

# ELDERLY NETWORK & BARRIER FREE CONNECTION

Course: AR0540, AR0550, AR0560 Urban Design

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# SYMMARY

The Municipality of Rotterdam wants to realise an assisted living area (woonzorgzone) in Oud Charlois, a neighbourhood on the south bank of the city. This report contains a proposal how this area can be realised. The main parts of the report are an analysis, goals and strategy and a masterplan.

In Oud Charlois there are several urban problems, like safety problems, vacancy and low quality of housing and public space. The development of the assisted living area is therefore combined with urban regeneration. Also in the analysis both items are analysed.

Important principles in goals and strategy are:

- to stimulate elderly to live independent
- making elderly sustainable connected to the social network of the neighbourhood
- urban regeneration has to be environmentally and economically sustainable.

Together with this there is a big awareness that elderly are not homogeneous. Different lifestyles and preferences ask for different living environments and facilities.

In the Masterplan this results in a network of housing places and facilities. A diversity in housing typology and facilities shared with other users (non-elderly) as well. Urban interventions for providing those housing and facilities will be combined with improving bad areas in the neighbourhood. Because of dispersing housing and facilities, special attention is paid to traffic: the network of public transport contains a special bus dedicated for less mobile users, car traffic is reduced and streets are designed for pedestrians. Green areas are now often isolated and without a function. In the masterplan a green network is developed, together with the blue network. In the green areas shelters for elderly are provided.

# 1. Introduction

This booklet shows how an assisted living area can be realised in Oud Charlois. From the municipality of Rotterdam there is a wish to realise such an area in this part of the city. However in Oud Charlois nowadays there are several urban problems, amongst others about safety, vacancy and low quality of housing and public space. Developing the assisted living area should therefore be combined with urban regeneration.

As students from the Veldacademie (course AR0540 Urban Design) our aim was to develop a masterplan for creating an assisted living area in Oud Charlois. Because of combining urban regeneration with assisted living, the research contains two tracks: one about assisted living, one about urban regeneration. This methodology is explained in the second chapter.

Assisted living is a very broad notion so it is necessary to define more exactly what in this research is meant when talking about 'assisted living'. The third chapter deals with this, together with the question which services are needed for assisted living.

Chapter four is called 'Analysis'. Both tracks are analysed: assisted living (need for facilities) and urban regeneration (site analysis). But also the target group, the elderly, is analysed about lifestyles and social relations.

After defining problems, the direction of solution is defined in goals and strategy. Analysis, goals and strategy together are the input for the next chapter: Masterplan. This important chapter explains how an assisted living area can be realised in Oud Charlois. The masterplan is explained by several themes like 'living typology', 'green network' and 'public transport'.

After this there is a focus on realisation of the masterplan. The phasing of the project is discussed and stakeholders in this process are mentioned.

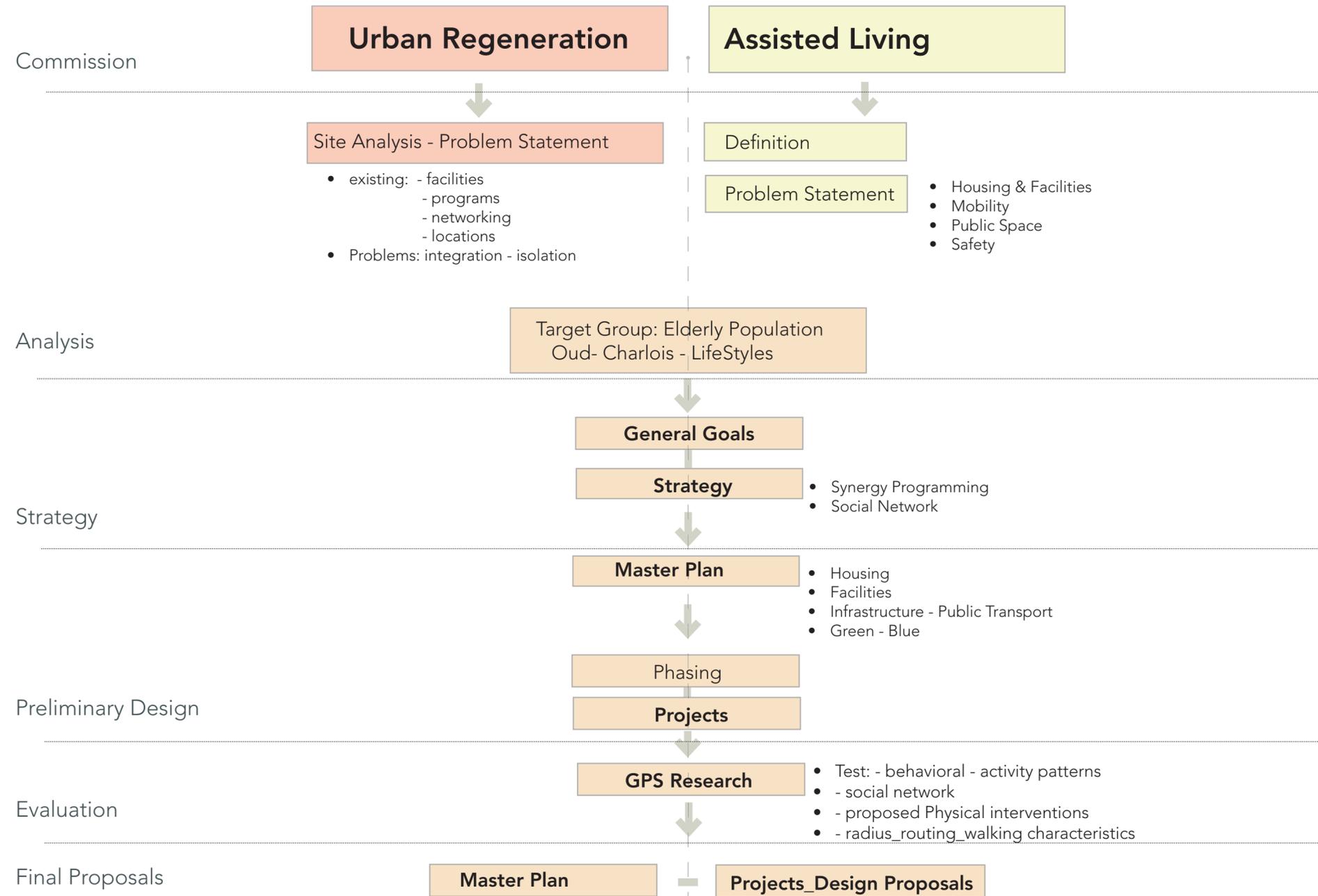
During the development of this masterplan a research is executed about mobility of elderly. With GPS receivers data about routing and choice of location of activities is gathered. The impact of the conclusions of this research on the assumptions of the masterplan are discussed in chapter 'Evaluation\_GPS research'.

The masterplan is a schematic design. To make it more detailed, after finishing the plan the participants worked individual on a specific part of the masterplan. A short overview is presented in the last chapter. For the individual work, the masterplan and the strategy behind it was the starting point. Therefore all the projects fits in the masterplan, it is a translation of the plan to real design. However, because of the fact that it are all individual projects they not necessarily correspond to each other.

## 2. Methodology



# Methodology Scheme



Elderly Network & Barrier free connection

Elderly Network & Barrier free connection

# 2. Methodology

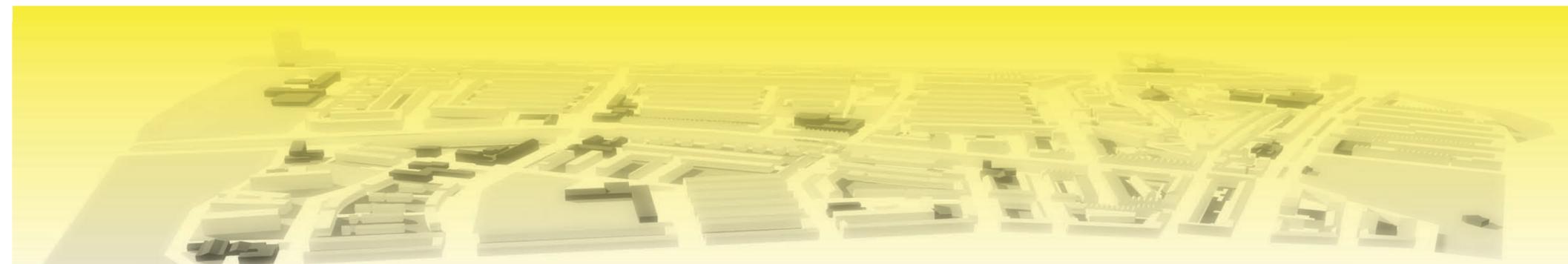
Within the cadre of the Urban Design (AR0540) course we were charged with a double commission, from the one hand to scout the implementation of the assisted living and moving in Oud Charlois, and to deal with the need of urban regeneration of the area from the other. This double commission recites the need of a parallel at the beginning, and combined later on work at tries to give an effective solution in both sides of the problem.

Thus, at the stage of the analysis we defined the range and needs of both phenomena and then we set their in-between relationship and connection within the area of Oud Charlois. The problem definition of those structured our set of goals and strategy towards assisted living and urban regeneration, aiming always to a synergic working of programs. This set of tools was then spatially translated to a Master Plan. The transition from planning into design come with the division to the 5 most important 'strategic' projects, which deal with a distinctive design task. At this point the group planning work superseded by the individual design proposals.

The evaluation of the propositions of Master Plan and individual design projects came in a great extend as a result of the comparison of the conclusion of the GPS research, that was conducted at one of the existing assisted living buildings of Oud Charlois, in order to weight the behavioral patterns, the mobility characteristics etc. of the elderly that live today in the area. The findings of this research help us to refine our propositions and finally puts account to the proposed measures.

Definition  
Needs & Services

### 3. Assisted Living



### 3.1 Assisted Living

#### Definition

Assisted living is for adults who need help with everyday tasks.

They may need help with dressing, bathing, eating, or using the bathroom, but they don't need full-time nursing care and Intensive Medical Care.

Assisted living facilities may be part of a retirement community, nursing home, senior housing complex, or may stand-alone so a person can move easily if needs change. Licensing requirements for assisted living facilities vary by state and can be known by as many as 26 different names including: residential care, board and care, congregate care, and personal care.

A wide range of individualized assistance should be available 24 hours a day from a professional caregiving staff in a physical and operational environment that wholly embraces the quality and character of home.

Assisted living costs less than nursing home care. It is still fairly expensive. Older people or their families usually foot the bill. Health and long-term care insurance policies may cover some of the costs. Medicare does not cover the costs of assisted living.

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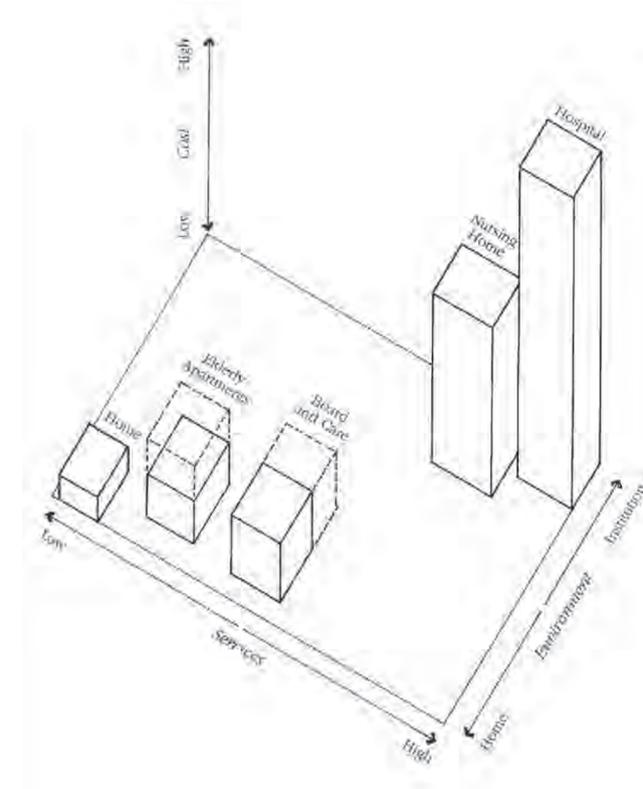


Figure 1-4 Multidimensional continuum of care model.

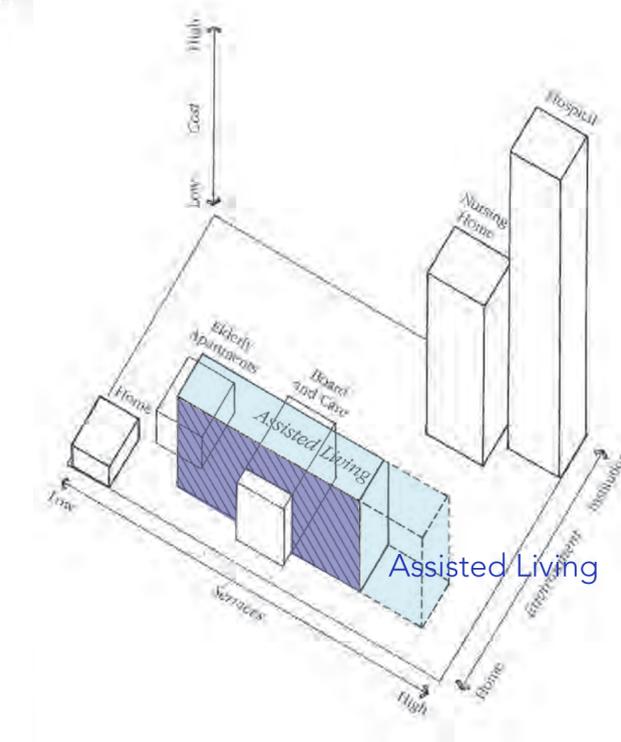


Figure 1-5 Multidimensional continuum of care model with assisted living.

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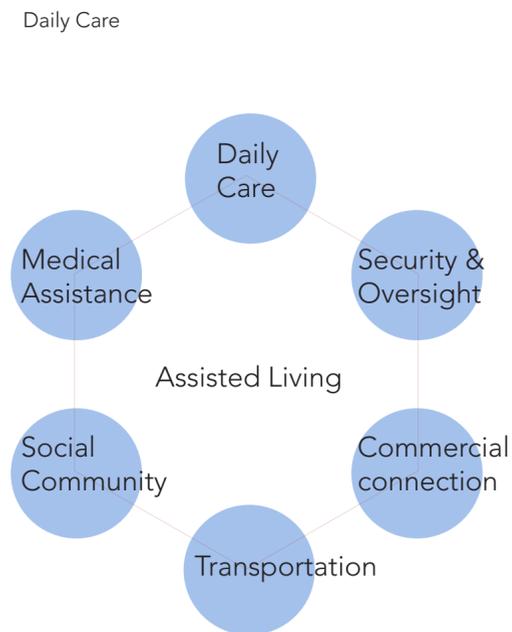
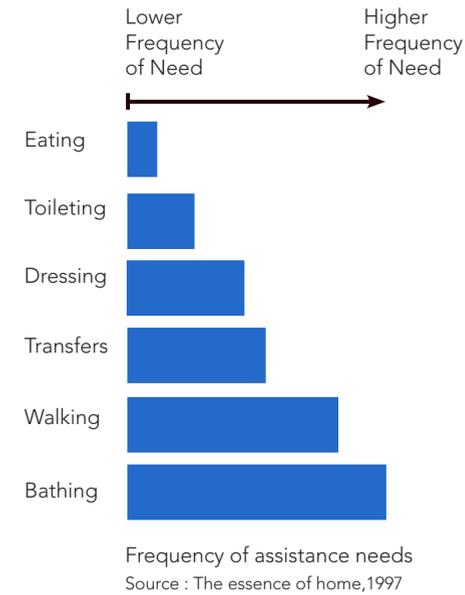
## 3.1 Assisted Living\_Needs & Services

### Common Problems and needs

- Sensory Modalities : hearing, sight, speech, tactiled of limited disabilities
- Mobility Impairments : wheelchair, scooter, walker... difficult to travel long distances.
- Incontinence : varying degrees of inability to control and self-manage bladder of bowel activity( Kalymun,1990)
- Security and Protective Oversight : Frailties, sensory impairments, mobility difficulties... higher risk of accidents or falling
- Meal Preparation and Monitoring : Fatigue...inability to access markets
- Medication Monitoring and Assistance
- Grooming and Hygiene Cueing and Assistance : bathe, toilet, groom, dress...
- Ability Maintenance and Enhancement : physical, intellectual, emotional support... for well-being and sustenance of quality of life.
- Respect of and Opportunities for Expression of Choice, Control, Dignity, Privacy, and Independence.

### WHAT SERVICES ARE PROVIDED?

- Personal Care (daily living) : Grooming, bathing, dressing, eating, ambulation, transfer, toileting, laundry, and housekeeping
- Medical Assistance : Monitoring, Counseling, Appointment-making, supervision Health care management
- Security and Protective Oversight : 24hour emergency call, medical alert, security group with alert staff and friends.
- Meal Preparation
- Social Activities and Community Connections
- Commercial Connections
- Transportation

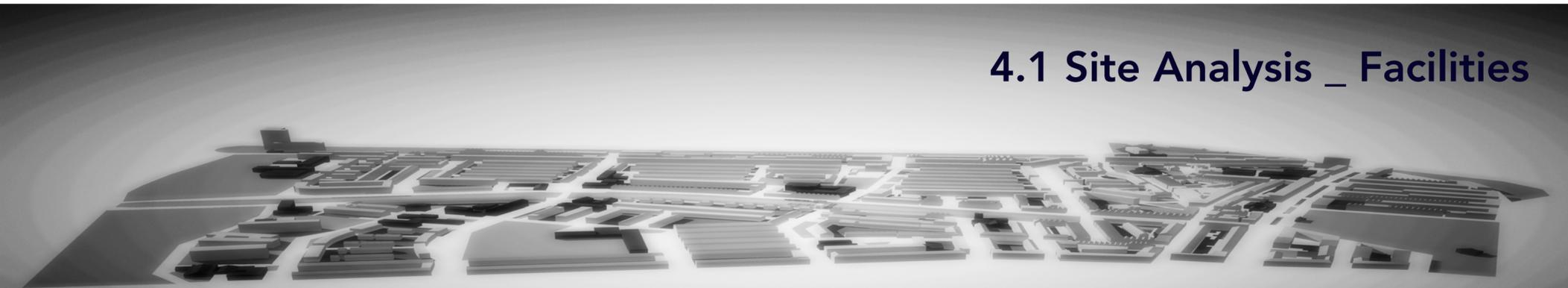


Elderly Network & Barrier free connection

Site Analysis - Facilities  
Problem Statement\_Urban Regeneration  
Social Network

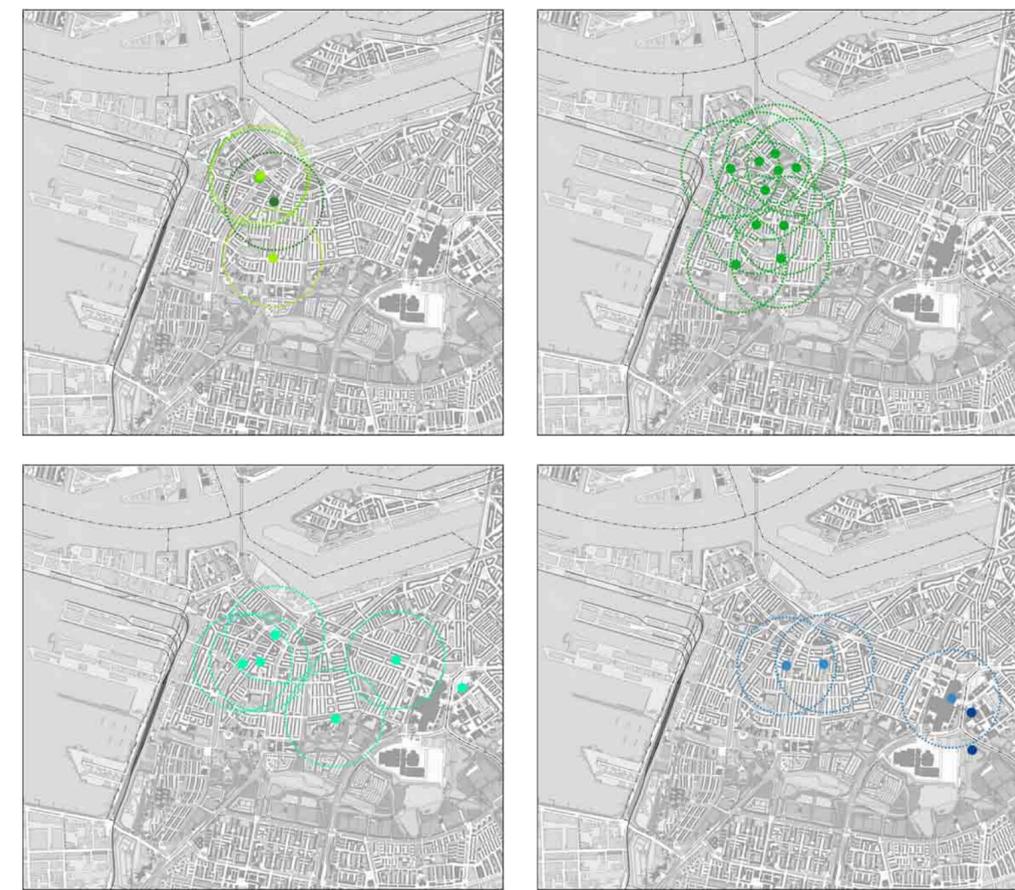
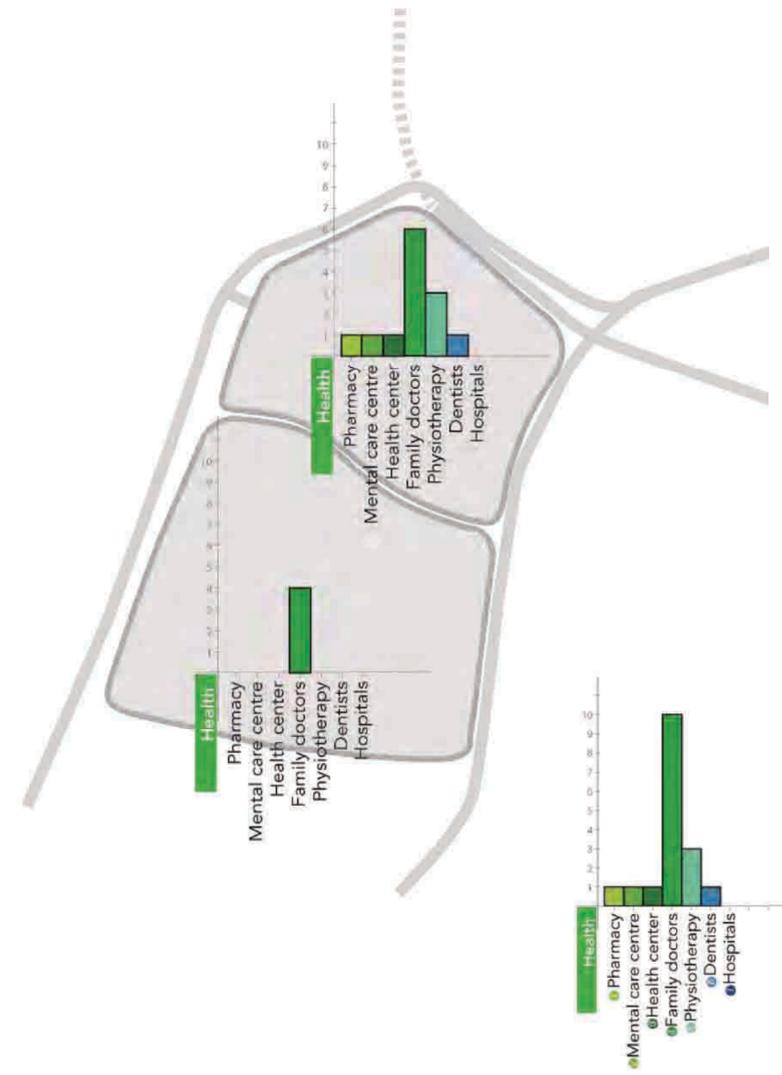
## 4. Analysis





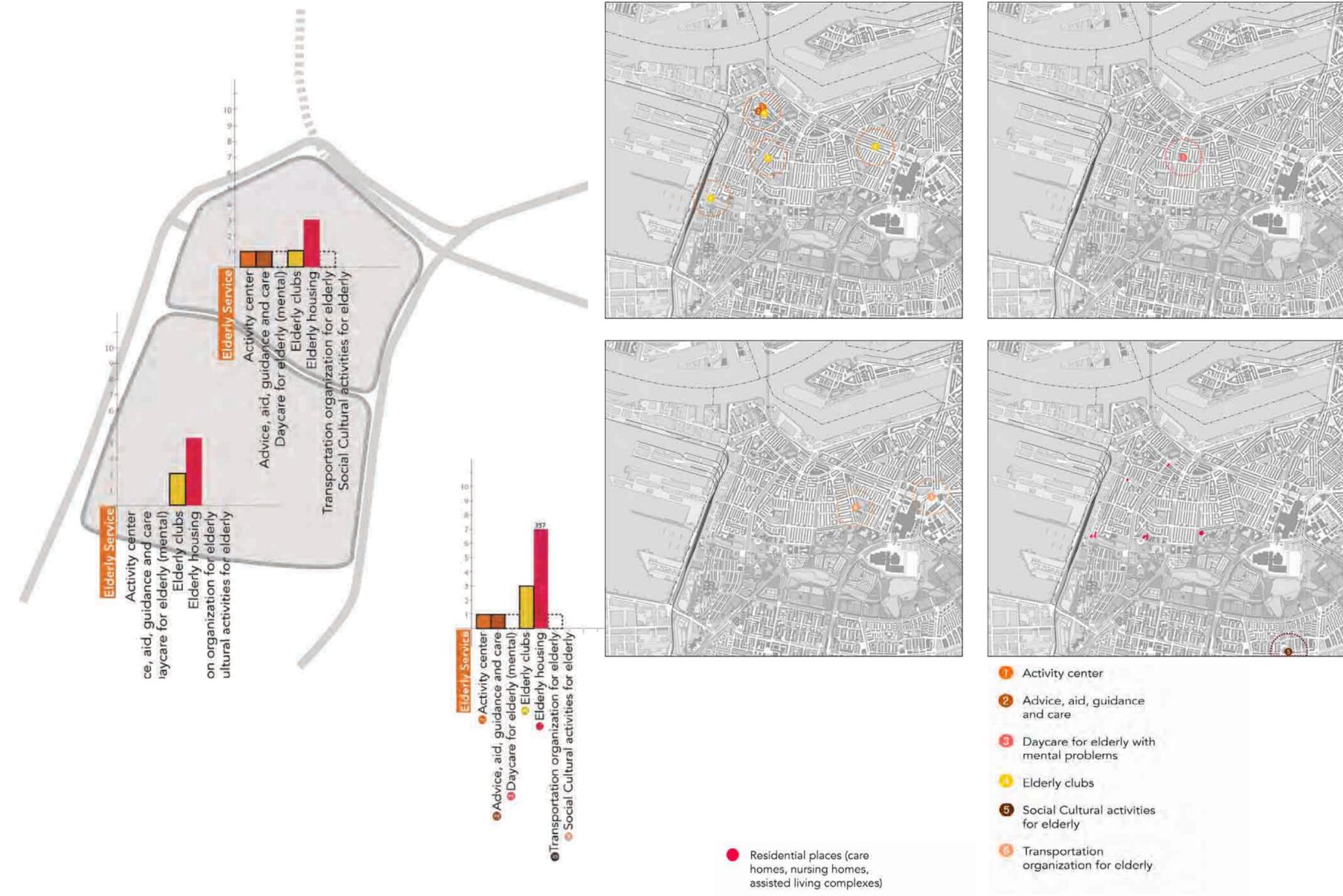
# 4.1 Site Analysis \_ Facilities

## 4.1.1 Health service for elderly



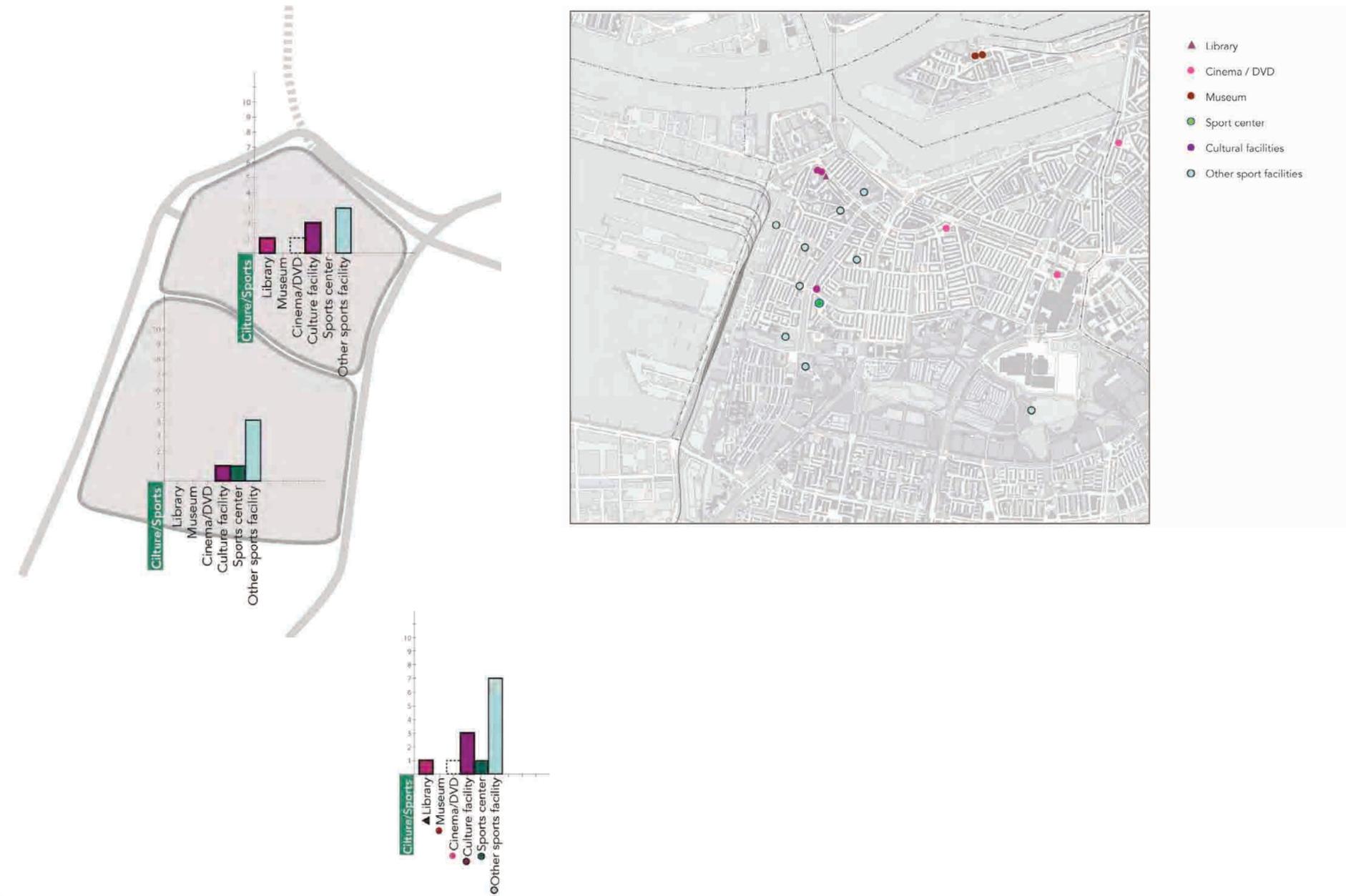
- 1 Pharmacy
- 2 Mental care centre
- 3 Health center
- 4 Family doctors
- 5 Physiotherapy
- 6 Dentists
- 7 Hospitals

## 4.1.2 Service for elderly



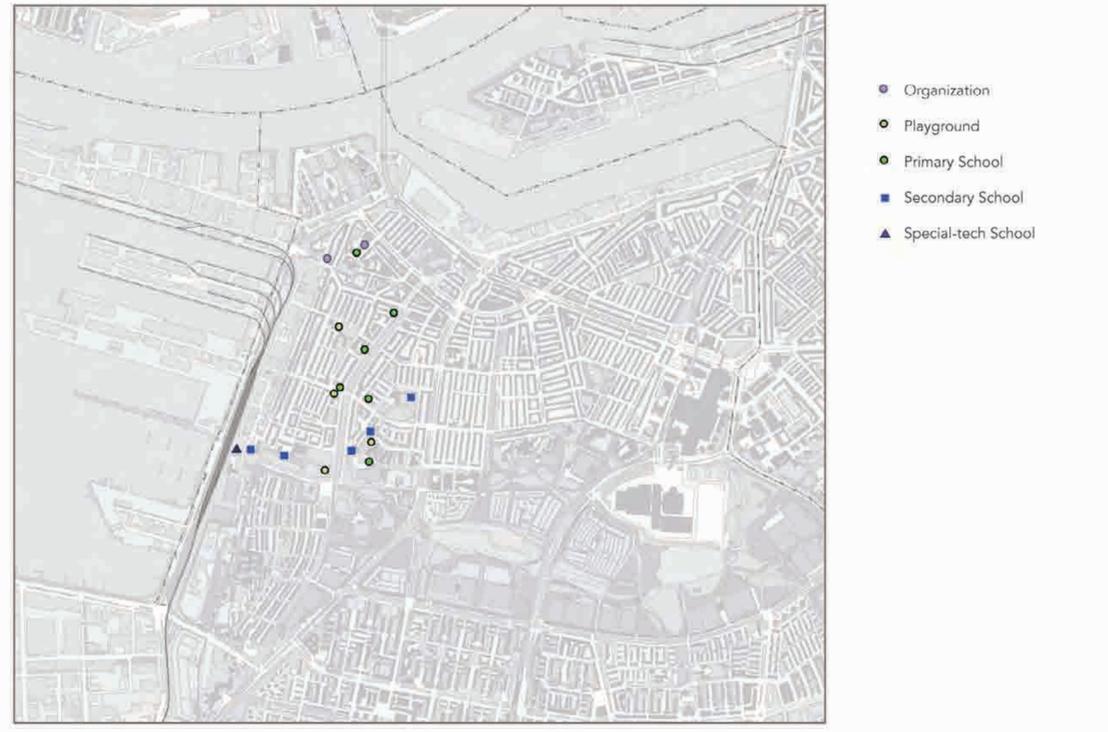
Elderly Network & Barrier free connection

## 4.1.3 Culture & Sports



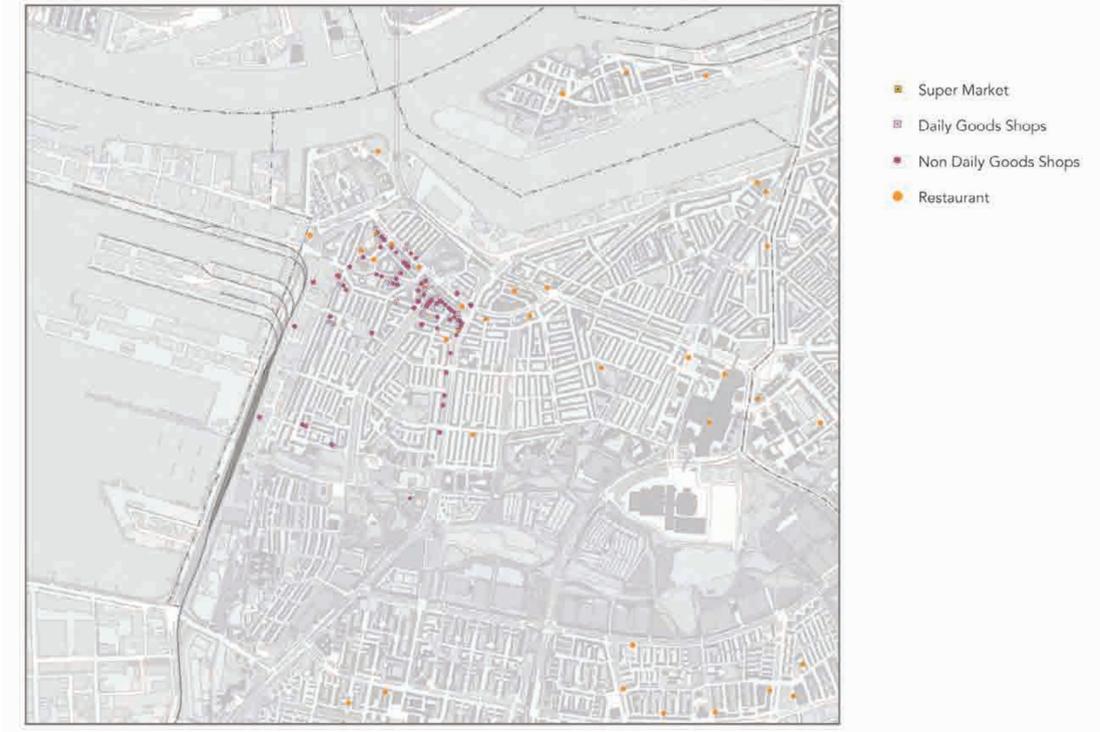
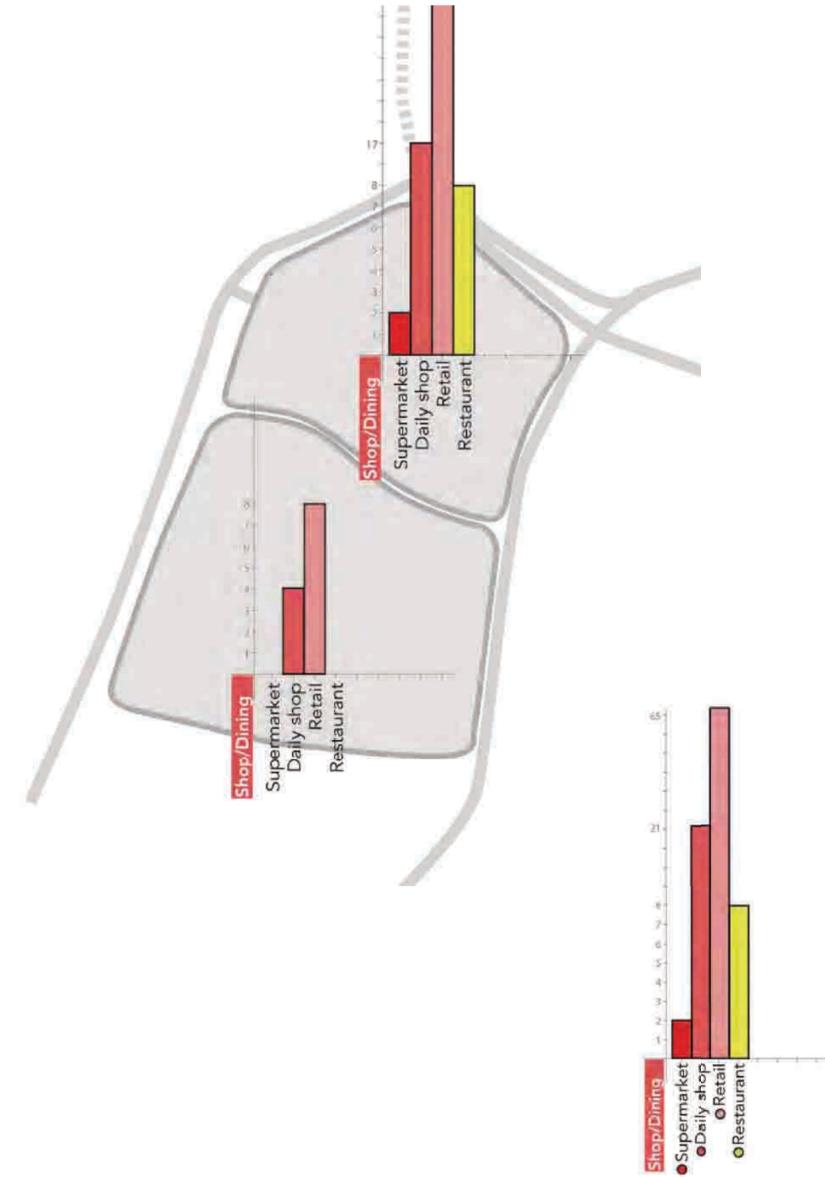
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## 4.1.4 Education



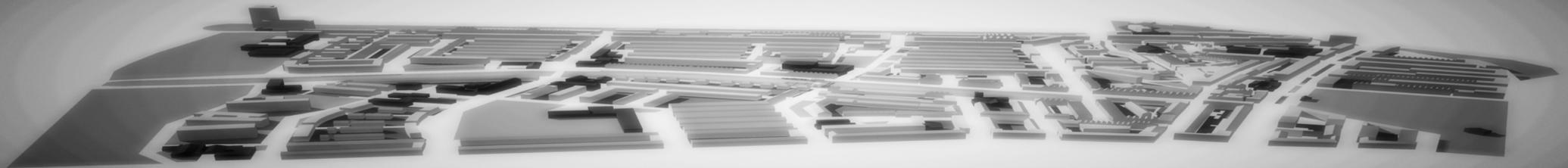
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## 4.1.5 Daily living & Shopping



tion

## 4.2 Problem Statement\_Urban Regeneration



### 4.2.1 Programme Statement\_Regeneration Problems

Public space / Housing / Mobility / Safety



**unconnected public green**

In Oud-Charlois are several green places like parks and playgrounds. However most of them are isolated from each other and not connected.



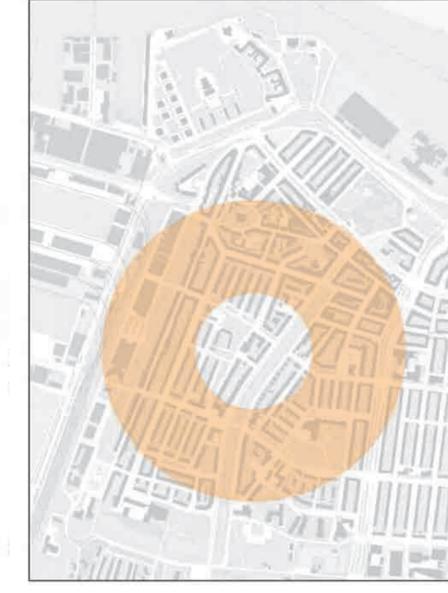
**Public green not functional**

Public green, especially the grass, is often used only as a way to fill empty spaces. The green has no specific function and is therefore also not attractive.



**Barriers through the neighborhood**

Traffic roads and water make some barriers in the neighborhood, especially when there are no or unclear crossing possibilities.



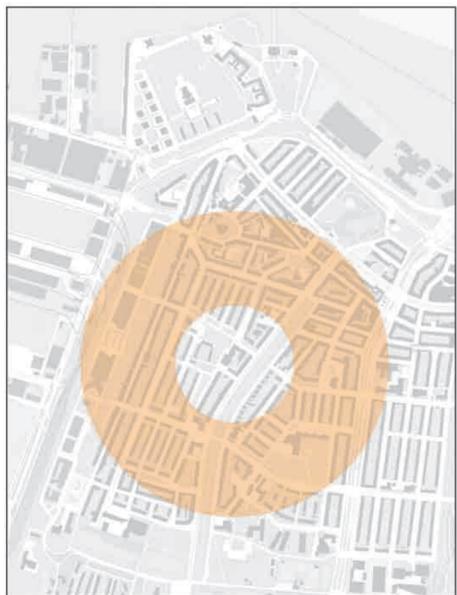
**no event public place**

There are existing public places where there are no attractive activity happened such as market or celebration.



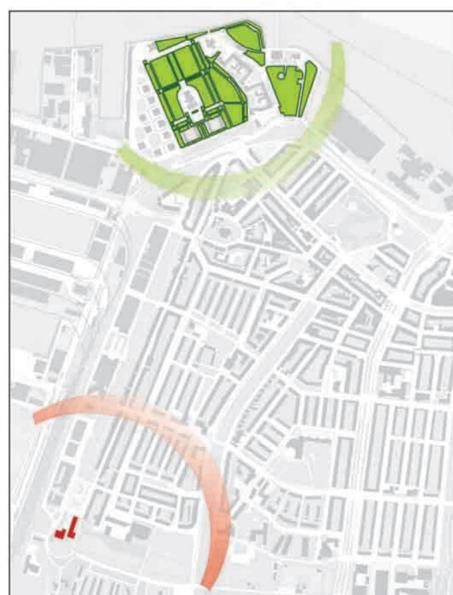
## 4.2.2 Programme Statement\_Regeneration Problems

Public space / Housing / Mobility / Safety



### Street furniture

There are not enough benches and other street furniture to support walking over a longer distance.



### isolation area

Several areas in Oud-Charlois are isolated: the Charloise Hoofd; the South-West corner around Waelestein; the area at the west of the dike 'Zuidhoek'.



### Low quality of housing

The quality of many post-war houses is low: high density, limited amount of floor space, low quality materials and not well maintained.



### Vacancy

In some streets many houses are empty.



## 4.2.3 Programme Statement\_Regeneration Problems

Public space / Housing / Mobility / Safety



### Insufficient reach of facilities

On average there are enough facilities in Oud-Charlois. However, facilities are located in such a way that their radius does not cover the whole area. Especially for less mobile people some facilities are therefore difficult to reach.



### Changing demand elderly housing

The demand for elderly housing is changing towards more houses for independent (assisted) living. The existing housing stock however is not fitted for this.



### Inadequate public transport system

There are several problems with the public transport system. In the north there are many facilities but there is no bus- or tram stop. Also connections from north to south and vice versa are difficult, a transfer is needed. The design of vehicles and halting-places makes it difficult for elderly and disabled to enter and leave the vehicles.



### Low quality of pavement

At many places the quality of pavement and pedestrian routes is bad: a rough surface and no or too steep ramps. Therefore the pedestrian routes are not suited for elderly, children and disabled.



## 4.2.4 Programme Statement\_Regeneration Problems

Public place / Housing / Mobility / Safety



### car dominant roads

In Oud-Charlois there are several streets just designed for cars. Some big streets with wide lanes and a lot of parking places, little space for other ways of road using. Some narrow streets completely filled with cars.



### Lack of cycling routes

Only at the outside of Oud-Charlois there are cycling routes, not in neighborhood itself.



### Safety problems

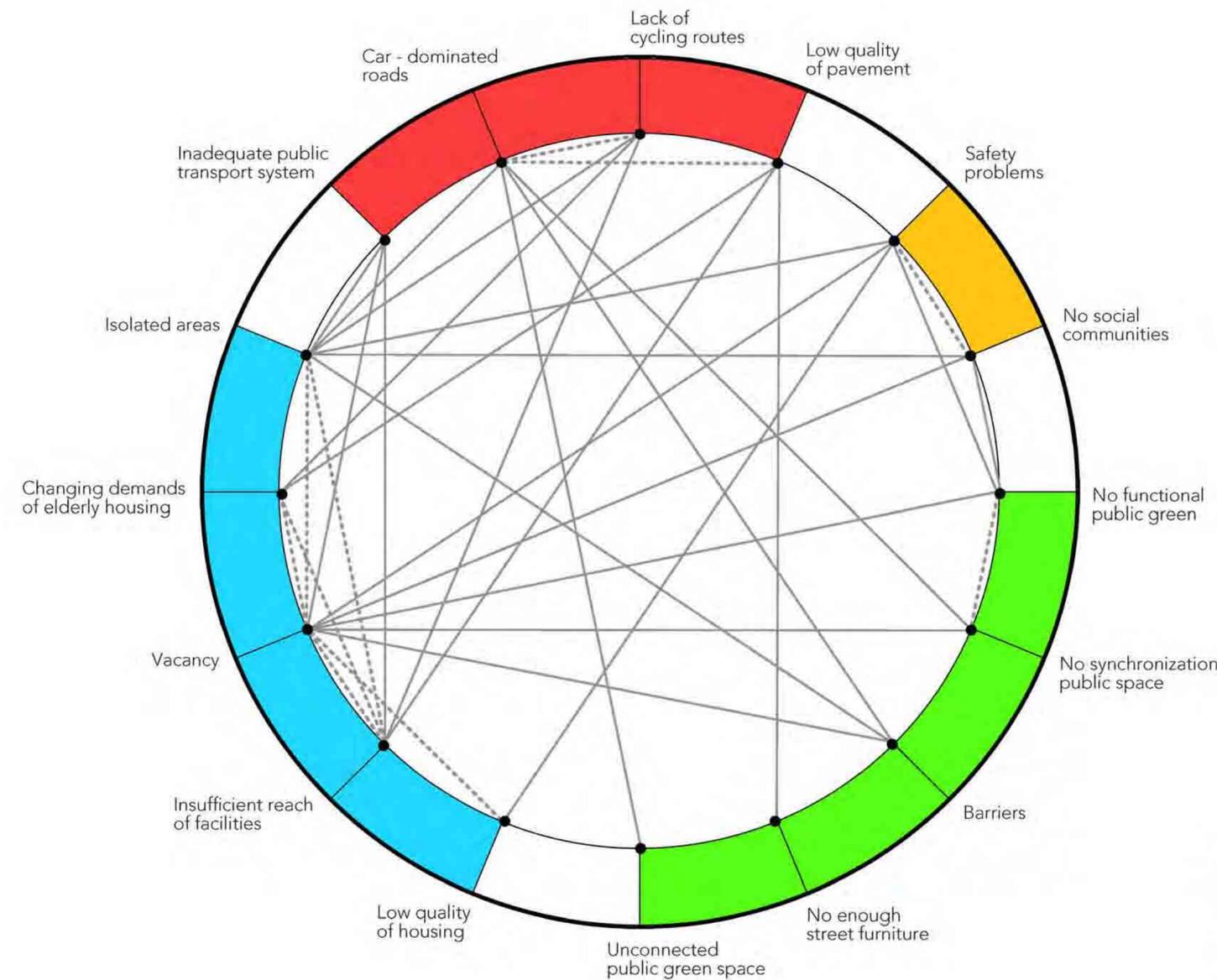
Many people perceive Oud-Charlois as an unsafe area. There is a low degree of social control. In some streets there is crime. In the area called the 'hotspot' there were problems with drug plantation.



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## 4.2.5 Programme Statement\_Regeneration Problems

Public space / Housing / Mobility / Safety



When analysing the urban fabric of Oud Charlois, quite a lot of problems appears. Many of them are related to the fact that it is not attractive to be outside your home. Because of a social community is often realised and maintained outside home, also this community weak in Oud Charlois.

Reaching an other destination is only ease when using a car. The quality of connections by public transport or by walking are not good. So the ways of transportation which encourage social contacts are in disadvantage. Only individualistic car driving remains. Also the green doesn't have an important social function because it is often difficult to reach, isolated and there are no places to rest, meet and talk.

Vacancy has a strong relation with the low quality of housing and is also caused by the unattractiveness of public space. Safety is influenced by many items, like vacancy, isolated areas and the lack of social communities. But it is difficult to find a direction in those relations. Most probably they will enforce each other: decrease of safety will result in more people who leave Oud Charlois. This migration results in more vacancy and less social community. Those two problems creates again a lower safety.

When trying to improve the neighbourhood of Oud Charlois, it is important to be aware of those relations. It will be not successful when only one of the related problems is solved, an integral approach is needed.

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## 4.3.1 Analysis\_Target Group

### Characteristics of Elderly's Population

- life expectancy for people now 65 years old: ≈ 84 years
- great between the variance within the population group of 55-∞ years old - as they belong to different generations, also reflected to their lifestyle
- Younger elderly have different standards, values, wishes and needs from the elder members of the group
- The younger members:
  - need less care
  - give greater attention to recreation
  - have better finances than the past
  - are still at the middle of the society, play significant role towards: businesses, social boards and voluntary work
- independency 70+ group:
  - 47% lives independent and with partner
  - 33% lives alone and independent
  - 20% not independent
- percentage living in care home / nursing home:
  - 70+ = 3%
  - 80+ = 17%
  - 90+ = 50%
- according to the future predictions :
  - higher percentages of independent living until greater age
  - becoming old together with their partner
  - more elderly without children
- Oud Charlois:
  - prediction: the population of 65+ will decrease in 2017, this is concentrated to people over 70,
  - the population of 50+ is falling in order to rise, towards 2017

### Trends

Diagram 1: Increase amount of elderly people

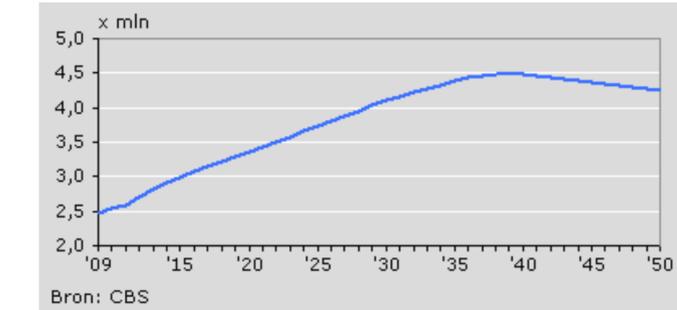
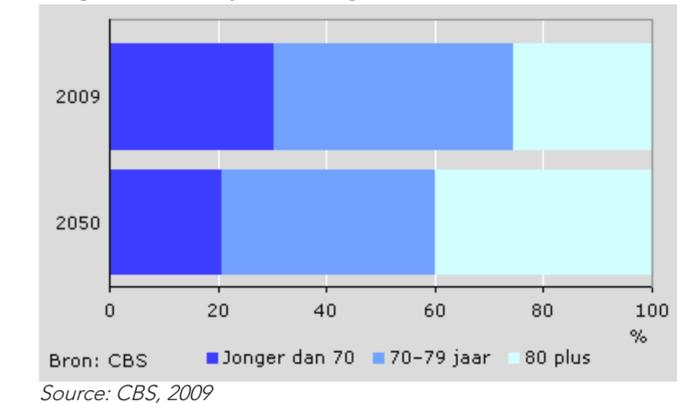


Diagram 2: Elderly becoming older



## 4.3 Social Network

### Generations

- 1910 – 1923: Traditional, great work ethic → The silent generation
- 1930 – 1945: pragmatic, skeptical, useful contribution → Baby-boom generation, protest generation
- 1946 – 1954: Free mentality, food → Generation X – lost generation
- 1955 – 1970: Independent, mobile, → Current generation of elderly:

- are not yet seniors
- have less children than the past
- more balanced between individual and collective
- better educational level

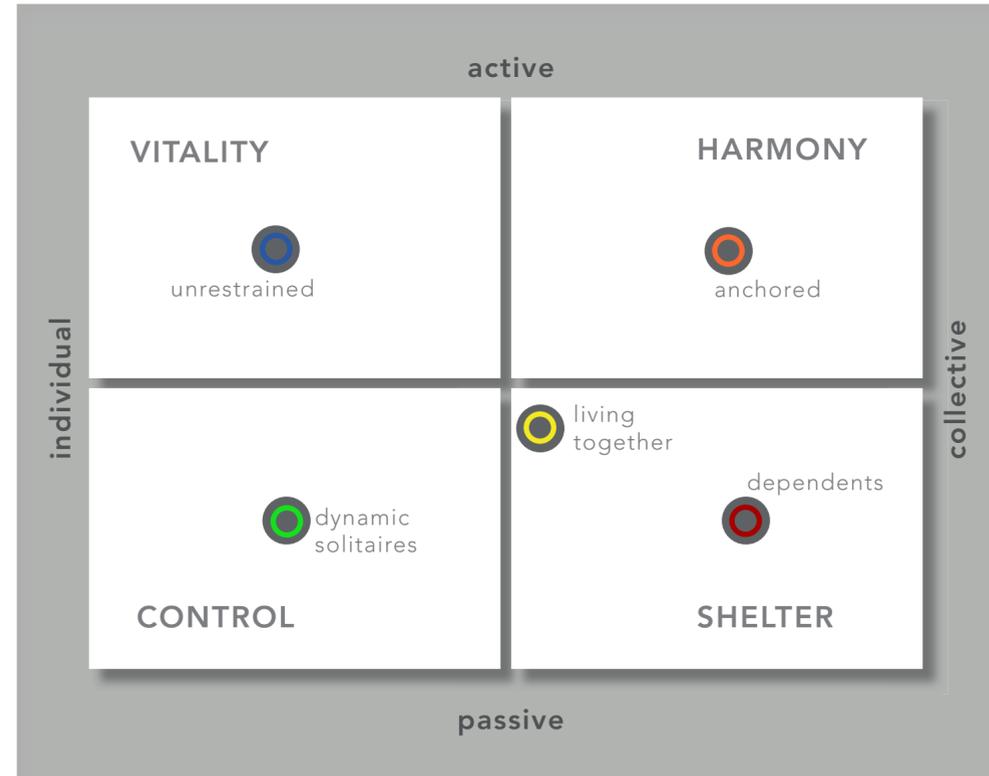
### 4.3.1 Analysis\_Target Group LifeStyles

In order to comprehend better the needs of the elderly's population we are given in a theoretical research about the needs, the interests, the physiological and psychological dependency of elderly, etc• that, in a few words compose the different population lifestyles. The different LifeStyles-scenarios that are described to the following pages constitute a theoretical assumption about people and are used as a systematic tool in order to approach a more differentiated and flexible design proposal.

The basic idea behind the lifestyles that were developed, comes from a 6-scenario scheme that is described at the Seniorenstad book, which presents an assumption about the different dominant lifestyles of elderly's population in 2025. In our theoretical approach we reduce the number of lifestyles to 5, in order to enhance the differences in between them. Thus the 5 different lifestyles oscillate in two scales, according to their mobility/dependency characteristics from active to passive and in correspondence according to their social conscience from individual to collective. [Unrestrained, Dynamic Solitaires, Living Together, Anchored, Dependent]

Then, the next step comes with the further elaboration of those lifestyles, in an effort to personalize them and give them generic and at the same time specific characteristics (for example: age, family situation, health condition, mobility, need for privacy, likes etc.) that would facilitate us to define their interests and needs (page 30 – 32). The different itineraries-scenarios that are described at the page 32 constitute a product of the correlation of the matrix appropriates of the page 31 in combination with the general distinction from active to passive and from individual to collective. At the diagram of the page 33, is given with a graphic way the distinction and the differences in-between the different types of lifestyles.

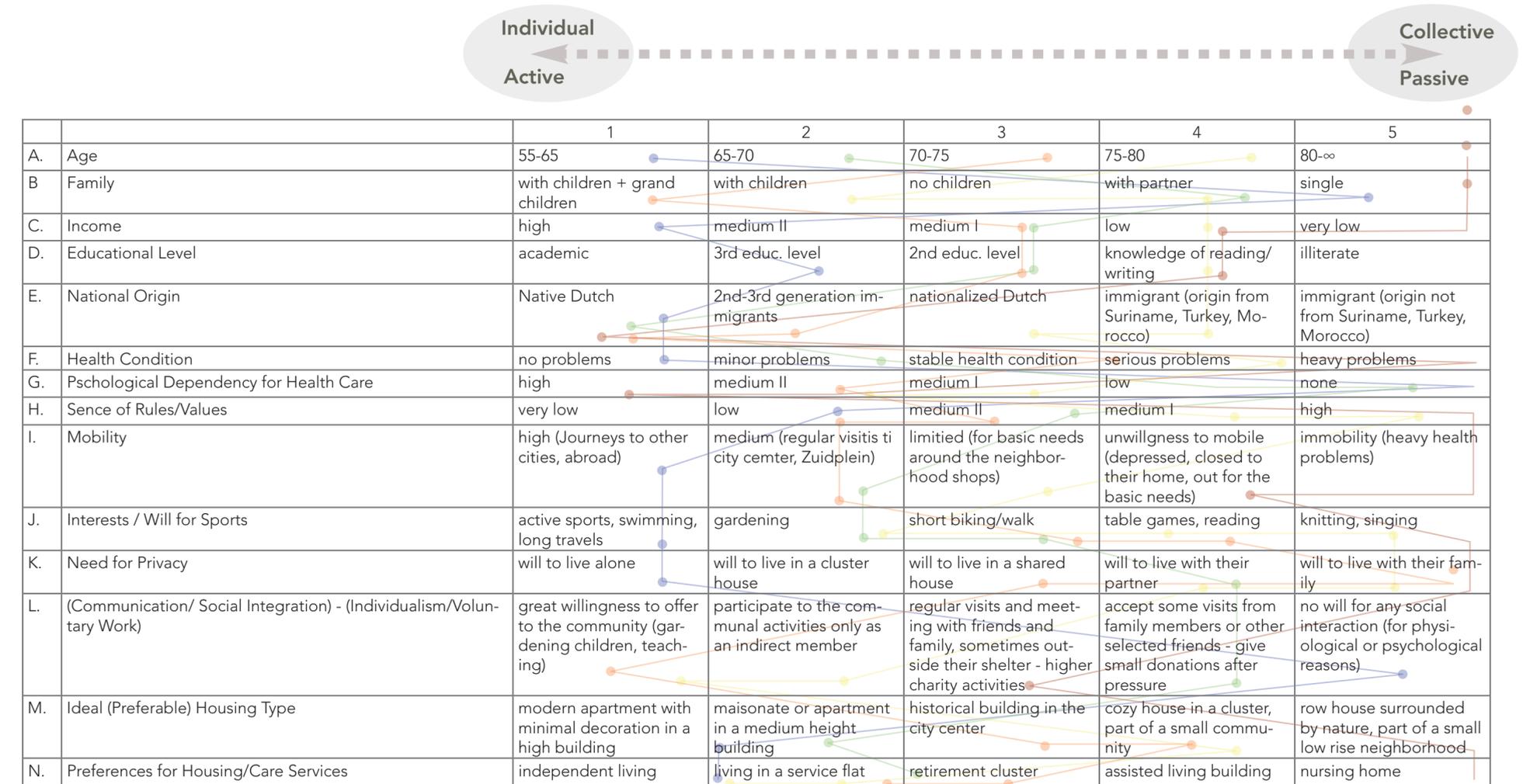
#### LifeStyles



Source: Seniorenstad, 2006

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### 4.3.1 Analysis\_Target Group LifeStyles\_Production Matrix



Elderly Network & Barrier free connection

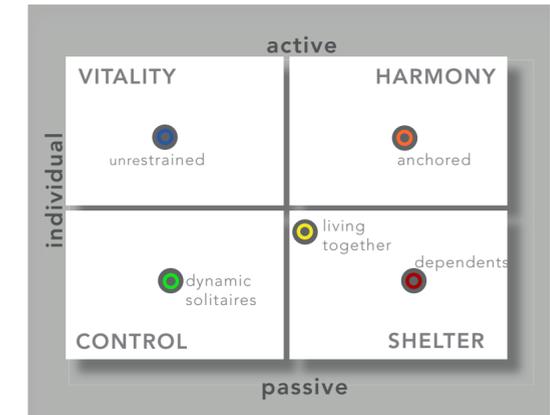
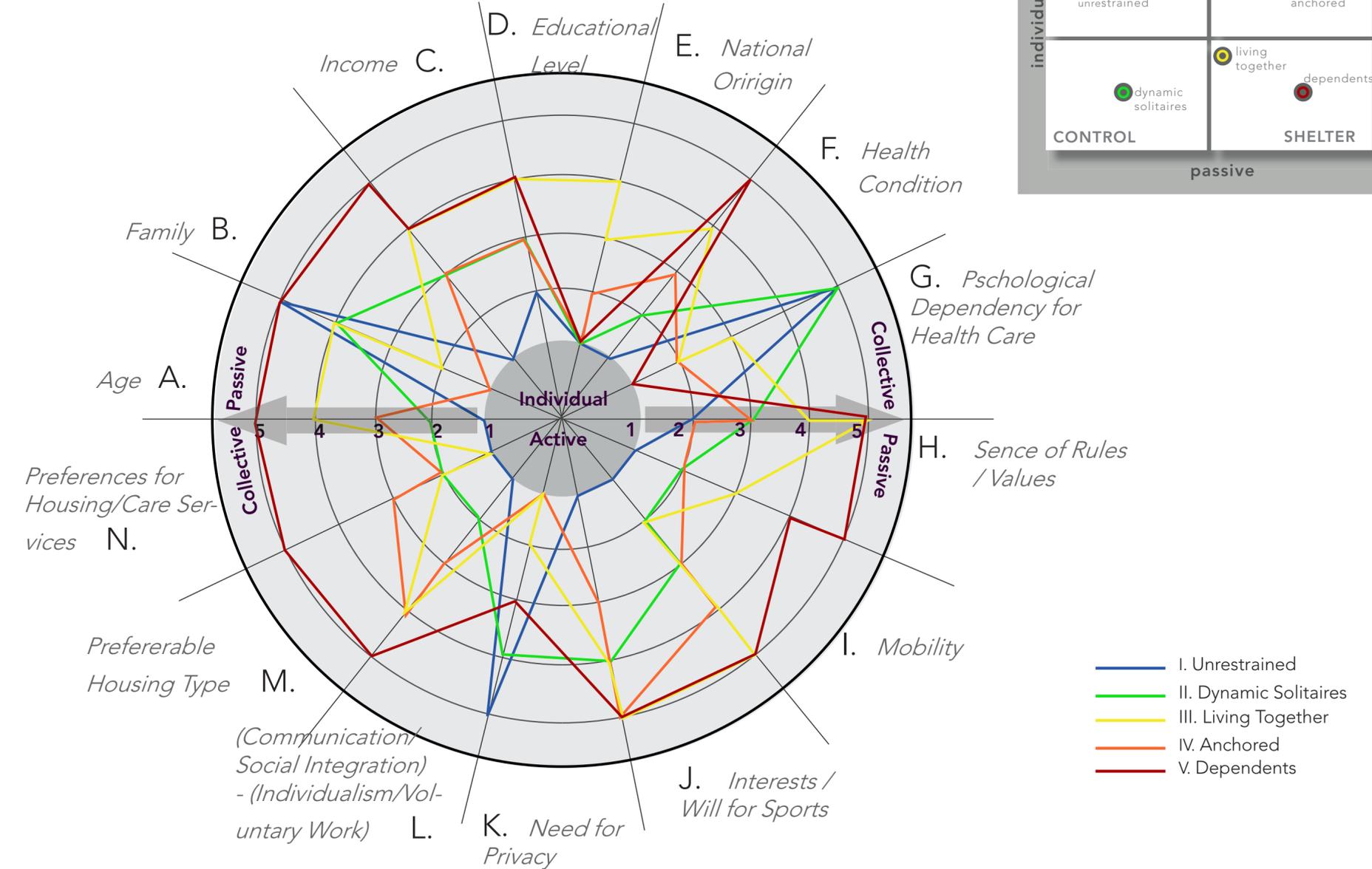
### 4.3.1 Analysis\_Target Group LifeStyles\_Scenarios

Individual - Active ←-----→ Collective - Passive

		I. Unrestrained	II. Dynamic Solitaires	III. Living Together	IV. Anchored	V. Dependents
A. Age		55-65	65-70	75-80	70-75	80-∞
B. Family		single	with partner	with children + with partner	with children + grand children	single
C. Income		high	medium I	low	medium I	low + very low
D. Educational Level		3rd educ. level	2nd educ. level	knowledge of reading/writing	2nd educ. level	knowledge of reading/writing
E. National Origin		Native Dutch	Native Dutch	nationalized Dutch + immigrant (origin from Suriname, Turkey, Morocco)	nationalized Dutch + 2nd-3rd generation immigrants	Native Dutch
F. Health Condition		no problems	minor problems	serious problems	stable health condition	heavy problems
G. Psychological Dependency for Health Care		none	none	medium II + medium I	medium II	high
H. Sence of Rules/Values		low	medium II	medium I + high	low + medium II	high
I. Mobility		high (Journes to other cities, abroad)	medium (regular visits ti city center, Zuidplein)	limited (for basic needs around the neighborhood shops)	medium (regular visits ti city center, Zuidplein)	unwillingness to mobile (depressed, closed to their home, out for the basic needs) + immobility (heavy health problems)
J. Interests / Will for Sports		active sports, swimming, long travels	gardening + short biking/walk	short biking/walk + table games, reading + knitting, singing	short biking/walk + table games, reading	knitting, singing
K. Need for Privacy		will to live alone	will to live with their partner	will to live with their partner + will to live with their family	will to live in a shared house + will to live with their family	will to live with their family
L. (Communication/ Social Integration) - (Individualism/Voluntary Work)		no will for any social interaction (for physiological or psychological reasons)	accept some visits from family members or other selected friends - give small donations after pressure	great willingness to offer to the community (gardening children, teaching) or participate to the communal activities only as an indirect member	great willingness to offer to the community (gardening children, teaching)	regular visits and meeting with friends and family, sometimes outside their shelter - higher charity activities
M. Ideal (Preferable) Housing Type		modern apartment with minimal decoration in a high building	maisonate or apartment in a medium height building	cozy house in a cluster, part of a small community	historical building in the city center + cozy house in a cluster, part of a small community	row house surrounded by nature, part of a small low rise neighborhood
N. Preferences for Housing/Care Services		independent living	living in a service flat	independent living + living in a service flat	living in a service flat + retirement cluster	nursing home

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### 4.3.1 Analysis\_Target Group LifeStyle Scenarios\_Diagram

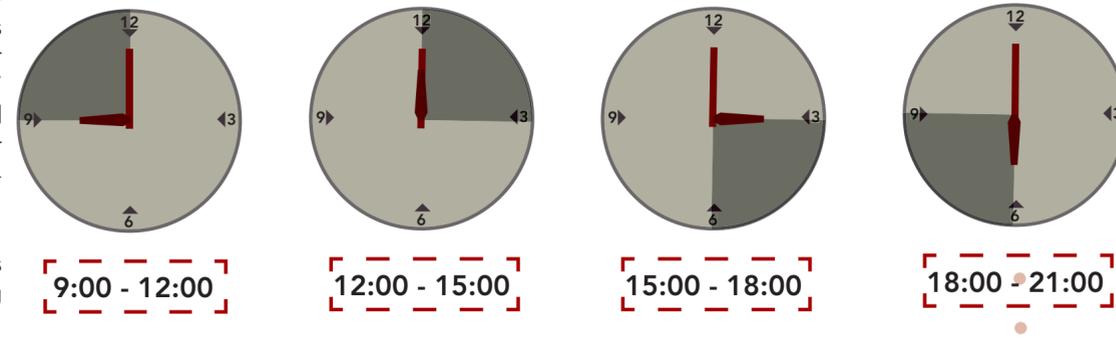


Elderly Network & Barrier free connection

### 4.3.2 LifeStyles\_Routing: 12 hours Analysis

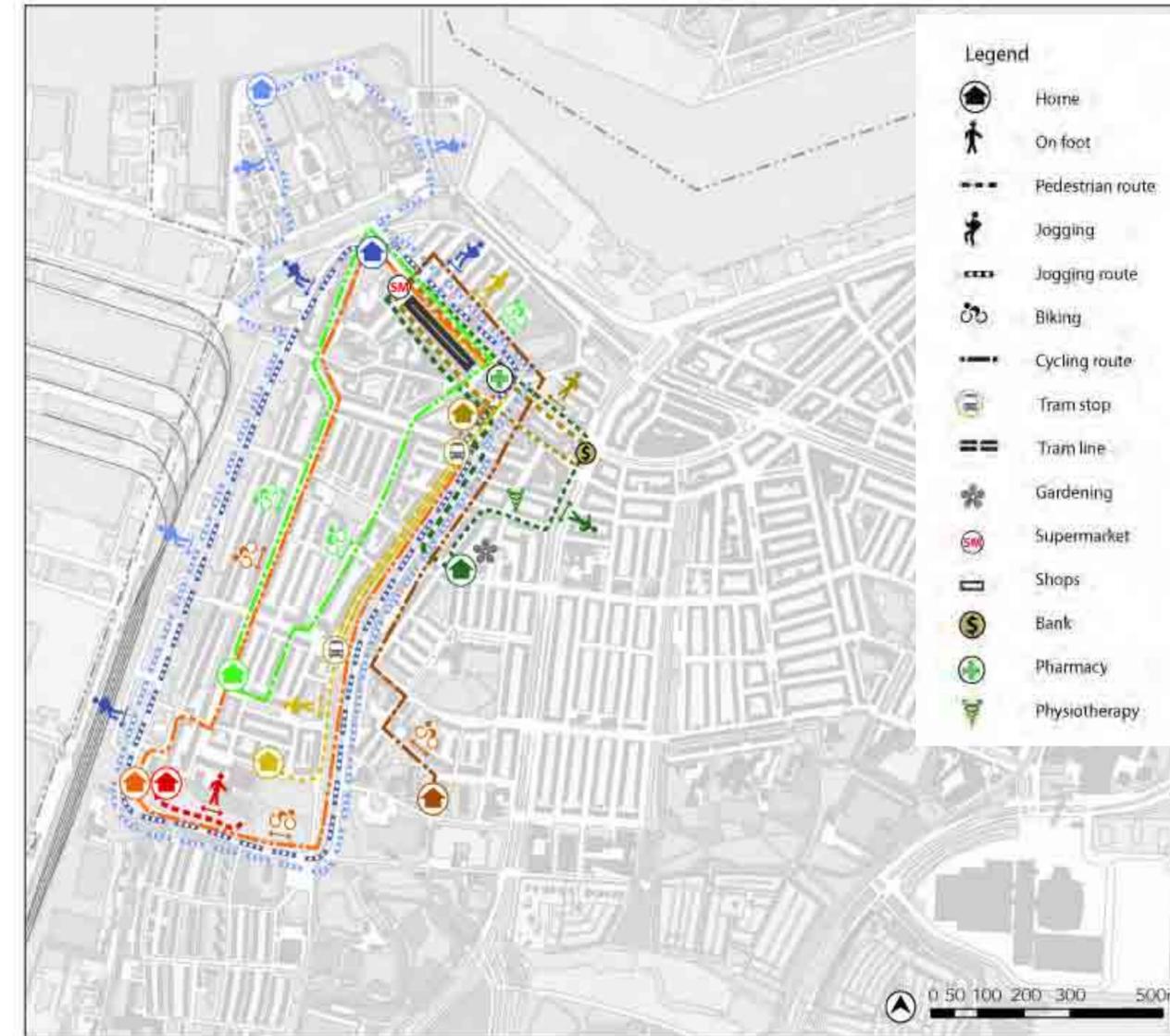
For the analysis of the movement of the population of elderly according to their 'hypothetical' model of lifestyle, it was chosen a 12hours recording of one 'hypothetic' day. Thus, in order to have a better overview of the spatial relationship not only in between the 'lifestyle' groups but also within the members of the same group, it is marked the routing of 2 representatives of the same group that have more or less the same mentality and schedule, but different location of residence within the borders of Oud Charlois neighborhood.

Furthermore in order to specialize more the general lifestyle schemes it was decided the personalization of the different models by giving them specific habits and characteristics.



	LifeStyle_Person	General Characteristics	Person A	Person B.
	I. Unrestrained	- 'Young' - active, sporty - individualism - high sophisticated	- living at the north-west edge of Oud Charlois near the waterfrond	- living at the edge of Oud Charlois at the inside area of Docklaan street
	II. Dynamic Solitaires	- native Dutch - small family - 'cozy at home' - reserved people	- living at the right side of the signal - interested in gardening, has space at its backyard for a garden	- living at the left side of the signal - no space to do its gardening around its house
	III. Living Together	- Immigrant origin - family orientated - living in family environment - extened social network among its fellow countrymen, quite integrated in Dutch society	- living close the historical center of Oud Charlois - 2nd generation Maroccan - able to visit regurally the Community Center	- living at the south of Oud Charlois - Surinamese - visits regurally the communal playground at the middle of the Oud Charlois
	IV. Anchored	- native Dutch - resently moved to assisted living - quite active an social	- live in the Waelestein assisted living settlement, at the south-west side of the neighborhood	- live in the Albatros assisted living settlement, at the south-east side of the neighborhood
	V. Dependents	- native Dutch - old, heavy health problems - living in a nursing home - limited mobility	- more mobile person, going for a short walk at the morning	- un-able to move - obligated to stay all day at the Waelestein nursing home

### 4.3.2 LifeStyles\_Routing (9-12 am)

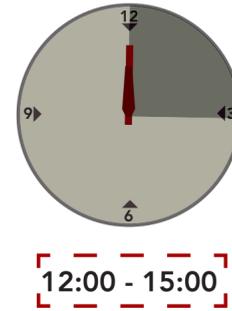
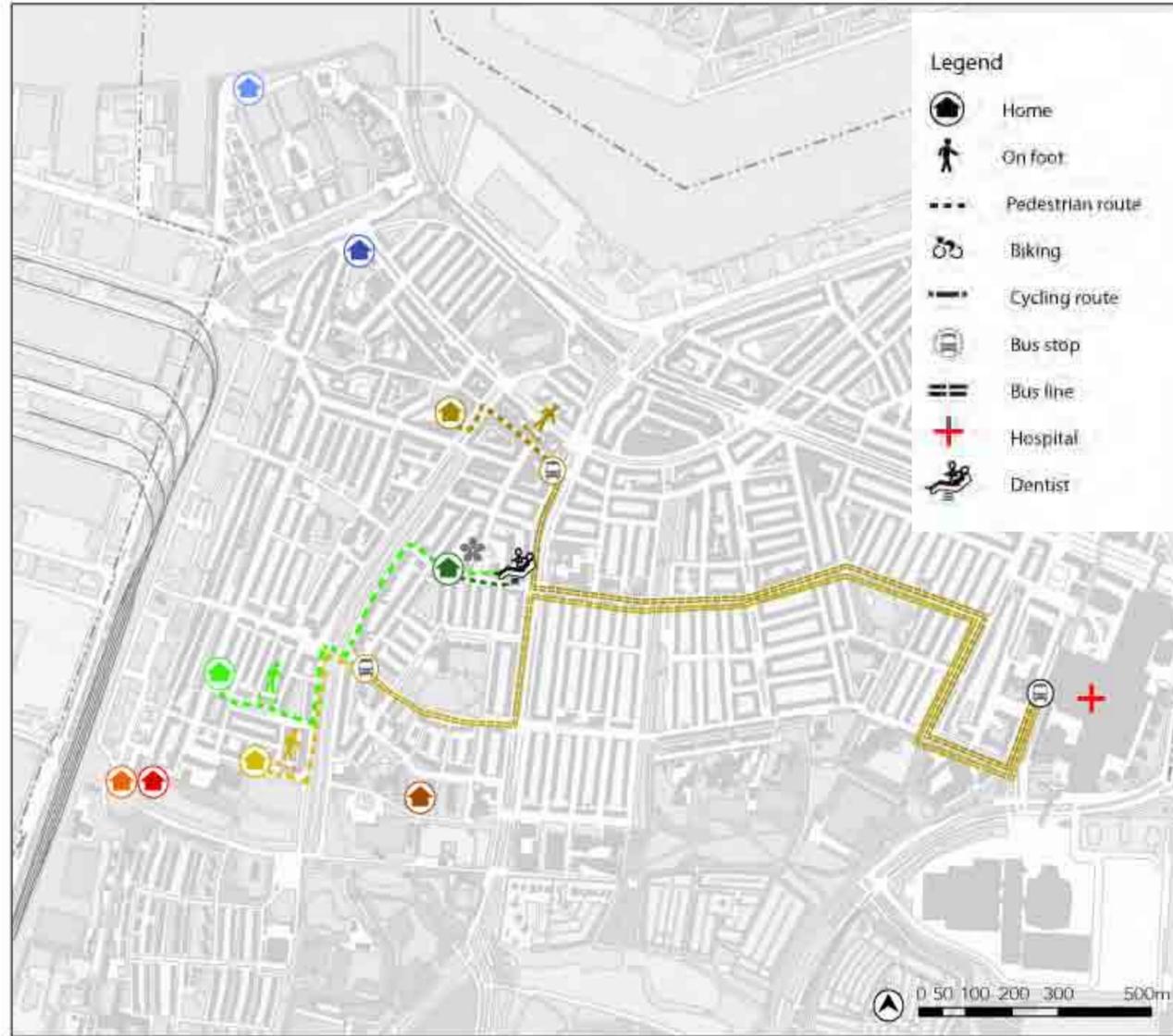


LifeStyle_Schedule	Person A.	Person B.
	I. Unrestrained - going for jogging - shopping to the local supermarket	- going for jogging - shopping to the local supermarket
	II. Dynamic Solitaires - gardening - bank + shopping - visit to the physiotherapist	- bank + shopping - visit to the physiotherapist
	III. Living Together - going to the pharmacy, the bank and the shops, walk	- going to the pharmacy, the bank and the shops, by bus
	IV. Anchored - Shopping by bike	- Shopping by bike
	V. Dependents - Short walk around the nursing home	- no movement outside nursing home

Elderly Network & Barrier free connection

Elderly Network & Barrier free connection

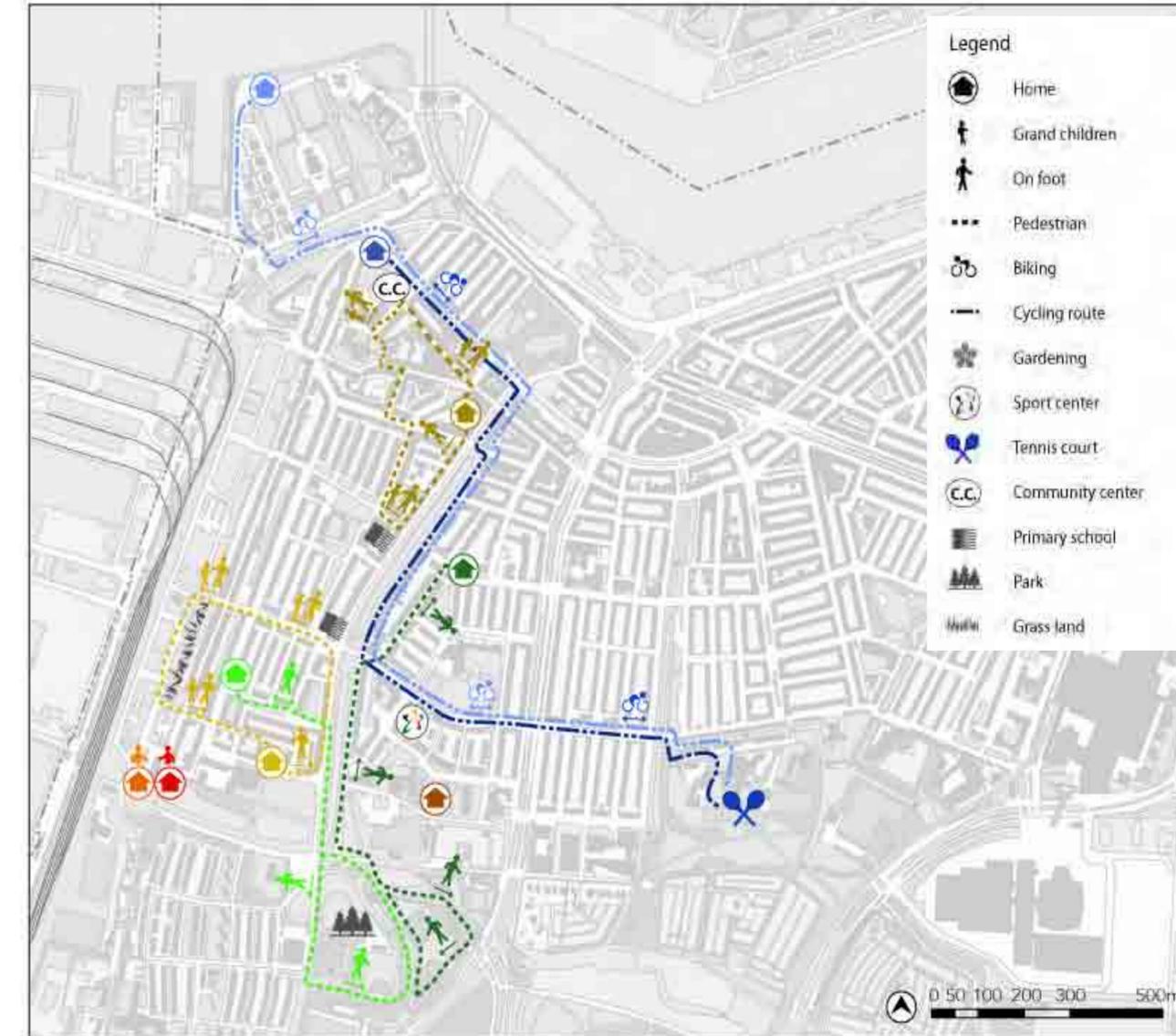
### 4.3.2 LifeStyles\_Routing (12-3 pm)



	LifeStyle_Schedule	Person A.	Person B.
	I. Unrestrained	- taking a short nap	- taking a short nap
	II. Dynamic Solitaires	- seeing the dentist	- seeing the dentist
	III. Living Together	- Appointment to the hospital, going by bus	- Appointment to the hospital, going by bus
	IV. Anchored	- Visit by their family doctor with in the assisted living building	- Visit by their family doctor with in the assisted living building
	V. Deponents	- Socializing with their coabitants	- Socializing with their coabitants

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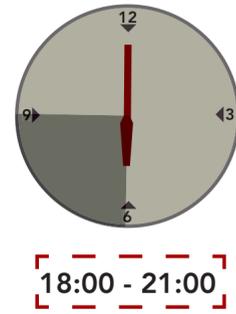
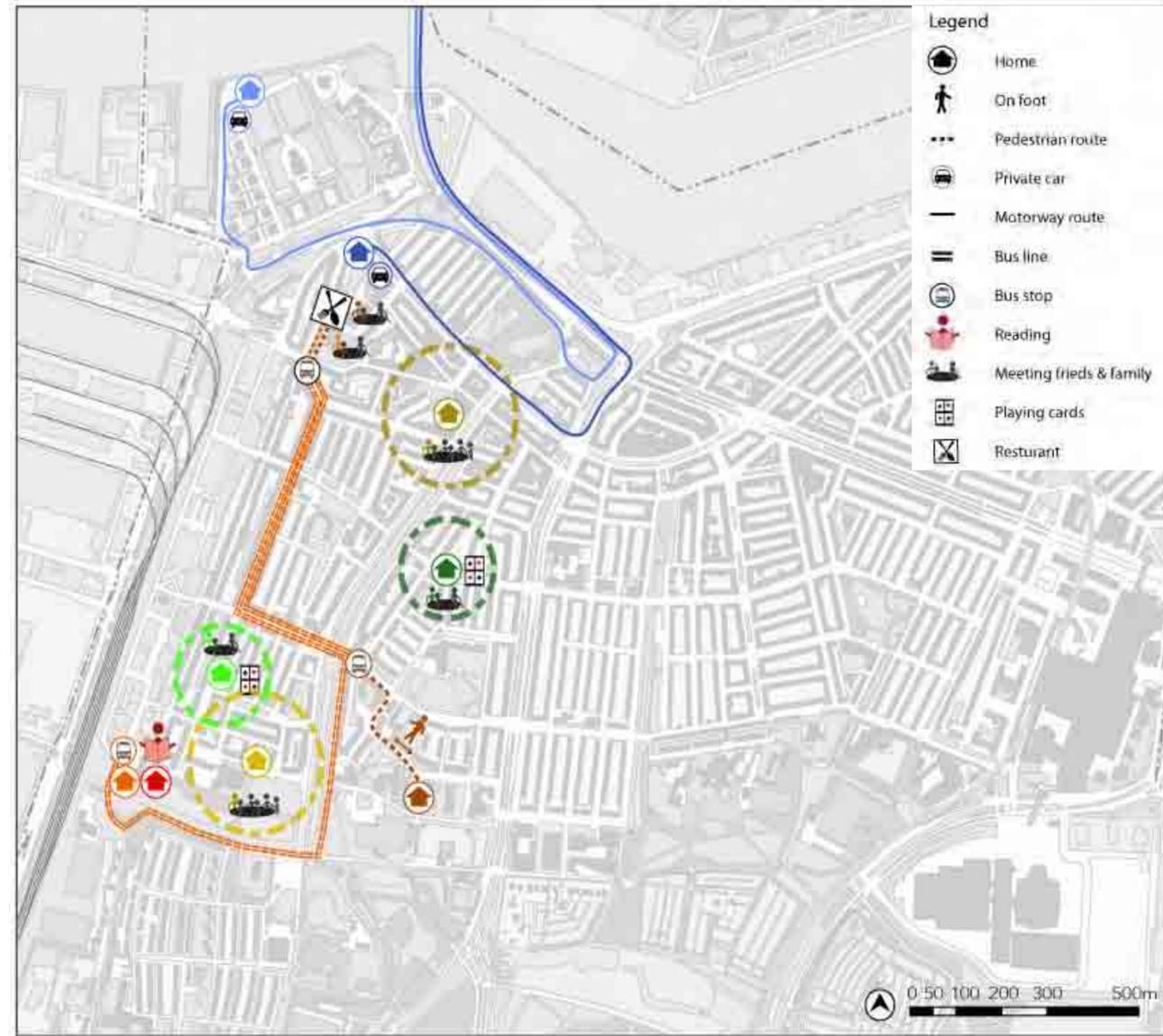
### 4.3.2 LifeStyles\_Routing (3-6 pm)



	LifeStyle_Schedule	Person A.	Person B.
	I. Unrestrained	- playin tennis, going by bike	- playin tennis, going by bike
	II. Dynamic Solitaires	- gardening or - short walk at the Zuiderpark	- gardening or - short walk at the Zuiderpark
	III. Living Together	- taking its grand-child from the primary school - accompany it to the community center, - attending the activities there - accompany it the way home	- taking its grand-child from the primary school - accompany it to the playground - waiting for it - accompany it the way home
	IV. Anchored	- Participating at the recreational facilities of the Waelestein nursing home	- Socializing with their neighbors
	V. Dependents	- Recreational facilities at the ground floor of their nursing home	- Recreational facilities at the ground floor of their nursing home

Elderly Network & Barrier free connection

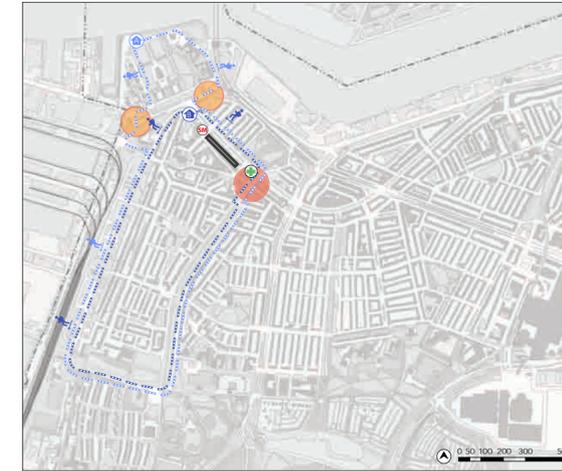
### 4.3.2 LifeStyles\_Routing (6-9 pm)



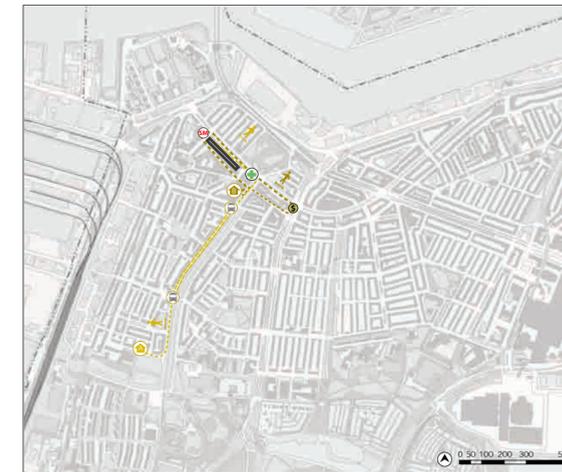
LifeStyle_Schedule	Person A.	Person B.
I. Unrestrained	- going to the city center by it private car for movie and an art exhibition	- going to the city center by it private car for movie and an art exhibition
II. Dynamic Solitaires	- playing cards with its partner and a friends from the around area at home	- playing cards with its partner and a friends from the around area at home
III. Living Together	- Dinner at a friendly house, for a celebration of a fete at their origin country	- Dinner at a friendly house, for a celebration of a fete at their origin country
IV. Anchored	- Dinner with their partner at the local restaurant, meeting their children	- Dinner with their partner at the local restaurant, meeting their children
V. Depenents	- Reading for some time before sleep	- Reading for some time before sleep

Elderly Network & Barrier free connection

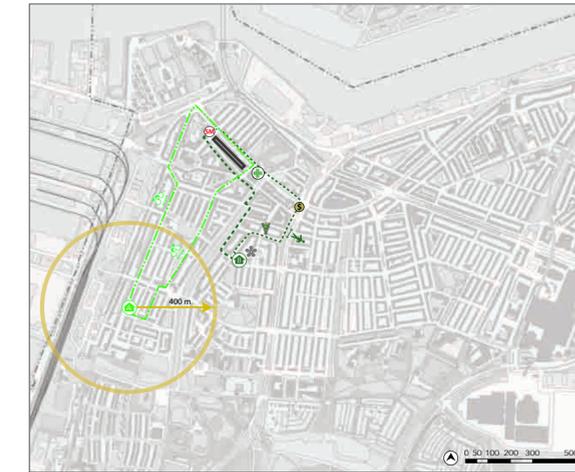
### 4.3.2 LifeStyles\_Problem Statement (9-12 am)



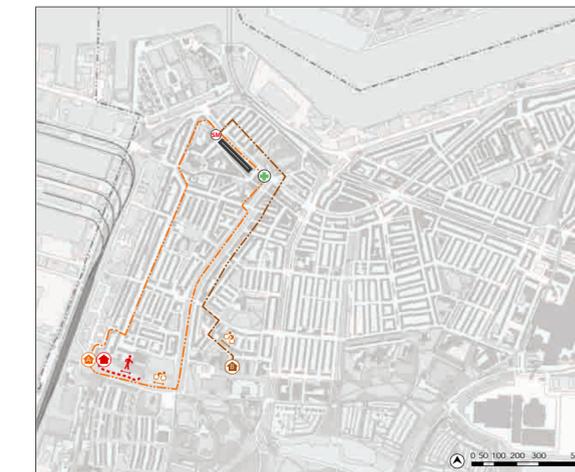
Unrestrained  
A. Have to cross the motor way



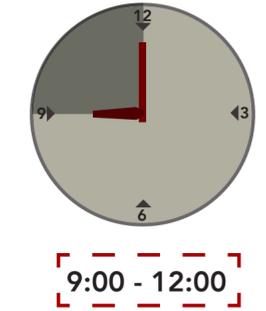
Living together  
A. If taking the tram, they have to walk around 300 meters to the tram stop, and after getting off the tram, they walk around 500 meters to the supermarket in the center. So the total walk distance is 800 meters, which is twice as many as the radius that the elderly could accept (400m).



Dynamic Solitaires  
A. No specific cycling routes to the center.  
B. Far away from the facilities in the center, if going there on foot



Anchored  
A. No specific cycling routes to the center.  
B. Far away from the facilities in the center, if going there on foot  
Dependents  
Lack of facilities to organise activities outdoors

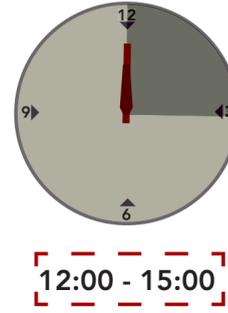


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### 4.3.2 LifeStyles\_Problem Statement (12-3 pm)



Dynamic Solitaries  
A. The dentist is about 1000 m away, which is out of the reach on foot.



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### 4.3.2 LifeStyles\_Problem Statement (3-6 pm)



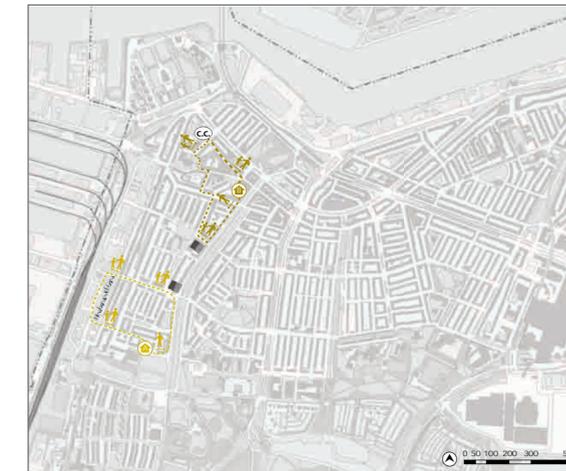
Unrestrained  
A & B. Far away from sports facilities, and no specific cycling routes to these sports facilities



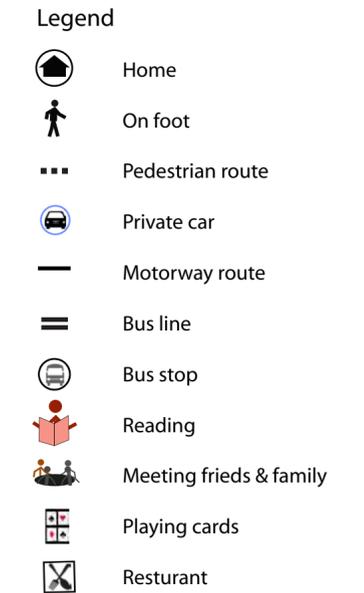
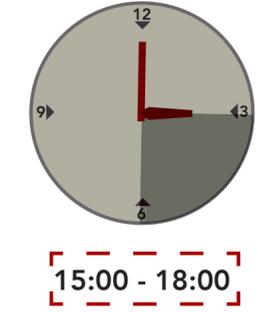
Living together  
The people live at the two places have no chance to meet.



Dynamic Solitaries  
A & B. Far away from the park if going on foot



Anchored  
No chance to meet.



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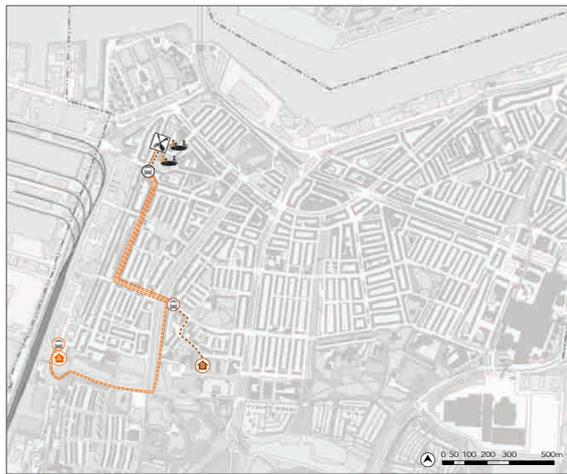
### 4.3.2 LifeStyles\_Problem Statement (6-9 pm)



Unrestrained  
No place for fun in the evening, have to go out to see a film



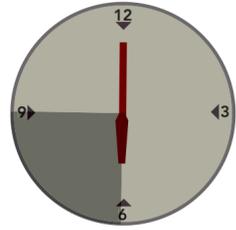
Dynamic Solitaries  
Staying at their own group, no connection with each other



Living together  
Staying at their own group, no connection with each other



Anchored  
A & B. Have to go to the center to enjoy dinner with friends and families, lack of choices.



18:00 - 21:00

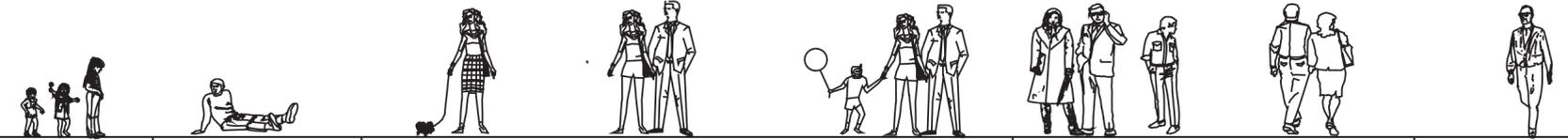
#### Legend

- Home
- Grand children
- On foot
- Pedestrian
- Biking
- Cycling route
- Gardening
- Sport center
- Tennis court
- Community center
- Primary school
- Park
- Grass land

Elderly Network & Barrier free connection

### 4.3.3 Social Network

Social sustainability of the overall social network constitutes a rather important aspect of integration process of the elderly population. Thus, in order to define the elderly population in comparison to the other age groups, we tried to determine the characteristics and needs of the overall population in terms of facilities needs.



Human Development	Childhood	Adolescence	Young Adulthood			Middle Adulthood		Maturity
Family Life	Childhood	Adolescence	Unattached Adult	Marriage	Family with young children	Family with adolescents	Launching of Children	Family on later life
Age	0-11	12-18	19-40			40-60		60-∞
Development	- Biological - Phycological	- Biological - Phycological	- Phycological			- Biological		- Biological - Phycological
Needs / Changes	- growing physically, - learning, - finding a place within the family	- acquire the cognitive, social, and emotional skills and abilities required to navigate life. The experience of adolescence varies for every youth: culture, gender, and socioeconomic class are important influences on development.	- differentiates her or himself from parents, - develops peer relationships, - establishes a place in the world of work	Forming of a new unit and realigning the individual self to incorporate a significant other into the established arrangement of family and friends	Tasks associated with this stage include adjusting to marriage, accommodating to children and parenting, and experiencing one's own parents as grandparents	Encompasses the fifth stage, where flexibility in parenting is required. Mid-life marriage, career, and concerns for the older generation are also present during this period	This is a time when parents once again become a couple, when they form adult relationships with their children, and when they may be required to face the illness, disability, and death of a spouse or parent	This is a time when the couple begins to decline, when they deal with losses, support the middle generation, and conduct a life review
Correspondant Facilities	- kindergardens - playgrounds - organization for activities - school - safety - pedestrian friendly streets - green / recreational area	- school - recreational area - sports fields - community center for youth - cultural activities	- college / university - sports fields - bars / cafes - community center for youth - more specialized cultural activities / facilities - green / recreational area - jobs - supermarket - fast transportation - connection to city center	- bars / cafes - sports fields - jobs - supermarket	- kindergardens - playgrounds, parents and children are staying together - sports fields - private garden / their own home (more privacy) - consultancy agencies for children	- health care consultation - consultation to take care their children and their old parents - educational facilities for their children - sports fields - supermarket	- health care consultation - culture / community facilities - recreational areas - sports facilities - supermarket	- health care package - assisted living areas - recreational areas - culture / community facilities - special activities - sports fields - safety - pedestrian friendly streets - private garden (more privacy)

Elderly Network & Barrier free connection

### 4.3.3 Social Network Correlation Facilities Table

Advantaging more at the approach that was presented at the previous table, this time we clarify the correlation in-between the elderlys' population and the other age groups. The red dots at the first column signify the common facilities that elderly can meet more people representatives' members of the other age groups.

CORRESPONDANT FACILITIES	FAMILY LIFE - AGE GROUPS							
	Childhood	Adolecence	Unattached Adult	Marriage	Family with young children	Family with adolescents	Launching of Children Family	Maturity - Family on later life
	1	2	3	4	5	6	7	8
- Kindergarten	✓				✓			
- Playground	✓				✓			
- Community center for children	✓	✓			✓	✓		
- Primary School	✓				✓			
- Secondary School		✓				✓		
- Cultural center ●		✓	✓	✓		✓	✓	✓
- Recreational area ●	✓	✓	✓	✓	✓	✓	✓	✓
- Sports fields ●		✓	✓	✓	✓	✓	✓	✓
- Bars				✓	✓		✓	
- Cafes ●			✓	✓	✓	✓	✓	✓
- Supermarket			✓	✓	✓	✓	✓	✓
- Safety ●	✓				✓			✓
- Privacy areas					✓			✓
- Pedestrian friendly streets ●	✓				✓			✓
- Health Care Consultants ●						✓	✓	✓
- Consultants for children	✓				✓			
- Health care package								✓
- Organsizations for								✓

Elderly Network & Barrier free connection

Elderly Network & Barrier free connection