



GREENLIGHT DISTRICT AMSTERDAM

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TITLE PAGE

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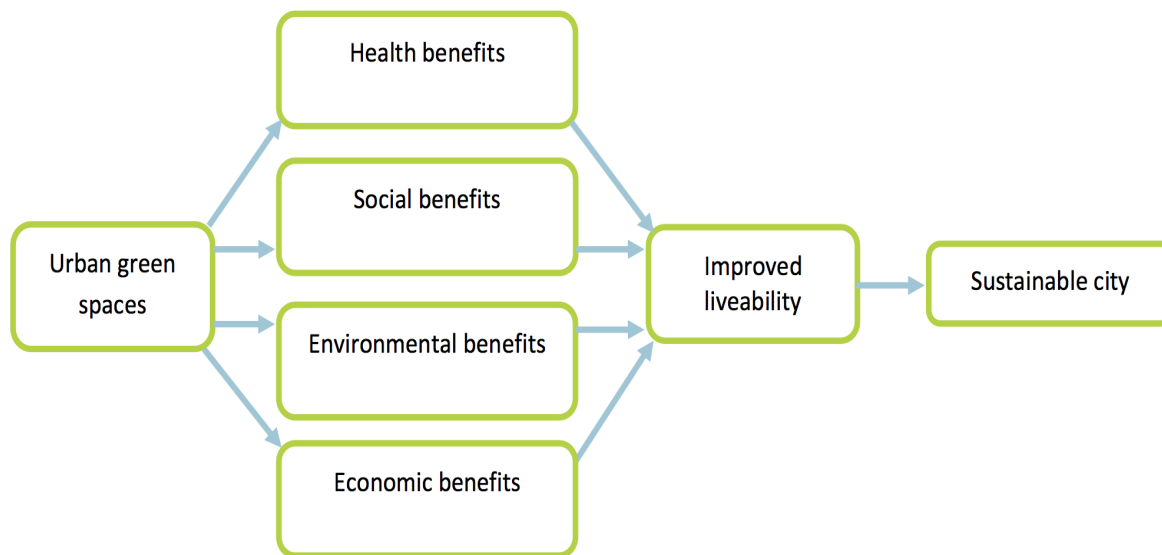
In assignment for

Alterra Wageningen UR

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THE BENEFITS OF A GREEN CITY



- ECONOMIC BENEFITS -

- Increase property value;
- Attracts tourists;
- Saving money for municipality on storm water management and air pollution mitigation;
- Higher office rental rates;
- Long term benefits.

'Green spaces can lead to economic benefits for a city.'

~ Tim Beatley

THE BENEFITS OF A GREEN CITY

- SOCIAL BENEFITS -

- Provides recreational use;
- Give a sense of social place;
- Introduce nature into urban environment;
- Provide a refreshing contrast to harsh shape, color and texture of buildings;
- Education on next generation;
- Increase the livability of the city (foster a connection between community residents and the nature environment that surrounds them).

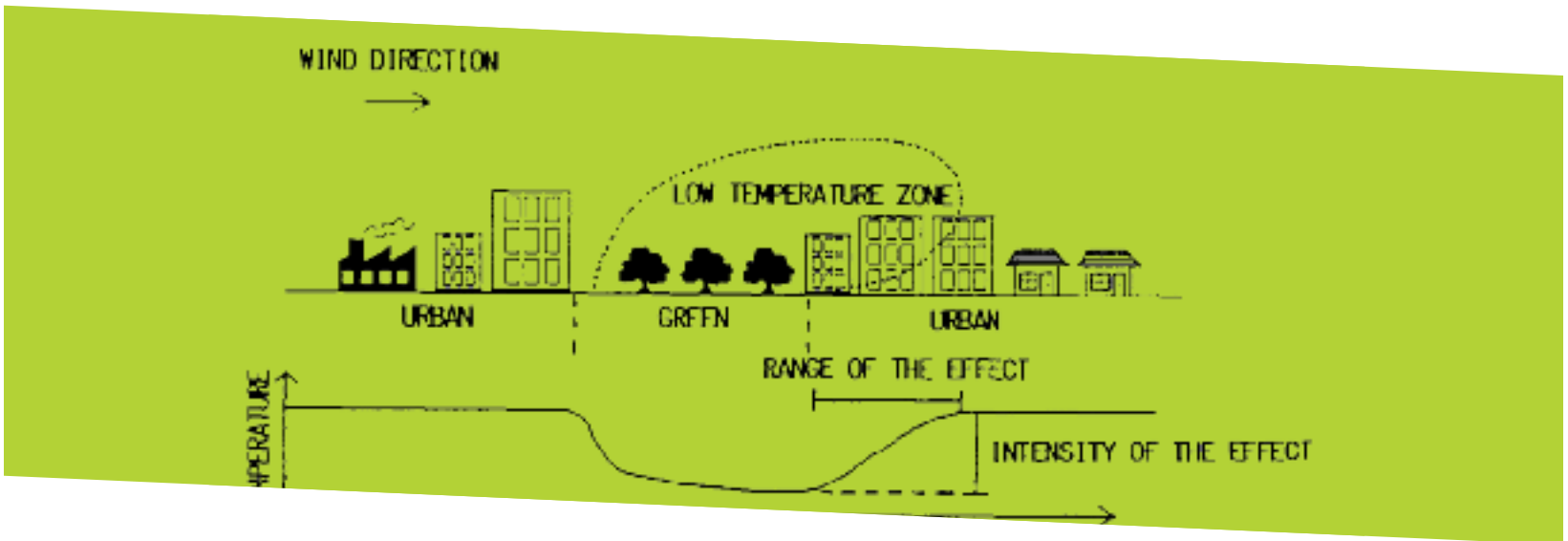


- HEALTH BENEFITS -

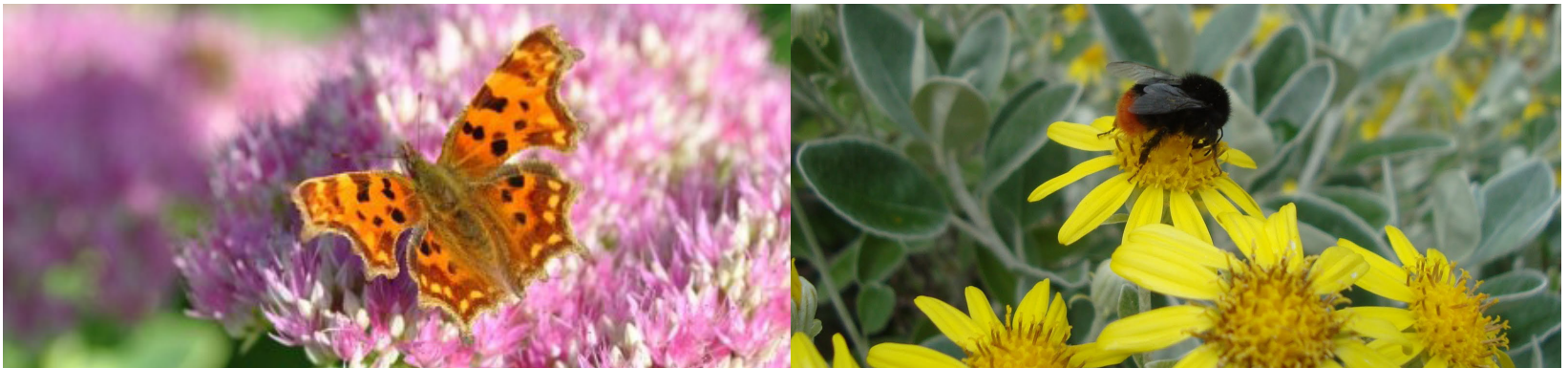
- Reduce air quality related diseases;
- Positive impact on mental well-being.

THE BENEFITS OF A GREEN CITY

- ECOLOGICAL BENEFITS -



- Urban advantages;
- Water quality protection;
- Urban floods prevention;
- Reduced the heat of build-up area;
- Improve air quality;
- Lower attic temperature;
- Nature resource conservation (biodiversity).





GREEN ROOFS

BENEFITS MUNICIPAL ROOFS

1. Ameliorative rainwater management;
2. Regulation of building temperature/better energy performance;
3. Alleviation of urban heat island effects;
4. Improved urban habitat for wild species;
5. Improve the quality of life for urban residents and visitors.

SUGGESTED LOCATION

Central Station

BENEFITS GREEN HOTEL ROOFS

1. Benefits of green roofs;
2. Increase green areas in city centre in a time frame of more than 15 years;
3. Increased income for owners (more attractive costumers and investors);
4. Green Globe Certification: Increased reputation of the hotel.

SUGGESTED LOCATION

Oostenburgermiddenstraat

The advice is to implement green roofs on the rooftop of municipal buildings and hotels. There is an existing subsidy program only for green roofs offered by Amsterdam municipality. After the implementation, the roof spaces should be accessible by public so that the visual and recreational values of green roofs could be fully actualized. Special attentions need to be paid on the relevant regulations and technical requirements in order to achieve the assessable green roofs goal. Besides, for hotels, they are encouraged and will be rewarded if they implemented green roofs techniques.

The green shades for open car parking is a good example of multifunctional land use. The idea is to implement structures that can be used as car parking spaces and create green places at the same time. The implementation is recommended for small-to-medium scaled open car parking spaces with Amsterdam inner city. As a side-benefits, the parked cars can be protected by the green layer above them where public can enjoy the pleasant green environment.

BENEFITS

1. Increased green area in unexpected place and providing function and relaxation for people (covered canal);
2. Protection for cars;
3. Green roof benefits;
4. Provide roof for Sunday market.

SUGGESTED LOCATION

Westerstraat

GREEN SHADES FOR CAR PARKING



The green tramlines strategy is recommended to implement during the reparation and maintenance period of tramlines, which happens once in a while. By replacing the paving material (normally concrete tiles) underneath the tramlines by vegetation, the green spaces of the city will increase. Additionally, it creates a safer cycling and walking environment for cyclers and pedestrians since the green tramlines also function as a separation line between tramlines and cycle-pedestrian pavements.

BENEFITS

1. Unexpected green places within the city;
2. Promote safety for pedestrians since they separate traffic lanes;
3. Basic benefits of green areas in cities.

SUGGESTED LOCATIONS

Mozaes en Aaronstraat and Damrak

GREEN TRAMLINES



CANAL WALLS

The canal wall system includes a soil layer installed in the bottom part of the wall and a wall support system implemented above it so that the plants can cover the whole wall area. Plant species include different species of vine (climbing) water plants.

BENEFITS

1. Increase of unexpected green areas;
2. Visual enhancement of canal walls;
3. Increase of biodiversity;
4. Health benefits for tourists and inhabitants;
5. Improvement of air quality (dust, pollutants)

SUGGESTED LOCATIONS

Kloveniersburgwal, Geldersekaade and Recht Boomssloot



FLOATING GARDENS

BENEFITS

1. Improve of water quality;
2. Increase biodiversity;
3. Increase of green spaces in unexpected places.

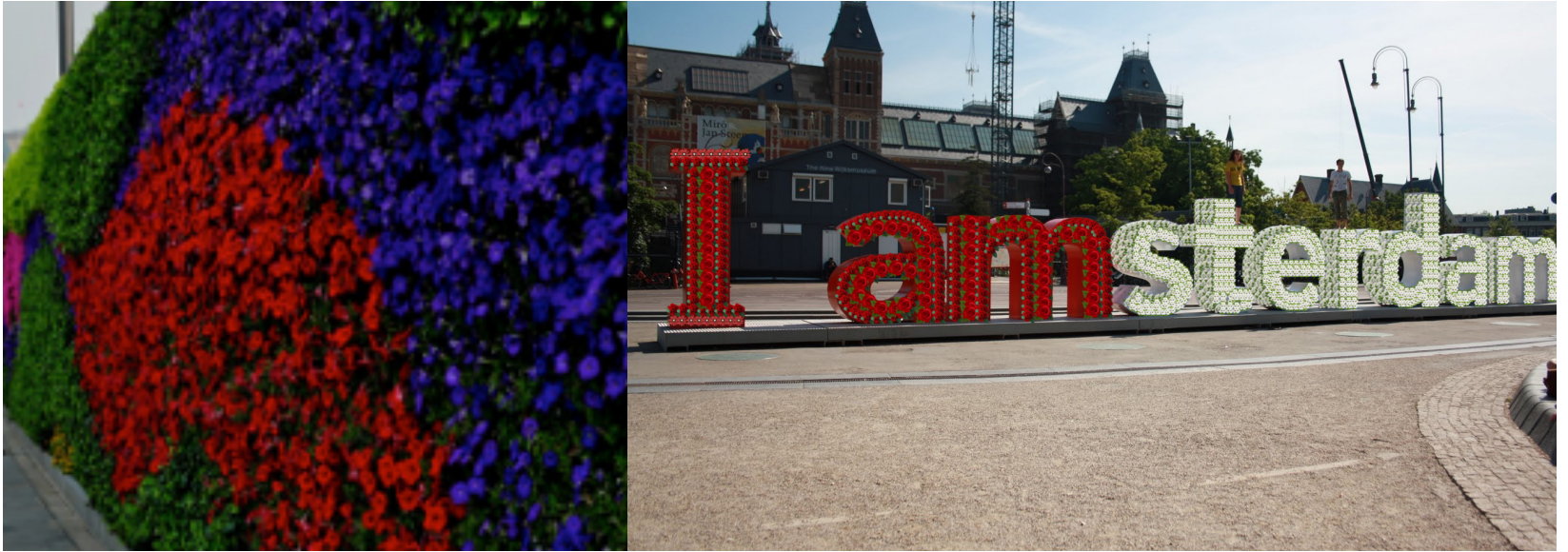
SUGGESTED LOCATIONS

Kloveniersburgwal, Geldersekkade, Open Havenfront and Lijnbaansgracht (before kleine-Gartmanplantsoen).

Floating gardens are small wooden rafts 1m*2m, that are filled with a wire mesh framework for sticking the plants in. In order to increase the buoyancy of the rafts foam is also used to fill them. The plants used are species of water plants which can attract mussels. Mussels attach to the bottom of the rafts and they can filter water which will eventually attract fish in the area.



WALL(K) OF FLOWERS



The Wall(k) of flowers is a plan of creating routes which include the outer parts of Amsterdam combined with several concepts like the “adopt a flowerpot” and the Wall of flowers. The Wall of flowers will cover a concrete wall in the Bloemenmarkt area and people can add more flowers to the wall.

BENEFITS

1. Includes outer (undiscovered by tourists) parts of Amsterdam/Solve congestion problems;
2. Enhance educational system by actively including schoolchildren-get them in touch with nature;
3. Visual enhancement of Amsterdam streets;
4. Creation of unexpected green places;
5. Involvement of tourists in “greening” the city;
6. Increase of biodiversity, air quality.

SUGGESTED LOCATION WALL OF FLOWERS

Bloemenmarkt Singel

MOVEABLE AND HANGING GREEN



Moveable and hanging green is a sustainable solution that includes hanging plants in different places within Amsterdam centre, from bicycle boats to construction sites. The hanging green can be moved anytime. Fences and other structures can be used for the plants to grow on.

BENEFITS

1. Visual enhancement of unattractive places;
2. Unexpected places (above Kalvenstraat, Fallow places, Bicycles boats etc.).

SUGGESTED LOCATIONS

Everywhere!

THE TOURIST SPRAWL

SMARTPHONE APP

The plan is to develop a smartphone/tablet application that will give the ability to tourists and inhabitants of Amsterdam to check where within the city are free green spaces to visit and can be used in order to sprawl tourists outside the city centre and discover new areas of Amsterdam.

BENEFITS

1. "Show" hidden green places within the city;
2. Personal exploration of how green Amsterdam is without tour.
3. Solve tourist congestion in city centre

PLANT-E

Plant-e is a technology developed by Wageningen university and is a Microbial Fuel Cell that uses the microorganisms that grow on the plants roots to create electricity. The electricity production of the system is 0,25 W/m² and can be used to operate a Wifi hotspot station, so it will create the greenest Wifi hotspot in the Netherlands.

BENEFITS

1. Basic benefits of green roofs and green spaces;
2. Production of green electricity;
3. Provision of wifi function for people.

COMMUNITY INTEGRATION

The community integration includes the participation of the residents of Amsterdam in the maintenance of the implemented green plans and will result to social cohesion amongst the involved people.

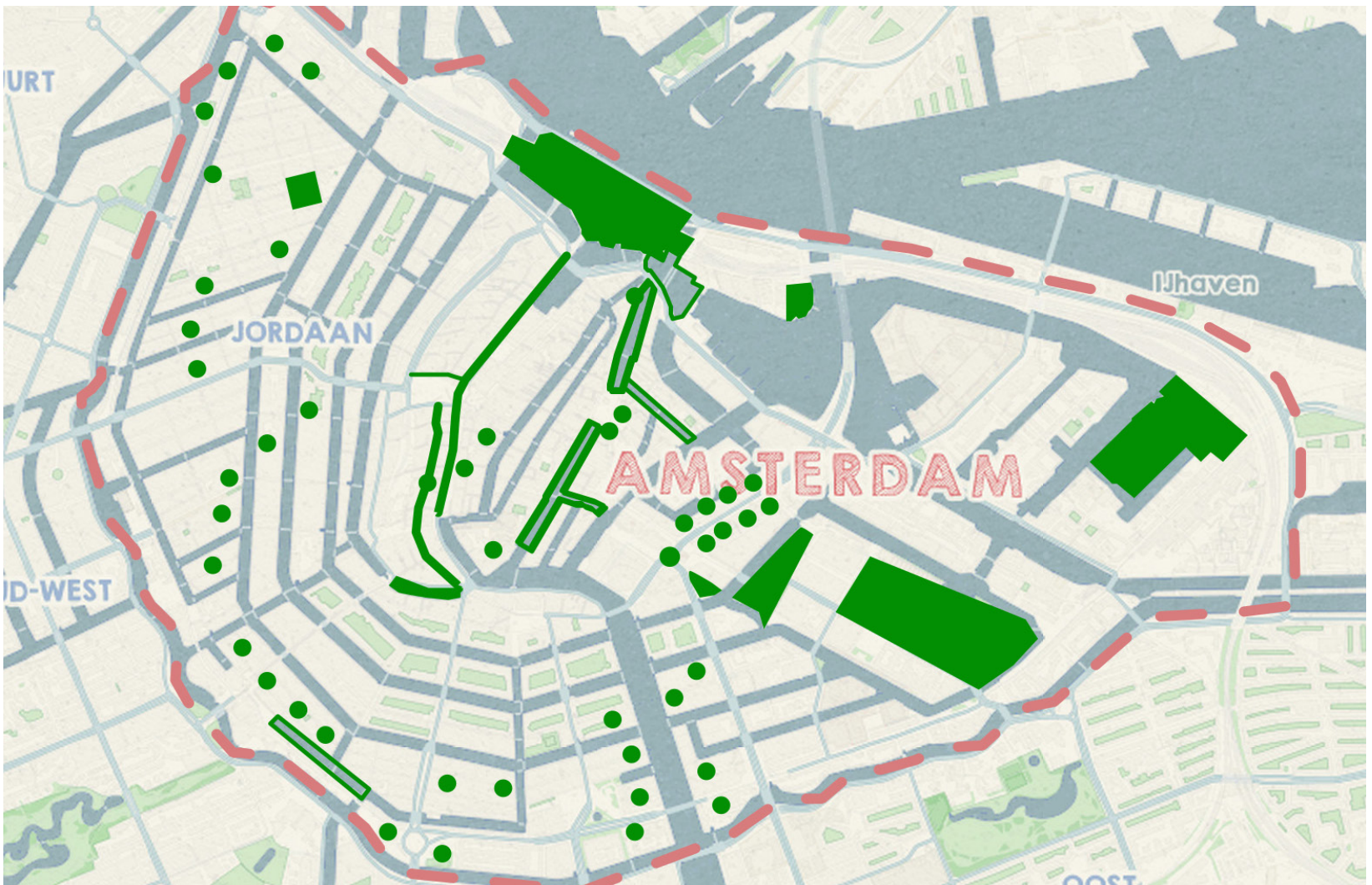
BENEFITS

1. Reduced costs for municipality;
2. Involvement of people in maintenance helps on learning more about green spaces.

SUGGESTED LOCATION

Jonas Daniel Meijerplein

PLANNING A GREEN CITY IS INVESTING IN A SUSTAINABLE FUTURE!



“Green in our lives is not optional but essential. Urban citizens might be alienated from the beauty, pleasure and enjoyment that can be derived from nature. This is a great loss in the quality of life that can be tackled by designing and planning cities in a way that includes natural wonders and create the appreciation for the wildness that every city harbours.”

~ Tim Beatley