

Market Garden Community in brief

A new development method for future suburban housing environments.

Project: Private study
 Location: Hoofddorp
 Client: n/a
 Planning period: 2011-2012.



Impression Market Garden Community: image of a short street terminating in green space

Why a Market Garden Community?

VLUGP developed the Market Garden Community concept because the large scale suburban residential developments built since 1990 are no longer in line with current social trends. The demand for more ecological and social durability has risen considerably: people, alone or in groups, want to have more influence on their living environment. They want to be less dependent on the government and the globalizing economy (mainly for food and energy supply). Furthermore, we are increasingly aware of the importance of working towards durable solutions for living, working and recreation.

At the same time, it is also evident that the government is withdrawing from many areas and concentrating more and more on a limited number of responsibilities. Utilitarian green areas like urban agriculture sites and allotment gardens are re-evaluated as enjoyable scenery or places for recreation. The latter refers to the title of our concept: the Market Garden Community.

Our concept for the Market Garden Community has been developed in response to the above mentioned developments and trends. The influence, involvement and effort of (future) residents is needed to realize and manage such projects in an affordable, durable and environmental friendly way. The Market Garden Community concept is suitable for both co-housing (collective property development) and traditional property development.

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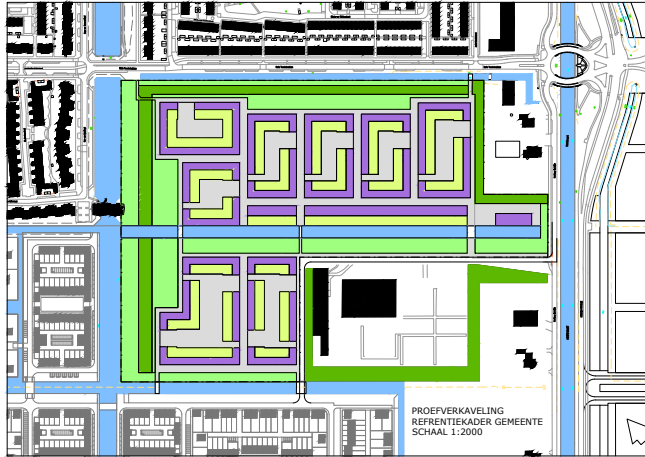
Spatial design scheme Market Garden Community

With a smart distribution of built areas and green space, we can create more spatial diversity in the suburban environment. The basis for this diversity is the smart mix of different types of houses, not only the archetypical suburban single-family terraced houses but also small-scale multi-level housing. All houses are provided with relatively compact outdoor spaces like terraces, large balconies or roof terraces, adjacent to or with a view of collective green areas.

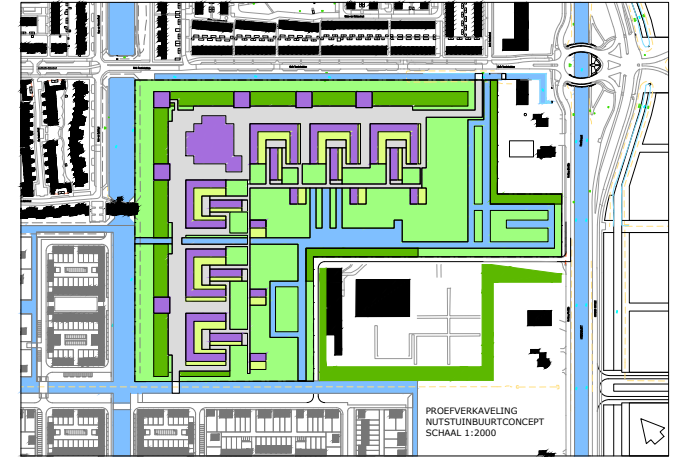
The housing density is the same as that of an average suburban neighbourhood, but the privately owned part of the total available space decreases considerably. The surplus space is considered a collective public garden, featuring an extended (market garden) program, unique landscape and natural elements.

The layout and management of the public green area is the responsibility of the residents themselves. They are assisted by professionals and, depending on the residents, the maintenance is partially carried out by themselves and partly outsourced. The latter is funded through monthly maintenance costs and revenue earned from the market garden. The government, in this case the municipality, will provide the land and will still manage the infrastructure above and below ground.

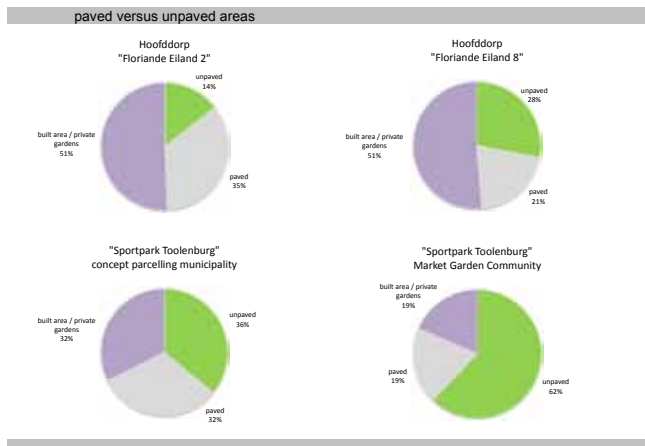
The residents' involvement in the program, design and management will contribute to strong social cohesion in the community. The Market Garden Community concept will result in an exceptional and appealing recreational area, also for the surrounding neighbourhoods.



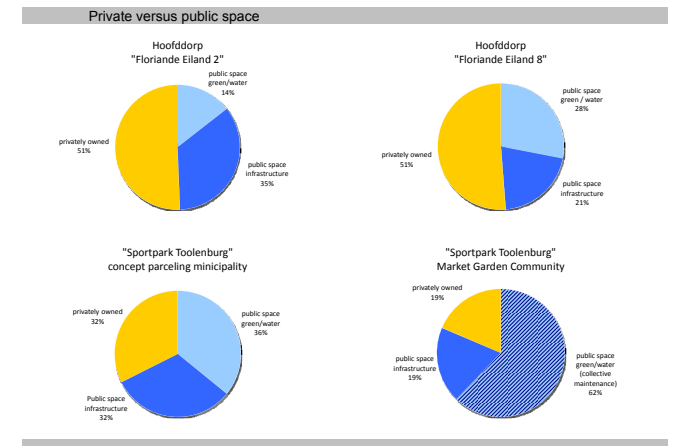
"Sportpark Toolenburg", Hoofddorp.
Concept parcelling by municipality. The shrubbery and the body of water in the middle have a natural character. Total area 14 ha, including 1.4 ha for facilities. 325 houses on 12.7 ha = 26 houses / ha.



"Sportpark Toolenburg", Hoofddorp.
Concept parcelling according to Market Garden Community by VLUGP. The green space has a diverse character: park, market garden, nature, orchards. Total area 14 ha, including 0.1 ha for facilities. 340 houses on 13.9 ha = 24 houses / ha.



Pie charts showing the different space ratios between privately owned areas, paved and green public spaces. A few suburban neighbourhoods are compared with the concept parcelling by the municipality and the Market Garden Community concept.



Pie charts showing the different space ratios between privately owned areas, collective green and publicly managed infrastructure. A few suburban neighbourhoods are compared with the concept parcelling by the municipality and the Market Garden Community concept.

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Program

Prior to the urban plan, a program has been set up for the Market Garden Community, stipulating the level of ambition through, among other things:

- The degree of self-sufficiency regarding energy
- The degree of self-sufficiency regarding food
- Minimizing pavements
- Durable water systems
- Recreational quality
- Playgrounds
- Nature as part of the urban environment

Based on experience, research and our own estimates, the Market Garden Community report uses specific targets for the items mentioned above. Based on this, this summary will provide insight into whether the separate targets can be achieved.



Energy supply

Target

- Energy from biomass: 1.5 ha is needed for each household.
- Solar and wind energy: one 20-m-high windmill for 75 households or 30 m² solar panels for each household.

Realized

- Total surface for biomass is 1.25 ha: sufficient for 0.2% of the total energy consumption.
- Sun orientation of houses reduces energy consumption by 20%.
- Shrubberies, which offer shelter from the wind, reduce energy consumption and the relatively large green surface area reduces extreme temperatures during the summer.
- Room for five 20-m-high windmills.
- On each roof 20 to 30 m² is available for solar panels.

The neighbourhood provides about twice the energy needed.



Collective gardens

Target

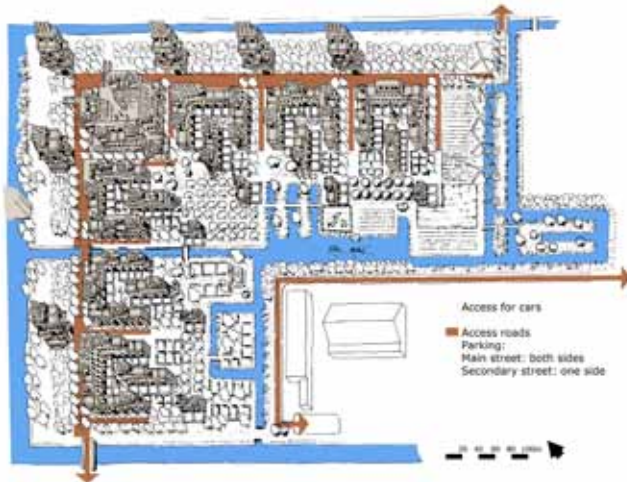
- Market garden / allotments: 50 m² / house.
- Orchard: 12.5 m² / house = 1/2 fruit tree.
- Pasture: 10 m² / house.
- Grass-land: 25 m² / house.

Realized

- Market garden / allotments: 60 m² / house.
- Orchard: 15 m² / house.
- Pasture: 10 m² / house.
- Grassland / arable land: 80 m² / house.

In total 165 m² / house = 1.7 x target.





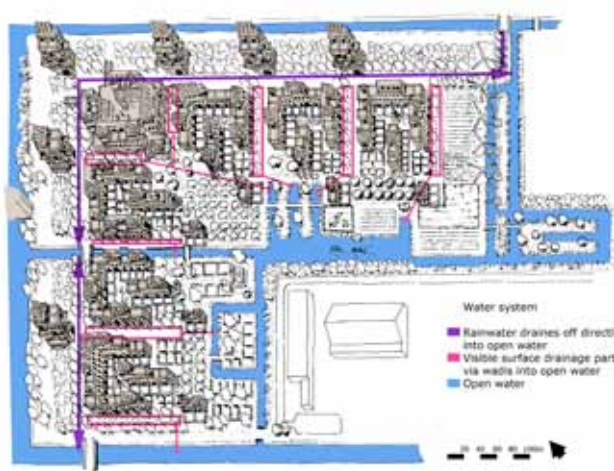
Access roads and parking space

Target

- Surface area for access roads: max. 15% (normal 20%).
- Surface area for parking: 20 m² / house (1.5 cars / house).

Realized

- 16,800 m² surface area for access roads = 14% of 14 ha.
- 395 open air parking spaces = 7900 m².
- 115 parking spaces in parking garages.
- A total of 510 parking spaces for 340 houses = 1.5 cars / house.



Water system

Target

- Open water space of 20 m² / house.
- Reeds and water plants provide water treatment.

Realized

- 16,700 m² of open water = 50 m² / house (2.5 x target).
- All rainwater drains off directly into the open water in the neighbourhood.



Recreation and play

Target

- Private outdoor space of 50m² / house.
- Play area: 10 m² / house.

Realized

- 17,000 m² outdoor space, including 6200 m² roof terraces / balconies = 50 m² / house.
- Play area 4700 m² = 14 m² / house.
- 5000 m of public footpaths



Market Garden Community: an inviting future for a meaningful, functional, (socially) sustainable and green public space in new suburban housing environments.

