

Green City is going strong in China

For the past 10 years, Niek Roozen bv Landscape Architects has been actively working on designs in various countries across the globe, with a large percentage of these projects in China. An important aspect of their designs is the application of the Green City theory.

The office of Niek Roozen bv has increasingly been asked to work on large scale planning projects from the beginning of the master plan phase because of their vision that green in cities is an integral part of the planning process and not an afterthought. Green land uses and natural characteristics of a site are set up first, and infrastructure and buildings are added next.

World Expo Shanghai

The central green park at the World EXPO 2010 in Shanghai was designed by Niek Roozen bv together with a team of Dutch experts and designers and NITA Design Group in Shanghai, using research and design principles related to trees and their ability to clean the air. The cooling effect of the park, which had a 60% canopy cover, was appreciated by visitors all summer long. The tree

species were specially chosen for their ability to clean the air of pollutants such as catching particulate matter (PM10) and absorbing gaseous pollutants.

Shenyang

In the summer of 2010, Niek Roozen bv was invited to participate in a design competition for an urban concept plan in Shenyang, a city north east of Beijing. The 5750ha site is located south of downtown Shenyang between the Hun River and the airport. It is unique that a landscape architect was asked as lead designer of the master plan, with architects and urban designers joining the team, instead of the other way around. The team began the design process from the green perspective: first an inventory of the existing conditions including the natural landscape and the villages that have organically grown over time

and then a layout of the desired amount of green space. In the master plan, the green land uses were given a place before the infrastructure of roads and other land uses.

75m² of green space per household

The amount of green space was calculated based on a standard of 75m² of green space per household which is derived from research done by Dutch scientists and recreation experts. This 75m² green was divided by a household of 2,5 people (average in China), which equals about 30m² green per person. With a total of 500,000 residents, that means that in order to fulfill the green standard, then 26% of the total land area would need to be reserved for green. But it was not enough to simply reserve a quarter of the area for green on one side of



Landscape architect Niek Roozen.

the site because another aspect of a green city is that every resident should have access to usable green spaces within 500m from house. This is not only proven to be healthy for residents both physically and mentally but also raises the property values in the vicinity of these green spaces and reduces the impact of the heat island effect, which can be measured up to 300m from a park. Therefore the green space was divided up and distributed throughout the entire district. First a grid of neighborhood parks (18ha) was set up with 2km between so every household is located within 1km of a park. Then a grid of street parks (4ha) was placed so every household is located within 400m of a park. Some parts of the final concept green plan, such as a few city parks and the central main axis, have been designed by Niek Roozen bv and are currently under construction. III



The construction of the Baita Park in Shenyang, China.