



CASE STUDY

# TREES THRIVE IN CONCRETE PAVEMENT – DENMARK

The emphasis placed on the recreational areas adjacent to Novo Nordisk's new headquarters in Bagsvaerd is clear.

There are two new notable buildings that form the framework for the new headquarters, and the buildings have space for 1,100 employees. But it is the associated park with an area of nearly 31,000 m<sup>2</sup> – the same as about four football fields – that attracts attention.

The park area is designed to replicate the natural Dani saasdsh forests and landscapes. It is a beautiful interpretation of the Danish countryside and consists of various biotypes including 50 different tree species. The park area provides natural, informal and pleasant surroundings, in which the employees can walk to meetings, enjoy the views and relax. The park area is also open to the general public and one can follow the winding white paths that meander through the various habitats.

The tree species have been carefully chosen to







provide an attractive palette of colour throughout the year. Pines and blue spruce with their evergreen needles provide a blue-green backdrop all year round.

In the winter, this backdrop is supplemented by the white birch stems and the red and orange stems of the cherry trees. In spring, these cherry trees explode in blossom, followed by the new, fresh green leaves of the beech trees. The multiple stemmed and wild trees look after themselves ensuring natural development of the biotypes is achieved with minimum levels of maintenance required.

### **SLA were the landscape architects responsible for the design of the park area.**

- To create a landscaped area with as much great diversity as seen in the natural Danish countryside requires, of course, diverse soil types. The soil types are carefully crafted to meet the requirements of the individual habitats in order to ensure optimal growth conditions, explains Morten Leicht Jeppesen from SLA

But it is not only the soils that have been carefully crafted to match the biotypes – as not all the trees have been planted in the biotypes. Outside the main entrance to the building the trees have been planted in the midst of the slate paving, adjacent to the entrance road and above the underground carpark! Here, Stratacells have been used as a structural soil cell system to ensure the integrity of the surrounding paved areas.

*“The Stratacells create an underground soil island in the concrete where the tree roots can spread even though they aren’t planted in a natural environment, this ensures a natural growth”,* says Kim Bøge of Skælskør Anlægsgartnere, the landscaping company that has been responsible for the planting.

The Stratacells provide a solid, stable surface for the slate paving to be laid over.

Without the Stratacells there would be a risk of the surrounding paving sinking in the soft soils when subjected to traffic loads, says Kim Bøge. The cells are there to provide support to the coating paving. It also withstands heavy traffic loadings and adds provide good soil volume for the trees.

*“Another feature is the relatively low weight of the Stratacell system, a very important feature when you consider that these trees are planted on the roof of an underground carpark. If the tree pits are too heavy, you risk the roof collapsing”,* says Morten Leicht Jeppesen.

### **FACTS:**

- Stratacell modules are made of 100 percent post-industrial waste.
- The modules can be used anywhere where trees are being planted in areas with one or other coating.
- The opening in the nesting is large enough to allow for pipe penetrations, such as drains, cables and aeration systems.
- More than 94 percent of the total volume is available for root growth.
- Units snap together quickly and easily, resulting in a significantly reduced time spent on the site.

### **For more information contact:**

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