is entered for the first time.
January 29th 1969	The governmental national planning calculates that 75.000 till 325.000 people will move to Southern Flevoland over time.
June 4th 1969	Southern Flevoland gets a connection with the Randstad by the 'Hollandse Brug'.
September 1969	Projectgroup 'Southwest city' is established, later this group was renamed to 'Projectoffice Almere'.
June 1970	Het government, the provinces of North-Holland, Utrecht and Gelderland, the municipality of Amsterdam and region Gooi- and Vecht agree to the size and growth of the Southwest-city to a growth of 125.000 till 250.000 inhabitants in 2000.
April 1970	Civil Service of the IJsselmeerpolders publishes its first rapport about Almere: 'Verkenningen omtrent de ontwikkeling van de nieuwe stad Almere'.
February 1971	The first rapport about the city of Almere 'Verkenning omtrent de Ontwikkeling van de Nieuwe stad Almere in Flevoland' is published.
March 1971	The government agrees with the 'Polynuclear cores concept' (Polynucleaire kernen concept) that focusses on the process-based approach to growth.
April 1971	The government decides that Almere in the year 2000 will have between 125.000 and 250.000 inhabitants and that the built will be started in 1975.

1

2

Fig 1. Sewing cane seed was done with four airplaines performing 806 flights over the polderlandscape (1968).

Fig 2. In the beginning Almere Haven was nothing more than an empty lowland on which the first construction work gradually started (1976).

June 3rd 1971 The ‘Projectoffice Almere’ was officially established.

Ocotber 20th 1971 Recruitment of staff for ‘Projectoffice Almere’ started.

December 31st 1971 Projectoffice Almere consists out of 6 employees.

Spring 1972 First rapeseed planting South of the Weerwater and the first hydraulic sand placing for Almere Haven.

March 1972 At the request of the Minister of Transport and Water management, a study is conducted under the supervision of Professor Van Duin into the connection of the national rail network to Almere. Concluded is that a realization time of eight years is needed.

July 1972 The first harvest yields five million kilos of rapeseed.

August 16th 1972 The rapport ‘Verkenningen 2’ appears, this rapport was never published. The projectoffice at that time has got 26 employees.

December 1st 1972 Frieling took his new post as head of the project office and replaces Segeren.

1974 Civil Service of the IJsselmeerpolders publishes ‘Almere 1985; aanzet tot een ontwikkelingsstrategie 1979-1985-2000’ and ‘Almere, 250.000 mensen in 25 jaar?’.

March 1974 The ground at the location of Almere Haven is made ready for the next step by ploughing so that the deep clay layer comes to the surface.

April 1974 Civil Service of the IJsselmeerpolders publishes ‘Ontwerp Almere-Haven’.

Building Almere Haven

April 1974 The implantation of the first 12 hectares of city parks in Almere Haven.

June 1974 The first of a series of information evenings for people interested in living and working in Almere.

September 2nd 1974 First pole was driven into the ground for the telephone exchange in Almere Haven. The initial capacity would be 1.500 telephone numbers.

January 1975 The number of registrations for a home in Almere is 7.000.

February 1975 Making the first industrial sites ready for construction.

3

4

Fig 3. Driving the first pile in Almere Haven for café / restaurant 'De Roef' (1975).

Fig 4. the construction of 'De Roef' at an advanced stage (1976).

TIMELINE

June 24th 1975	First pole of café-restaurant 'De Roef' was driven into the ground. At that time there was no home or person living in Almere-Haven.
July 1975	A social-cultural team was established for the more 'human' part of the plan.
September 30th 1975	The first pole was driven into the ground for the first 414 houses by the minister of Traffic and Water management. At the same they started with the erection of the school, a supermarket, allotment complex and the manifestation field.
December 1st 1975	Eight removable wooden houses are placed for the first quartermasters, such as police officers, nurses, and mechanics.
January 16th 1976	Professor R.H.A. van Duin replaces dr. ir. Otto as director of the Civil Service of the IJsselmeerpolders.
February 1976	The first copies of the 'Almere Post' were handed out.
February 24th 1976	40.000 interested home seekers receive a registration form for a house in Almere. At that time there are already 8.000 requests for the first 70 homes.
March 23 1976	The first Two companies from 't Gooi settle their business in the new city.
April 12th 1976	The first pole was driven into the ground for the second housing project in Almere Haven.
June 1976	Start building of the first office building 'De Hulk' that has four layers and in total 3.000 square meters.
June 1976	The Civil Service of the IJsselmeerpolders and AMRO-Westland/Utrecht project development agree about the realisation of the first phase of the shopping centre in Almere Haven designed by Apon Van den Berg Ter Braak Tromp Architects.
June 30th 1976	The housing administration of the Civil Service of the IJsselmeerpolders counts 10.000 interested persons.
August 2nd 1976	H. Lammers is named 'Landdrost' of the IJsselmeerpolders.
September 3rd 1976	First pole driven into the ground for the shopping centre in Almere Haven.
Oktober 29th 1976	First shopkeepers of Almere-Haven are known; a post office and a library house themselves in the emergency shopping complex.

5

6

Fig 5. Next to buildings, all facilities needed to be built. For example also this phone booth.An almost completed ‘De Roef’ can be seen in the distance (1976).

Fig 6. ‘De Roef’ short after completion. The first housing blocks can be seen on the background (1977).

Forming a Society

November 30th 1976	The first 24 families received the keys to their new house from the Minister of Traffic and Watermanagement.
December 1976	First three officials of the secretary of the Public Entity of the IJsselmeerpolders are placed in an office in Almere.
1977	Civil Service of the IJsselmeerpolders publishes 'Ontwerpstructuur plan Almere'.
February 1977	Start of the third housing project in Almere Haven.
February 11th 1977	The council of Ministers decide to construct the Flevo-railway line.
February 28th 1977	First pole of the sports hall/swimming pool in Almere-Haven
March 1st 1977	The first model-house was opened for the public in Almere Haven, this house was located at 'Schoolwerf 86'.
March 2nd 1977	The first baby was born in Almere; Joyce Belinda Miranda Bressner.
April 1977	The first neighbourhood contact meeting was held in De Roef with inhabitants of the Schoolwerf.
May 6th 1977	The first market ever is held on Friday morning in Almere Haven.
June 1977	The routing of the highway A6 is established.
June 10th 1977	Number of registrations for a house in Almere-Haven has risen to 20.000.
May 31st 1978	Almere chooses first advisory board.
August 21st 1978	Secondary education starts with 63 students
September 7th 1978	First music lessons are given in De Roef.
Medio 1979	The built of Corrosia was finished.
February 19th 1979	First officials of the Civily Service of the IJsselmeerpolders move to their office 'De Hulk' in Almere-Haven.
March 28th 1978	First pole of library and healthcare centre.
June 10th 1979	Almere welcomes the five thousandth citizen.

7

8

Fig 7. ‘De Hulk’ was the first office building in Almere Haven and also location of the ‘City Services of the IJsselmeerpolder’ from 1979 on forward (1976).

Fig 8. Constructing the canals was very difficult due to the poor soil quality. Because of this the canals were (partly) constructed in concrete (1978).

TIMELINE

July 8th 1979	Canal in Almere-Haven is filled with water.
March 21st 1980	Clock tower was put into use
Summer 1980	The community centres in De Marken, De Meenten and De Grienden are finished and put into use.
September 7th 1980	Opening theatre ‘De Roestbak’
November 7th 1980	Ten thousandth inhabitant in Almere.
January 1st 1981	Almere Haven has got 4.044 houses.

(Nawijn & Veen, 1975; Nawijn, 1988; te Raa, 1989)

9

10

Fig 9. The building blocks by ABBT formed the first phase of realising a city centre in Almere Haven (1978).

Fig 10. Corrossia was built as a modern community centre where theatre, music, art and literature came together (1978).

2.3 INITIAL IDEAS AND GOALS

Due to its central location, directly from the start of Almere it was clear that Almere would grow even bigger than Lelystad. Its central location to the 'Randstad' would be its initial main quality. This made it possible for its inhabitants to live in Almere and to work in the Northern part of the Randstad. But this could only happen if there would be an attractive residential environment with enough (social) facilities to meet the needs of the inhabitants.

A structured plan was formulated in order to establish a city that would make it possible for every inhabitant to thrive, develop and to feel home. The plan consisted out of many goals and visions that will be explained in the following chapter.

Initial Goals

The document "Almere 250.000 mensen in 25 jaar?" (Almere 250.000 people in 25 years?), was released in December 1975. It was the second written rapport that was published regarding to the new city of Almere. The goal of this rapport was to describe the new and intended construction and development of a new urban environment. The people, their activities and their decisions were a central point in this rapport, an aspect which was underexposed in the first rapport "Verkenningen omtrent de ontwikkeling van de nieuwe stad Almere in Flevoland" (Explorations about the development of the new city Almere in Flevoland).

The rapport elaborated the measurements that would be taken in order to stimulate the human activities in the social-cultural domain. It also explained how they wanted to realise a well-balanced community development in which everyone was involved in decision making. The third goal of the rapport is the element of time which mainly focussed to the first phase of development and what should happen and occur.

The following goals were the guideline to establish concrete measurements and instruments. In the consideration between these the opinion of inhabitants would have been crucial in the decision making.

Goal 1: Almere needs to deliver a direct contribution to solve the regional solutions of today and tomorrow.

Some of these problems were the increasing segregation of the inhabitants on a regional scale; The disruption of local societies with one-sided population groups; the increase in division between living and working that causes frustrations.

1. Give priority to people who want or have to leave their homes in the 19th century neighbourhoods and to people who cannot find suitable housing in the Gooi (ratio 4:1)

2. By attracting the first companies and facilities give priority to companies, entrepreneurs and employees that does not have the opportunity to continue their businesses in Amsterdam or in the Gooi or that get remediated.

3. Realise directly from the start an environment where different types of activities can be driven by the multifaceted population.

4. Strive to offer homes, jobs and numerous facilities directly from the start, so that the necessity to travel to Amsterdam or the Gooi is limited, especially in the peak hours.

5. Pay equal attention to the elderly, working youth, low-income groups and other population groups.

Goal 2: Almere must keep all options open for tomorrow.

Directly from the beginning all kinds of social changes, technical-spatial changes, consumption of energy and changes in the planning policy need to be taken into account.

1. Give the people direct influence about their own private life.

2. Allow as little as possible polluting sources.

3. Research which possibilities there are to set certain conditions with regard to the spatial environment.

4. Protecting the small businesses to make them economically viable. An option would be to create business conditions specifically focussed towards this group.

Goal 3: Almere must offer a place to everyone who wants to.

1. Ensuring a balanced population in which all age groups, income classes, professions and lifestyles are represented.

2. Provide specific tangible- and intangible facilities that are needed next to suitable housing to feel at home, such as neighbourhood facilities for the elderly, secondary education and recreational opportunities for teenagers.

3. Providing living space and other facilities for those who only stay temporarily in Almere.

4. Providing employment opportunities for those who part-time or cannot contribute fully to the labour process.

5. Providing facilities in Almere, also for those that are not living there, that are not possible in the Amsterdam- and Gooi regions. Such as allotment gardens, beaches, campings, bridle paths and hiking trails.

Goal 4: Almere must stimulate the individual and collective development of those staying there.

1. Take care of tangible and intangible facilities and services that are necessarily for the physical development of the inhabitants, like designing the city for walking and cycling.

2. Take care of tangible and intangible facilities and services that are necessarily for the mental- and creative development of the inhabitants, like creating opportunities for effective input in the design and management of education and healthcare.

3. Creating opportunities for effective input form the residents in the city program, design and management of the home- and living environment.

4. Take care of many and multifaceted contact options for a wide variety of recreational opportunities, workplaces, training opportunities, living environments, homes, facilities and institutions.

5. Taking care of a margin in homes and the living environment to personal design and adaptation.

Goal 5: Almere must contribute to the maintenance of a healthy and natural environment.

1. Experiment with environment-friendly farming practices in the more rural areas of Almere.

2. The search for and as much as possible using energy-saving methods in economic production, heating and traffic.

3. Minimal use of raw materials.

4. Promoting the use of alternative energy sources, such as wind, air, water, sun and body energy.

5. Creating reasons for inhabitants of Almere to meet- and come in contact with specific agricultural activities.

Goal 6: Almere must contribute to the maintenance and further development of the urban culture.

1. In certain parts of the city – especially the centre – give priority to the collective interests instead of the individual.

2. Take the different population groups into consideration within the urban environment.

3. Informing future residents and companies about the possibilities and impossibilities within the urban environment

4. Start the voluntary relocation of Amsterdam to Almere on a way that does the social-economic structures no harm.

5. Achieving a spacious and varied range of information and opinions, especially focussed on a local level, such as by a local radio television broadcaster (Nawijn & Veen, 1975).

Population
But in the end the city was built by and for people. In the first and second report a clear statement was given how the population in Almere should look like. For Almere the aim was to have a population composition not different than the average Dutch situation. This meant that directly from the beginning it was strived to have a ´complete´ society with all age groups, income classes, professions and lifestyles present. This was different than the trend that could be seen in cities at that time where the population composition was unilateral.

This did not mean however that there could not be differences in population composition between different parts of Almere; so it would not be a problem if there would be more young people in the city centre and older people in the more rural areas.

For the first few hundred houses that were finished around 1976 there was a strict policy for people who would be eligible;

1. Households with a low income.

2. Households with an urgent need for housing that were registered in Amsterdam.

3. Households from whom one- or more members were 50 years or older.

4. Households with workers that were needed directly from the beginning.

5. Parents of households that were eligible on the basis of the earlier criteria.

After the first few hundred inhabitants would settle three main principles were laid out in order to contribute to the intended population composition by the housing policy;

1. A varied housing production to type and place.

2. An imitation of a normal housing stock in terms of rent structure.

3. A task-oriented allocation policy to establish the desirable population

The minimal amount of 30.000 inhabitants was needed for Almere Haven so that a school community could function. This school community would thrive and function optimal with a population of 40.000. Because of this reason 40.000 was the inhabitant amount that in advance was planned for Almere Haven. An amount of at least 30.000 till 50.000 was needed for a proper district centre. A community centre with a theatre could thrive with a population of at least in between the 15.000 and 20.000 inhabitants.

Quite quickly tough the number of 40.000 residents was reduced to 20.000. There was the fear that if Almere Haven would be too large and succesfull that the the polynucleaire core concept would be abandoned. To realise this concept it was necessarily to start as soon a possible with the second core - Almere Stad - so that the core concept would be kept intact (Haperen & Scheek, 1976; Ministerie van Verkeer en Waterstaat et al., 1970; Nawijn, KE, Veen, 1975)

Housing stock
In the rapport 'Verkenningen omtrent de ontwikkeling van de nieuwe stad Almere in Flevoland' (Explorations about the development of the new city of Almere in Flevoland), it was stated as a guideline that an imitation of the normal housing stock would mean that 40% of the houses would be inexpensive, 40% would be for the middle class and 20% would be more expensive. 50 till 70% of these houses would have to be single-family-homes with an average occupation of 3,4 in 1980. This would decrease to around 3,0 in 2000.

It also explained that purely based on need, the accent would lay on houses for the lower welfare class. But that in order to make a 'vibrant residential environment' special attention towards more expensive houses was needed. The central location of Almere would namely attract the prosperous commuters (Ministerie van Verkeer en Waterstaat et al., 1970).

11

12

Fig 11. Children playing in the sand in front of the temporarily wooden homes at the 'Bivak' where currently the centre of Almere Haven is located (1975).

Fig 12. The first inhabitants of Almere Haven visit their future homes together with invited guestst (1975).

Growth tempo

An population number of around 125.000 and 250.000 people in the year 2000 meant an enormous growth tempo. In order to understand how big this goal was, some growth numbers will be mentioned and explained. It mean that on average 8.000 people would move to Almere every year. This was an average of 40 people per workday. With an average family size of three persons it meant 13 moving vans riding in- and out of Almere each day.

For education it meant daily a growth of six primary school students and six new kindergarten children. With this growth every two months a new primary school and kindergarten was needed. For good and proper healthcare every three months a doctor and dentist needed to be settled. Per year it also meant a growth of 40 till 50 hospital beds in the hospital for patiënts. On average per year eight sport fields needed to be realised. Furthermore 650 senior citizens needed to be housed each year.

Per year 8.000 m2 store facilities needed to be built. It also meant that each year 2.500 jobs should have been made available, something that was important to maintain Almere as a live-workcity. In order for everyone to receive their post, every month there needed to be a new mailmen. To pick up the trash every year a new garbage truck needed to be bought by the municipality. Together the libraries in Almere should have bought around 55 books per workday in order to meet with the national standards.

If the average Dutch norm would be taken into consideration 75 marriages would take place and 30 couples would get divorced every year. The fast growing population could furthermore form problems for clubs and organizations, as they would constantly grow. The question was whether they were capable to admit and accommodate all the new members.

The big growth of Almere ensured that facilities, agencies, certain professionals and institutions with a high ‘threshold value’ would come at an early stage. Threshold value means a specific amount of people that guarantees enough users to let a facility thrive. This was for example the case with the high school, hospital, swimming pool and commercial facilities (Nawijn & Veen, 1975).

13

14

Fig 13. (top) Minister Westerterp hands over the keys to the first inhabitants of Almere Haven and opens the local café 'De Roef' (1976)

Fig 14. (bottom) The first inhabitants of Almere Haven go to the local super market for the first time, guided by Minister Westerterp (1976).

2.4 DEMOGRAPHICS PAST, PRESENT AND FUTURE

In the year 1976 the first people started living, working, shopping and amusing themselves in Almere Haven. In fact with the arrival of these people the development process of the city really started.

For these people the move to Almere meant the beginning of a new phase in their lives. Almere Haven was only a few hundred houses big, that were still partly under construction, a first school, a few shops, companies and a couple sport fields in a rather windy polder. The new inhabitants mainly filled their free time with decorating their homes. Despite, or perhaps thanks to the fact that they were all strangers meant that they met each other and slowly became acquaintances or even friends. When interests and hobbies corresponded between a few then it could have meant that they started an association, club or even an action group. In short, the term 'society' was slowly shaped into form.

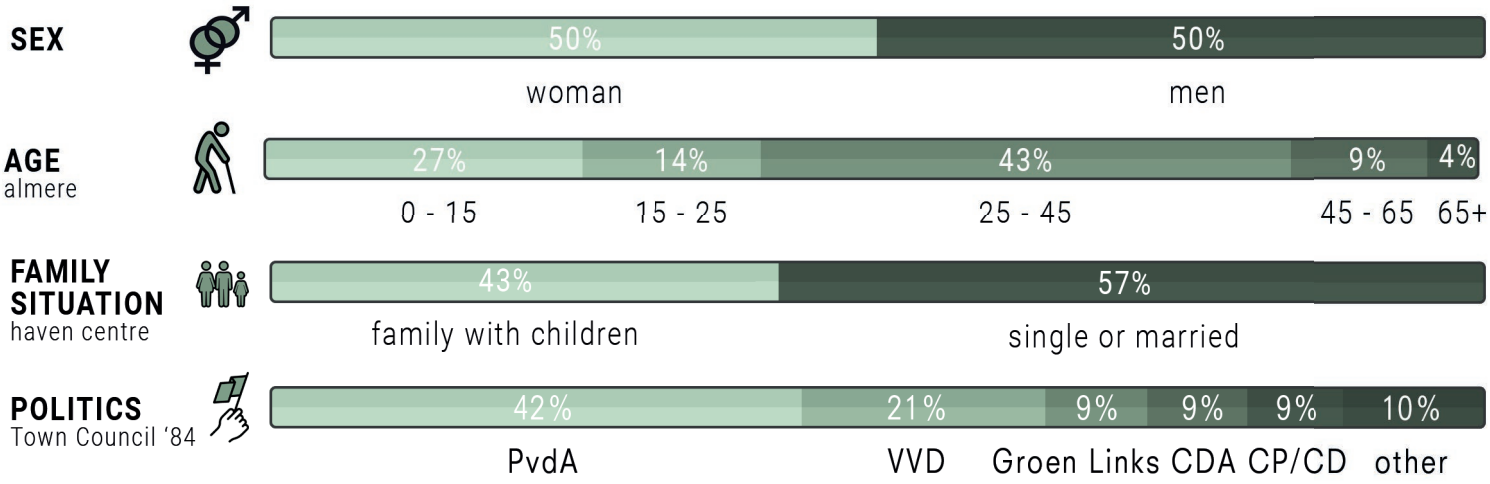
The abrupt change for these people was enormous. Most of them came from working class neighbourhoods within a big city such as Amsterdam. It meant a big change of life and because of that a different way of living. But it was not all negative, instead of their outdated flat they got a big modern house with – most of the time – a front- and back yard. Furthermore the children could safely play outside and nature would be just across the road. Furthermore in time the number of inhabitants, companies and facilities increased rapidly.

Demographics

Inhabitants of a city shape a city over time as a result of their wishes, needs of ideas. Sometimes it is the whole population that is the accelerator behind something, but there are also times when it is just one person or a small group of people with an idea. Whatever it is, it is clear that people are not made for the city, but the city is made for the people. Changing a city for the needs and wished of its population of course take a lot of time. Sometimes it is possible to predict a specific wish or need by studying its demographics.

In this chapter the demographics of Almere Haven are analysed. In order to establish a broader view Almere Haven is compared to Almere, the rest of the Netherlands and to Purmerend - another new city - in order to see if outcomes are local, national or if they belong to these specific types of city. This is - when possible - studied for the past, present and future.

(Centraal Bureau voor de Statistiek, 2018a, 2018b, 2019; Gemeente Almere/ SBZ/Onderzoek & Statistiek et al., 2011; Gemeente Purmerend, 2019; Heese & Oomkes, 1993; Janssen & Asselt, 2014; OpenInfo, 2019b, 2019a; Stichting bouwcentrum, 1983)



Almere Haven ±1983

Fig 15. From 1976 onward the first people started living in Almere Haven. The development and population grew exponentially until the increase in inhabitants reduced around 1983 as the development came to an end.

Striking is that the biggest group of people living in Almere is that of the adult. The vast majority of these adults would have been employed. The second biggest group is that of children under fifteen. With the combination of these two groups it can be concluded that most of the people coming to Almere Haven were families.

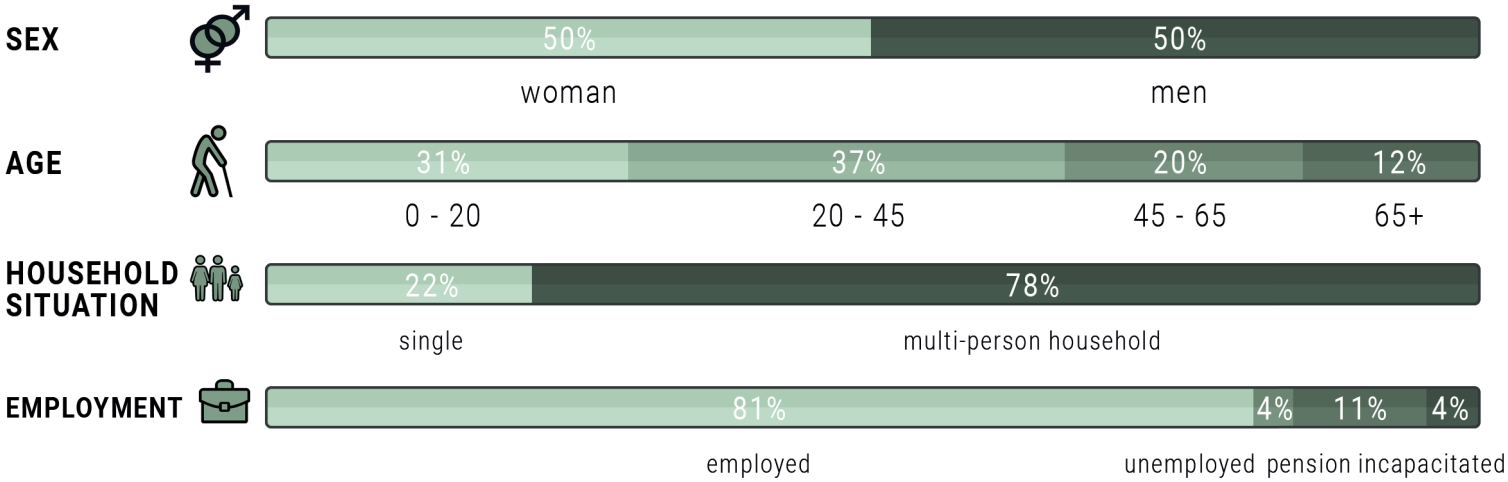
This is also accoarding to the average family situation in Almere Haven centre. The biggest group however here are singles- or couples. This makes sense as most of the house at that time within the centre - and still to this day - were appartements. It is expected that in the other neighbourhoods the families with children are representeted on a far larger scale.

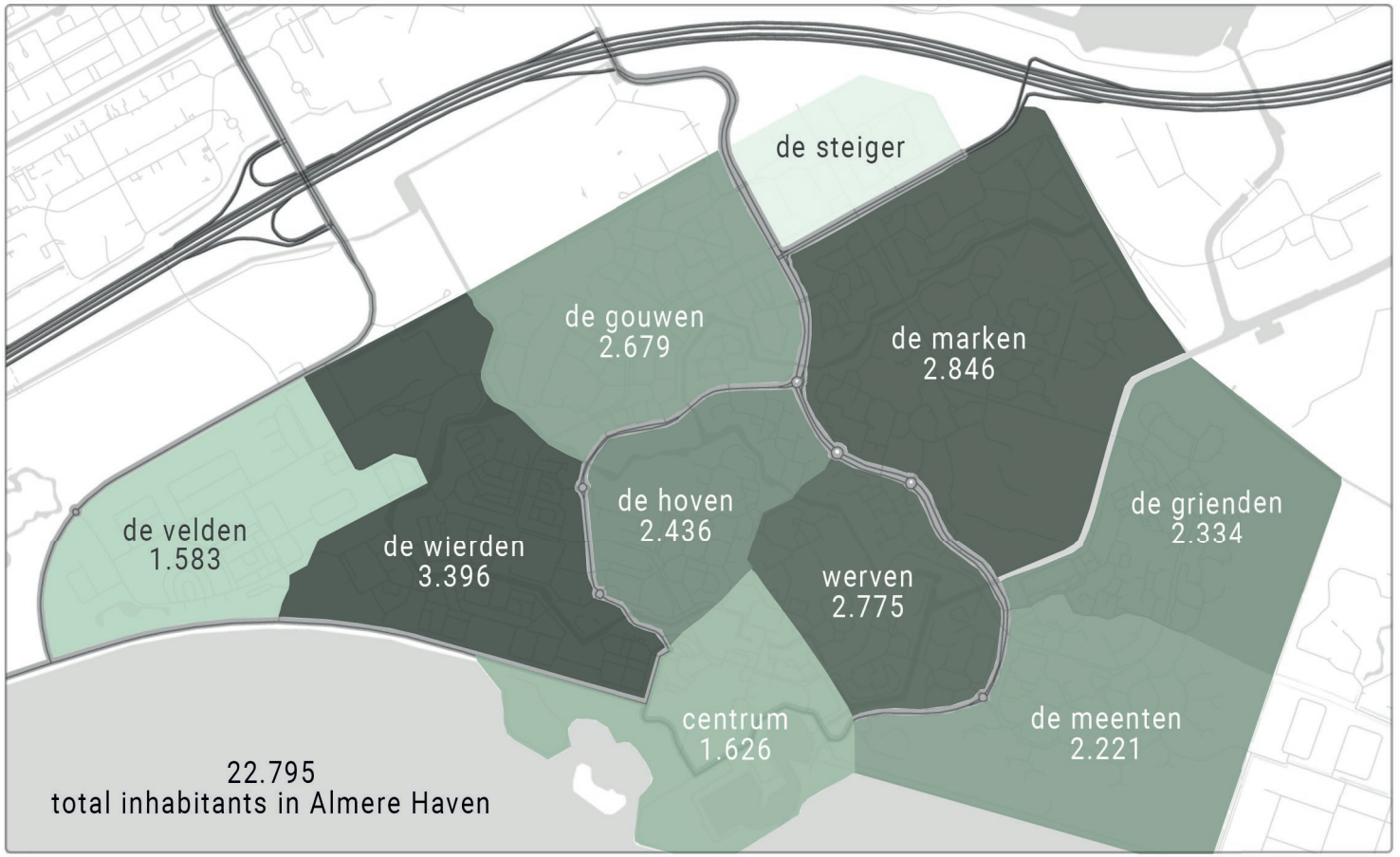
The political preferences in Almere at that time in 1984 were clear when the town council was chosen; the PvdA (the labour party) got 42% of the votes. At that time the party focussed itself towards employment opportunities and as a result of this the reduction of the unemployment rate. The PvdA was at that time also the biggest party in the 'Tweede Kamer' (House of Representatives) and also in the Town Council of Amsterdam. Because of both reasons, it is not a suprise that the PvdA became the biggest party in Almere.

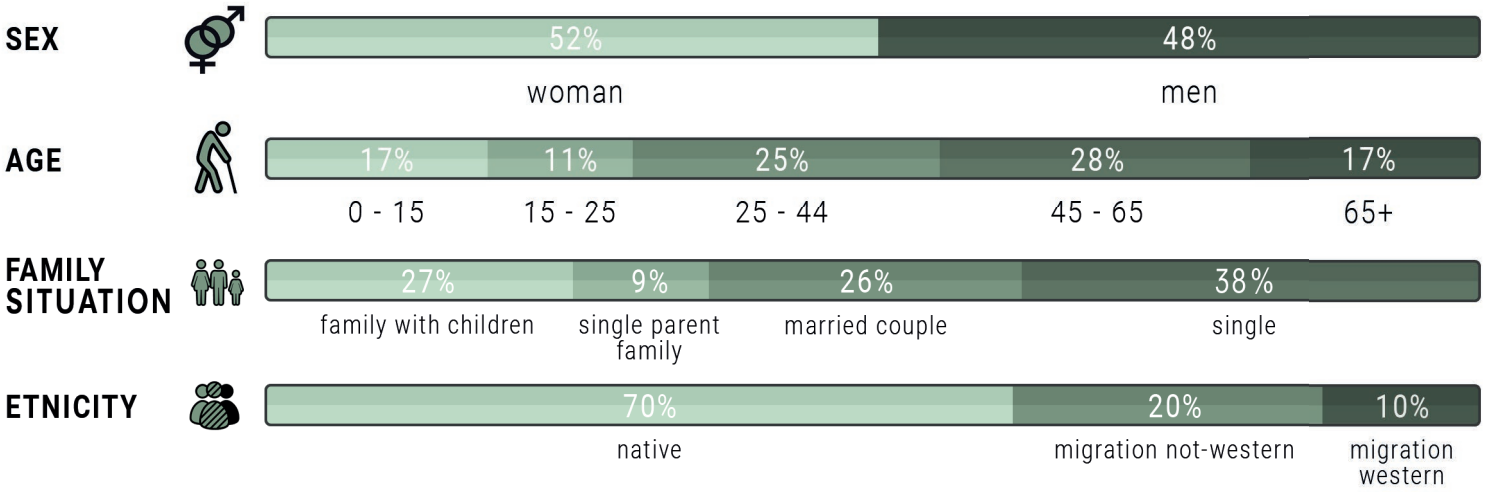
The Netherlands ±1983

Fig. 16. There were some differences however between Almere and the rest of the Netherlands. Striking again is that the adult group is the biggest, just as it was in the whole of Almere. A difference in the age composition is that of the elderly people. The amount of elderly people over 45 is twice as high in the whole of The Netherlands as it was in Almere.

This does make sense of course as these elderly people are less tempted to move because the children were older or already moved out; the need to move was far less than that of young families.







Almere Haven 2018

Fig. 17. The statistics from Almere Haven developed as one might expect from the data out of 1983. While the largest group 35 years ago were the young adults, they now became of age and most of them are senior or soon to be. This group from ages 45 and forward are know the largest group in Almer e Haven; almost half of the people are over 45.

This can also be seen when looking at the current family situations. While in the past the families with children would have been statistically the biggest group, currently they are only represented by less than a third of the total. The one-person-families (including not-married couples) and the married couples have the largest share in the whole by almost two third.

Furthermore interesting is that 70% of the inhabitants of Almere Haven are native while the other 30% has a migration background.

Almere Haven 2018

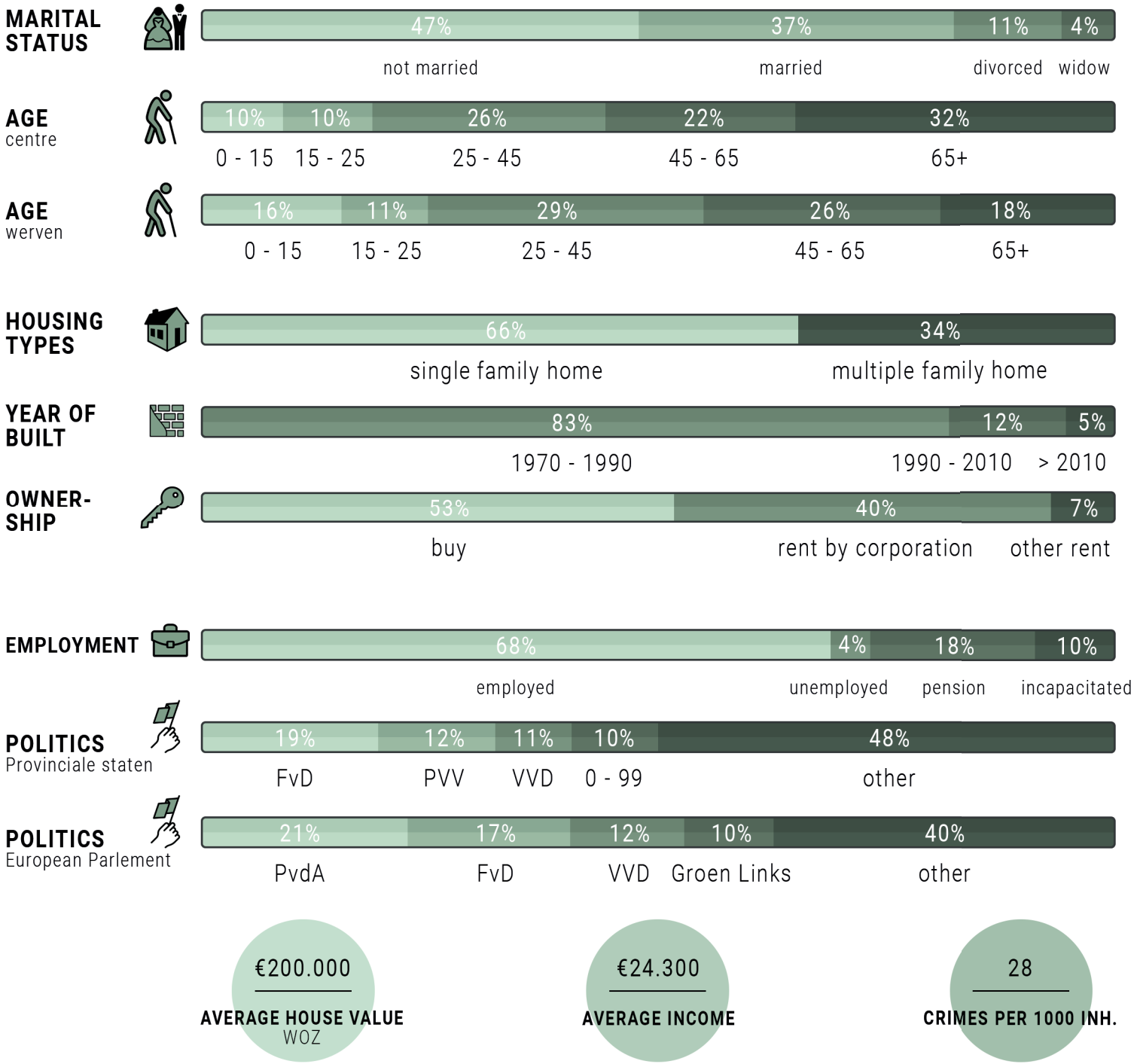
Fig. 18. When looking deeper into more specific statistics of Almere Haven it can be seen that the aging population is an continuous trend. As most houses are single-family homes it means that quite a lot of elderly persons and couples remain living in these homes even when the children have long moved out.

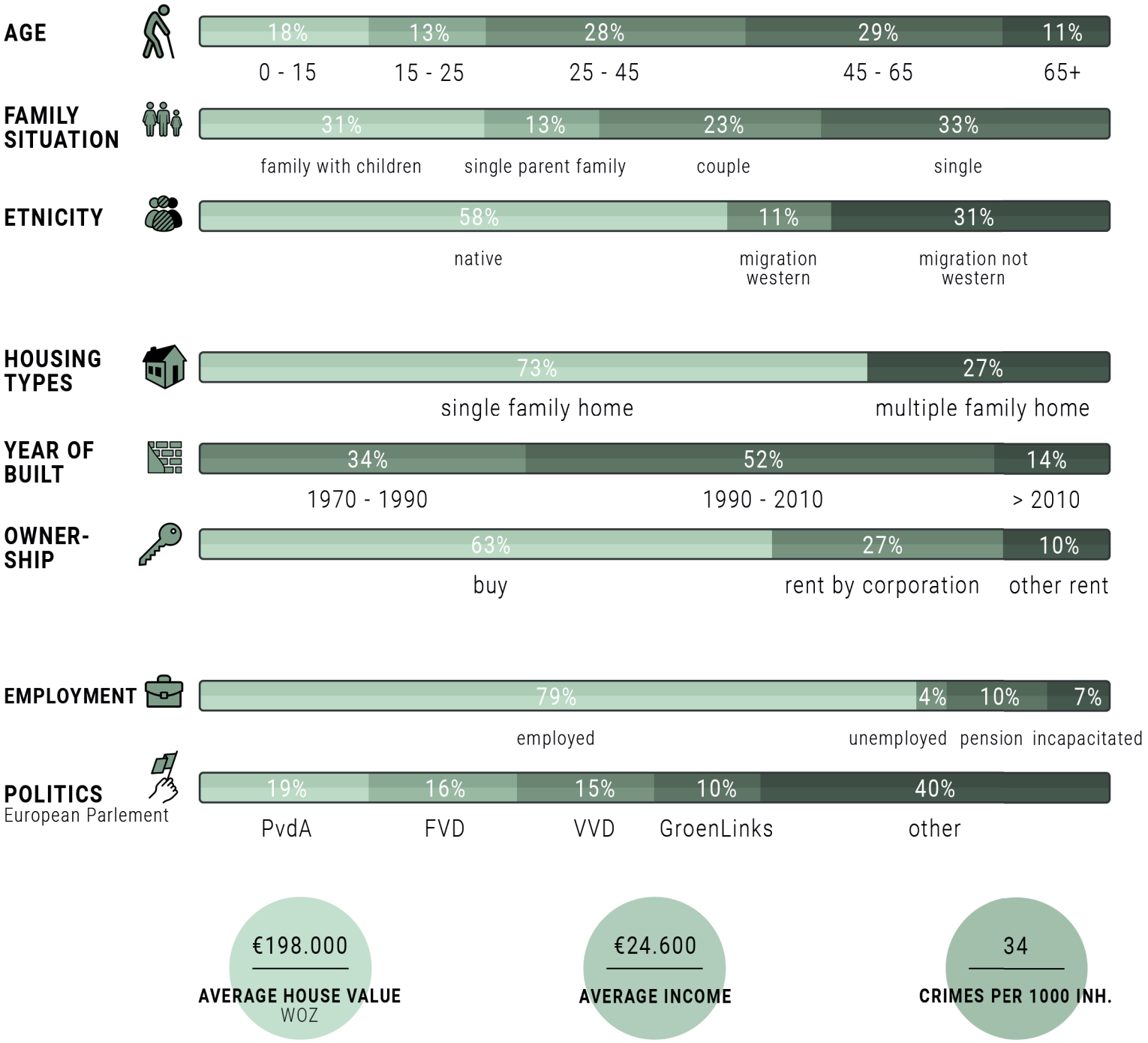
As expected is that the average age of these homes date back from the seventies and eighties. A little bit more than half of them are privately owned, the other half are mostly owned by corporation(s). In- and close by the centre this number is likely to be higher to almost a 100%.

The average house value seems to be steep when taking the average income in account. The average income is very low and far under the average Dutch income.

Interesting is that there are far less incidents happening in Almere Haven than in Almere and the rest of the Netherlands.

Interesting is that, when looking at the politics, the 'PvdA' was still one of the bigger parties during the election of the European Parlement in 2019. The interesting part however is that the 'FvD' (Democration Party) in both elections scores high. While the PvdA is a more liberal, left-oriëntated party, the FvD is more conservative and right-oriëntated. This change in voting behaviour is an interesting trend that might even be seen as radical.





Almere 2018

Fig 19. In comparison to Almere as a whole it is clear that the average age in Almere Haven is far older. The family situation however is not that different. This makes sense of course as both younger- and older people have a one- or two persons household. Striking is that the migration background in the whole of Almere is even more higher than that of Almere Haven.

Futhermore the percentage of family homes is higher. This makes sense as multiple big expansion areas have been built with almost only single-family homes.

Almere Haven and Almere as a whole are similair accoarding to politics, average house value and average income.

Purmerend 2018

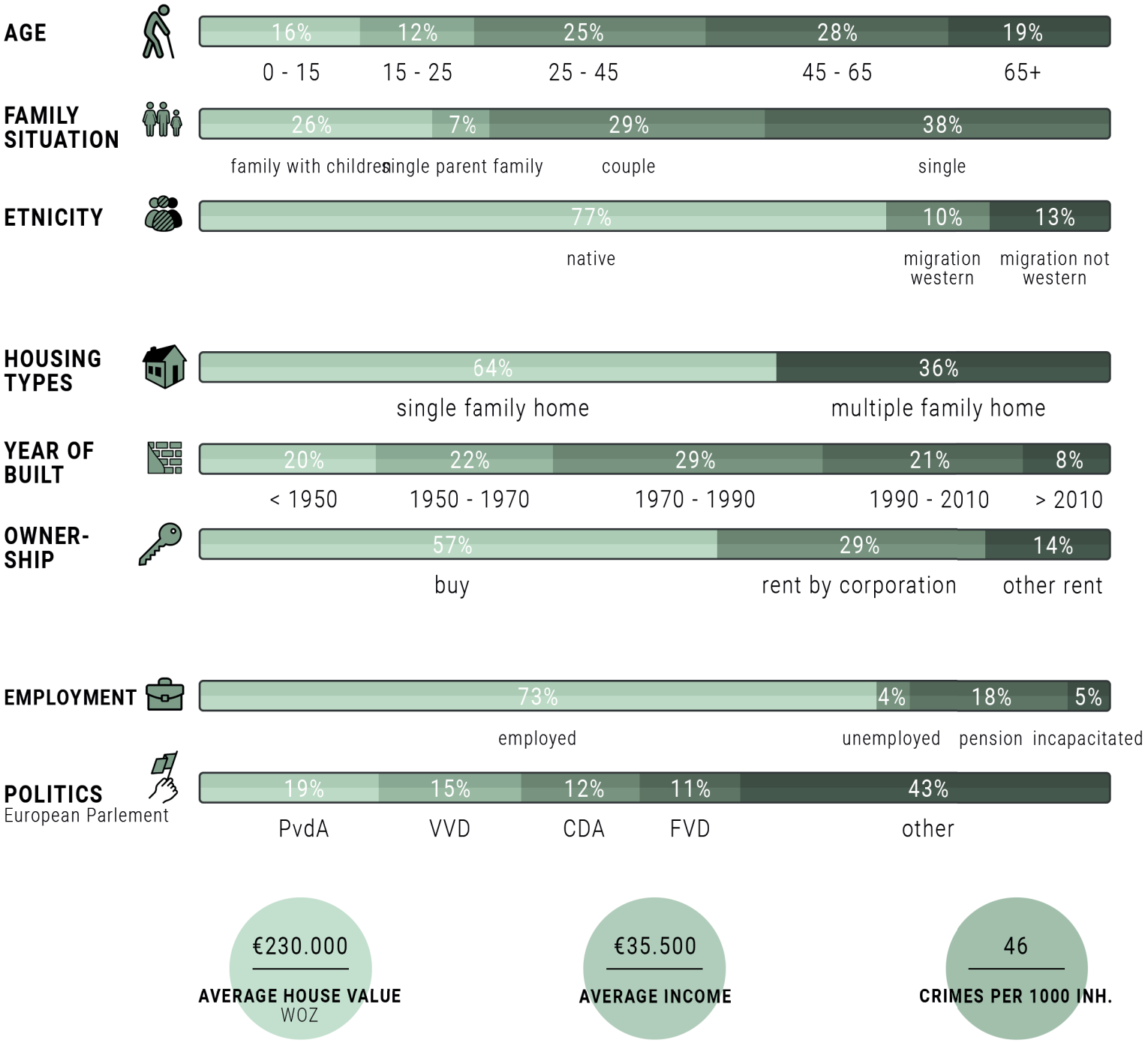
Fig. 20. Purmerend can also be seen as a 'new city' similair to Almere. It is located in the North of Amsterdam inbetween Zaandam and Volendam. The distance to Amsterdam is similair to the distance of Almere to Amsterdam. It has a little bit more than 80.000 inhabitants.

The average age of the population is similair to that of Almere as a whole, but younger than that of Almere Haven. The family situation is however for both cases comparable. The same counts for the etnicity and the housing types.

There is a difference however in the years were the homes were constructed. As Purmerend has got an older core, it also has older homes. That this is not the case for Almere makes sense of course as it is a completely new city.

The employment rate and the political preferences are very comparable. However the averge house value but especially the average income is far higher and even above the average Dutch income.

What is interesting is that the amount of crimes per 1.000 inhabitants is around 25% higher than the average in Almere. It might be that there is just more crime, or that the people simply report a crime faster than people in Almere would do. This seems to be the more logical explanation.



The Netherlands 2018

Fig. 21. Next to Almere as a whole and Purmerend, it is also interesting to compare Almere Haven with the rest of the Netherlands. Compared to the rest of the Netherlands the average age in Almere is not that much higher; one might even say that it is almost the same. The same counts for the family situations that are very similair.

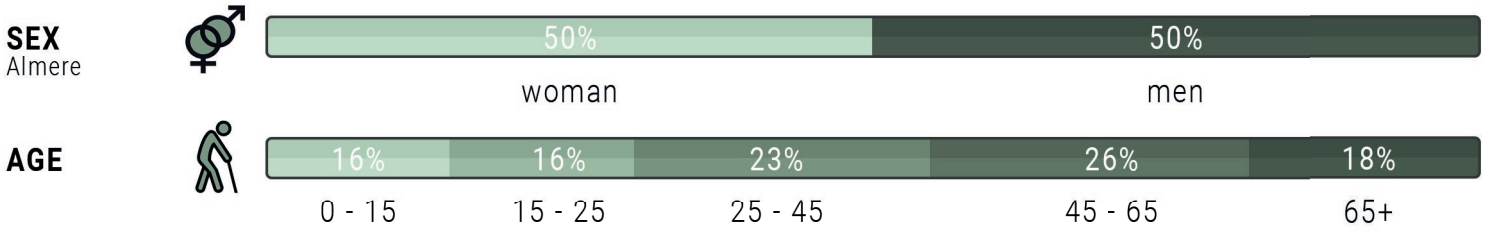
A difference can be seen however in the etnicity. It can be stated that the percentage of inhabitants with a migration background is higher. There is also a difference in the employment rate. Not because more inhabitants in Almere Haven are retired, but because more inhabitants of Almere Haven are incapacitated and for this reason not able to work. It might even be that this is one of the reasons for the low average income.

There is also a difference when looking at the preferences in politics between Almere Haven and the rest of the Netherlands. It can be concluded that they prefer a slightly more conservative and right-oriëntated governance.

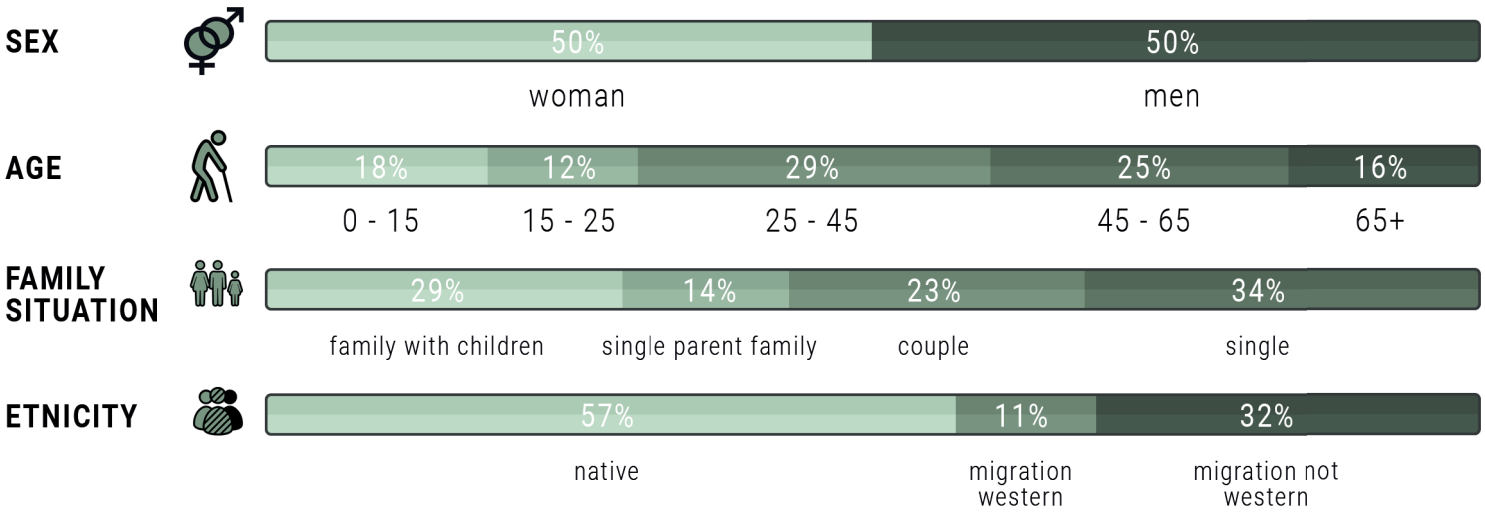
In general it is interesting that the differences between Almere Haven and the rest of the Netherlands are not as big as expected.

Almere Haven 2030

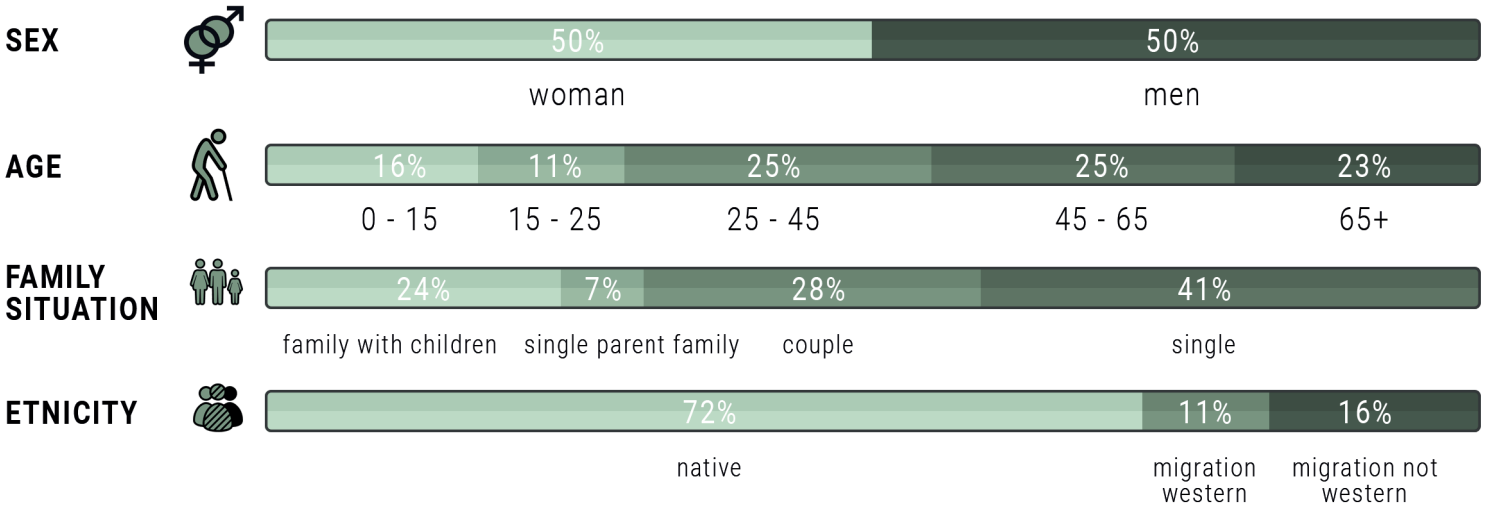
Fig. 22. Accoarding to the prognoses not much will happen to the population structure in Almere Haven except for a small growth in the total population. The biggest expected change in age is an increase of youth in the age between 15 and 25; this is logical as the current group of children between the age of zero and fifteen will simply age. It is furthermore expected that the size of this first age group will stay constant.



ALMERE



THE NETHERLANDS



Almere 2030
The Netherlands 2030

Fig. 23. Compared to the expected average age construction in the whole of Almere and the Netherlands not much will change either. The age group over 45 will stay the biggest, the other age groups will also stay more or less the same. Big changes will neither occur for the family situations.

But what will change is the etnicity background in the whole of The Netherlands. This will increase with 5%, while the increase in almere will only be 1%. The reasons for this might be the refugee stream the past couple of years that will only increase over time due to instable regimes.

2.5 LIVEABILITY

Liveability is the attractiveness and suitability of a place or community to live, work and recreate. Where statistics are easily readable as they are fixed number, is the liveability far harder to conclude and most of the time these insights can only be given by numerous inhabitants that share their opinion.

In this chapter the liveability of the past, but mostly the present is discussed. This is done by looking at different aspects. Next to what inhabitants feel, there will also be looked towards the cultural activities, crime, poverty and facilities.

Liveability in 1983

Research towards the liveability in Almere Haven was not done until fairly recently. Because of this it is more-or-less unclear how the local society functioned at the beginning of the eighties. Only one research is known that was more focussed towards the design- and use of the centre of Almere Haven.

Almere Haven and its city centre were finished and intensively used by 1983. For the Ministry of Housing that was the moment to do research under the inhabitants towards experimental housing and the social behaviour of their inhabitants. The Ministry of Housing praised the project of its contemporary city planning and the use of the freedom of the bended lines within the city design. On the other hand they are critical towards the complexity of the buildings and its details.

The combination of houses and shops at that time was from the view of the inhabitants seen as very successful. The inhabitants value the close proximity of all facilities close to their home, the cosiness, atmosphere, livelihood and the integration of houses and shops. Downsides of the homes in the centre are the supply and removal of goods for the shops and the bustle because of the shoppers. 17% of the respondents find the city entre vacated after closing times. Furthermore there is a valuation of the public services such as the market square and Corrosia.

The shopkeepers value different things. They are positive regarding the supply and removal of goods form the back. There are also downside though; most of them find the concrete columns a disadvantage as they limit the view to the stores.

In the end of the research it is concluded that the overall conclusion is positive; both the researchers as the respondents are positive towards the centres design and use.

Although this research was not especially focussed towards liveability, it can be concluded that the respondents are fairly happy living in the centre of Almere Haven. Big (social) problems were not discussed in the rapport (Stichting bouwcentrum, 1983).

Liveability in 2018

The Ministry of Internal Affairs (De Ministerie van Binnenlandse Zaken) researches liveability according to 100 indicators divided in 5 dimensions. Out of research it is concluded that these 100 indicators form the liveability in a neighbourhood and area and that by knowing them an estimation can be made towards the liveability of Almere Haven and how this will develop over time.

When looking at Almere Haven it can be seen that on average the liveability is amply sufficient, but not extremely high. Generally it can be stated that the physical environment and the facilities are rated positive, but that the inhabitants and the safety is rated negative. It is interesting the city centre, the Werven, the Marken and the Grienden are all rated sufficient, while the Gouwen and the Meenten are rated with a good. Safety and the inhabitants have a higher score than in the rest of Almere Haven. The Hoven is rated as weak; the residential stock scores negative.

When looking at the development of liveability in Almere Haven it can be seen that in the past years there have not been any development. Striking is that in the Grienden there might have been a little bit of development development as the safety improved. This factor cannot directly be explained.

More or less the same conclusions were made during field research in Almere Haven. People valued the surrounding nature, the harbour and the facilities that are close by. On the other hand multiple people stated that there is segregation within the local society and that the average economic welfare is poor (Gemeente Almere, 2019; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019).

Fig. 24. (top) Liveability in neighborhoods in 2018.

Fig. 25. (bottom) Liveability development in neighborhoods ranging from 2016 till 2018.

Crime
The inhabitants of Almere Haven mark their feeling of safety with an average 6,9. This mark is for the whole of Almere exactly the same. Although this seems to be low, one needs to take into consideration that the average mark in the Netherlands is a 7,0, Almere Haven and Almere only score just slightly under this mark.

41% of the people living in Almere Haven feel unsafe sometimes, this is slightly higher against the 40% for the whole of Almere. The average in the Netherlands is 34%, again the number in Almere and Almere Haven is slightly higher. Within their own neighbourhood 24% of the people feel unsafe sometimes. This number is the same for Almere Haven and Almere as a whole.

In the past year the crime rates in Almere Haven and Almere increased. On average in the whole of Almere it increased by 10%, in Almere haven it increased by 13%. Per 1.000 inhabitants there is a crime rate of 28 in 2017. As seen before is that the average in The Netherlands is 46 crimes per 1.000 inhabitants. Because of this the conclusion can be made that people might feel unsafe, but that in reality the crime rate is more than 60% lower than the Dutch average. (Moors, Rovers, Bruinsma, & Fijnaut, 1984)

Cultural Activities
Culture gives children the possibility to develop their talents and for others it is a way to express themselves and by this forming their identity and the identity of the surrounding. It makes a city more attractive to visitors and to new inhabitants. Culture makes a city a place to live, where people meet each other and connect.

Almere Haven has got the most cultural facilities in comparison to all other districts of Almere. In the centre there is the Corrosia Theatre, Expo and Film that shares the building with the library, a community centre, office space for the municipality and living spaces. Corrosia has got a program for theatre, movies and art all year round. But it is not only Corrosia where activities are happening, weekly classical concerts are for example also given in the church building De Goede Rede. Furthermore there are multiple artists active in Almere Haven and in its direct surrounding. Next to this Almere Haven is the stage for the annual ‘Sinterklaasintocht’ and the annual Harbourfestival.

As can be seen, a lot of things are happening and the facilities are present within Almere Haven. This does not mean however that inhabitants of Almere also are interested in the cultural activities or visit them. While research in 2017 found out that nine out of ten citizens are interested in culture, only 65% of the inhabitants visit cultural activities frequently. The cinema in Almere Stad is the most visited activity, theatre Corrosia is the fourth most visited cultural institution. This does seem to be high, but one needs to take into consideration that only 56% of the people living in Almere know Corrosia by name.

The Almere Harbour festival however is the most visited and biggest festival in Almere. Next to people living from Almere itself, this festival is also visited by people that not directly live in Almere. The festival scores above average with an average 7,6. At this number it scores just under the dancefestival ‘Defqon’, but higher than the ‘Bevrijdingsfestial’ or ‘Wereldfestival Almere’. In general it can be stated that there are multiple facilities and activities within Almere Haven. But is it enough and are there opportunities for improvement? The field research in Almere Haven concluded that there are indeed some chances – especially for Corrossia – which can be taken in order to improve the amount and quality of these cultural activities (Gemeente Almere, 2019a; Onderzoek & Statistiek Gemeente Almere, 2017).

Far more cultural activities can be found in Almere Haven in the form of different social groups, clubs or foundations. There is the possibility to meet like-minded people, for example to go sporting together or to share other interests. Out of the observations and field research the impressions was given that there is a small, but very social group of people that are a member in multiple of these social groups. The biggest part of the inhabitants tough, do not seem to be so enthusiastic to participate. This observation could not be verified with an objective source.

26

27

Fig 26. The market in Almere Haven is a place of social interaction since it started in 1977.

Fig 27. The Harbour Festival is the biggest annual event that is held in Almere Haven. This year the festival attracted 42.000 visitors, last year due to better weather it attracted 70.000 visitors.

2.6 FUTURE

The structure plan for Almere that was defined at the end of the seventies, formed the base for the development of a mature-, healthy- and sustainable city. Now that Almere is over forty years old, new plans are made in order to maintain the cities development in the near and far future. The plan for the future can be divided in seven guidelines for further development; the Almere Principles.

In the past the development of Almere mainly happened top down. Nowadays a bottom up-type of planning is preferred so that the initiatives directly originate from its society. The big difference is that in the past there were big, predetermined plans for the growth of the city. Nowadays the growth of the city is seen as more organic and mostly not done by the city itself.

The Almere Principles

Sustainable development was one of the key goals for further developing Almere. The big ecological- and environmental issues about climate change, energy, materials and waste were some of the key elements in the development of a new plan for Almere. This should result in a healthy, resilient and sustainable (future) city. In order to realise a fitting plan the American architect 'William McDonough' was involved. Together with the German chemist 'Michael Braungart' he developed the Cradle to Cradle philosophy. This philosophy does not focus towards limiting ecological damage, but to adapt the processes so that no damage occurs and that there is only profit.

For Almere not only the cradle-to-cradle-principle was interesting, but also is precursor The Hannover Principles. These principles were written in 1992 for the world-expo Expo 2000. It were practical oriented design-guidelines that were radical and uncompromising. Together with the initial ideas of the 'peetvaders' these were the main inspiration sources for the new structure plan for Almere. It lead to 'The Almere Principles' in 2008.
The Almere Principles are seven simple guidelines that are focussed towards Almere on the one hand, but universal on the other hand. They are a public manifest that formulates the important values for the city of Almere in 2030.

1. Cherish diversity: to enrich the city diversity is seen as a key aspect for ecological-, social- and astronomical systems. Almere will grow as a city rich in variations by valuing and encouraging diversity.

2. Connect place and context; to connect the city, her identity will be anchored and strengthened. From its own strength it will maintain active relationships with its surrounding communities in the broadest sense.

3. Combine city and nature; to give the city meaning, unique and resistant combinations of the city- and nature landscape and a better connection between human- and nature will be consciously strived for.

4. Anticipate towards changes; to allow further evolution of the city, flexibility and adaptability will be included in plan-making and programs. By doing this unpredictable chances for future generation will be made possible.

5. Stay innovating; to further develop the city new and improved processes, technologies and infrastructures will be encouraged and experiments and knowledge exchange will be supported.

6. Design healthy systems; to make the city sustainable, 'cradle-to-cradle' solutions should be used realising the underlying dependency of ecological, social and economical scales.

7. Empower people to make the city; civilians are the main force in creating, preserving and making the city sustainable. To accomplish their goals Involving and supporting them with dignity is strived.

This last principle can maybe be seen as the most important one; the key principle. It can be seen as the basis from which all the other principles arise (Feddes, 2008).

Almere 2.0

The Almere Principles formed the base for the new vision of Almere, Almere 2.0. In this vision the Almere Principle formed the base for ecological-, social- and economical sustainable growth of Almere.

Almere 2.0 has a clear vision about nature, ecology, landscape and water on a local and regional level. Investing and constructing green and water will remain one of the key elements in order to establish a unique and attractive residential environment. At the same time the existing green- and water environment will be improved so that its use can be increased.

The combination of city and nature will remain one of the key elements of the city. Chances have been listed for sustainable development of energy, mobility, water and productive landscape.

Almere 2.0 will bring more diversity to the city. The one-sidedness – which is logical for a new city - of facilities, house types, nature, demographics and employment opportunities will be enriched to a balanced structure with its own identities.

Almere furthermore has the potential to economically further facilitate the Northern Randstad. Optimal connections are necessarily for companies to establish themselves. The goal of realising 100.000 new jobs is only possible when the accessibility improves optimally. Almere furthermore will be an excellent host for new- and existing companies.

The polynuclear city-core-concept will be maintained as it allows growth and an individual identity per core. For this reason no big interventions in the city structure are foreseen in the near future. Because of the growth in population it does mean that the existing structures need to be strengthened. Almere Haven will cherish its green and small-scale character.

Almere 2.0 focusses itself towards being competitive in comparison to other regions. In the West Almere will get more urban, while in the East it will become more rural. By doing this it will be better connected to Amsterdam on the West and Utrecht and 't Gooi on the East. The accessibility to these regions will be improved in the upcoming years. Almere will for example be connected to the subway network of Amsterdam.

Almere will furthermore continue in developing new neighbourhoods, such as Almere Pampus and Almere Oosterwold. Other opportunities will be taken – such as the Floriade 2022 – to establish Almere as the (new) city to work and live.

Almere 2.0 is just as the Almere Principles, not a blueprint, but a flexible development strategy. It is a framework that shows the direction in which Almere will develop, but within the framework still a lot is possible. Because of this Almere will maintain the possibility to respond to new insights and to grab chances that reveal themselves (Gemeente Almere, 2012; Gememente Almere, 2018)

Housing

Almere is one of the fastest growing regions within the Netherlands. Affordable housing and single-family-homes are two of the main aspects that attract people. More houses will need to be built in order to house the growing population. The majority of these new homes will again be orientated towards young families. On the other hand homes will get smaller as the average household size shrinks, and due to the aging population.
Building more single-family-homes is a risk on the long term. It could be a chance to come up with unique housing concepts within the single-family-home typology.

Renting in Almere is on average rather expensive. Tenants will not notice this as they get housing benefits from the municipality. This does lead to a risk due to changes or cutbacks. On the other hand, buying a house in Almere is rather cheap. This makes buying a house on average more attractive than renting. Due to the aging population the need for affordable rental properties will rise over time.

Living smaller on less square meters is a global trend. Living smaller costs less money and reduces consumption. The 'tiny housing community' is for example a development which arose from this trend. Almere does not have that many small houses. Especially young households feel – whether or not out of necessity – the need to live smaller for a while. This trend asks for more compact housing within the whole of Almere.

Generally the elderly people in Almere are already living there for a long time in their single-family-homes. By not moving they occupy these homes that are needed for the young, starting families. It would be desirable that suitable housing concepts for this elderly target group will be developed. This is of course difficult as elderly people are critical and most of the time comfortable in their current homes. New built housing will remain of big importance for the housing need in Almere. Next to this the existing housing stock mostly dates form 1989 or earlier. This means it is in need of attention. Especially for the housing corporations there lays a big task (Buys, 2018).

2.7 CONCLUSION

Exactly 43 years ago, the first people started living, working, shopping and amusing themselves in Almere Haven. It formed the start of a new local society that was – until that moment – not yet present. Nowadays there is a functioning society in Almere Haven in place with lots of different people from different backgrounds and ages. After analysing them and their behaviour, different aspects of their society can be concluded.

Almere Haven is a city district that was designed by a group of specialists in 'Project office Almere' without the public participation of the future inhabitants. This participation came into being directly from the moment when the first inhabitants were known and especially when they started living there. Quite soon a tight community with a bottom-up approach towards forming a new society fitting them was developed. Still present to this day is this mentality in the prevailing culture.

Initital goals
The initial goals that were stated for the city of Almere were partly reached. It indeed delivered a direct contribution to the housing problems in Amsterdam at that time. Almere gave space to home seekers and companies that wanted to expand. This means that the first goal was reached indeed.

It is unclear if the second goal – that Almere keeps all options open for tomorrow – worked out. In the case of Almere Haven this goal did not have a lot of attention. On the other hand – because of the polynuclear concept – opportunities for future development were, and still are, kept open.

The third goal of offering everyone a place, did not directly work out as the (general) population is unbalanced and one-sided. On the other hand this is the general case in The Netherlands. Almere did realise all kinds of social facilities and employment opportunities though. These facilities did not only attract inhabitants, but also people coming from elsewhere.

Almere build a primary school and a secondary school as may be expected from the fourth goal. The fourth goal stated that Almere must stimulate the individual and collective development of those staying there. Higher education on the other hand – as was intended – never really came. It did take care of facilities and services that were and are necessarily for the physical development of the inhabitants, such as cycling paths.

Realising goal five did not work out as was planned. While for example city estate 'De Kemphaan' contributed to experimenting with farming practices, not a lot of recent contribution towards energy-saving methods and alternative energy sources was given. Furthermore the minimal use of raw materials was not realised as can be concluded from the exessive concrete-use in housing.

Contributing to the maintenance and further development of the urban culture, goal 6, seemed to have worked out. The different population groups were for example regarding the housing stock taken into account for Almere Haven. Currently one might say that this is not the case anymore. In the broader context is it unclear if this goal in the end worked out.

Population
The population composition of Almere in general was intended to be similar to that of the whole of The Netherlands. Directly from the beginning they could not meet this goal as the more adult, employed persons started living in Almere Haven. Now that these people and their children are 43 years older, the downsides of the initial population construction becomes visible; a big aging trend.

On the other hand, this same trend is visible in the whole of the Netherlands. To go even further; the population composition currently is almost exactly the same as it is on average within The Netherlands. The goal to reach a population construction similar to that of the Netherlands indeed worked out, despite it nog being very positive. The aging of the population in the future will stagnate, but the persons over 45 years old will remain to be the largest age-group.

Economic support
Another evident difference is the height of the average income in Almere Haven, which is very low. It is around 20% lower than the rest of The Netherlands. This can partly be explained by the large group of incapacitated persons. Furthermore the first inhabitants of Almere came from the poorer neighbourhoods of Amsterdam, meaning that their salary in general was lower. Nowadays the house prices and rents are still affordable for the (lower) middle class, so that still the same social groups are attracted to Almere Haven.

The limited economic support of the inhabitants for the numerour facilities results in additional problems. This results in a problem for the local centre. Limited economic support results in fewer purchases and so on this results in a limited- and one sided retail offer.

Still these people feel comfortable in Almere Haven. this can be concluded when looking at the liveability in the city district, which is largely sufficient.

Qualities

Can it then be concluded that the initial goals for Almere – focussed towards Almere Haven – worked out? The answer to this question is a multi-faced. On the one hand it is; it still offers a place for all persons who want to live there, living in Almere Haven on the other hand seems to be more difficult as the housing stock is one-sided and not especially suitable for everyone such as (disabled) elderly.

But when a person finds a new home in Almere Haven there are numerous benefits such as the cultural activities, the safety, the facilities in close proximity and the feeling of living in a Village. The feeling of being a 'Havenaar'.

Fig 28. (top) People visiting the friday morning market in Almere Haven, with the building blocks by ABBT on the background (1981).

55
NEIGHBOURHOOD

3.1 INTRODUCTION

This research on the level of the centre tis intended to provide an overview of the urban conditions of the centre of Almere Haven, as well as explain how they came into being and highlight which elements could be useful for future design. For this reason, the research will consist of several chapters.

The first chapter will present the initial ambitions and plans for the neighbourhood, and describe how they developed through time. To conclude, a set of overarching themes will be defined, which can be used to compare the original plans to the present-day situation.

The second chapter will describe how the centre of Almere Haven has developed over time, from the moment the construction began untill present day. On the scale of the city, this will be done using maps to be able to overview the general developments. Next, the report will zoom in on four locations in the public space and compare how these spaces developed from the moment they were designed untill today.

Using the themes that were defined in chapter one, the third chapter will describe the current situation in the centre of Almere Haven. Subsequently, a smaller observational investigation will be presented, which was carried out to show how the previously discussed themes relate to everyday life in Almere Haven. Finally, a comparison will be made between the characteristics of the themes in the original plans, and their characteristics in the present.

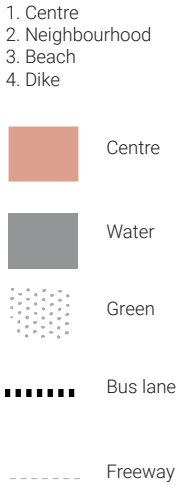
Since climate change and building sustainable cities wasn't generally considered to be a relevant item, the original plans do not describe the climatological characteristics of the centre. However, these topics are nowadays very relevant, which is why the fourth chapter will analyse the urban climate of the centre.

The fifth and final chapter is focused on the residents research, which has been carried out by all of the students of this master project. This report will focus on results of the residents research that are relevant for the analysis of the centre. The methods used to carry out this analysis will be described in the chapter itself.

As a conclusion, some of the key issues for further development of the centre will be highlighted, based on the analysis in the previous chapters. Since urban design and neighbourhood development are immensly broad subjects, this research is in no way final - it should be considered as an exploration, with the intention of defining some starting points for further research and design of the centre.

This research is based on literature, archival research, surveys and own observations. If information has been obtained through a literature or archival or resident survey, this will be indicated in the text. If this is not stated separately, it is a personal observation.

3.2 THE INITIAL DESIGN



The first designs of the centre district were published in 1974 by the 'Rijksdienst voor IJsselmeerpolders' (RIJP) and Projektburo Almere. These designs were still very abstract, and were mainly used to show the intentions and general vision and structure of the district, rather than providing a finished design.

Location

The report starts with a description of the location of the centre (figure 1). On the northside, the centre is surrounded by neighbourhoods which mainly consist of low-rise, low-density housing. Some of these neighbourhoods have smaller public functions, such as grocery shops, but the future inhabitants will mostly depend on the centre for their daily shopping and other services. On the southside, the centre connects to the harbour, although at this stage it was unclear if and how it would be possible to build it. The proximity of the water would be further used through the beach, which was intended for leisure activities (Rijksdienst IJsselmeerpolders & Projektburo Almere, 1974).

1. Centre
2. Surrounding neighbourhood
3. Beach
4. Dyke

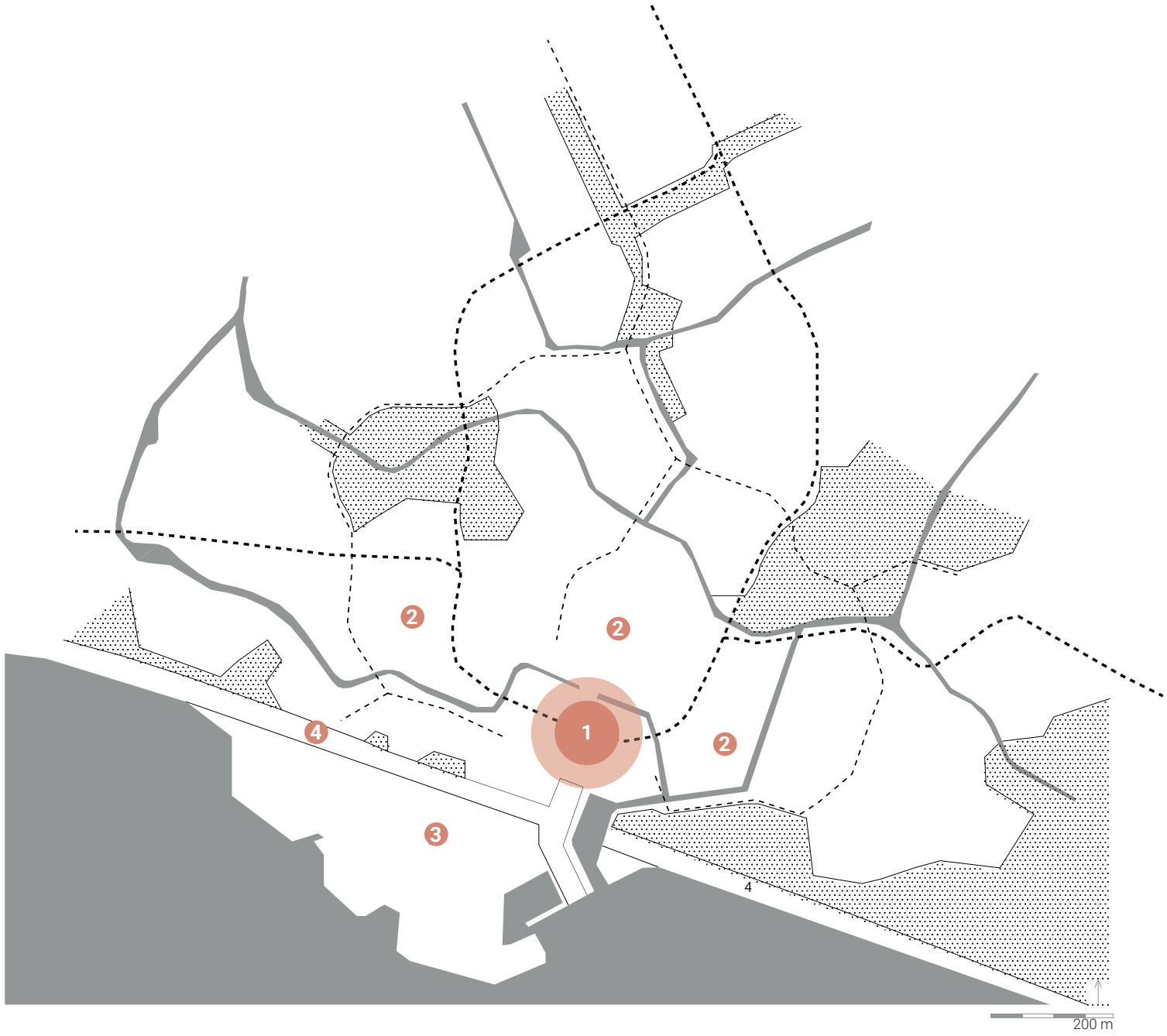
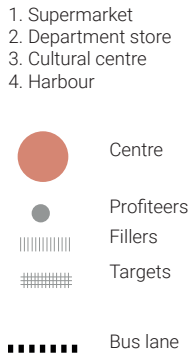


Figure 1. Context centre



Ambitions

The centre was designed to have several functions. Firstly, the centre had to shape a significant part of the identity of Almere Haven. Since Almere Haven would be the first built part of the area, the main goal of the designers was to make the area as hospitable as possible. For this reason, they studied several existing, traditional Dutch harbour cities. They concluded that, in terms of functions, the new city should have a connection to the water through the harbour. The activities taking place in the harbour would give the new city identity and make the centre more lively. However, they did not intend to make a close connection between the harbour and other main functions of the centre, since in traditional Dutch cities the city centre is built at a distance from the water to shield it during storms.

The centre was also intended as a service space for the surrounding neighbourhoods. This meant that the centre should provide all the functions one could need during daily life, ranging from shops for groceries to public services such as a medical centre, a church and schools.

Lastly, the centre had to play a part in attracting businesses to Almere Haven to provide workspaces for the future inhabitants. Since a larger business park was planned in 'De Steiger' neighbourhood, the centre was supposed to provide smaller office spaces. (RIJP & Projektburo Almere, 1974).

Initial structure

Since the centre plays an important part in shaping the identity of Almere Haven, the designers strongly emphasised the need to make the centre and the spaces within the centre easily recognisable. For this reason, the centre is structured along a set of landmarks, which would consist of important attraction points, such as a cultural centre or a department store (figure 2). Each of these attraction would be designed in a striking, distinguishable way, that paradoxically also had to fit the 'normalness' of Almere Haven. Along this structure, smaller functions could profit from the strong attraction of the landmarks.

Figure 2 also shows the connection of this main structure to the surrounding functions. The main structure is supposed to flow organically into its' surroundings, in function as well as spatial characteristics, consistent with the design of tradional Dutch cities. Other functions, such as parks, swimming pools or the business area, should be within walking or cycling distance, longer distances could be traveled by bus. The designers considered cars to be inferior to public transport and cycling or walking. This might be an explanation why the first drawings of the centre very sparingly show accesability by cars, which only becomes apparent in later designs (RIJP & Projektburo Almere, 1974).

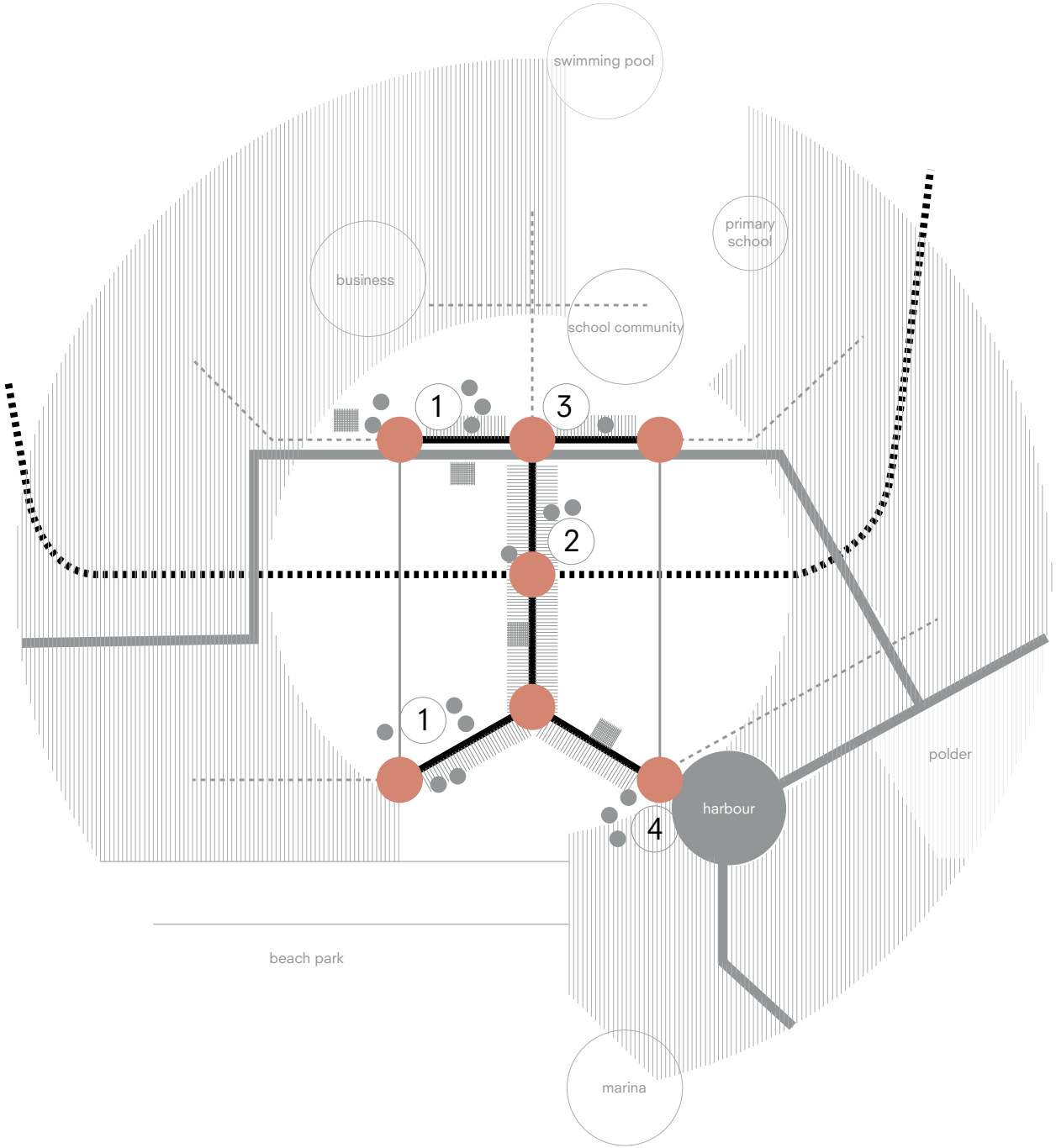


Figure 2. Scheme of first urban concept

1. Supermarket
2. Department store
3. Cultural centre
4. Harbour
5. Beach zone

Main structure - street

Main structure - square

Low rise shops/offices

Larger public functions

Bus lane

First spatial layout

Based on the drawings of the initial structure of landmarks and smaller functions, the first spatial plans for the city show a similar hierarchy. A main structure is set up, consisting of relatively narrow streets and two larger squares. The shape and routing of the structure is partly based on the presumed condition of the soil on which the centre would be built. It is also influenced by the designers intention to create a varied experience of the street; no street was allowed to run in one direction for more than a 100 meters, in order to avoid the long, empty lanes of modernist neighbourhoods the designers dreaded (E. Nawijn, 1988).

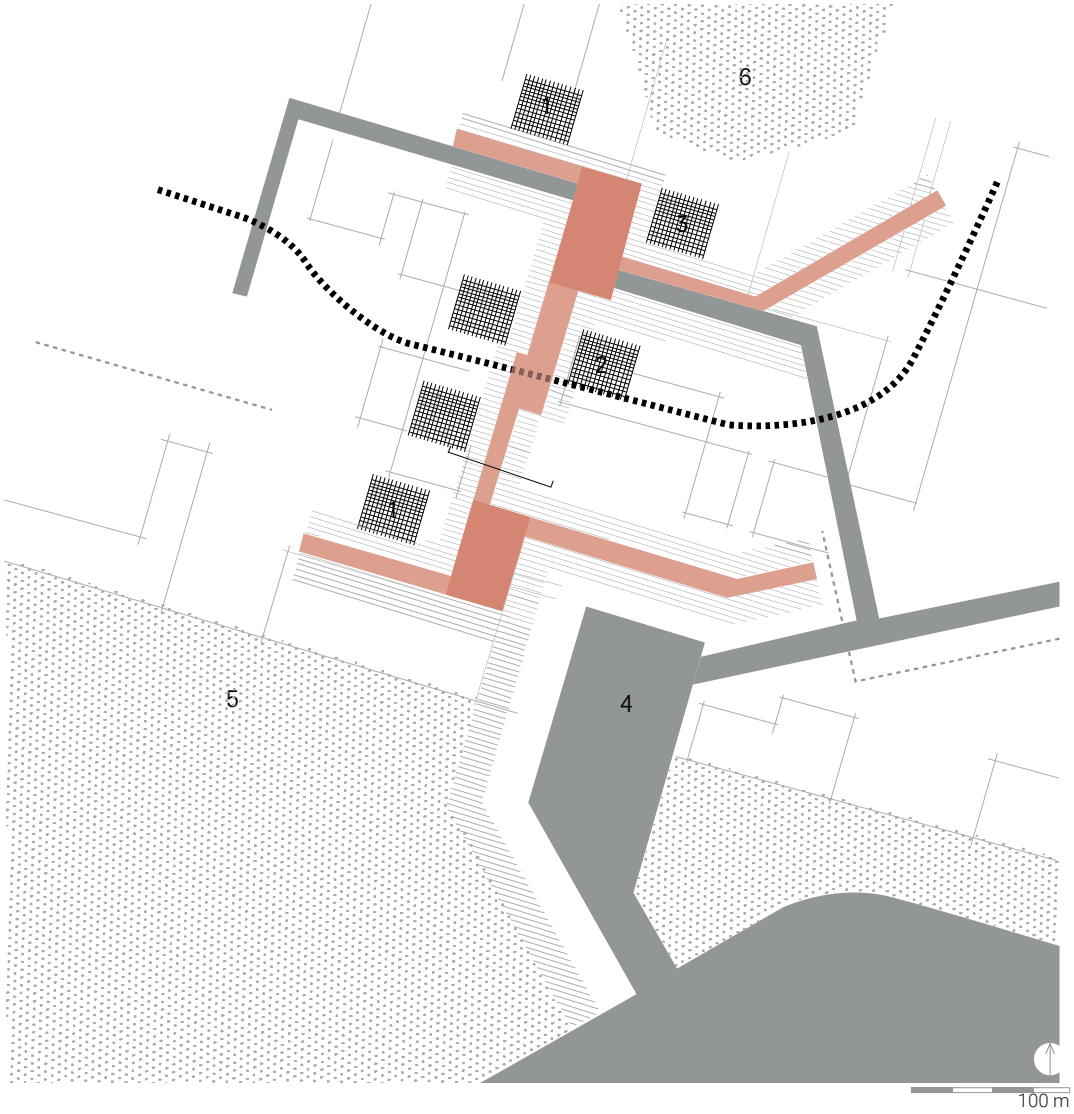
Surrounding the main structure, low-rise buildings with smaller shops and public functions on ground floor level would be built. On top of this public plinth, different types of appartments would be built. Along this structure, larger functions would be placed in larger, free standing buildings. For some of these larger buildings a function was already defined, others were intentionally left undestined to be able to decide what would be most suitable later.

Many aspects of the design, such as the position of the larger buildings and the connection to the harbour, were altered in later versions of the design of the centre, constrained by financial means, technical limitations and internal discussion. Some aspects remained, such as the position of the centre in relation to the water structure and the bus lane, as well as the alternation between narrow streets and larger squares (RIJP & Projektburo Almere, 1974).

The relationship between the main structure of the centre and the backsides of the buildings surrounding the main structure is expressed in section (figure 4). Although not expressed clearly in earlier drawings, at this stage, a city model was chosen which consisted of separate buildings, that together formed a semi-closed building block. This was a reaction against the model of free standing building blocks which had been used in a lot of post-war neighbourhoods until that moment. The semi-closed building was considered to be more fitted to the human scale (E. Nawijn, 1988).

In the case of Almere Haven centre, the front of this semi-closed building block would be oriented to the main centre structure, which would consists of a free central space and margin zones along the building blocks. These margin zones could be used in many ways. By pedestrians to walk shielded from sun, wind or rain, by shopowners to display their products, or by residents to reside semi-privately outside their house .

The backside of the building blocks would be used for parking cars and supplying stores. In order not to let the car dominate this side of the building block, the designers imagined a structure of raised streets and terraces that would take the residents' view of the cars (RIJP & Projektburo Almere, 1974).



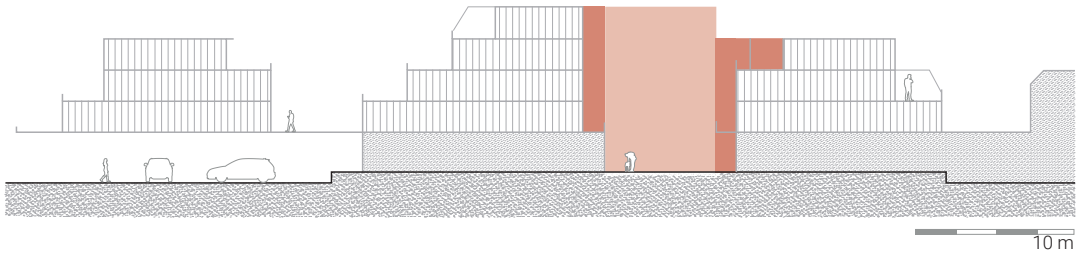


Figure 3. First spatial layout of urban plan

Figure 4. First section of urban plan

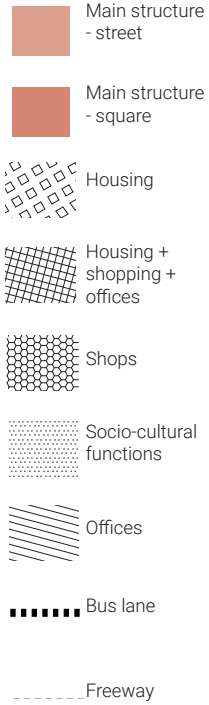
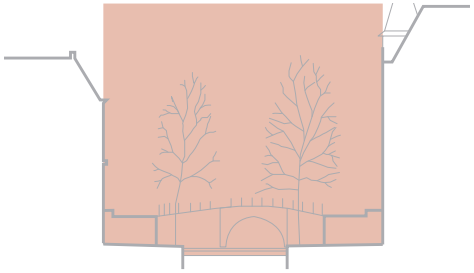


Figure 5. Study of the Oudegracht in Utrecht

When the construction of the centre was scheduled to begin in 1976, the contruction of the land of and surrounding the centre would not be entirely finished. It was therefore necessary to divide the construction of the center into different phases.The first phase, shown in figure 6, would be built until the northside of the bus lane. (Rijksdienst IJsselmeerpolders & Projektburo Almere, 1974).

Phase I

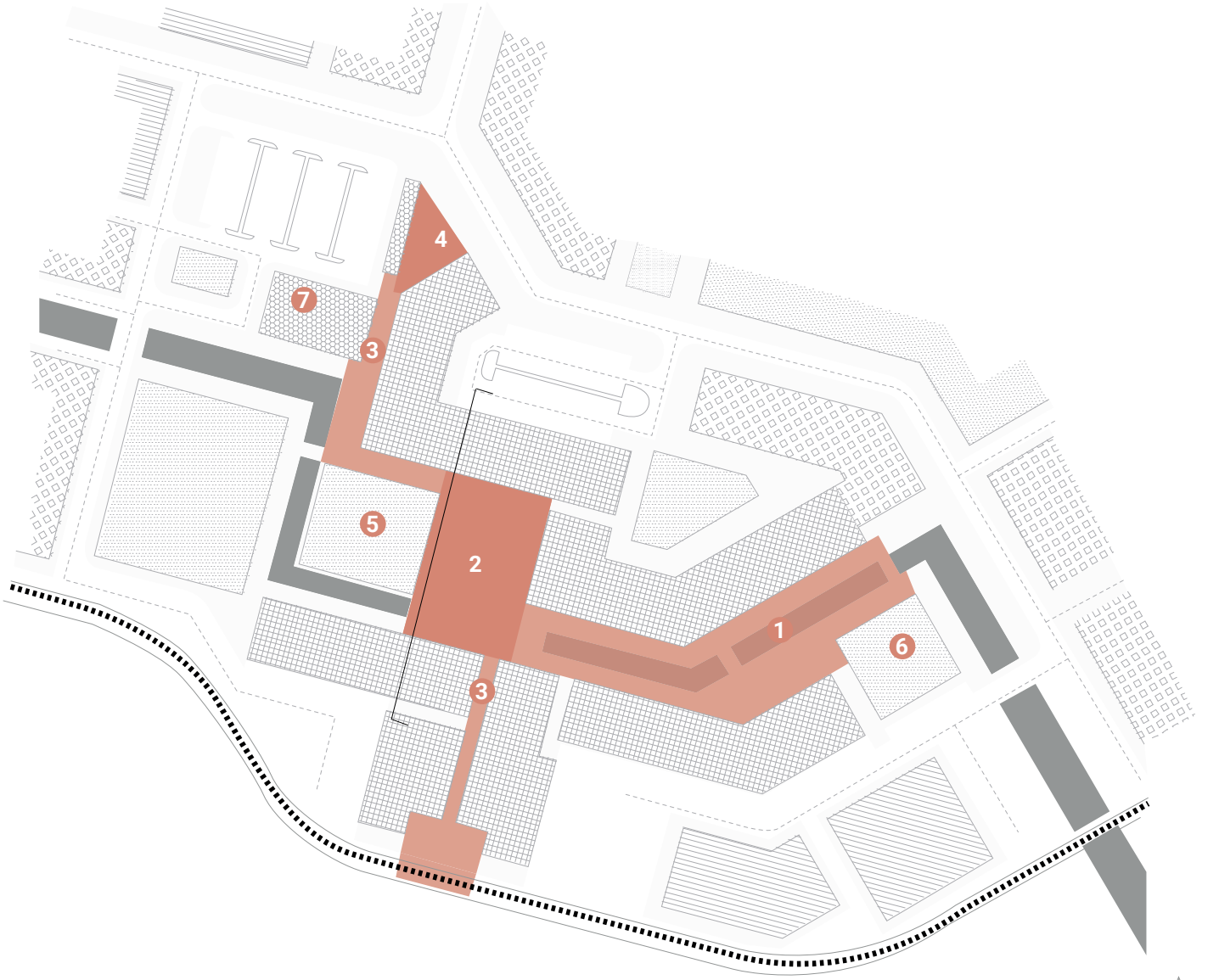
The urban plan for the first phase of the centre was designed by W.B. Tromp on invitiation of the RIJP (Figure 6). The first phase of the centre is shaped around the canal (1) crossing the centre, connecting to the market square (2). From this point, the structure would extend into two narrow streets (3), on the northside leading to a second, smaller square (4), and on the southside to the bus lane and the rest of the centre. The structure would be surrounded by buildings ensembles which would work together as semi-closed building blocks. A cultural centre on the market square (5), a church (6) on the eastside of the centre and a supermarket (7) on the northside would be the landmarks of this part of the centre (TU Delft, 1977).



The sections are the result of further development of the sections (figure 7) provided by the RIJP. Although the differentiation between the front and backside of the building remained the same, the interpration is different. The frontside still distinguishes narrow streets and wider squares and still includes margin zones, although these are mostly limited to the plinth of the buildings.

The backside of the buildings is interpreted differently than the initial design. The original intention to build elevated street levels and terraces has been abandoned in some. Instead, trees are used to limit the view on the cars. This design also forsees the possible need to expand shops at a later stage. In these drawings, the plinth is therefore extended at the backside. The buildings would not initially be built in this way, but shopowners would have the option to expand themselves when they see fit.

Even more than with the previous designs, the influence of the studies of old Dutch cities (Figure 6) is visible in this design. The height-width ratio of the narrow streets is based on these studies, as well as the roof shapes. The design of the Kerkgracht is strongly influenced of the studied canals. Both sides of the canal consist of a higher sidewalk and a lower zone , which is separated from the canal by a row of trees, whereas the shape of bridge over the canal strongly resembles the bridges (TU Delft, 1977).



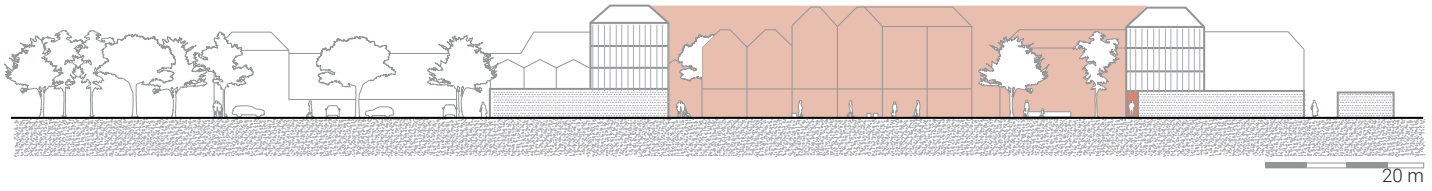
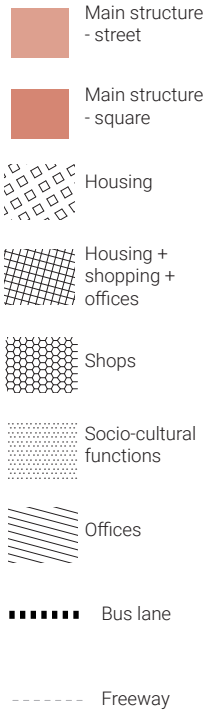


Figure 6. Spatial plan of phase I

Figure 7. Section of phase I



Phase II and III

Although phase II and III where meant to be two separate phases, both of them were designed by the same architectural firm, Van den Broek en Bakema (figure 8). Phase II consisted of the busstation which would solve the crossing of the bus lane (1) through the shopping street by elevating the street level above the the bus lane. Phase III would fill the space between the bus lane and the harbour. The aim of the design of van den Broek en Bakema was to create a strong urban identity, which could only be realisered if two main requirements were met.

Firstly, all functions should be mixed as much as possible to create liveliness throughout the area during the day. Since most of the larger public functions were already realised in the first phase, this design realised a mix of smaller shops, offices and appartments

Secondly, the area should include a variety of different spaces, ranging from collective to private. Van den Broek en Bakema considered the main structure of the shopping street to be the most public, and it would consist of a sequence of narrow and wider spaces, framed by shops and public functions. The main structure (2) would branch off into more private, residential streets (3). As in previous designs, the backside of the semi-closed building blocks would be used for parking (4), although this had to be concealed as much as possible by incorporating parking spaces under the first building floor, or by raising the ground level at the location of the dike (5) (Van den Broek en Bakema, 1976).

Figure 9 shows van den Broek en Bakema's attempt to mix functions and typologies; the first section shows a larger multi-storey appartment, whereas the others show entresols and one-storey appartments.

The design also shows several interpretations of the margin zones that originated from the first urban design by the RIJP and the Projektburo. The first of these variations is the transition zone in front of the shops, which is created by the balcony of the first floor. This zone is intended to be used by pedestrians in the shopping street to walk shielded from sun, wind or rain. It could also be used by shopowners to display their products to potential customers.

The second variation consists of an elevated street level, which could be reached by a staircase in the collective street. On the public street side, this elevated street level would function as a gallery to reach the adjacent apartments. In some cases, the street would branch off into a more private street, which could be used by residents to reside semi-privately in front of their appartment, as they would with in a street on ground-floor level in a residential neighbourhood.

The last variation includes several balconies and terraces, which could be placed on the collective street side as well as on the backside facing the semi-private courtyard. Altough these courtyards would also be used as parking space,the cars were supposed not to be visible due to the placement of the large trees (Van den Broek en Bakema, 1976).

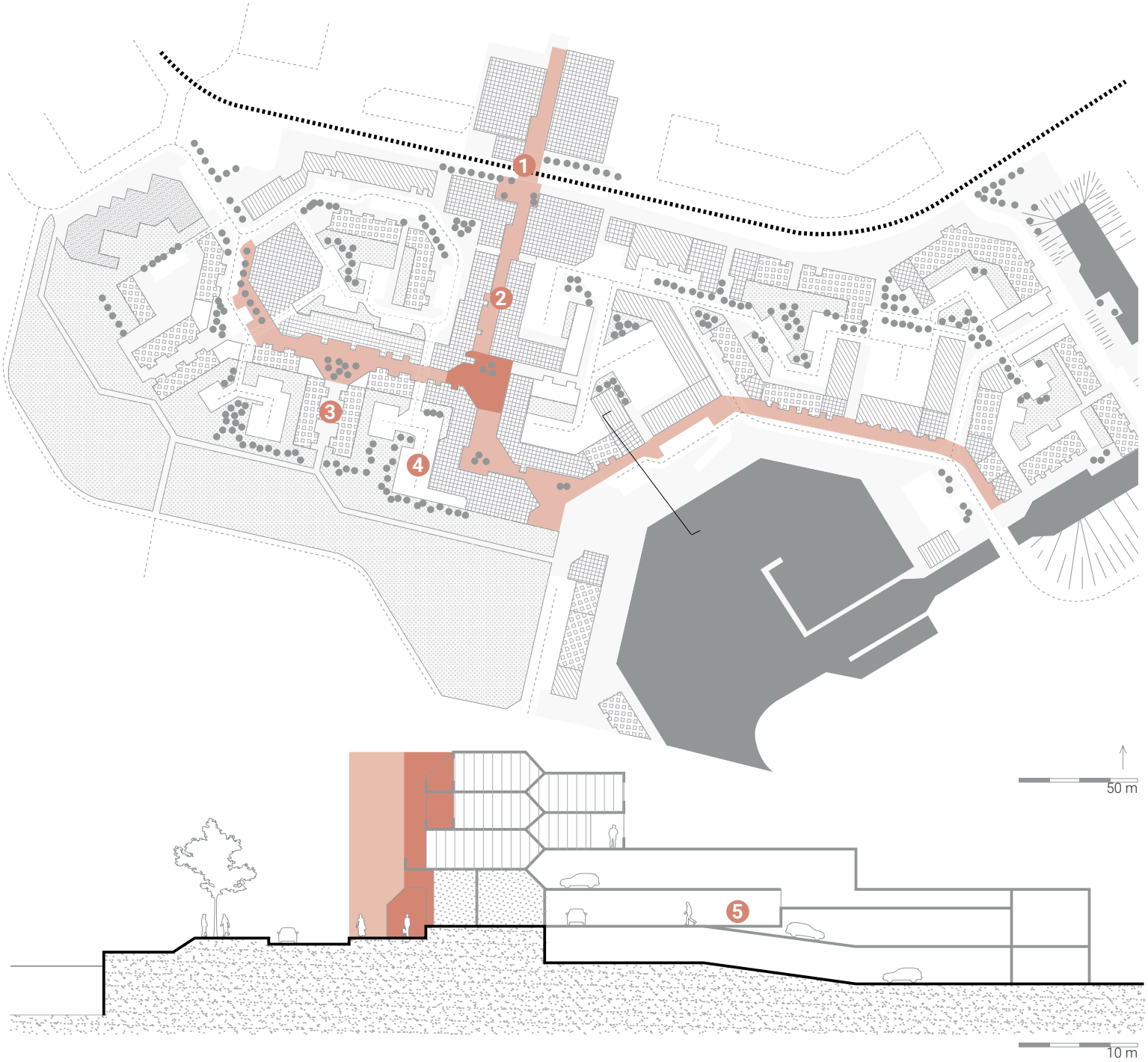
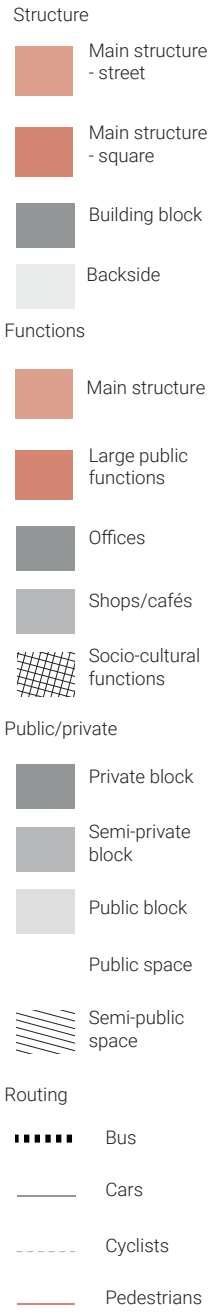


Figure 8. Spatial layout of phase II + III

Figure 9. Section of phase II + III



The aim of this section is to define the main characteristics of the final design using four main themes; structure, public-collective-private, functions and routing. These themes were chosen to represent as many of the main characteristics of the design as possible. In further chapters, the same four themes will be used to compare the characteristics of the design through different moments in time.

Structure
Based on analysis of traditional Dutch cities, the semi-closed building block was chosen as main model for the centre (figure 10). Each of these building blocks consists of several separate buildings with a clear front and backside. The backside can be reached through the spaces between these buildings. Together, the semi-closed buildings form a main structure of narrow streets and wider squares.

Functions
The functions are placed hierarchically along the main structure of the centre (figure 11). Larger functions that attract a lot of people are placed at the junction points and at the ends of this structure, with the intention to distribute people and liveliness across the centre. Inbetween these larger functions, smaller shops and other public functions are placed, which can profit from the attraction of the larger functions. The floors above the public plinth are apartments.
Offices are placed along the bus lane to ensure good connectivity.

Public / private
Public / private has been defined as the extent to which a building is accesible, both physically and visually. The model of the semi-closed building blocks strongly defines the public-private relationships of the public space (figure 12). The main street and the squares are the most public, both in terms of public space and adjacent buildings. The transition between the public space and the buildings is shaped by a semi-private margin zone, that could be used by residents and shopowners in several ways. The backside of the semi-closed building blocks were considered more private. Although they would predominantly be used for parking, the designers also intended these spaces as semi-collective space for residents, by placing terraces and balconies at the backside of the building blocks.

Routing
Since the bus lane had already been designed at an earlier stage, the infrastructural plan of the centre was designed in relation to this bus lane (figure 13). The centre is predominantly designed for pedestrians. Cars were considered a 'necessary evil', they could therefore only enter the centre from three sides, but ony cross it in one place in order to keep the centre as free of cars as possible. Parking of cars and bicycles were planned at the backside of the semi-closed building blocks. Various proposals were made to conceal the parking spaces, such as incorporating them in the dike or hiding them using trees.

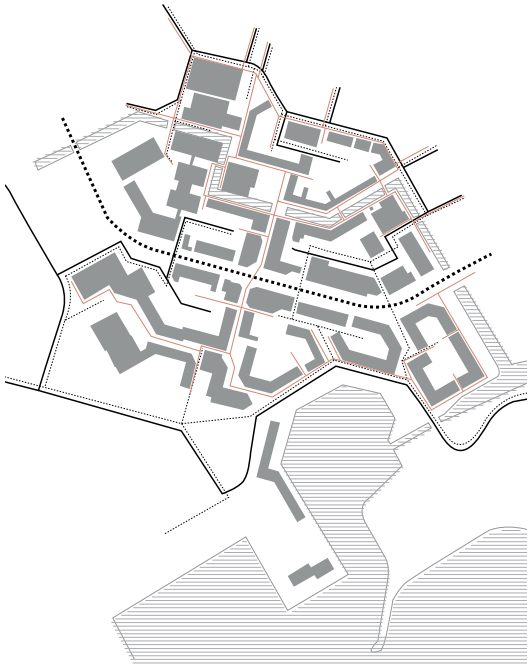


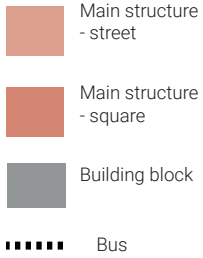
Figure 10. Conclusion of structure

Figure 11. Conclusion of functions

Figure 12. Conclusion of public / private

Figure 13. Conclusion of routing

3.3 LAYERS OF TIME



This section will describe how the original plans were ultimately implemented, and how the centre has evolved to this day. First, the development of the city centre as a whole will be described, and afterwards a closer study will be made of three public spaces in the city.

1975 - 1976
Construction began in 1975 when the first pole of the Roef (1) was driven into the ground (figure 14). The aim was to create a functioning community as quickly as possible, which is why the Roef was used as a bar, church, communal and cultural centre at the same time. The first few inhabitants lived in simple wooden cottages (CASLa Almere, 2001).

1976-1979
Finishing the first neighbourhoods, the centre had to start fully, functioning as a city center (figure 15). Therefore, the first few shops and schools were opened as well as the first market. Construction of Corrosia (2) and the Church (3) had finished, which led to the Roef being used mainly as a communal centre (E. Nawijn, 1988).

1979-1982
The construction of phase I finished in 1981, which is when the construction of phase II (4) started (figure 15). At the moment, however, financial problems also arose as a result of the economic crisis of the 1980s and the start of the construction of other districts of Almere (E. Nawijn, 1988).

1982-1989
As a result of the economic recession and the shift in focus to other neighbourhoods, the original plan of Van den Broek and Bakema was only partly implemented (figure 16) (E. Nawijn, 1988). The building blocks on the shopping street (5) are most similar to the original plan, although deviations were also made here by applying less different typologies. The building blocks that were constructed independently of the original plan were designed as free standing building blocks (6), in contrast with the original semi-closed blocks (Kadaster, 2019).

1989-2000
During this period, the center was faced with deterioration and vacancies, particularly in the southern part of the center at Meerstraat and the harbour (figure 17). Part of the southern centre building blocks (7) was torn down, despite the protests of the inhabitants (Kastermans, 2001). Near the end of this decade, the coastal zone was also privately developed, which resulted in the construction of several free standing tower blocks for appartments (8) (Kadaster, 2019).

2000-2019
The vacant space of the Meerstraat is partly turned into parking space, and partly developed for the construction of appartment blocks (figure 18). By this time, the northern area of the centre is also in decline, again resulting in vacancies.At the same time, there is also a lot of demand for new houses, both by people who want to return to Almere Haven and new residents.

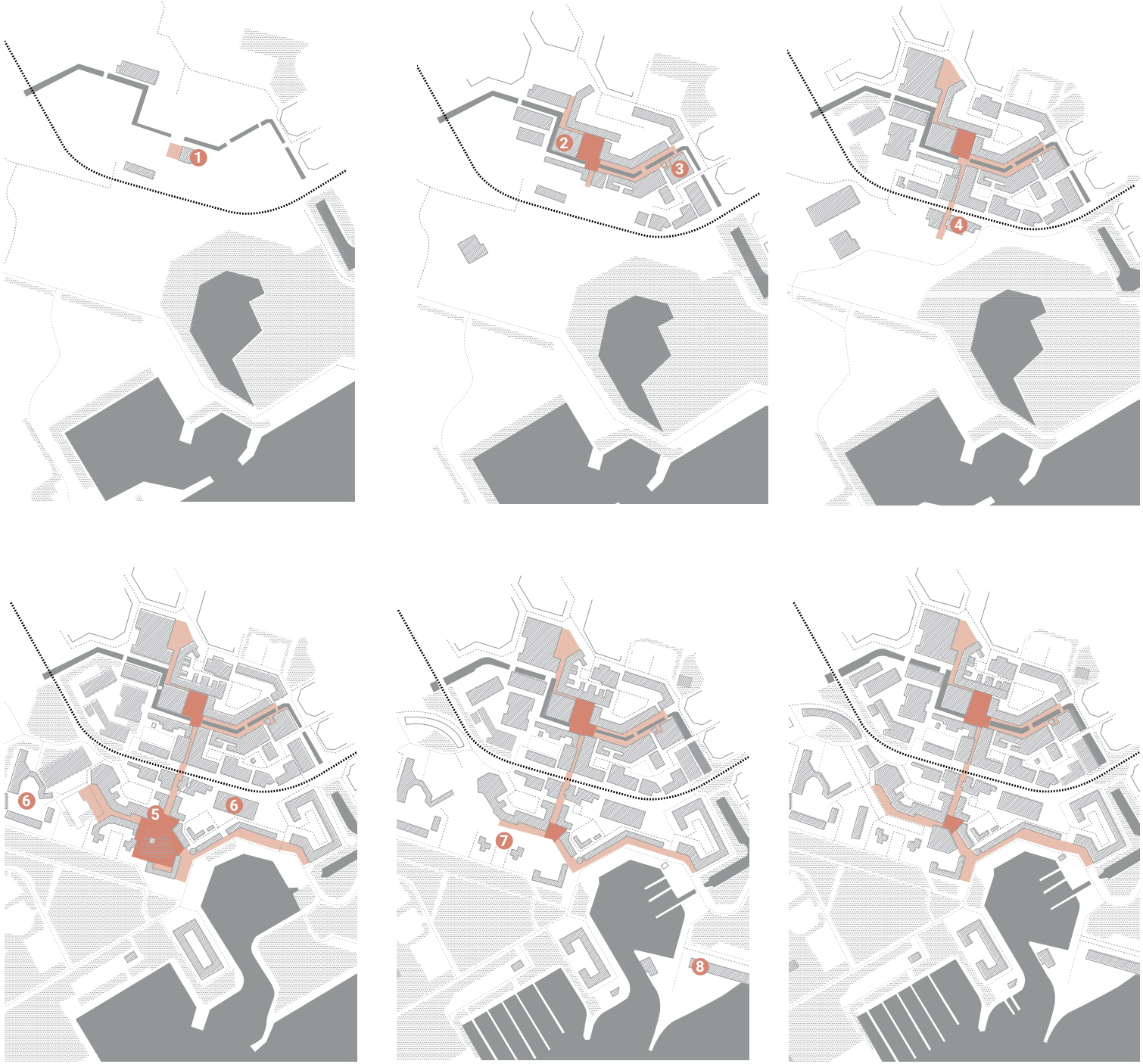


Figure 14. Centre in 1976
Figure 15. Centre in 1979
Figure 16. Centre in 1982
Figure 17. Centre in 1989
Figure 18. Centre in 2000
Figure 19. Centre in 2019

Kerkgracht
In the original designs, the border of the canal was defined by a brick wall, which curved to shape several leisure spaces at the start of the canal (figure 20). These were maintained untill 1989, when this part of the canal was filled to greate more space for the markt (Kadaster, 2019). In 1995, at the initiative of residents, the statue of the Dolfin was placed to commemorate the victims of the Second World War (Teunenbroek, 2019). The biggest change took place in the plinth of the adjacent buildings. Although the original drawings show a light arcade, the residents perceived it as dark and unsafe. In an attempt to upgrade it, the paneling was replaced, the columns were covered with natural stone and a transparent canopy was added on the outside (figure 25) (Ministerie van Volkshuisvesting, Ruimtelijke ordening en milieubeheer, 1983).

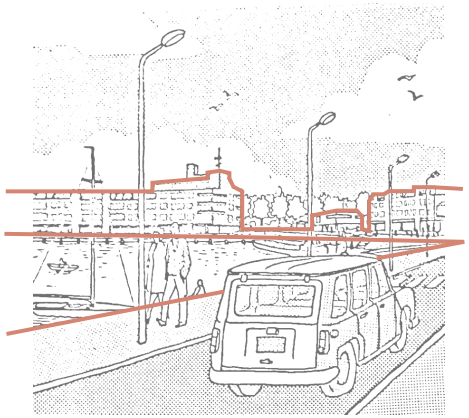
Markt
The original drawings do not elaborate in detail on the design of the market square, however impressions do show that was supposed to be made green, with a variation of smaller plants, bushes and trees (figure 23) , although in the end only a row of chestnut trees was planted. To keep the square free for market day and other activities, most of the objects on the square are movable (figure 24) (Ministerie van Volkshuisvesting, Ruimtelijke ordening en milieubeheer, 1983). The plinth was changed in the same way as at the Kerkgracht.

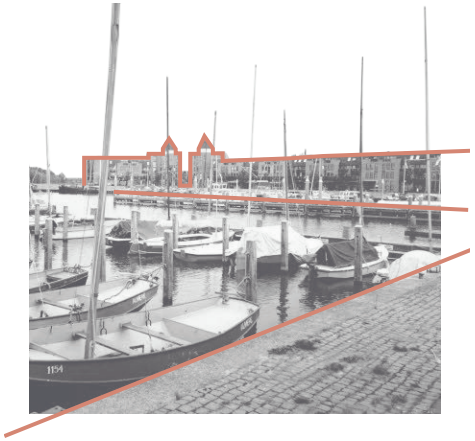
Havenkom
In the original plan of Van den Broek en Bakema, the buildings of the harbour were not intended differ much from the modest buildings in the rest of the centre (figure 26). When the original plan was abandoned, two towers were added to the entrance of the harbour, which emphasise the transition between the harbour and the city centre by finishing the adjacent building blocks with two towers (figure 27, 28)

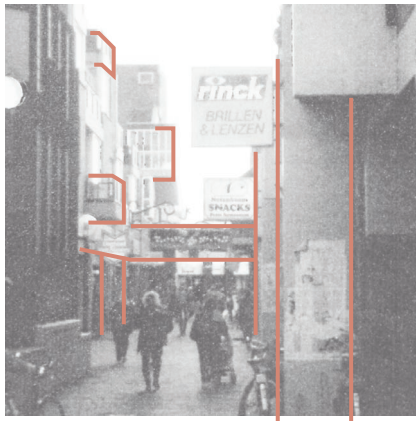
Marktstraat
Originally, the buildings on the shopping street would be accessed through galleries on the street side (figure 29). Although the galleries were ultimately not built, the internal streets and the bridge between these streets over the shopping street have been realized (figure 30). A few years later, the bridge was demolished, for reasons that are unclear. (figure 31)

Conclusion
At the urban planning level, it is likely that the economic situation of the government has had the most influence on the development of the city; spreading the budget over several parts of Almere and the economic recession limited the extent to which plans could be realized. This eventually led to outsourcing the development of some areas to commercial parties that did not adhere to original ideas. It was not possible to distinguish one main driver for change in the casestudies: the adjustments made were the result of many things, ranging from changes in trends, demands and new insights to practical reasons.

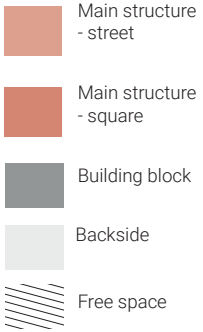
Figure 20. Kerkgracht 1975
Figure 21 Kerkgracht 1983
Figure 22. Kerkgracht 2019
Figure 23. Markt 1975
Figure 24. Markt 1983
Figure 25. Markt 2019
Figure 26. Havenkom 1975
Figure 27. Havenkom 1996
Figure 28. Havenkom 2019
Figure 29. Marktstraat 1975
Figure 30. Markstraat 1992
Figure 31. Marktstraat 2019






finck
BRILLEN
& LENZEN
SNACKS

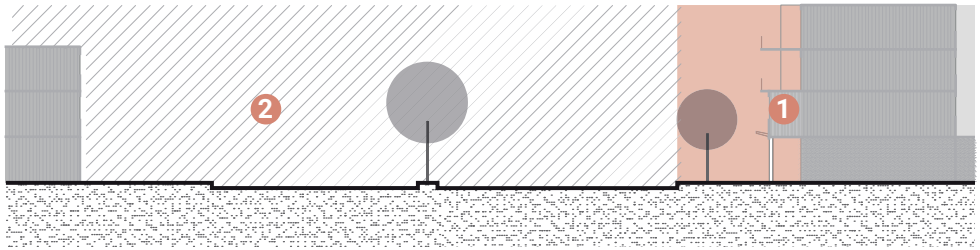
3.4 PRESENT - SPATIAL



Structure

Considering the mass and shape of the building blocks in the centre, two main types can be defined. The first one consists of semi-closed building blocks (figure 34). Each building block is made of several separate buildings with a maximum height of four storeys. The front- and backside are articulated differently; on the front, balconies are attached to the facade , creating a shielded zone in front of the plinth. On the backside, the plinth is often extruded for extra storage space, and the facade is a lot less transparent. The second type of building block sits independently in free space (figure 35). It doesn't have a clear front or backside, it can be equally approached from all sides. The maximum height differs, but it is generally higher than the semi-closed building blocks; in the eastern part of the centre the maximum amount of floors is eight, whereas the towers at the edge of the harbour reach a maximum of twenty storeys. This type of building block were mostly built after the original designs for the centre were abandoned.

The public space reflects the difference between the two building block types (figure 32 and 33). The public space in front of the semi-closed building block is well developed, with a row of trees and a different type of pavement (1). The backside is less developed, and mainly used as a functional parking space. Public space around the free-standing building block (2) is often also designed to be functional, as it is mainly used as parking space, road, or in some cases a thin strip of grass.



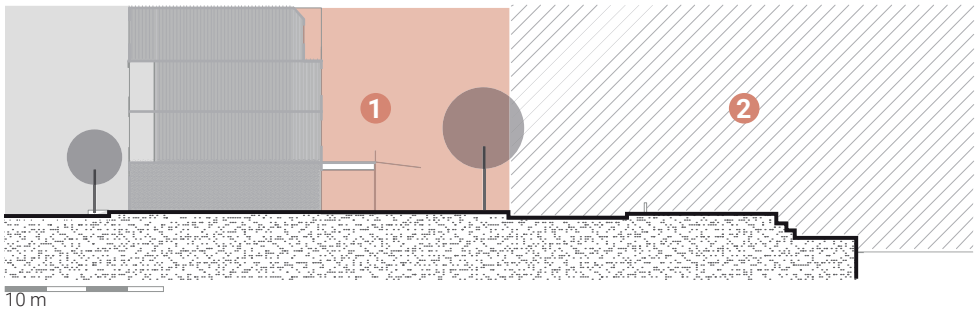


Figure 32. Section Markstraat

Figure 33. Section harbour

Figure 34. Semi-closed building blocks

Figure 35. Independent building blocks

Main structure - street

Vacant block

Housing

Housing + shopping + offices Shops

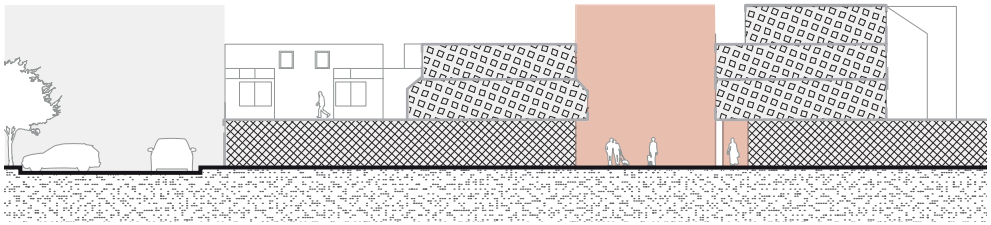
Socio-cultural functions

Offices

Green

Functions

The different functions of the centre are set up within a hierarchy (figure 38). A main structure is set up, which connects the larger functions, such as the cultural centre of Corrosia (1), the supermarkets (2) and the harbour to one another. Inbetween these larger functions, the street is framed by shops and smaller public functions. More expensive shops and shops that are part of a larger chain are situated along the north-south axis of the shopping streets (3), whereas towards the ends of the shoppings street, the shops are more often local and relatively cheaper (4). Some smaller coffee shops are situated along the north-soude axis of the shopping street, but most restaurants and bars are situated along the harbour. Larger, public functions such as a healthcare centre (5) are situated at the edges of the centre. Residential functions are distributed in two ways. Firstly, most floors on top of the public functions allong the shopping streets are appartments with different typologies and sizes (figure 36, 37 and 39). All of these appartments have collective entrances on both the front and the backside of the block. Other types of residential functions include free standing appartmentblocks along the eastside of the centre and at the edge of the harbour (6). Although the centre doesn't have a lot of green spaces, both the beach zone, the dike and several parks are situated along the edges of the centre and can therefore be easily reached.



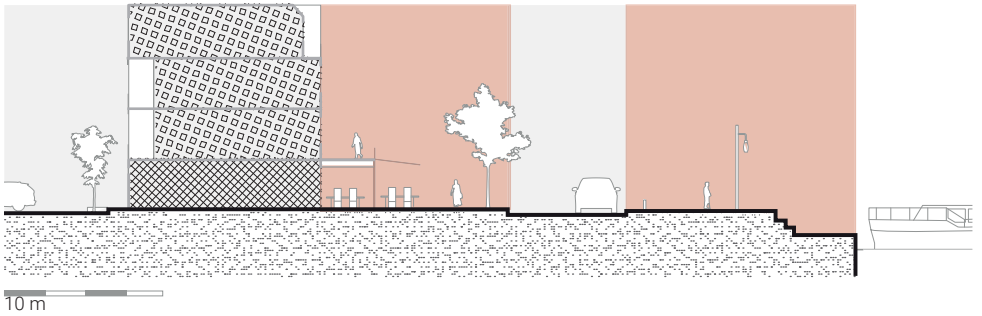
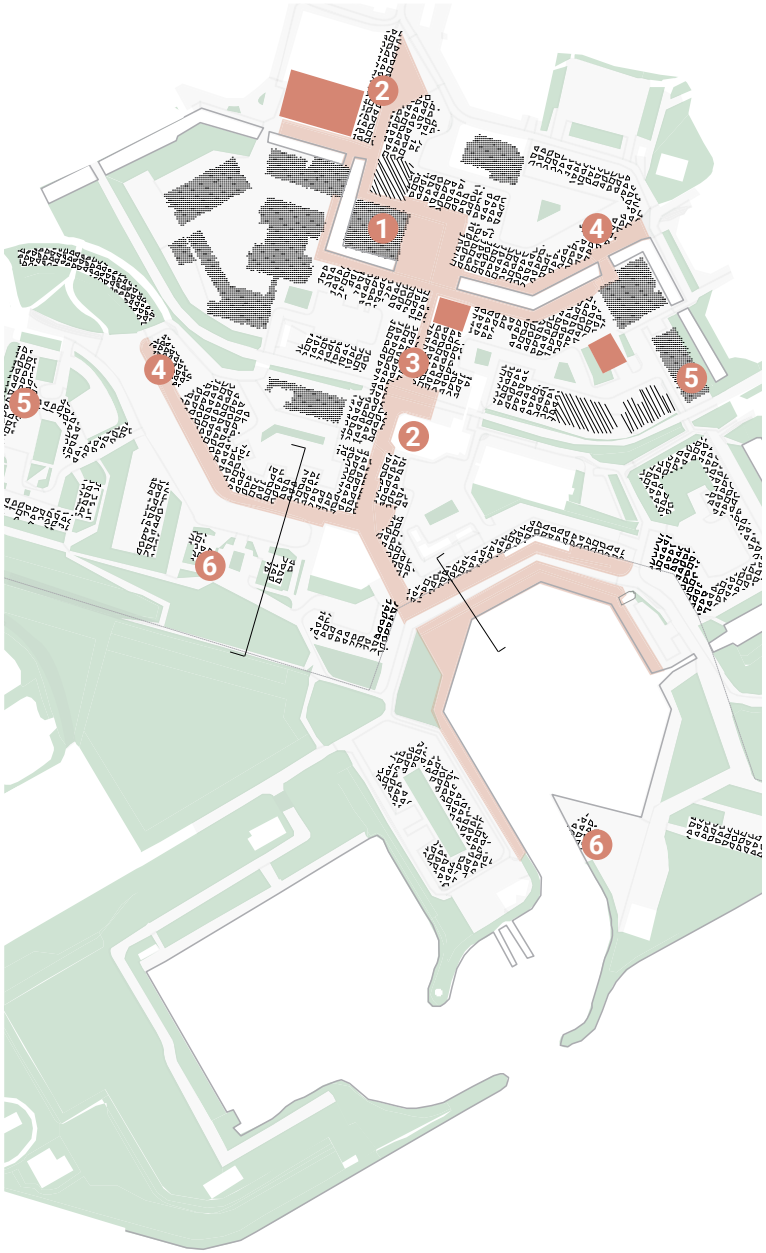


Figure 36. Section Markstraat

Figure 37. Section harbour



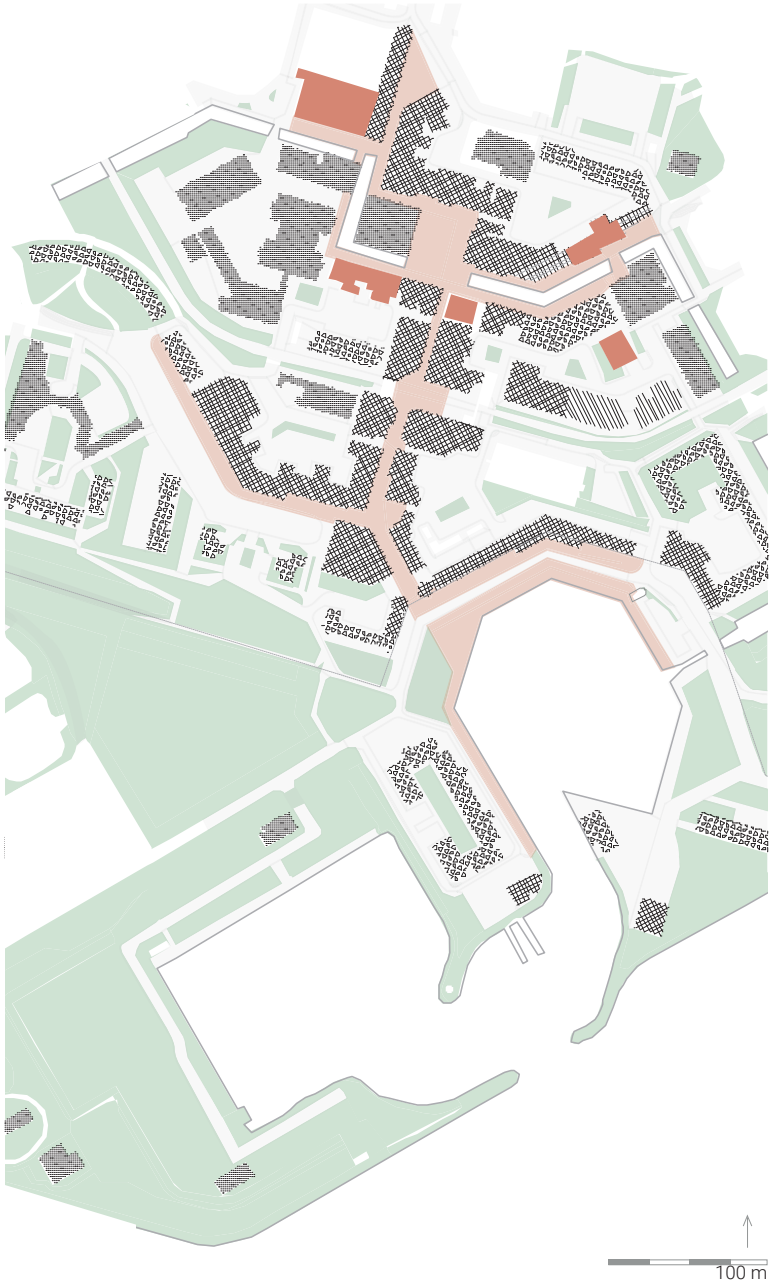


Figure 38. Functions on ground floor level

Figure 39. Functions on first floor level

Private block

Semi-private block

Public block

Vacant block

Public space

Semi-public space

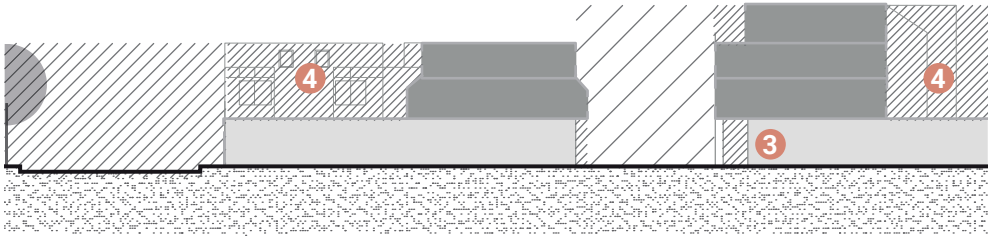
Public / Private

On an urban scale, most spaces are either public or semi-public (figure 42). Most of the spaces are accessible to everyone, and are therefore considered to be public. Some spaces are shielded from the public space, either in a gentle way through the positioning of the buildings (1), or in a harder way through the placement of a fence (2). In both cases, the space on the inside functions as an enclave with a semi-private character, meaning only a limited amount of people have access to the space and have the right to decide what will happen there.

On the level of the building block, the transition from public to private is more layered in case of the semi-closed building blocks (figure 40 and 41).

On the public street side, the building block is seperated from the public space by a semi-private zone that is shaped by the balconies of the top floors (3). In some cases, after this zone, one can choose to enter the public plinth, or take the collective staircase upstairs, which leads to an elevated street (4). This street is surrounded by houses, and is therefore a collective space residents cross before entering their house.

The transition from public space into a free-standing housing block is less layered. In some cases, the building block is shielded of by a strip of vegetation which provides som privace, but this is not the case for most of the building blocks.



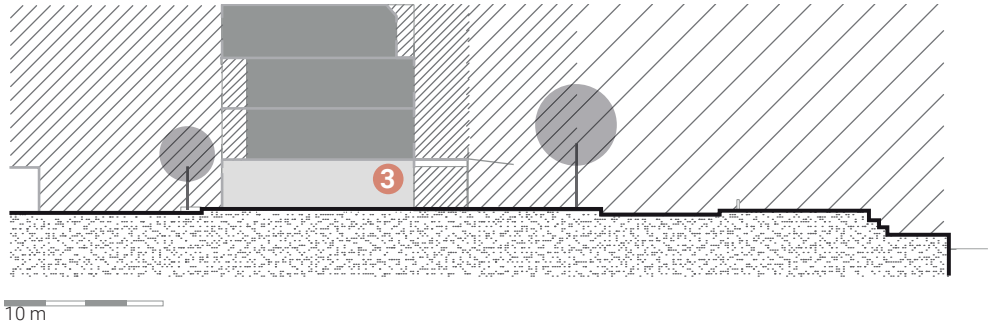


Figure 40. Section Markstraat

Figure 41. Section harbour

Figure 42. Public/private on groundfloor level

Figure 43. Public/private on first floor level

Bus

Cars

Cyclists

Pedestrians

Routing

Different types of transportation each have their own, independent structure in Almere Haven. As a result, each type of transportation experiences the centre in a different way. This has been visualised using a cullen analysis from three perspectives.

The car approaches the centre by passing the dike or through the parks on the northside (1). The car enters the centre through green spaces, only later does it become clear that one has entered the city centre (2). The car is parked at the larger car park at the south side (3). This area is treated by most buildings as a backside, and as a result it has the appereance of a dead space (see figure 45, 46 and 47).
The bus approaches the centre in one way, cutting through all of the surrounding neighbourhoods. The westside entrance of the centre is surrounded by introvert buildings (4). The access to the heart of the center is visually separated by an overhead bridge (5), after which the bus arrives directly at the busy intersection with the pedestrian zone (6) (see figure 48, 49 and 50). Pedestrians can enter the centre in many ways from all sides. This sequence shows the transition from, a low-rise, low-density residential neighbourhood (7). The centre can be seen from afar by the height of the bell tower (8) . After leaving the neighbourhood, the space opens up and gradually narrows as one enters the Kerkgracht (9). This side of the centre is relatively calm, but it gets busier as one approaches the market (see figure 51, 52 and 53).

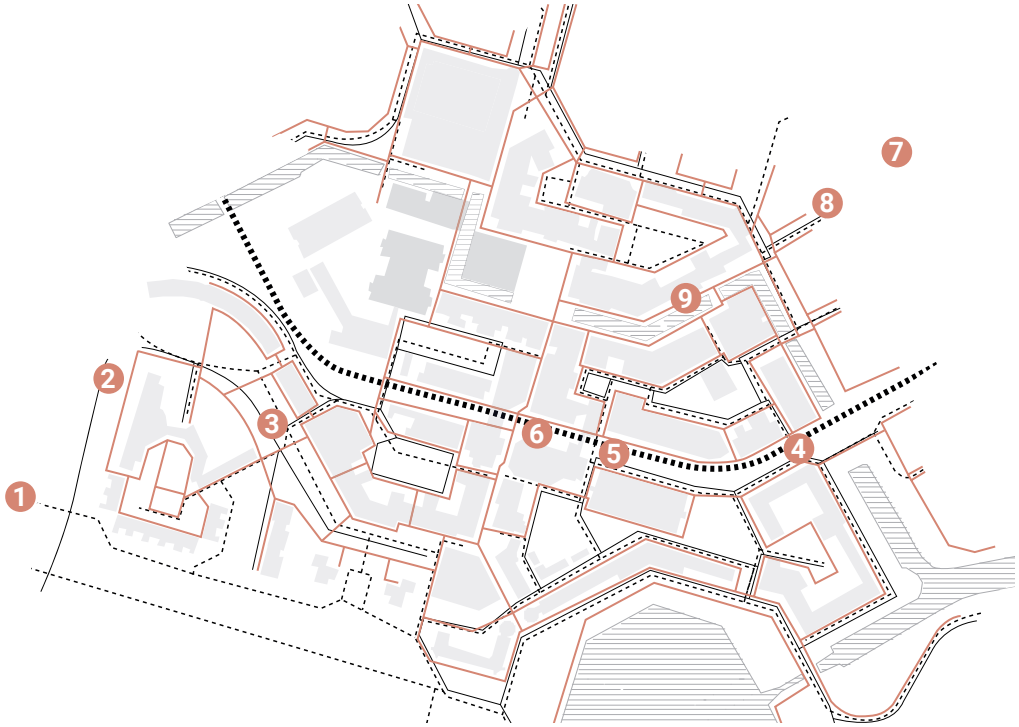
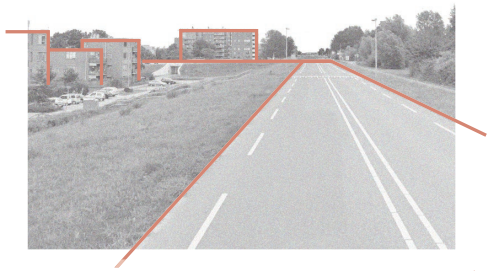
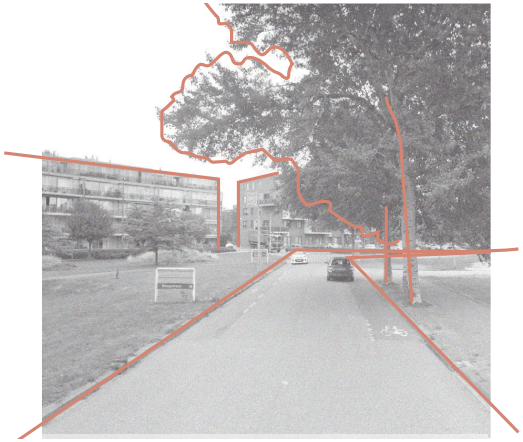
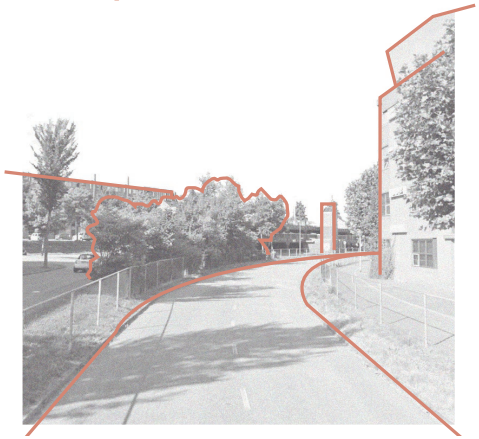
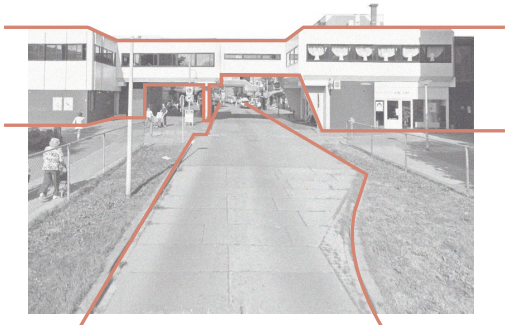


Figure 44. Floorplan of infrastructure









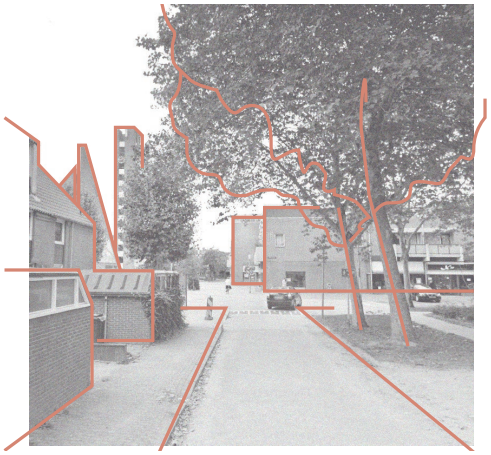


Figure 45. Car view I

Figure 46. Car view II

Figure 47. Car view III

Figure 48. Bus view I

Figure 49. Bus view II

Figure 50. Bus view III

Figure 51. Pedestrian view I

Figure 52. Pedestrian view II

Figure 53. Pedestrian view III

Observational study

For a better understanding of the processes described in previous sections on the urban scale, it is usefull to zoom in on some specific spaces to see how the design is used and experienced in daily life. Three locations where chosen; a square, the crossing of the pedestrian zone with the bus lane, and the transition from a parking space to the pedestrian zone. For each of the spaces, observations on how te spaces were used were noted during a timespan of thirty minutes. The study was carried out on a friday morning, market day with sunny weather. This might have influenced the way people use the public space - on a different day with bad weather, probably less people would be on the street. For this study, the busy, sunny friday morning was chosen deliberatly; since more people would be on the street, more observations could be made. The analysises should therefore be treated as a snapshot, although it can provide some insight into some of the ways the public space is used.

Market - friday 10.30-11.00

See figure 54. The market on friday morning is visited by people of all ages and ethnicities. Older people often come in pairs, middle-aged people come alone or with a child. The following activities were observed:

1. Most people walk this route, which leads past all the market stalls.This is also the part of the square where the sun shines during the morning, which might be a reason why the market stalls are positioned here.
2. People enter the market from the shopping street and vice versa.
3. People arrive at or leave the market square by bike, or walking next to their bike
4. People enter or leave the market this way, mostly by bicycle. Most people only get of their bikes once they've reached the first market stalls - none of them enter the shops on this side of the square.
5. Young people, probably teenagers, enter the market from this side, buy something from the adjacent shops, and then return - a large school is situated in this direction, which is probably where they're going.
6. The fruit and vegetable stall is by far the busiest stall. Most people carry large bags, fill them with groceries and queue to pay for them.
7. Every once in a while, someone sits down on the heightened border of the raised edge of the planter. Most of them wait for a partner that is doing the shopping.
8. Children play around the cones.

Bus station - friday 11.00 - 11.30

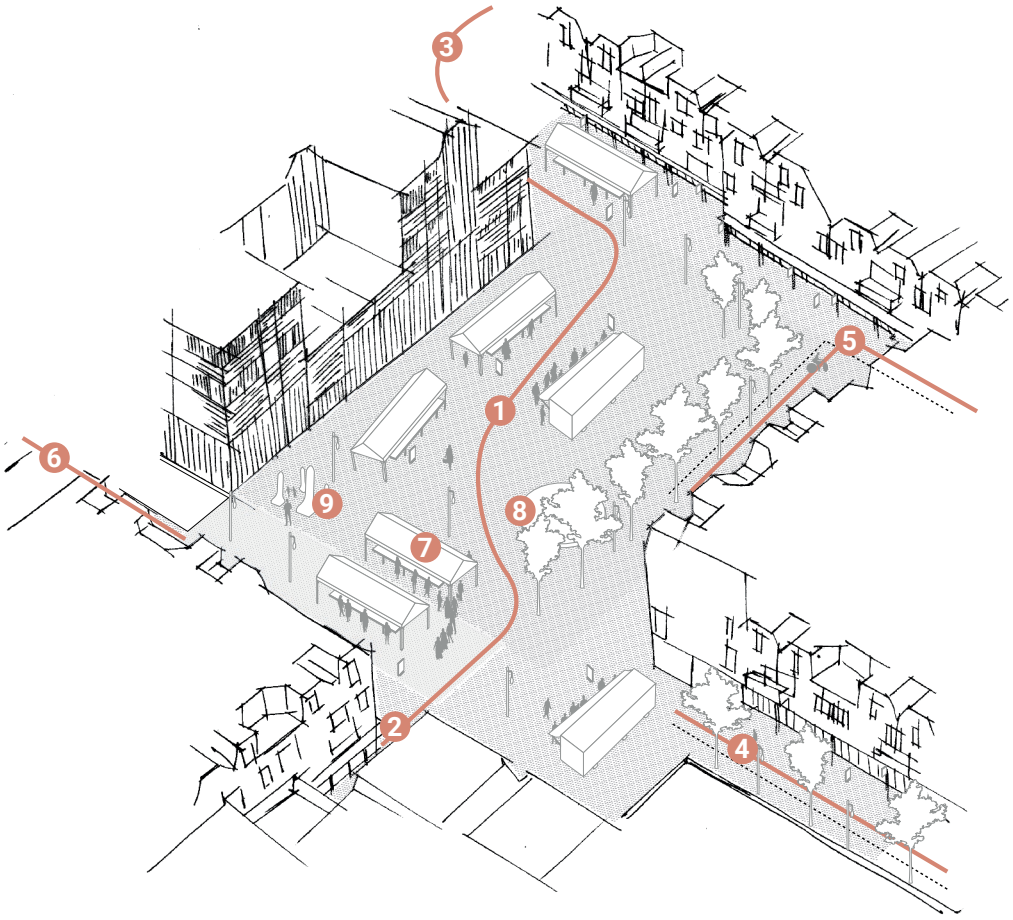
See figure 55. People of all ethnicities and ages were observed. Most of them were alone, except for a large group of elderly who were accompanied by caretakers. The following activites were observed:

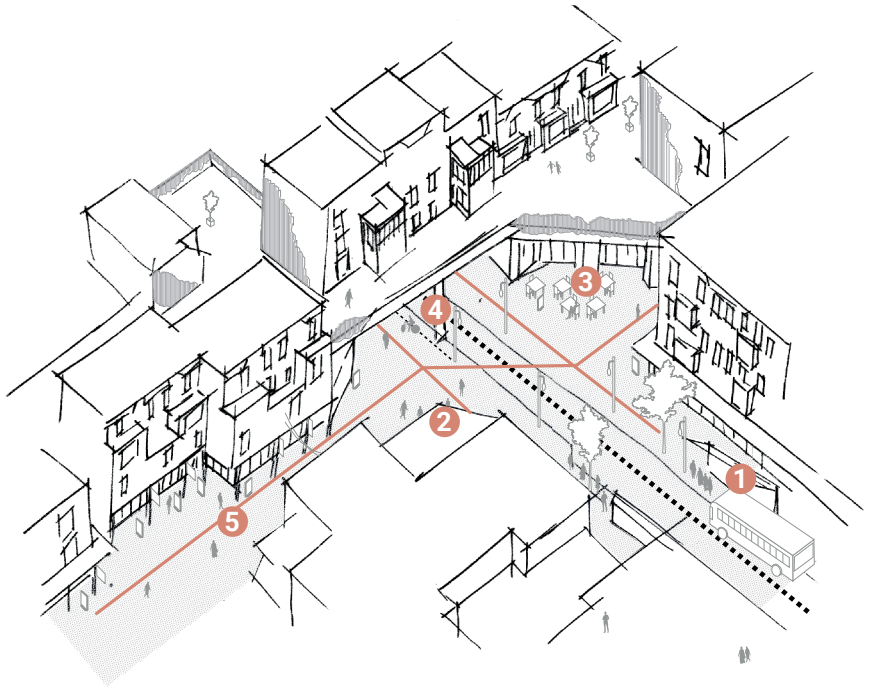
1. People waiting for the bus, most of them middle-aged. People getting of the bus are teenagers, probably going to school.
2. People enter the Vomar supermarket and leave with large bags filled with groceries
3. People sitting in the sun on the terrace. One of them has moved his chair closer to the street and plays the accordeon.
4. People arrive to the shopping street by bike, and continue to walk next to their bike.
5. People walk down the street, often entering multiple shops.

Kruisstraat - Friday 11.30-12.00

See figure 56.People of all ethnicities and ages were observed. Most of them were alone, or in pairs. The following activites were observed:

1. People arrive by and park their car, or leave by car, often carrying large bags of groceries.
2. People arrive by bike and attach it to one of the bicycle stands,
3. There's a group of teenagers in the snackbar, who order and eat their food inside.
4. Both young and old people sit on the terrace to eat an icecream
5. An elderly couple drinks coffee in the sun on the terrace.





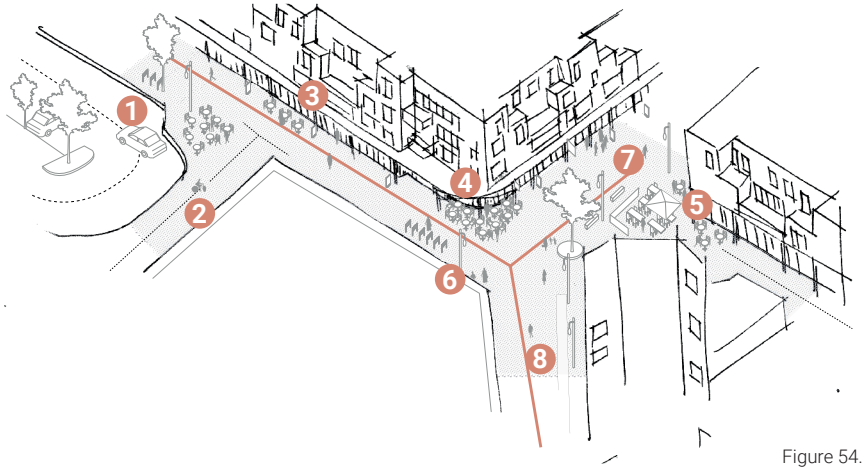


Figure 54. Axonometric view on market square

Figure 55. Axonometric view on bus station

Figure 56. Axonometric view on Kruisstraat

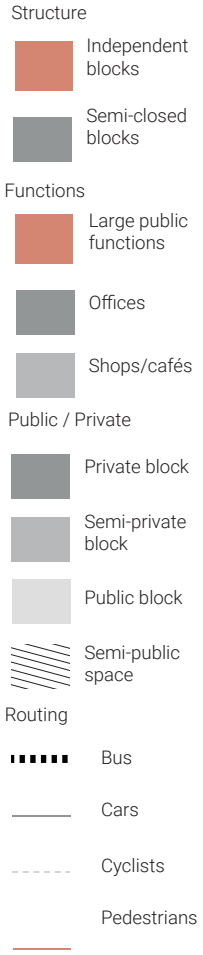


Figure 57. Structure - original plan

Figure 58. Structure - present

Figure 59. Functions - original plan

Figure 60. Functions - present

Figure 61. Public / private original plan

Figure 62. Public / private - present

Figure 63. Routing - original plan

Figure 64. Routing - present

Conclusion

The aim of this section is to compare the characteristics of the centre within the themes of structure, functions, public-private and routing in the present to the original plans. Also, some ssues will be highlighted that should be taken into consideration for further design.

Structure

Two types of building models have been defined; a semi-closed and an independent building block. Figure X and Y compare the amount of buildings fitting into both types, and it is clear that the independent building block has been added in later stages of the plan. It also shows the risk of placing these independent blocks in a coherent semi-closed structure; especially with the more recent building blocks, the coherence with the existing city is lost, an the surrounding space neglected.

Functions

Most of the plans for the functions in the centre have been implemented, however, the functions have changed over time. Most of the larger public functions are in the northern part of the centre, although the intention was to distribute them more evenly throughout the centre. A significant part of the local stores have been replaced by larger chains, most of the existing local stores are struggling. The strip of offices planned along the busline hdidn't prove to be succesfull; some of the offices are empty, others have been transformed into residential or public functions. Finally, expensive housing was added along the harbour, which causes a break between the original residents and new, richer residents.

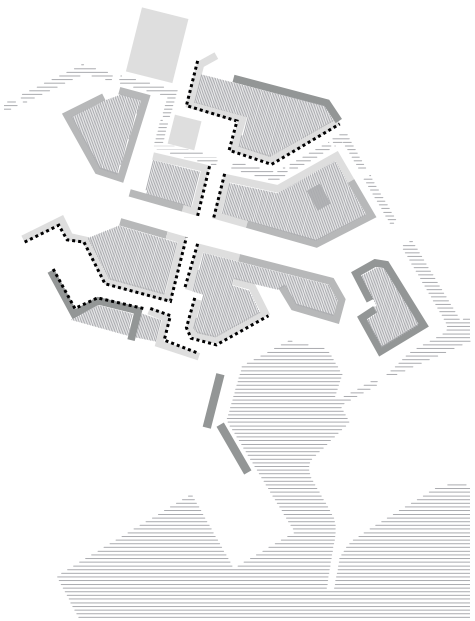
Public / Private

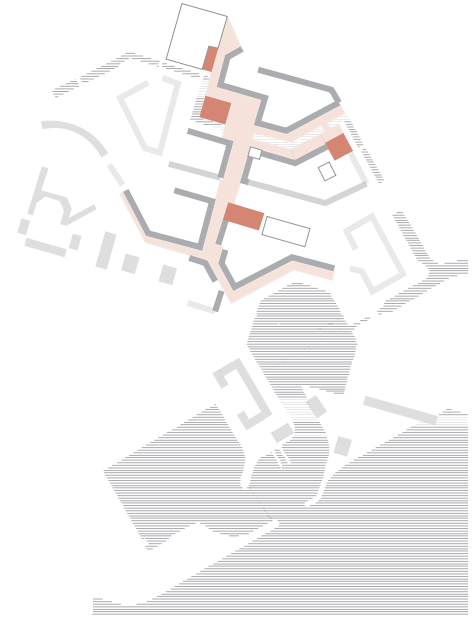
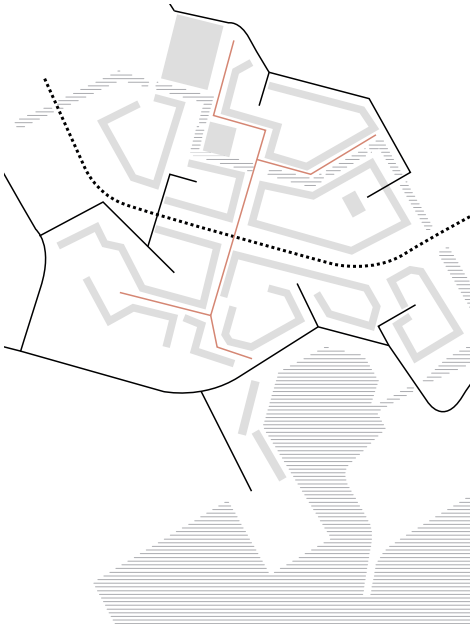
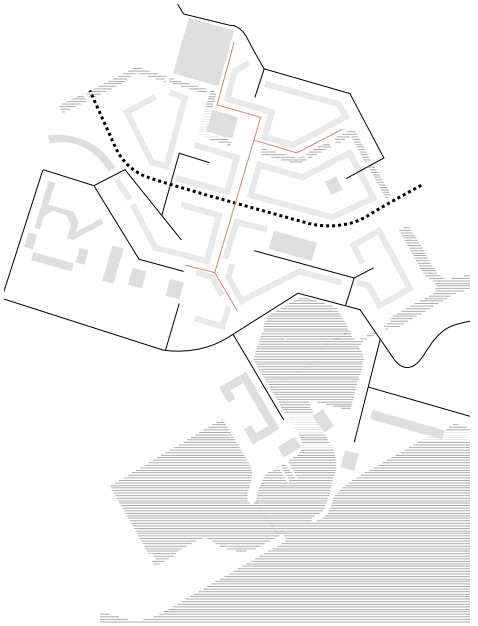
The original semi-closed building block defined a strong hierarchy between the collective street, the semi-collective courtyard, which were both separated from the building block by a semi-private zone. In the present day, this hierarchy is a lot less visible. Most of the space is public and the semi-collective courtyard als has a more public character than was originally intended. The margin zones have been applied along the edges of the collective street that were built according to the original plan; later additions apply it less consistently. They are also not perceived as positively as was originally intended; inhabitants as well as shopowners consider the margin zones to be dark, and slightly unsafe.

Routing

For busses, bycicles and pedestrians, very little, routing has hardly changed compared to the original designs. Cars have more access to the centre than was originally planned, especially in the areas where semi-closed building block was replaced by the independent building block. The most striking difference lies in the way the transportation methods connect to the pedestrian zone. Original plans suggested an elevated street for pedestrians to cross the bus lane; in the present situation, the bus breaks the pedestrian zone in two parts. Cars were supposed to be hidden by elevated street levels and green - in reality, they are very much visible, even from the pedestrian zone.





3.5 URBAN CLIMATE

Grass/bushes (41% coverage)

Tree

Asphalt / bitumen; black (22% coverage)

Dikformaat bricks (17 % coverage)

IJsselformaat bricks (14 % coverage)

Materialisation

Green and stoney areas can easily be distinguished in the centre (figure 67 and 68) ; most of the of the public space in the centre is made of stony materials, whereas the greener areas, such as the beach zone, the polder and the parks (1), only start at the edges of the centre. Green areas in the centre are limited to thin strips of grass and some trees on the parking spaces (2). In terms of stony materials, several types can be defined. Larger roads, such as the bus lane and the freeway leading from the dike to the centre are made of asphalt (3). As soon as the road crosses the border of the centre, the asphalt is replaced by brick pavement in Dikformaat, size 20 * 7 * 7 cm (4). Smaller , IJsselformaat bricks, size 15 * 5 * 7 are used to define certain areas, such as parking spaces or the border of the road (5). The sidewalk is also paved with the smaller sized bricks, sometimes with different colours mixed in (6). The difference in size of the bricks is not only relevant for the expression of the space, but it also determines the amount of water the bricks allow to go through - the smaller the brick, the more water can go through. Since the materialisation of the roofs is also relevant for the urban climate, this has also been mapped in figure X. Most of the roofs are covered in eiter grey or black bitumen. The colour of the roof is also relevant for the urban climate: the darker the colour, the more heat is absorbed. Only one roof is covered in vegetation (Beatley, 2010).

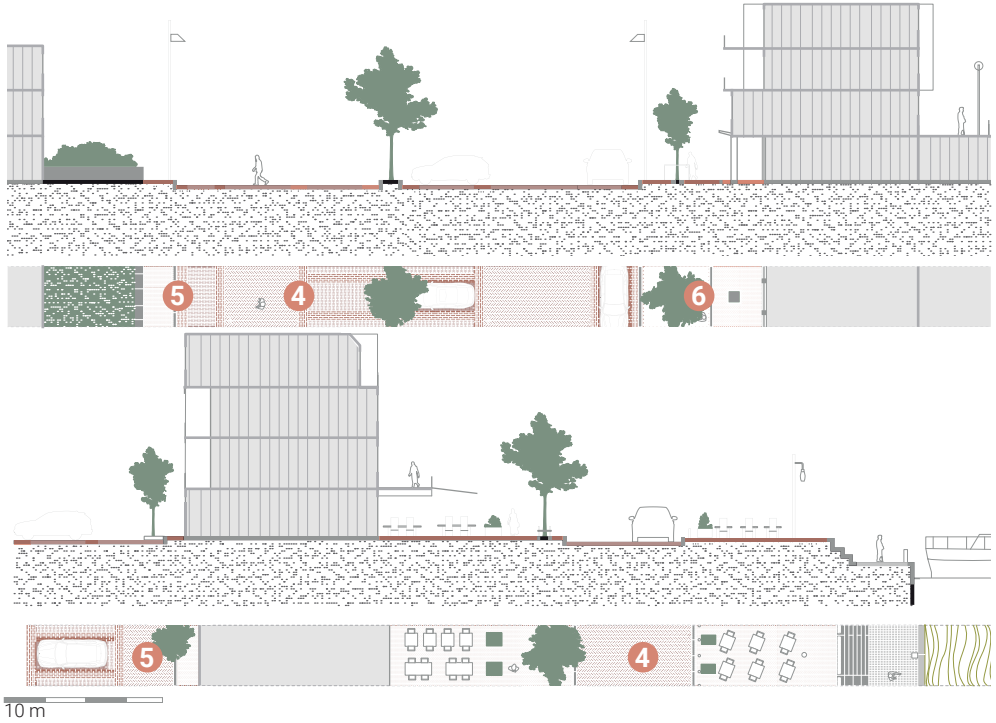


Figure 65. Section Markstraat

Figure 66. Section harbour

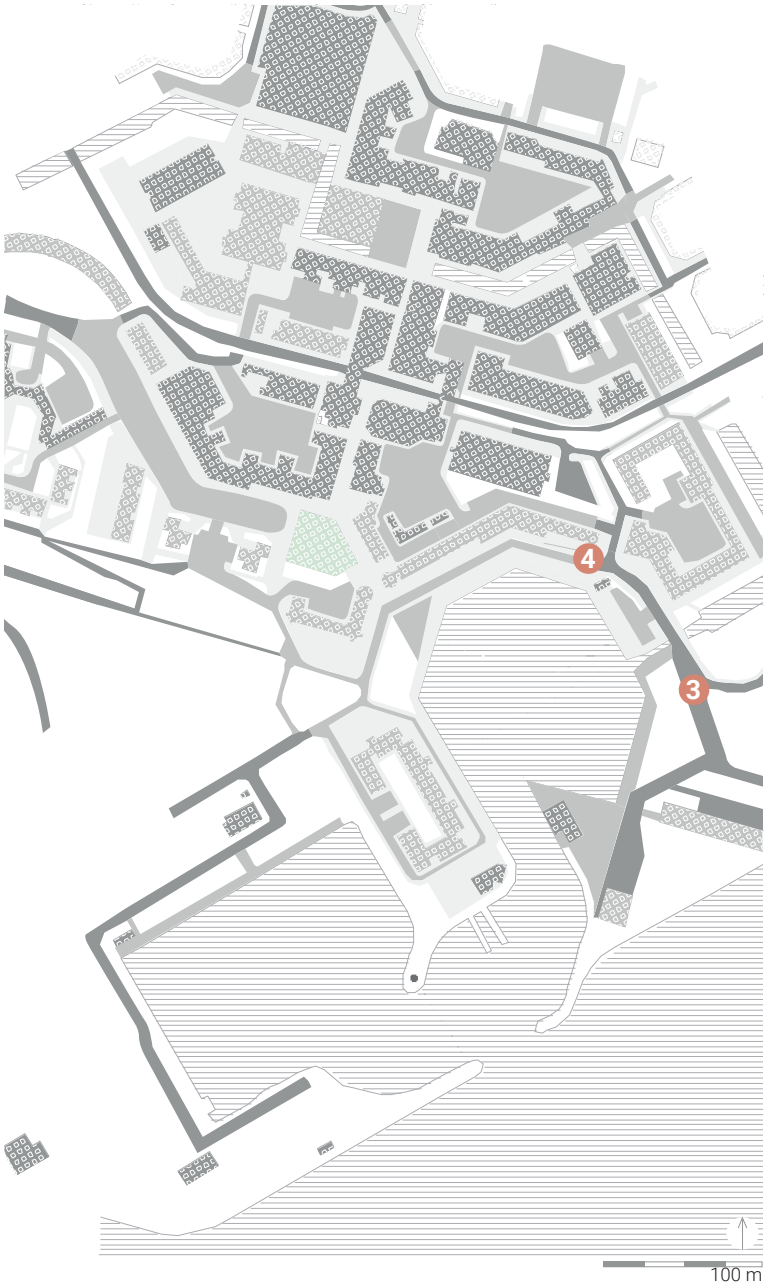
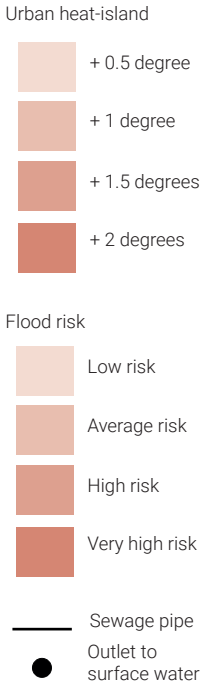


Figure 67. Green spaces

Figure 68. Stoney spaces



Urban heat island

Figure 69 shows the impact of the heat-island effect on the average temperature in the centre. Generally, the temperature rises as a result of human activity (such as the use of cars, the heating of buildings), the use of dark materials which absorb the heat of the sun, the use of stony materials which are unable to evaporate water to cool and the lack of cooling windflow in areas that are densely built (Z. Tang & Sillanpää, 2018). The map on the left shows how areas in the densest part of the city are more likely become hotter. Especially the areas that have no green or water nearby to cool, and do not lie in the shadow of buildings tend to accumulate heat (1).

Flood risk

Figure 70 shows the risk of flood as a result of increased rainfall due to climate change. Again, a connection is visible between the amount of stony materials in the public space, the proximity of green and water and the risk of flooding. Areas that are made of stoney materials that allow no water through and do not have green or water nearby to absorb the water have a higher risk of flooding. Usually these areas are attached to sewage system that is supposed to drain the water, but with increased rainfall the capacity of these systems might prove to be too low, especially when a large surface is attached to a single drainage pipe (2) (Grant, 2016).

Figure 69. Heat island effect

Figure 70. Risk of flooding

3.6 RESIDENTS RESEARCH

Method

This research has been carried out by all of the students of this master project and concerned the whole of Almere Haven. This chapter will focus on the results of the residents research that are relevant for the analysis of the centre.

The residents research consisted of a survey in the form of a diary which residents of Almere Haven had to fill in during seven days, one question per day. The research was handed out to people on the street, a class of schoolchildren, elderly taking part in a communal activity and several shopkeepers, in total 53 people.

Given the number of people who completed the survey, and the age distribution (many children and the elderly, few in between), the outcomes cannot be considered representative of the whole of Almere Haven. It should therefore be viewed as an explorative research, which is usefull to gain some insight into the residents view on Almere Haven.

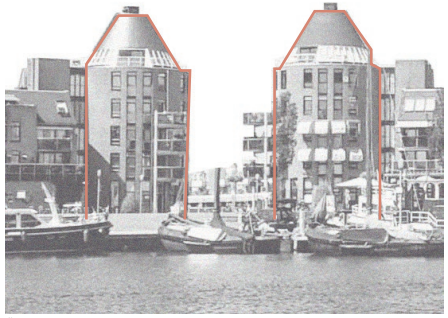
For this section, the results will be presented in several ways. Firstly, a general impression will be given of the spaces and buildings residents appreciate the most, based on the answers in the diaries and conversations with the residents. Next, two series of maps will be presented, based on the answers of the residents describing their most visited places and daily routes. To mittigate the uneven age distribution of the respondents, the maps will be split based on age group.

Most liked spaces

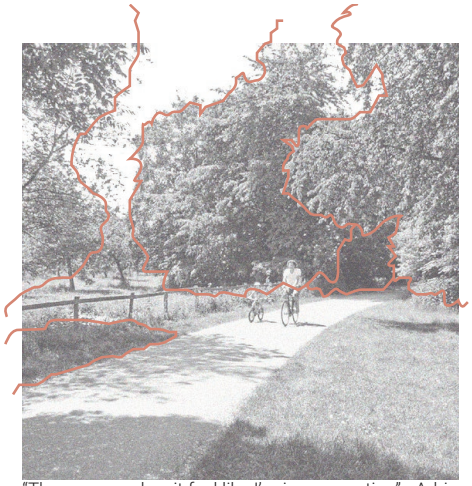
When asked which places in Almere Haven they like most, the answers of the respondents can be divided in several categories. Firstly, some buildings or spaces are mentioned because they are experienced as visually pleasing. The towers in the harbour (figure 71), and the buildings of Apon along the market square and the Kerkgracht were mentioned by about a third of the respondents. The shapes of the roofs, reminiscent of old Dutch cities, were particularly appreciated.

Secondly, about half of the respondents mentioned the green areas in and close to Haven as their favourite places to go for walks or cycling (figure 72 and 75). The peace and quiet of the place are praised, some describe the ambiance similar to that of a vacation park.

And yet, usually when a respondent likes a building or place, the underlying reason turns out to be the social contact that takes place there (figure 73, 74 and 76). This is the case for the harbour, which is described as a meeting place due to the bars and restaurants, as well as for Corrosia, which organises a lot of cultural activities people like to attend. The Roef, the building which used to be communal centre in the early days of Haven is also mentioned often. Even though it has lost its' function many years ago, a lot of inhabitants, especially the ones who have been there from the beginning, often describe the place as a symbol of the camaraderie in the first years between the inhabitants who helped to build Almere Haven.

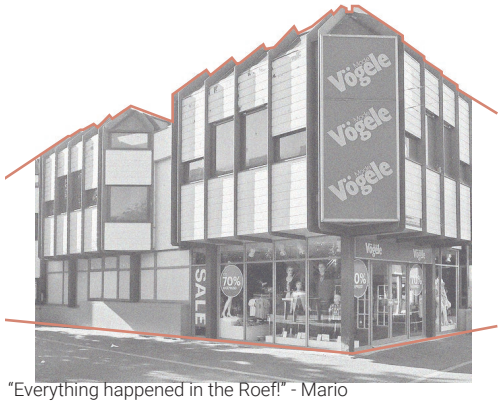


"It is nice to see the towers" - M.



"The green makes it feel like I'm in on vacation" - Adri

"You can sit and watch the people walking by" - Bob



"Everything happened in the Roef!" - Mario

"I love to walk and cycle here" - Ina

"Corrosia is a real meeting place" - Ans

Figure 71. Towers of Havenzicht

Figure 72. Vogelbos

Figure 73. Havenzicht

Figure 74. De Roef

Figure 75. Gooimeerdijk

Figure 76. Corrosia

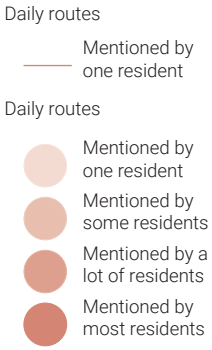


Figure 77. Overall most visited spaces

Figure 78. Most visited spaces by children

Figure 79. Most visited spaces by middle aged

Figure 80. Most visited spaces by elderly

Figure 81. Overall daily routes

Figure 82. Daily routes of children

Figure 83. Daily routes of middle aged

Figure 84. Daily routes of elderly.

Daily routes

These maps mark which routes residents use on a daily basis. The overall map shows that most of the roads and streets of the centre al used. This would suggest that people arrive from all sides, using both cars, public transport, bicycle or on foot, which suggests that the centre is attractive for people living closeby as well as people living far away (figure 77).

Children (0 - 12 years)

Within the centre, children mainly move between their school on the northside and th supermarkets in the centre, not making much use of the rest of the centre (figure 78) .

Middle age (25 - 55 years)

People in this age category enter the centre from all sides. However, very few of them go across the centre; most routes only go to one destination, suggesting these people only come to the centre for a certain function and do not stay to enjoy the rest of the centre (figure 79).

Elderly (60 + years)

The elderly make the most use of all roads and streets of the centre, and also walk or cycle along the dike. A significant amount of routes also goes to multiple locations in the centre, or doesn't take the quickes way, suggesting they also enjoy generally being in the centre, not just to make use of a specific function or space in the centre (figure 80).

Most visited spaces

These maps mark which places were mentioned by residents as areas or buildings they like to go. The overall map shows that all of the spaces people mentioned are either in the collective structure of the centre or the green areas; none of the respondens mention the service areas surrounding the centre, suggesting that these are indeed only used as service space (figure 82).

Children (0 - 12 years)

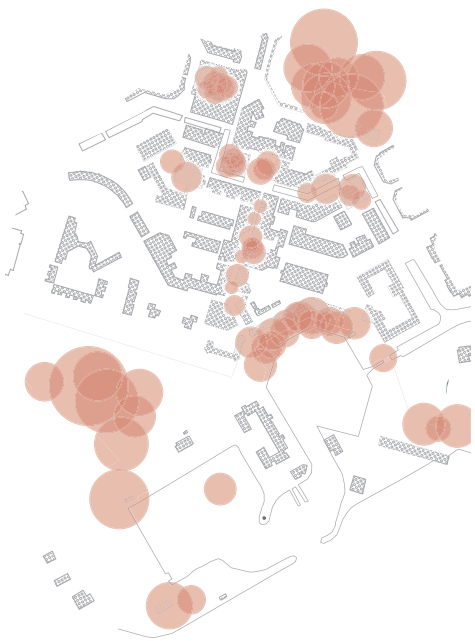
The map shows that children visit a very specific set of spaces and buildings. The supermarkets, especially the Deen but also the Vomar proved to be very popular. Some also mentioned the park since it has a playground, and the beach during summer. The children mostly visit these places in groups, meaning that their use of these spaces is also a social activity (figure 83).

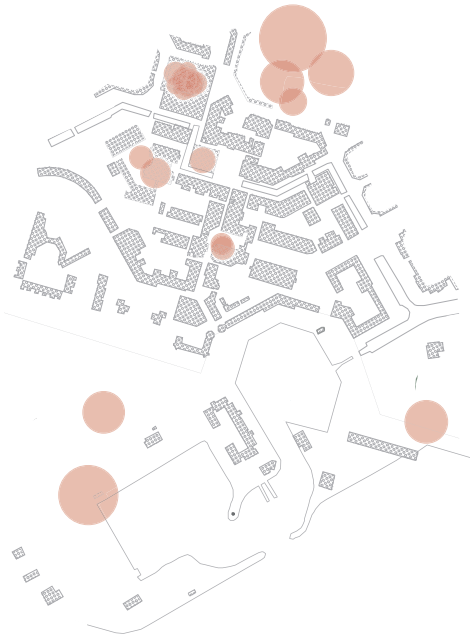
Middle age (25 - 55 years)

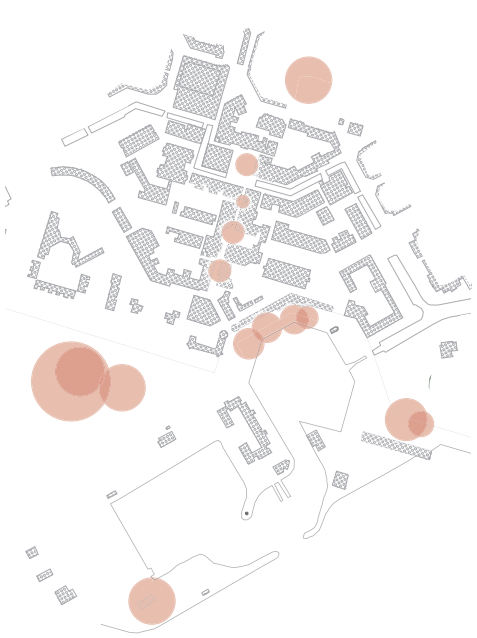
Respondents in this age category mainly use the centre for daily shopping, and social activities, which is why the shopping street and the restaurants and bars in the harbour are highlighted. Some respondents also mention they take walks in the green areas in their free time (figure 84).

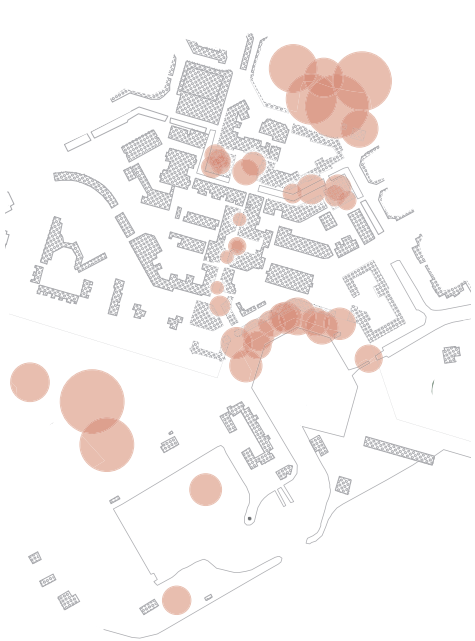
Elderly (60 + years)

The elderly use most parts of the centre: not only to they do their shopping here, but they also take part in a lot of social activities and take walks in the green. They often have limitied means of transportation, and therefore mostly rely on functions close to their house (figure 84).









3.7 CONCLUSION

The centre of Almere Haven has been researched to gain insight into the characteristics of the centre, and to define some key issues that need to be considered for further development of the centre. For each theme that was researched, a conclusion will be drawn that will highlight these issues.

Structure
This analysis showed how the centre is built up by two main building block types; a semi-closed building block and an independent building block. Both types have their advantages and disadvantages; the semi-closed building creates a very clear front and backside, and especially the backside usually doesn't have a lot of spatial quality. The independent building block doesn't have a front or backside, but neither does it articulate the public space. As a result, the public space around it is mainly used as parking space, which again doesn't have a lot of spatial quality. Further research is needed to define strategies how to mittigate the disadvantages of both building block types.

A second issue is the combination of the two building block types. The semi-closed buildings together are coherent, and so are the independent blocks, but the two structures do not harmonize. Future plans need to find ways to create coherence between the two structures.

Functions
The centre was designed as a network of shopping streets, which is stretched out all over the centre to create liveliness in all parts of the centre. However, in the present-day situation, a lot of retail space and even some larger buildings are vacant. Not only is this a waste of money and space, it also negatively influences the public space since a significant part of the plinth of the centre is dead. Future designs should aim to find a new purpose for this space, preferably one that makes the plinth more lively and inviting.

Public / private
The first issue of this theme closely link to the issues of the structure. Whereas the original design for the centre had a lot of differentiation between private and collective spaces, this has for a significant part been lost in the current situation, partly as a result of the combination of the semi-closed building block and the independent building block. This leads to a lot of spaces that are not clearly defined and as a result, are not inviting. Subdividing these spaces into public, collective and private spaces might help to make them easier to appropriate, meaning residents can make more use of the existing public space.

On the other hand, some building blocks have several transitions from public to private, which seem to be functioning really well. An example of this is the Bovenloop in the shopping street by Van de Broek en Bakema, which has an elevated street level. This way, residents can enjoy the space and privacy of their own front garden, and still be linked to the activities of the city centre. This is a quality that should be maintained, and one which could also be used for further designs of the centre.

Infrastructure
The centre of Almere Haven has a well developed infrastructural system; the busline is easily accessible, and there's enough parking space in all parts of the centre. However, there are some issues relating to the way the transportation lines connect to the pedestrian zone. Firstly, the bus lane cuts straight through the pedestrian zone, dividing it into two parts. Not only does this break the continuity of the pedestrian zone, it has also had an effect on the development of the city; the first part was built up untill the busline, phase II and III were built several years later, departing from the bus lane. The differences between the two parts of the centre are still visible in style and expression of the buildings. Future design should therefore not only solve the juncture of the bus with the pedestrian zone, it should also consider how to deal with the two parted centre, and define what the role of the bus lane in the centre will be.

The second issue concerns the parking spaces. Although they are very practical, they do harm the quality of the space they're placed in, which is usually the backside of the semi-closed building blocks and the space around the independent building blocks. Future design should aim to keep the functionality of the parking spaces, but find ways to improve the spatial qualities of the space.

Urban climate
The analysis of the materialisation of the centre and it's effect on the urban climate has raised several issues. Although the centre is surrounded by green spaces and water, most of the centre is materialised with stony materials. Not only does this limit the spatial diversity of the centre, it also negatively affects the urban climate. Stony areas have a stronger Urban Heat island effect, since the materials do not evaporate to cool, but rather they absorb the heat and radiate it for a long periode to come. This is increased in areas that are densely built, which breaks cooling windflow. They are also more prone to flooding since the stones are unable to absorb the water. New designs should take into consideration how the design affects the materialisation of the public space, the flow of wind and the amount of surface water.

Residents research
Since the residents research was explorative for the most part, it did show how different agegroups experience the city. The difference is significant: elderly visit most parts of the city and use a lot of its' functions, middle-aged people go to certain destinations and children only go to a very limited number of places. This may mean that they find different things important in the center. It could also mean that their involvement in the way the centre functions and develops is different.It would be a shame if the involvement of the residents and their pleasure in visiting the center were to differ, precisely because Almere Haven originally had a very strong sense of community, especially among the people who built up Almere Haven. Since the task for new designs is to increase the number of housing to make room for more residents, there's an even higher risk of losing the original sense of community. Therefore, for new interventions, it should be carefully considered how this might affect the social cohesion of Almere Haven.

97
ARCHITECTURE

4.1 INTRODUCTION

In 1974 the office Apon Van den Berg Ter Braak Architecten (ABBT) received the assignment for the first building block of the centre of Almere Haven. The block should have an urban character and should re-established the coherency between living and shopping. It would be spread along the canals and the market square.

Content

To fully understand the building the analysis has been done by following the method of Steward Brand. The framework used in his study 'how buildings learn' distinguishes six general layers. Site, Structure, Skin, Services, Space Plan and Stuff (Kuipers & de Jonge, 2017). These layers are also the subchapters that are used in this chapter Architecture.

Understanding the building also required an understanding of the office that has designed it. Therefor the analysis starts with briefly introduce the architect and four other housing projects of their oeuvre.

Before starting with the analysis, the surroundings of the building will be discussed. A small summary is given about the development of Almere Haven. Beside that the surrounding buildings will be briefly discussed on their appearance and their possible connection with the building design by ABBT.

According to Brand the first layer is the site. Therefore, the site of the complete block will be discussed and secondly a street profile of one block has been chosen to analyse. This block will be the case study for the other layer as well.

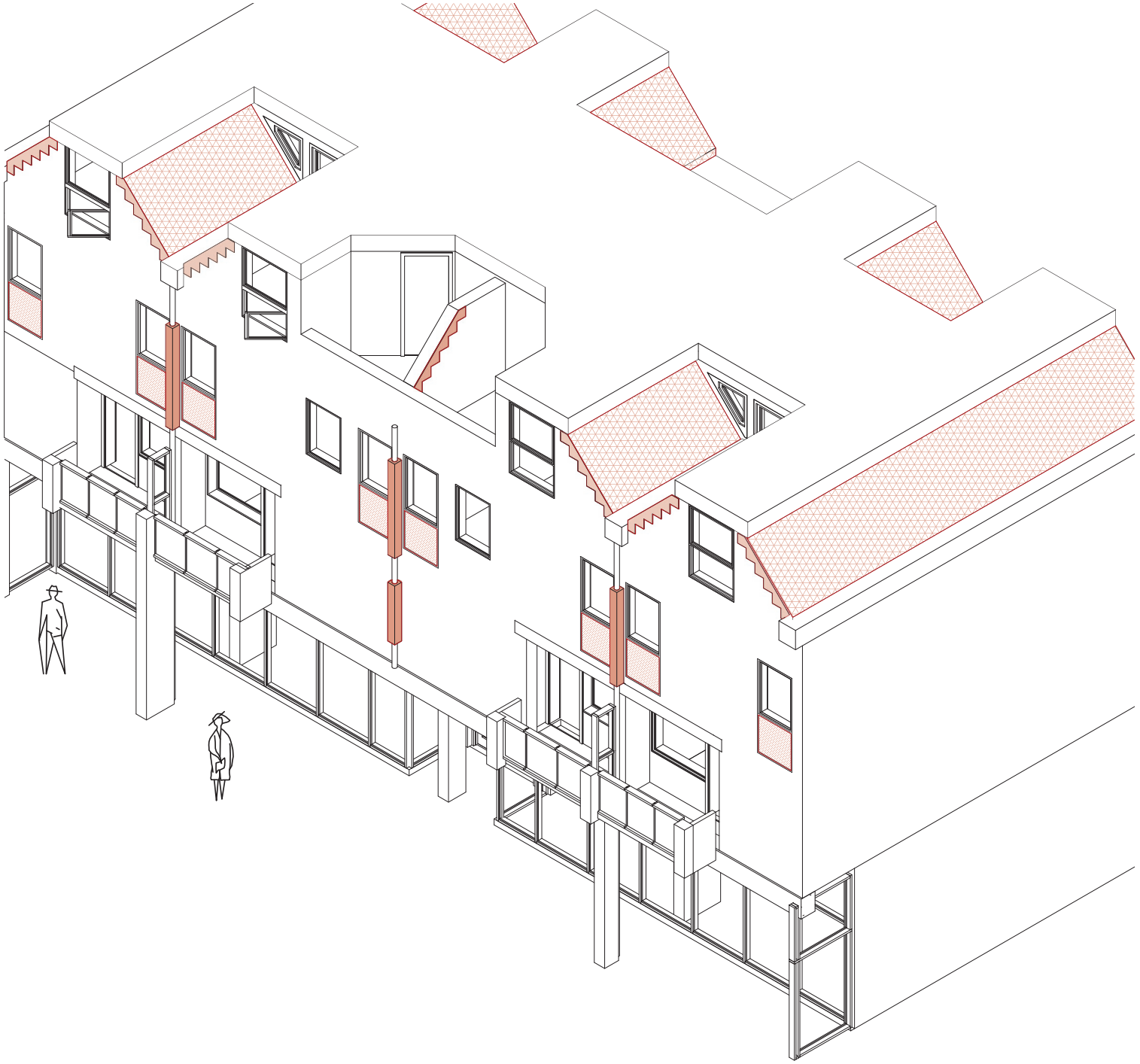
The Skin of this case block will be analysed and the changes over time will be discussed. First the sketch drawings and final drawings will be discussed. Later the planned state, 1979 and the effective state, 2019 will be compared.

The last subchapter will be the space plan. Where will be elaborate on the many typologies in the building and the space plan of the case study block. This will also be done in the chronological way, design drawings, planned (1979) and the effective state (2019)

All the striking findings can be found in the conclusion at the end of the chapter. According to the brand system the Service and Stuff were not mentioned above. The service will be discussed in the chapter Building technology. The Stuff will not be discussed, simply because the interior is unknown, except the space plan.

Methodology

The methodology that has been used is structured by the theory of Steward Brand. In these layers an attempt has been made to distinguishes the planned state, right after accomplishing the construction and the effective state, how it is used these days. To gain all this information the archives of Het Nieuwe Instituut in Rotterdam, Flevolands Archief in Batavialand and the Archive of Batavialand in Batavialand has been searched. To give the analysis also a user perspective the population study of 1983 and 2019 are used as well.



01

Fig. 01 axonometry of a block design by ABBT Architecten in Almere Haven.

4.2 THE ARCHITECT

The ABBT building block is design by an architect office that existed out of 4 architects. What are their backgrounds and what are other projects within their oeuvre? Was the building in Almere Haven an exception or was this exactly where the office was good in?

Apon, van den berg, ter braak & tromp

The office has been established in Rotterdam in the early fifties. Dick Apon, Toon ter Braak, Willem Bastiaan Tromp and Johan van den Berg just met after the Second World War at the academy for Visual Arts and Technical Sciences in Rotterdam. Before they started the office, they all gained experience at large offices, such as Van den Broek en Bakema, Van Tijen en Maaskant en Leo de Jonge office. The young architects were strongly influenced by the CIAM's views. Apon felt related to the younger CIAM members, who had joined forces in Team X.

The first major assignments were the renovation of the Pier, Scheveningen, the Jaarbeurshal in Utrecht. Followed by the design for The Dutch Embassy in New Delhi, India. In the sixties and seventies ABBT architecten, as the name of the office was, were very active in housing projects. One of the latest assignments was the Ministry of Foreign Affairs in The Hague (04). Also known as the 'Apenrots' which means 'Aperock'. It is a reference to the terraced structure of the prefab concrete columns but also reference to the name of the architect, Apon. In 1988 the four founders ended their collaboration (Het Nieuwe Instituut, 2000)

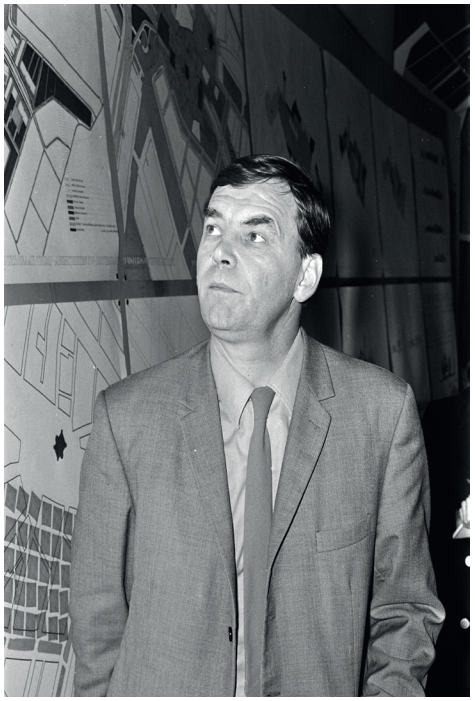
From the four architects the archive Het Nieuwe Instituut, only has information on Dick Apon. The other architects are just mentioned by name. This is probably due the fact that Apon was also involved in other architecture matters, success as Forum, the Technical University of Eindhoven and because he has a direct link to other great architects of the Dutch architecture in that time such as van Eyck, van Stigt and so on.

Dirk Cornelis Apon (1926-2002)

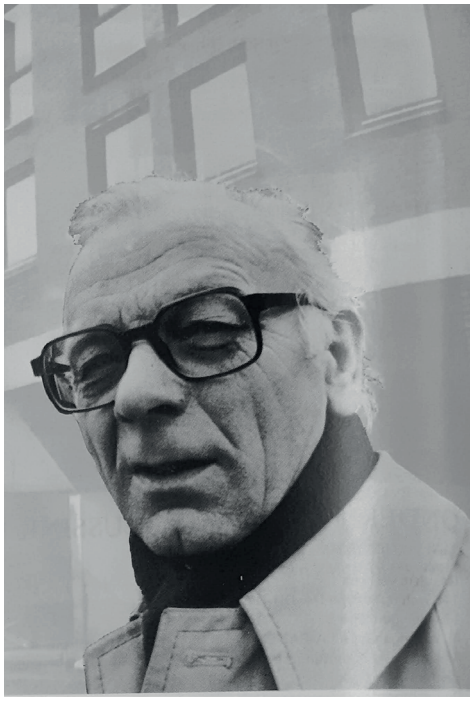
Apon felt attracted to modern architecture but resisted it rigid execution. Because the large scale loses the human scale and the strict separation of functions loses the encountering between the human being. The architectural view was promoted in the magazine of Forum, in which Aldo van Eyck, Herman Hertzberger and Jaap Bakema also participated. As mentioned Apon was opposed the far-reaching functionalism and was one of the editors of the Forum magazine. Which has played a huge role in the realization of the architectural style, Structuralism. Forum argued for a fusion of architecture and urban Planning. The human scale was the main theme (Het Nieuwe Instituut, 2000).

Oeuvre

On the previous page the large projects or the well-known projects of ABBT are mentioned. It also stated that ABBT was very active in housing projects in the sixties and seventies. That is why four housing projects are briefly discussed below. All four projects have been published in the magazine BOUW.



02



03

Fig. 02. Dick Apon

Fig. 03. Willem Bastiaan Tromp

04

Fig. 04 Ministery of Foreign Affairs in The Hague

Residential development, Doorwerth
Assignment: 1969
Design: 1969
Construction: 1970-71

Summary: The project is situated in a green area. ABBT did not want to harm this and design the building block in such way that it respects the boundary of the trees. The building block does not yet lookalike a human scale project, more one of the modernist buildings with a monolith function (Apon, Berg, Braak, & Tromp, 1973). The shopping mall was just around the corner, which indicated that function where still separated.

Private House, Leiderdorp
Assignment: 1971
Design: 1972
Construction: 1972

Summary: The project was with a private client, which means that the terms of development is completely different from a housing complex project. ABBT describes it as follow: It was just nice to finally be able to practice the 'old craft' again, in a quiet way, between the spirals of building technology and inflation (Apon, Berg, Braak, & Tromp, 1974). This project shows that the office was capable of making housing on a very small scale, with funny details as they called it.

Experimental project with shops, houses and offices in Almere-Haven
Assignment: 1974
Design: 1974-75
Construction: 1976-79

Summary: The building has integrated 125 housing, 40 shops and office spaces within one complex. It was the first building in the city centre of Almere Haven. There are six different typologies within the project. The aim with this project was to restore the functions, living and shopping. Something that did not happen in the 'Woningbouw te Doorwerth' (Apon, Berg, Braak, & Tromp, 1980). In the next subchapters there will be more elaborated on this building.

Woningwetwoningen te Poortugaal
Assignment: 1976
Design: 1976/77
Construction: 1978-79

Summary: The assignment was to design 40 small family houses, close to a dike the Albrandswaardsedijk. A desire from the municipality was that the new project fits in to the already existing small-scale building (Apon, Berg, Braak, & Tromp, 1980b). When a comparison is made between this project and the project in Almere Haven, there seems to be a similarity in how the shape, size and placement of the windows have been handled.

Woningwetwoningen te Rotterdam-Oosterflank
Assignment: unkown
Design: 1981
Construction: 1982-83

Summary: The complex exists of 270 housing with twelve different typologies, from two till five room apartments and has six building levels. The difference with these typologies is that most of them exist of one level and a few are maisonettes. In the Almere Haven complex, most of the typologies are maisonettes and just a few are one level. The appearance of the façade is also more horizontal articulated than vertical as in Almere Haven.

Between the housing project can be found many differences in the appearance of the building. While there is not much time difference between them. One reason for this could be that there were many developments ongoing in the field of housing in the seventies (Vletter, 2004).

05

Fig. 05 Photograph of the Kerkgracht, Almere-Haven with the ABBT Building Block, 1979

06

07

08

09

Fig. 06 Residential development Doorwerth, 1970

Fig 07. Private House Leiderdorp, 1972

Fig 08. Woningwetwoningen Poortugaal, 1979

Fig. 09. Woningwetwonigen, Rotterdam-Oosterflank, 1983

4.3 SURROUNDING

Almere Haven is the first polynuclear core of the Groeikern Almere. After the analysis of the urban scale this chapter elaborate on one scale smaller, the building scale. The building that has been chosen is the complex designed by Apon Tromp van den Berg ter Braak Architecten (ABBT). Number two in figure 13. It is important to not only understand the building block but also the surrounding where it is situated in.

As pointed out in the chapter of neighbourhood the centre is created in two/three phases from 1975 till 1990. The layer of time is also visible in the appearance of the buildings in the centre. Especially the difference between phase 1 (ca '70's) and phase 2+3 (ca 90's). During the research on the buildings in the centre it became clear that there is more documented of phase 1 and that phase 2+3 is underexposed. This was one of the reasons to choose for the complex by ABBT. The other reason is that it is the biggest complex in the heart of Haven, and it has interaction with many urban elements. The market square, small streets and the canal. Besides that, the ABBT building is the most photographed and printed on postcard building of Almere Haven. Which is an indication that it is one of the prime buildings of Almere Haven according to photographers and tourist.

This interaction with different urban elements and with different types of buildings has been designed with schemes by Projectburo Almere. For example, a social cultural centre should be at least connected to a market, restaurant, school, shops (Projectburo Almere, 1974). Corrossia was and still is the social cultural centre of Almere Haven and is connected to all these elements that the Projectburo Almere wanted. The restaurant became the Roef. Which at situated on the corner of the planned market square and was finished before the first inhabitant came. For the first years the Roef was a multifunctional building, restaurant, bar, theatre and church, all in one. 14 months after the first pile of phase 1 went into the ground, 24 family got their key of their new homes in the first neighbourhood, de Werven.

Besides the schemes what should be connected to each other, there was also a clear vision on the appearance of the centre in the report of Voorontwerp voor het Centrum van Almere Haven. At the last page there are reference pictures to what it should lookalike, all pictures of canal houses in Amsterdam. (bron) Most of this desired appearance was meant for the building block of ABBT. At the other side of the canal there where plots for private clients. Also, here the building look like canal houses (10), even this was not an outspoken wise of Projectburo (van Veggel, 2008). On figure 13 are shown 11 complex that are worth mentioning when looking at the surrounding of the ABBT building block.

10

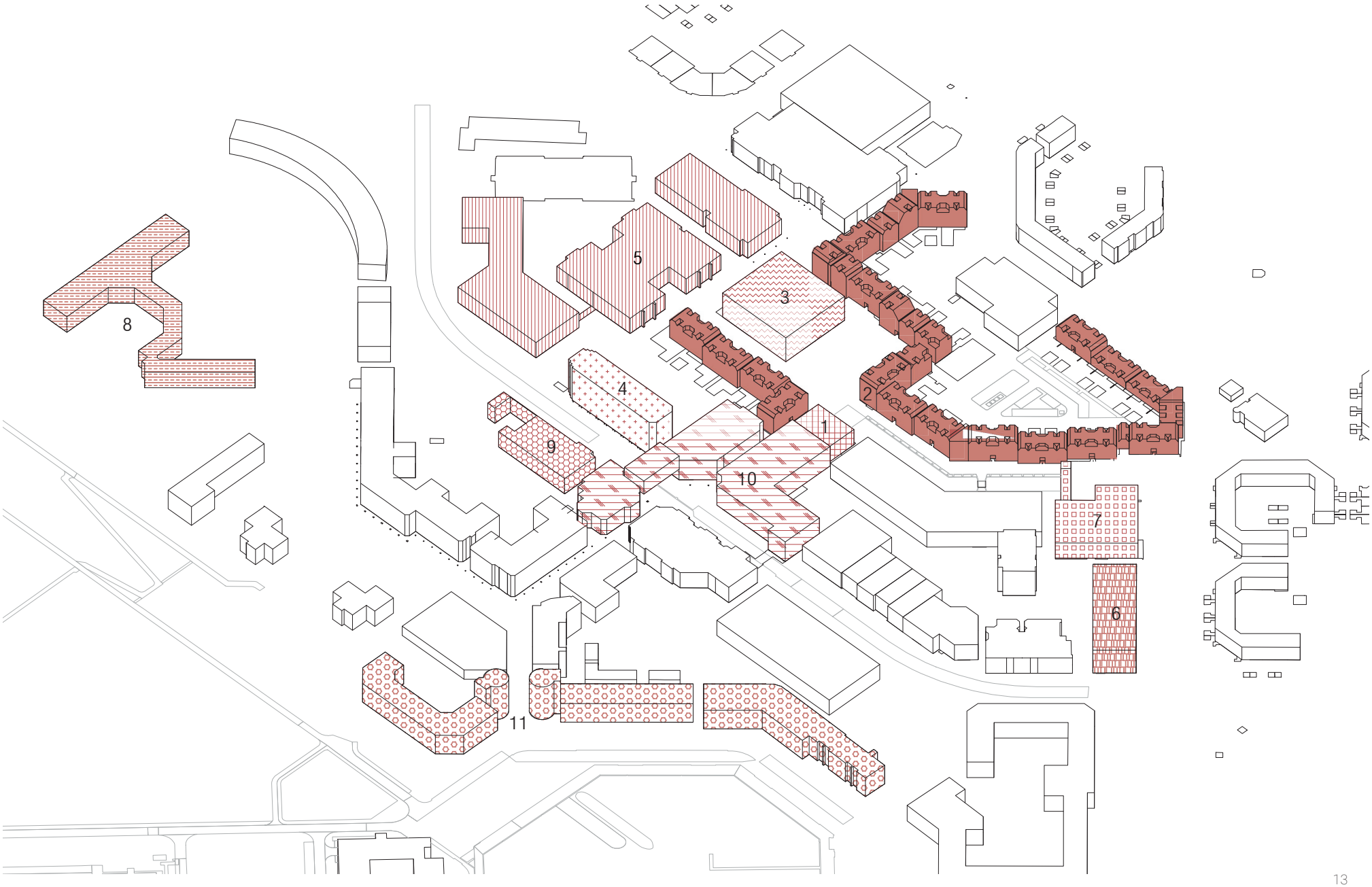
11

12

Fig. 10. Canal houses along, across the ABBT building Block (ca 1975)

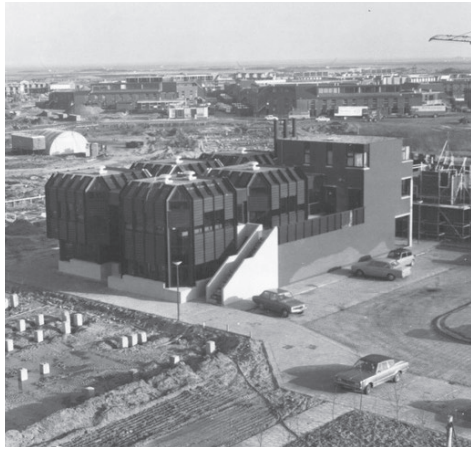
Fig 11. Busstop with at the back the Bovenloop designed by Van den Broek en Bakema (ca 1988)

Fig 12. The only evidenced found of the bridge between the two block of the Bovenloop (ca 1988)
Fig 13. Axonometry of the center of Almere Haven with the important building highlighted.



1. Roef
2. Centrum Almere Haven
3. Corrosia
4. De Hulk
5. Meergronden
6. Raadhuis
7. Goede Rede
8. Overloop
9. Policystation
10. De Bovenloop
11. Havenzicht / Gooizicht

14



Roef

Architect Bram de Wild from PBA
Year 1976
Adress Marktgracht 2
Sort Building Multifunctional

The Dudok Smit couple where the first pioneers who thought Almere Haven needs a place to get together. The architect of De Roef, Bram de Wild, was one of the many architects of the Projectburo Almere. It was for the time an ultramodern colossus, clad in Corten steel. The brownness colour is typical '70. In the '90's the function of the Roef changed an also did the colour, from 70's brown to 90's cream. These days the Roef does not have a function at all. The technical condition at the moment is very poor. For most of the original Havenaren De Roef, stated in de residents research of 2019, is this place where it happened as a Pionier. There for it is also a shame that the Roef has not been well maintained ("De Roef | Canon van Almere," n.d.).

15

Centrum Almere Haven

Architect Apon, van den Berg, ter Braak, Tromp
Year 1974 - 1979
Sort Building 125 houses, 40 shops and office spaces

The ABBT Building blocks is the biggest block of the centre and therefor it became the face of the centre of Almere for the outside world. The block and his program grasp back on earlier architecture, the architecture and urban context of Amsterdam and the Zuiderzee cities. Housing above shops, pedestrian areas, squares and canals. The houses are vertically articulated go against the horizontality of a polder. The facades are from brick and concrete elements (Tromp, Nieuwenhuizen, & van Ruitenburg, 1977)

16

Corrosia

Architect Rob Blom van Assendelft en Jan Koning.
Year 1974 - 1978 renovated in 2015
Sort Building Multifunctional cultural centre

A brown colossus by architects Ron Blom of Assendelft and Jan Koning at the border of the market. The building is covered with sheets of Corten steel. In the first schedule of requirement was the plan to make a community hall which had to be suitable for conservation and movie nights. The policy makers had the opinion that Almere Haven did not need a theater. But the designers of Projectburo Almere did not agree with them. Which did turn the program from the community hall during the construction into a theater. These days the theatre of Almere Haven is very important the municipality of Almere (Gebouwvanhetjaar.nl, n.d.).

Fig. 14. The Roef right after the construction was completed, in the back the neighbourhood 'De Werven' can be seen (ca 1975).

Fig. 15. ABBT building in the Brink (ca 1978)

Fig. 16. Corrossia , the cultural cenre of Almere Haven

17

De Hulk

Architect PBA?
Year 1975, transformed in 2013
Sort Building Office building, transformed into housing

The first office Almere Haven was used to house the RIJP. And is located next to the bus line. After te RIJP left the building has been used for other offices. The name of the building refers to 'The Old Hulk' an old warship in the fog, a painting by William Turner. The building houses in its current state 27 apartment, an activity centre, shops. With this transformation the building has been stripped down to the concrete structure. The existing concrete façade elements have been retained (rlarchitecten, n.d.)

18

Meergronden

Architect PBA?
Year 1977
Sort Building School

The Meergronden is the first high school of Almere-Haven. On the first of august the first children were educated in the huge complex in the heart of the centre behind Corrosia and has a semi direct link to the ABBT building block. These days the municipality decided that the Meergronden is going to demolished and the plot will be used for housing. This development could affect the building block in a positive or negative way ("De Meergronden in jubileumjaar toe aan nieuwbouw - Almere Deze Week," n.d.)

19

Raadhuis

Architect PBA?
Year 1978
Sort Building Raadhuis, now Zorghotel

From 1979 till the fall of 1981 this building was used as the Town Hall of the municipality of Almere. After the fall of 1981 the town hall moved to Almere Stad. The building became an annex of the town hall. In 1983 the moved the annex to Corrosia (Digitaalerfgoed. almere, n.d.). What happened after 1983 with the building is unknown. But in his current state it is housing eldery people.

Fig. 17. De first office building of Almere Haven and the building of the RIJP (ca 1975)

Fig. 18. Kids biking to the first high school of Almere Haven (ca 1978)

Fig. 19 The building where the municipality of Almere was situated in the beginning of developing Almere (ca 1979)

20

Goede Rede

Architect Architectenbureau Steen, Tuinhof & Weerstra
Year 1979
Sort Building Church

The brick building is situated across the ABBT building and could be reached by a bridge over the canal. This church was the first ecumenical church centre of the Netherland. The design of the church is remarkable with his uncommon roof shape and a separate church tower. This church tower is something that the community did not want. But the municipality did want it to have a landmark with in the city and for the visibility from the water, so they paid for I t(Rijksdienst voor de IJsselmeerpolders, 1975). Wandering through Almere the church tower is something that can easily be missed. So the landmark ambition of the municipality of the seventies is not very well designed.

21

Overloop

Architect Herman Hertzberger
Year 1980 - 1984
Sort Building Bejaardentehuis

The Brick building is situated across the ABBT building and could be reached by a bridge over the canal. This church was the first ecumenical church centre of the Netherland. The design of the church is remarkable with his uncommon roof shape and a separate church tower. This church tower is something that the community did not want. But the municipality did want it to have a landmark with in the city and for the visibility from the water, so they paid for I t(Rijksdienst voor de IJsselmeerpolders, 1975). Wandering through Almere the church tower is something that can easily be missed. So the landmark ambition of the municipality of the seventies is not very well designed.

22

Politiebureau

Architect Rem Koolhaas
Year 1984 - 1986
Sort Building Policestation, now vacant

The police station is the first monument of Almere haven and is the first true building finished by OMA on their own. OMA stated on their website ‘although a very late contester for the race’ (OMA, n.d.). The police station representative of the way how OMA organise function in an early state. In the current state the monument is vacant, and the municipality is searching for an infill.

Fig. 20 Goede Rede

Fig. 21 View on the Overloop from the water in front.

Fig. 22 Entrance of the police station

23

24

De Bovenloop

Architect van den Broek en Bakema
Year 1989
Adress de Bovenloop
Sort Building Housing

When the analysis of Almere haven started the authors of this report where interested in this project, but the archives are unfortunately quite empty on this project. The project is building in phase 2/3 of Centrum and is making the street of this part, like the ABBT building is doing that in de phase 1 area. It is said that there is not much documented about this interesting project of Van den Broek en Bakema. The project creates a secondary raised level, the residents have their own private and safe street above the busyness of the shop street. The complex houses maisonettes and split-level apartments. There are a lot of mysteries about this project, such as the demolished bridge (12) that was crossing the shop street (Jaren-70-centra, 2013).

Gooizicht

Architect PBA, Maarten Voorwijk
Year 1990
Sort Building Housing

One of the latest building blocks of phase 2+3 was the housing complex that enclose the harbour. This block is also an integration of housing and non-housing, such as restaurants and cafes. The complex with 118 houses in interrupted by two towers. These towers mark the connection between the harbour and the centre. The reason that these two towers are there and art the entrance of the centre is to make a reference to old water town cities from previous centuries (Architectuurgidsalmere.nl, n.d.).

Fig. 23 Small private square on the secundaire street of the Bovenloop

Fig. 24. One of the towers of Gooizicht.

4.4 THE SITE

The building block designed by ABBT is located in the heart of the centre. It was the first residential block built in phase one. See the chapter about the different phases. The atmosphere that RIJP had in mind was to create little Dutch harbour as explained before. This means that the centre should have an urban character, small scale and a private atmosphere in the city centre. The complex is spread along the 'canals' of haven, and around the market. In the building block there are 4 different heights. Towards the residential areas the height of the block gets less high to make a visual connection with the neighbourhoods for example De Werven.

The complex exists of three main blocks (25). The documentation that has been found in different archives, books and articles are mostly elaborate on the blocks one and two. Sometime block three is drawing, but not in the existing form. Why there is no detailed information about block three is not clear. During discussion about why this could be, one of the conclusions was that they might needed more housing and the plot was still empty. This is an assumption that is made about block three. Because of the lack of information, the information that is present in this report is therefore about block one and two, the less information that we have about block three is present in the chapter of Building Technology.

Appereance

For the blocks were some 'rules' made to create the desired atmosphere. The maximum building height was limited to four floors plus a liveable space under the roof. One block was limited to a width of 4 bay. RIJP did not want to have a horizontal articulated city but a vertical articulated. To create this the blocks are shifted 1,50 meters from each other as visible in figure 26. This is also done to create a varied picture in the vertical finishing of the building blocks (Tromp et al., 1977). The varied appearance of the centre must be achieved by following these rules.

In the sketch of ABBT (26) the market square is shown. A few of the desired rules can be found in this sketch, indicated with by a dot. On page112 and 113 are the planned and effective situation in photographs depict. The photographs are comparing the same spots in the planned and the effective state. With a dot the differences are marked. Dot number 1 is about the visual difference due the growing of the three (27,35). This is a logical difference. But for the daylight of the housing along the canal it might be a disadvantage. The market square is pointed out with dot number 2 (28,36). Every Friday the market is still held here. The appearance of the market has changed over the year. For example, the original streetlights and the brick

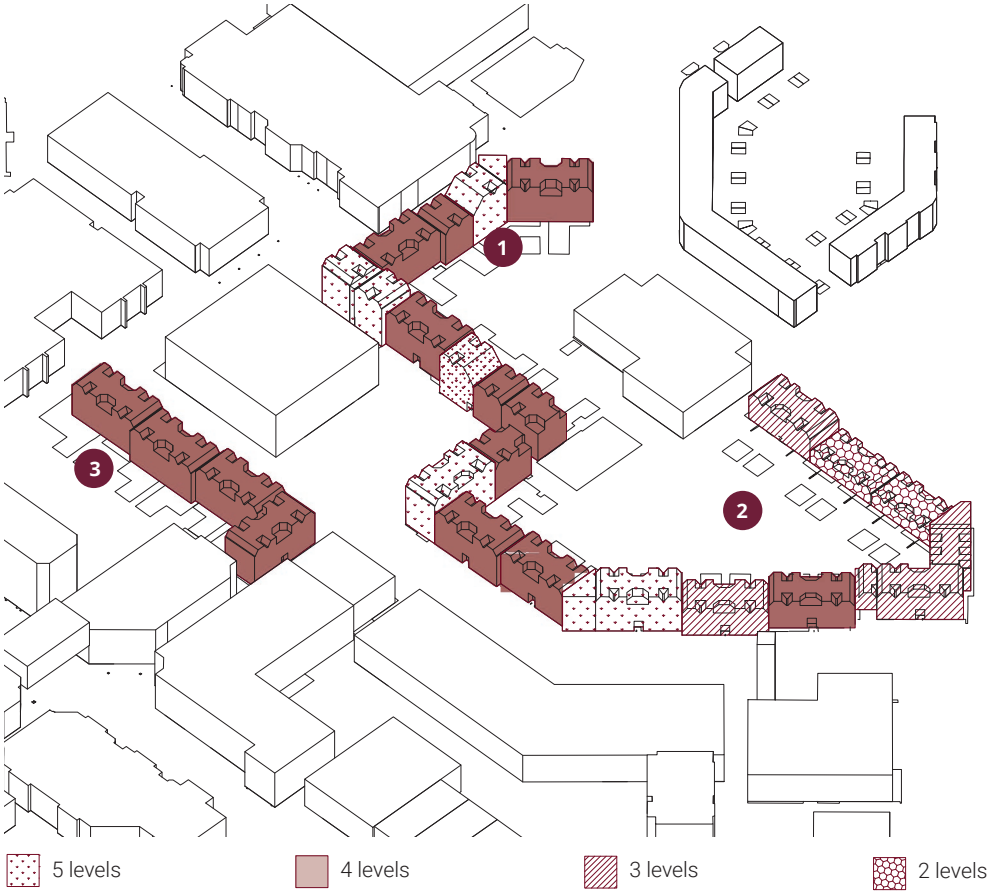


Fig. 25. The ABBT building block with it surrounding and level hight per block.

1 different heights 2 verticality 3 Shops 4 housing

26

benched are demolished. First to make the square bigger. In the beginning there were no trees at all. In a later state the trees were in lines around the market square and with no street furniture according to the photographs. These days the trees and the street furniture are combined and 'randomly' spread on the square. In the resident's research of 2019, someone said that the market square is so much nicer with the 'green' street furniture.

The plinth with the shops has changed a lot in his appearance, dot number 3 (29,32). In block two there are eight elderly houses situated with a little garden. The planned fence of 1,20 meters high has been replaced for 2,5-meter-high fences (30,33). This is a big change in the appearance of this backyard. Moved from open and semi-public to extremely private. This change of fence height is an issue that is pointed out in the booklet of the neighbourhood 'De Werven' . The appearance of the backside in fig 31 and 34 did not change at all. It are still parking lots with the backsides of the housing and shops.

Street profile

As said before the complex is located in the middle of an urban assemble with different elements, the market, canals, narrow streets and large parking plots These variations can be clearly seen in the street profiles of Almere Haven Centrum (37). The previous chapter has elaborated on this topic on a urban scale. For this chapter the street profile has been analyses on an architectural scale with one block as a case study (38). In the following subchapter this block will be taken as a case study for

Fig. 25. Sketch by ABBT of the market sqaure with some markes on the rules of the RIJP that needed to follow by ABBT.

27

29

30

28

31

Fig. 27. Marktgracht with the church tower in the back (circa 1979)

Fig. 28. Marketsquare surrounded by ABBT building block (circa 1979)

Fig. 29. Arcade of the stores (circa 1979)

Fig. 30. Backyards of the eldery houses in block two (circa 1979)

Fig. 31. Expeditionarea of block two (circa 1979)

32

33

34

35

36

Fig. 32. Marktgracht with the church tower in the back (2019)

Fig. 33. Marketsquare surrounded by ABBT building block (2019)

Fig. 34. Arcade of the stores (2019)

Fig. 35. Backyards of the eldery houses in block two (2019)

Fig. 36. Expeditio-narea of block two (2019)

the whole complex. The chosen block exists of one shop level with above three housing level and is located along the canal, Kerkgracht. In figure 25 the chosen block is the one under the dot with number two.

The street profile of the Kerkgracht (38) shows that there is a big difference in use of the front and the backside. The frontside shows more liveliness with pedestrian, bikes than the backside with a parking lot and a garbage spot. The urban program of the site is one of the reasons, the other reason is the way the program of the block is arranged. ABBT architects stated it as follow: The shops on the ground floor and housing above is not new itself, according to our existing urban centres, where shops are almost found in the same way. By restoring the function (living-shopping) we therefore expect that the shopping area will also remain an attractive place during closing hours, stimulated by the housing on one hand and the visual plus physical protection on the square and street on the other (Apon, Berg, Braak et al. 1980). With restoring the function, they refer to the misbalance after the modernist period, the mixing of function became a key concept in the architectural seventies (Vletter, 2004).

The backside has been designed for the cars, storage of the shops and the shed for the residents. They called it the expedition area, where it is easy to load and unload supply. Besides that, having a parking lot so close to the shopping area makes is more accessible for visitors of the shops. Also, this concept of the expedition area is not new. This concept of expedition area is not new. The design of the Lijnbaan by Van den Broek en Bakema is. This has been done in Rotterdam at the Lijnbaan, designed by van den Broek en Bakema. Side note, the complete assemble of the Lijnbaan project is what the architect of the seventies abhorred, because of the separation of functions.

Between the planned and the effective situation of the street profile are not that many differences. The blocks are still the same in height in width and the traffic flow of the area is still is same. The pictures of the previous page also show this. The biggest change is the plinth of the building, in the chapter of the skin there will be more elaborated on this change.

The residents research of 1983 stated that the parking facilities in the middle of the centre are very appreciated by the residents. Besides that, with car free street, the canal trees are reserved for pedestrian, who may experience a feeling of comfort and belonging. This feeling would be not possible if cars were involved in the traffic flow.

This separation is definitely one of the benefits of the expedition side. Also, in the resident's research of 2019 a few attendees stated that the amounts of parking space in the centre should never change.

This concentration off cars is making the space not very liveliness, while it is in the middle of the centre. The street profile also shows this with the activities that take place. At the front side are more people than at the expedition side. The expedition side can be seen as a dead area. What is striking is that none of the attendees of the resident's research of 2019 makes a note of this dead areas. They say, yes, it is not that nice, but it free parking and close to the shops which is highly appreciated. For future development it would be interesting to change the expedition side into something liveable, with the benefits of have free parking out of sight close to the city centre.

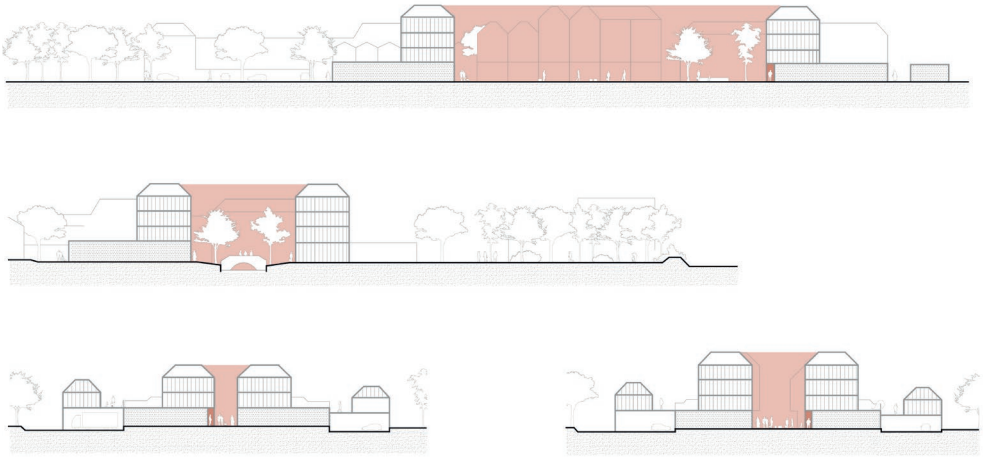
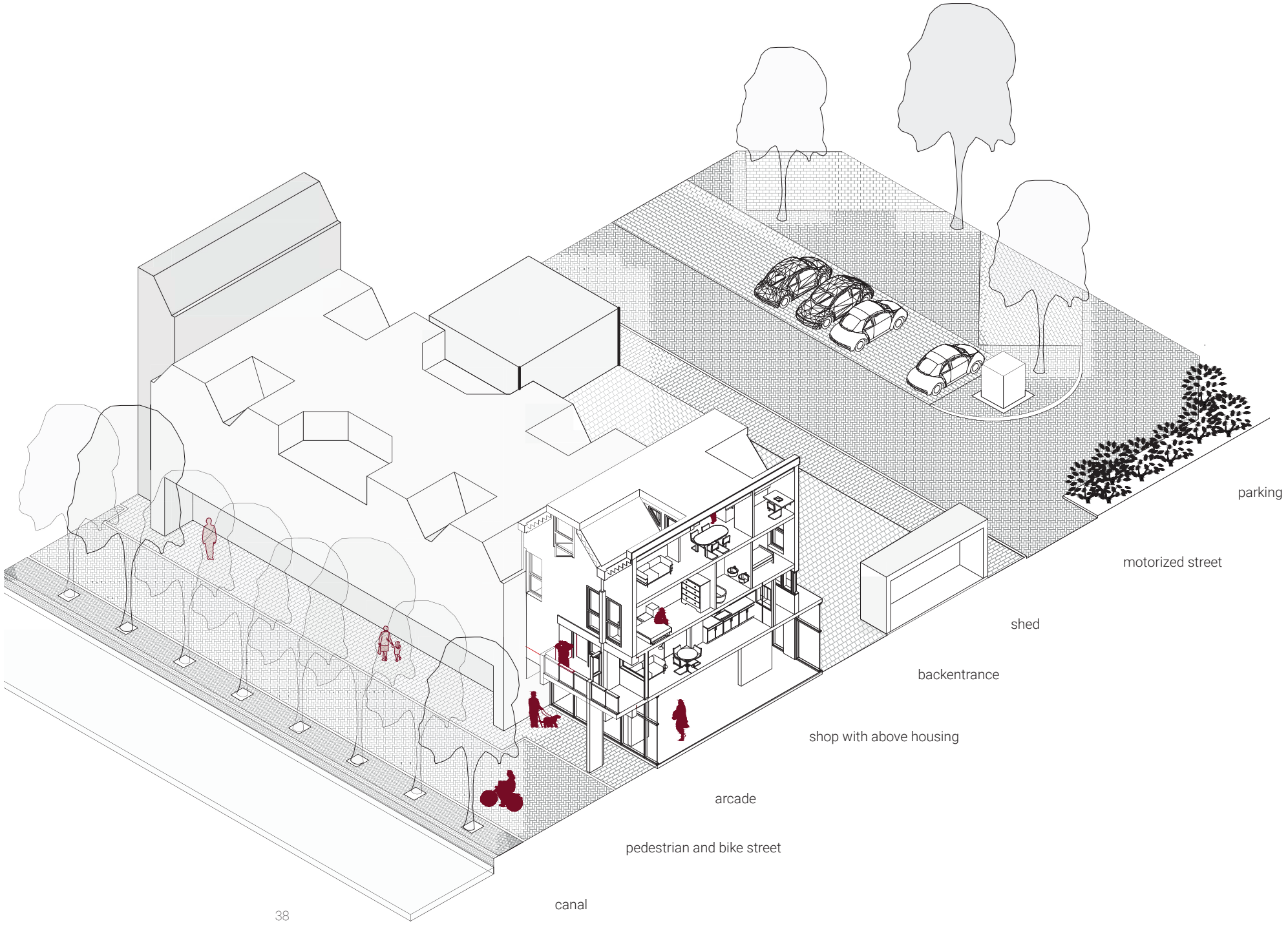


Fig 37. Planned street profile, picture shown in the chapter of neighbourhood.

Fig 38. Effective street profile of 2019 in axonometry.


parking
motorized street
shed
backentrance
shop with above housing
arcade
pedestrian and bike street
canal

38

4.5 SKIN

The ABBT building block is the first building in the heart of the centre where the desires of the RIJP where visible. The RIJP first asked the well know architect Aldo van Eyck for the project. The partner of van Eyck, however, disagreed in principle with the development of Almere and thought that the problems of the old inner cities of the big cities needs to be solved first. And needed the attention of the architects. After they said no, RIJP went to ABBT Architects (van Veggel, 2008).

Taking look at the façade (p117) and the corresponding street profile (38) the association with a canal house is clear. You could say that it is a modern 70's copy of the canal house; a simplification with modern materials, like prefab concrete elements. According to JaapJan Berg the architecture of ABBT was the bifurcation of the modernity and the familiarity. In de adolescent of Almere JaapJan Berg state this as:

De architectuur "kopieert- of leent - bepaalde traditionele kenmerken en details, en daarmee de bijbehorende uitstraling en sfeer[...] Het resultaat mag niet traditioneel heten, maar komt wel voort uit de (stille) wens om een twintigste eeuwse variant van het traditionele Zuiderzeestadje, inclusief grachten en grachtenpanden, te willen bouwen." (Provoost, M. 2007).

The appearance is also achieved by taking in to account the maximum height of 4 levels and with living space under the roof. The wise to evoke a more vertical than horizontal structure was the result of a common thought of the RIJP and ABBT (Apon et al., 1980a).

Design drawing

One of the architect of the building, Tromp, exchanges his ideas of designing in an interview with S Magazine (1978). He stated that it is important to always be as overambitious as it can possible be with in a design, and downsize is later. Then the other way around by adding elements later. In the case of Almere Haven there changed almost nothing, or hardly needed, to be cut off and therefor changed. In the sense that the plan would be shortened.

The pre-sketch design (39,40), sketch design (41, 42) and the final design (43, 44) of the facade are depicted on page X. The different use between the two side, front and back, as stated in the previous topic is also visible in the appearance of the skin of the building. The different attributes of skin are indicated with a doth in the final design drawing and what is striking about it is briefly mentioned below. About how it might have changed overtime will be address in the next subchapters.

1. The sketched shows a more open front façade and a closed off façade at the back. It is logical to open up towards a pleasant place with trees and canals than to opening up to the loading and unloading supply area. The different stages of the design also shows that there, indeed, didn't changed that much, even between the pre sketch and sketch phase.

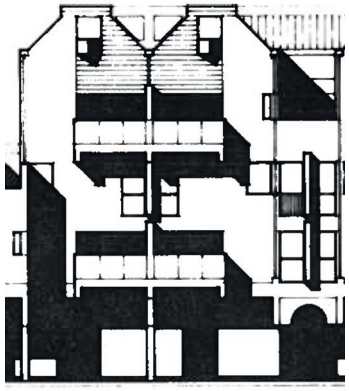
2. The balconies are design for a large part of the depth as a loggia. It was the desire of the seventies that every house had his own garden or balcony. There were a lot of demands for sun, shade an shelter which were all pointed out before the design of Almere haven started (Projectburo Almere, 1974).
3. The size of the windows seems to be a little bit small to receive enough daylight in the rooms of the apartments. The architect did this on purpose and the aim was to avoid large glass surface in order to contribute to a better habitability and quality of the light in the rooms (Tromp et al., 1977).

4. At the back facade the sequence of windows is noticeable because it is a stranger in our midst of the window frames and sizes. Behind this sequence is not a house located but it is an interior galerij. The galerij is not longer than 5 meters and is located inside the building block and has a glass front.

Dot number 2, 3 and 4 are elements that are one of the numbers of measurement that have been taken to reduce the unfavourable climate influences (Apon et al., 1980a).

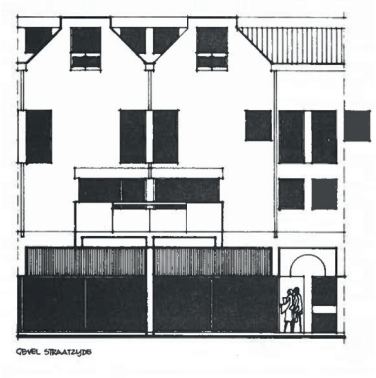
Choice of brick

Brick was chosen as the main façade-material as it is a reference towards historic housing. Choosing this material was – according to architect Tromp - very logical as it is a very pleasant material rooted in our culture and suitable for our climate (S Magazine, 1980). Choosing it in the seventies was not so logical as one nowadays might think. Shortage of brick-manufactures and masons formed a risk that could lead to higher building coasts and longer construction time. The brown colour of the brick was again a well-founded decision. This type of brick was known as 'human material', meaning that people could related to it.



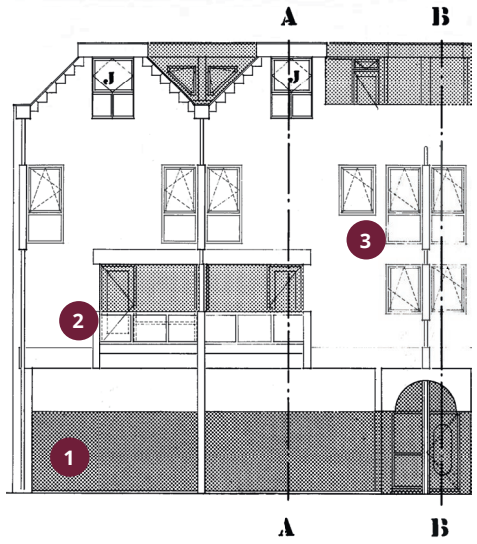
39

40

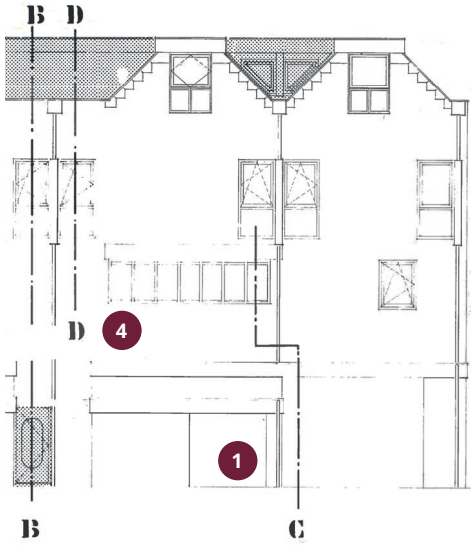


41

42



43



44

Furthermore, the colour accentuated the intended village feeling (CASLa Almere, 2001).

Colour woodwork

The window frames and fascia's were materialised in hardwood and originally with a brown colour, it is not clear if it was stained or painted. This was a typical colour used in housing developments of the seventies. At that time this colour was seen as something unique by the Peetvaders. They were initially surprised that the brown colour was also used for other housing developments in the Netherlands. The fact that the project office was located more or less isolated, is likely to have been the reason for this to happen. Nowadays the window frames and fascia's are painted in cream-white and dark red. This colour change resulted in a different expression for the façade as they are now far more notable than they used to be (Nawijn, 1988).

Fig. 39. Preliminary sketchplan front facade (ca 1974)

Fig. 40. Preliminary sketchplan backfacde (ca 1974)

Fig. 41. Sketchplan front facade (ca 1975)

Fig. 42. Sketchplan backfacade (ca 1975)

Fig. 43. Finalplan front facade (ca 1975)

Fig. 44. Finalplan back facade (ca 1975)

Elements

As pointed out when perceiving the final drawings there are certain elements in the façade that give identity to the skin. But was has been changed between the planned and the effective state. The two axonometries show the summary of which element has removed, replaced, added or a change of colour. Dots on page X are pointing out the changes on the photographs of the planned, ca 1978, and the effective 2019.

1. The fascia's has been replaced during an unknown renovation of the building. Not only the colour from brown to cream white has changed but also the quantity and the width of the used material, for sure wood in the planned state, unknown for the effective. As said this change of colour give the façade a different expression.

2. In the planned state the top window under the 45-degree roof was a three-dimensional triangle. It looks like a reference to an old lifting beam from old warehouses. Why it changed is not clear. It could be because of maintenance reasons

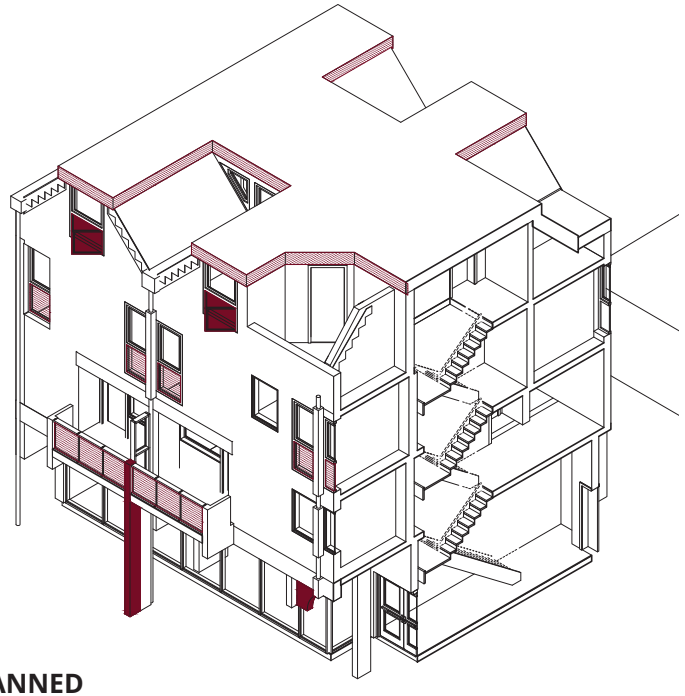
3. The glass of the windows and the balconies did change to another material which is not transparent. For the windows the reason could be because of heat loose by the fact that the radiator is in front of the window.

4. In the plinth the 45 degree 'schrootjes' and the arc had been removed and did not have a replacement. Also, the column under the balcony has been reduced in size. On page X will be further elaborated on these changes.

5. Beside removing elements in the plinth there also has been some additions, like the reduced column has been covered in natural stone and a beam with lightning has been added under the concrete beam.

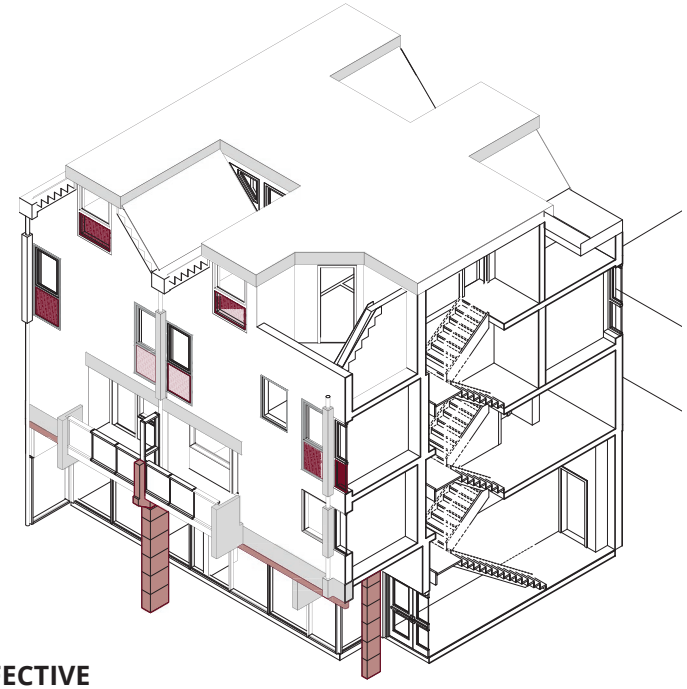
6. In figure 53, dated 1979, the colour of the concrete is visible, all the prefab elements have the same appearance. In de effective state the elements have no three colours, the beam is kind of grey blue, the construction slabs are grey, and the prefab elements of the façade are white. The coherency in the planned façade between the concrete is by the paint affective.

At first sight the façade did not changed that much, by taking a closer look there has been al kind of small changes which make the façade a little messy.



45

PLANNED



46

EFFECTIVE

Fig. 45. Axo the planned situation with highlighted the changes

Fig. 46. Axo the effective situation with highlighted the changes

Fig. 47. Planned: Original windowframes (1979)

Fig. 48. Windows effective state (2019)

Fig. 49. Planned Balcony (1979)

Fig. 50. Effective Balcony (2019)

Fig. 51. Planned Plinth (1979)

Fig. 52. Effective Plinth (2019)

Fig. 53. Planned state where the colour of the concrete can be seen (1979)

PLANNED

47

49

51

48

50

52

53

Effective

Arcade

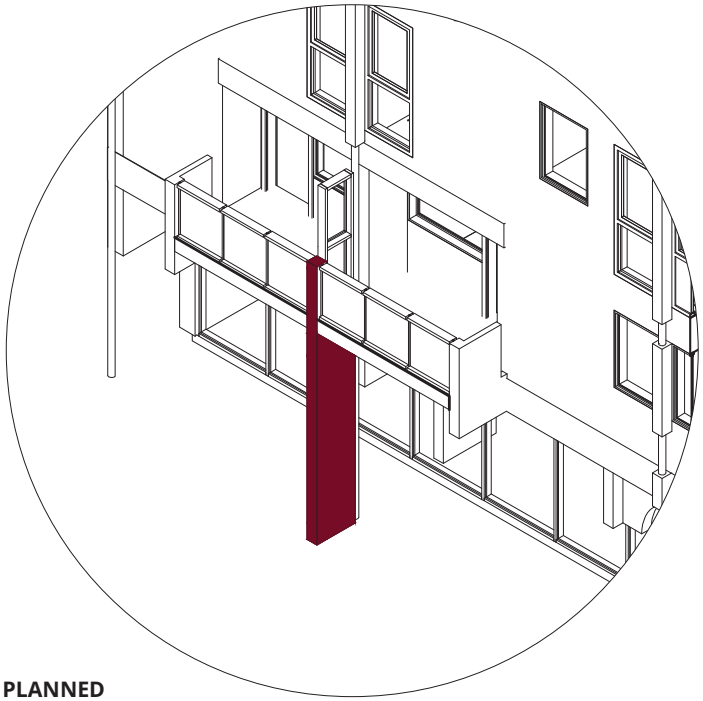
The shops have on the frontside a covered, protected pedestrian area. It is designed to protect the people form the unpredictable Dutch weather. On page 121 are three photographs of the arcade shown, 1979, ca 1995 and 2019. It could have been three different arcades in different cities. The changed has been marked with the dots.

1. The schrootjes and the arc (see next subchapter) above the entrance of the staircase had been removed. The 45-degree schrootjes where meant to add advertising signs as shown in the sketch by ABBT (56). This way off advertising signs did not happen. They attach the signs on the prefab column (59). These days this still happen, or it is on shop front on the closed off part. These days the schrootjes are not there in a 45-degree angle but in 0-degree angle and are attach under the concrete ceiling.

2. The protected pedestrian area has been expended with an addition of awnings. On the photograph of 1995 and 2019 it looks like the awnings has been replaced two times. The architects of ABBT already made space to add awnings to extent the pedestrian areas. But this might be the one like the yellow one (61) then the permanent ones.

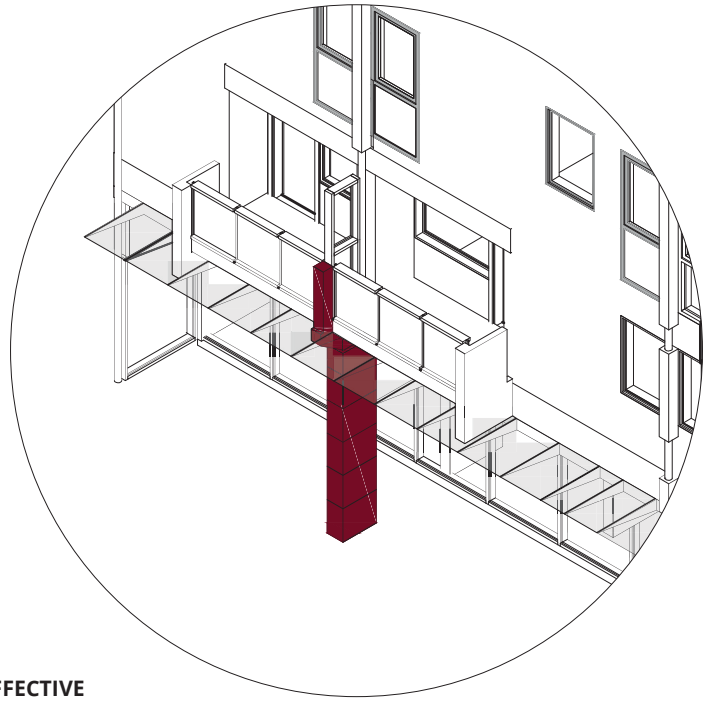
3. The biggest changed in the arcade is the removed column. According to the shop owners the 1,50 meters width of the concrete element give the pedestrian a limitation of visibility. But also, it distracts the pedestrians from looking at the shop window which is increasing the sales. Therefor the advice in 1993 was to remove part of the column (Projectmanagement & Adviesgroep BV, 1993; Stichting bouwcentrum, 1983)

4. After the second renovation of the arcade the removed column are covered with natural stone and the concrete elements had been painted, it is unfortunately not clear why did had been done. But one thing is clear that is makes the appearance of the arcade more a mess.



54

PLANNED



55

EFFECTIVE

Fig. 54 Axo the planned situation with highlighted the changes

Fig. 55. Axo the effective situation with highlighted the changes

56

1978

57

58

1995

59

60

2019

61

Fig. 56. Sketch design of the arcade ca 1976

Fig. 57. Arcade ca 1978

Fig. 58. Sketch of redesign of the arcade ca 1992

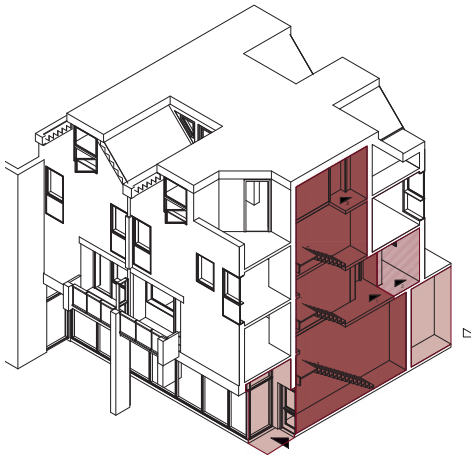
Fig. 60. .unkownn sketch of the second redevelopment

Fig. 61. Arcade 2019

Entrance - Frontside

The entrances of the building have changed as well. While comparing the front and backside, the frontside is changed the most. In the planned state the entrance of the staircase was highlighted by a prefab concrete arc. By doing an analysis on photographs over time, this arc is probably erased during the redesign of 1993. The reason why the arc is removed is unknown. But the residents research of 1983 stated that the interpretation of the arc is depending on the attitude and the ability of the viewer, it can be described as an unclear and disorienting or intriguing design. Which feels a bit illogical to remove the one element that indicates where the entrance is, unless they remove and replace it with something better. But for now, this change feels illogical and inconsequent.

The house number were removed from the column and are relocated above the entrance door of the staircases. The size of the sign is needed to track attention. The visibility in the plinth of the entrance is a weak spot. Besides the relocation of the house numbers the mailboxes where relocated from inside the staircase to next to the entrance door.



62

63

65

64

66

Fig. 62. Axonometry of the frontside of block

Fig. 63. Front entrance ca 1979

Fig. 64. Housenumber ca 1979

Fig. 65. Front entrance 2019

Fig. 66. Housenumber 2019

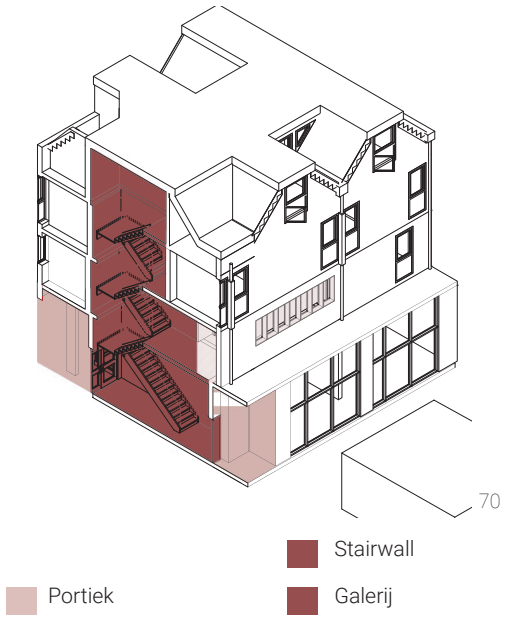
67

68

Entrance - Backside

The entrance of the backside did not change. Only the fence to the entrance of the staircase has been changed. At the frontside is was easy to spot the entrance of the staircases when the arc was still there, which is an opinion of the authors and not of the residents. The entrance to the houses is a combination of staircases and so called ‘galerijen’. These are visible in the skin of the backside as a sequence of window frames. In the next chapter the combination of staircases and ‘galerijen’ will be elaborated on.

69



70

Fig. 67. Back entrance 1978

Fig. 68. Back entrance 2019

Fig. 69. Tromp in the under construction galerij (1977-78)

Fig. 70. Axonometry of the backside of block

Layers of time

By summarizing all the changes that has been made the layers of time became visible in figure 71 and 72. Jumping to conclusions only the brick and the concrete elements of the rainwater are still there as planned.

71 **FRONTSIDE**

0 5 m

72 **BACKSIDE**

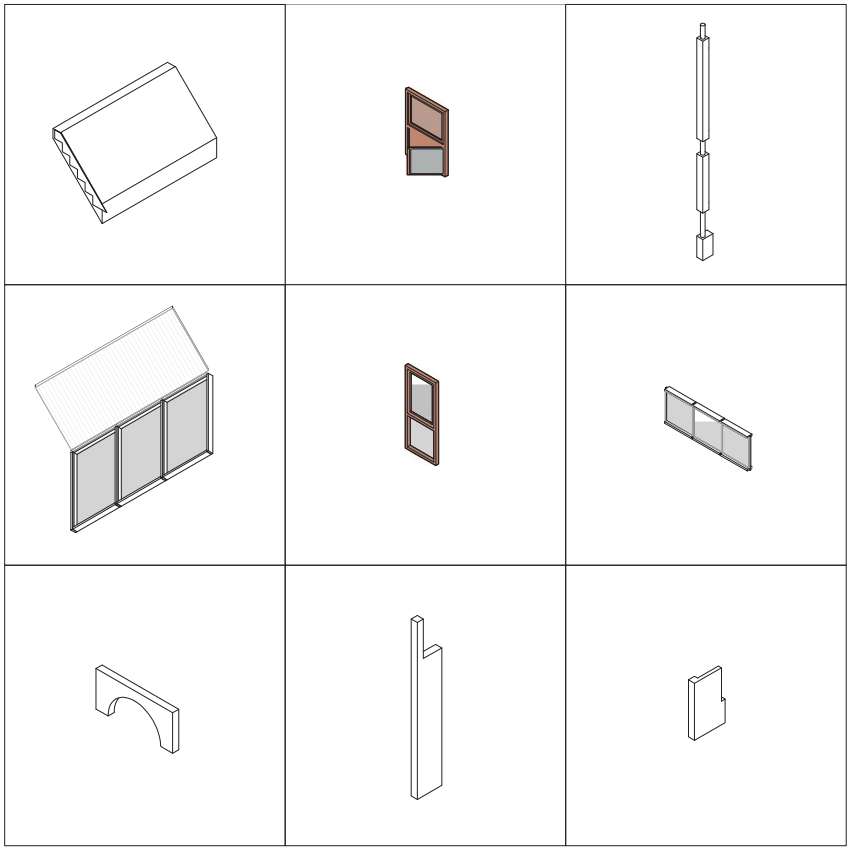
0 5 m

1978 ca 1993 ca 2005 unknown

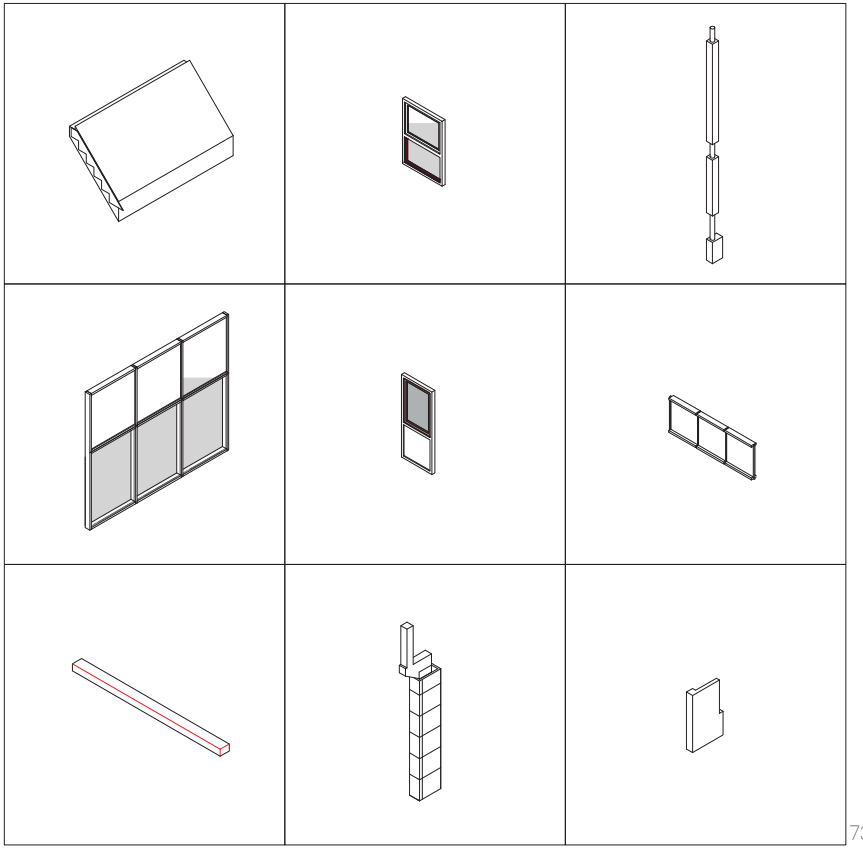
Fig. 71. Frontside with the layers of time highlighted.

Fig. 71. Backside with the layers of time highlighted.

Elements over time
Besides the layers of time it is interesting to see the change of the different elements that are making the composition of the façade. The reason why it changed or why is looks like the way it looks is explained on the previous pages. The kind of memory card below can be seen as a quick overview, summarizing of the planned and effective elements. All this kind of element together as an assemble can be seen as the Nieuwe Truttigheid. In an interview Tromp with S Magazine (1980), elaborates on how the façades in that time were designed. Almost all the architects were articulation in a vertical way, it could be a fashion statement. Although it could also be seen as an attempt to bring back the recognizability after years of 'stacking residential containers. The different facades, different forms, recognizability, identity, all an attempt to give housing a more human dimension.



PLANNED



EFFECTIVE

73

Fig. 73. Elements in a memorycard why depict, kind of summary of the changes

4.6 SPACE PLAN

The seventies, in an architectural way, are a reaction on the largeness of scale of the 1960's. The large-scale projects where not only located near the edges of the city but where also planned in the centres, like in Amsterdam. These kind of plans for the city where eye openers for many people, an 'fear'-inspiring and a reminder for neglect was something that not a lot of cities had escaped from. In Amsterdam this was a reason for 'Action'(Vletter, 2004).

Till the end of the 1960 high-rise was the way to go, sometime is was labelled as 'impressive architecture'. The post war modernism was turning from a style to a mentality. This changed was not in the benefit of the architecture. The major building scale and the largeness of the building got a lot of criticism from outside the architecture. It had mostly a mono-functionality and anonymity. In the first issue of Forum, Aldo van Eyck criticized the way his colleges where designing. This criticism is known as 'de andere gedachte'. Van Eyck was one of the first whom was talking about bringing back the Human Scale, designing for the people (Vletter, 2004).

De Tweede Nota Ruimtelijke Ordening

Besides this criticism what changed the appearance of architecture. There was a second concern, the housing stock of the Nederland. In 1965 the forecast was that in 2000 the population will increase to 20 million inhabitants. There for the ministry published 'The Tweede Nota Ruimtelijke Ordenig 1966 (Second report on Physical Planning, 1966). The policy changed; cities must be developed in a bundled concentration. This report is the change from high-rise to a much more highly differentiated housing stock, developed in response to the individual housing preferences which had arisen and were given recognition (Barzilay, Ferwerda, & Blom, 2018).

Experimentele Woningbouw

The high demand for housing, but on a small scale is asking for a different approach. Beside De Tweede Nota Ruimtelijke Ordening 1966 was there a second programme that the ministry launched: Experimentele Woningbouw. The aim of the program was: to promoting innovations that contributed to a beter quality of living. There had to be a better response to the strong variation in personal circumstances and preferences of the residents. This could only be done by a very varied range of homes and living environments. In the past the design was considering the 'average resident' (Barzilay et al., 2018).

Typologies

This change in the policy and the appearance of the housing is visible through the entire city of Almere Haven. The centre of Almere got the predicate of experimental (S Magazine, 1978). Comparing the aim, stated before, and the plans it fits the predicate perfectly. The varied range of typologies is present (74). In the total complex are 127 household spread over 6 typologies. With a large number of 3-, 4- and 5-room apartments. Furthermore, the complex houses 40 shops and some office space.

Type	Amount	%
1 room	12	9
2 rooms	8	6
3 rooms	44	35
4 rooms	20	16
5 rooms	39	31
7 rooms	2	3
Total	127	100

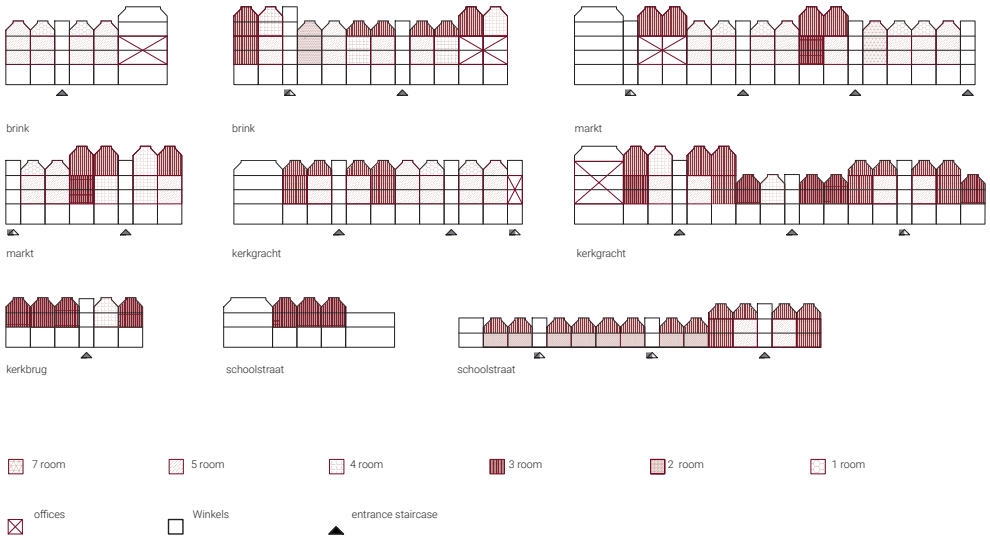
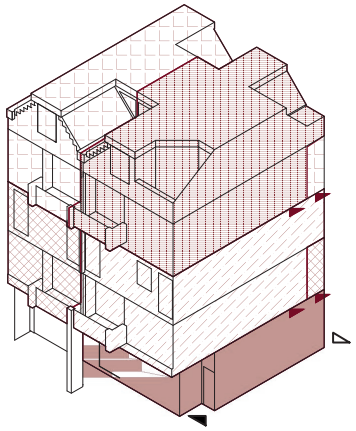
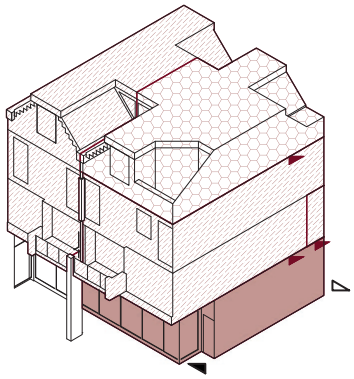


Fig. 74. All the typologies in the block 1 and 2

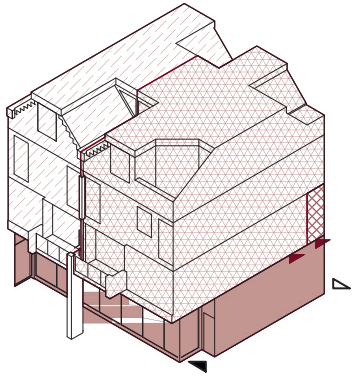
Fig. 75 The common combinations of typologies.



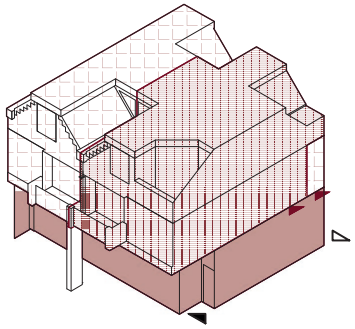
1 level of store, 4 levels of housing



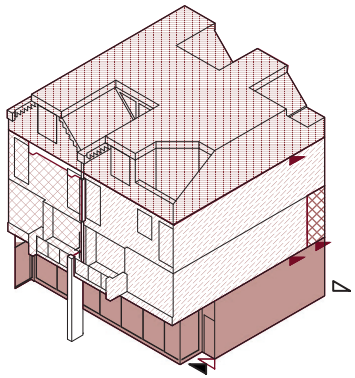
1 level of store, 3 levels of housing



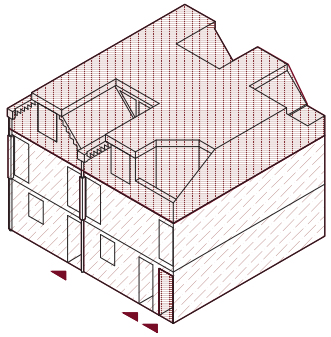
1 level of store, 3 levels of housing



1 level of store, 3 levels of housing



1 level of store, 3 levels of housing

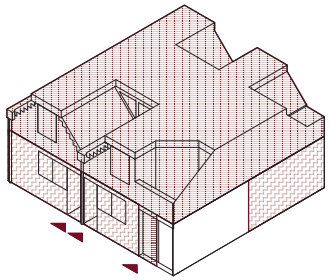


3 levels of housing

The planned situation expected that with all these different typologies that there would be a high diversity of household. According to the resident's research 1983 was that not the case. 57% of the households existed of one- or two-person household, 41% of three to four-person household and 2% of more persons. Within the spreading of the typologies (74) there are seven common combinations of typologies to identify (75). These seven common combinations in a more detailed why how different typologies are located next to each other and that for example the five-room apartment could be spread over two and three levels.

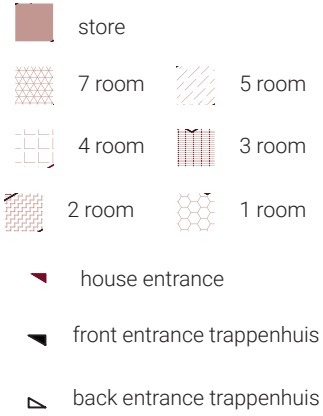
Entrance

The figure 75 also depict access of the housing, which is as the type of entering is called in Dutch: Portiek-galerij. Which means that the residents can reach their home by a stairwell (portiek) in combination with a common hallway (galerij). This common hallway is made for just two houses entrances and is dominating the architectural articulation of the back façade (70). For two



2 levels of housing

75

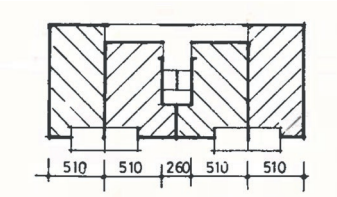


common typologies the entrance is on street level. This typology is especially made for elderly and there are eight of them in the complex. The entrance of the shops are located at the street level. The office entrance is or located at street level but it also can have an access through the portiek-galerij. It is even possible to make a combination (Apon et al., 1980a).

Shops and offices

The shops are located on the ground level. The width of the bay for the building is 5,10 meters. This is the minimum width for a shop and could be upscale to 4 bays, 20,4 meter = 4 bays. The normal length of a shop is 9 meters. It could be extended to 12 or 15 meters at the backside. With these different dimensions it is possible to make 12 different shops sizes, from 45 m2 till 300 m2 (Tromp et al., 1977).

In the planned phase, the various branches were already divided within the block (78). These days there is a lot of vacancy in the ABBT building block. These days, wandering around the market and canals does not give you the feeling of being in an alive centre. The liveliness that all these shops would bring is no longer present. In the resident's research of 2019, the attendees are sombre about the disappearance of the specialist shops and the return of large chains.



76

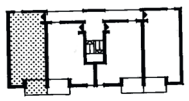
Offices

AAbout the presence of the offices i the complex cannot be found a lot of information. The spots that are indicated as office space above the ground level (74) are still used as office space as has been notified with being on the site. Even in the resident's research of 1983 the office user it not included in the study.

Housing

A small amount about the floorplans is available in the literature, hardly anything. Figure 79 is the only thing present, even in interview they say nothing about the floorplans of the complex. In the complex are the houses vertical articulated, maisonettes, and a horizontal articulated apartment occurs only under the roof. The way the houses are situated in the block is something that is hardly visible from the outside. For the residents it is hard to find there house by looking at the façade, because it looks everywhere the same (Stichting bouwcentrum, 1983).

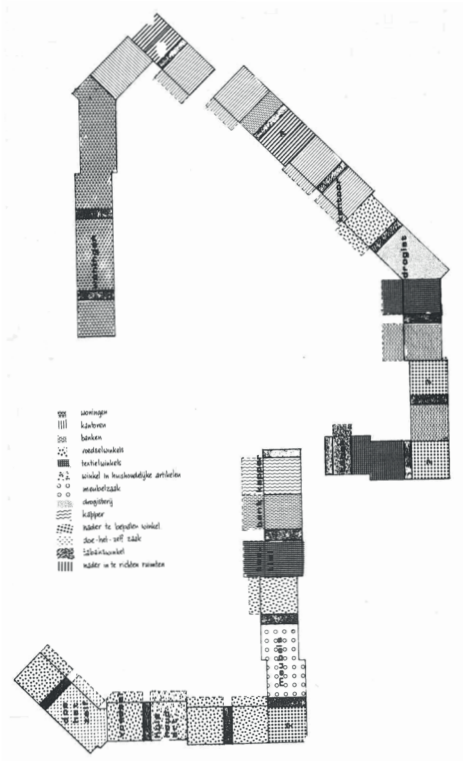
The case study block that has been used in the previous analyses houses three typologies(80). Two maisonettes of 4- and 5-room and one three room apartment under the roof. The bay that is used for the shops, 5.10 meters, changed on the level above. The house next to the stairwell has a width of 6.4 meters. The variation in housing does



77

not only occur in the capacity of the housing but also in the footprint of the plans. The living room for example has in every house the same square meters, 25m2, regardless whether the house has 3, 4 or 5 rooms. This is also visible in the case study block; on page 129 the floorplans of the case study can be found.

The effective state of the floorplans is unknown. But what identified is what the residents rated their space plan. For example, the open kitchen is found positive form the point of view of social contact and shortening the distance movements. However, the question is whether the fully open relationship is appreciated by everyone.

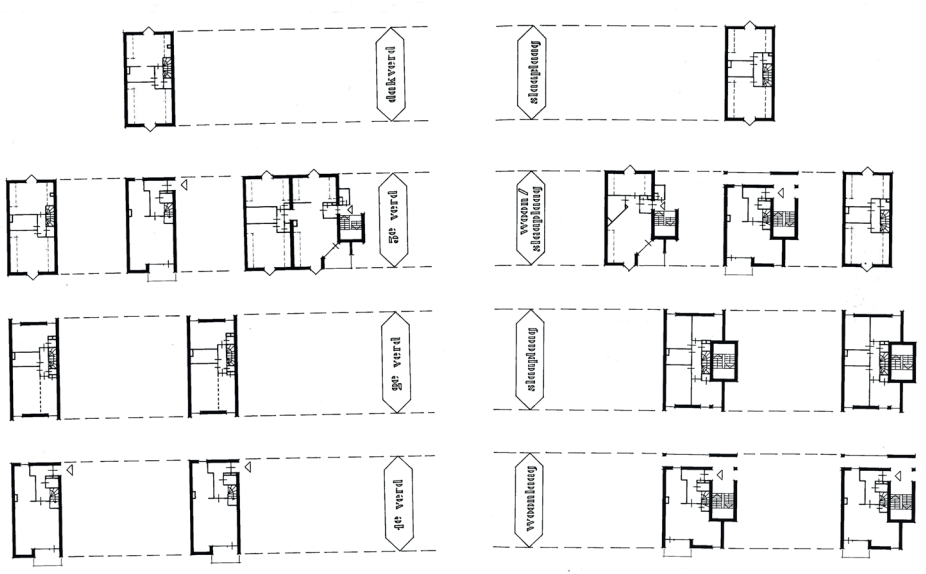


78

Fig. 76. The bay measurements of the groundfloor

Fig. 77. Schematic floorplan

Fig 78. Schem of the shops that where planned on the ground floor



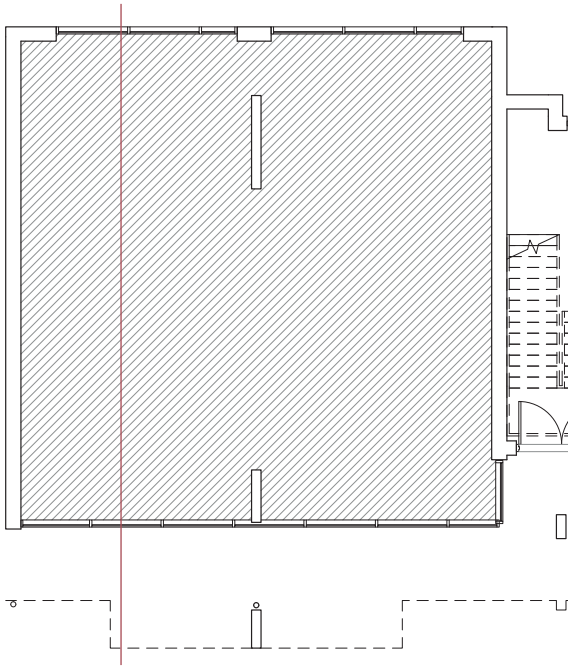
79

The positing of the living and the loggia has been questioning by the residents, because of the northern orientation. This has also to do with amount of daylight entry, which is not considered as sufficient. The size of the windows is a design decision of climate reasons as mention before. Perhaps the architect had forgotten the user in making this decision. Not only the positing of the loggia is question but also the size and the height of the balustrade is assessed negatively. Because it obstructed the view from the balcony and the living room to the surrounding. In the subchapter of the skin it can be seen that the balcony material has changed from transparent material (glass) to a non-transparent material. From the review of the residents is this an illogical change (Stichting bouwcentrum, 1983)

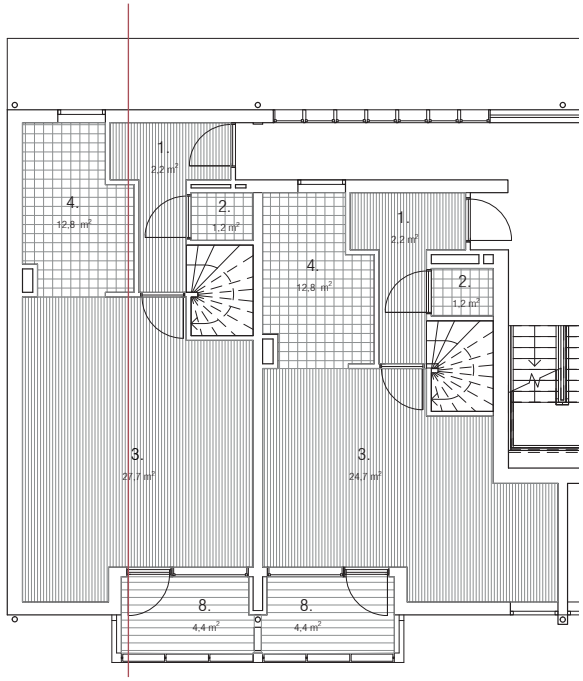
80

Fig. 79. The planned floorplans for the different types of typologies,

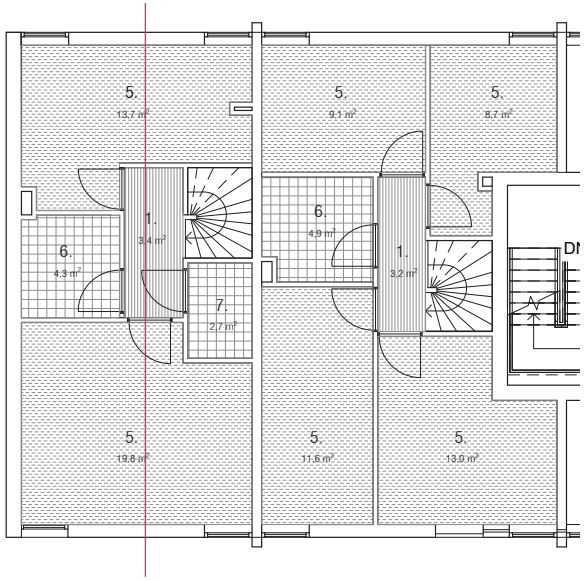
Fig. 80. The case study block with highlighted the entracne and the typologies.



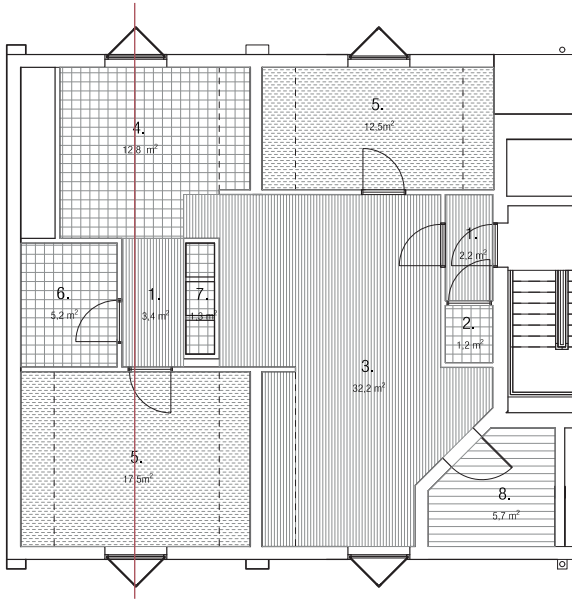
00_store and trappenhuis



01_livinglevel



02_sleepinglevel

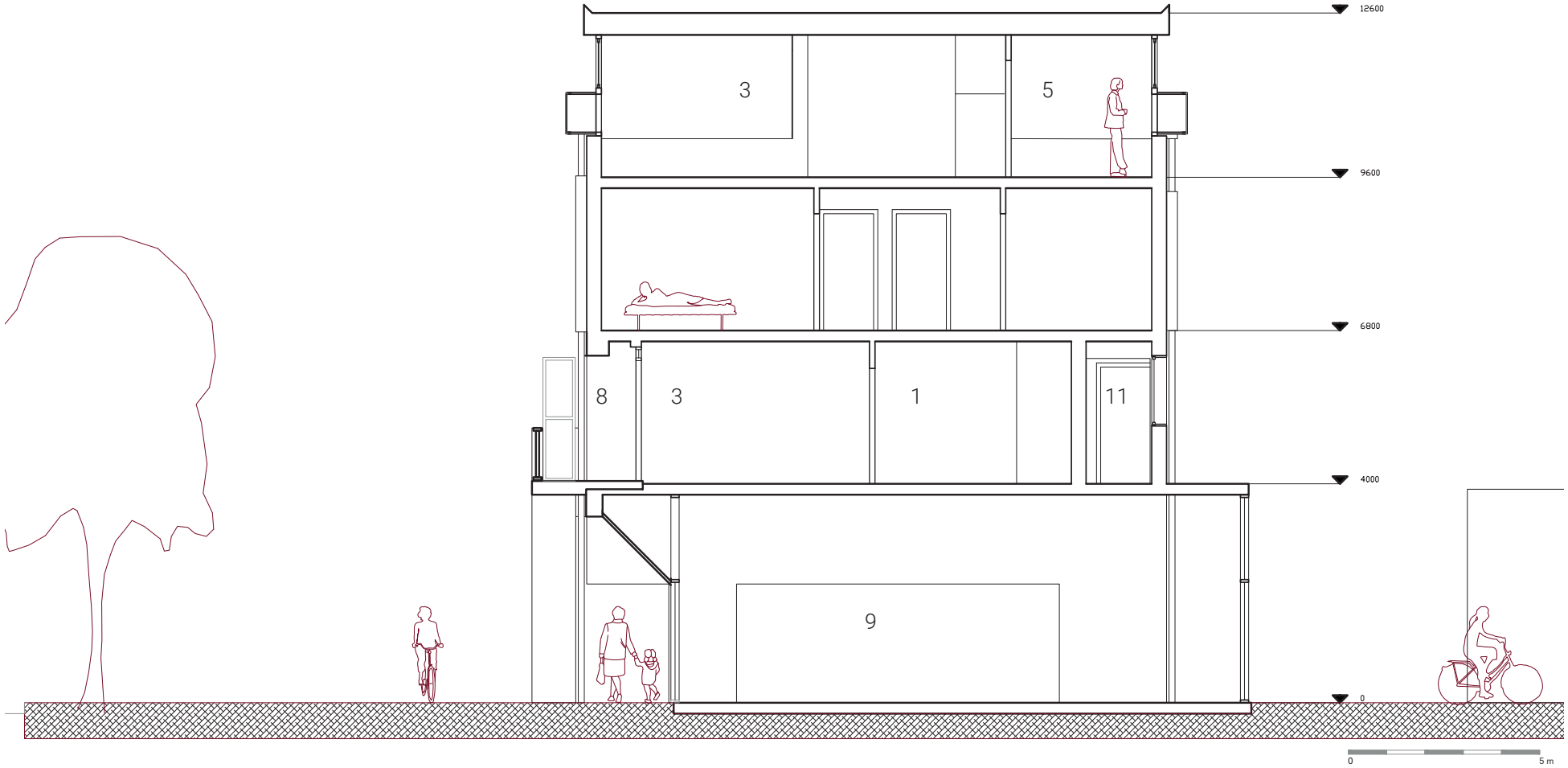


03_appartmentlevel

0 5 m

1. hall
2. toilet
3. living
4. kitchen
5. bedroomd
6. bathroom
7. storage
8. loggia
9. store
10. stairwell
11. gallerij

Fig. 81. The floorplans of the case study block.
Fig 82. The section of the case study block.



82

4.7 CONCLUSION

Analysing the ABBT building has given an overview of the architectural ideas behind it, the connection with his architecture of the time and the appreciation of the building through the resident's research of 1983.

The architect

The chosen architect by the RIJP has been a good one. One of the main architects, Apon, was involved in the Forum group who were argue for a fusion of architecture and urban planning and bringing back the Human Scale. After the dead of Apon the NRC stated that the housing development of Almere Haven was one of the most extreme reaction to post-war modernism (Hulsman, 2002).

Surrounding and Site

The surrounding of the building did change a bit over the years in appearance, for example the market square did change, but the program of the surrounding is still the same. The cultural centre, Corrosia, and the church are still there. The shops that were planned and integrated in the building did change significantly. These days the space for shops is mainly empty. The specialist shops are disappearing to the displeasure of the residents. This vacancy can be seen as an opportunity for the further densification of the Netherlands. By creating 1 million houses before 2030. The vacancy could also be an opportunity for Almere Haven to rethink the location of the shops. And maybe relocated the shops.

Skin

The analysis of the skin has shown there has been a significant change between the planned and the effective state. With all these deletions, replacement, change of colour and addition the vertical articulation and the coherence between the used elements by ABBT has been very affected. It has not been done with an eye for the articulation of the entire façade. Which was in the planned state an assemble, the several developments of the plinth made it a mess.

The back facade of the building is a little bit underexposed in the analysis. The reason could be of the less architectural articulation in comparison with the front. Not only the articulation is less interesting, also the back site is less interesting. Because is exist of a big parking lot and garbage bins which does not bring a lot of liveliness with it.

Spaceplan

The current state of the space plan is unknown. Assuming it has not change that much and is still in the planned state is plausible. In terms of densification the typologies are suitable for splitting, especially because there is no entrance on the third level. This is a opportunity for further development.

Conclusion

The opportunities and the example of further development are just a proposition. They are not yet subservient to the cultural value statement. To make an overall conclusion the ABBT building block is a block that deserves is to be brought back to full glory with the remarked of the residents processed.

83

Fig. 83 First Children of Almere Haven

4.8 INTRODUCTION

The experimental housing development of the seventies led to a big variation in housing types and building shapes with exuberant roof styles, dormer windows, bay windows, balconies, canopies, pergola's and all other kinds of (chaotic) details. This in contradiction with the regularity and simplicity of the building trend in the decade before. It was also the time in which builders experimented with new building methods, materials and how to combine these with each other.

Building requirements in the seventies were very different than what they are now. The rapport of the 'Club van Rome' in 1972 resulted in a better knowledge of the depletion of natural resources. This led to a big change regarding the energy performance of a construction. But it also led towards a reduction of waste material during fabrication and during the built process. Furthermore it resulted in research towards the effect of different materials on the environment. It was because of the publication of doctor J. Stumphius for example, that spray asbestos was forbidden in 1978 (Bouma, 2013; Vreeze, 1993).

In this chapter a further insight is given towards the technical construction of the building blocks by ABBT, that were introduced in the previous chapter. Where the previous chapter was mainly focussed towards the spatial structure of these building blocks, is this chapter focussed towards the technical construction and its details. More insight will be given into the building structure, its thermal properties, rainwater transport, heating installations and important details.

Methods and literature

The different subjects in this chapter are established by analysing the original drawings and built-description. The most important building components are discussed from the larger to the smaller scale. Every subchapter starts with general information that continues with specific information of the building block itself. By doing this a better insight is given towards the dominant methods and technologies of that time, and how they relate to this specific building project. It will furthermore, where possible and necessarily, be related towards the present ideas and visions on how to live and build. One can understand that for example visions towards energy sustainability have changed over time. At the end of the chapter a short summary will be given with conclusions and recommendations.

1

2

3

4

Fig. 1 - 4. Different images show the construction and the build process of the building blocks by ABBT around 1977.

4.9 STRUCTURE

The building blocks by ABBT are constructed in concrete. This construction is a combination of in-situ concrete and prefab elements. Combining different methods for the same project was a typical thing to do in the seventies. Building this way was not unique or special. As there was already over 40 years of experience it was commonly practiced.

In general the building is constructed in a 'gietbouwmethode'. This means that most of the concrete elements are made of in-situ concrete with separate wall-formwork for the ground floor (shops) and the other floors (apartments). The floors are all constructed with the same floor-formwork (Schippers, 1890; W.B. Tromp architecten H.B.O, 1977).

Foundation
The building blocks are founded on prefab-concrete poles connected by in-situ concrete foundation beams. In total 787 foundation poles were placed with differences in length- and diameter. The reason for this was the local variety of the ground structure. Poles used are at least six meters long till a maximum of twelve meters. The depth of these poles vary between 8,50- and 14,5 meter under NAP. On average the diameter is 380 by 380 millimetre.

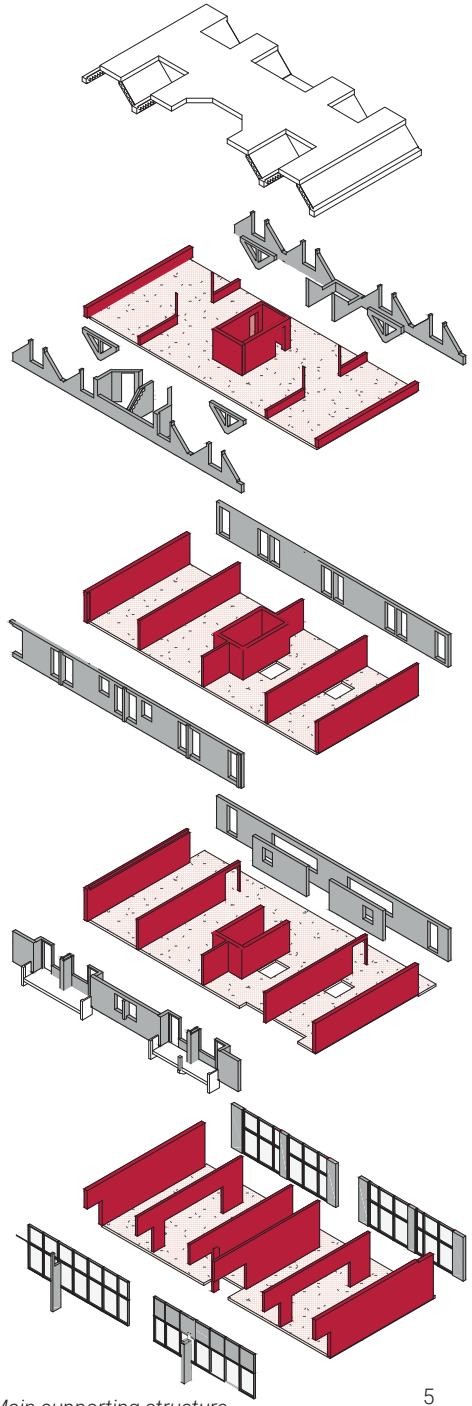
Floors
The ground floor is materialized in a so-called prefab 'system floor'. They were manufactured and supplied by 'Flevo-beton'. These floors look identical to the notorious 'Kwaaitaal-vloeren', produced by the company 'Kwaaitaal'. Corrosion problems of the reinforcement occurred to these floors, as during production calcium chloride was added to the mixture to improve the speed of hardening. Such problems do not occur for the used 'Flevo-beton' floors as calcium chloride was not added. After placement of the floor-elements a pressure-layer of reinforced poured concrete was added for stiffness (Cobouw, 1998).

The floors of the storeys are constructed as poured concrete slab structures. They are 175 millimetres thick and completely reinforced. Reinforcement specifications differ per floor because of the overall diversity. On the second and third level the floors are executed with beams on the front- and back façade.

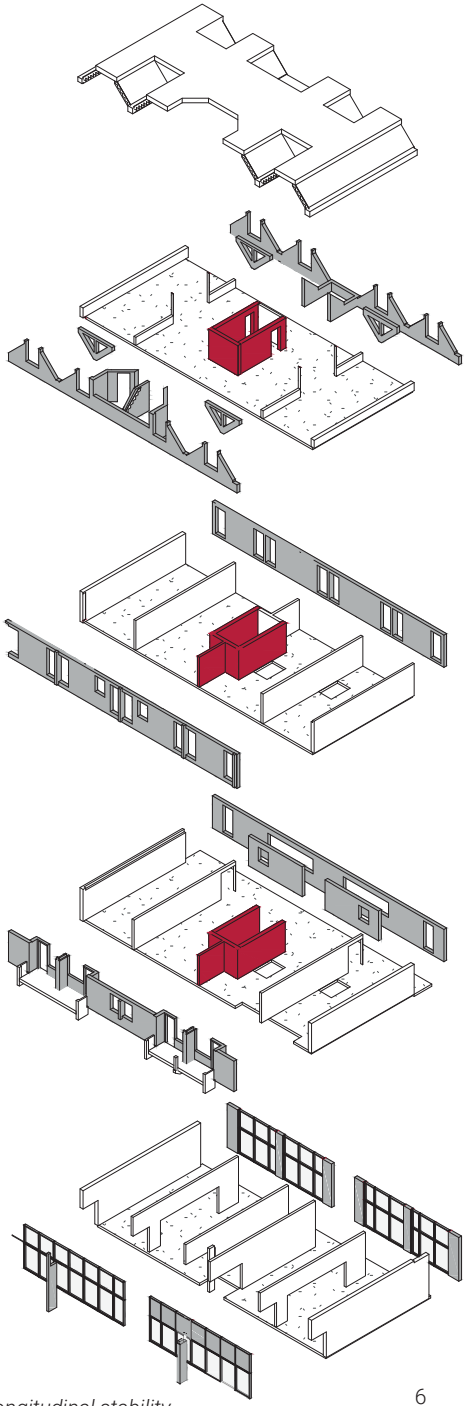
Construction walls and columns
The construction walls are constructed in 200 millimetre thick poured concrete. The forces go down from the floors into the walls leading them into the foundation. Next to construction walls on the ground floor, columns with a thickness of again 200 millimetres are used. In principal all of the walls do not have reinforcement, except for the walls and columns of the ground floor; where consoles are located; where prefab-concrete elements are mounted; at the overhanging's; and the end walls of the staircase-shafts.

Roof construction
The sloped- and flat roofs are constructed in a wooden beam frame. Some of these beams were made in laminated-wood, as not all needed dimensions were possible. The beams are mounted to the concrete walls by a steel beam hanger. Mounted of top of the construction are 'opstalan'-roofplates (Wind, 2014).

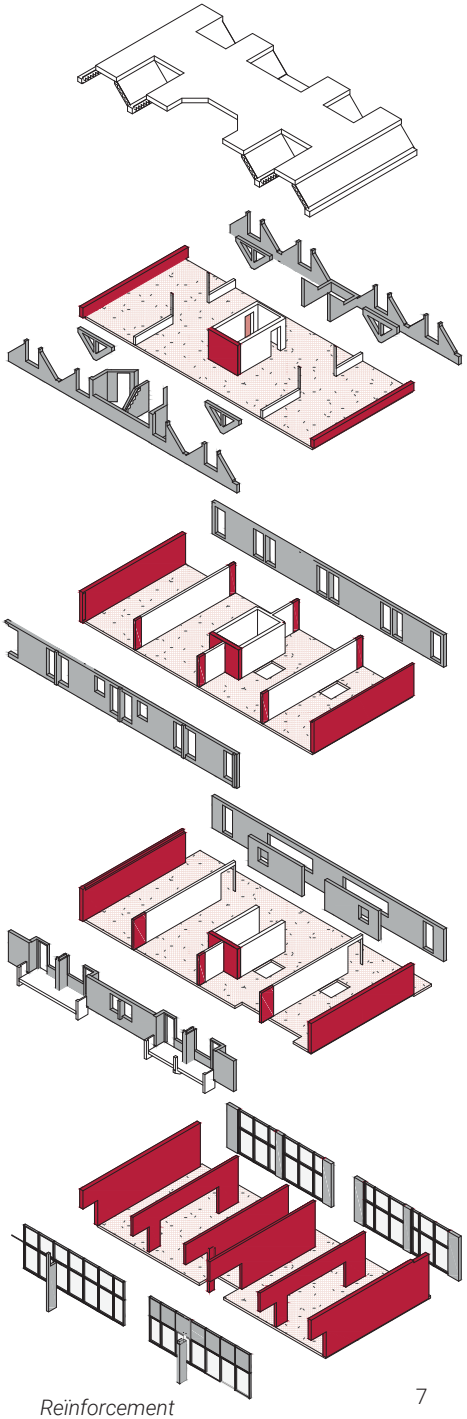
Stability
At floors where apartments are located, lateral stability is formed by the concrete dividing walls. For the longitudinal stability the walls surrounding the staircase function as a core. The lateral stability on the ground floor is also formed by the concrete-walls and columns. As the core of the staircase is missing, it means that longitudinal stability is ensured differently. The solution towards this depends on the location of the building block, in some cases an extra concrete stability wall was added (W.B. Tromp architecten H.B.O, 1977).



Main supporting structure 5



Longitudinal stability 6



Reïnforcement 7

Fig. 5. Indication of the main supporting structures; partitioning walls, floors and stairwell shafts.

Fig. 6. Indication of the elements that secure the building stability.

Fig. 7. Indication of the structural reïnforced elements.

4.10 BUILDING SKIN

The skin gives the building most of its aesthetical identity. But it does far more than to make the building attractive; is also protects its users from events happening on the outside.

The technical characteristics of the façade was influenced by the first public discussions about housing-design in the seventies. These discussions were focussed towards reducing noise disturbance from the outside and between houses. The regulations for sound, but also for insulation, kept getting higher to accomplish the wished- and achievable quality in housing development. The energy crisis in 1972 lead to housing-development and maintenance more focussed towards the energetic quality of houses. A compact design, insulation of the skin and energy efficient installations were a result of this crisis trying to lower the energy consumption. Furthermore there was the growing concern towards the increasing of environmental pollution. This lead to new policies that also influenced housing development (Vreeze, 1993).

Open / Closed

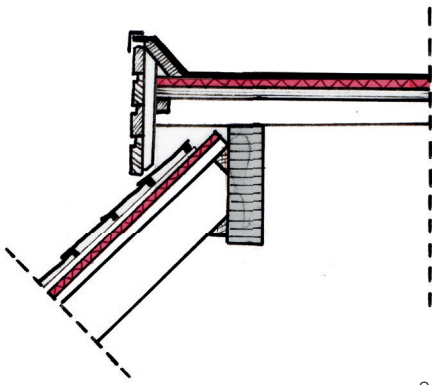
The facades are traditionally constructed with an external cavity wall of brown/red brick, the internal cavity wall is constructed in sand-lime. For the window frames within the façade it was sought to avoid big glass surfaces. Reducing these would result in better liveability and light quality. The image on the next page shows the original building skin with its square meters per element. Out of this data it can be concluded how much of the façade is open and how much is closed per block.

Closed	*320 m2*
Open	*125 m2*
Total	*445 m2*

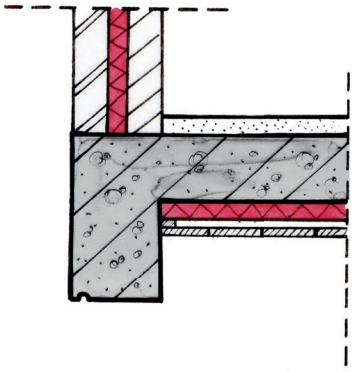
Out of the data above it can be concluded that 28% of the total skin is open. When only looking at the façade it can be concluded that 42% of the façade is open. This is however based towards the original situation, not the current as there is a slight difference. Radiators are placed behind directly behind the windows of the third floor. In the past the bottom parts of these window frames were glazed. Nowadays the glazing is swapped by a closed panel. The reason for this modification is unclear, it might have to do something with preventing heat loss. Whatever it is, it results in a reduction of 8 m2 of glass-surface in the façade. This means that nowadays 26% of the skin is open and 40% of the façade is open. This means that majority of the façade is indeed closed.

Insulation

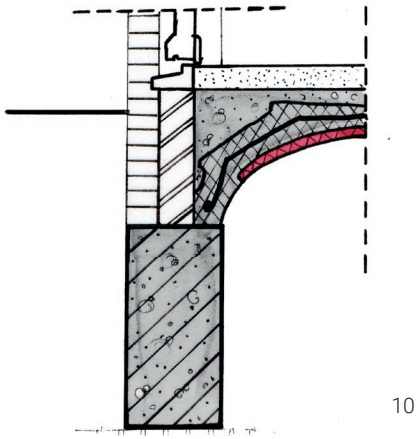
The average newly built home in 1973 needed around 3.300 m3 gas for heating per year. In 1988 this was reduced to 1.000 m3. This reduction was the result of new regulations due to the energy crisis of 1972. In the years following multiple experiments were done to reduce the heating coasts. The building blocks by ABBT were realised between 1974 and 1979. This means that the plan making must have been during or before 1974. As the first of many new regulations came out in 1975, it is likely that the insulation-value is limited.



8

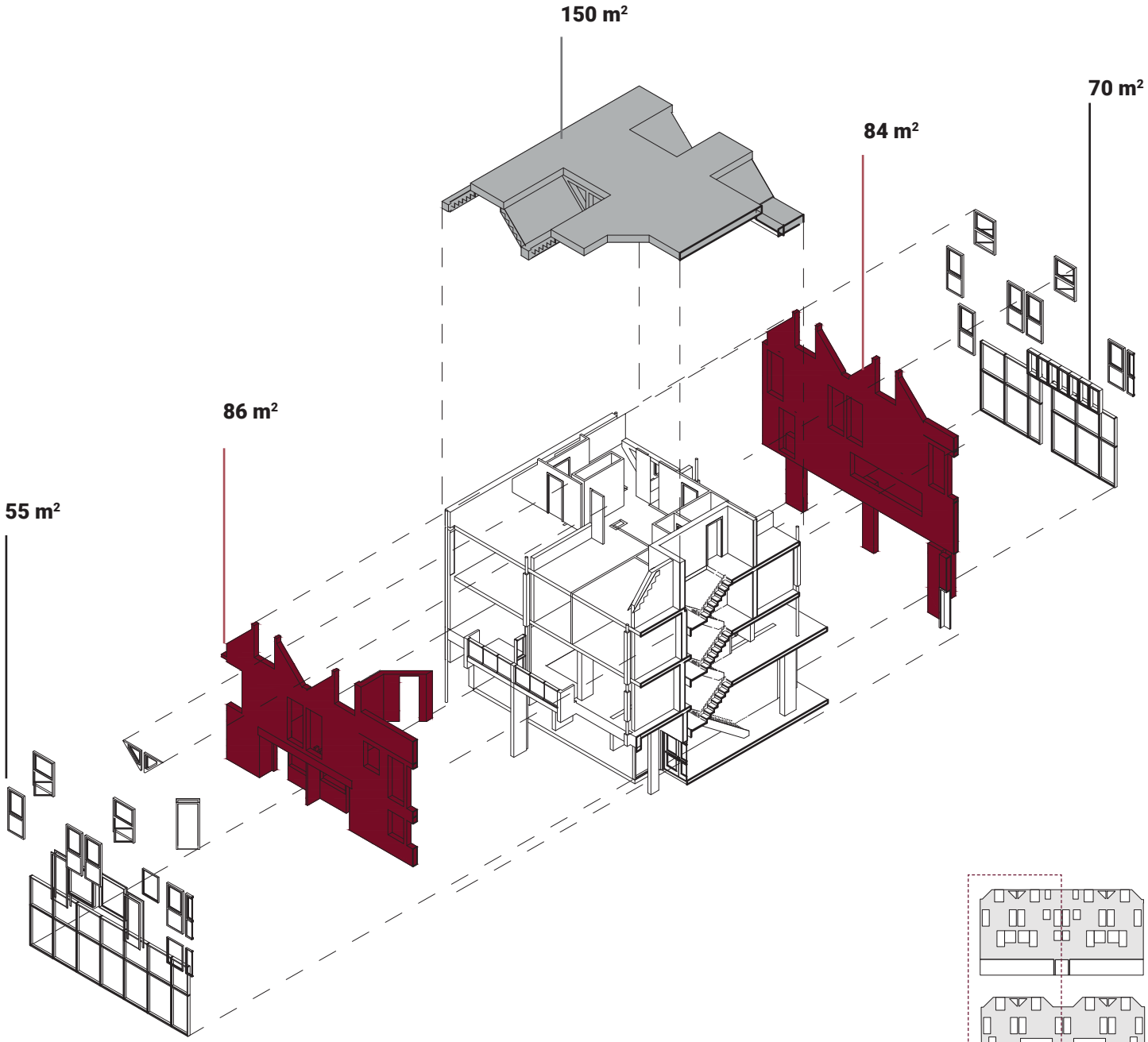


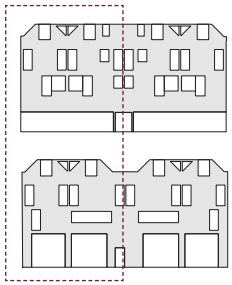
9



10

Facade details showing the insulation





11

Fig. 8 - 10. Different facade-details show the construction of the facade and its insulation.

Fig. 11. Exploded view of all the elements within the facade including their surface are.

The floors of the ground floor are constructed with prefab 'Flevo-beton' floors. These floors have a polystyrene insulation layer at the bottom of 20 millimetres. According to the 'Voorschriften en Wenken 1965' the heat resistance (RC) of the floor had be at least 0,17 m2 K/W. With 20 millimetres insulation the heat resistance is estimated as 0,59 m2 K/W. This value was many times higher than necessarily, and already met the regulations of 1979 (0,52 m2 K/W).

As explained previously, the façade is constructed as a cavity wall. The cavity is 50 millimetres wide and – predominantly – filled with 'Rockwool Lapinus' mineral insulation wool. All the cavity walls of the front façade are insulted with this product. This is different for the back façade as the cavity walls are only insulated when there is an apartment directly located behind it. Insulation is absent in the facades adjacent to the staircases. According to the 'Voorschriften en Wenken 1965' the heat resistance of the façade had be at least 0,43 m2 K/W. With 50 millimetres insulation the heat resistance is estimated as 1,47 m2 K/W. This value was many times higher than necessarily, and already met the regulations of 1982 (1,3 m2 K/W).

The concrete balconies at the second floor were not insulated as prefab concrete elements were used. The rooftop terraces on the fourth floor however were insulated with 50 millimetre 'Roofmate' under the concrete tiling. According to the 'Voorschriften en Wenken 1965' the heat resistance of the roof had be at least 0,86 m2 K/W. With 50 millimetres insulation the heat resistance is estimated as 1,33 m2 K/W. This is double as high as it needed to be, meeting the regulations of 1982 (1,3 m2 K/W).

For the whole roof an 'Opstalan'-roofplate was used. Insulation was already included in this material at a thickness of 56 millimetre. The heat resistance of the roof had be at least 0,86 m2 K/W. With 56 millimetres insulation the heat resistance is estimated as 1,55 m2 K/W. Again this is double as high as it needed to be, meeting the regulations of 1982 (1,3 m2 K/W).

The bottom of the fourth floor above the balconies was insulated with 50 millimetres mineral wool. The heat resistance of this construction is estimated at 1,26 m2 K/W. The bottom of the second floor above the marge-zones was insulated with 25 millimetres 'Litonit' insulation. The heat resistance of this construction is estimated at 0,82 m2 K/W. For both situations there were no regulations in place. This meant that they insulated it while they did not had to. Furthermore the values are comparable to the other values, which are higher than the regulation that were in place. In general it can be stated that – for its time – the insulation was very progressive. For current standards – where for example the façade needs to have a heat resistance of at least 4,5 m2 K/W – it is very low (ISSO, 2015; Vreeze, 1993; W.B. Tromp architecten H.B.O, 1977).

Thermal Bridges

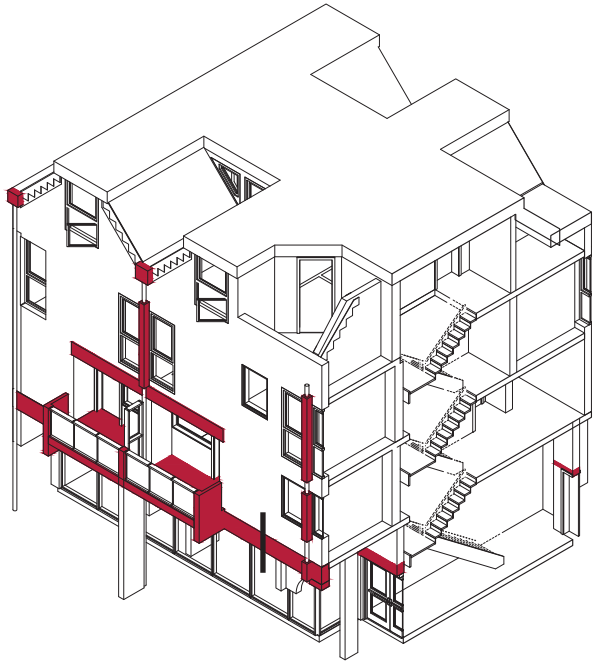
A thermal bridge is a place in the construction that forms a direct connection between the inside and outside. This results in 'cold' coming from the outside tot the inside through the construction. This problem can be seen numerous times within the construction of the building blocks by ABBT.

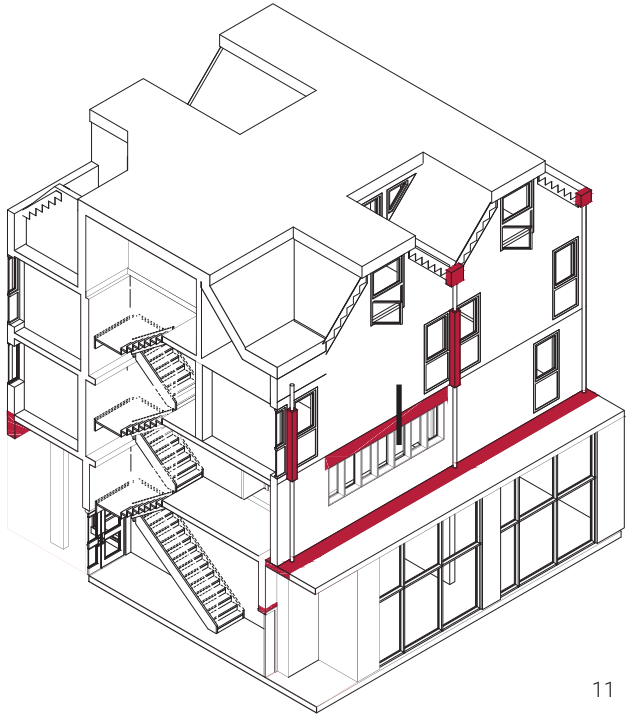
The most evident thermal bridge is where the floor beams are directly visible in the façade, as can be seen in the details. Furthermore the balconies of the second floor form a thermal bridge as they are laying directly on top of the concrete floors. The prefab concrete elements of the façade form a thermal bridge as they are directly connected to the inside construction, this can be seen in the picture on the next page. Smaller thermal bridges can be found on numerous other places (W.B. Tromp architecten H.B.O, 1977).

Solving these thermal bridges is desirable as they lead to energy- and comfort loss. On the other hand the solution could lead to deterioration of the aesthetics of the façade.

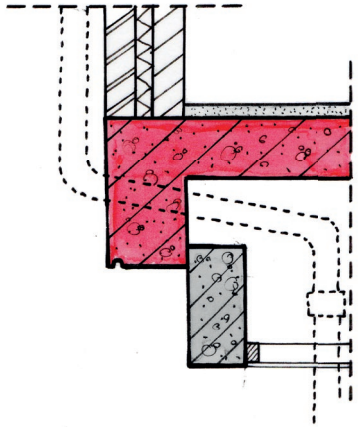
Noise disturbance

Because of the chosen load-bearing-construction noise disturbance is possible in the form of contact-sound. For example when someone walks on one of the wooden staircases in the apartments. The same thing counts for the sewage pipe that can lead to noise disturbance when for example the toilet gets flushed. In spite of these problems, residents did not have major complains during residential research in 1983 (Stichting bouwcentrum, 1983).

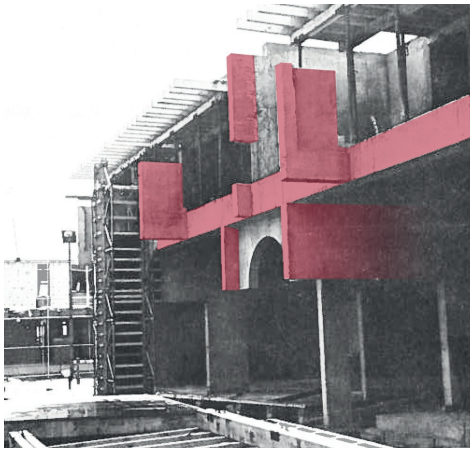




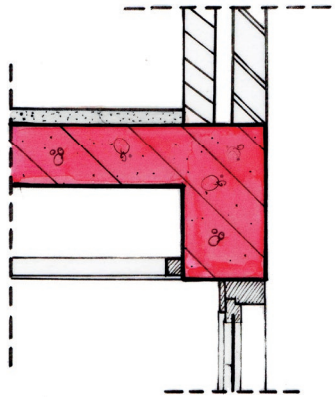
11



12



13



14

Fig. 11. The overview of the front- and backside of the building block showing the thermal bridges in the facade.

Fig. 12-14. The main thermal bridges in detail. Its locations are highlighted in the previous figure. Further visible is a picture that was made during building. Highlighted are the (concrete) elements that are still visible in the facade and form a thermal bridge.

4.11 WINDOW FRAMES

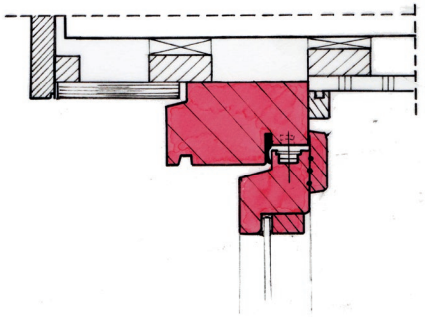
The structure and composition of the façade in the sixties was focussed towards simplicity with big glass surfaces integrated in large prefabricated elements. This meant that a big part of the original wall construction was replaced by the combination of frames with panelling or glass. In the seventies this resulted in a counter reaction where the focus was placed towards the small-scale and detail; the already discussed 'nieuwe truttigheid'. The energy crisis of 1972 only strengthened this vision. Window frames were again treated as openings in the façade instead of only being the façade (NBVT, 2000).

The windows frames were and are, constructed in hardwood. The exact type is unclear, but it is likely that originally Meranti of Merbau was used. The window frames at the plinth for the shops were completely renewed, again in hardwood. A further insight towards these changes can be seen in figure 21 till 24 on the next pages. Except for the window- and door frames of the plinth, all window frames seem to be original except for minor changes.

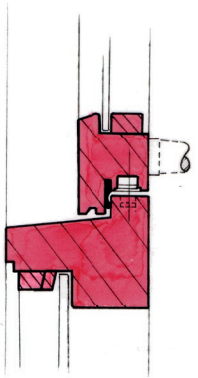
The first big change is that of the lower part of the window frames at the third floor. The glazing here was changed by a closed panel painted in the same colour of the window frame (1). From the picture dating back to the eighties it can be seen that a radiator is located directly behind this window frame. Although the reason for this modification is unclear, it might have to do something with preventing heat loss.

The second big change is that of the lower part of the window frame at the fourth floor (2). In the past the glass was placed outwards in a triangular prism-shape. This shape was a reference to the cantilevers used in historic canal houses to lift up goods towards the upper storeys. Originally it was intended to realise this part of the window frame in steel. Because of budget cuts, it was finally realised in hardwood as well. This part of the window frame was during later renovations removed and replaced by a flat piece of glass. Again the reason for this modification is unclear. It might have to do something with the replacement of the single glass into double glass, as removing would have been easier and cheaper than replacing or renewing.

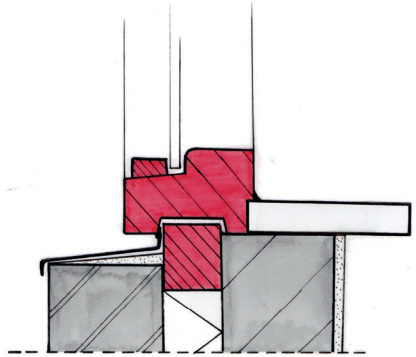
All window frames were fitted with single glazing. This according to the minimal requirements in 'Voorschriften en Wenken 1965'. Later on the single glazing was changed by double glazing. It is unclear if this was done throughout the whole building or only partially (Vreeze, 1993; W.B. Tromp architecten H.B.O, 1977).



14



15



16

Window frame details

17

18

19

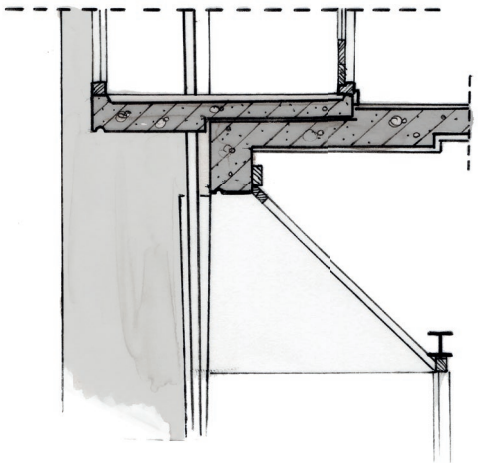
20

Fig. 14 - 16. Schematic details showing the connection of the window frames to the construction in the present day. The location of these details is marked in image 20.

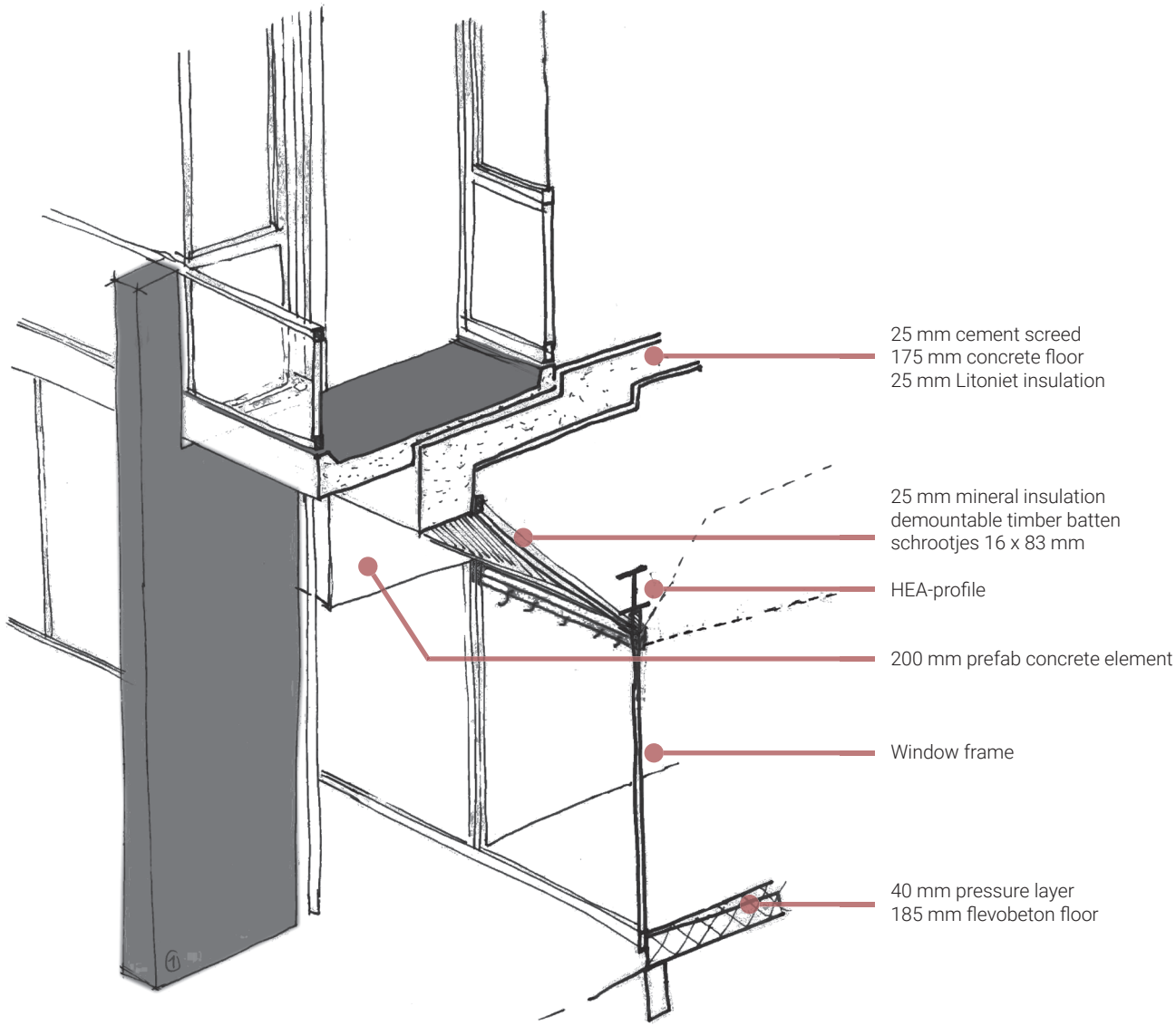
Fig. 17 - 20. Images showing the changes that were made towards the window frames over time. The pictures on the top show the situation in the 80's. The pictures on the bottom show the current situation.

SECTION PLINTH

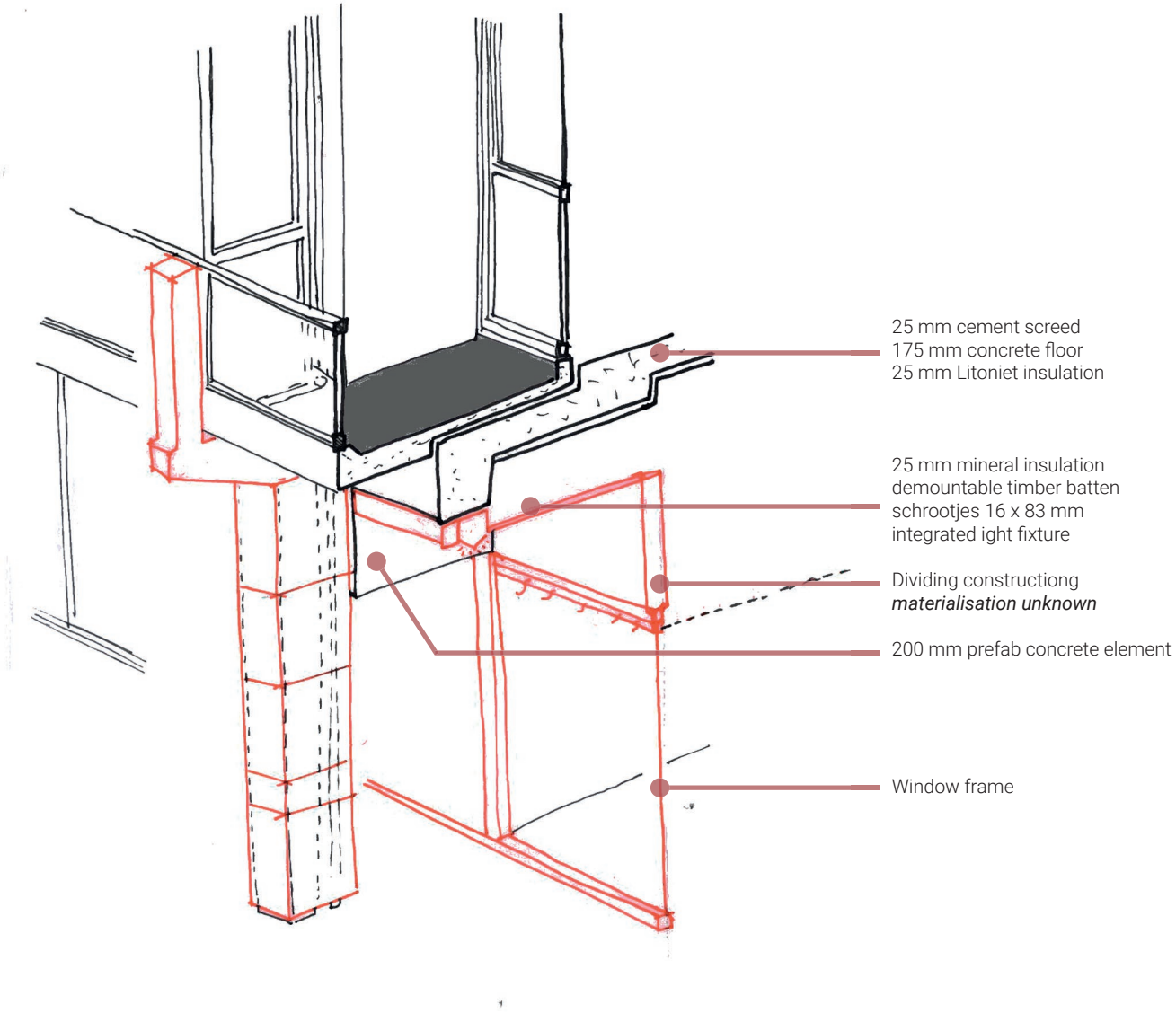
During the years there have been multiple changes in the apearance of the ground floor facade. The fake colums who - in terms of structure - did not have a defined function, have been taken out and replaced by a new prefab element. The previous column can be seen on the left page, the new column can be seen on the right. Furthermore the diagonal wooden ceiling has been replaced by a straight one. The door frame was replaced at the same time.



21



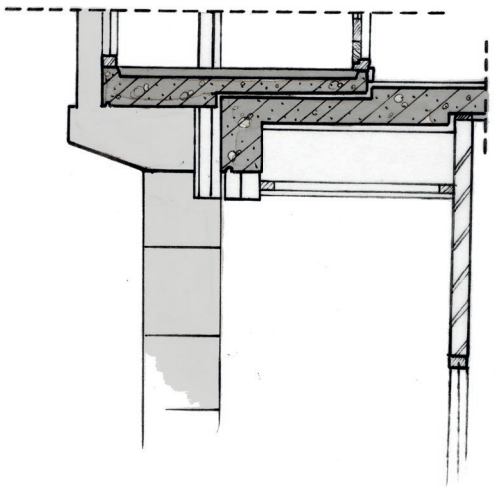
22



23

Fig. 21 - 22. These schematic drawings show how the plinth of the ground floor looked liked shortly after the building was build.

Fig. 23 - 24. These schematic drawings show how the plinth of the ground floor looks like currently. The changes over time are highlighted in red.



24

4.12 RAINWATER AND SEWAGE

Unique in the design of the façade is the vertical articulation that was partly reached by the rainwater drainage. By placing the rainwater drainage on the façade and by flowing it through the concrete elements, a modern interpretation of ornamentation is reached.

Rainwater

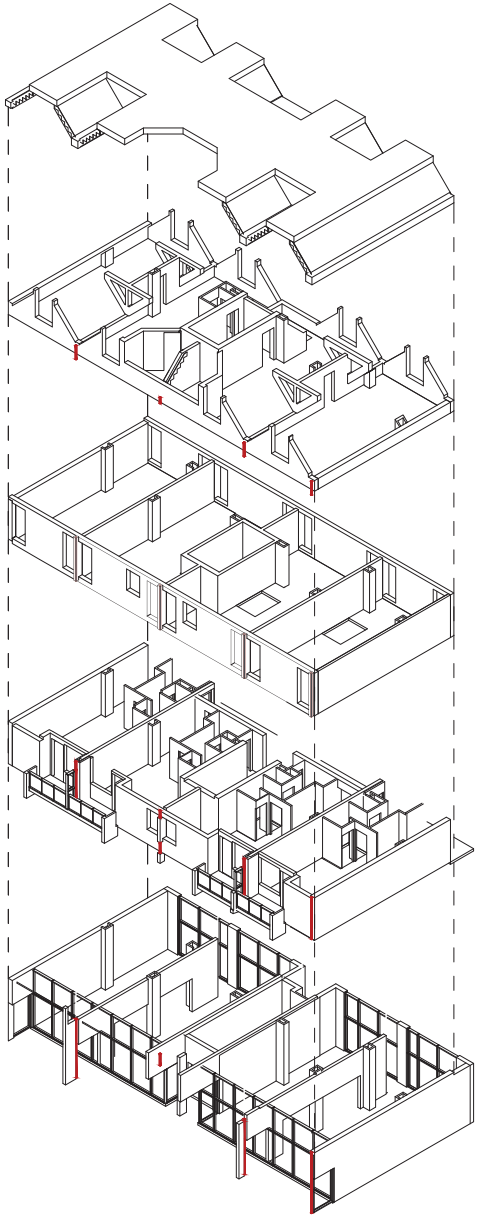
The drainage is poured into the prefabricated concrete elements. By doing this it allows the drainage to go down perfectly vertical. The downside to this is that a blockage can result in damage due to freezing in the winter. They ice has a bigger volume than water, leading to expansion which then again leads to cracking of the concrete elements. Because of this reason originally the drainage was materialised in polyethylene (hard type of plastic) that was wrapped with an elastic rubber to allow expansion within the elements. After more than 40 years it is likely that this rubber has degenerated so that is does not function properly anymore. The rest of the drainage was realised in the same type of plastic (W.B. Tromp architecten H.B.O, 1977).

The current rainwater drainage-pipe is materialised in PVC. While some parts can be original, it is likely that most of the drainage has been replaced over time. This is visible because of the differences in colour. From that it can be concluded that there are different manufactures.

Changes have been made towards the course of the drainage system. Most of these changes are very local. The most common adaptions are where the drainage is connected to the terraces of the third floor (1). It is likely that this has been done to improve drainage capacity and so that the residents are personally responsible for their own rainwater drainage. Another adaption is the one at the ground floor where the drainage is placed 'within' the column instead of behind it. This might be done out of aesthetical preferences.

Sewage

A separated sewage system was chosen in this case. This means that there are two separated pipes; one for grey water and one for rainwater. The grey water goes directly to the chemical sewage plant, where it gets cleaned. The rainwater though gets filtered in the ground or goes to surface water. This is better than a traditional system in which there is only one sewage pipe. All new- and replaced sewage systems are separated (W.B. Tromp architecten H.B.O, 1977).



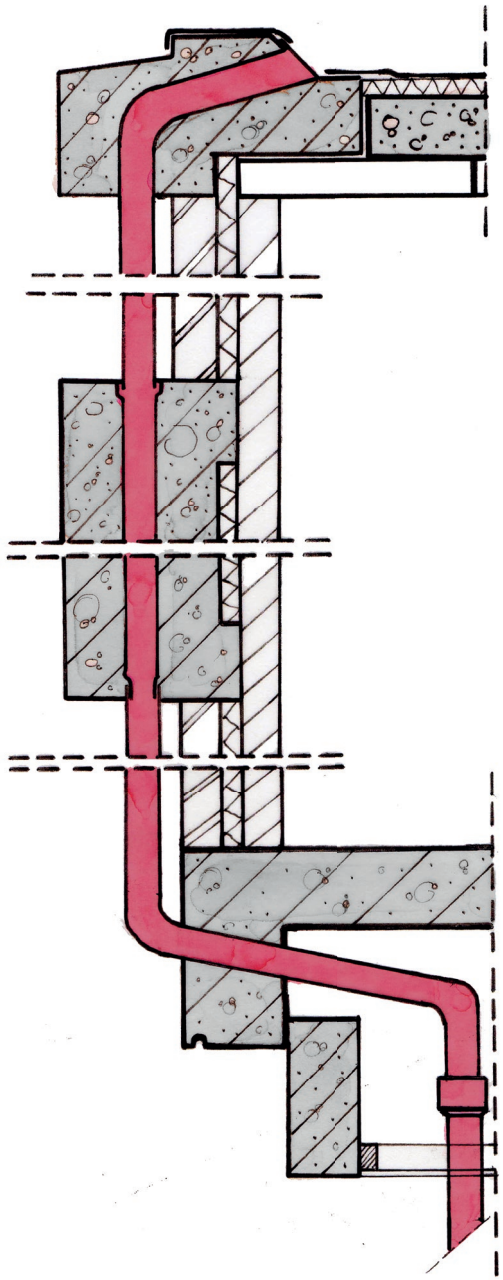
Location rainwater drainage

26

27

28

29



Facade section in detail showing the gutter

30

Fig. 25. The overview of where and how the rainwater-drainage is located in the front-facade.

Fig. 26 - 29. Images showing the changes that were made towards the rainwater drainage over time. No changes were made at the back facade. The pictures on the top show the situation in the 80's. The pictures on the bottom show the current situation.

Fig. 30. Facade details showing the course of the rainwater drainage in the front facade. The drainage system at the back facade is similar but simplified.

4.13 INSTALLATIONS

Different options for the central heating system were researched for the building blocks before building; a central boiler room for the whole complex, two or more individual boiler rooms and individual systems per apartment and shop. The possibility of district heating was inventoried as well, but not chosen as a network would not be possible to realise on the short term. It was not excluded, but seen as a possible option for the future.

After research it was concluded that there would not be enough space for a central boiler room for the whole complex. Installing an individual installation per apartment or shop was not possible as well. This because of the big variety in house-shapes and the complicated building forms, that made it impossible to find a suitable place for all installations. This would furthermore make district heating in the future almost impossible to realise.

The option with two or more individual boiler rooms remained and was seen as the most suitable. The dimensions of these boiler rooms would be small enough so that they could be incorporated on the top floor of the existing plan. Three boiler rooms were realised on central locations in the complex, see image 32.

The housing block located on the North (1) is destined for senior residents. In contrast with the rest of the complex, these houses have their front door at ground-level and are only two levels high. The distance between these houses and the closest boiler room is quite big. Because of this reason it seems unlikely that they are connected to the central boiler room. Because of the distance, but also because they are separated ground-based houses, it seems likely that these have an individual installation. Gas outlets coming out of the roof conform this suspicion (W.B. Tromp architecten H.B.O, 1977).

Heating system
Originally two heating systems were installed in the boiler rooms. These functioned on high temperatures, which means that the water temperature leaving was heated at 90°C and that the water returned at 70°C (90/70). The installation was executed with two groups; one for the heating of the houses and one for the heating of the shops. The main distribution pipe was led down through a central shaft in the stairwell. From here it was led to the houses with smaller distribution pipes. A separate main distribution pipe was led above the lowered ceiling of the shops.

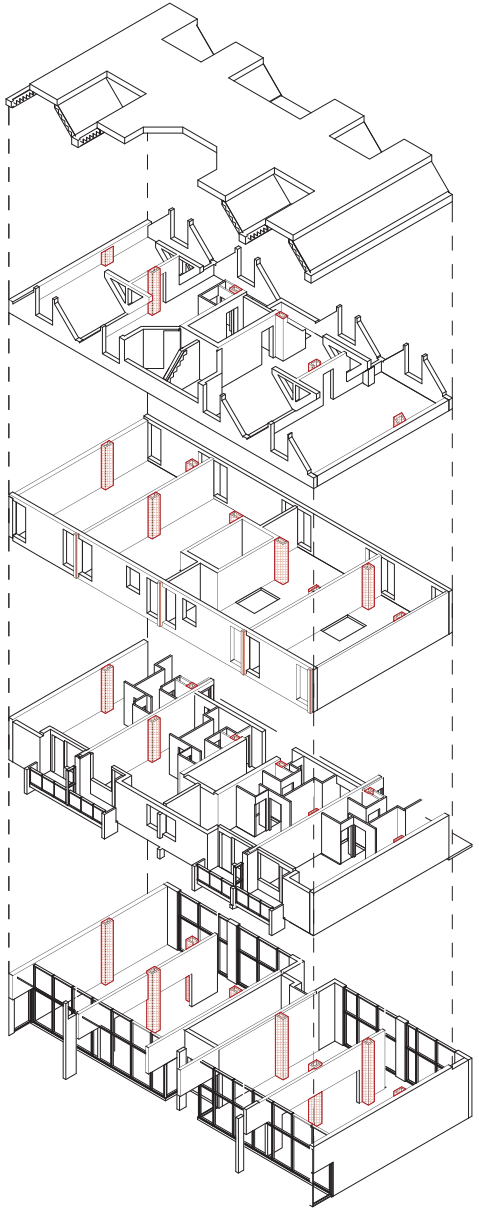
Heat distribution in the houses was executed by a one-pipe-system so that risers were not necessarily. The individual radiators were connected to these distribution pipes with one- or more loops. This means that radiators were directly connected to each other. All the distribution pipes in the houses were placed within the concrete floors. Every heating group got its own heat-meter. This meant that every household paid a fixed ratio for heating.

It is unclear what the installation nowadays is and if the principle of a collective boiler room is still the same. It seems likely that while the principle is still the same, that the heating systems have been replaced by more sustainable versions (W.B. Tromp architecten H.B.O, 1977).

Hot water installation
Quite in an early stage of the design process it was decided that the houses and shops would get an individual electric hot water installation; an electric 80 liter boiler. Gas geysers were not used because of limited space and the need for a proper gas outlet. These outlets were very difficult, maybe even impossible, to realise. It was calculated that a central hot water installation would not be more sustainable, this meant that this option was also abandoned at an early stage.

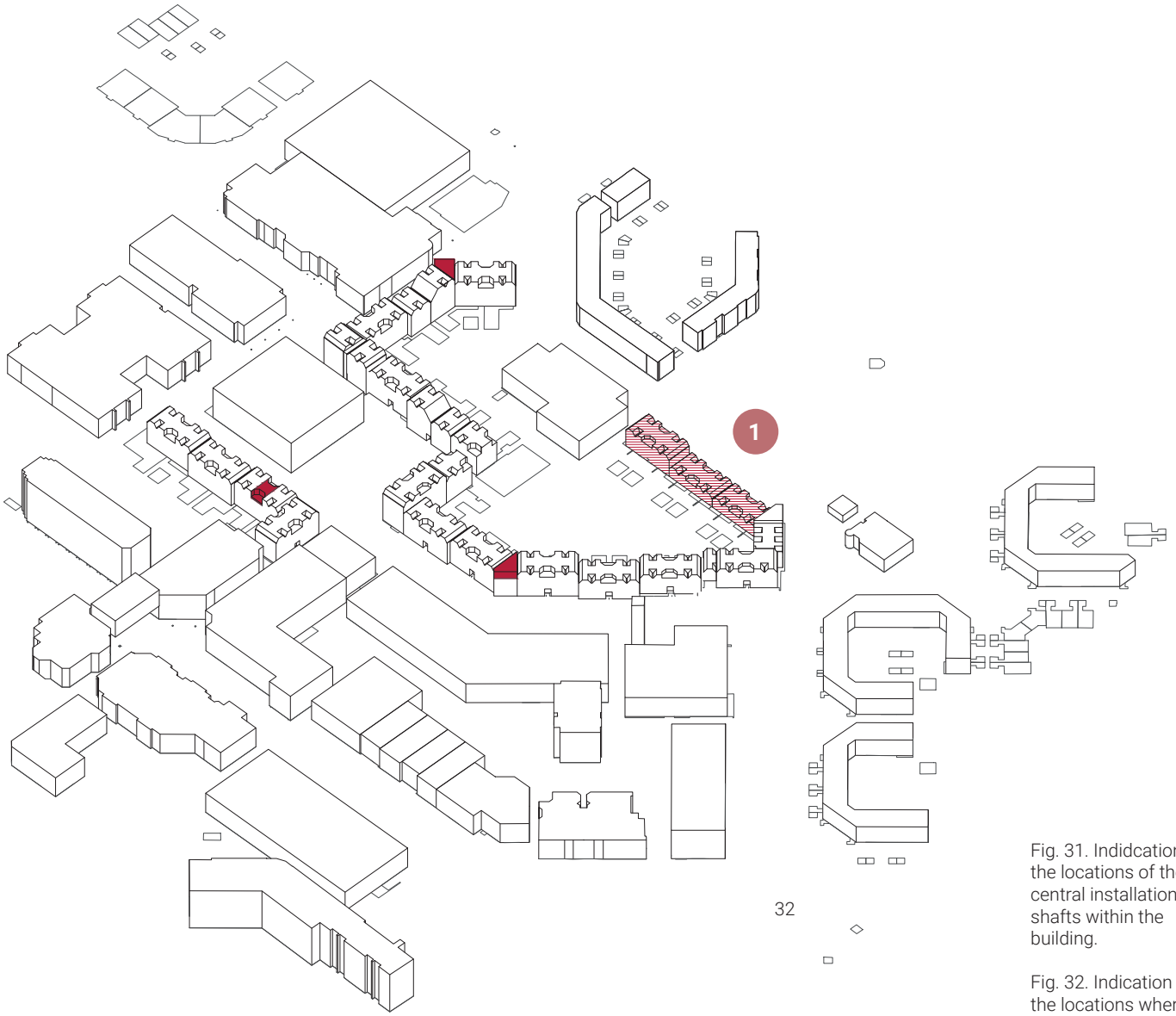
Again it is unclear how the current installation looks like. It is likely that the hot water is still being produced by an electric boiler. It could also be that the houses all got individual heating- and hot water installations. This is not likely as gas outlets are not visible on the roofs (W.B. Tromp architecten H.B.O, 1977).

Ventilation
Not a lot is known about the ventilation-installation. It is clear that these houses all have a ventilation system where the air is mechanically extracted. This can be concluded from research in the eighties, where residents complained about the disrupting sound that the installation made. The window frames at the back façade were and are equipped with ventilation grilles. It is likely that the ventilation system – although the installation itself must have been replaced – still functions the same way (Stichting bouwcentrum, 1983).



Location installation shafts

31



32

Fig. 31. Indidcation of the locations of the central installation-shafts within the building.

Fig. 32. Indication of the locations where the installation-spaces are located for all of the building blocks.

4.14 CONCLUSION

Analysing the building blocks by ABBT on a more technical level has resulted in a further insight in the buildings structure, its skin, the problems occurring at the skin, the window frames, changes made towards the façade, the rainwater course and the installations with their shafts. A short concluding summary will be given in which risks, chances and opportunities will be discussed.

Construction
Despite the wide variety of housing types, the structure of the building blocks by ABBT was maintained very simple. Concrete dividing walls carry the floors while a stairwell functions as a core for stability. The in-situ concrete structure was combined with prefab elements for the ground floor and the façade. All of the floors are reinforced while the walls are only partially reinforced. This allows flexibility of the floorplan and for possible future development.

This building method then again also lead to big problems regarding thermal bridges. Multiple thermal bridges can be found in the front- and back façade leading to energy loss and thermal problems. Especially the floor beams lead to these specific problems. Solving these is problematic because of its position within the façade.

Insulation
The average insulation value is – taking the buildings age into account – very good when compared to the original regulations. However the insulation values are much lower than the current standards. Together with the thermal bridges it can be concluded that there is a chance to improve the buildings energy performance. This results in a dilemma as improving the heat resistance of the skin is likely to harm the facades aesthetics; and precisely these aesthetics give the building its identity.

The window frames are constructed in hardwood and – most likely – partly double glazed. It is likely that better insulated glass will fit in the window frames after minor alterations. In total 26% of the skin consists out of windows. From this it can be concluded that the proportion open in relation to closed is rather small. Because of this conclusion one cannot simply improve the glazing to reduce energy-loss for example. When one decides to improve the skin of the building blocks, it is important to take all elements into consideration.

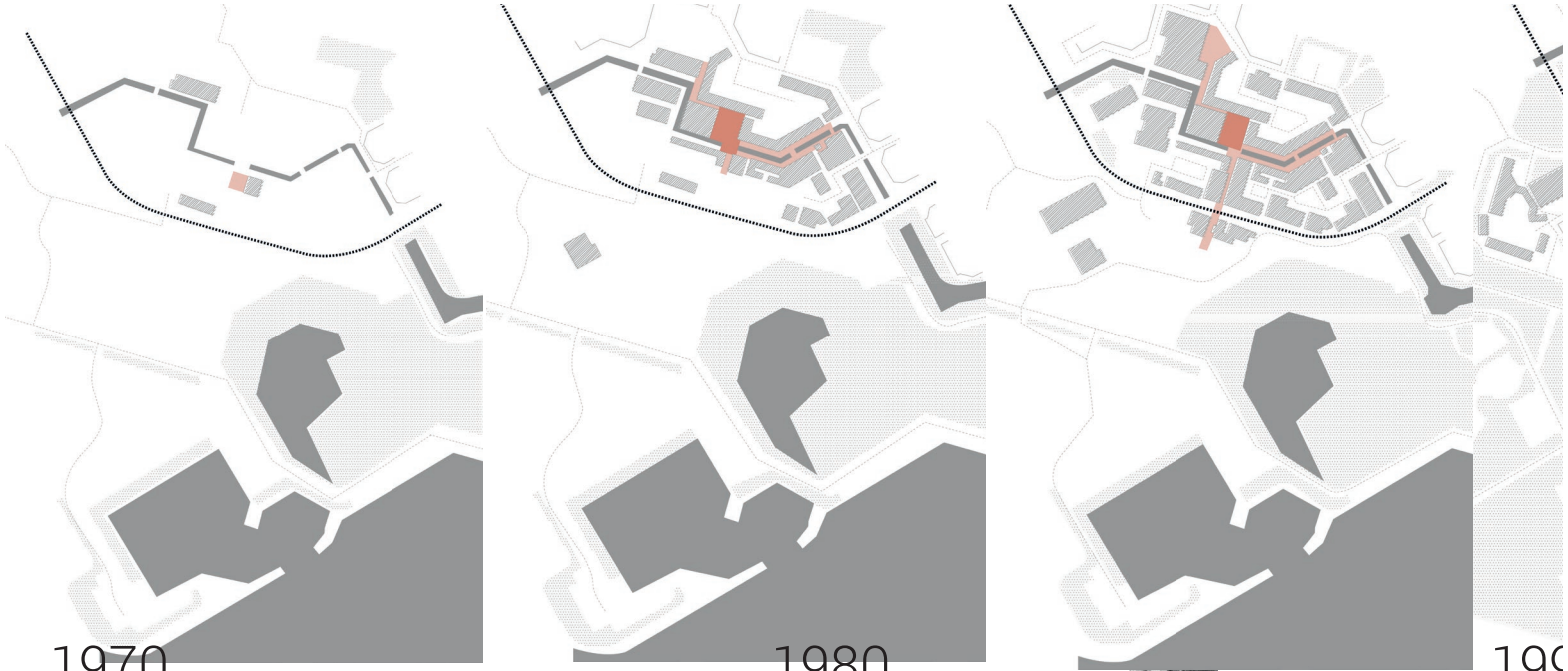
Installations
But only improving the façade will not be enough to make this complex energy sufficient. To reach this goals one should also look towards its installation. Currently there three central heating installations. The advantage of this is that replacing the installations is fairly easy as they are conveniently located and limited in number. One should also not forget about the hot water installation. Hot water is currently heated with electricity. This could for example be made (more) sustainable by powering the installation on green electricity. Different options are possible to improve the installations sustainability, choosing a suitable one can only be done by relating it to the rest of the building.

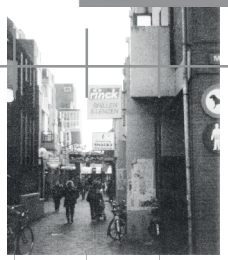
Conclusion
The building blocks by ABBT are well constructed and allow flexibility for a potential development. Concerning energy use there are chances to reduce the energy consumption of the building. For plan making it is important to look at the building integrally. One can for example not look at insulation when he did not look towards ventilation. Whatever is done, it is important to keep the bigger picture in mind.

Fig. 33. Architect Bastiaan Tromp standing on the third floor during construction in the middle of the seventies.

155
VALUE STATEMENT

5.1 CHRONO MAPPING





Structuurplan Zuiderijsselmeerpolder is developed

Start Projektburo Almere

125.000 inhabitants envisioned

Polynuclear concept is accepted by government

First pole of Almere is drilled into the ground

Design of Almere is published

Kerkgracht is commissioned to Apon

40.000 interested potential inhabitants

First pole of Apon is drilled into the ground

First 24 families receive their key

First neighbourhood meeting

School Meergronden geopend

Corrosia + Apon finished

10.000 inhabitants

Phase I is finished, phase II started

Overloop by Hertzberger is finished

17.000 inhabitants

Phase II is finished

Start of phase III

Phase III is finished

Redesign arcade of Apon

Redesign facade Havenzicht

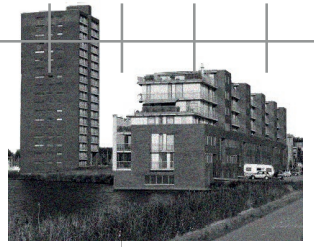
Redesign market square.

Statue of dolphin is placed

Vacancies Kruisstraat and Meerstraat

Houses of Meerstraat are demolished

Kruisstraat and Meerstraat are redeveloped



Appartmentblock Meerstraat is built

Towerblocks veerkade are built

5.2 SUMMARY

Almere Haven needed to become a normal town, just as any other. To this day the normalness can still be felt when walking in the centre. This research was carried out to get a better insight into the origins of Almere Haven Centre and its development over time. Characteristics and opportunities were identified this way. The research was carried out by field- and desk research where the existing situation was analysed through numerous drawings and written explanations. It forms the basis for further research towards the potential of densification in existing urban situations.

City
In 1891 Cornelis Lely presented its plan for closing and reclaiming the southern sea. It was not until 1918 that the government agreed towards his plan. It would lead to an area of 232.000 hectare destined for housing, recreation and agriculture. In 1968 the South Flevoland polder fell dry revealing 43.000 hectares of new land. This meant that development by the 'Rijksdienst voor de IJsselmeerpolders' could be started. Out of this institution the 'project office Almere' was formed with more than 80 experts such as engineers. A couple of these employees are honoured nowadays with the title of 'peetvader'.

Almere was intended to become the fourth biggest city in the Netherlands. Because of this scale it was decided to build Almere around a number of cores. This system would make phasing easier and it would allow Almere to become a garden city with green zones between the different cores. Another important decision was the division of traffic streams to improve the quality of public transport. The first core to be realised was Almere Haven, on a central location West of the Gooimeer-area with an estimated 30.000 inhabitants.

Nowadays the city of Almere has been realised with a population exceeding 200.000 inhabitants. The current seven core all have their own unique identity enclosed by green zones. For the future the concept of the garden city will be transformed into a 'Growing Green City' where the green is used for food production, energy generation, care, education, water management and recreation.

Society
43 years ago the first people started living, working, shopping and amusing themselves in Almere Haven. It formed the start of a new society with people from different backgrounds and ages. Directly after habitation the inhabitants started building their society with a bottom-up approach. They started realising the initial goals that were formulated for the whole of Almere. Nowadays it can be concluded that these goals were only partially achieved. While Almere did indeed contribute to housing shortages and developed an urban culture, it did not realise a balanced population and alternative energy-sources are still to be realised.

The population composition of Almere was intended to be similar to that of the rest of the Netherlands. Directly from the beginning they could not meet this goals as most inhabitants were (young) adults. Nowadays these young adults have aged making the largest part of the population senior. On the other hand this trend is visible in the whole of the Netherlands.

The average income in Almere Haven and Almere in general is very low. Limited economic support of the inhabitants results in additional problems such as retail vacancy and a one sided retail offer. But still people feel comfortable in Almere Haven as the liveability is sufficient; there is a strong community and an even stronger feeling of being rooted and being a 'Havenaar'.

Neighbourhood
The centre consists out of two building-block-types; a semi-closed- and an independent building block. These types both have their advantages and disadvantages, mainly focussed towards anonymous public spaces.

The centre was designed as a network of stretched out shopping streets. Nowadays a lot of the retail space and even buildings, are vacant. This influences the public space negatively as it realises 'dead-zones'.

The original plan had a lot of differentiation between private and collective spaces. In the current situation this has partly been lost leading to undefined and not inviting spaces. On the other hand some buildings have several well-functioning transitions that can be seen as an important quality, such as the elevated street of the Bovenloop.

The centre of Almere Haven has a well-developed infrastructural system with a busline and enough parking spaces. However there are some issues such as the busline that pierces directly through the centre. This had its effect towards the continuity of the pedestrian zone and its building-development. The second issue concerns the parking spaces as they harm the quality of the areas they are placed in.

Although the centre is surrounded by green spaces and water, most of it is materialised in stone. This has an effect on the urban climate as it increases temperatures. It also prevents water to be absorbed during heavy rainfall.

The residential research shows how different age-groups experience the city differently; elderly visit most parts of the city, middle aged people go to certain destinations and children only visit a limited number of places. It would be a shame if this – and future developments – would harm the social cohesion and community.

Architecture

The building blocks by ABBT are located in the North-part of Almere Haven Centre. Its surrounding did not change a lot over time, as the main functions were maintained. The shops integrated in the building though have changed indeed, as most of the retail-spaces are empty and shops have disappeared. This vacancy can also be seen as an opportunity for future development.

The skin of the building has changed significantly since its construction. The deletions, replacements, colour changes and additions affected the buildings aesthetics and coherence of the façade. Especially the occurred changes at the plinth can be seen as a big deterioration. Bringing the building back to its former glory could be an opportunity.

The current space plan is unclear; it is assumed that they did not change that much over time. Small-scale densification seems to be an opportunity for future development.

Building Techniques

Despite the wide variety of housing types of the building blocks by ABBT, the structure is still very simple. Concrete dividing walls carry the floors and the stairwells function as a stability core. Floors are all reinforced while the walls are only partially reinforced allowing future flexibility. Then again the building method leads to big problems due to the numerous thermal bridges in the front- and back facades. Additionally the average insulation value is far below the current standards. Improving the energy performance can for this reason be seen as a chance. It is important to then also look at the hard wooden window frames, the three centrally situated boiler rooms, the electric boilers for hot water and the mechanical ventilation. Different options to improve them are possible as long as the bigger picture is kept in mind.

161

ALMERE HAVEN CENTRE

5.3 CULTURAL VALUE MATRIX

Almere Haven Centre in text

	AGE VALUE	HISTORICAL VALUE	INTENTIONAL COMMEMORATIVE VALUE	NON INTENDED COMMEMORATIVE VALUE
REGIONAL	- The oldest core of Almere	- Overflow area of Amsterdam - From sea to new land - Groeikern		- Police station designed by Rem Koolhaas
ALMERE-HAVEN		- First core of the polynucleair core system - Apon as first living-shopping block constructed in phase 1		
STREET		- Short and curved street pattern, typical for the structuralist-thinking	- Wall murals with 'Peetvaders van Almere'	
BUILDING BLOCKS		- Expeditie straten: division between logistics and shopping; modernism		
PROGRAM		- Mixing and stacking of functions in contrast with the former modern architecture - First ecumanical church congregation		- 'De Roef' as figure for the beginning of the Almere Haven society
INFRASTRUCTURE		- Division of traffic flows on a large scale		
STUFF			- War monument 'The Dolphine'	
SPIRIT OF PLACE		- Pioneering of the first inhabitants		- Pioneering mentality: 'I am the first'

GREEN *low value*
ORANGE *neutral value*
RED *high value*

USE VALUE	NEW-NESS VALUE	(RELATIVE) ART VALUE	RARITY VALUE	OTHER RELEVANT VALUES (SOCIAL VALUES)
			- The concept of 'Polynuclear city planning' - City planning in the form of a 70's harbour city; Nieuwe truttigheid	
- The dike for its water retaining function - Centre of the harbour with facilities for the 'Havenaren'	- Renovation and transformation of 'De Hulk' - Renovation of Corrosia	- View on the landscape; Gooimeer, Dijk, Woods, etc.	City planning in the form of a 70's harbour city - Presence of the harbour and its direct connection with the Gooimeer	
- Marge-zones allowing flexibility for shops and a semi-private zone to enter the appartements - Sheltered shopping street		- Wall murals with 'Peetvaders van Almere'	City planning in the form of a 70's harbour city - streetprofile, market square, church tower, materialisation	
- Expeditie straten for logistics and parking - The 'Bovenloop' with typical elevated secundair street			City planning in the form of a 70's harbour city - Difference in building height and mass - Maximum building height	- Feeling of being in a village because of the size and variations in the building blocks
- Presence of shopping spaces - Mixing and stacking of functions to create commotion	- One of the first ecumanical church congregation		City planning in the form of a 70's harbour city - Mixing and stacking of functions - Market with bakery, etc.	- Corrosia as central social function with library, cafe, gallery, etc. - Harbour with terraces, restaurants and activities
- Parkingplaces can be found everywhere - Good busconnection - Maze-like-structure when walking, driving and cycling				
- Lack of street furniture				
			- Scale of pioneering mentality	- Sense of community - Pioneering mentality

What to do with the 'expeditie straten' that are functional, but empty and dead?

How to solve the separation in the city by the bus lane that resulted in two separated centres?

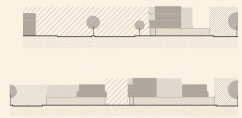
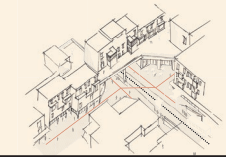
How to maintain the sense of community when densification occurs?

CULTURAL VALUE MATRIX

Almere Haven Centre in images

	AGE VALUE	HISTORICAL VALUE	INTENTIONAL COMMEMORATIVE VALUE	NON INTENDED COMMEMORATIVE VALUE
REGIONAL				
ALMERE-HAVEN				
STREET				
BUILDING BLOCKS				
PROGRAM				
INFRASTRUCTURE				
STUFF				
SPIRIT OF PLACE				

GREEN *low value*
ORANGE *neutral value*
RED *high value*

USE VALUE	NEW-NESS VALUE	(RELATIVE) ART VALUE	RARITY VALUE	OTHER RELEVANT VALUES (SOCIAL VALUES)
				
				
				
				
				
				
				
				

5.4 ELABORATION CULTURAL VALUE MATRIX

Almere Haven Centre

Value Mapping is a concluding step in the research process from where a site-specific identification and classification of typical features can be distinguished in and around the site and object. The aim is to give a clear structured and illustrated document that will give a qualitative insight into the site and its heritage values. It forms a summary of values that were found during the research, described in the previous chapters.

The division for the valuation for the cultural value map of the city is divided in three types of values. Green where there is a low value, orange where there is a neutral value and red where there is a high value. Each one of these values will chronologically be elaborated, mainly focussed towards the high valuation.

Seventies harbour town
Without a doubt valued the highest is how the designers and engineers of Almere Haven Centre had the goal to create a harbour town just like any other, but in a typical seventies style (see chapter 3.2). To accomplish this goal different attributes were implemented in the design. Such as the harbour, the market square, the church, typical recognizable street profiles, materialisation and the mix- and stacking of functions. They furthermore reached their goal by keeping the centre small-scale and by the diversity of the buildings. This goal was reached and nowadays Almere Haven Centre indeed feels and even is, a harbour town. For the Netherlands it is very rare that they did – and accomplished – such an development. This gives the centre rarity value.

Pioneering
Almere Haven was the first development to be realised in the Southern-Flevopolder (see chapter 1.2). For inhabitants it meant that they first had to create a community and the start of a new society. Creating this was done with a bottom-up approach; inhabitants came together to discuss what they needed and wanted and as soon as they next day they started realising it. This pioneering mentality can to this day forward still be felt. Because of this the sense of community and the pioneering mentality should be seen as important social values. Furthermore the scale of pioneering was rare as it was not done earlier on such a large scale. The first inhabitants nowadays almost have an elevated status in the community as 'they were the first'. This can be seen as a non-intended commemorative value. Another non-intended commemorative value is 'De Roef' as it played a big role for the society in the beginning.

Polynuclear city planning
Fairly unique is the polynuclear city planning where the city of Almere has different cores that are divided by large green zones. Never was and never will this be applied on such a big scale, giving it rarity value. Almere Haven was the first core of this concept giving it age value for the rest of Almere. As it was the first core meticulously designed by a big group of specialist it has historical value. Different ideas typical to the seventies give Almere Haven its identity till this day.

A functioning city
A centre cannot be all about aesthetics and atmosphere; a centre must function as well. This means that there are also numerous elements that attribute to the use value. These are for example the 'expeditiestraten' located at the back of the building blocks. Expeditiestraten are a typical design element used in the '70s and earlier, that was first introduced in the Netherlands in the design of 'De Lijnbaan'. These service streets are extremely useful and even necessarily for the retail spaces as they allow goods to be delivered from the back. They also form great locations for car-parking as it is closed off from the centre but still a short walk away from all the facilities. Next to use value, they also have historical value as its idea is related to modernism in the fifties.

Another specific use and historical value of Almere Haven Centre and Almere in general, is the division of traffic flows where the bus-lanes are separated from the motorways (see chapter 3.2). Almere was the first- and last city where this network was so consequently laid out. More elements are valued because of their usability. The facilities in Almere Haven Centre and its retail spaces are valued as they (can) provide in the needs of the inhabitants.

Other
There are some more values worth mentioning. Important to mention is Corrosia as it has a central social function within the community. Also important to mention are the last wall murals that were applied throughout the whole centre at the end of the previous century. They represented the peetvaders and other important persons that contributed to the formation of Almere Haven.

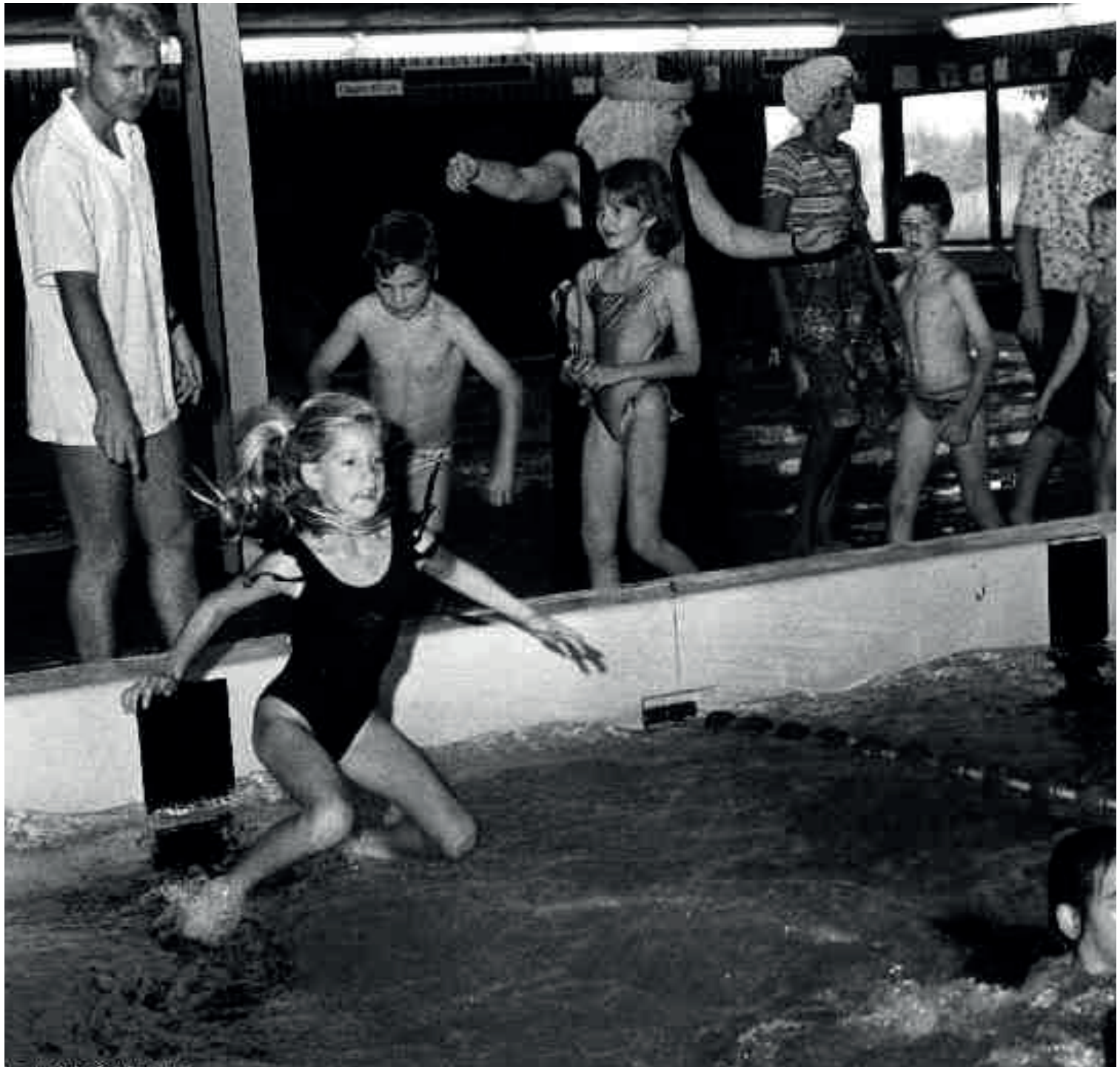


Fig. 1. Children swimming in the swimmingpool of Almere Haven around 1990.

5.5 VALUE STATEMENTS

Almere Haven Centre

A hierarchy was found for the various cultural values of the centre of Almere Haven. These values are based on the described previous research focussed towards the different city scales. The most important values are already described in the elaboration, but they are not made clear and comprehensible. The hierarchy of the Cultural Value Matrix made it possible to summarize and translate the identity of the centre of Almere Haven in the following four statements. The value statements are crucial to be kept in mind when making interventions in the existing structures.

Rarity value
Seventies harbour town

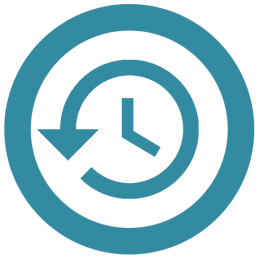
The centre of Almere Haven was designed to relate a traditional harbour village that still can be found adjacent to the IJsselmeer. Different attributes to accomplish this goal were used such as a harbour, a market square, a church or typical recognizable street profiles. Very special was that this image was erected in a typical seventies architecture-style. Developing a completely new neighbourhood this way without any context can be seen as very rare in the Netherlands.

Use value
Centre structure

The centre was not all about aesthetics and atmosphere. Numerous element were incorporated to improve the use-value of the centre for its inhabitants. Its proximity and retail offer are highly valued by inhabitants. The good connection with public transport and the abundance of parking spaces make the centre easily reachable for all persons. Most of the parking spaces are located on the service streets that also make the supply of goods for the shops possible. All these attributes contribute to the use value of the centre.

Social value
Sense of community

Almere Haven was literally created out of nothing with no existing urban development in the surrounding. This meant that the community and later the society had to be created from scratch by the new inhabitants of the area. This lead to a strong community with a pioneering-mentality of realising all the needs and wishes. The many social institutions are all a direct result of this mentality. The sense of community is strong value in Almere Haven as the people did everything themselves.



History value
Beginning of Almere

Almere Haven was the first development within the city of Almere and furthermore it was the first core of the polynuclear city concept. Different trends were incorporated in the design of Almere Haven, such as expeditie straten and a division of traffic flows so that there nowadays is a large separated bus lane-network. Even elements of structuralism, such as the division of traffic flows, can be found within the design. All these elements give Almere Haven Centre a history value.

5.6 KEY DISCUSSIONS

Almere Haven Centre

Expeditie straten
The 'expeditie straten' are located at the back of the building blocks. Having a backside is an insurmountable problem when designing retail spaces that focus with their front facades towards the (car-free) shopping streets. These service streets are extremely useful and even necessarily for the retail spaces for loading- and unloading cargo. They also form great locations for car-parking as it is closed off from the centre but still a short walk away from all the facilities. On the other hand they form a problem; the problem of big, anonymous squares with almost no extra quality than the ones discussed. Because of their anonymous and urban character not much attention is given towards the design or maintenance of these places. People might even feel unsafe because of its private and anonymous character.

Dilemma
What to do with the expeditie straten that are functional, but empty and dead?

Conflict
The expeditie straten have a crucial use function for the retail spaces and for the visitors of the centre. They however do not contribute to a lively city as they form anonymous spaces with none or even a negative identity.

Opportunity
The expeditie straten form perfect locations for future densification as they are located within the centre so that all facilities are within walking distance. Bringing liveliness to these locations could not only be positive for its direct surroundings, but for the whole centre as more people can result in more vibrancy, activities and a stronger local community.

Obligation
While the expeditie straten lack identity at this moment, it does not mean that they do not have a function. Retailers benefit from its strategical location for loading- and unloading goods and visitors of the centre park their car there. Densification of this area could lead to tensions between functions or it could even result in a new dilemma.

Value statement involved

Use
The expeditie straten play a key role in how the centre is being used.

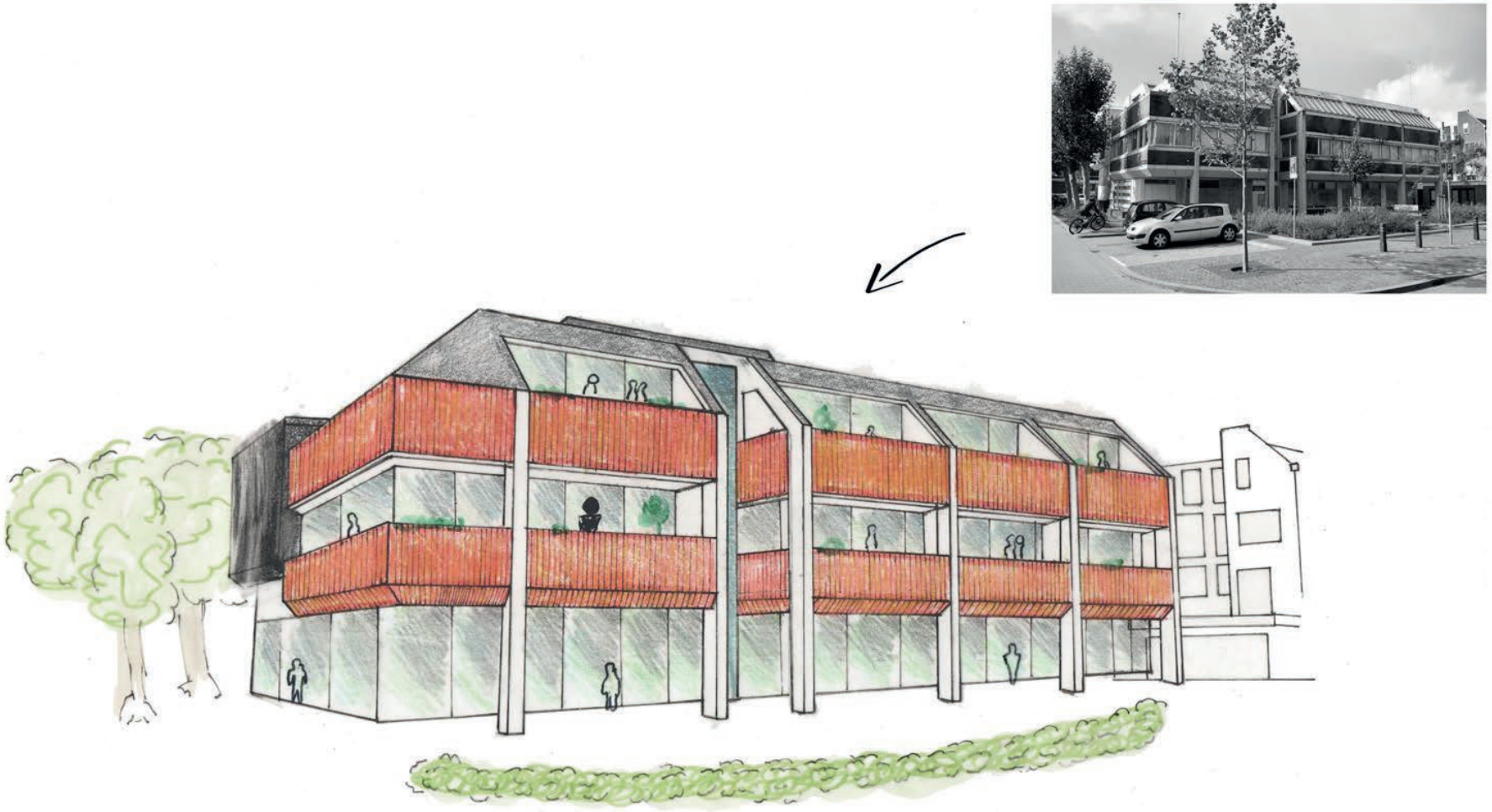


Fig 2. The 'expeditie straten' can for example be upgraded by transforming the exisiting, neglected buildings in housing. This drawing shows how an abandoned office in the Kerkstraat could be transformed. .

KEY DISCUSSIONS

Almere Haven Centre

Two centres
One of the most unique aspects of Almere Haven and Almere in general, is the separated public transport system. A network of bus-lanes separated from the motorways allows users to travel within and from Almere faster than any other means of transport. One of these bus lanes pierces the centre almost right in the middle. That the buslane pierces through the centre is not only figuratively, but also literally as it is wide asphalt lane with raised sidewalks on both sides. This lane literally separates one side of the centre (with Corrosia and the market) from the other side (with the harbour) resulting in two centres with different atmospheres.

Dilemma
How to solve the separation in the city by the bus lane that resulted in two separated centres?

Conflict
At this moment the centre does not function as a whole, but rather as two individual centres separated by the bus lane as a border. The two different atmospheres of these parts are strengthened this way; one part with the harbour and restaurants, the other part with the market and Corrosia. The bus lane on the other hand is necessarily in use and its separation of traffic flows are part of the identity of Almere.

Opportunity
Two different centres with different atmospheres allow the opportunity to actually realise two different identities; one high-quality urban environment with shops and one high-quality living-environment with housing and lots of green.

Obligation
Separating the centre into two parts with a different identity is damaging of how the centre was originally intended to be. The harbour town-atmosphere can be lost as a decision will need to be made which part will become what. If the South part gets chosen than the market-function and the representative Kerkgracht will be lost for the centre. If the North part gets chosen than the harbour will be lost for the centre. Identity and atmosphere will get lost at both functions.

Value statements involved

History
The division of traffic flows was one of the key concepts during the formation of Almere.

Rarity
The creation of a seventies harbour town is unique in the Netherlands.

Use
The bus lane allows people to move to- and from the centre of Almere Haven.

Fig 3. A seperation of the centre could lead to two completly different areas both with their own identical atmosphere.

KEY DISCUSSIONS

Almere Haven Centre

Havenaar
The first inhabitants of Almere Haven had to create their own community within a bigger new society. As there was nothing and everything had to be created, one can understand the uniqueness of this and how it led to a tight community. Nowadays this community is under tension because of segregation and new inhabitants. Furthermore lots of the 'first' inhabitants that formed the society and were very much involved in it, come to an age where they cannot contribute anymore because of health reasons or death. Maintaining and even strengthen this community is a challenge. Especially when taking into consideration the densification-goal of Almere.

Dilemma
How to maintain the sense of community when densification occurs?

Conflict
60.000 new homes need to be built in Almere. The largest part will be built in new city cores, but a small part will be realised within the existing urban structures. The identity of Almere Haven and its community is now mostly formed because of the neighbourhoods small scale. Maintaining this village atmosphere and the 'sense of community' is crucial, but it is likely to change when large amounts of new inhabitants settle.

Opportunity
Densification could also mean that children who have grown up in Almere Haven that left when they turned adult, could return to start a family here. The mentality then will be maintained as they already understand the community. Giving new inhabitants (social) responsibilities could even lead to a better social cohesion.

Obligation
Explaining the story of Almere Haven and how it was created is crucial to better understand the unique local atmosphere, so that new inhabitants also become a 'Havenaar'.

Value statements involved

History
The Pioneering mentality of creating their own community of the first inhabitants.

Social
The village mentality because of the strong- and small community.

Fig 4. A tight community with (social) activities is very important for Almere Haven to maintain its sense of community (Market, 1983).

177

BUILDING BLOCKS
BY ABBT

5.7 CULTURAL VALUE MATRIX

Building blocks by ABBT in text

	AGE VALUE	HISTORICAL VALUE	INTENTIONAL COMMEMORATIVE VALUE	NON INTENDED COMMEMORATIVE VALUE
SURROUNDING / SETTINGS		- Almere Haven Centre as counter movement regarding the Bijlmer - First building block for living, shopping and offices in Almere		
SITE		- Land used to be sea		
SKIN (EXTERIOR)		- Most extreme reaction of the architect Apon towards the post-war modernism - 'Nieuwe Truttigheid' is fitting in the time period		
STRUCTURE		- Combination of different materials and techniques (concrete-in-situ and prefab)		
SPACE PLAN		- Variation of typologies within a building block; typical for the seventies mindset		
SURFACES (INTERIOR)				
SERVICES				
STUFF				
SPIRIT OF A PLACE				

GREEN *low value*
ORANGE *neutral value*
RED *high value*

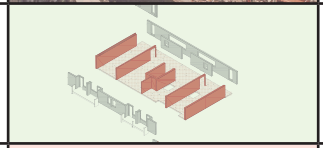
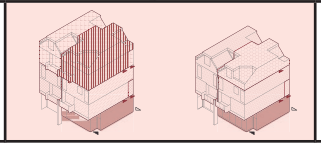
USE VALUE	NEW-NESS VALUE	(RELATIVE) ART VALUE	RARITY VALUE	OTHER RELEVANT VALUES (SOCIAL VALUES)
- Expeditiestraat; logistics, parking, back-entrances - Shops, cultural facilities and parking spaces are nearby -pedestrianzone in front		- The building with its adjecent canal is iconic for Almere Haven; composition and articulation. Could become non-intended com. v.	- City planning in the form of a 70's harbour city - Kerkgracht, Marktplein and harbour	- Proximity of social functions for social interactions; church, (super)market, Corrosia, etc.
- Building blocks are (mostly) situated to the North				
- Outside space (balconies) - Setback create a marge zone allowing a covered walkway and flexibility for shopowners		- Composition of the facade elements	- Nieuwe truttigheid; vertical articulation, height differences, gable roof shape, materialisation, details	- Contact with the street is possible because of limited building height
- Flexibility because of non-reïnforced walls				
- Multifunctional building with houses, shops and offices - Flexibility of the house plan - Well arranged house access			- The use of numerous housing types was done for the first- and last time - Combination of 'galerij' and 'portiek' acces	- The acces of the appartement blocks promotes social interaction - Difference in household-composition
- Central shafts that are simple, clear and flexible				
			- City planning in the form of a 70's harbour city	- Coasy, comfortable within the city centre

How can the shop vacancy be solved without harming the buildings identity?

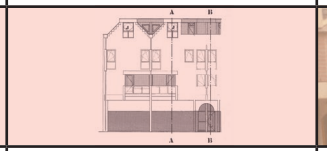
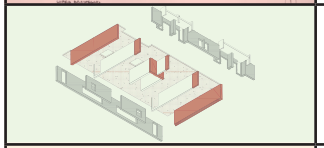
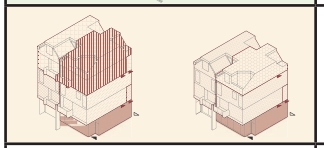
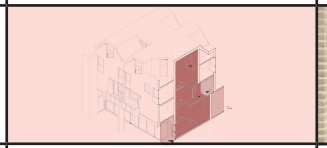
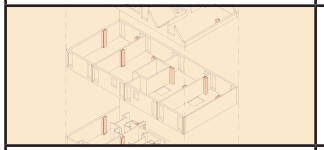
How can the facade be made sustainable without harming its aesthetical qualities?

CULTURAL VALUE MATRIX

Building blocks by ABBT in images

	AGE VALUE	HISTORICAL VALUE	INTENTIONAL COMMEMORATIVE VALUE	NON INTENDED COMMEMORATIVE VALUE
SURROUNDING / SETTINGS				
SITE				
SKIN (EXTERIOR)				
STRUCTURE				
SPACE PLAN				
SURFACES (INTERIOR)				
SERVICES				
STUFF				
SPIRIT OF A PLACE				

GREEN *low value*
ORANGE *neutral value*
RED *high value*

USE VALUE	NEW-NESS VALUE	(RELATIVE) ART VALUE	RARITY VALUE	OTHER RELEVANT VALUES (SOCIAL VALUES)
				
				
				
				
				
				
				

5.8 ELABORATION CULTURAL VALUE MATRIX

Building Blocks by ABBT

Value Mapping is a concluding step in the research process from where a site-specific identification and classification of typical features can be distinguished in and around the site and object. The aim is to give a clear structured and illustrated document that will give a qualitative insight into the site and its heritage values. It forms a summary of values that were found during the research, described in the previous chapters.

The division for the valuation for the cultural value map of the building blocks by ABBT is divided in the same three types of values; green where there is a low value, orange where there is a neutral value and red where there is a high value. Each one of the values will chronologically be elaborated, mainly focussed towards the high valuation.

Nieuwe truttigheid
The constantly returning high value in the cultural value matrix for the building blocks by ABBT is that the blocks are a 70's representation of the typical Dutch canal houses (see chapter 4.5). Doing this was part of a counter movement towards the anonymous Modernism of the fifties. This was also called 'nieuwe truttigheid' as it returned to historic structures and ideas and interpreted these towards the general architecture style of that time. The interpretation of the typical canal house can be seen in the shapes, divers heights, articulation of the facade, material use and details.

The concept is even implemented further by how the lay outs of the apartments are articulated vertically (see chapter 4.5). The same can be found for the streetprofiles of the streets where the buildings are situated. These streefprofiles can be identified as typical canal-, market- or narrow shopping street profiles.

Flexibility and usability
The building blocks by ABBT are multifunctional as they combine houses on the upper floors with retail spaces on the ground floor and offices. The simple, partly reinforced structure allows for flexibility in the layout together with the central locations of the installation shafts (see chapter 4.9). This makes adapting and developing the buildings layout to fit the need possible that results in a high use value.

Other
Also other, less important values were identified. The first high value to mention is the large diversity in housing typologies. This rarity value has a relation with the 'nieuwe truttigheid' and was later on not executed anymore because of its high building cost. One can think about the usability value of the marge zones for pedestrians and shop-owners (see chapter 4.5). Also the combination of the 'galerij' and 'portiek' access is unique in its kind (see chapter 4.6). The location, close to the shops and other social functions, result in a neutral social value as social contact is never far away. Furthermore the building blocks have historic value as they were the first buildings combining living, shopping and working.

A last important value to be mentioned is that the building block with its adjacent canal can be seen as iconic for Almere Haven. So iconic that for a lot of people whom was talked to, it is the first image that pops in mind when thinking about Almere Haven. Secondly it is one of the most common images found when researching Almere Haven. This image is so strong that in the future it could become a non-intended commemorative value after Almere Haven gets more in the spotlight.

Fig 5. A men on a bicycle cycling through the Kerkgracht in Almere Haven (1979).

5.9 VALUE STATEMENTS

Building Blocks by ABBT

A hierarchy was found for the various cultural values of the building blocks by ABBT. These values are based on the described previous research focussed towards the analysis of the building block. The most important values are already described in the elaboration, but they are not made clear and comprehensible. The hierarchy of the Cultural Value Matrix made it possible to summarize and translate the identity of the building blocks by ABBT in the following three statements. The value statements are crucial to be kept in mind when making interventions towards the building.

Use value
Multifunctionality and flexibility

The building blocks by ABBT combines different functions. Housing, shops and offices can all be found in the building blocks. This multifunctionality is valued, but the buildings are even more flexible on another scale. Its simple - partly not-reinforced - concrete structure allows spatial change over time. The central located shafts only improve this flexibility even more. Because of these reason the use of the building blocks are highly valued.

Relative art value
Iconic

The building blocks by ABBT are iconic for Almere Haven as they form a big part of the centres identity and atmosphere. Most likely this is the result of the strong and recognizable composition of the façade. If a post card would be made for Almere Haven then most definitely the building with its adjacent canal would be put on it as it is very recognizable and even idyllic. This gives the building a relative art value.

Rarity value
Canal house

The building blocks by ABBT are a 70's reinterpretation of the typical Dutch canal houses. This canal house reinterpretation can be seen the strongest within the facades. Vertical articulation, the numerous details and its material use all contribute in creating this picture. Also the vertical articulation in the façade, but also in the space plan is derived from the canal house typology. This image of a seventies canal house can be valued as something rare, appropriate for the time.

5.10 KEY DISCUSSIONS

Building Blocks by ABBT

Vacancy
Very important during the development of the building blocks by ABBT was the mixture of functions and stacking these on top of each other. Predominantly this meant that there were shops on the ground floor and houses on the floors above. Due to new trends such as online shopping, but also because of the centres big size and lack of economic support, a lot of vacancy of retail space is present. Leaving these spaces empty does not contribute to the quality of the centre. This means that there must come a new vision towards reducing the amount of retail space in Almere Haven Centre.

Dilemma
How can the shop vacancy be solved without harming the buildings identity?

Conflict
The original mix-use of the building blocks by ABBT was part of the canal house-concept and it was promoted by the Government as it was 'experimentele woningbouw'. Changing the original function could harm the identity of the building but also the neighbourhoods identity. On the other hand something needs to be done to solve the vacancy as this leads to impoverishment.

Opportunity
By changing the function of the retail spaces, other needs can be resolved such as senior housing. Visible in the demographics is the aging population. These seniors have different wishes and needs for their living environment; such as proximity to facilities and accessibility. The current retail spaces could form an opportunity to realise this need.

Obligation
The mixed use of the buildings in the centre could be harmed if all vacant retail spaces are changed to housing. This could furthermore disrupt the identity of the centre.

Value statements involved

Use
The building blocks by ABBT are multifunctional and flexible.

Art
The building blocks by ABBT with retail-spaces on the ground floor are recognizable for the centre.

Rarity
The building blocks by ABBT represent a canal house in a harbour town.

Fig 6. Changing the function of the plinth could result to more liveliness in the centre.

KEY DISCUSSIONS

Building Blocks by ABBT

Sustainability
The value for the building blocks by ABBT is that the blocks are a 70's reinterpretation of the typical Dutch canal houses. This canal house reinterpretation can be seen the strongest within the facades. Vertical articulation, composition, the numerous details and its material use all contribute to the feeling. But the façade has more functions than only creating a picture, it also contributes towards the energy performance of the building. Originally the insulation of the façade was of high quality as it exceeded the minimal norms. But norms have risen substantially so that the heat resistance of the façade is now valued negative. In the whole of the Netherlands there is the need to improve energy performance of buildings.

Dilemma
How can the facade be made sustainable without harming its aesthetical qualities?

Conflict
The articulation and composition of the façade is crucial to give the identity of a canal house of the seventies. Maintaining this quality is crucial while on the other hand the same elements have a low insulation quality or even form thermal bridges. Making the skin of the building more sustainable could negatively affect its aesthetics dramatically.

Opportunity
When renovating the façade there is the opportunity to remove the layers of time that currently negatively harm the aesthetics of the building. By doing this the original Canal House-vision will be restored to its former glory.

Obligation
The buildings aesthetics could be dramatically harmed when improving the heat resistance of the skin. In the worst case scenario this could even lead to the loss of the buildings identity.

Value statements involved

Use value
Multifunctional building with houses, shops and offices where people live, work and shop.

Art
The strong and recognizable composition is iconic for Almere Haven

Rarity
The building blocks by ABBT represent a canal house in a harbour town.

Fig 7. The building blocks by ABBT in its former glory in 1979. Harming this iconic 'harbour town' image should be avoided, preferably even be strengthened.

191

AFTERTHOUGHT

6.1 REFLECTION

After this elaborate research it is crucial to reflect on the research itself and how this rapport came about. Important to start with is that the end result is what we expected and hoped it to be. The large amounts of information did not always make it easy to extract the crucial information needed. Furthermore decisions had to be made where to focus on. Far more detailed information could have been given and at certain points it would have been possible to go more in depth. But important during research is also understanding where to stop. With this rapport we hoped to give – and we think we did – a general insight in Almere Haven Centre, its most important building and the corresponding values.

The research was started with an intensive two weeks on site where we did a resident survey. This bottom-up approach of doing research is interesting as in the end everything you do is indeed for the inhabitants. It furthermore put us directly on the location we were going to research. Seeing a place in person instead of only looking at it from paper is always different. It led to a better understanding and personal view of the site and its qualities.

On the other hand the resident survey took a lot of time. We asked the inhabitants we spoke with to fill in a diary and to return it to us. It took a lot of time to get people enthusiastic for these diaries and it even took more time to collect them again. The information that could be extracted from the diaries was most of the time of low content. Meaning that there was not always enough information to get the bigger picture. Additionally the persons whom filled in the diaries were not a balanced reflection of the local society; or they were minors from a nearby primary school or they were senior citizens. This also did not led towards representative responses.

The responses we got were mainly focussed towards the urban environment. The social aspect of the community was missing a bit. Although we think we managed to understand the social-problems, more insight in these from the inhabitants could have been useful.

This means a future research could focus on the social problems and how they are perceived by the inhabitants of Almere Haven. A better insight in the problem is namely needed in order to understand it better and to come up with a more fitting solution. It might even be possible that the inhabitants have the solution already and that they only need the resources to achieve them.

In this research we chose to analyse only one building due to the limited amount of time. We still think that this building is (one of) the most important building in the centre of Almere Haven. It gives the centre a lot of its identity and it was built in the first phase of the development making it even more interesting. But there are still other buildings that give the centre identity, buildings such as De Roef, Corrosia, the Broekbakema-complex or Havenzicht. A follow-up research could go in depth into these buildings.

Finding documentation for the buildings mentioned and especially for the building blocks by ABBT costed a lot of time and effort. The reason to choose the chosen building also had to do with the available and findable information that was generally very limited.

Not only other buildings could have been researched, the researched building blocks by ABBT could also have been compared to similar project dating back to the seventies. The ‘experimentele woningbouw’ out of the seventies could even deserve a research on its own. These projects might even contain the solution for the present housing shortages.

As can be concluded from the reflection above, there are still a lot of opportunities to continue with this research. We have the opinion that this research is a good starting point to continue from. It is at least for us, as we are now motivated to find solutions towards existing dilemmas and to let Almere Haven shine again, in all its normalness.

Fig 1. Doing qualitive research on site towards all elements of the city - including testing playgrounds - was executed.

6.2 DEFINITION LIST

Afsluitdijk – Long dike that connects North-Holland to Friesland

bijlmer – suburb of Amsterdam built from 1966 onward

buiten – outside; beyond

dikmaatformaatklinker - specific type of road brick with the dimensions 200 x 70 x 70 millimetre

dode ruimte - dead space; space with no identity

doe maargewoon dan doe je al gek genoeg – act normal, that is already crazy enough

expeditie straten - expedition streets; backsides of building blocks where parking and logistics are made possible

experimentele woningbouw - experimential housing development; programm in the seventies with the aim to realise new public housing concepts

galerij – gallery; arcade; walk-way

gewoon - normal; ordinary; usual; everyday

gietbouwmethode – construction method where concrete is poured in situation

haven - harbour; port

Hollandse Brug – Bridge located between Almere and Muiderberg

hout – timber

IJmeerverbinding – new not-realised connection between Almere and Amsterdam

ijsselformaatklinker - specific type of road brick with the dimensions 150 x 150 x 73 millimetre

landdrost – a civil servant that controls a certain area

Lijnbaan - traffic free shopping street in the centre of Rotterdam in the Netherlands, built in the fifties

marge zones - covered public accessible zone between the street and the building, introduced in the preliminary draft of Almere Haven

Nieuwe Truttigheid – new fussiness; revival of ancient architecture in the seventies

peetvaders – godparents; godfathers

poort – port

portiek – entrance on the ground floor that leads to a central stairwell.

schrootjes - paneling by planks in a repeating pattern

Sinterklaasintocht – the arrival of the Dutch Santa-Claus; Dutch tradition

stad - city

tweede nota over de ruimtelijke ordening - Second memorandum on spatial planning

Voorschriften en wenken 1965 – regulations regarding heat resistance

woningwetwoning - social housing built accoarding to the 'housinglaw' of 1902 or 1962

Zuiderzeewerken – Southern-sea-works; combination of projects that closed of the Southern Sea

6.3 LITERATURE LIST

Apon, Berg, Braak, & Tromp. (1973, May). Woningbouw te Doorwerth. BOUW, 21, 696.

Apon, Berg, Braak, & Tromp. (1974, February). Woonhuis te Leiderdorp. BOUW, (6), 135–136.

Apon, Berg, Braak, & Tromp. (1980a, August). Experimenteel project met winkels, woningen en kantoren te Almere-Haven. BOUW, (17), 54–57.

Apon, Berg, Braak, & Tromp. (1980b, November). Woningwetwoningen te Poortugaal. BOUW, (24), 73.

Architectuurgidsalmere.nl. (n.d.). Gooizicht. Retrieved November 6, 2019, from https://www.architectuurgidsalmere.nl/almere/gooizich

Barzilay, M., Ferwerda, R., & Blom, A. (2018). Predicaat experimentele woningbouw 1968-1980. Retrieved from https://cultureelerfgoed.nl/sites/default/files/publications/predicaat_experimentele_woningbouw_1968-1980.pdf

Beatley, T. (2010). Biophilic Cities: Integrating Nature into Urban Design and Planning. Washington, United States: Island Press.

Bouma, J. (2013, November 13). Ze gaan toch dood, denkt de staat zeker. Trouw. Retrieved from https://www.trouw.nl/nieuws/ze-gaan-toch-dood-denkt-de-staat-zeker~bfb76ecb/

Buys, A. (2018). Wonen in Almere 2018-2030. Amsterdam.

CASLa Almere. (2001). Peetvaders van Almere. Almere: Gemeente Almere.

Centraal Bureau voor de Statistiek. (2018a). Prognose: 3,5 miljoen alleenwonenden in 2030. Retrieved from https://www.cbs.nl/nl-nl/nieuws/2018/51/prognose-3-5-miljoen-alleenwonenden-in-2030

Centraal Bureau voor de Statistiek. (2018b). Prognose bevolking naar migratieachtergrond. Retrieved from https://www.cbs.nl/nl-nl/achtergrond/2018/51/prognose-bevolking-naar-migratieachtergrond

Centraal Bureau voor de Statistiek. (2019). CBS StatLine. Retrieved from https://opendata.cbs.nl/statline/#/CBS/nl/
Feddes, F. (2008). De Almere Principles. Almere.

Cobouw. (1998). Flevovloeren. Retrieved from https://www.cobouw.nl/bouwbreed/nieuws/1998/11/flevovloeren-101188438?_ga=2.50344297.1990991904.1572806757-2085834521.1567073008

De Meergronden in jubileumjaar toe aan nieuwbouw - Almere Deze Week. (n.d.). Retrieved November 6, 2019, from http://www.almeredezeweek.nl/nieuws/1477304-de-meergronden-in-jubileumjaar-toe-aan-nieuwbouw

De Roef | Canon van Almere. (n.d.). Retrieved November 1, 2019, from Canon van Almere website: http://canonvanalmere.nl/de_roef

Digitaalerfgoed.almere.nl. (n.d.). 00393 Raadhuis en kantoor van het openbaar lichaam Zuidelijke IJsselmeerpolders aan de Kerkstraat nr 98-100 in Almere Haven. (1980). Retrieved November 6, 2019, from http://digitaalerfgoed.almere.nl/detail.aspx?id=1485004

Feddes, F. (2008). De Almere Principles. Almere.

Gebouwvanhetjaar.nl. (n.d.). Herontwikkeling cultuur centrum Corrosia - BNA Beste Gebouw van het Jaar. Retrieved November 6, 2019, from https://www.gebouwvanhetjaar.nl/entry/herontwikkeling-cultuur-centrum-corrosia/

Gemeente Almere/SBZ/Onderzoek & Statistiek, Janssen, T., Huisman, M., & Gorter, H. (2011). Woononderzoek Almere 2011. Almere.

Gemeente Almere. (2012). Het verhaal Almere 2.0. Almere.

Gemeente Almere. (2017). Omgevingsvisie Almere. Almere.

Gemeente Almere. (2019a). Cultuurplan Almere 2019-2024. Almere.

Gemeente Almere. (2019b). Stadsdelen. Retrieved from https://www.almere.nl/over-almere/stadsdelen/

Gemeente Almere. (2019c). Wijkmonitor Almere Haven. Retrieved from https://wijkmonitoralmere.nl/nl/almere-haven.html

Gemeente Almere. (2019). Klimaatatlas | Almere. Retrieved 6 November 2019, from https://almere.klimaatatlas.net

Gemeente Purmerend. (2019). Purmerend in cijfers. Retrieved from https://purmerend.incijfers.nl/jive

Gemeente Almere. (2018). Meerjarenprogramma Almere 2.0. Almere.

Geurts, A. (2018). Het Plan-Lely. Almere. Retrieved from http://genootschapflevo.nl/media/100_jaar_zuiderzeewet_artikel_2_(definitief).pdf

Grant, G. (2016). The Water Sensitive City. New York, United States: John Wiley & Sons.

Haperen, H. J. van, & Scheek, J. J. P. (1976). De belangstellenden voor Almere: wie zijn ze, wat willen ze. Lelystad.

Heese, R. van, & Oomkes, L. (1993). WAO tot '87 uitgevoerd in strijd met de wet. Trouw. Retrieved from https://www.trouw.nl/nieuws/wao-tot-87-uitgevoerd-in-strijd-met-de-wet~b544dac1/

Heijne, K. (2014). Jonge monumenten in Almere | VOER. Retrieved November 6, 2019, from Platformvoer website: https://www.platformvoer.nl/jonge-monumenten-in-almere/

Het Nieuwe Instituut. (2000). Apon , Van den Berg , ter Braak & Tromp / Archief. Retrieved from https://zoeken.hetnieuweinstituut.nl/images/archives/pdf/ABBT.ead.pdf

Hulsman, B. (2002, August 2). Sfinx en geweten - NRC. NRC. Retrieved from https://www.nrc.nl/nieuws/2002/08/14/sfinx-en-geweten-7601762-a138173

ISSO. ISSO-publicatie 82.1 (2015).

Janssen, T., & Asselt, A. van. (2014). Wijkscan Almere Transitie Sociaal Domein. Almere.

Jaren-70-centra. (2013). Grip op wonen in jaren 70-centra, casestudy: Almere Haven Centrum. Almere Haven.

Kadaster. (2019). Topotijdreis: 200 jaar topografische kaarten. Retrieved 6 November 2019, from http://topotijdreis.nl/

Kastermans, T. (2001). Spandoeken tegen sloop woningen Meerstraat (30-04-2001) [Photograph]. Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1555264

Kuipers, M., & de Jonge, W. (2017). Designing from Heritage. In D. Silvia Naldini & N. Clarke (Eds.), Bk Books. Retrieved from https://books.bk.tudelft.nl/index.php/press/catalog/book/isbn.9789461868022

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2019). Kaart leefbarometer. Retrieved from https://www.leefbaarometer.nl/kaart/#kaart

Ministerie van Verkeer en Waterstaat, Rijksdienst voor de IJsselmeerpolders, & Rijksdienst. (1970). Verkenningen omtrent de ontwikkeling van de nieuwe stad 'Almere' in Flevoland. Lelystad: Flevobericht nr. 78.

Ministerie van Verkeer en Waterstaat, & Rijksdienst voor IJsselmeerpolders. (1983). Almere 1982: 10.000 woningen. Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74156.pdf

Ministerie van Volkshuisvesting, Ruimtelijke ordening en milieubeheer. (1983). Samenvatting bewonersonderzoek. Project; Almere Haven. Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1605845

Moors, H., Rovers, B., Bruinsma, M., & Fijnaut, C. (1984). Criminaliteit en veiligheid in Almere , 1984 - 2030 Ontwikkelingen en opgaven. Almere.

Nawijn, KE, Veen, F. H. van der. (1975). Almere 250.000 mensen in 25 jaar? Lelystad: Rijksdienst voor de IJsselmeerpolders.

LITERATURE LIST

Nawijn, K. (1988). Almere hoe het begon. Rijksdienst voor de IJsselmeerpolders.

NBVT. (2000). 500 jaar houten kozijnen.

OMA. (n.d.). Police Station. Retrieved November 6, 2019, from https://oma.eu/projects/police-station

Onderzoek & Statistiek Gemeente Almere. (2017). Cultuur in Almere 2017. Almere.

OpenInfo. (2019a). Informatie gemeente Almere. Retrieved from https://allecijfers.nl/gemeente/almere/

OpenInfo. (2019b). Informatie gemeente Purmerend. Retrieved from https://allecijfers.nl/gemeente/purmerend/

Provoost, M. (2007) 'Almere New Town De Buitenlandse wortels van een oer-hollandse Polderstad', in: Berg, J. e.a. (red.) (2007) Adolescent Almere Hoe een stad gemaakt wordt, Rotterdam: NAi Uitgevers, pp. 81-113

Projectburo Almere. (1974). Voorontwerp voor het Centrum van Almere Haven.

Projectmanagement & Adviesgroep BV. (1993). Onderzoek naar het functioneren van Winkelcentrum Almere Haven.

Raa, B. D. te. (1989). Van gevaarlijke binnenzee tot Almere. 's-Gravenhage: SDU Uitgeverij.

rlarchitecten. (n.d.). De Hulk, Almere Haven - RIK LAGERWAARD ARCHITECT BNA BV. Retrieved November 6, 2019, from http://www.rlarchitecten.nl/portfolio_page/05-de-hulk-almere-haven/

Schippers, H. (1890). BOUWT IN BETON ! Gouda. Retrieved from https://www.cob.nl/wp-content/uploads/2018/01/WJA-022.CT_.14.D.pdf

S Magazine. (1978). S Magazine, Bouwen is kiezen uit aantal mogelijkheden. S Magazine, (31), 14–17.

Stichting bouwcentrum. (1983). Samenvatting Bewonersonderzoek Centrum Almere Haven. s-Gravenhage.

Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

Veggel, A. van. (2008). Het verhaal van Almere Haven Centrum door de ogenv an Giancarlo De Carlo. TU Eindhoven.

Vreeze, A. S. G. de. (1993). Woningbouw, Inspiratie & Ambities. Kwalitatieve grondslagen van de sociale woningbouw in Nederland. Technische Universiteit Delft.

Wind, H. (2014). Producten voor renovatie van het hellende dak. Retrieved from https://www.bouwwereld.nl/producten/producten-voor-renovatie-van-het-hellend-dak/

6.4 FIGURE LIST

All figures not stated in this list are created by one of the authors and therefore not mentioned.

Cover: Margareta Svensson. (n.d.). Almere Haven Plein Busstation. Retrieved November 6, 2019, from https://pf.nl/we-love-almere/

City

Figure 1: Rijksdienst voor de IJsselmeerpolders. (1971). Een nieuwe stad bouwen in een nieuw land. Trouw.

Figure 2: Ministerie van Verkeer en Waterstaat, Rijksdienst voor de IJsselmeerpolders, & Rijksdienst. (1970). Verkenningen omtrent de ontwikkeling van de nieuwe stad 'Almere' in Flevoland. Lelystad: Flevobericht nr. 78.

Figure 3: Gemeente Almere. (2017). Reserveringskaart. Almere.

Social

Figure 1: Mieremet, R. (1976). Bouw Almere in Flevopolder. Retrieved 20 October 2019, from https://www.nationaalarchief.nl/onderzoeken/fotocollectie/ac7a524c-d0b4-102d-bcf8-003048976d84

Figure 2: Omroep Flevoland. (2017). Zaaien vanuit de lucht. Retrieved 20 October 2019, from https://www.omroepflevoland.nl/nieuws/148778/het-zware-werk-in-de-polder-ging-je-niet-in-je-koude-kleren-zitten

Figure 3: Rijksdienst voor de IJsselmeerpolders. (1975). Zuidelijk Flevoland: Almere-Haven. Heien van de eerste paal. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/791280

Figure 4: Rijksdienst voor de IJsselmeerpolders. (1976a). Zuidelijk Flevoland: Almere-Haven. Bouw café-restaurant. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/822492

Figure 5: Rijksdienst voor de IJsselmeerpolders. (1976c). Zuidelijk Flevoland: Almere-Haven. Telefooncel. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/826431

Figure 6: Rijksdienst voor de IJsselmeerpolders. (1977). Zuidelijk Flevoland: Almere-Haven. Café-restaurant 'De Roef'. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/824658

Figure 7: Rijksdienst voor de IJsselmeerpolders. (1976b). Zuidelijk Flevoland: Almere-Haven. Bouw kantoor. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/823425

Figure 8: Rijksdienst voor de IJsselmeerpolders. (1978b). Zuidelijk Flevoland: Almere-Haven. Bouw kademuur voor de stadsgracht. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/824640

Figure 9: Rijksdienst voor de IJsselmeerpolders. (1978a). Zuidelijk Flevoland: Almere-Haven. Bouw hoofdwinkelcentrum. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/825300

Figure 10: Rijksdienst voor de IJsselmeerpolders. (1978c). Zuidelijk Flevoland: Almere-Haven. Hoogste punt R.IJ.P.-kantoor. Retrieved 20 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/826827

Figure 11: Stadsarchief Almere. (1975). Spelen op de Zandvlakte. Retrieved 20 October 2019, from www.almeredezeweek.nl/widgets/2222-het-begin-van-almere/nieuws/1355357-spelen-op-de-zandvlakte

Figure 12: Potuyt, J. U. (1975). Almere Haven december 1975. Retrieved 20 October 2019, from https://www.flevolandsgeheugen.nl/page/1267/almere-haven-december-1975

Figure 13: Peters, H. (1976b). Minister Westerterp reikt eerste sleutels uit aan bewoners Almere Haven. Retrieved 20 October 2019, from https://drimble.nl/cultuur/almere/645198.html

Figure 14: Peters, H. (1976a). Inkopen voor eerste bewoners. Retrieved 20 October 2019, from https://drimble.nl/cultuur/almere/645199.html

Figure 26: Rijksdienst voor de IJsselmeerpolders. (1983). Zuidelijk Flevoland: Almere-Haven. Markt. Retrieved 21 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/823851

Figure 27: Almere Haven Festival. (2018). Programmering muziek Almere Haven Festival. Retrieved 20 October 2019, from https://www.almeredagblad.nl/uitgaan/programmering-muziek-almere-haven-festival

Figure 28: Huizinga, D. (1985). Almere-Haven Beschrijving: De vrijdagmorgenmarkt op het winkelcentrum Haven. Retrieved 21 October 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/444435

Neighbourhood

Figure 1: Rijksdienst IJsselmeerpolders (RIJP), & Projektburo Almere. (1974). Voorontwerp voor het Centrum van Almere Haven. (edited) Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74682.pdf

Figure 2: Rijksdienst IJsselmeerpolders (RIJP), & Projektburo Almere. (1974). Voorontwerp voor het Centrum van Almere Haven. (edited) Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74682.pdf

Figure 3: Rijksdienst IJsselmeerpolders (RIJP), & Projektburo Almere. (1974). Voorontwerp voor het Centrum van Almere Haven. (edited) Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74682.pdf

Figure 4: Rijksdienst IJsselmeerpolders (RIJP), & Projektburo Almere. (1974). Voorontwerp voor het Centrum van Almere Haven. (edited) Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74682.pdf

Figure 5: TU Delft. (1995). Documentatie Bouwtechniek Almere Haven - II. (edited) Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1514753

Figure 6: TU Delft. (1995). Documentatie Bouwtechniek Almere Haven - II. (edited) Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1514753

Figure 7: TU Delft. (1995). Documentatie Bouwtechniek Almere Haven - II. (edited) Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1514753

Figure 8: Van den Broek en Bakema. (1975). Almere Haven Centrum fase 2 en 3. (edited) Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1486619

Figure 9: Van den Broek en Bakema. (1975). Almere Haven Centrum fase 2 en 3. (edited) Retrieved from https://digitaalerfgoed.almere.nl/detail.aspx?ID=1486619

Figure 14: Ministerie van Verkeer en Waterstaat, & Rijksdienst voor IJsselmeerpolders. (1983). Almere 1982: 10.000 woningen (edited) . Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74156.pdf

Figure 15: Ministerie van Verkeer en Waterstaat, & Rijksdienst voor IJsselmeerpolders. (1983). Almere 1982: 10.000 woningen (edited). Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74156.pdf

Figure 16: Ministerie van Verkeer en Waterstaat, & Rijksdienst voor IJsselmeerpolders. (1983). Almere 1982: 10.000 woningen (edited). Retrieved from https://digitaalerfgoed.almere.nl/Files/14/D74156.pdf

Figure 17: Kadaster. (2019). Topotijdreis: 200 jaar topografische kaarten (edited). Retrieved 2 November 2019, from http://topotijdreis.nl/

Figure 18: Kadaster. (2019). Topotijdreis: 200 jaar topografische kaarten (edited). Retrieved 2 November 2019, from http://topotijdreis.nl/

FIGURE LIST

Figure 69: Gemeente Almere. (2019). Klimaatatlas | Almere (edited). Retrieved 6 November 2019, from https://almere.klimaatatlas.net/

Figure 70: Gemeente Almere. (2019). Klimaatatlas | Almere (edited). Retrieved 6 November 2019, from https://almere.klimaatatlas.net/

Figure 71: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Figure 72: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Figure 73: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Figure 74: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Figure 75: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Figure 76: Google. (2019). Google Maps. Retrieved 1 November 2019 (edited), from https://www.google.nl/maps

Architecture

Figure 2: Wikipedia. (n.d.-b). Ministerie van Buitenlandse Zaken - Dick Apon - Wikipedia. Retrieved November 6, 2019, from https://nl.wikipedia.org/wiki/Dick_Apon#/media/Bestand:Dick_Apon.jpg

Figure 3: S Magazine. (1978). S Magazine, Bouwen is kiezen uit aantal mogelijkheden. S Magazine, (31), 14–17.

Figure 4: Wikipedia. (n.d.-b). Ministerie van Buitenlandse Zaken - Buitenlandsezaken - Wikipedia. Retrieved November 6, 2019, from https://nl.wikipedia.org/wiki/Dick_Apon#/media/Bestand:Ministerie_van_Buitenlandse_Zaken.jpg

Figure 05: Apon, Berg, Braak, & Tromp. (1980a, August). Experimenteel project met winkels, woningen en kantoren te Almere-Haven. BOUW, (17), 54–57.

Figure 6: Apon, Berg, Braak, & Tromp. (1973, May). Woningbouw te Doorwerth. BOUW, 21, 696.

Figure 7: Apon, Berg, Braak, & Tromp. (1974, February). Woonhuis te Leiderdorp. BOUW, (6), 135–136.

Figure 8: (Apon, Berg, Braak, & Tromp. (1980b, November). Woningwetwoningen te Poortugaal. BOUW, (24), 73.

Figure 9: Apon, Berg, Braak, & Tromp. (1984). Woningwetwoningen te Rotterdam-Oosterflank. BOUW, (19), 36–38.

Figure 10: Ton Kastermans. (n.d.). 22136 Schaatsen op de Meergronden (Grachtschaatsen) (10-01-1986). Retrieved November 6, 2019, from http://digitaalerfgoed.almere.nl/detail.aspx?ID=1549670

Figure 11: Margareta Svensson. (n.d.). Almere Haven Plein Busstation. Retrieved November 6, 2019, from https://pf.nl/we-love-almere/

Figure 12: Rijksdienst voor de IJsselmeerpolders, P. (n.d.). Zuidelijk Flevoland: Almere-Haven.Winkelcentrum. . Retrieved November 6, 2019, from https://www.collectienederland.nl/search/?q=2020722

Figure 14: De Roef | Canon van Almere. (n.d.). Retrieved November 1, 2019, from Canon van Almere website: http://canonvanalmere.nl/de_roef

Figure 15: Apon Berg Braak Tromp documentatie, Almere Haven Centrum, Collectie Het Nieuwe Instituut / ABBT0031 / F78

Figure 16: Imere deze week. (n.d.). Vernieuwd Corrosia opent in september - Almere Deze Week. Retrieved November 6, 2019, from http://almeredezeweek.nl/widgets/2164-nieuws/nieuws/1250569-vernieuwd-corrosia-opent-in-september

Figure 17: Almere serc. (n.d.). Nostalgische foto's Almere - Serc De Hulk. Retrieved from http://almere.serc.nl/almere-in-beeld/nostalgische-foto-s-almere/

FIGURE LIST

Figure 53: Rijksdienst voor de IJsselmeerpolders, P. (1983). Zuidelijk Flevoland: Almere-Haven. Markt. Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/823551

Figure 56: Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

Figure 57: Rijksdienst voor de IJsselmeerpolders, P. (1978). Zuidelijk Flevoland: Almere-Haven. Bezoek gemeentearchitecten. . Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/825597

Figure 58: Het flevolandarchief / Provincie Flevoland 76 / Inv. Nr. 2729

Figure 59: Ton Kastermans Fotografie. (1995). 25975 Winkels langs de gracht in het centrum van Almere Haven (20-10-1995). Retrieved November 6, 2019, from http://digitaalerfgoed.almere.nl/detail.aspx?ID=1555034

Figure 61: Beeldbank van de Rijksdienst voor het Cultureel Erfgoed. (n.d.-c). Almere haven -21. Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/rce-beeldbank/837866ec-3f22-11e4-9dc7-3b4bf4a0ed46-13036ef2-e67b-966e-89e5-669e230ba118

Figure 63: Apon Berg Braak Tromp documentatie, Almere Haven Centrum, Collectie Het Nieuwe Instituut / ABBT0031 / F78

Figure 64: Apon Berg Braak Tromp documentatie, Almere Haven Centrum, Collectie Het Nieuwe Instituut / ABBT0031 / F78

Figure 66: Beeldbank van de Rijksdienst voor het Cultureel Erfgoed. (n.d.-b). Almere Haven-4 . Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/rce-beeldbank/837866ec-3f22-11e4-9dc7-3b4bf4a0ed46-407bd5f4-eae2-c061-083d-e4340401a617

Figure 67: Apon Berg Braak Tromp documentatie, Almere Haven Centrum, Collectie Het Nieuwe Instituut / ABBT0031 / F78

Figure 69: S Magazine. (1978). S Magazine, Bouwen is kiezen uit aantal mogelijkheden. S Magazine, (31), 14–17.

Figure 76: Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

Figure 77: Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

Figure 78: Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

Figure 79: Tromp, W., Nieuwenhuizen, J., & van Ruitenburg, P. (1977). Dokumentatie bouwtechniek. Delft.

figure 83: Gert Schutte. (n.d.). 16082 Kinderen bij een bord, de foto is gemanipuleerd. (s.d.). Retrieved from http://digitaalerfgoed.almere.nl/detail.aspx?id=1528519

Building technology

Figure 1: Rijksdienst voor de IJsselmeerpolders, P. (1977a). Zuidelijk Flevoland: Almere-Haven. Woningbouw. . Retrieved November 6, 2019, from

Figure 2: Rijksdienst voor de IJsselmeerpolders, P. (1977b). Zuidelijk Flevoland: Almere-Haven. Woningen. . Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/826452

Figure 3: Rijksdienst voor de IJsselmeerpolders, P. (1978). Zuidelijk Flevoland: Almere-Haven. Bouw hoofdwinkelcentrum. . Retrieved November 6, 2019, from https://www.collectienederland.nl/page/aggregation/batavialand-documenten/825294

FIGURE LIST