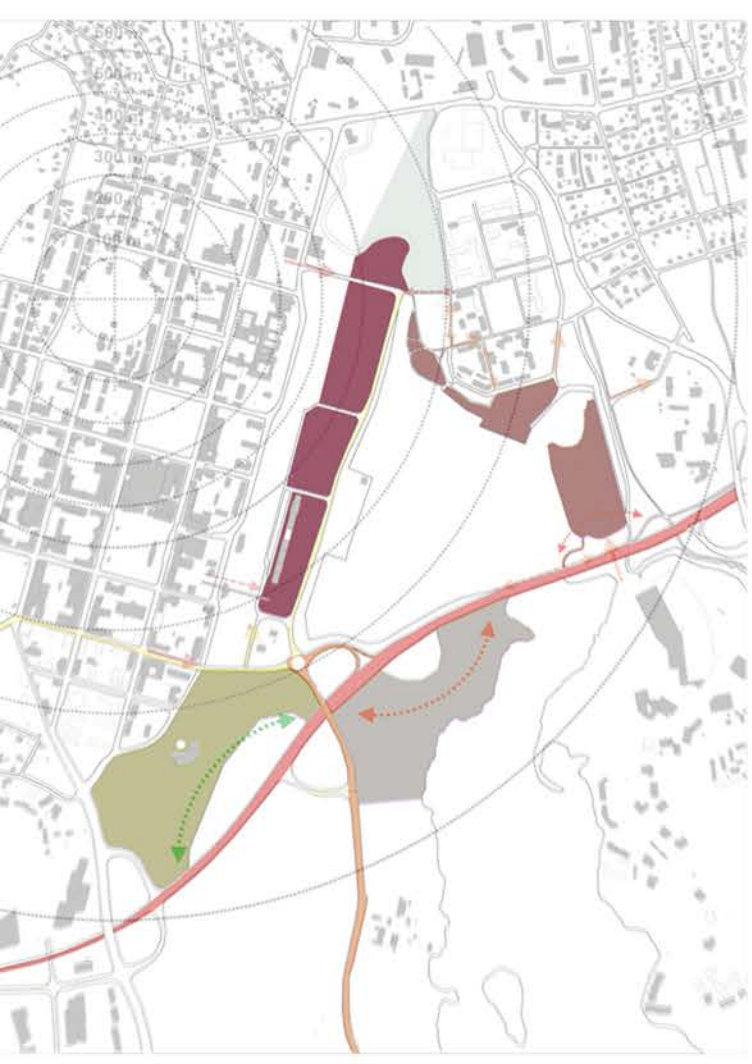


OLD AND NEW AREAS RELATIONSHIP DIAGRAM

LAND VALUING DIAGRAM

RECOGNITION ABILITY BY PUBLIC DIAGRAM



COMBINED DIAGRAM

According to the combination of three diagrams, we access the collective valuation of the areas as the following order:

- 1st SUB 1
- 2nd SUB 4
- 3rd SUB 2
- 4th SUB 3

Therefore, we decide that the functions of each sub area can be adjust to take all the advantages.

**SUB 1:**  
The main square must be located between the science centre and shopping centre . This complex describe the image of the city as a innovate city.

**SUB 4:**  
To meet the developed trend of local toursim, sub 4, which have the strongest visual conection with sub 1, should have walkable streets for handcraft selling, cafe, restaurants.

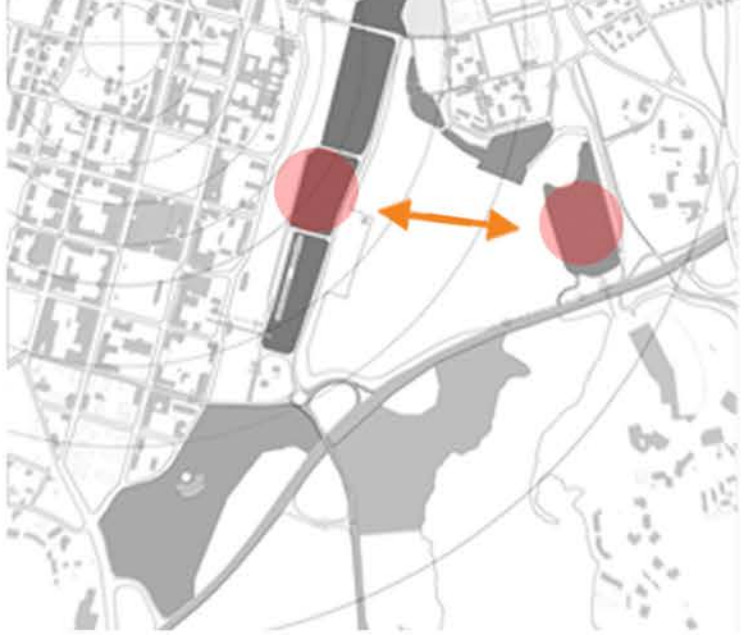
The location of festivals which take place in the city should be seprated to some other places. So, we create a gastronomy market next to sub 4 to strengthen the service system of the whole area.

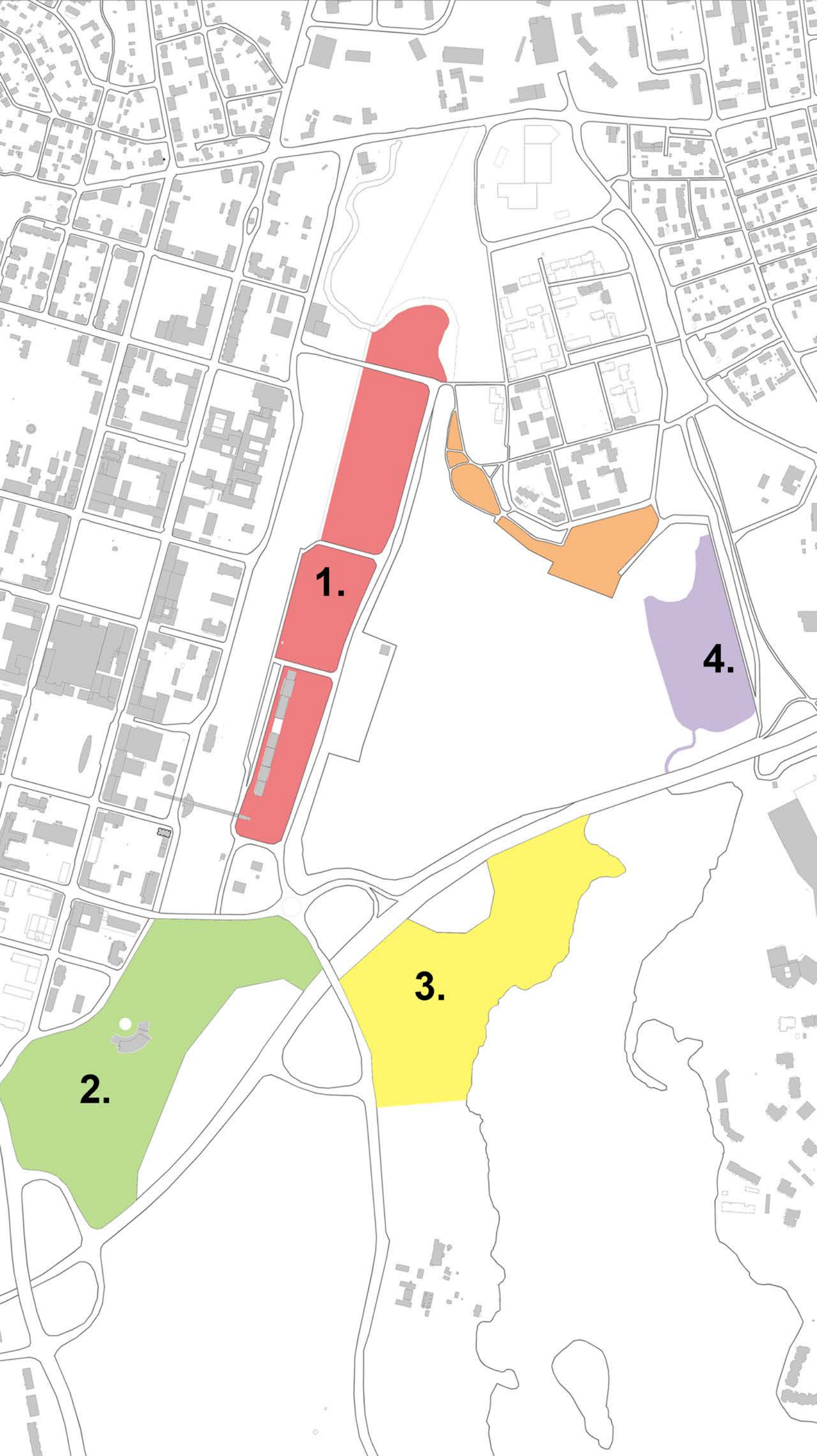
**SUB 2:**  
Because it is not easy to conect with other parts, this sub must be arrange as a business centre, not for public service. The majority of floor area is designed for use as office rental.

**SUB 3:**  
Due to the special position, having a wonderful view to Saima lake, this sub is determined as the most suitable place for luxurious residential area.



THE CONECTION BETWEEN SUB 1 AND SUB 4





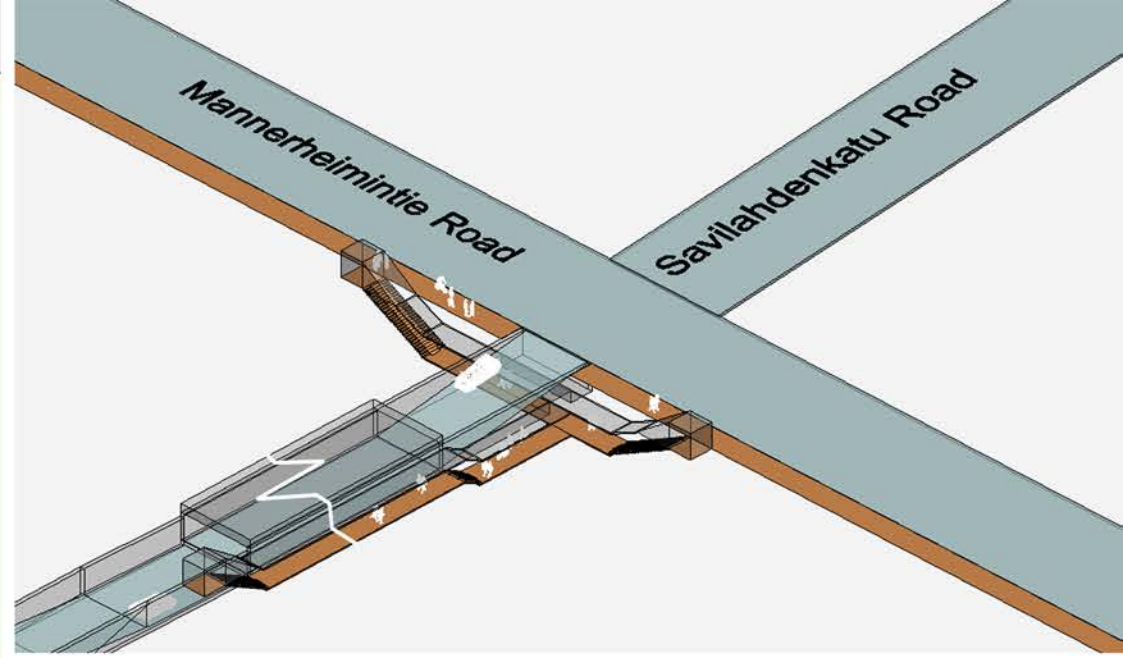
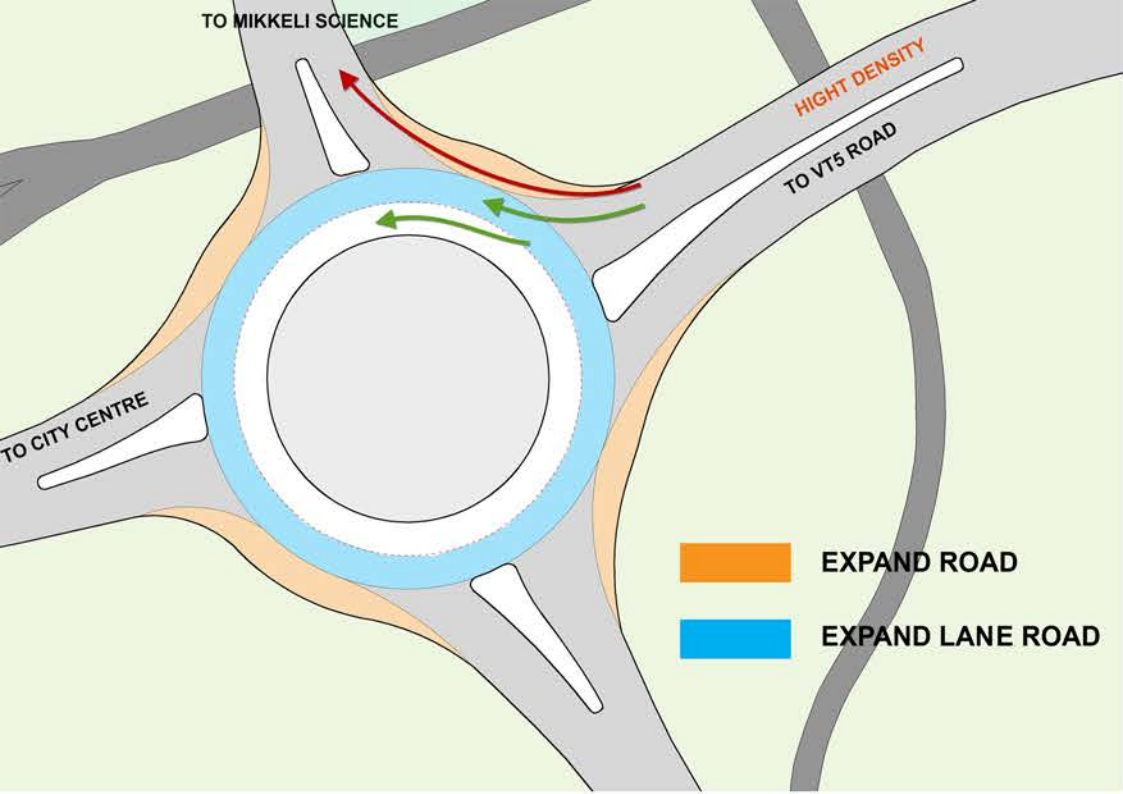
<b>Sub-area 1</b>	
Aparments total square	57510m <sup>2</sup>
Bussinneses square	30800m <sup>2</sup>
Service total square	9400m <sup>2</sup>
Car parking	34800m <sup>2</sup>
Old construction remain	1664m <sup>2</sup>
Green area	10000m <sup>2</sup>
Circulation area	3000m <sup>2</sup>
Contruction area	45700m <sup>2</sup>
Total construction square	134174m <sup>2</sup>
Total area	74000m <sup>2</sup>
Building density	0.61%

<b>Sub-area 2</b>	
Bussinneses square	21000m <sup>2</sup>
Service total square	7280m <sup>2</sup>
Car parking	8080m <sup>2</sup>
Old construction remain	8080m <sup>2</sup>
Green area	28800m <sup>2</sup>
Circulation area	3600m <sup>2</sup>
Contruction area	7700m <sup>2</sup>
Total construction square	44440m <sup>2</sup>
Total area	42100m <sup>2</sup>
Building density	0.18%

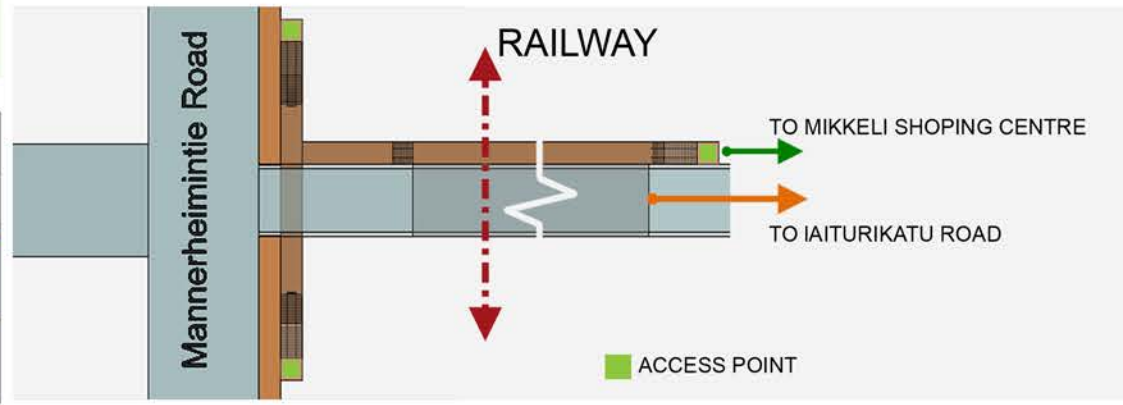
<b>Sub-area 3</b>	
Aparments total square	40500m <sup>2</sup>
Bussinneses square	9200m <sup>2</sup>
Service total square	3500m <sup>2</sup>
Car parking	19200m <sup>2</sup>
Old construction remain	1664m <sup>2</sup>
Green area	48600m <sup>2</sup>
Circulation area	8400m <sup>2</sup>
Contruction area	30000m <sup>2</sup>
Total construction square	72400m <sup>2</sup>
Total area	87000m <sup>2</sup>
Building density	0.34%

<b>Sub-area 4</b>	
Aparments total square	18920m <sup>2</sup>
Bussinneses square	8130m <sup>2</sup>
Service total square	580m <sup>2</sup>
Car parking	6320m <sup>2</sup>
Green area	45100m <sup>2</sup>
Circulation area	6400m <sup>2</sup>
Contruction area	6500m <sup>2</sup>
Total construction square	33950m <sup>2</sup>
Total area	29630m <sup>2</sup>
Building density	0.20%

<b>Other competition</b>	
Service total square	3660m <sup>2</sup>
Green area	5600m <sup>2</sup>
Circulation area	2700m <sup>2</sup>
Contruction area	6320m <sup>2</sup>
Total construction square	9020m <sup>2</sup>
Total area	23620m <sup>2</sup>
Building density	0.26%

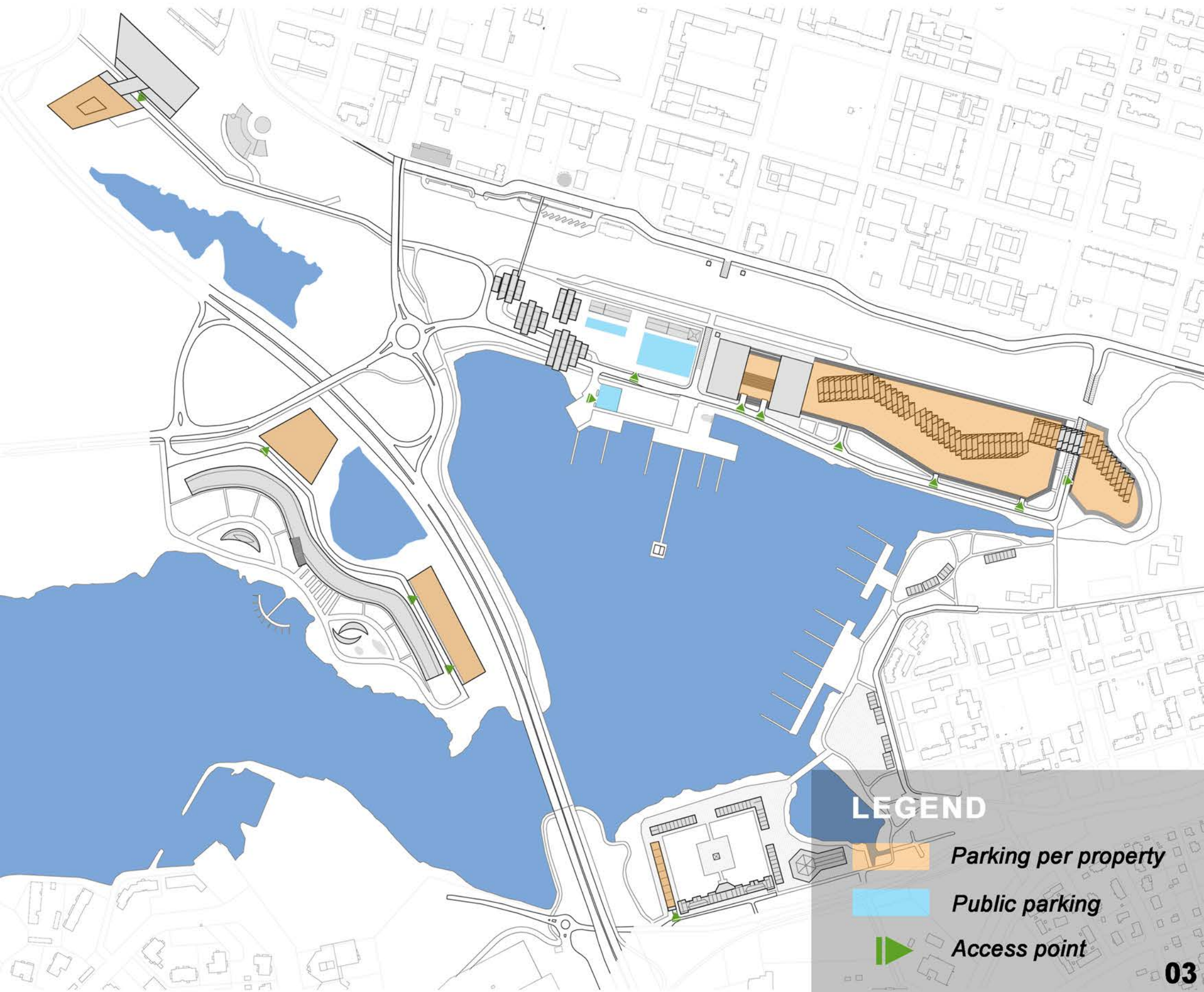


	ENTRY CAPACITY (CPU/h)	
	Present	Future
Asema split-level junction in time	1153	980
Asema split-level junction proposed in future	2100	1900



## ASEMA SPLIT-LEVEL JUNCTION TRAFFIC CALCULATION

we organize the third connection between sub 1 and old city centre in order to separate automoby traffic system to pedestrian & cycle lanes.



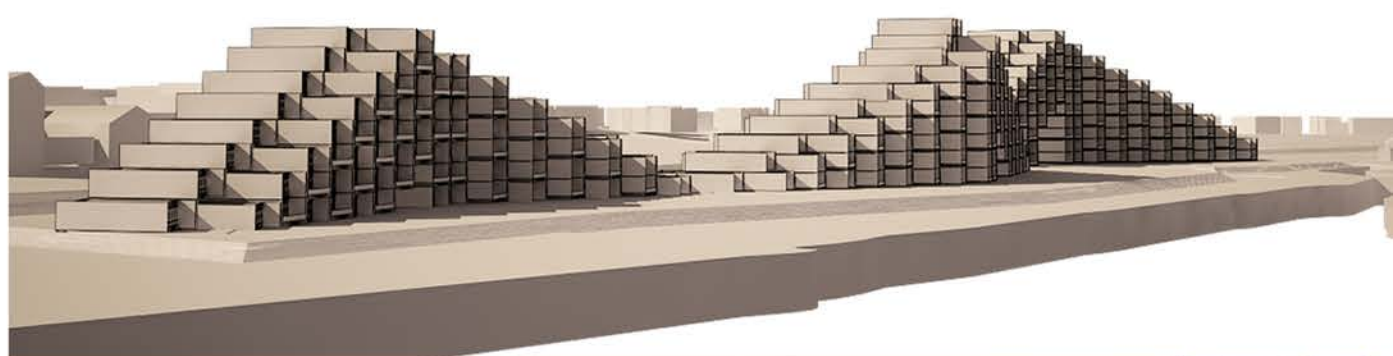


# MIKKELI SCIENCE CENTRE

To make the Mikkeli science centre become the strongest visual elements in the core of the city, we decide to create a simple shape which can be described as the ambition to conquer the peak of mountain science.

# APARTMENT BLOCK

To combine with the mountain shape of Mikkeli science centre, the apartment block is designed by a similar language. The combination emphasizes the silhouette of the city to people traveling on VT5



# MIKKELI WOODEN APARTMENT

We design the appearance of the main structure with the inspiration from traditional architecture of scandinavi. The building is used as an apartment block for rent and boutique shops, which attract tourists

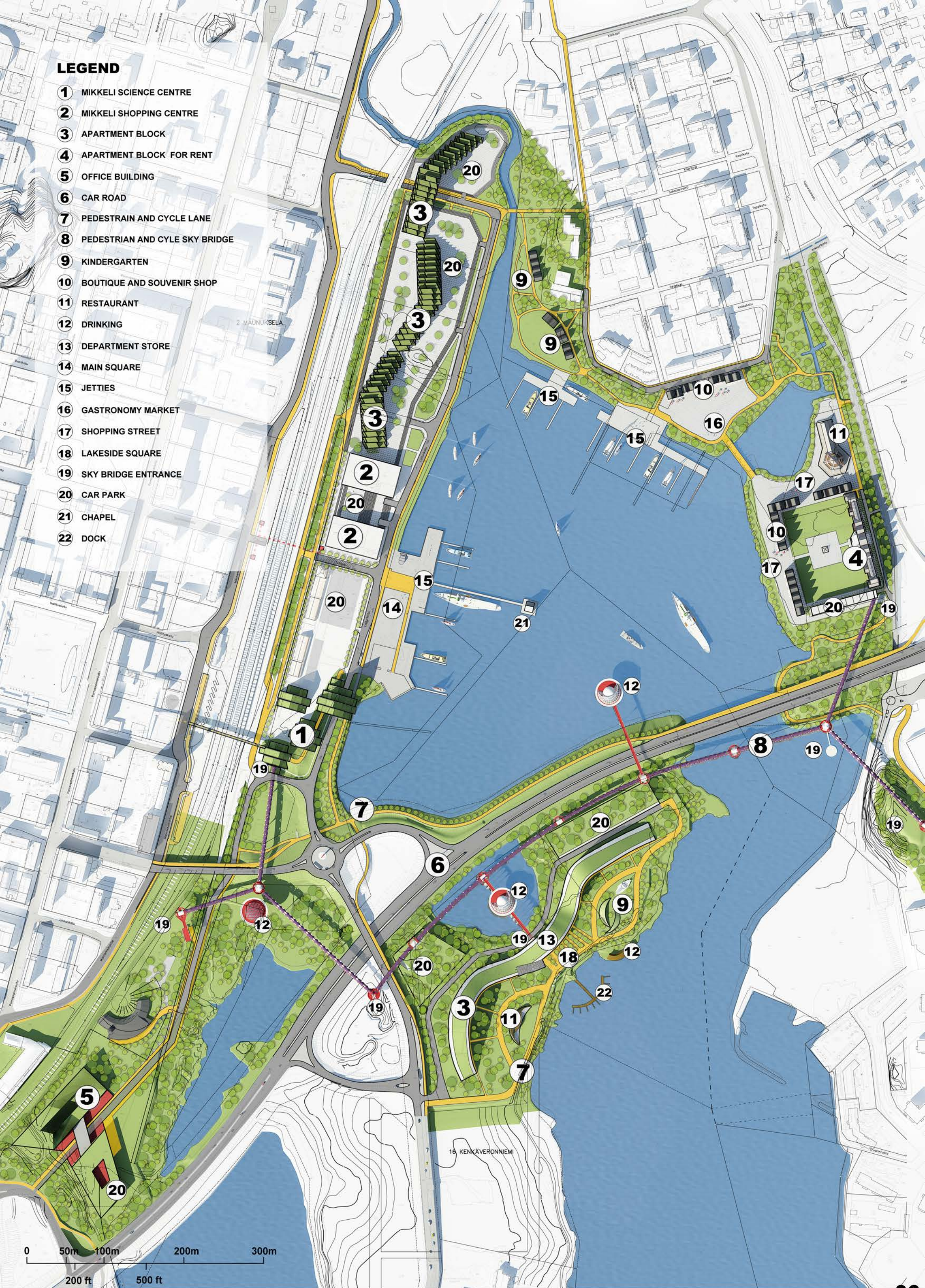


# LAKESIDE APARTMENT BLOCK



**LEGEND**

- 1 MIKKELI SCIENCE CENTRE
- 2 MIKKELI SHOPPING CENTRE
- 3 APARTMENT BLOCK
- 4 APARTMENT BLOCK FOR RENT
- 5 OFFICE BUILDING
- 6 CAR ROAD
- 7 PEDESTRAIN AND CYCLE LANE
- 8 PEDESTRIAN AND CYLE SKY BRIDGE
- 9 KINDERGARTEN
- 10 BOUTIQUE AND SOUVENIR SHOP
- 11 RESTAURANT
- 12 DRINKING
- 13 DEPARTMENT STORE
- 14 MAIN SQUARE
- 15 JETTIES
- 16 GASTRONOMY MARKET
- 17 SHOPPING STREET
- 18 LAKESIDE SQUARE
- 19 SKY BRIDGE ENTRANCE
- 20 CAR PARK
- 21 CHAPEL
- 22 DOCK





OBLIQUE AERIAL (ANNEX L)



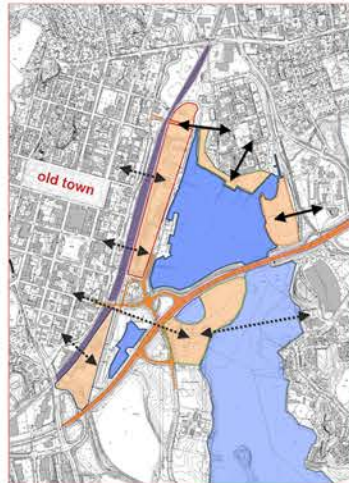
OBLIQUE AERIAL (ANNEX K)



OBLIQUE AERIAL (ANNEX L)

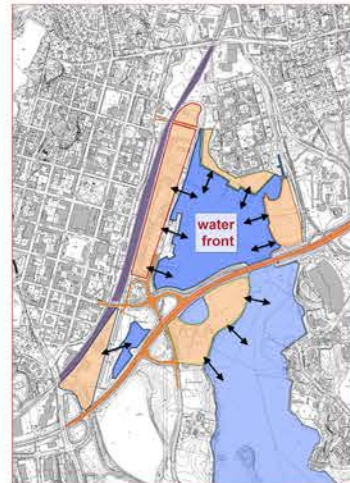


GRANULARITY 1:4000



the rain way area  
high density traffic  
new town area

there's 38% ( 1149m ) of boundary of the new town area can connect easily to the old city. But the majority of these easy access belong to the north-est ( sub-urb area )



the rain way area  
high density traffic  
new town area

there's approximately 1525m shore line belong to the new town area and 75% of it can be approached easily. So the strongest element to determine the characteristic of new town area is water font.



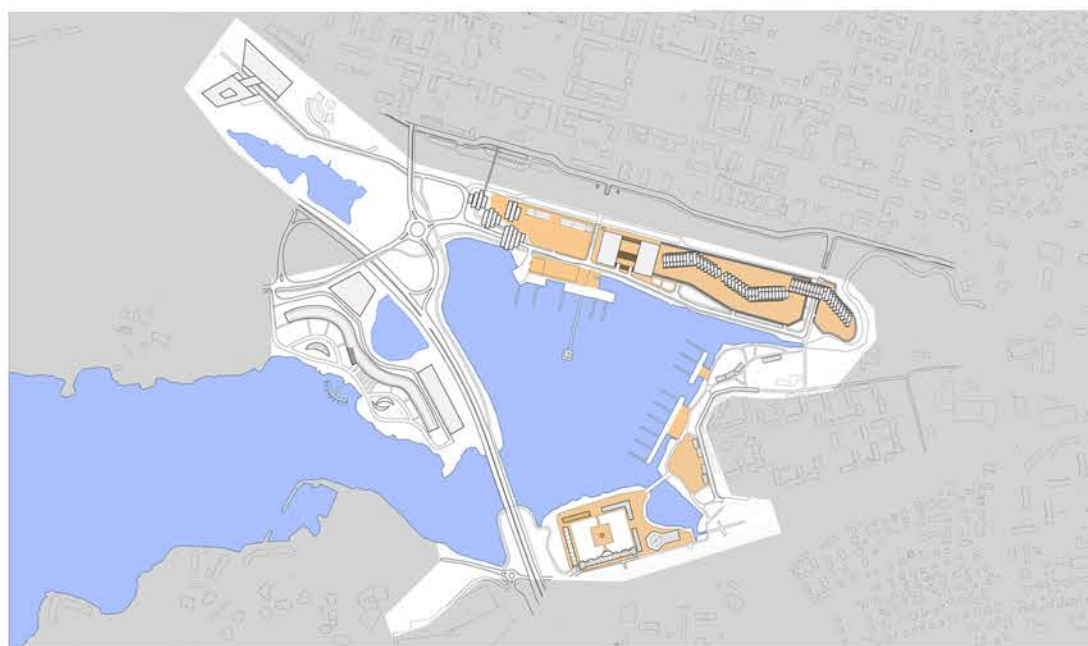
the rain way area  
high density traffic  
new town area

so we decide to create a new town as a group building with various architect language which independent with the architecture of old city. The water font and a new circulation will strengthen these buildings as a grand complex structure with the core is Saimaa lake

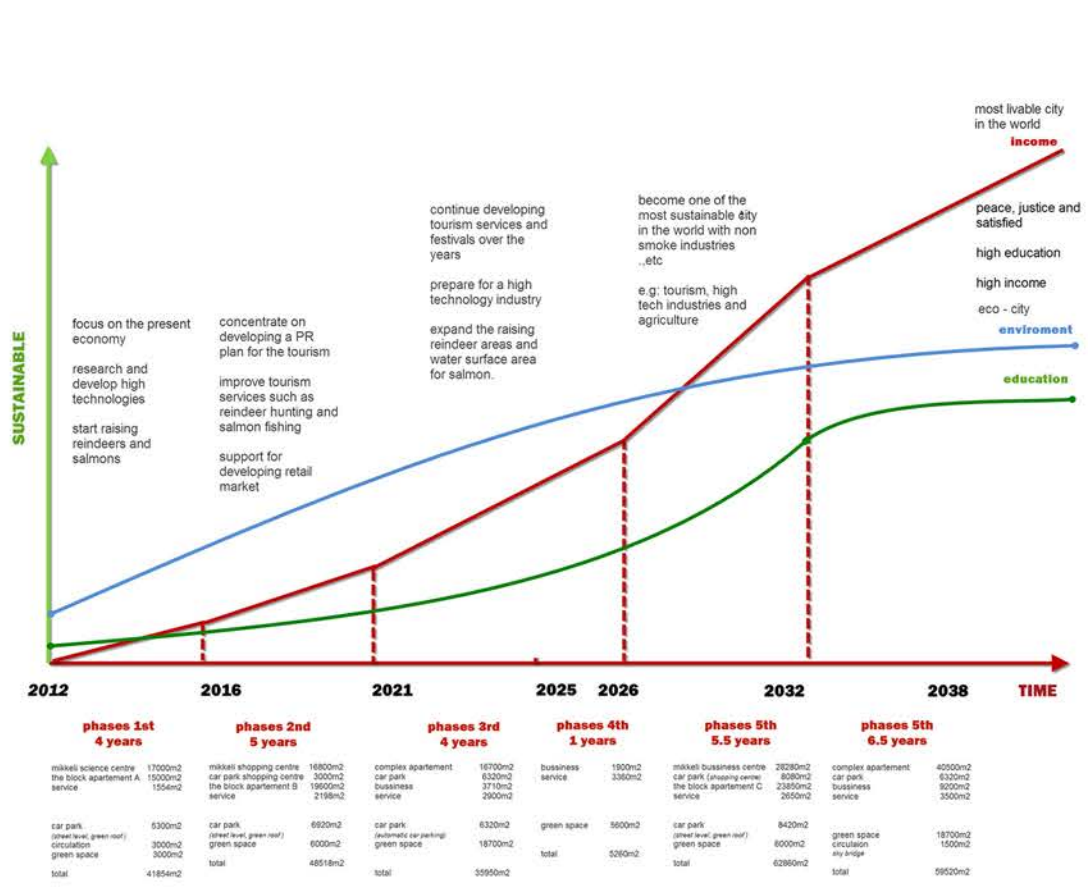
OVERALL IDEA



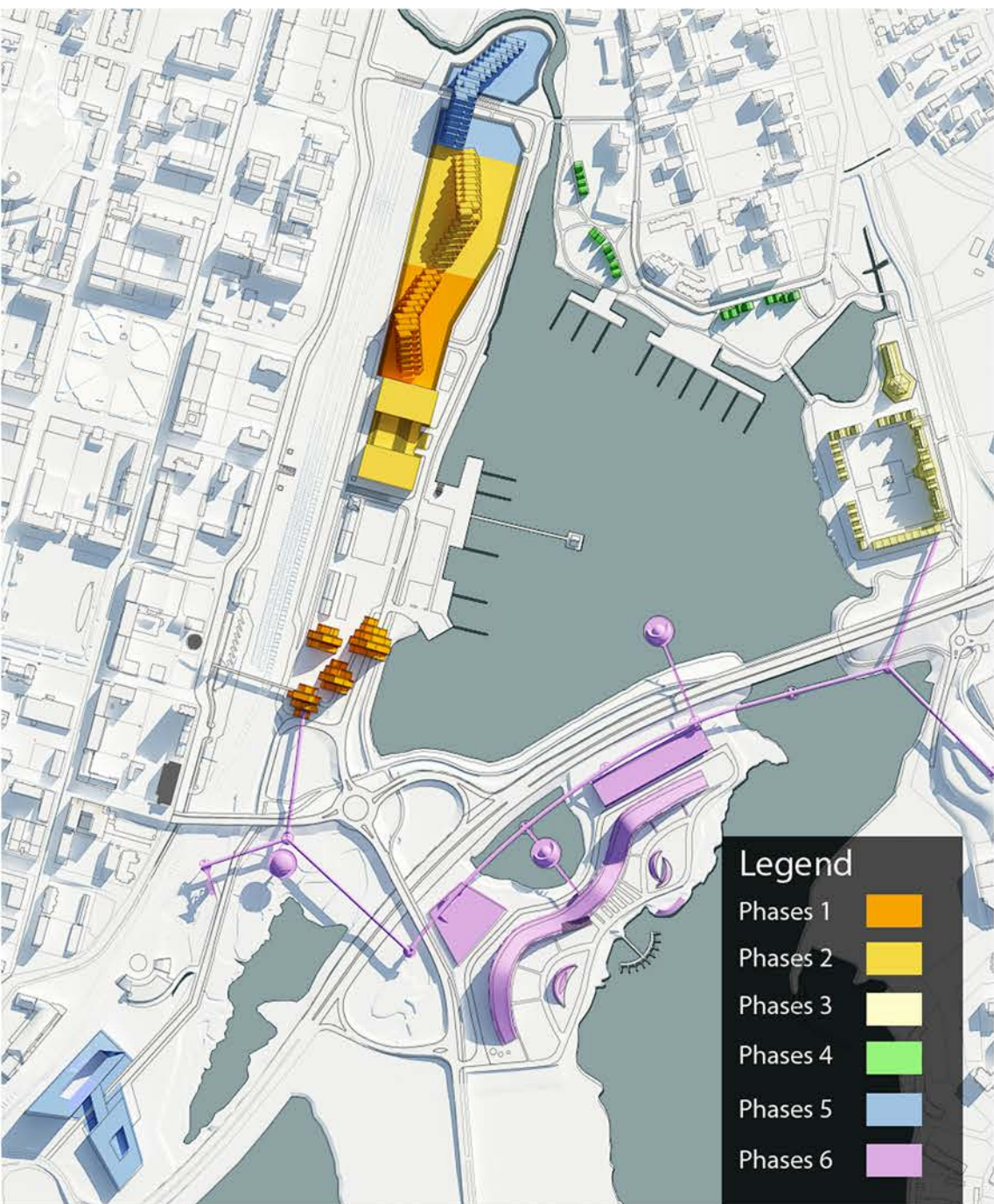
GREEN AND OPEN SPACES



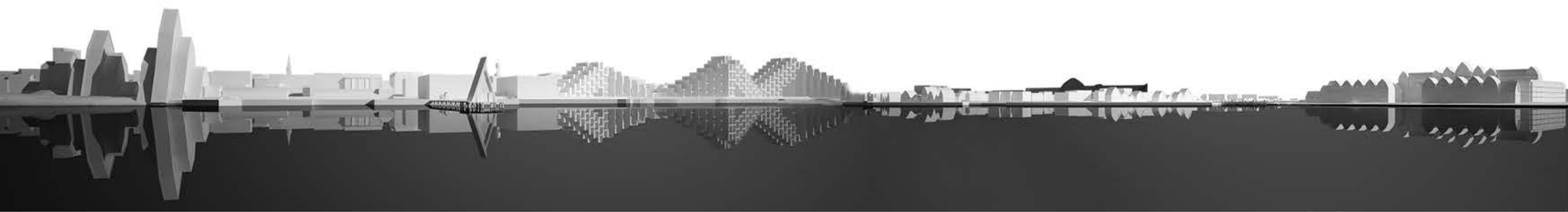
STORM WATER COLLECTION AREAS



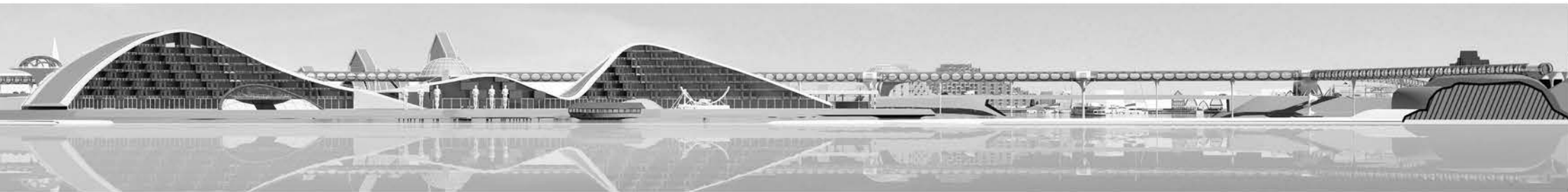
PHASES OF CONSTRUCTION PLAN & DIAGRAM







**URBAN SILHOUETTE - SAVILAHTI VIEW**



**URBAN SILHOUETTE - SAIMA VIEW**



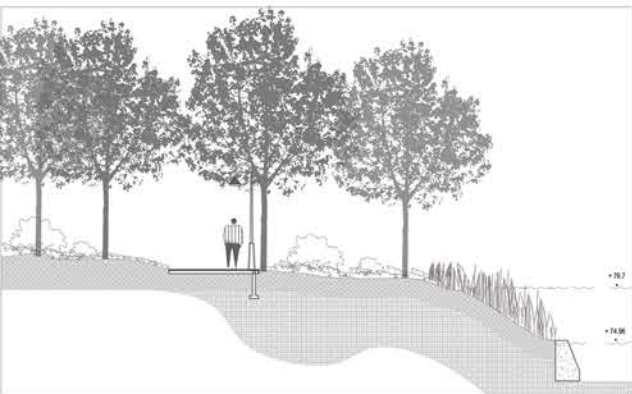
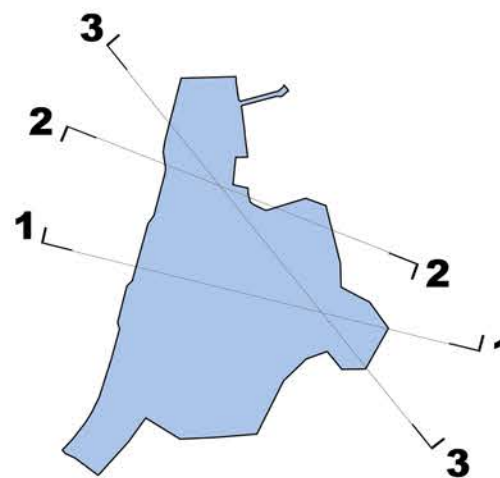
**SECTION 1- SCALE: 1 : 2000**



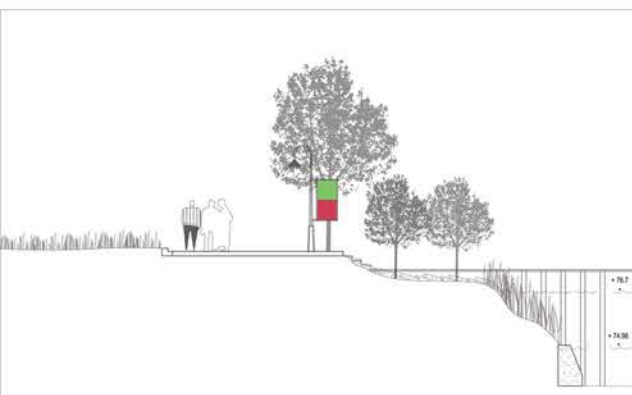
**SECTION 2- SCALE: 1 : 2000**



**SECTION 3- SCALE: 1 : 2000**



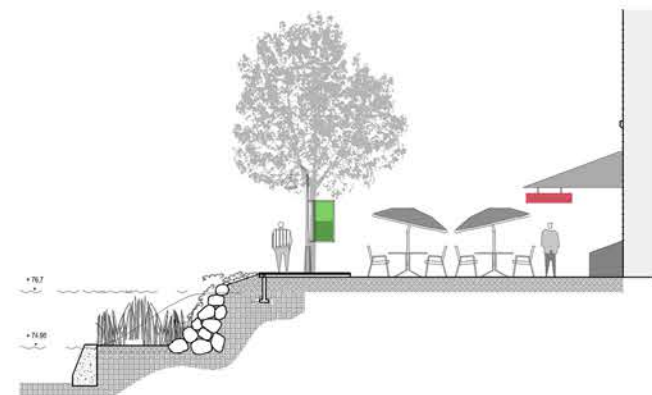
**STREET SECTION 1- SCALE: 1 : 125**



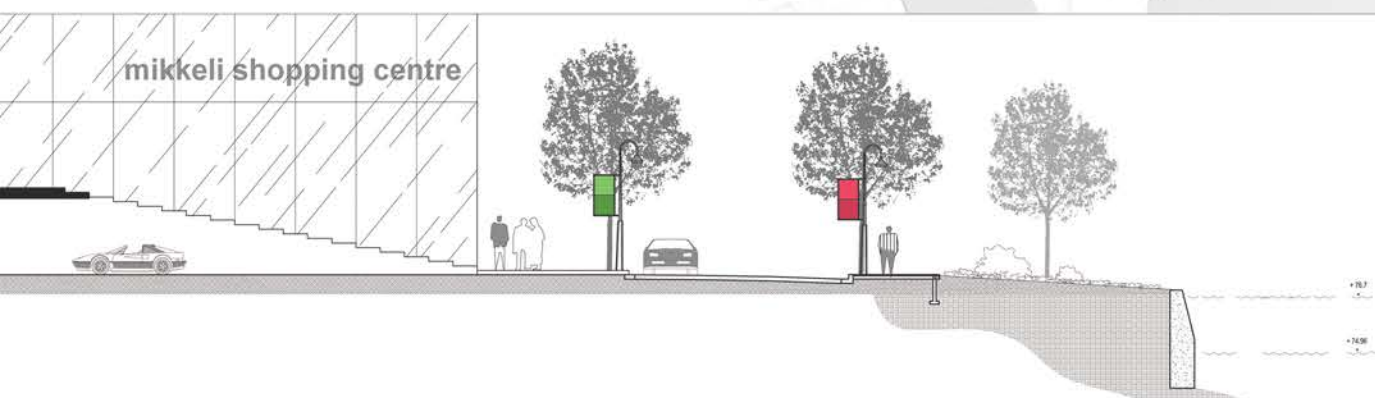
**STREET SECTION 2- SCALE: 1 : 125**



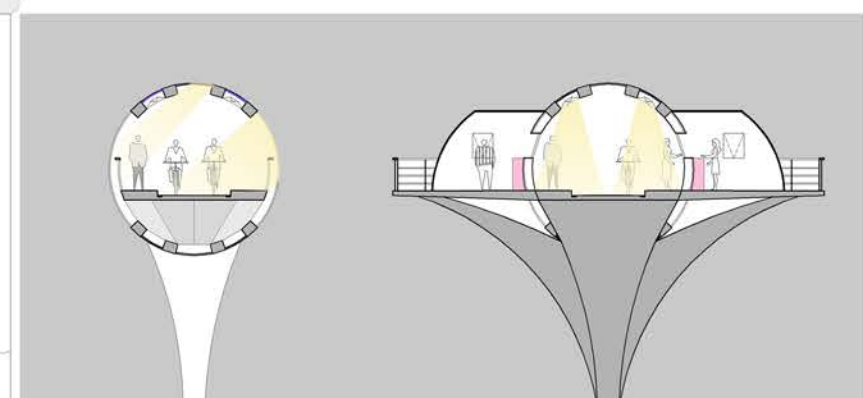
**STREET SECTION 3- SCALE: 1 : 125**



**STREET SECTION 4- SCALE: 1 : 125**



**STREET SECTION 5- SCALE: 1 : 125**



**STREET SECTION 6&7 SCALE: 1 : 125**



PEDESTRIANS VIEW PORT TO MIKKELI SCIENCE CENTRE



SHOPPING CENTRE STREET VIEW



SHOPPING STREET VIEW



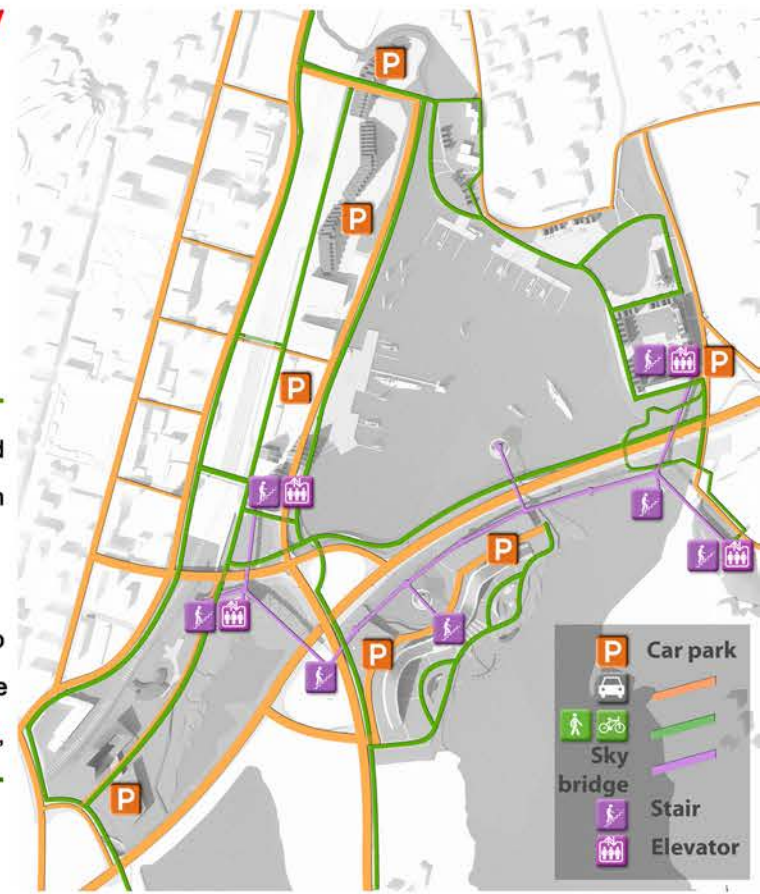
SERVICES MAP

at first glance, Mikkeli tourists can be impress easily by the **sky bridge system** and the **mikkeli science centre**

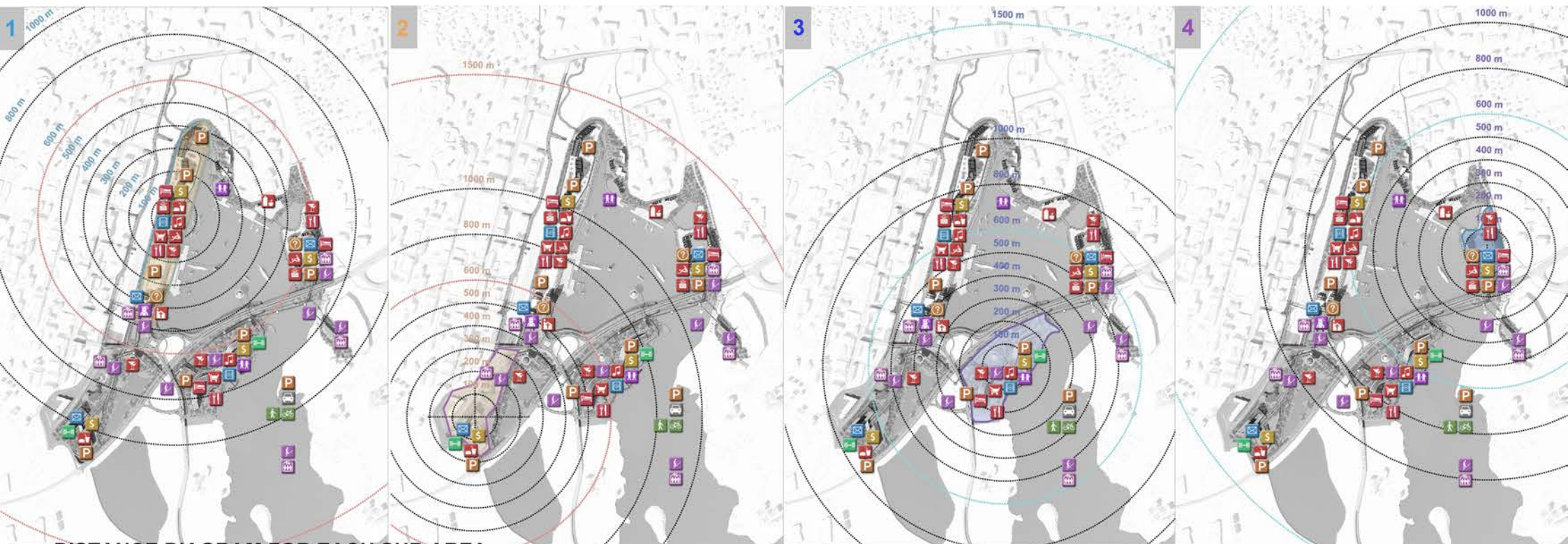
according to the development trategies of **Mikkeli**, we focus on two sides. the first is the **shopping centre** of Mikkeli and the **walk street** and the **gastronomy market** on the opposite side of the lake

the plan offers opportunities for tourists to taste **local agriculture products** such reideer meat, salmon eggs and **handcrapt souvenirs**. At the same time going shopping in a **morden shopping centre**

all of those show the **innovation trend** of Mikkeli to become one of the **most sustainable city** all over the world. It also is illustrated by a **diversity culture**, high technology industries and **developed agriculture**



TRAFFIC MAP



DISTANCE DIAGRAM FOR EACH SUB AREA

# BIO - GEO - PHYSICAL CONDITIONS

**AIR**

REDUCE CO2 AND OTHER POLLUTIONS IN THE AIR BY THESE PRESENT INDUSTRIES

REDUCE THE NUMBERS OF CARS AND PRIVATE MOBILITY

CREATE MORE GREEN SPACES IN THE CITY

DEVELOP NON-SMOKE INDUSTRIES: TOURISM, HIGH TECHNOLOGIES, AGRICULTURE

BUILD AND UPGRADE THE TRANSPORT SYSTEM FOR BICYCLES AND PEDESTRIANS

PLAN MORE TREES IN THESE OPEN SPACES IN SUB 3, SUB 4

## Bike Walk



**WATER**

SANITIZE THE QUALITY OF WATER IN THE LAKE AS A DRINKABLE WATER RESOURCE

REPLACE SOIL SURFACE BY CONCRETE MAKE THE AREA'S ABSORBING CAPACITY BECOME LOWER

SEPERATE THE SEWER PIPES FROM THE STORM WATERS COLLECTION SYSTEM

DESIGN THE STORM WATER COLLECTION SYSTEM TO ABLE TO CLARIFY STORM WATER AND USE DIRECTLY FOR AGRICULTURE



**SOIL**

RESTORE

RESTORE SOIL SURFACE BY CREATING MORE NEW GREEN ROOF AREAS

**MATERIAL RESOURCES**

USE RECYCLE PRODUCTS AND THE LOCAL GOODS TO REDUCE THE USE OF NATURAL MATERIAL AND POLLUTION FROM HUMAN'S ACTIVITIES

THE MAJORITY OF CONSTRUCTION IS MADE BY WOOD AND CONCRETE (LOCAL INDUSTRIES'S PRODUCTS)

THE UPM ProFI IS ONE OF MOST POTENTIAL MATERIALS IN THE CONSTRUCTION INDUSTRY

THE AGRICULTURE USE THESE PRODUCTS OF WASTE TREATMENT FACTORIES AS INPUT RESOURCES (FERTILIZER)

## Summary : Sustainable Waste Management in Singapore



**ENERGY**

USE THE RENEWABLE AND RECYCLABLE ENERGY FROM DAILY ACTIVITIES

SOLAR ENGERY FOR THE ELEVATORS AT THE SKY BRIDGE CONNECTING SUB 1,2,3,4

HEAT FROM BURNING WASTE WILL BE COLLECT FOR MULTI-PORPOSES

e.g: ONE TON OF WASTE CAN PRODUCE 1,5 OIL TANKS



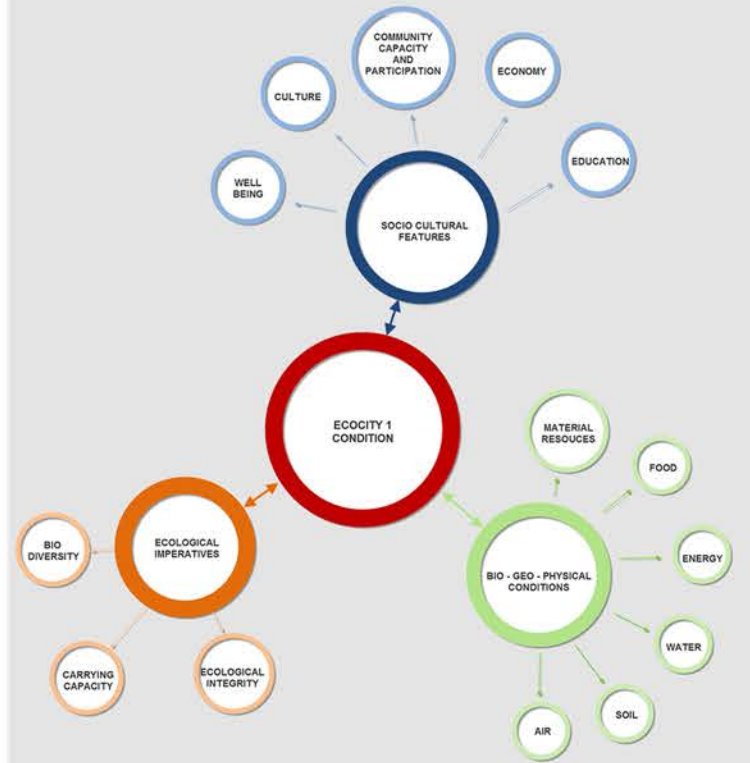
**FOOD**

CONTROL FOOD SAFE AND FOOD SECURITY

DEVELOP THE URBAN FARMING SYSTEM BY RAISING REINDEERS AT THE SUB 3 ( BEFORE BEGINING BUILDING)

PLANING ON THE ROOFS OF SUB1, SUB3, COURT YARD OF SUB4

RAISING SALMONS IN THE LAKE OF SUB 3



FROM ECO CITYBUILDERS (2011)

# ECOLOGICAL CONCEPT OVERALL IDEA

# SOCIO CULTURAL FEATURES

**CULTURE**

REDUCE THE GAP BETWEEN THE POOR AND THE RICH

BUILD A HEALTHY AND DIVERSITY CULTURE WHICH WILL BE AN CHARACTERISTIC OF MIKKELI

CREATE OPPORTUNITIES FROM GOOD AND SHORT-TERM EDUCATIONS AND AGRICULTURE'S JOBS (IT WILL ENCOURAGE PEOPLE TO PARTICIPATE IN AGRICULTURE )

PEOPLE CAN CHOSSE WHICH SUB AREA THEY WANT TO LIVE IN. EACH SUB AREA HAS ITS OWN LIFESTYLE WHICH IS SUPPORTED BY THESE SERVICES AND DETERMINED BY SPECIAL APPEARENCES

## EDUCATION

PROVIDE EDUCATION FOR ALL AGE GROUPS AND LEVELS

WE CAN TRY TO CREATE MORE SHORT-COURSES IN MULTI-PROFESSIONS BY TAKING ALL THESE ADVANTAGES OF THE UNIVERSITIES AND THE MIKKELI SCIENCE CENTRE

**COMMUNITY CAPACITY & PARTICIPATION**

HIGHTLY WELL ORGANIZED EVENTS AND COMMUNITY 'S ACTIVITIES

MAKE LOCALS COOPERATE HIGHLY IN COMMUNITY'S EVENTS

THERE ARE ENOUGH PLACES AND SPACES TO ORGANIZED PUBLIC'S EVENTS

THE CITY SUPPORT ENOUGH BUDGET FOR COMMUNITY'S ORGANIZATION

INCREASE THE NUMBER OF PUBLIC SERVICES: PUB, CLUB, BAR, SPORT CENTRE, CHAPEL ... TO STRENGTHEN THE LOCAL RESIDENT'S RELATIONSHIP

## WELL BEING

GOOD SECURITY, PEACE, JUSTICE AND CONTENTMENT

APPLY HIGH TECHNOLOGY SECURITY SYSTEMS IN ORDER TO MAKE SURE THE SAFETY OF LOCALS AND TOURISTS

REDUCE CONSEQUENCES OF THE URBANISING SUCH AS NOISE, DUST, EXHAUSTED

SUPPORT MORE FACILITIES FOR HANDICAPS AND THE ELDERES

CREAT MORE GREEN AND OPEN SPACES FOR PUBLIC

**ECONOMY**

RESTORES THE NATURE 'S ECONOMY

MADE TOURISM BECOME AN IMPORTANT PART OF THE ECONOMY

FOCUS ON HIGH TECHNOLOGY INDUSTRIES FOR HAVING GRAND BENEFIT

DEVELOP AGRICULTURE TO INCREASE THE CAPACITY OF PROVIDING FOOD & REDUCE FOOD IMPORT. WE ALSO MAKE A BRAND FOR CITY'S FOOD PRODUCTS

THE GASTRONOMY MARKET AT WEEKEND WILL BRING A NEW WAVE OF TOURISTS TO MIKKELI AND ALONG WITH THIS A HIGH INCOME FROM TRAVELLERS. IT IS GOOD AT POPULATING THE CITY'S BRAND AND CREATING A MARKET FOR LOCAL AGRICULTURE'S PRODUCTS

USING THE MIKKELI SCIENCE CENTRE AS THE MAIN ENGINE TO PROVIDE A NUMBER OF HIGH EDUCATION STAFF FOR THE HIGH TECHNOLOGY INDUSTRIES