FOODBANISM

STRATEGY OF HEALTHY GREEN FUTURE FOR ROTTERDAM ZUID

RUOJING WU (MAZE) #4504941 30/06/2017 - P5

BENEFITS

Self-sufficiency
Greens up cities
Social justice
Healthy eating
Social interaction
Create jobs
Life skills
Education
Lifestyle



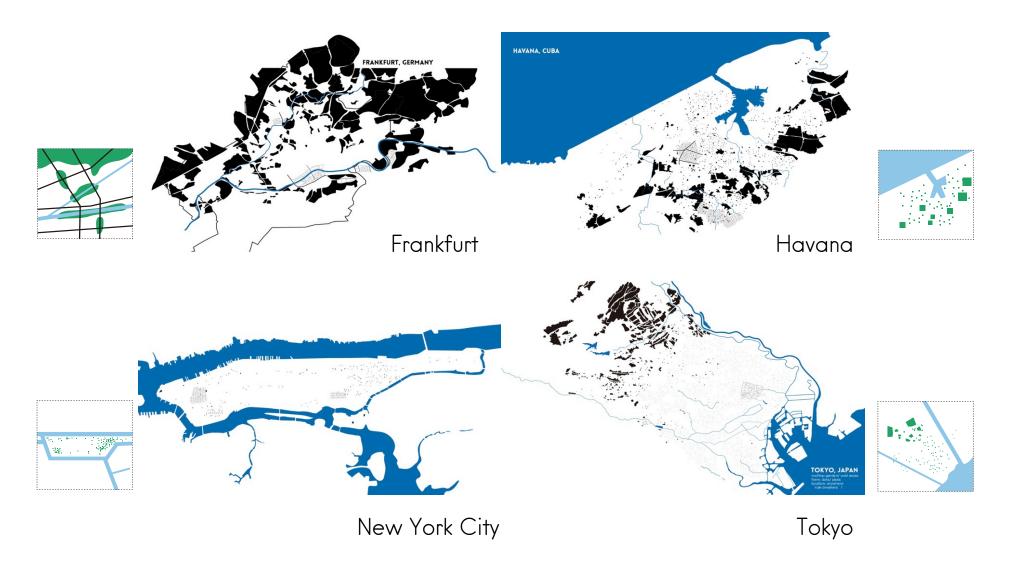
FOODBANISM

STRATEGY OF HEALTHY GREEN FUTURE FOR ROTTERDAM ZUID

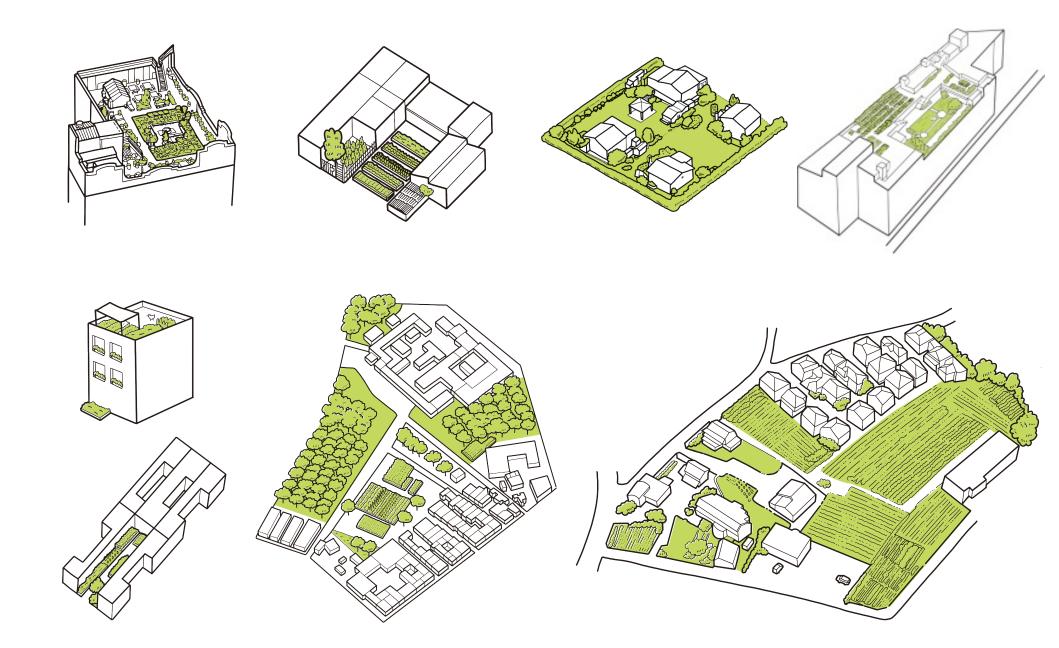
STRATEGIC PLANNING

- Vision
- Operational system
- A series of spatial tools

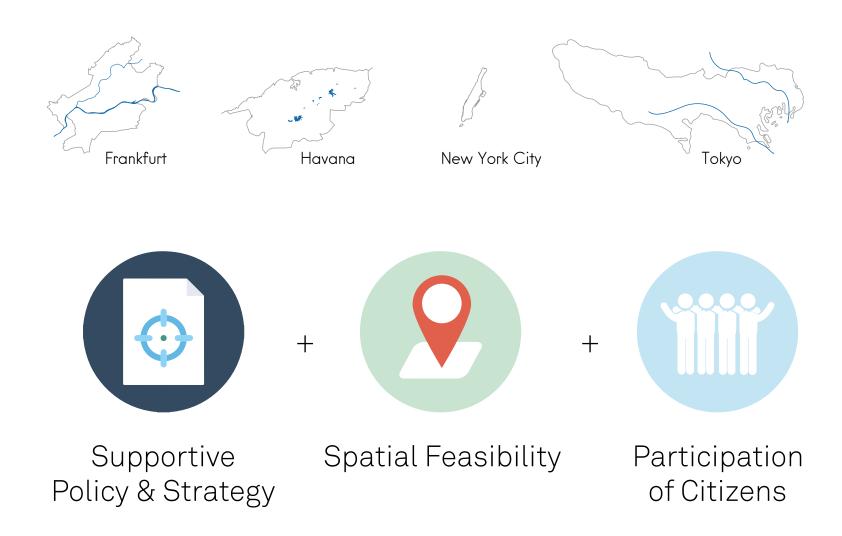
CASE STUDY



DIFFERENT FORMS OF PRACTICES



KEY FACTORS





Frankfurt
Self-sufficiency and happiness

Tokyo Culture, relieve stress



Havana Reaction to crisis Necessity, Will, Desire

New York City Social justice



What is the meaning of urban agriculture in the Netherlands?



Frankfurt Self-sustain and happiness

Tokyo Culture, relieve stress



Havana Reaction to crisis Necessity, Will, Desire

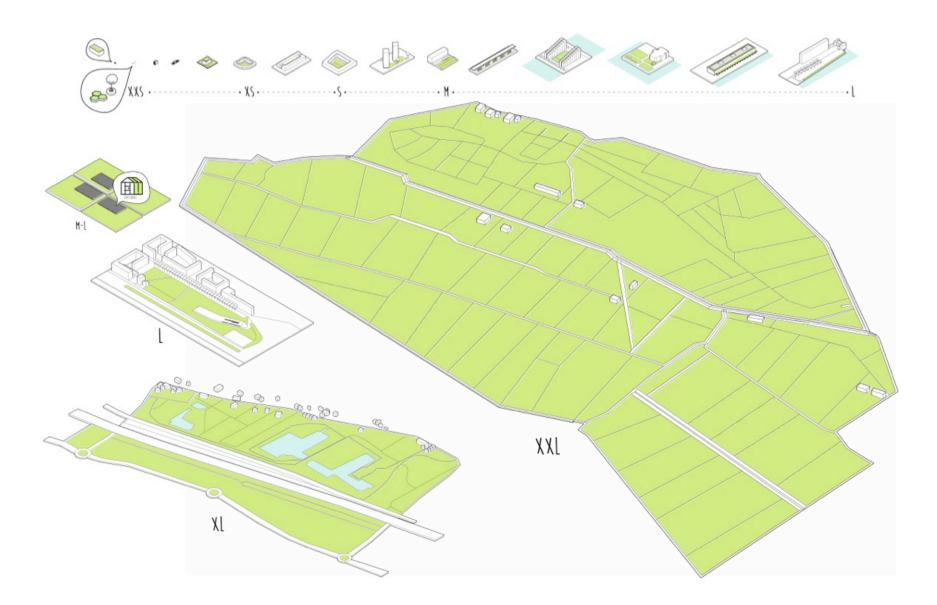




ON-SITE STUDY Imageability accessibility height of buildings vitality education

TYPOLOGY STUDY







INTERACTION WITH PEOPLE





MY QUESTION

How can I develop the strategy for a healthy green future in Rotterdam Zuid that communicates both decision makers and citizens?



MEANING OF URBAN AGRICULTURE IN THE NETHERLANDS

In the Netherlands, urban agriculture is not only about food, It is about...

- An active use of green
- Social interaction
- Encourage a healthy life

FRAMEWORK OF DESIGN

PART I

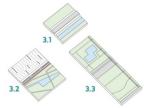
VISION & STRATEGY



PART II

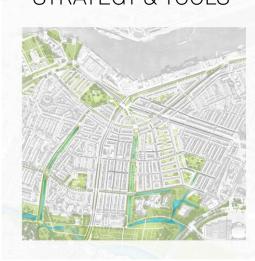
SPATIAL TOOLS





PART III

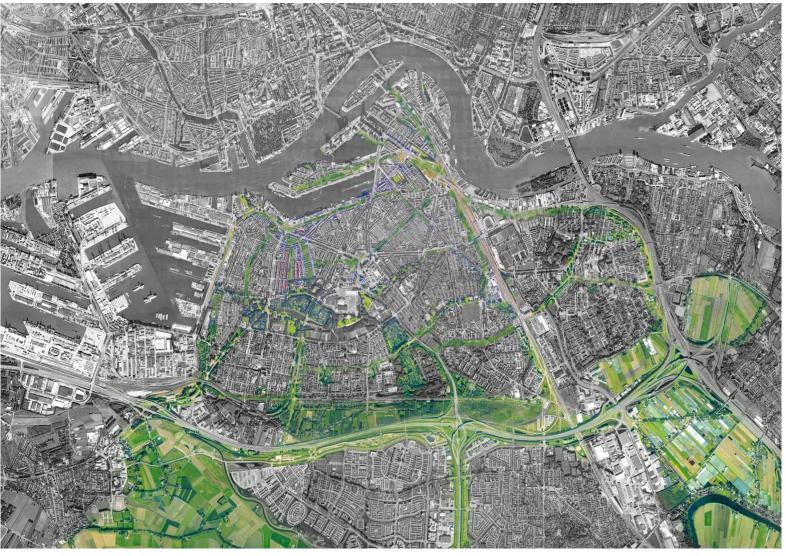
ADAPTATION OF STRATEGY & TOOLS











+ EXISTING AGRICULTURAL PRACTICES

+ EXISTING GREEN PUBLIC SPACE

POTENTIAL LEFTOVER SPACE

PROPOSAL

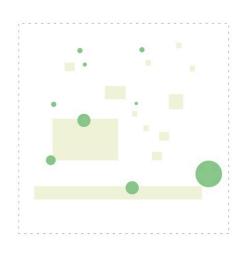
THE HIDDEN CONNECTION





1.2. space along highway/ 3. space along canal/ 4. space along dike/ 5.6. space along metro line/ 7.8 space along railway

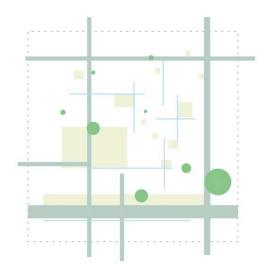
CONCEPT DEVELOPMENT



EXISTING SITUATION

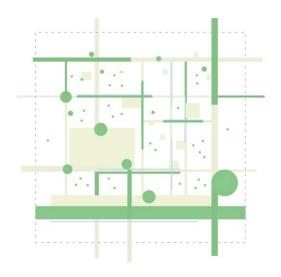
green space for recreation

agricultural practices



UNDERUTILIZED SPACE

space along infrastructure (highway, railway, metroline, dike)



CONNECTIVE LANDSCAPE





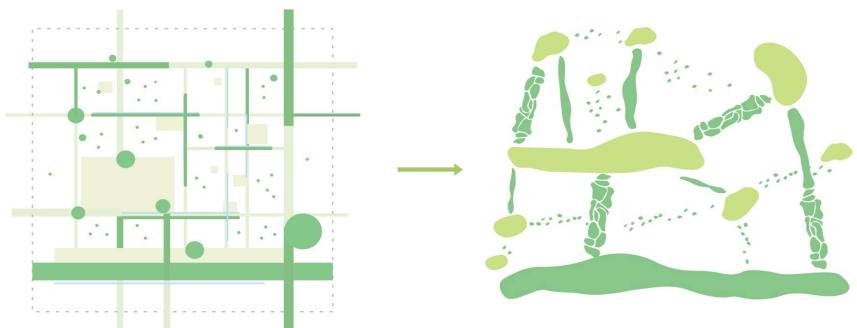


food edible



insect pollination

MULTIPLE BENEFITS



- Activating the leftover space
- Connecting public green space
- Supporting slow network
- Increase the biodiversity
- Strengthen the urban ecosystem
- More options for different activities

CONNECTIVE LANDSCAPE







food edible

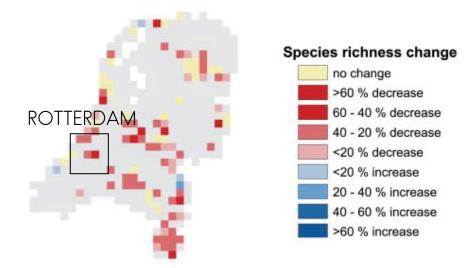


pollination

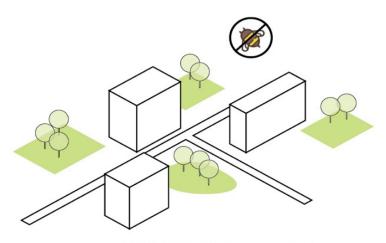


OVER 1/3 OF FOOD

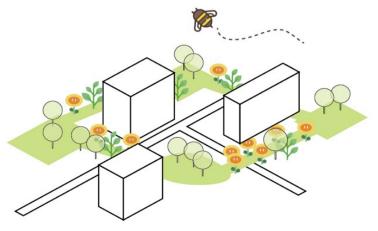
Bee diversity declined in large fractions of the 10 km by 10 km cells analyzed in the Netherlands



HEALTHY SETTING FOR FOOD GROWING

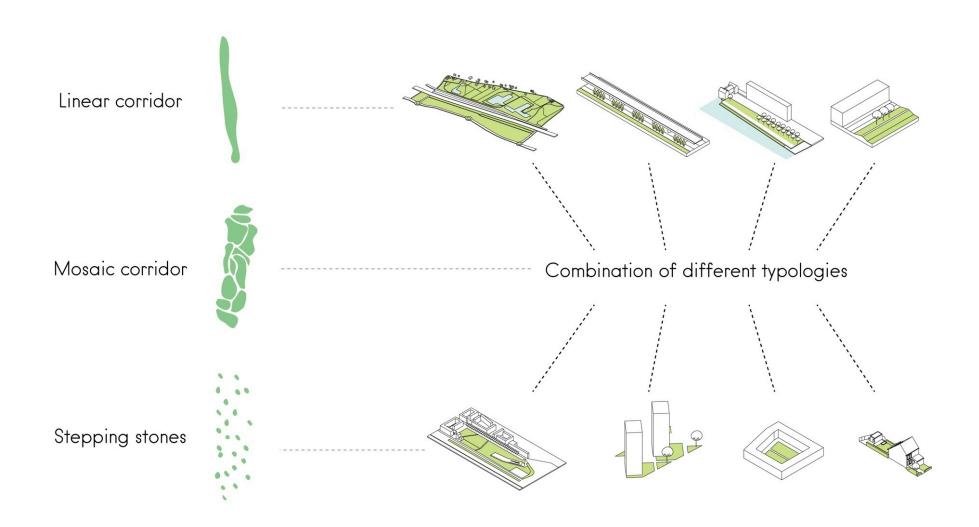


EXISITNG man-made barrier in the city: difficult for pollinators to cross



PROPOSAL connective landscape creates opportunities for pollinators to move within the city

SPATIAL TYPOLOGY AS POTENTIALS

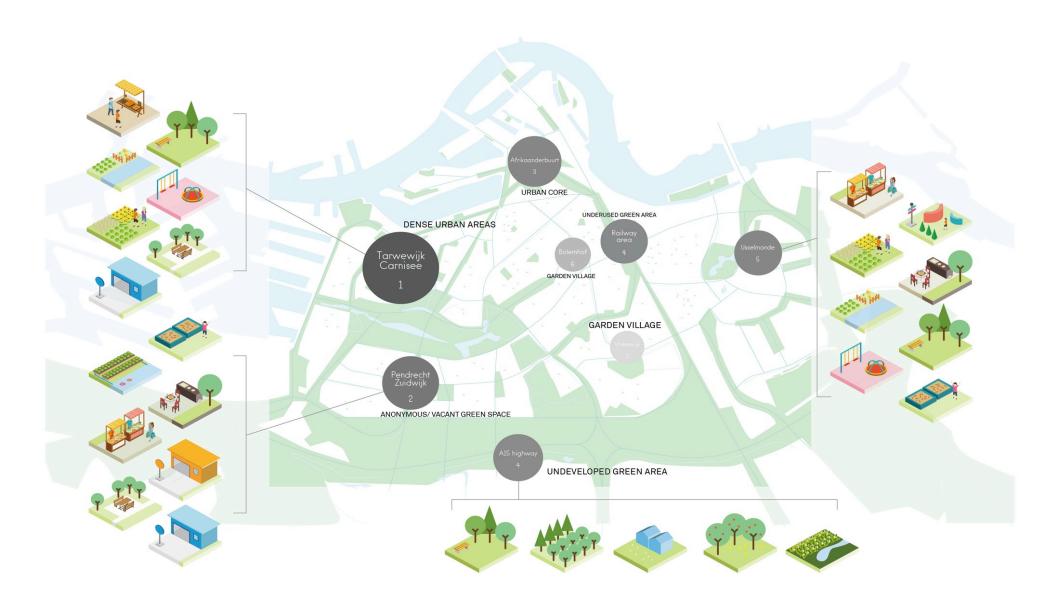


TOOLKIT





PRIORITY OF INTERVENTION



PART II SPATIAL TOOLS

RESIDENTIAL SPACE

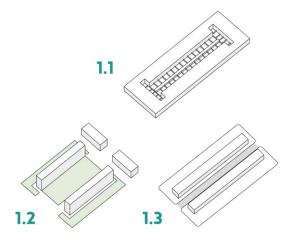
- 1.1. closed building block
- 1.2. open building block
- 1.3. in-between street

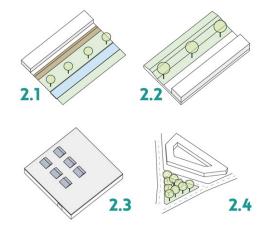
RESIDUAL SPACE

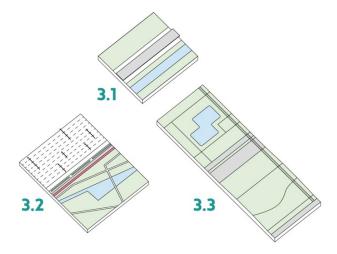
- 2.1 canal space
- 2.2 space along dike
- 2.3 undeveloped rooftop
- 2.4 triangle green space

SEPARATIVE SPACE

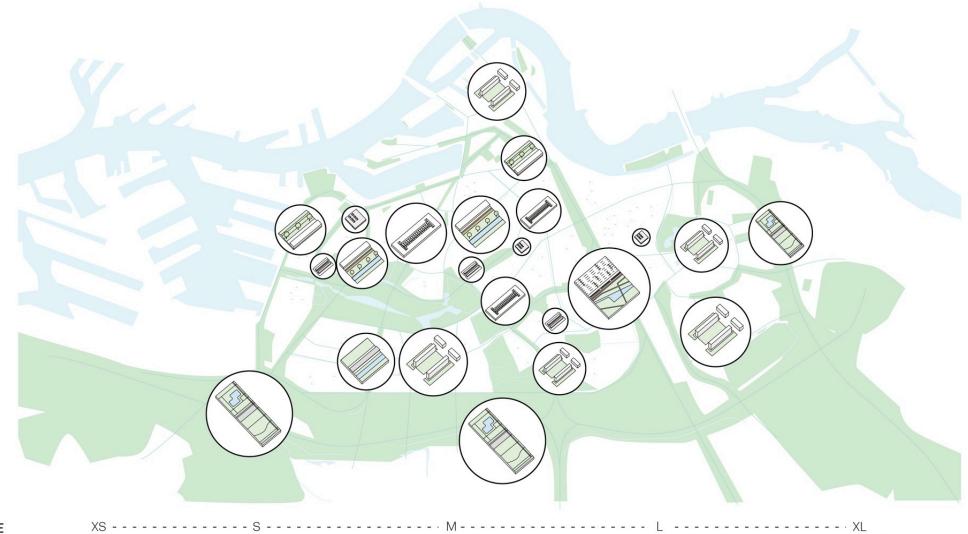
- 3.1 space along metroline
- 3.2 space along raiway
- 3.3 space along highway







DISTRIBUTION & SCALES



SCALE









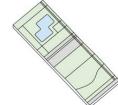




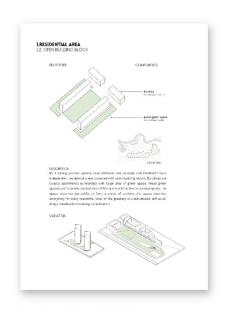




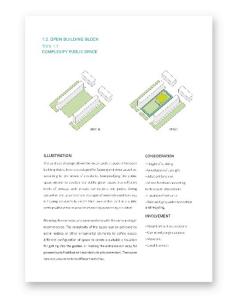




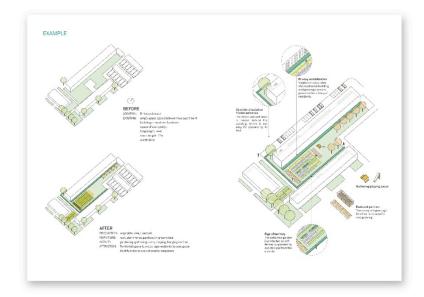
FORMAT



IDENTIFICATION
LOCATION
SPATIAL CHARACTERISTIC
PROBLEMS & POTENTIALS

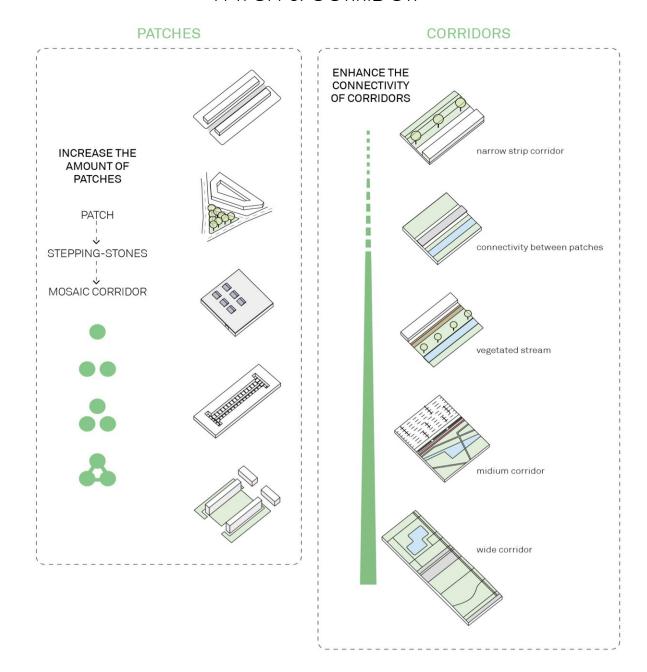


TRANSFORMATION
IDEA
SITE CONSIDERATION
INVOLVED PARTNERS

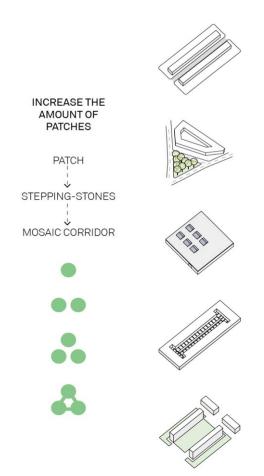


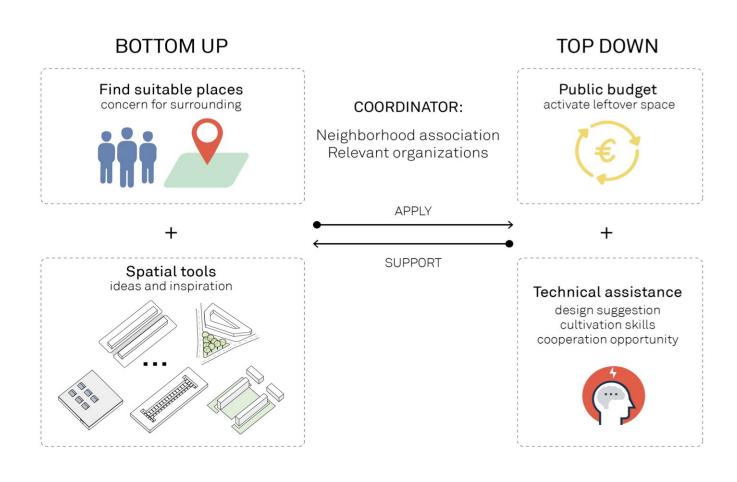
DEMONSTRATION EXAMPLE FROM SITES ZOOM IN POINTS

PATCH & CORRIDOR



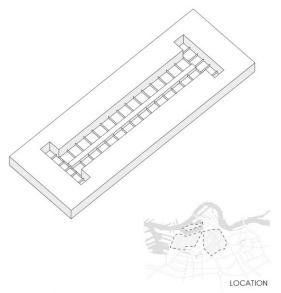
PATCH





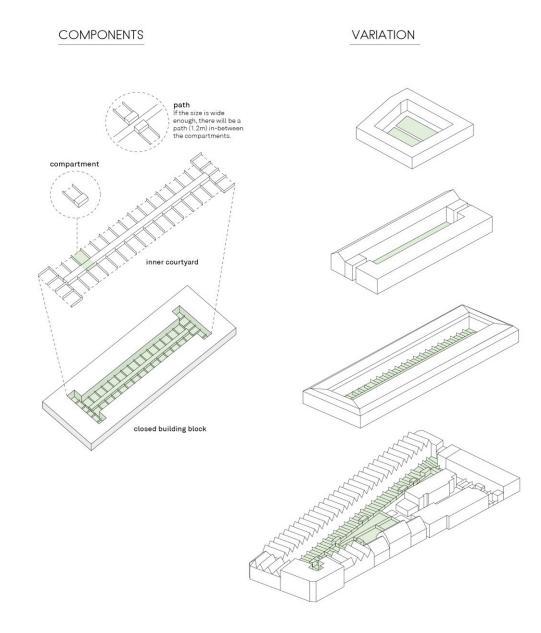
CLOSED BUILDING BLOCKS

PROTOTYPE



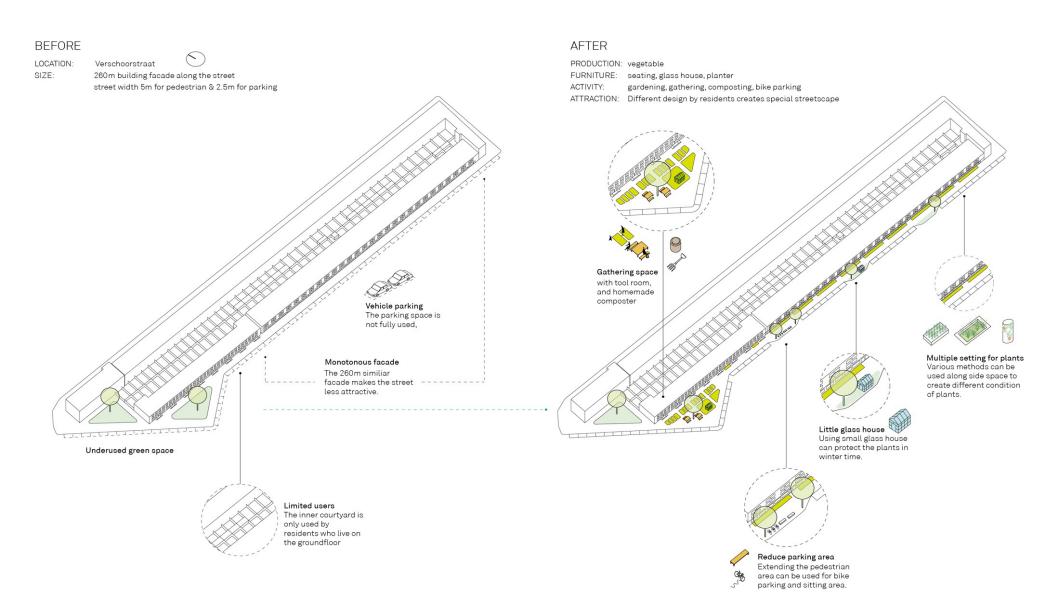
DESCRIPTION

Closed building blocks mainly located in district Tarwewijk and Carnisse. These areas have narrow streets with high density of blocks. The style followed the former ditch landscape pattern, which in a grid fabric. Blocks are mainly used for residential, with private inner courtyard. Inside the courtyard, the space was divides into several private compartments for residential gardens. The size of the courtyards varies. The style shows a strong private sense that impedes social interaction with neighbors. The activity in each compartment is limited because of the size. Also, the height of building influences the sunlight, which means part of the courtyards are not suitable for plant growing.

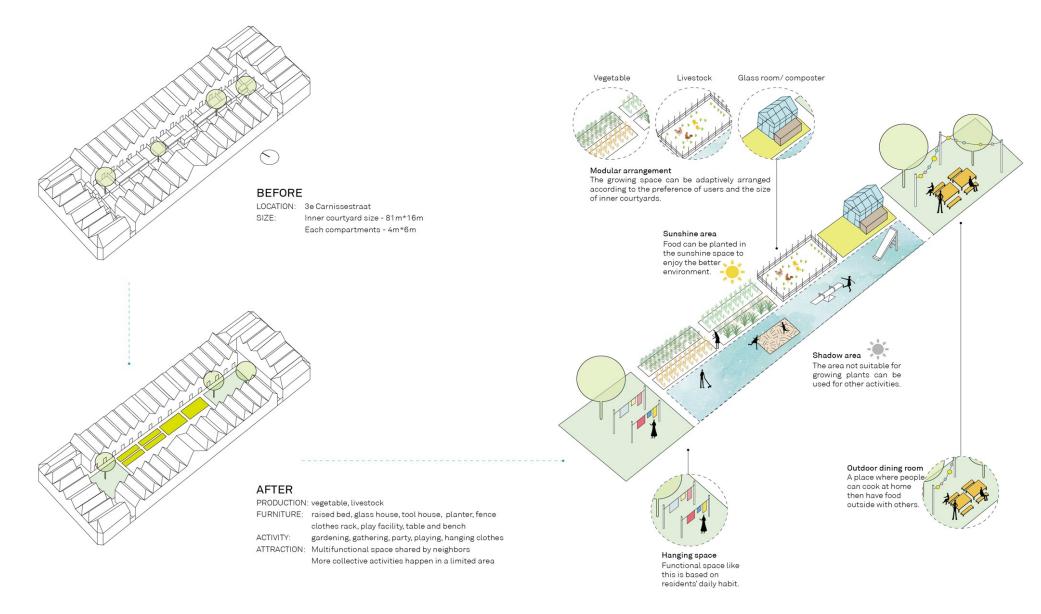


TOOL **PROTOTYPE** SITE CONSIDERATION - Side street width - Orientation of sunlight - Height of building - Avoid ground floor window space to grow food - Avoid large volume of traffic street - According to courtyard size to arrange space - Orientation of sunlight - Height of building - Needs of residents for different activities В - Building renovation plan - Size of opening space - Volume of traffic on both streets - location of entrance - Adjacent land use - Needs of residents

EXAMPLE - TOOL A



EXAMPLE - TOOL B



SUGGESTION FOR CITIZENS







1. Gathering interested people

2. Identify suitable places in public also private domains

3. Creative layout and longterm maintenance plan





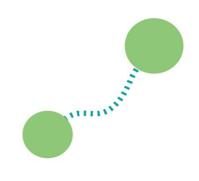


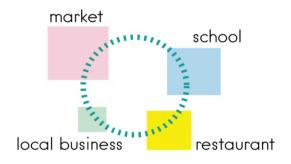
4. Setting space for compost and organic waste collection

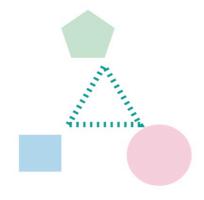
5. Utilize environment-friendly materials

6. Encourage creating open atmosphere

TIPS SUPPORT HEALTHY GREEN NETWORK





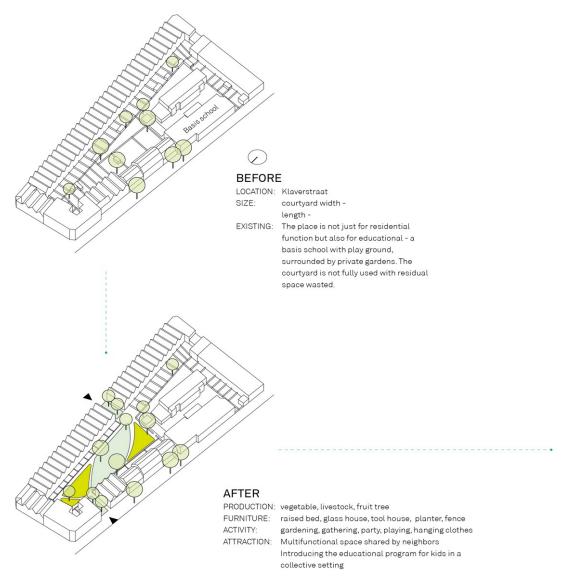


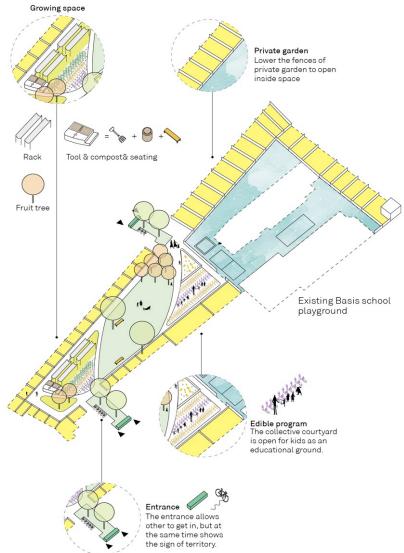
CONNECTION BETWEEN PATCHES

INTERACTION WITH SURROUNDING

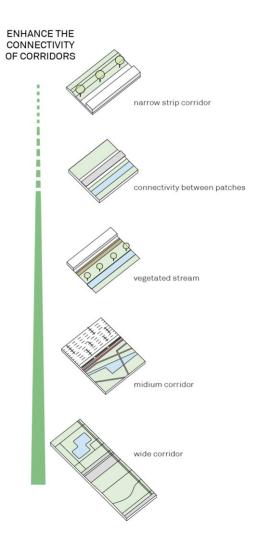
DIVERSIFICATION
OF PRODUCTS & PROGRAMS

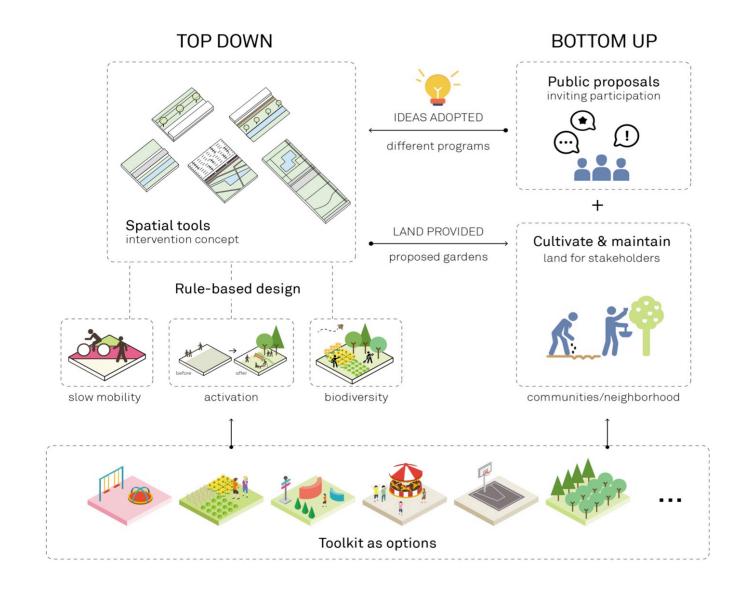
EXAMPLE - TOOL C



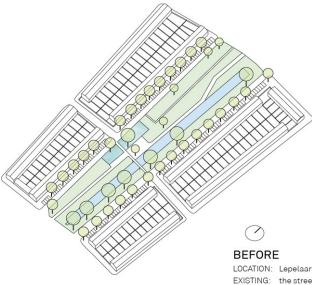


CORRIDOR





SPACE ALONG CANAL



LOCATION: Lepelaarsingel

EXISTING: the street is occupied by automobile

road and car parking; a playground is in

the middle

the width between the canal and building varies from 34 to 46 meters

AFTER

PRODUCTION: vegetable, herb, ornamental plants, flower

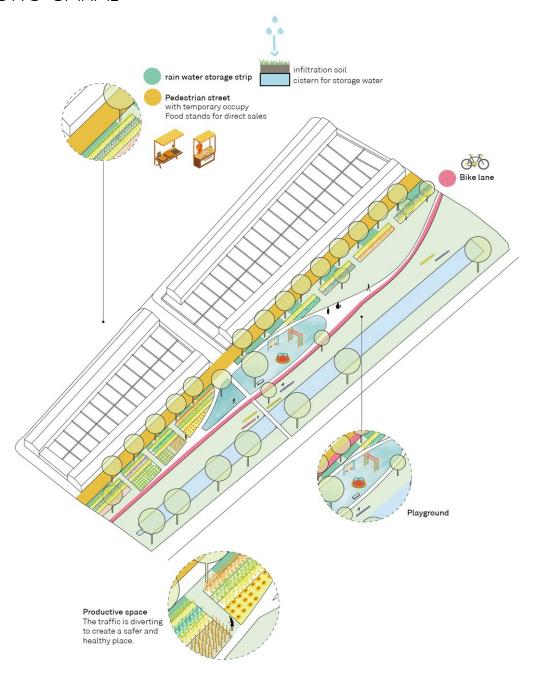
FURNITURE: rainwater collection system, moveablt food stands

planter, seating, play facilities

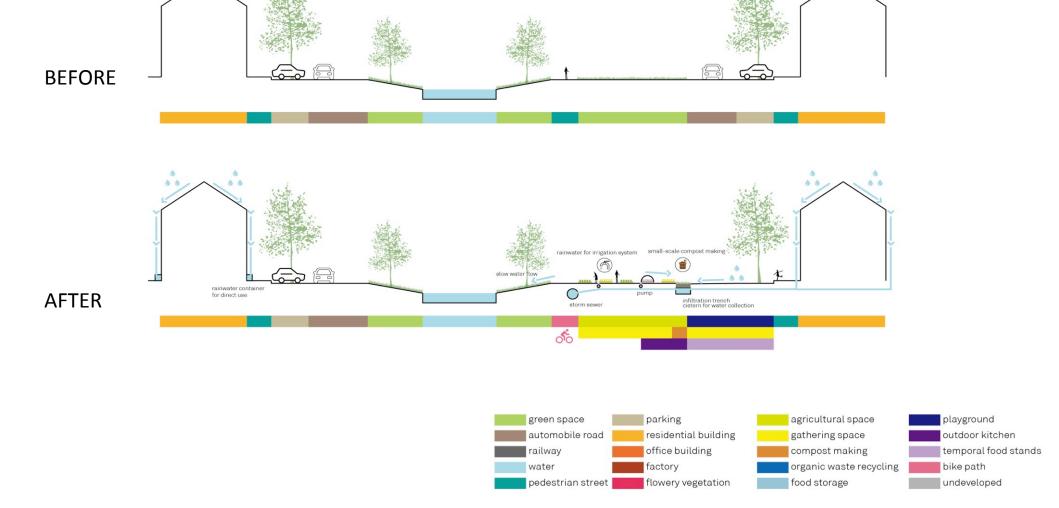
ACTIVITY: gardening, selling, gathering, party, playing

ATTRACTION: a public realm for agricultural use and also combined

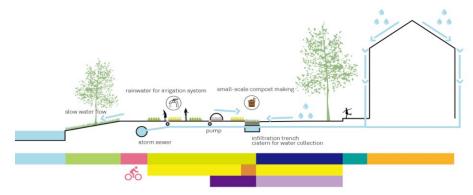
with social and play space, a direct sale street



SPACE ALONG CANAL



SPACE ALONG CANAL







BEFORE

AFTER

SPACE ALONG HIGHWAY RECREATIONAL AND PRODUCTIVE GREEN BELT



CONSIDERATION

- Soil preparation
- Public accessibility for safe crossing
- Polluted air cleaning
- Topography adjustment
- monitoring & maintenance

INVOLVEMENT

- Rijkswaterstaat
- Ministry of Infrastructure and the Environment
- Ministry of Education, Culture and Science
- Nursery and fruit company

BEFORE



LOCATION: A15 highway

EXISTING: The northern side has been used as park and nursery space, but the southern side is undeveloped with meadow space, a few number of trees and canals. The width of the southern side varies from 80 meters to 190 meters, large enough to accommodate different kinds of activities.

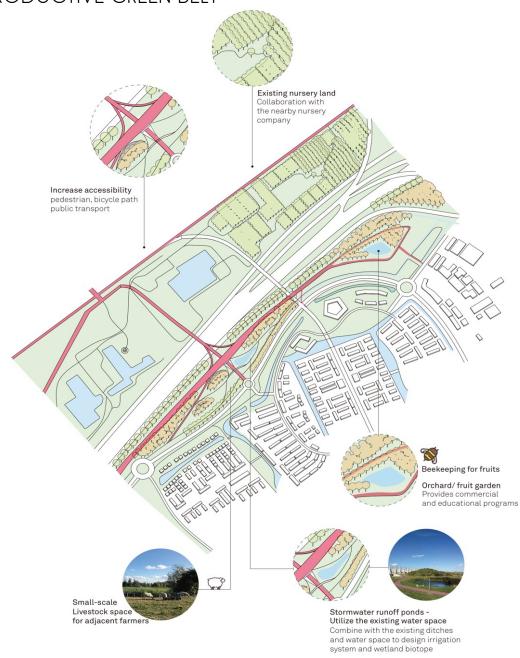
AFTER

PRODUCTION: vegetable, orchard, livestock

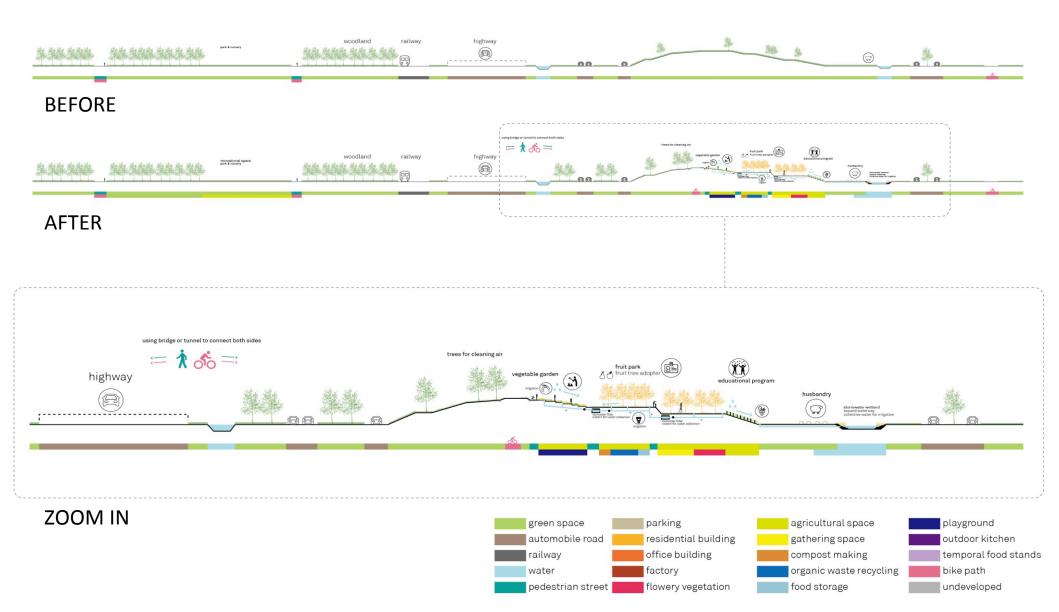
ACTIVITY:

touring, learning farm, recreation, business ATTRACTION: Peri-urban open space with multiple programs; wetland conservation for animals and plants collaborate with commercial and educational activities; but also provide designated space

for nearby farmers



SPACE ALONG HIGHWAY



SPACE ALONG HIGHWAY

PREPARATION PERIOD

COLLABORATE WITH
PLANT EXPERTS
ECOLOGISTS
TRANSPORTATION ENGINEER
NURSERY COMPANY

PROGRAMS

EDUCATIONAL PROGRAM COMMERCIAL PROGRAM SOCIAL PROGRAM RESEARCH







GROW OVER TIME

DEVELOPMENT

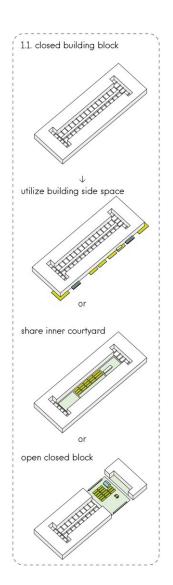
AGRICULTURE
TOURISM
BUSINESS PARTNERSHIP
EDUCATIONAL PROGRAM
WETLAND ENVIRONMENT
POLLINATOR CULTIVATION

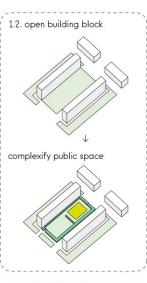


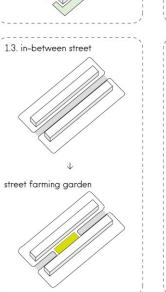


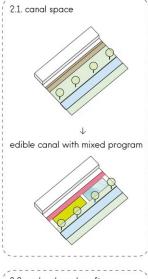


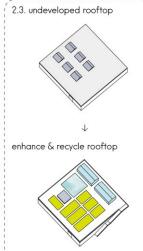
TOOLS

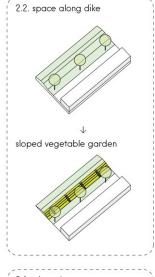


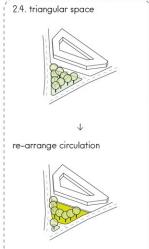


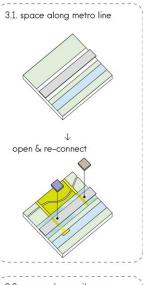


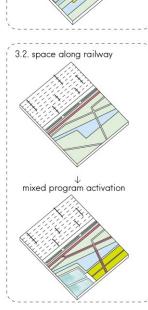


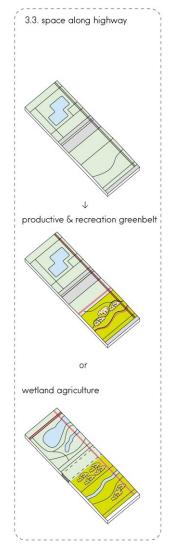








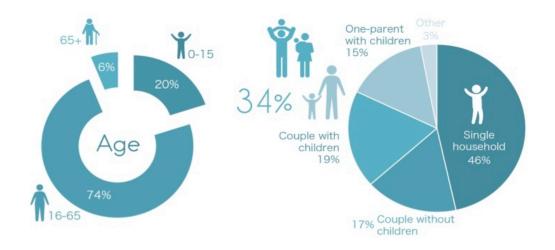


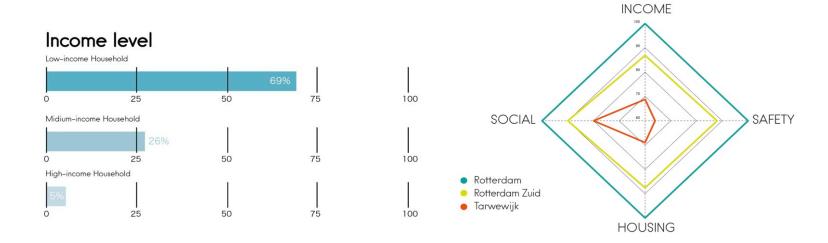


PART III ADAPTATION OF STRATEGY AND TOOLS



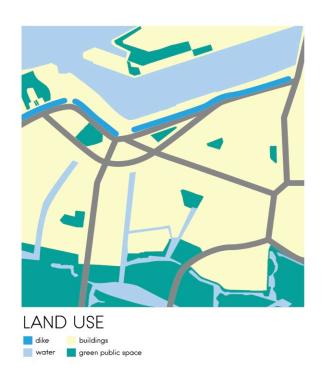
DATA





REFERENCE: Reisgids Pact op Zuid rotterdam.buurtmonitor.nl

DENSE RESIDENTIAL AREA











BUILDING CONDITION











CAR-DOMINATED AREA





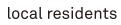


ACTORS

Top-down Bottom-up



municipality urban planner







housing association

private property owners





landscape architect architect

neighborhood association





traffic department

non-profit organization non-government organization





department of water management

restaurant cafe, retail...



RELEVANT AGENCIES & LOCAL LEADERS

Municipality

Neighborhood Controls

BUURT BESTUUR



Housing Association





Opzoomer Mee Foundation







Foundation DOCK Charlois





Transition Town Rotterdam



NPO-Rotterdamse Munt



Association-Eatable Rotterdam

EETBAAR ROTTERDAM

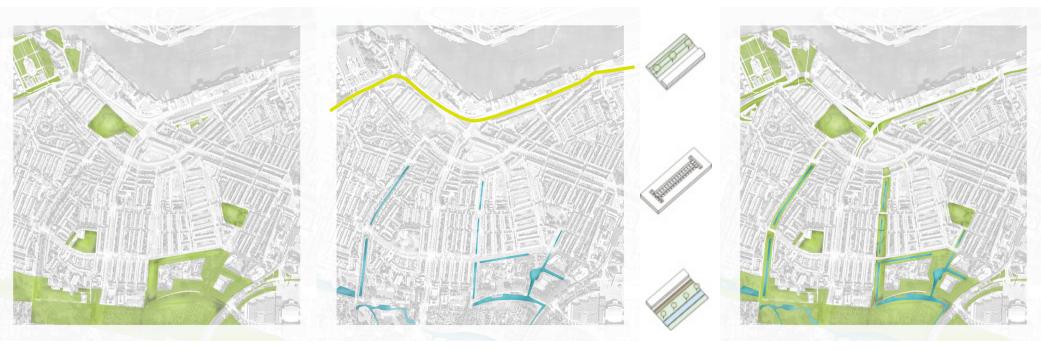








ANALYSIS OF THE SITUATION

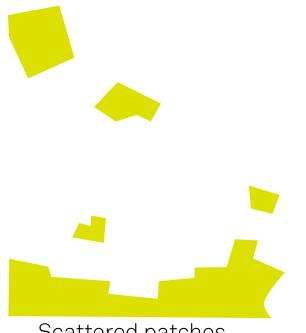


Existing landscape Layer 1

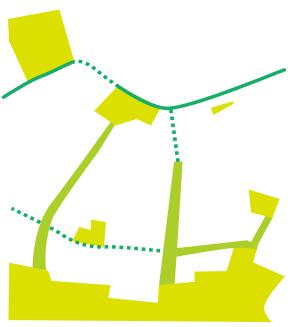
Potential connection Layer 2

Basis network 1+2 Overlapping

CONCEPT DEVELOPMENT



Scattered patches



Connect





Enrich



SITE PLAN







- 1. Dokhavenpark
- 2. Karel de Stouteplein
- 3. Nachtegaalplein
- 4. Amelandseplein
- 5. Verschoorplein
- 6. Zuiderpark
- 7. Canal as productive open space
- 8. Dike for multiple activities
- 9. Rooftop farm/ storage/ recycling
- 10. Block intervention

INTERVENTION ON CONNECTION



LEVEL OF INTERVENTION



THE APPLICATION OF TOOLS

CLOSED BUILDING BLOCKS PRIVATE

SEMI-PRIVATE

SEMI-PUBLIC

STREETS

SEMI-PUBLIC

PUBLIC

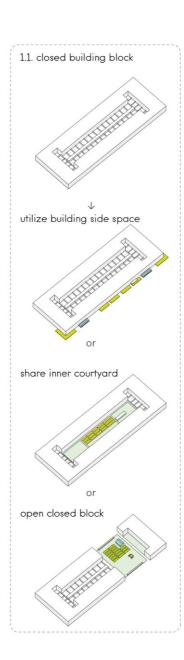
CANAL

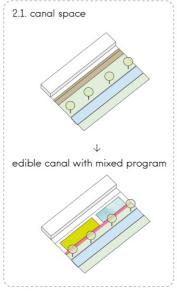
SEMI-PUBLIC

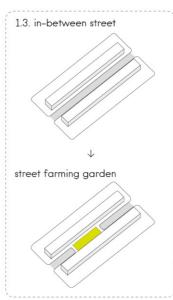
PUBLIC

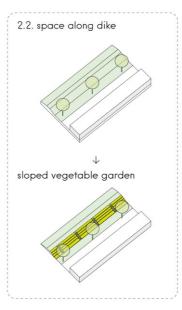
DIKE

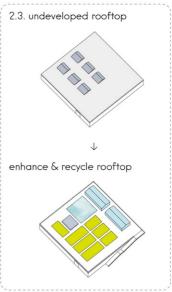
PUBLIC

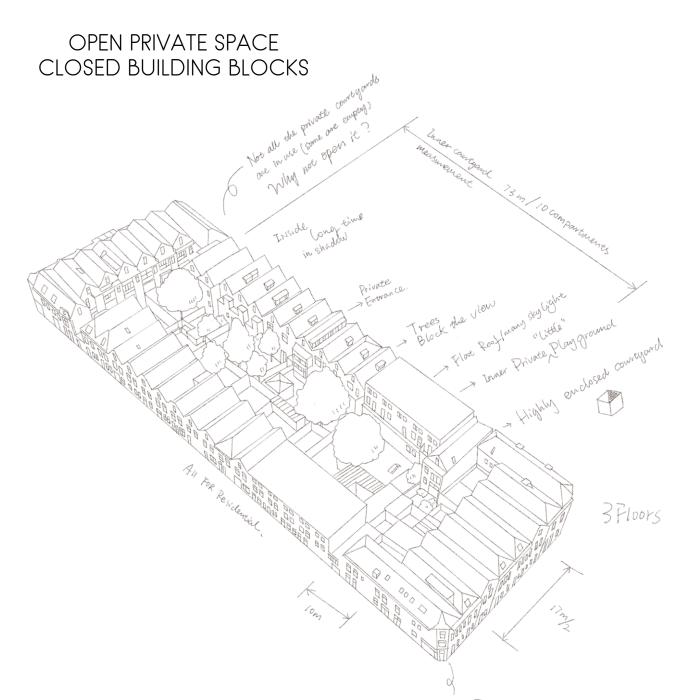














Defective building areas

EXISTING SITUATION
Inside closed building blocks







EXISTING SITUATION Inside closed building blocks



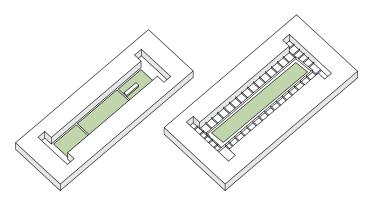


TOOLS APPLICATION CLOSED BUILDING BLOCKS

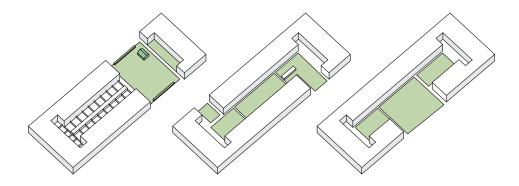


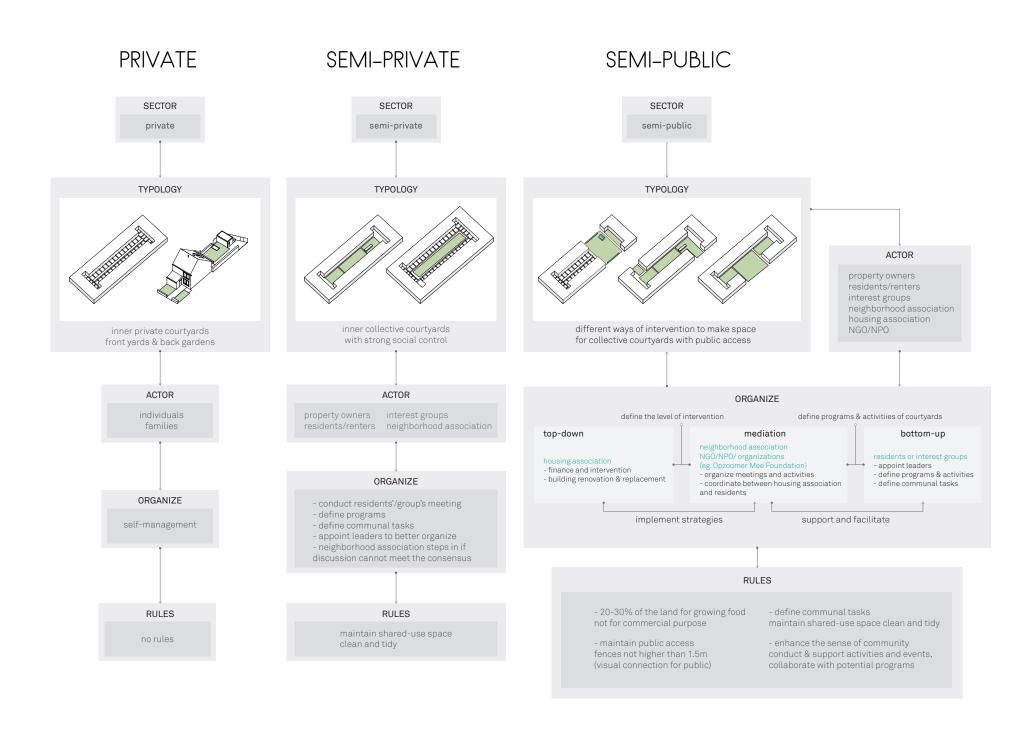
PRIVATE



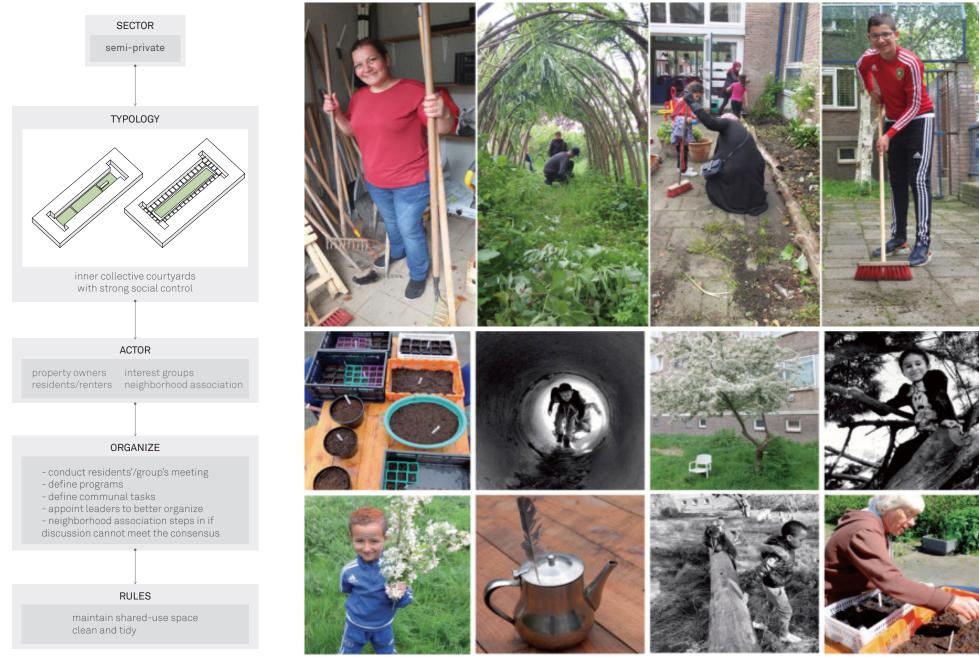


SEMI-PUBLIC



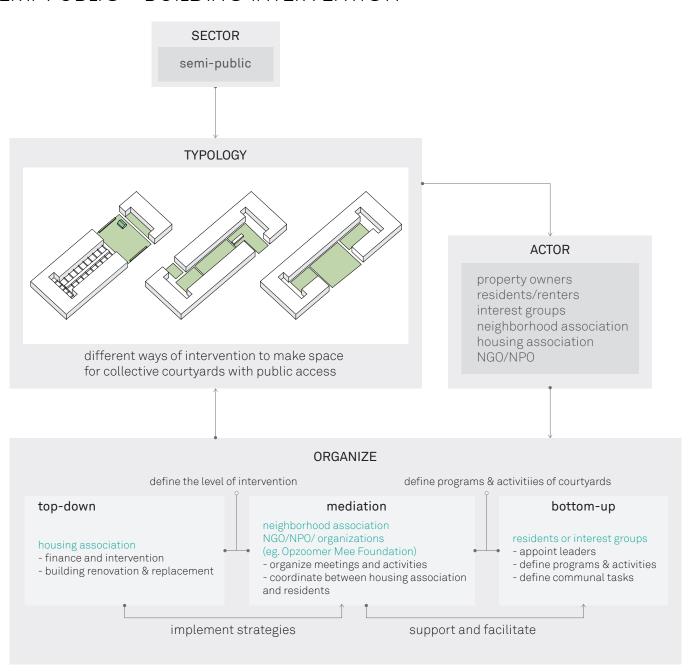


SEMI-PRIVATE - SHARED INNER COURTYARD



CultuurWerkplaats Tarwewijk

SEMI-PUBLIC - BUILDING INTERVENTION



HOUSING ASSOCIATION:





OPEN PRIVATE SPACE CLOSED BUILDING BLOCKS



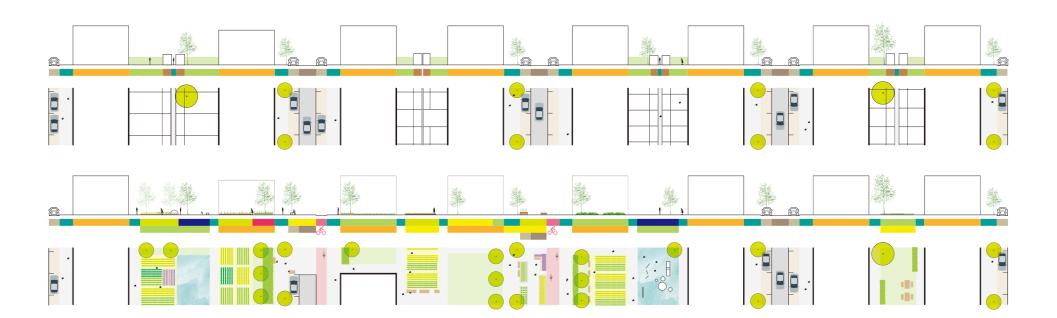
neighborhood discuss on programs and food products

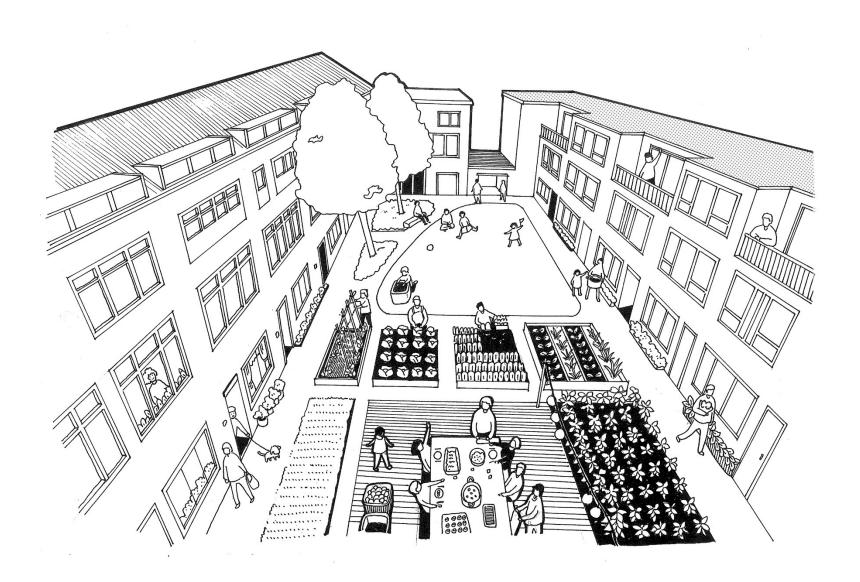


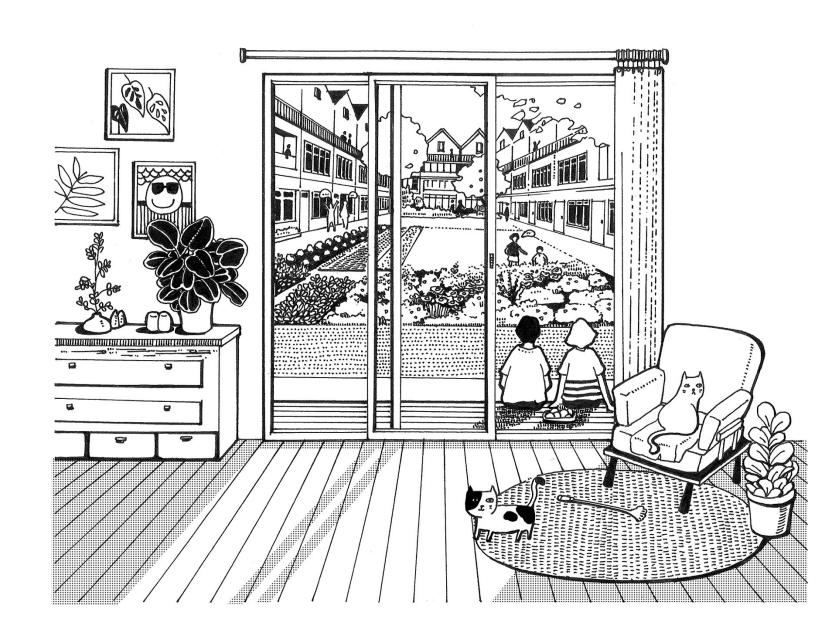
space with different functions

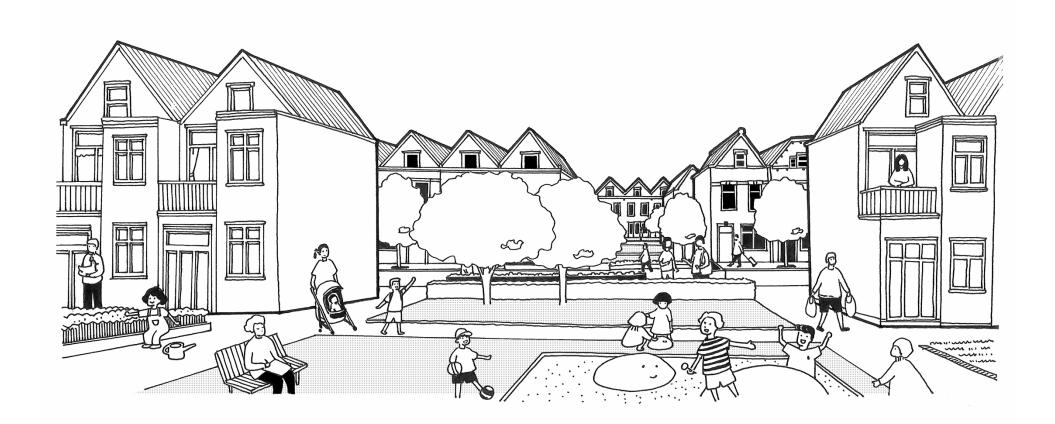


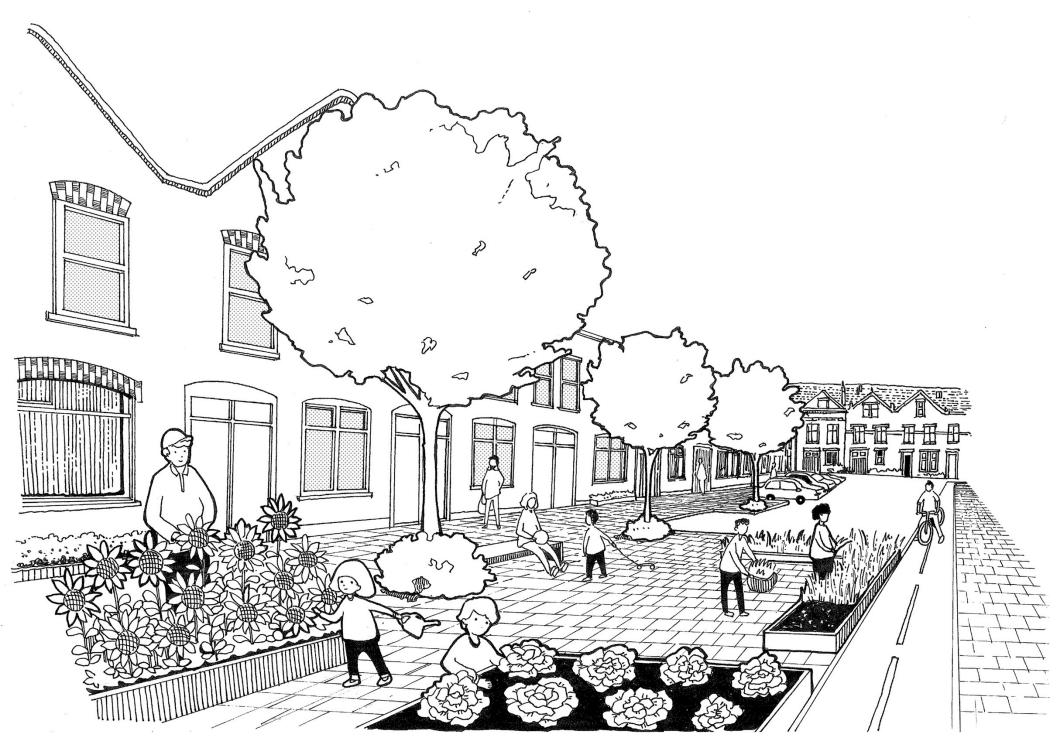
community share food bartering



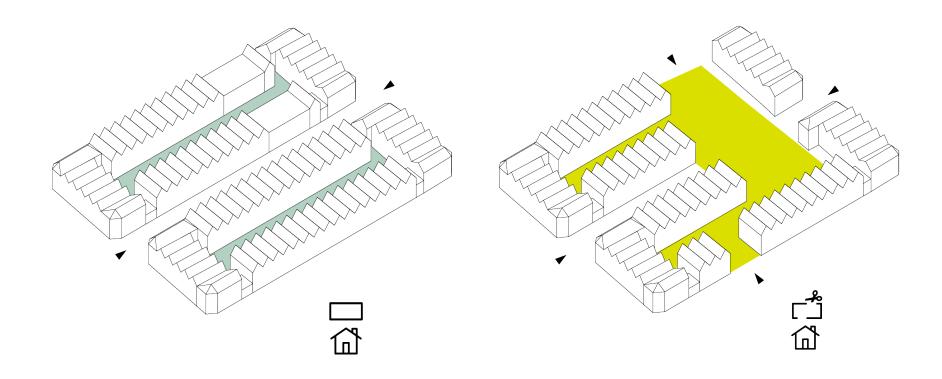




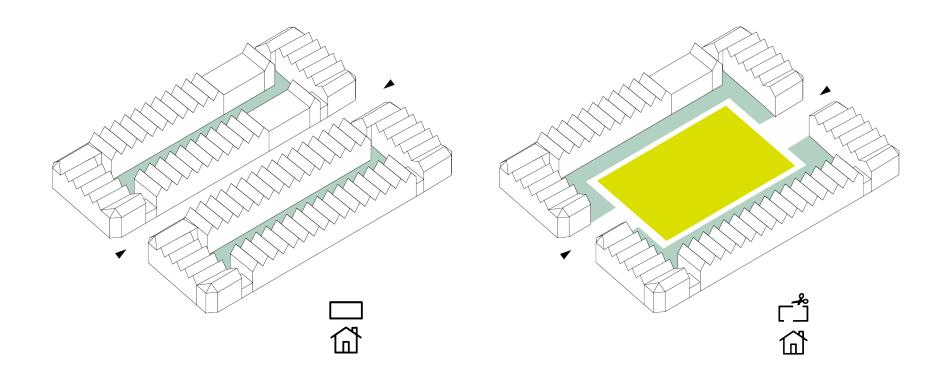




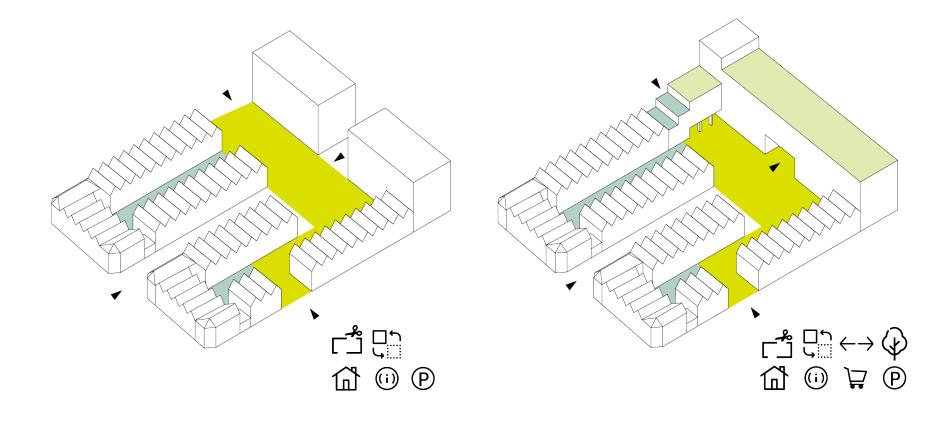




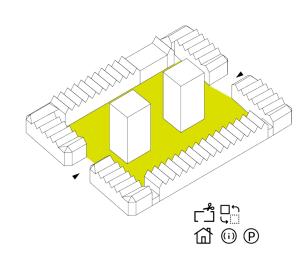


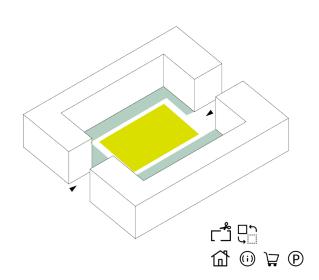


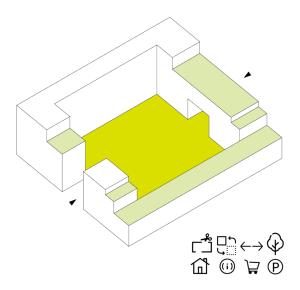




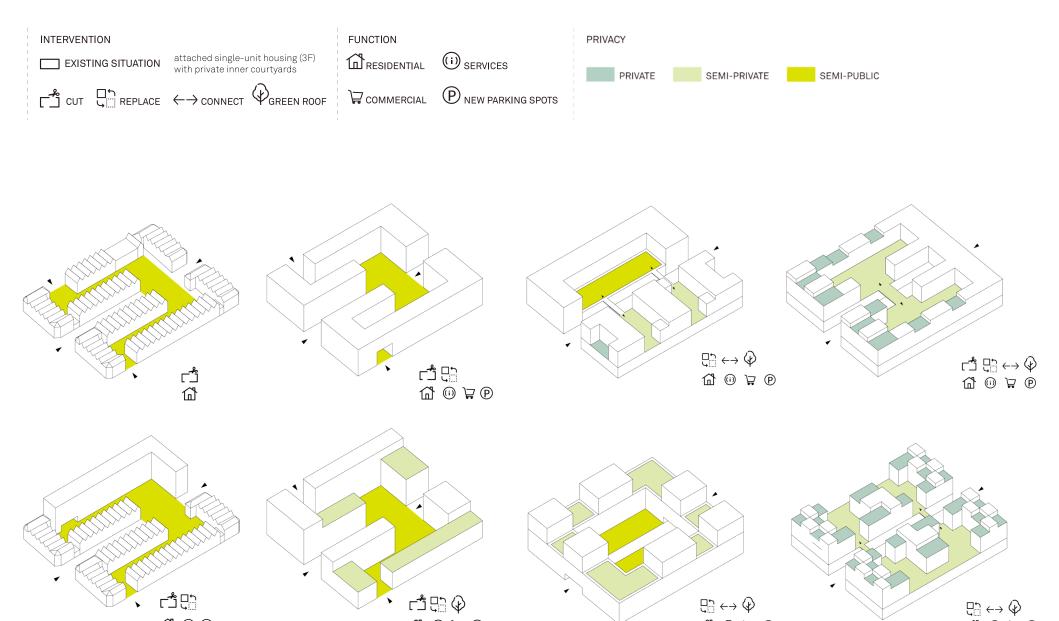








(1) (1) (P)



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(a) (ii) (b) (p)

SITE PLAN



PROGRAMS



Production Processing AGRICULTURE Consumption Distribution & Acquisition



REST AREA



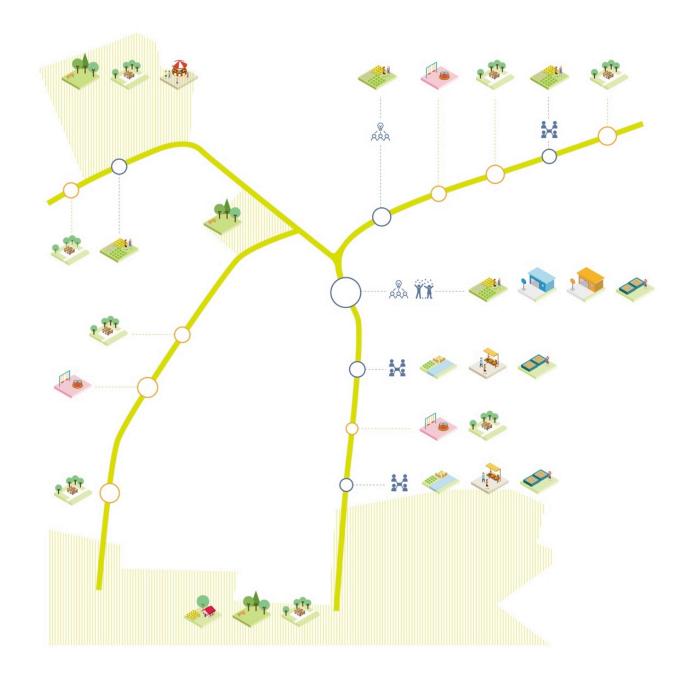
PLAYGROUND



COMMUNITY/COLLECTIVE GARDEN



ARTISTIC SPACE



DIKE SPACE

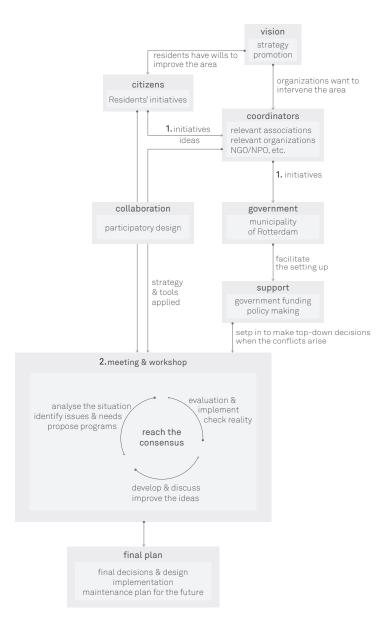


Existing situation

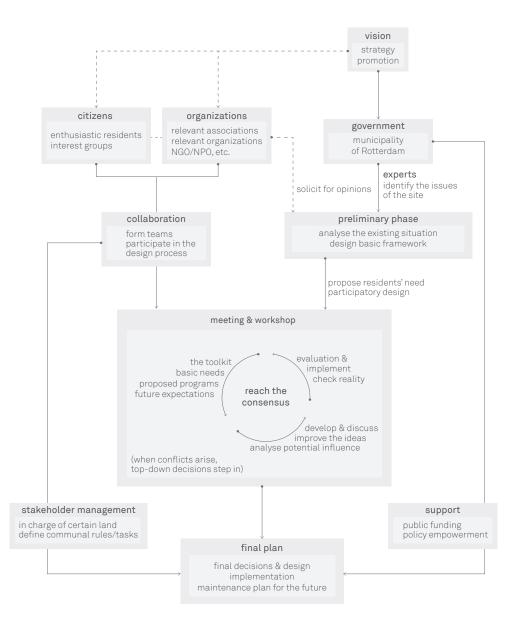


Proposal

BOTTOM UP INITIATES



TOP DOWN INITIATES

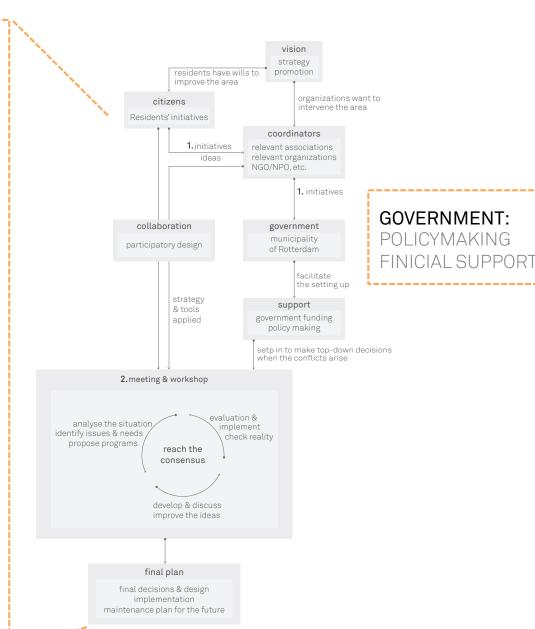


BOTTOM UP INITIATES

CITIZENS/COMMUNITIES ASSOCIATIONS/ORGANIZATIONS

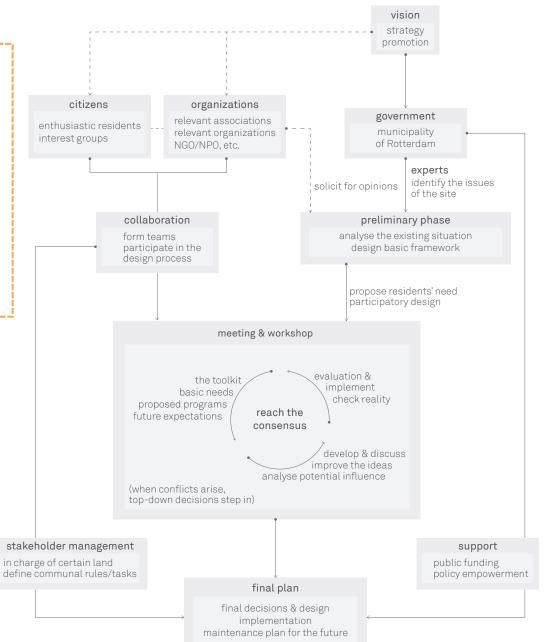


analyse the situation identify issues & needs propose programs reach the consensus develop & discuss improve the ideas



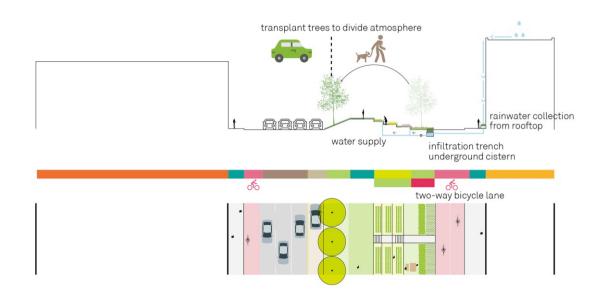
TOP DOWN INITIATES





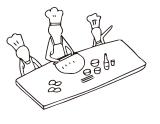


EASILY ACCESSIBLE, SPACIOUS, FLEXIBLE





community garden with portable planters



temporary outdoor kitchen



play space



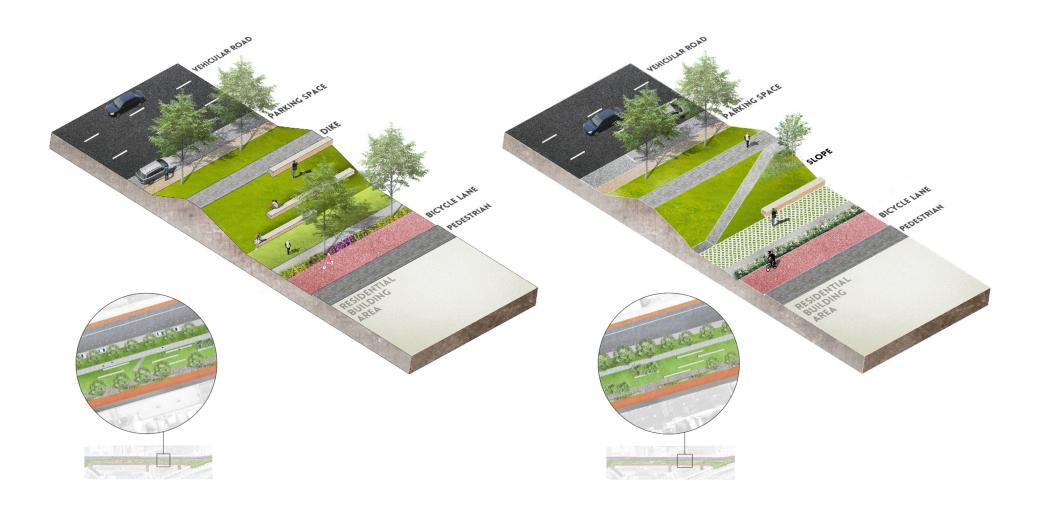
event space



market space







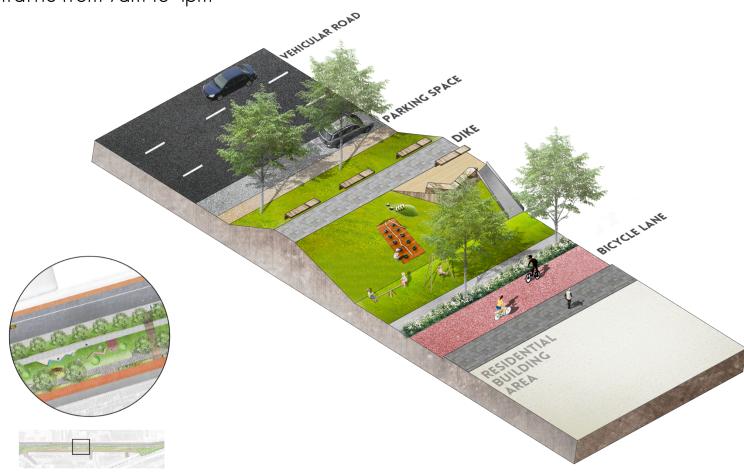


PLAY AREA





Limiting the traffic from 7am to 9pm



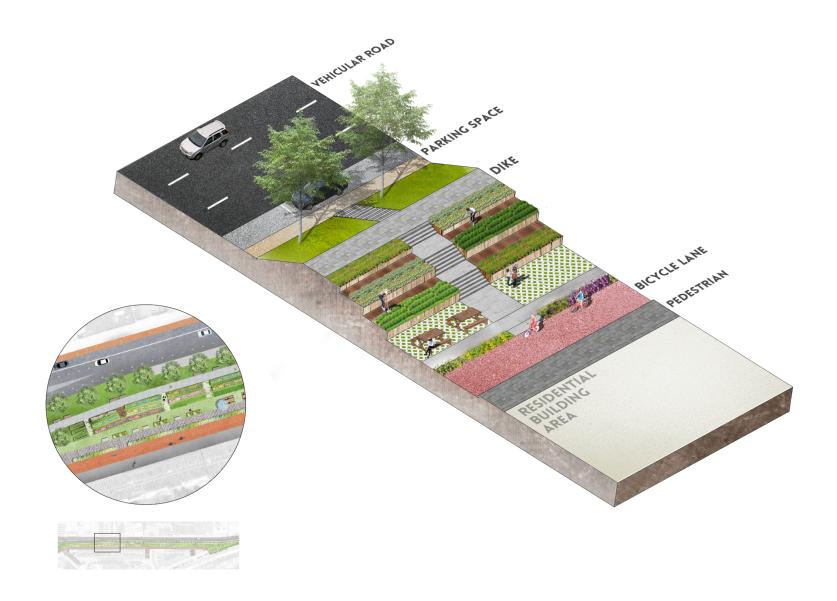






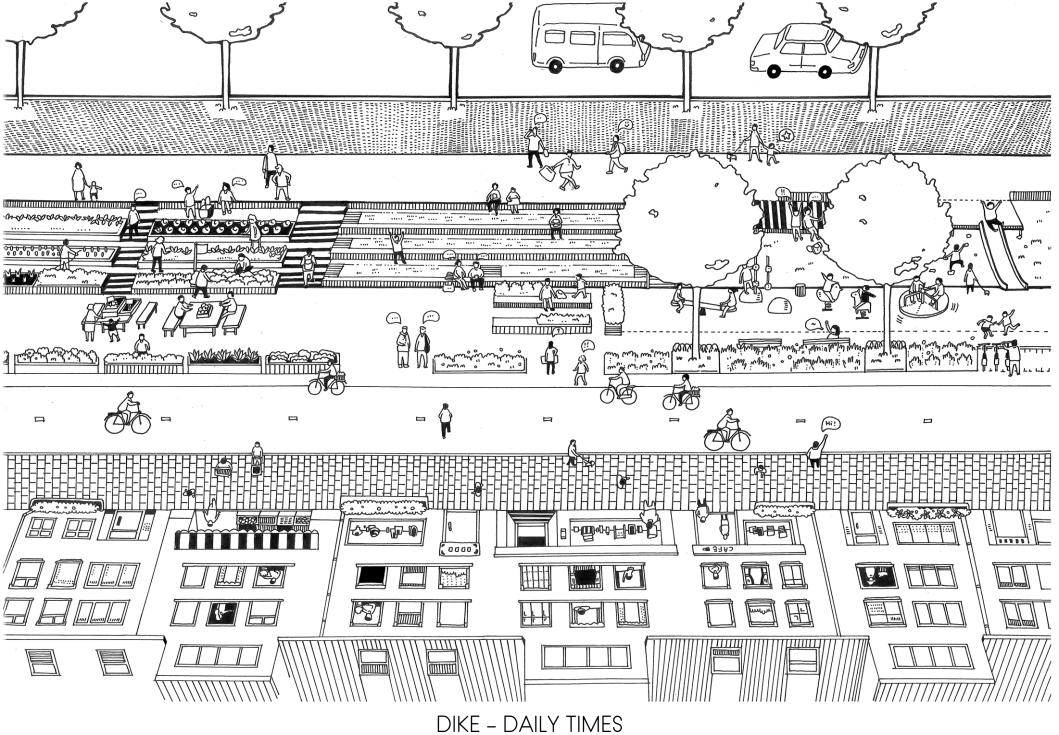


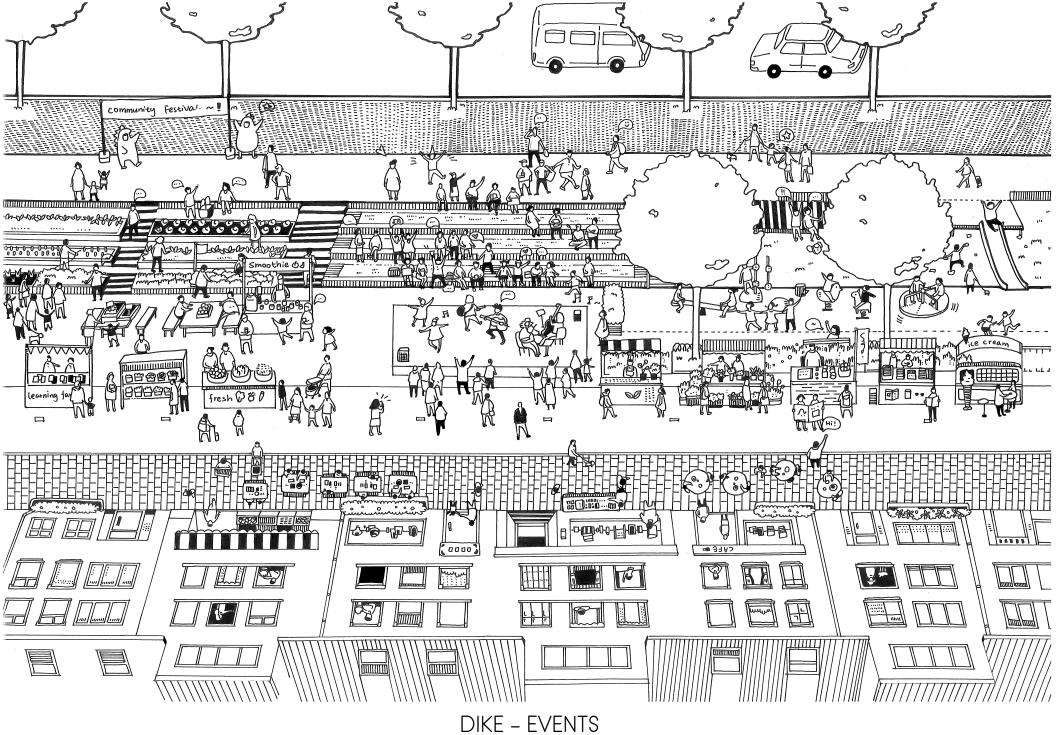
COMMUNITY GARDEN







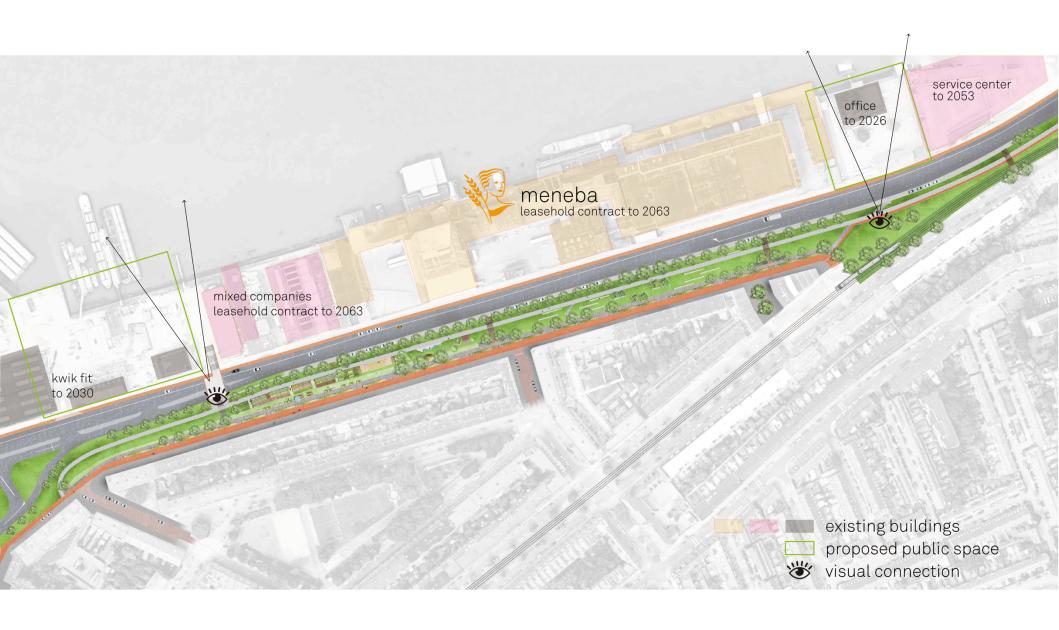




* POSSIBILITY FOR THE FUTURE

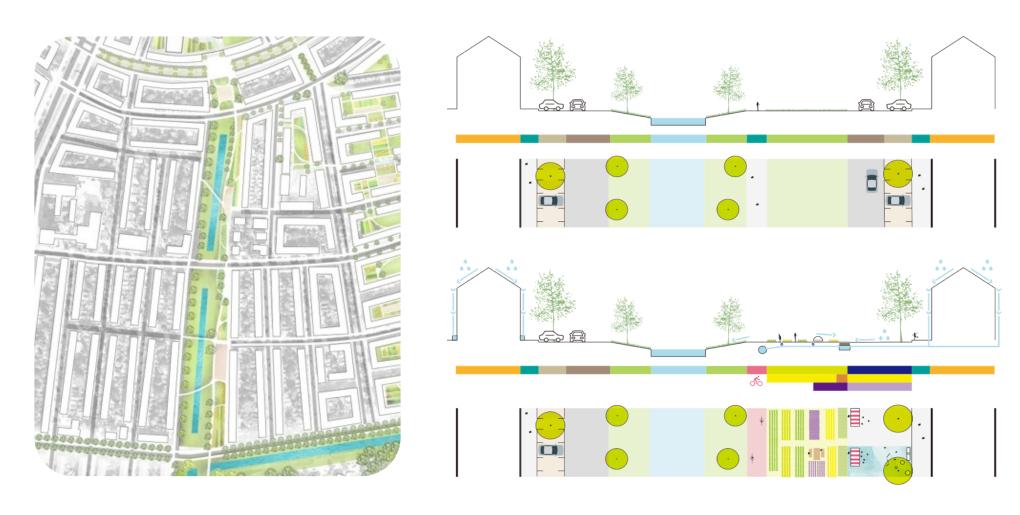


* POSSIBILITY FOR THE FUTURE





CENTRAL CANAL

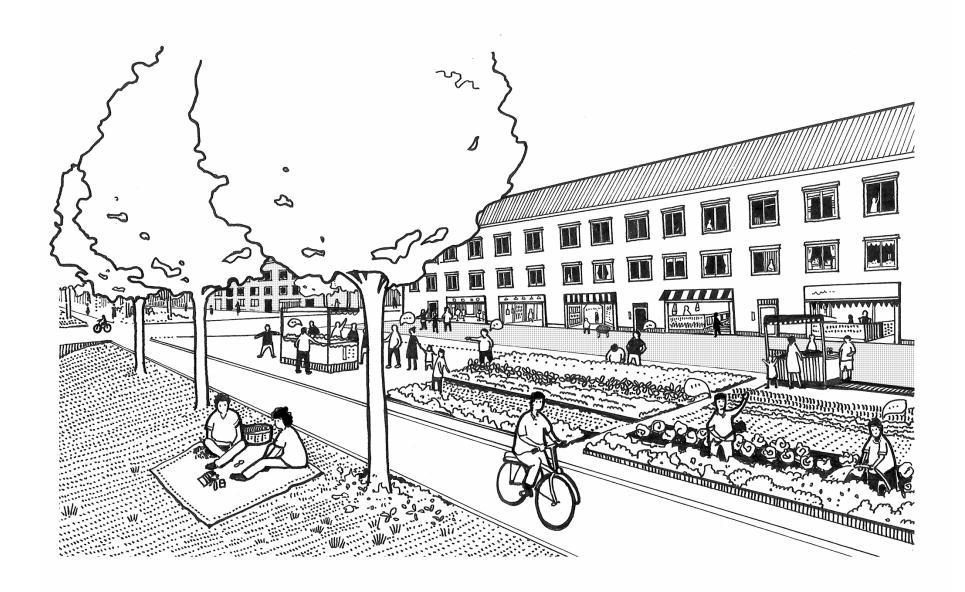


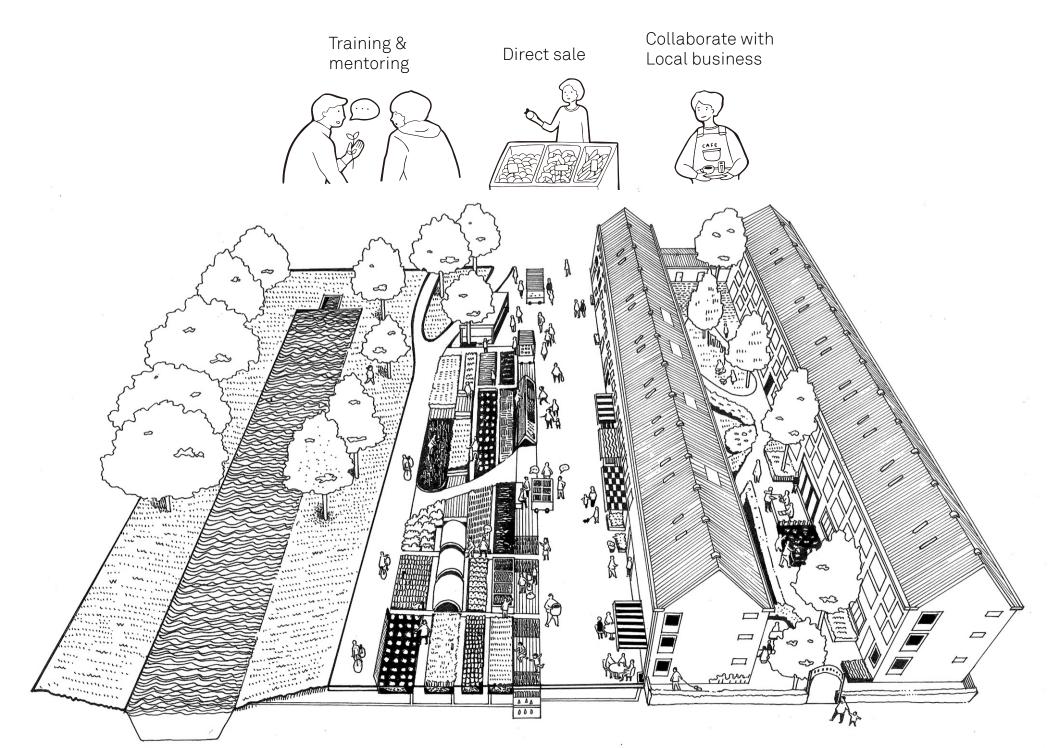
Stakeholder engagement:

Neighborhood association

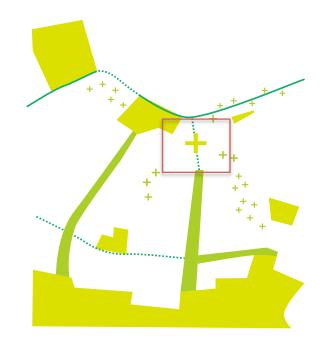
Food Production/Distribution

Direct sale/ personal use/ donation/ exclusive partnership with local restaurants

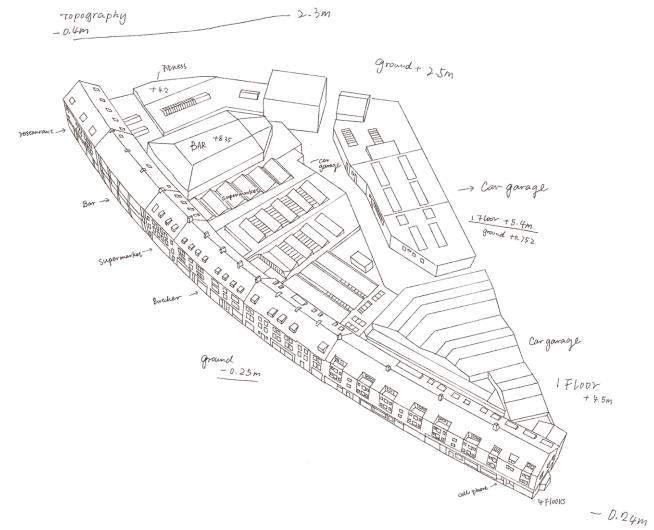




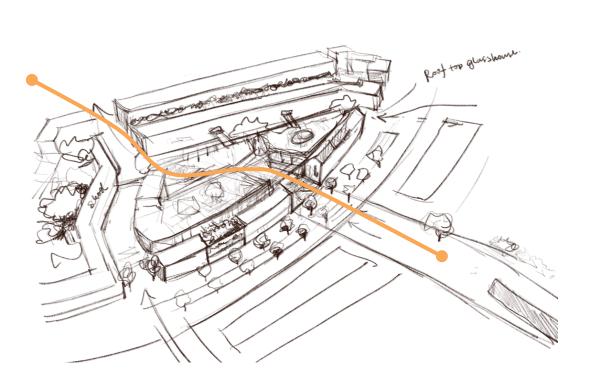
LINK BETWEEN DIKE AND CANAL







RECONNECT THE MISSING LINK BETWEEN DIKE AND CANAL





Stakeholder engagement:

Communities, nearby schools

Food production/storage/distribution/recycling

Direct sale/ personal use/ donation/ exclusive partnership with local restaurants



educational programs for children



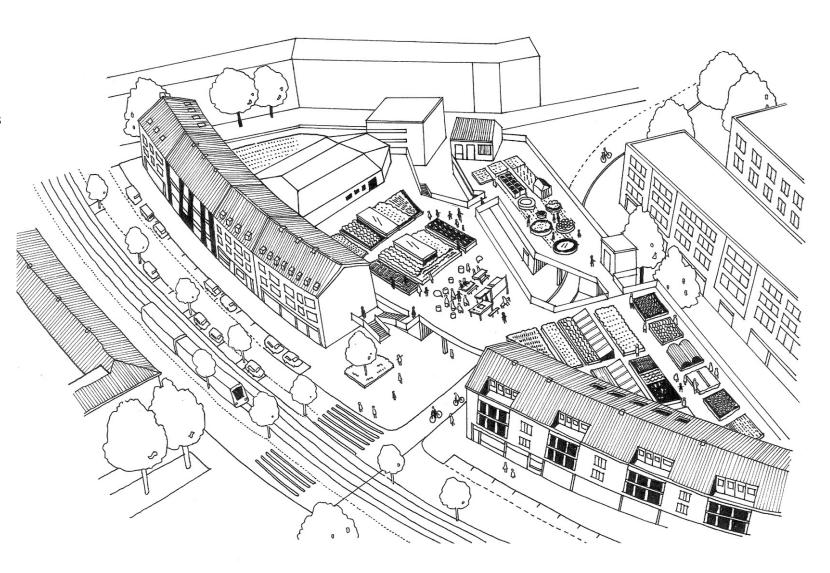
training section and workshop



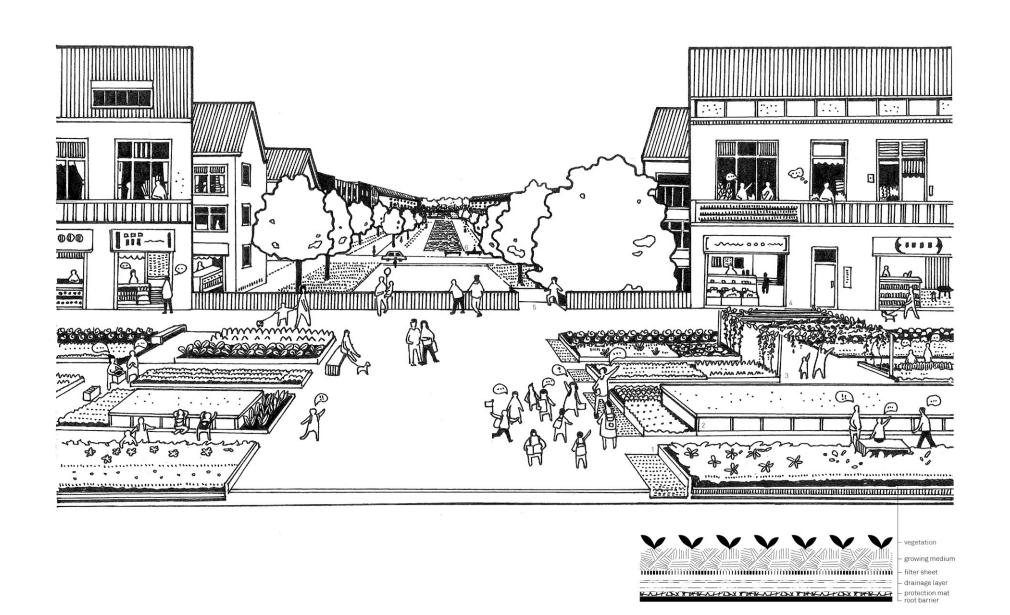
food storage



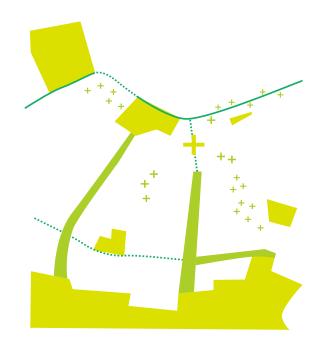
organic waste recycling

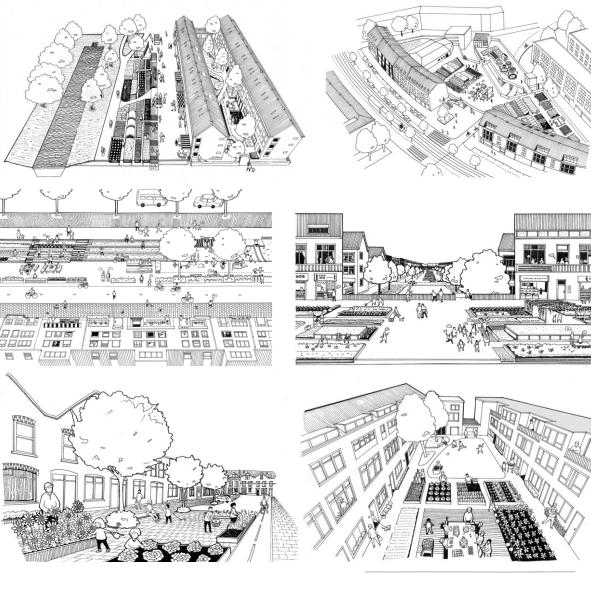


ROOFTOP AS A NEW PLATFORM



ACTIVATION, INTERACTION, HEALTHY LIFE









ACTIVATION, INTERACTION, HEALTHY LIFE



HEALTHY GREEN STRUCTURE IN ROTTERDAM ZUID

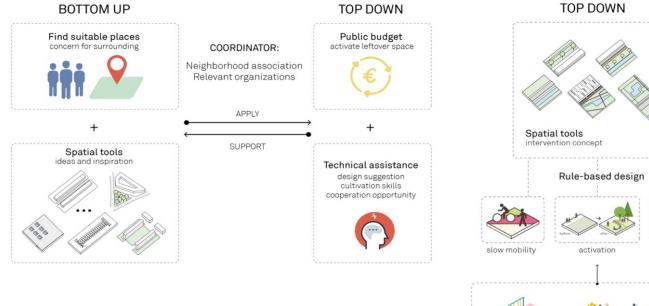


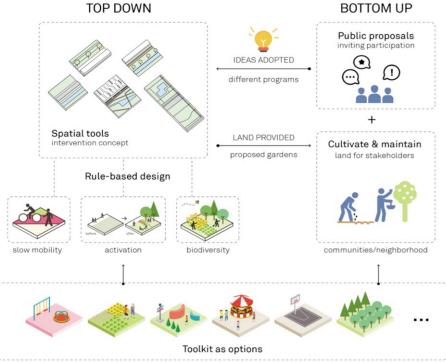
- An active use of green
- Social interaction
- Encourage a healthy life

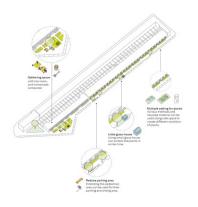
PART I
VISION AND STRATEGY

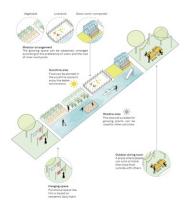


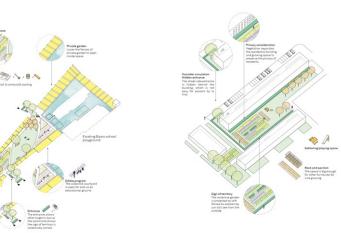
COLLARBORATIVE PROCESS



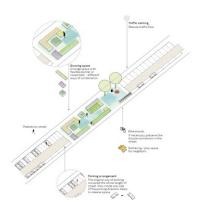


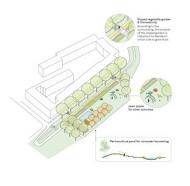


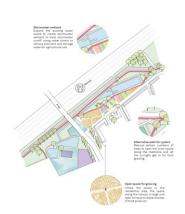


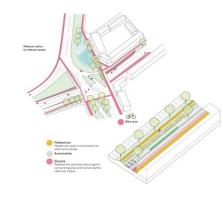




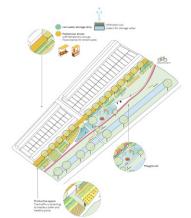


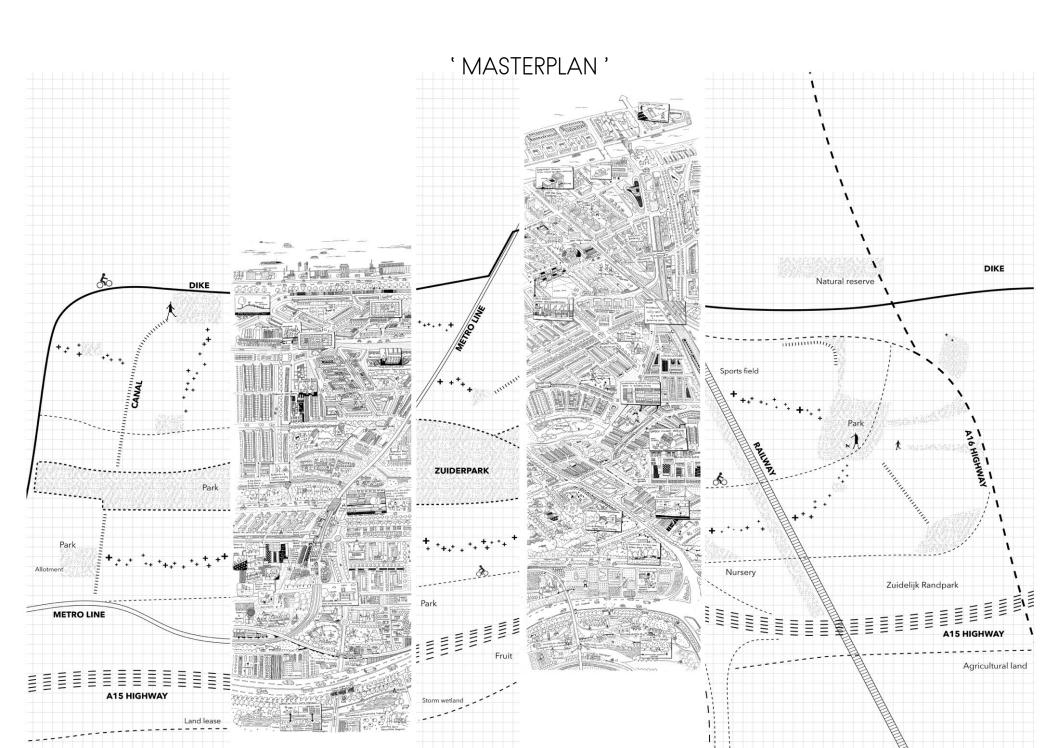




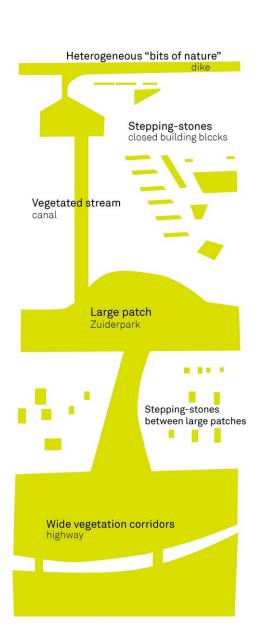








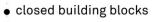














• open building blocks

• metro line

highway



















