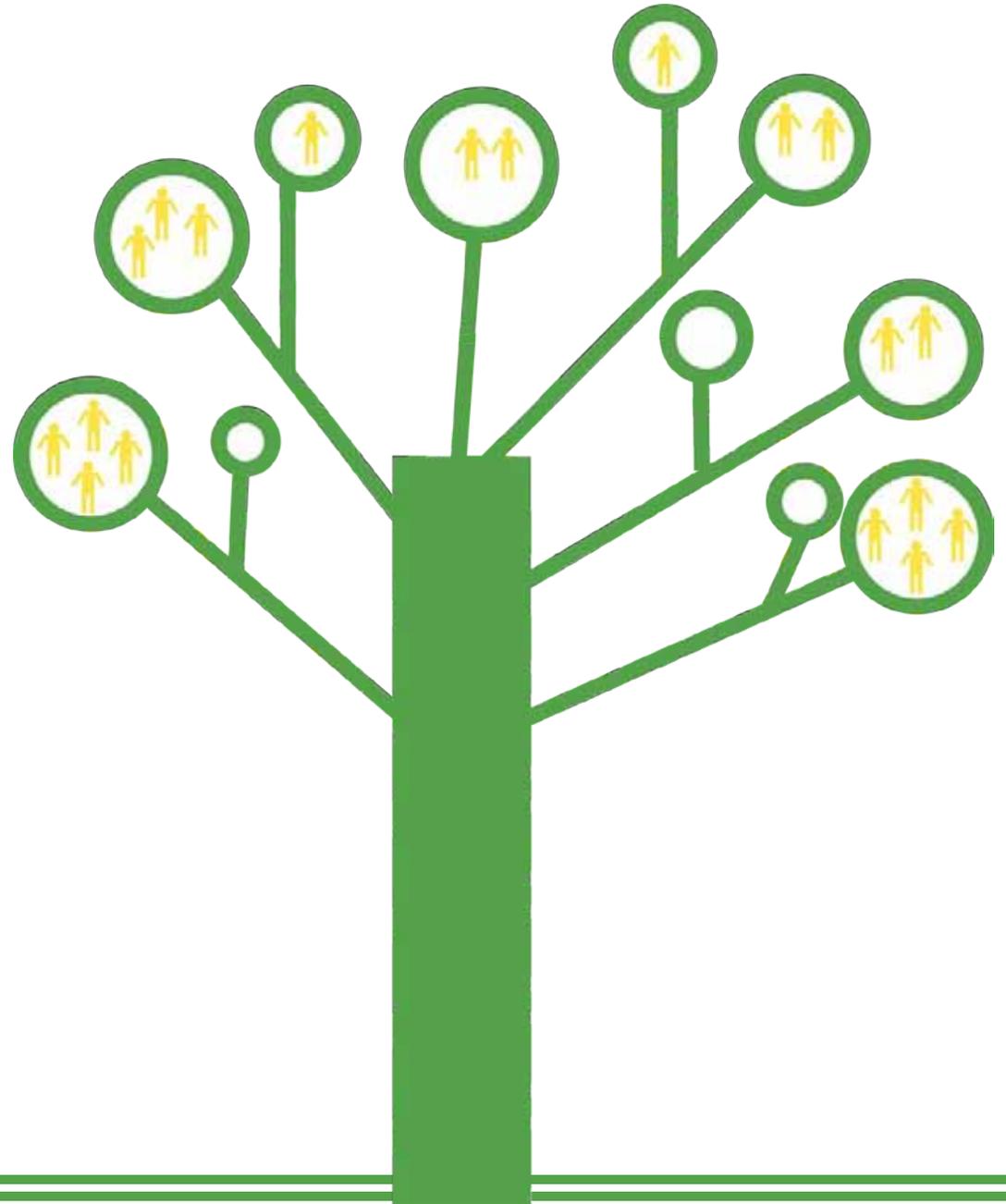


Green Social Backbone



Course Name : Urban Design 1 2 3
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Summary

Like the group work (Elderly Network & Barrier Free Connection), the individual project also focuses on two parts:

Urban Regeneration
Assisted Living

For the urban regeneration part, I try to solve the physical problems, such as lack of facilities, low mobility, bad quality of housing, etc.

For the assisted living part, social network is the anchor point, which is essential for elderly people, according to my analysis.

By providing new facilities, housing, road connection for elderly people and younger ones as well, in the urban regeneration part, the social network can be fixed and developed accordingly, which decides that a synergic methodology is needed.

In this way, my individual project is related with other four individual projects done by other group members, and can be seen as a part of the group plan and design.

However, my individual project is rather independent. Since the main axis is a very outstanding feature in this site, I believe it can not only provide facilities and services within its territory, but can also support the development of other areas, which is the most significant and special character it has.

Based on the reasons mentioned above, the plan and design are both focused on four parts:

Green / Blue
Mobility
Facilities
Living

By dealing with the four parts, the social, ecological and economic issues can be covered at the same time.

In the individual design, through fixing the physical network and providing new facilities and services points in order to implement urban regeneration in Oud Charlois, I try to connect and strengthen the social network between elderly people and integrate the elderly network with general network based on the different life styles of people at different ages, which is the same way as we did for the group work.

I would like to go further to support our group work, and at the same time, revise the former group work.

In the end, the result of GPS research is used to evaluate the project.

Introduction

My individual work focuses on the main green axis of Oud Charlois, which can be seen as a consequence and following step of our group research and design (Elderly Network & Barrier Free Connection).

For the research and design of group work, we divided the commission into two parts:

1. Urban Regeneration, which is based on the physical network and facilities.
2. Assisted Living in Oud Charlois, which focuses on social network and life styles of elderly people and people in other age group.

Since the geographic center of Oud Charlois is not an activity center now, which causes reach problems, especially for elderly people living in the southside at the edge of Oud Charlois, we plan to develop this area to meet the needs of elderly people and other age groups.

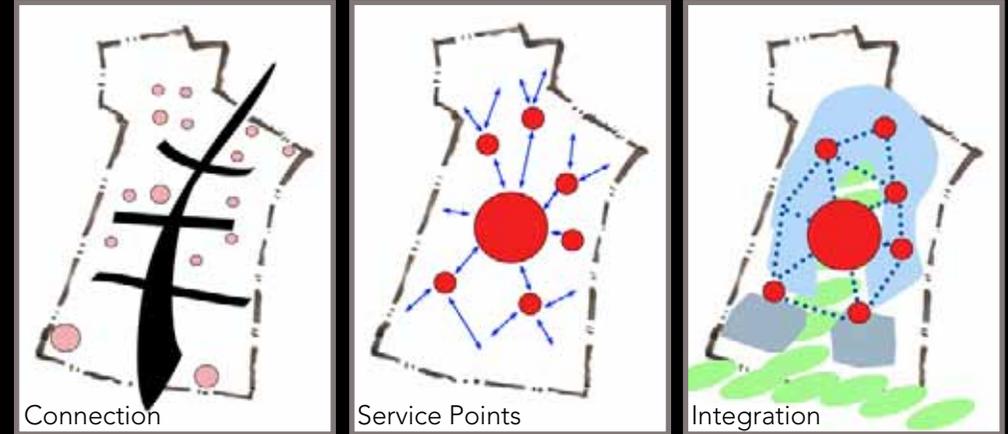
For the group's master plan, we propose a concept that a new community center for elderly people and the existing cultural center are surrounded by small secondary service points. In this way, we make every facility and service within the walking reach of elderly people.

In order to make it more accessible and comfortable for walking to these services and facilities, we develop the existing road network and public transportation, and also we provide new shuttle bus service for elderly people.

After the development of facilities, services and infrastructure in Oud Charlois, new houses can be built to support assisted living, because good environment has been constructed, which can attract not only elderly people, but also younger ones to move to these houses.

In this way, elderly people can form their own social network and integrate with the general social network.

Concept of Group work's Master Plan



Master Plan of Group work



Role in the Group Work



Community Center D. Spoutzi

The strengthened community center provide programmes in Oud Charlois not only for the elderly, but also for children and their parents.

Hybrid Living Unit N. Kang

Located in the historic center, provide convenient and comfortable life for elderly people, and diverse typologies of housing for elderly people and their families.

Assisted Living Core H. Lee

The new community center is in the geographic center of Oud Charlois to make facilities more reachable within walking distance. And it is also a service center.

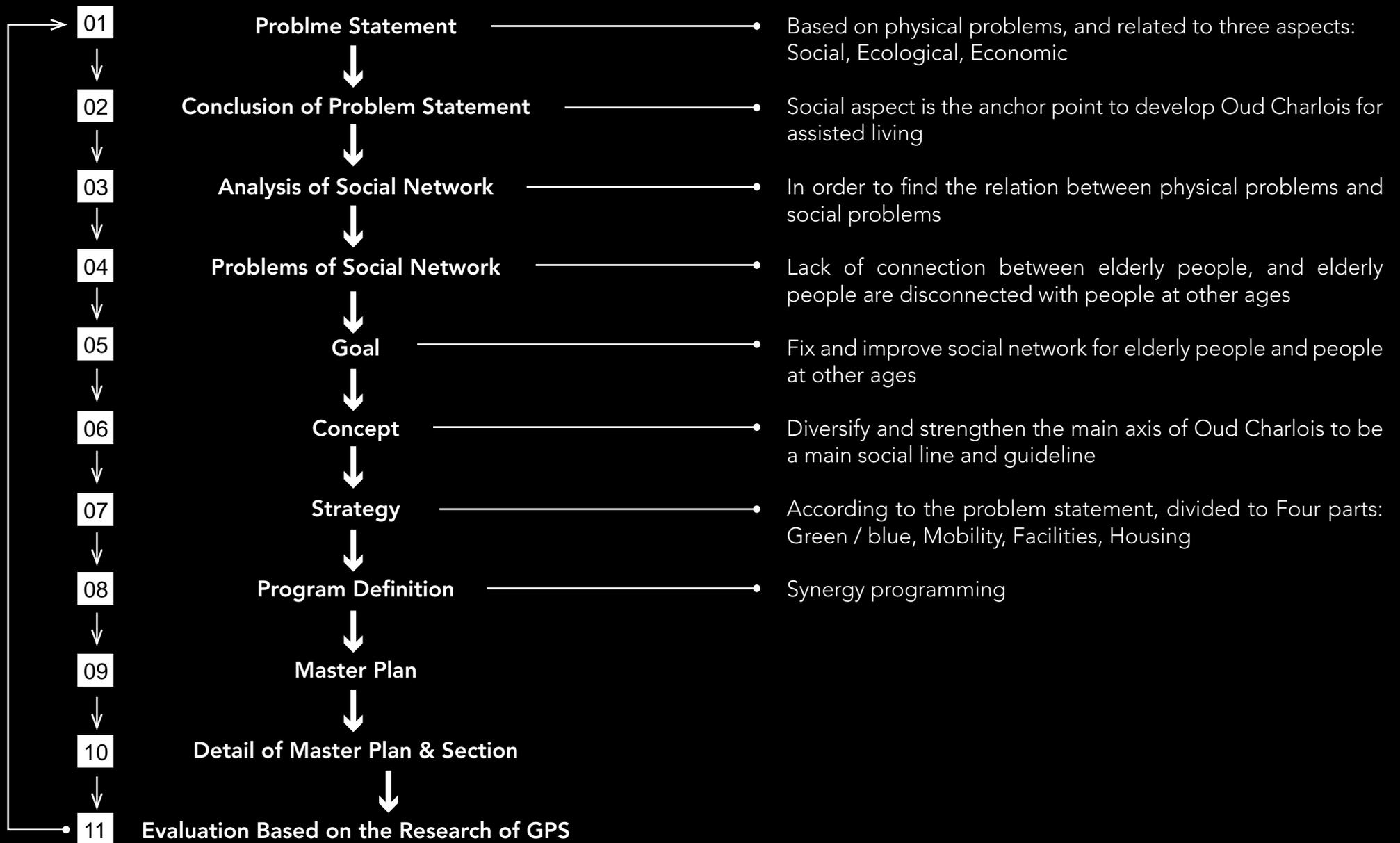
Green Social Backbone Y. Yu

Besides recreational areas, daily shops, community points, public transportation, independent assisted living housing, the backbone shows the orientation and possibility to visit all the facilities in Oud Charlois.

Slow Motion W. P. C. Jelier

The road network focuses on barrier free and pedestrian friendly roads, trying to attract people to come out to form a lively society in Oud Charlois

Work Process



PLAN

Problem Statement

	Social	Ecological	Economy
Green / Blue			
01. Unconnected Public Green	●	●	
02. Lack of street furniture	●		
03. Lack of Attractions in the Public Green	●		●
04. Flood Problem		●	
05. No Enough Space for Leisure and Recreation	●		●
Mobility			
06. Barrier in the Public Space	●		●
07. Lack of Cycling Routes	●		●
08. Car-dominat Street (High Speed, Parking Site)	●		
09. No Specific Pedestrian Routes to the Facilites	●		●
10. Low Quality Pavement (for Wheelchair or Scooter)	●		●
Facilities			
11. Insufficient Facilities in the Neighbourhood	●		●
12. Lack of Specific Facilities to Support Assisted Living	●		●
Living			
13. Changing Demands	●		●
14. Low Quality Housing	●		●
15. Vacancy	●		
16. Safety Problems	●		●
17. Isolated from the Neighborhood Living Area	●		

■ Specific Problems of Assisted living in Oud Charlois

The proble statement focuses on presenting the physical problems in Oud Charlois, which is more obvious than the social problems. It is no doubt that physical problems can always cause social ones and as well as the ecological and economic ones.

Green / Blue

Since the site is in the city, the green and blue problems are more about the social issues than ecological ones.

Mobility

Mobility becomes more and more important when you are getting older, which has a very close relation with social and economic issues.

Facilities

Facilities problems might be arised by historic reasons. The old center was built near the harbor, which is far from the main residential area now, especially from the nursing home and assisted living building in the south boundary. (The detail analysis of facilites can be found in the group work's booklet)

Living

The existing housing condition in Oud Charlois is not good, especially in the west part, which is not suitable for assisted living. And the typology of the housing also causes some problems. The first is the safety problem, which takes places in the long linear backstreet and the empty public areas. The second is it is hard to make a lively neighborhood community around people's homes.

Location of the Problems



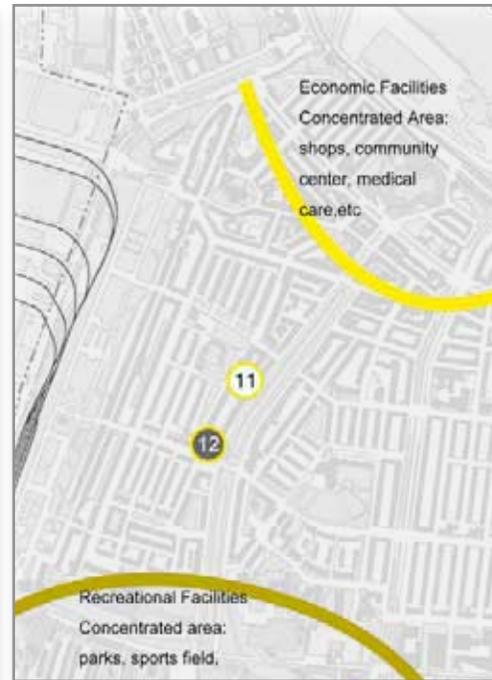
Green / Blue

The main green areas are isolated from each other. Along the main green axis, there is lack of street furniture and attractions, and no specific place for elderly people to communicate and enjoy themselves. And the whole area is facing flooding problem.



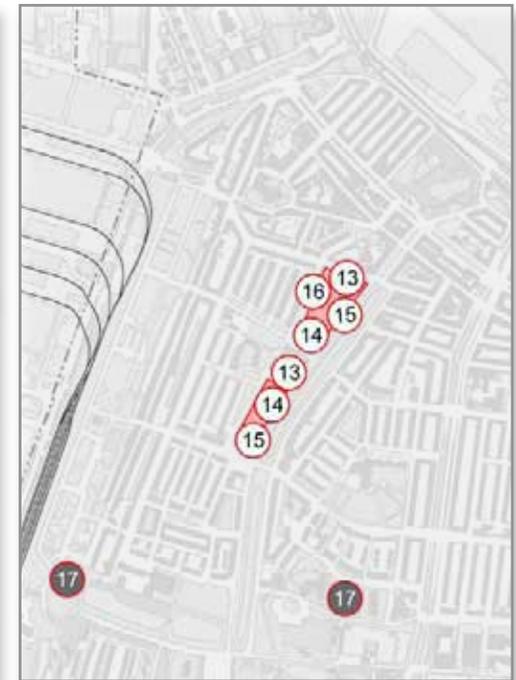
Mobility

The main axis is not suitable for walking, because of the busy traffic in the street. There is no cycling road. The canal is a barrier between west and east side. It also fails to guide people to visit the major facilities in Oud Charlois.



Facilities

It is hard to walk from the recreational core in the south to the economic core in the north. Since there is no cycling route, it is also difficult to reach them by bike. And in the middle along the main axis, there is barely no facilities in the neighborhood.

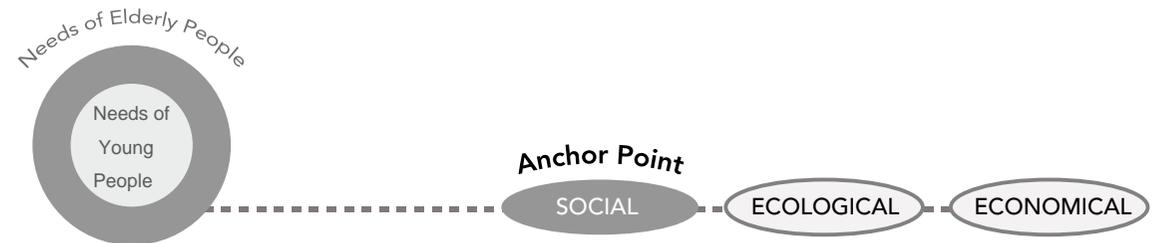


Living

The two existing assisted living areas are far from each other, and isolated from the center. The houses along the main axis are in bad quality, and not suitable for assisted living, which faces vacancy and safety problems, especially the upper one.

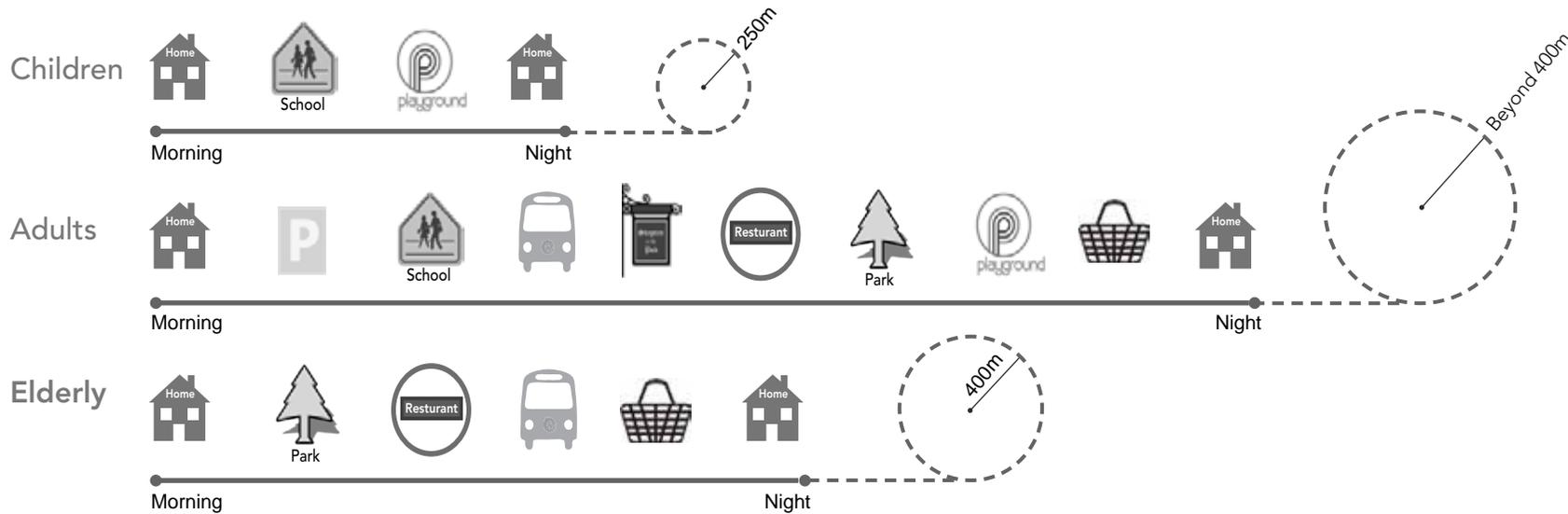
Conclusion of Problem Statement

1. Elderly people have more problems, which means they ask for more needs than younger ones.
2. **Social Aspect** is **essential** in **Oud Charlois**. 16 problems out of the total 17 can be related to social aspect.
3. **Social Aspect** is **essential** for **elderly people**.
4. **Social Network** should be the **anchor point**.



Analysis of Social Network

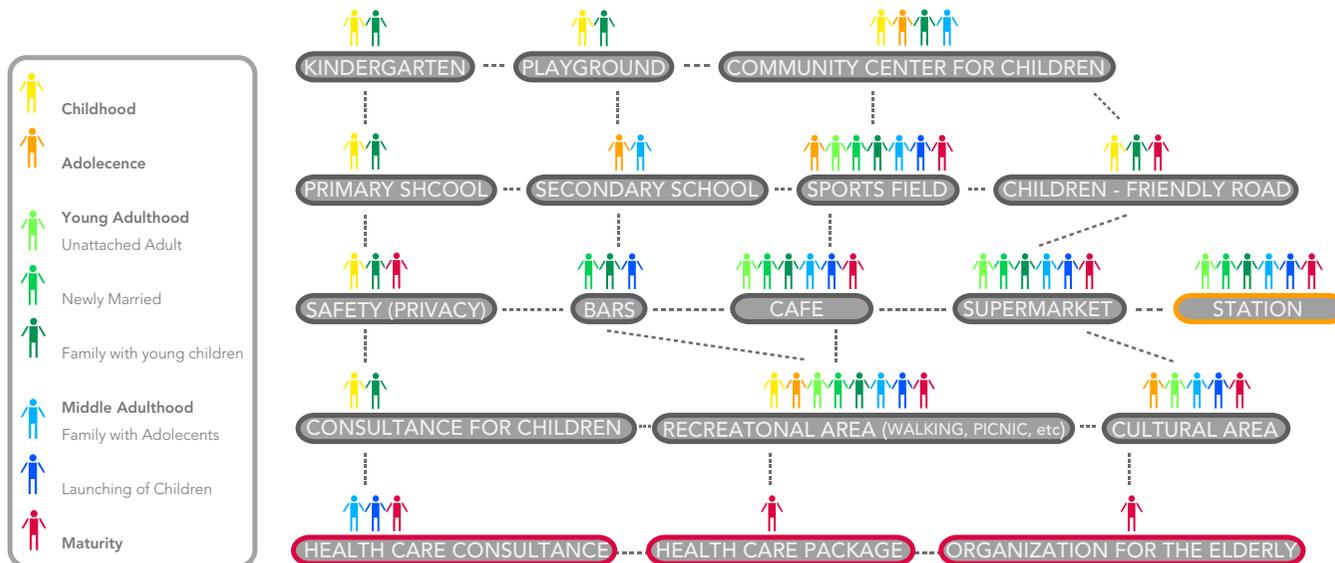
Daily life of People at Different Ages



Based on diverse life styles, people could have different activity radiuses. The graph shows two things:

1. The elderly and children's activity radiuses are smaller than adults', which implies that home environment is very important for them.
2. Home is very special and irreplaceable to be a meeting point for everyone. Because everyone's daily life starts and ends at home.

Meeting Points



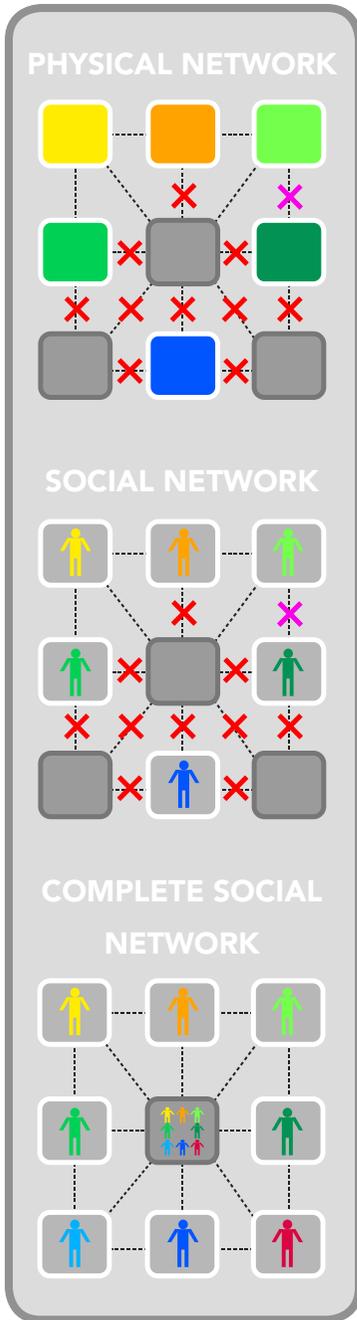
Conclusion

- **Home environment** is important.
- **Home** as a **meeting point**.
- **Recreational area** is a meeting point can be enjoyed by everyone.
- **Station** is an important meeting point to develop social network.

Meeting points are important to build and develop social network. Different meeting points provide different facilities and services, which can attract different target groups. In the graph on the left, meeting points are divided into three types:

1. Special meeting point attracts the elderly;
2. General meeting point inside the site;
3. Meeting point connects residents living inside with people from outside.

Problems of Social Network



The Relationship between Physical and Social Network

The physical network can decide the social network.

- If there is a *missing link* or *barrier* in the physical network, it is hard to maintain and develop the social network;
- If there is no *facilities* or *service points*, the social network is also incomplete;
- *Public space* that attract people at all ages is necessary to make the social network complete.

The Problems of Social Network in Oud Charlois

Based on the idea that missing facilities and disconnection can make social network broken or incomplete, the problems of elderly social network in Oud Charlois are:

- No connection between the three assisted living buildings;
- No community center for elderly people.

The problems of general social network are:

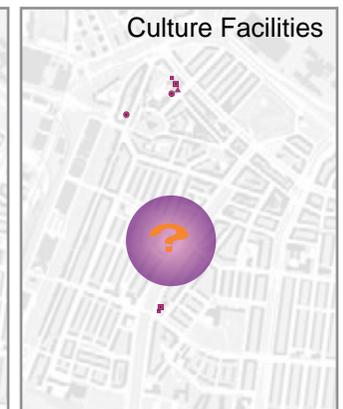
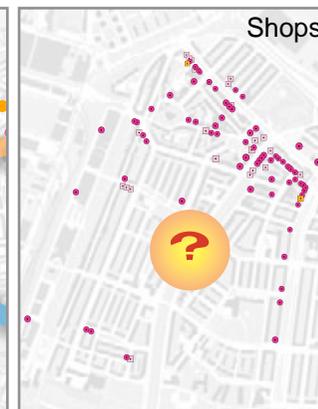
- Two types of recreation areas are far from each other without connection;
- Shops are concentrated in the north;
- No culture area in the center causes missing

Elderly Social Network



- 1 Activity center
- 2 Advice, aid, guidance and care
- 3 Daycare for elderly with mental problems
- 4 Elderly clubs
- 5 Pharmacy
- 6 Mental care centre
- 7 Health center
- 8 Family doctors
- 9 Physiotherapy
- 10 Dentists
- 11 Hospitals
- 12 Residential places (care homes, nursing homes, assisted living complexes)

General Social Network



- Restaurant
- Sport center
- Super Market
- Organisations
- Cinema / DVD
- Playground
- Daily Goods Shops
- ▲ Library
- Museum
- Other sport facilities
- Non Daily Goods Shops
- Other Cultural Facilities

GOAL

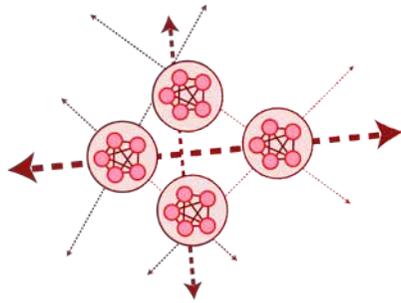
Goal

1. Develop social network of elderly people
 - Community area for elderly people
 - Specific facilities for elderly people
 - Recognizable and comfortable routes in assisted living area
 - Suitable housing for elderly people
 - Easy to go out of Oud Charlois to get more service

2. Integrate the social network of elderly people with general network
 - Facilities which can attract elderly people and people at other ages
 - Community area for people at different ages

Concept ---- Fix and Complete Social Network for Assisted Living by Urban Regeneration

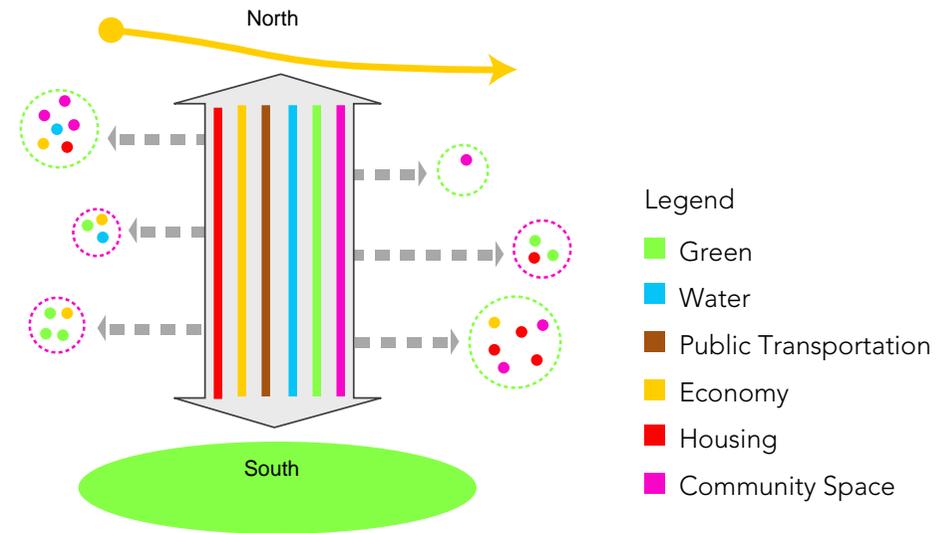
Concept of Developing Social Network



Social network is developed in different scales:

- Develop small facilities and service points within neighborhood scale to support assisted living in home environment. In this way, the elderly social network can be strengthened in the neighborhood, which can help them stay at their own house instead of going to a nursing home as long as they wish.
- Develop the main axis to be a real backbone to support assisted living in Oud Charlois. By developing the main axis from the south to the north to guide to major facilities cores, all the small facilities and service points are connected, which can stimulate communication between the elderly live in the different parts of Oud Charlois. In this way, elderly social network is completed in a local scale and integrated more with general social network.
- The development of public transportation along the main axis can bring more people to come in and go outside, which suggests a more complete social network in a larger scale as far as the public transportation reaches.
- In addition, the new connection between the west and east side will be built to further improve and complete the elderly and general social network in Oud Charlois.

Concept of Urban Regeneration



In order to fulfill the concept, facilities and service packages are developed along the main green axis for urban regeneration. The main green axis begins at the green area in the south part, and extends to the north to meet the main economic axis. The center of the main green axis is developed to support assisted living. And at the same time, the main green axis will function as a gateway or a strong guideline to the other facilities or communities in Oud Charlois, and as well as to go out of Oud Charlois.

Strategy

Green / Blue



- Green Area
- Water
- Facilities
- Tram Stop
- Main Guideline
- Secondary Guideline

The main green line will be developed not only for recreation, but also for guiding visitors to other green areas in Oud Charlois. In order to show the orientation more clearly, there are two types of guideline. The main one is to connect the major green areas near the main axis, while the secondary is to show the green area far away.

Mobility



- Tram Line
- Existing Tram Stop
- New Tram Stop
- Water Line
- New Bridge
- Motorway
- Cycleway
- Main Pedestrian Route

In order to develop the mobility, a new bridge is built. Following the new bridge, a new tram stop is going to be introduced to improve public transportation. And existing parking site along the street is moved inside, then a new cycle way can be built to impact and slower the speed of traffic. Pedestrian routes extend from the main one to form a loop.

Facilities



- Existing Culture Center
- New Community Center
- Existing Shopping Street
- New Shopping Area
- Tram Line

In order to regenerate the center of Oud Charlois, a new community center is built to stimulate the development of social network. Based on the new community center, other small facilities are also introduced to improve the living environment for assisted living by making services more reachable on foot.

Housing

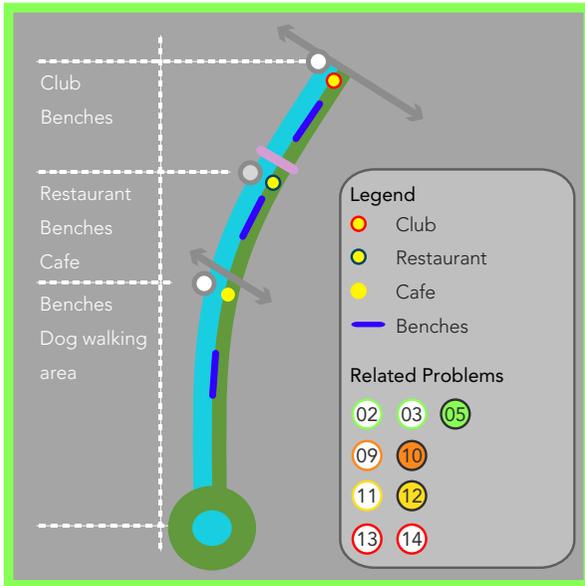


- Tram Line
- Existing Housing
- New Housing
- New Public Green
- New Garden
- New Parking Site

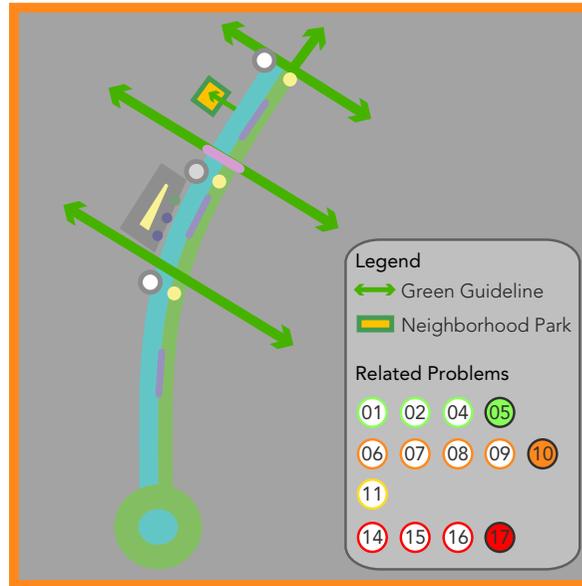
The buildings along the main axis aren't suitable for assisted living. New public green is introduced to solve safety and vacancy problems of the existing building. The new building provide parking site inside to make the street more pedestrian friendly. It also contains a roof garden to stimulate communication in home environment.

Program Definition

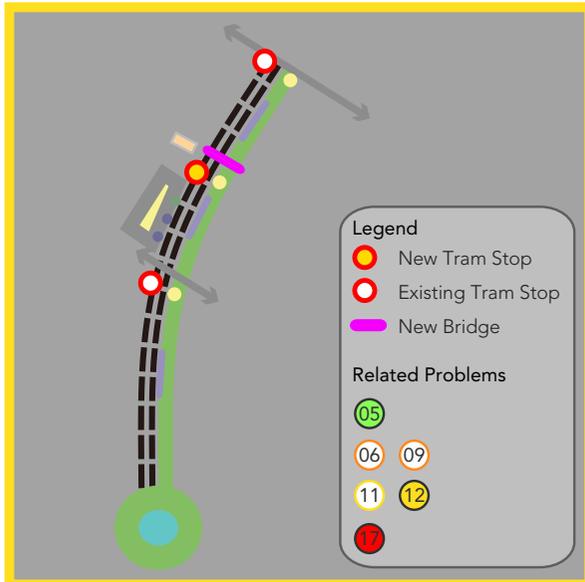
1. Recreational Green & Blue Line



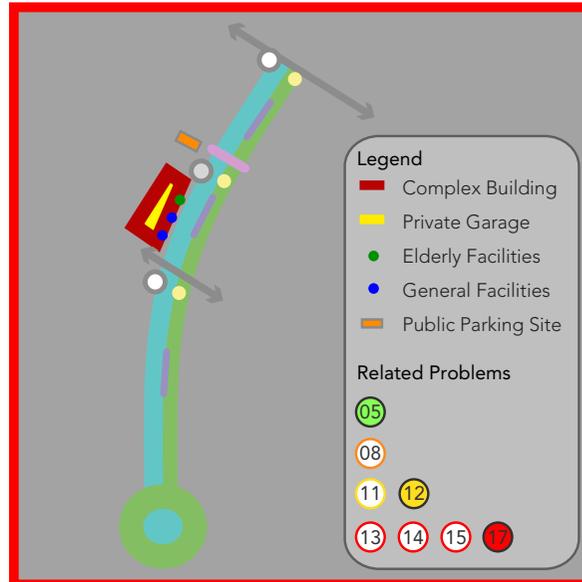
3. Green Guideline & Neighborhood Park



2. Barrier Free Tram Stop & Bridge



4. Complex Building for Assisted Living



Each program has its own mission to solve different problems are listed on Page 6.

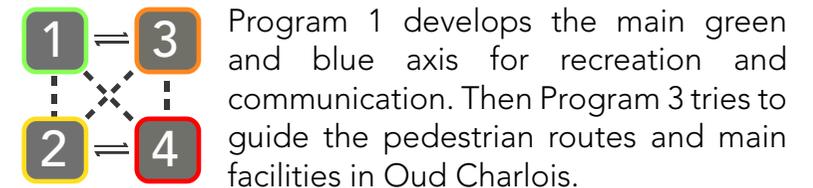
Program 1 provide recreational areas along the main green and blue axis, trying to make it to be a community line. It divides the axis into three parts, which gains its own identity from the facilities and services it provides.

Program 2 focusing on developing mobility along and near the main axis. A new tram stop and a new bridge are provided next to each other.

Program 3 is to strengthen the backbone role of the main axis to show the major facilities and alternative routes nearby.

Program 4 tries to make good use of the new facilities and environment the other three program provide to introduce a new independent assisted living building with shops, garage, and community areas

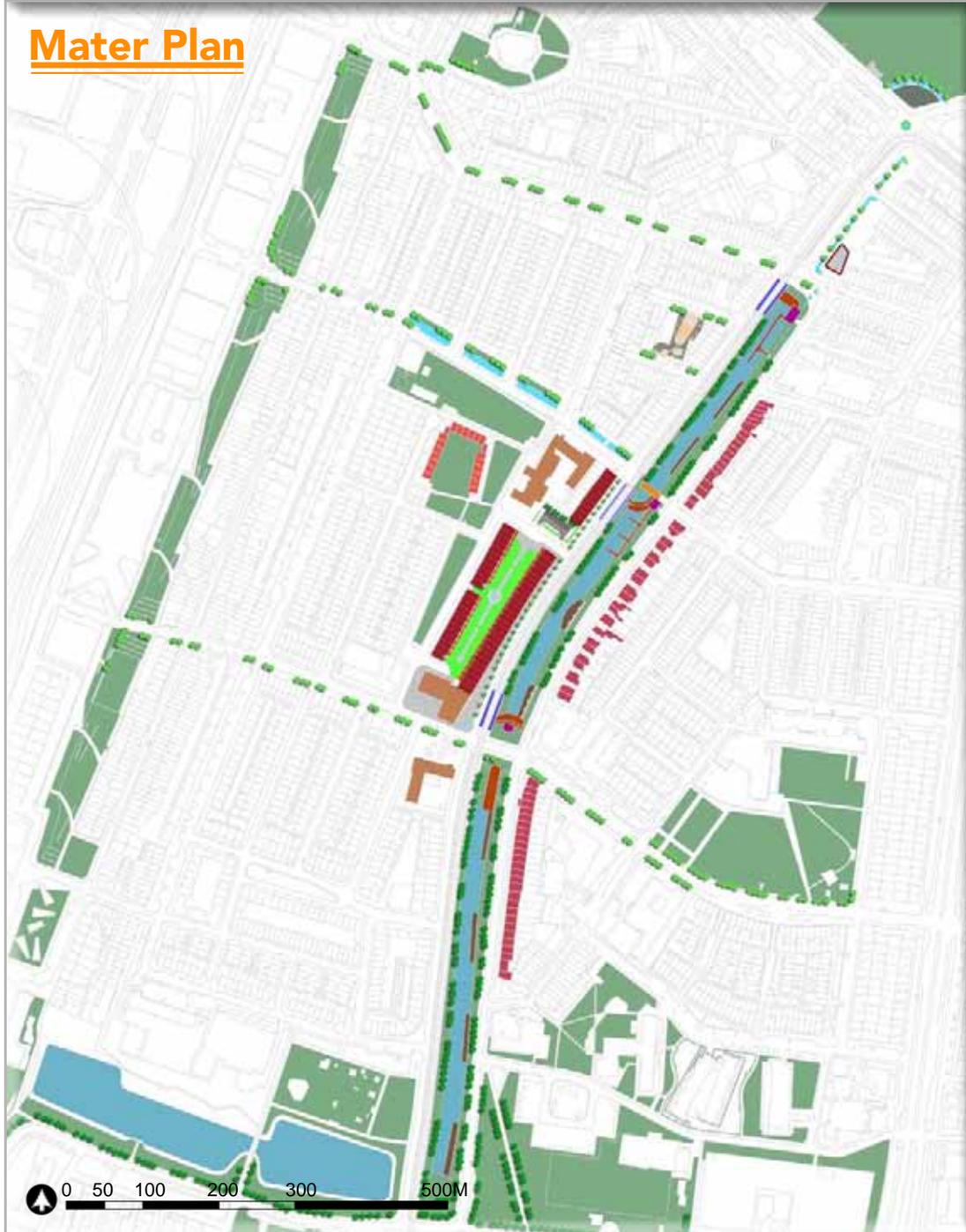
Relationship between Programs ---- Synergy



Program 2 provides new tram stops and a bridge, increasing the accessibility to this area. As a consequence, it is feasible to have more facilities and services for elderly people as well as general age groups, which shows the chance to start Program 4.

The related problems are listed on Page 6

Mater Plan



- 
Entrance to the Park — Highlight the entrance to the biggest green area in the north
- 
Guideline to Major Facilities — Extend the main green axis to the north
- 
Existing Green Area
- 
Complex Building — Provide convenience for assisted living
- 
Public Parking Site — For residents live nearby and visitors go shopping in the complex building
- 
New Youth Center — Adding attraction to the main axis
- 
New Community Center — Adding attraction to the main axis
- 
Tram Stop with Clubs — Tram stop as a communication place
- 
New Tram Stop with Restaurant — Tram stop as a recreational place
- 
Tram Stop with Cafe — Tram Stop as a leisure place
- 
Floating Board 1 — Closer to the water front
- 
Floating Board 2 — Closer to the water front
- 
School
- 
Neighborhood Playground — Solve safety problems to regenerate the neighborhood
- 
Potential Housing for Assisted Living — Diverse types of housing can be applied for assisted living

Section of the Main Axis

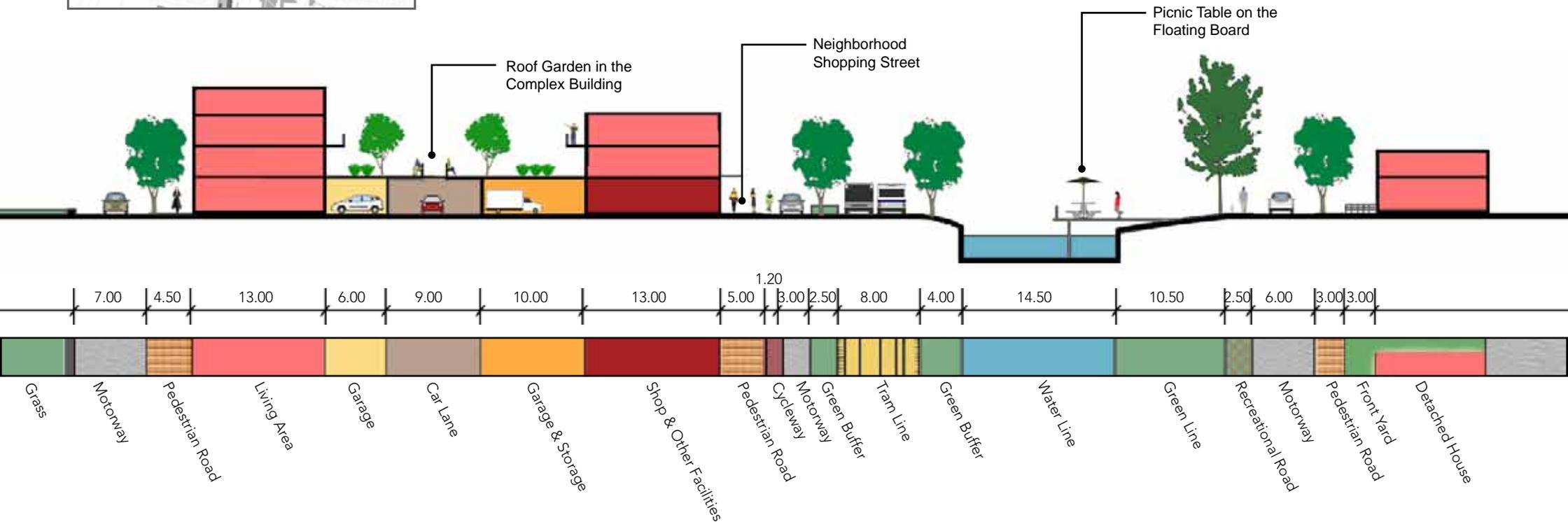
Community Areas in Three Scales in the Section

Small Scale: The roof garden in the complex building can provide community area for people who live in the building. If the elderly do not want to go out, they can still sit in the balcony see their neighbors passing by or playing in the garden. The roof garden supports communication within home environment.

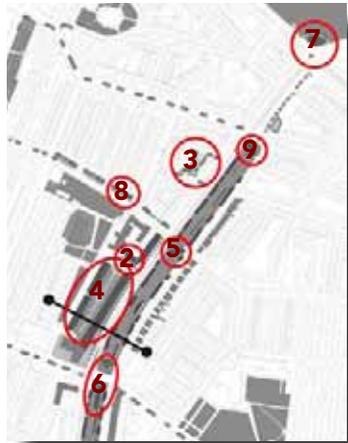
Medium Scale: The shopping Street attracts people who live in the neighborhood. According to our research, shopping area can be also seen as a community area not only elderly people, but for all.

Big Scale: Picnic tables on the floating board can draw all the local people to enjoy the waterfront.

By providing three community areas in different scales, social network in different scales can be fixed and developed accordingly.



Details Fix Social Network in Different Scales



2. New Parking Site in the Neighborhood



3. New Garden in the Neighborhood



5. Street Furniture near New Tram Stop



7. New Entrance to the Green Area



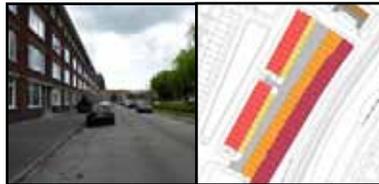
9. New Clubs near Tram Stop



1. 1st Floor of Complex Building



4. LG Floor of Complex Building



6. Street Furniture near the Existing Tram Stop



8. Guideline to New Community Center



social network in the building

social network within neighborhood

social network within Oud Charlois

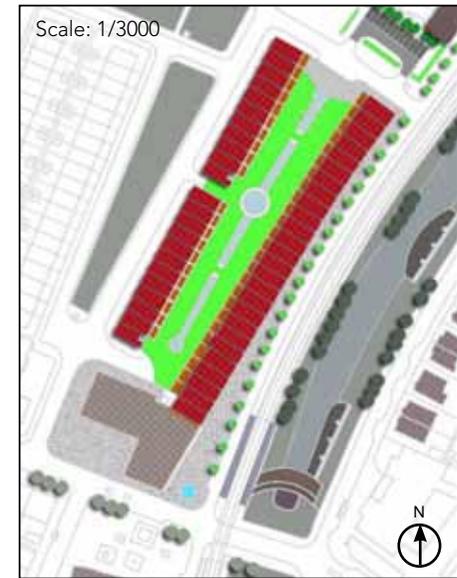
social network within Local Scale

social network within Rotterdam

Detail 1 ---- Complex Building



LG Floor Plan

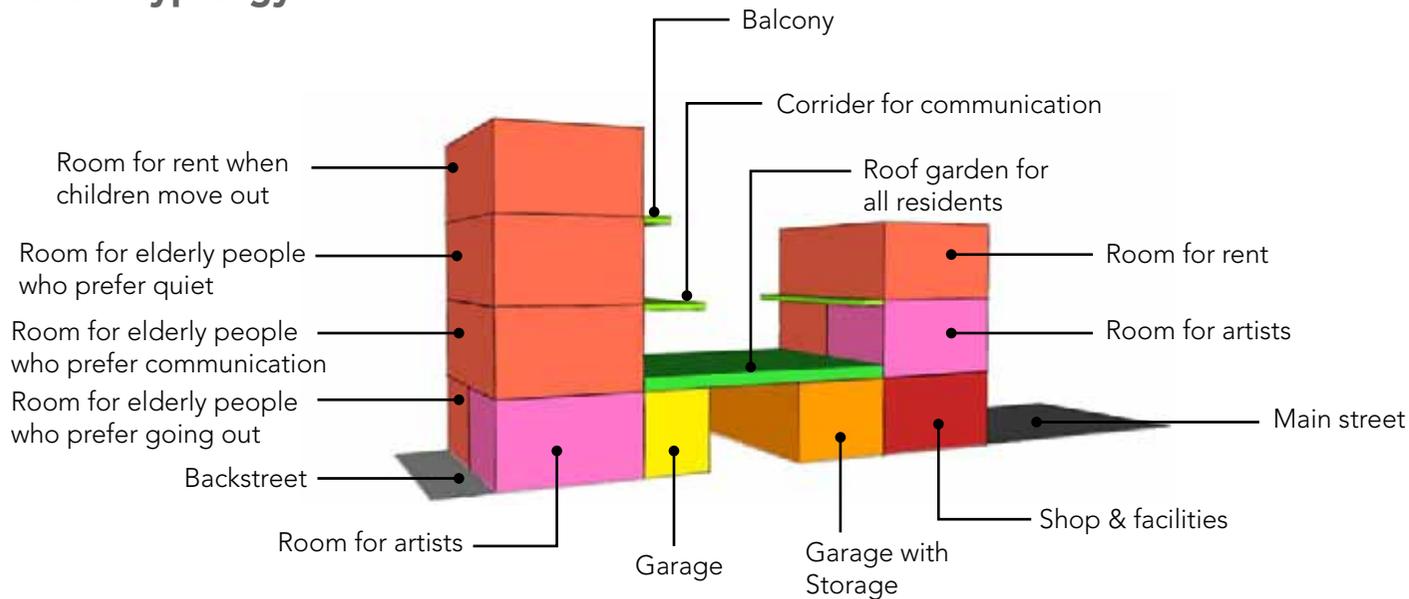


First Floor Plan

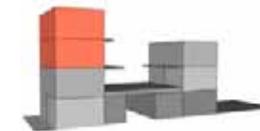
Design Basis

1. Home environment is important. (P8)
2. Home as a meeting point. (P8)
3. Program Definition 4 (P14)

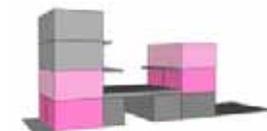
House Typology



Transformation of Housing



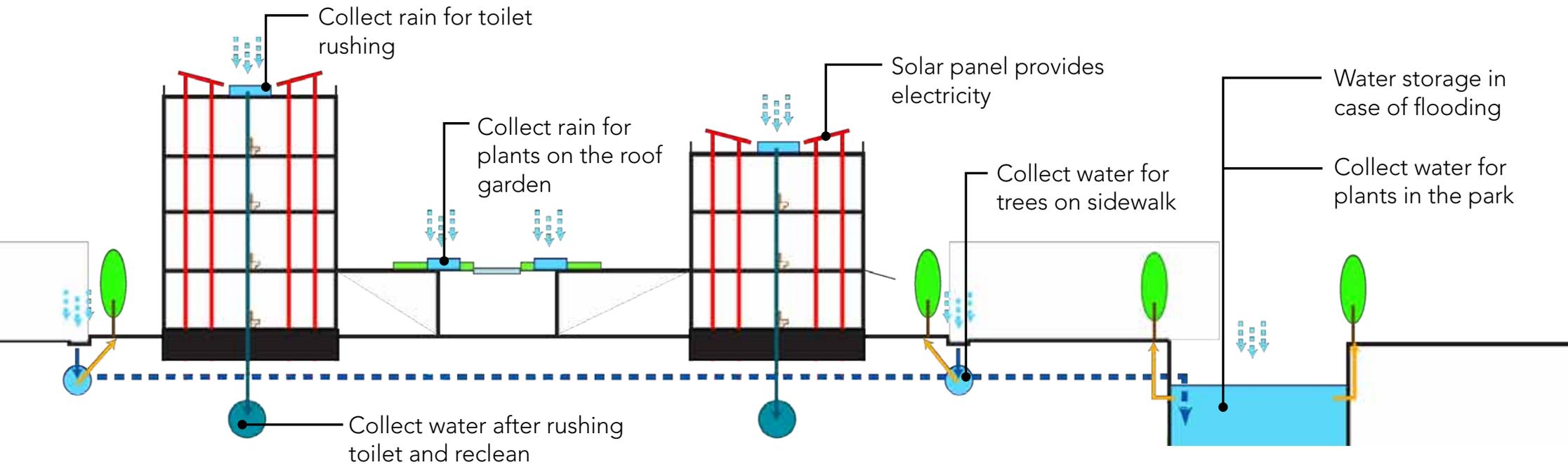
Based on the facilities provided nearby (school, kindergarten, etc), the building is also an ideal place to raise children. In this situation, people can choose to buy or rent the third floor. This is also suitable for people who have old parents to attend.



For artists, if they want to live or have a bigger workshop, it is also possible that they get a higher floor to raise their family and work.

Sustainable Design for the Complex Building

Since Rotterdam is facing the flooding and water problem, it is necessary to consider how to get energy and make use of them. The building work together with the canal and underground pipes to utilize rain water. In addition, the solar panel on the roof provides the electricity is needed in the building.



Detail 2 ---- Tram Stop as Community Space



Design Basis

1. **Recreational area** is a meeting point can be enjoyed by everyone. (P8)
2. **Station** is an important meeting point to develop social network. (P8)
3. Program Definition 2 & 3 (P14)



- Orange: New bridge
- Blue: New tram stop
- Purple: Restaurant
- Brown: Floating board for enjoying meal
- Red: Floating board for walking
- Brown: Shortcut from the restaurant to the tram stop

Plan of the Tram Stop, Bridge, Community Area

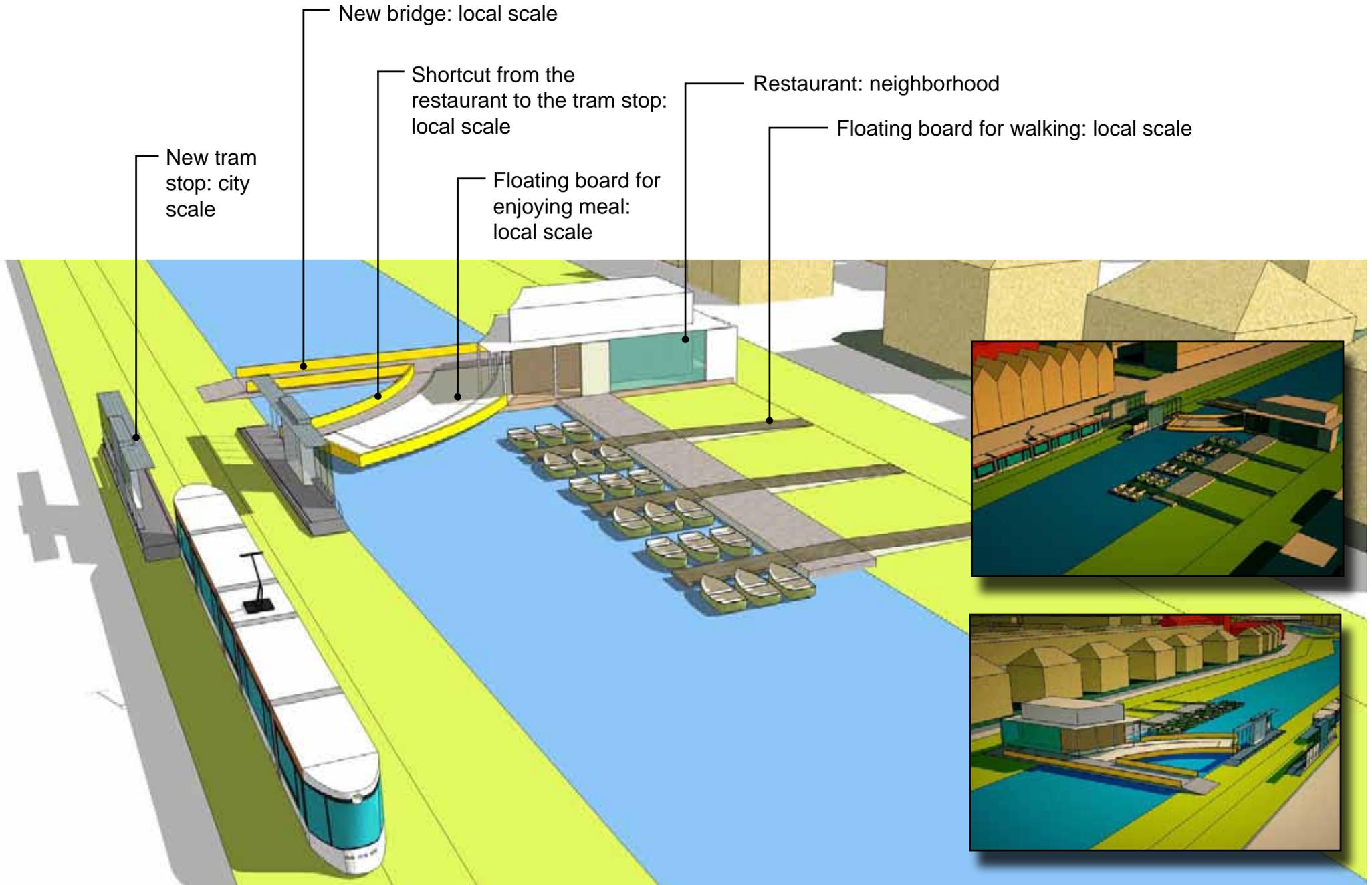
Elderly people use the tram stop to communicate with each other



Full, non-assisted, wheelchair access into our trams is possible. (<http://www.directenquiries.com>)



Bird View of the Communicational Combination



Detail 3 ---- Open Neighborhood Park for Safety



Office Works for Oud Charlois



Empty and Dangerous Environment



Empty Garden inside



Locked Garden

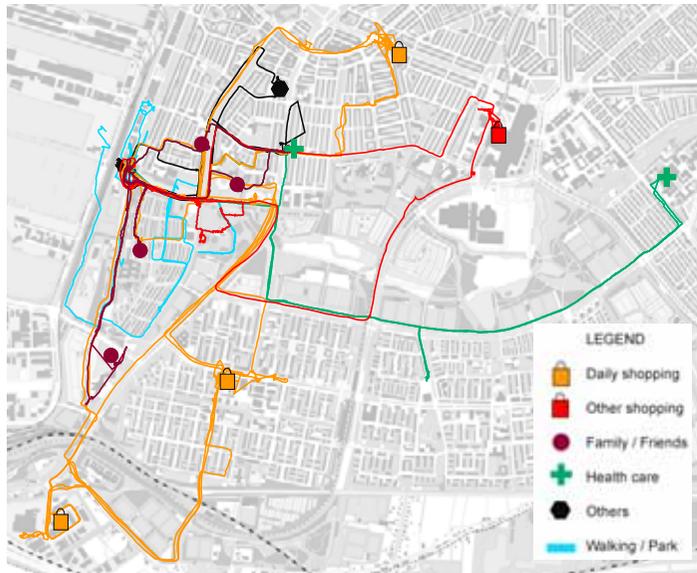


The idea is to open the garden belongs to the office in order to regenerate this area, and solve the safety problems at the same time.

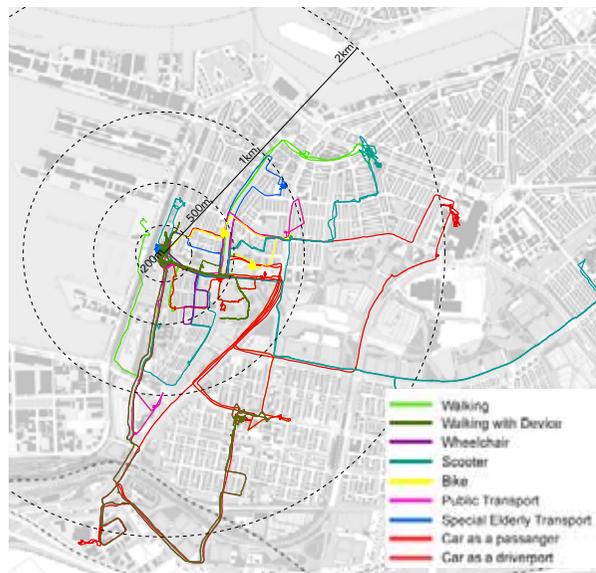


EVALUATION

Evaluation Based on GPS Research



Destination



Mobility



Density

The GPS research gives us a chance to reflect our plan and design. Since the research time was limited, we only chose one assisted living building, which is a pity. Because the site is at the edge of Oud Charlois, which makes the result not accurate enough.

However, from the GPS research, we can still get enough information to know how elderly people spend their time in real life, where to go and how. Based on these materials, we can draw some conclusions:

1. Pedestrian road is very important to elderly people
2. Elderly people like going out for a walk, and they walk around the neighborhood green area.
3. Elderly people do not go daily shopping quite often.

4. If they go shopping, public transportation is very important. They tend to choose the nearest bus stop.

5. They do not go to the main green axis for walking, instead they use the green area in the neighborhood a lot.

6. They almost stay within the radius of 5km, which shows a high density in the map.

In my individual plan and design, I try to fix and develop social network of elderly people. In order to fulfill it, I defined 4 Programs (P 14). And I am glad to say that these 4 Programs can be supported by the conclusion mentioned above. Program 1 & 3 can be supported by conclusion 1,2,5; Program 2 can be supported by conclusion 4; conclusion 6 can support Program 4.