

Client: Bowmer & Kirkland Ltd

Installed: 2020



Fosse Park in south east Leicester showcases Biotecture's expertise in enhancing the shopping experience through biophilic design at a time when retailers are looking for different ways to attract people back to their shops. Owned by The Crown Estate, Fosse Park is one of Britain's largest out of town retail centres, and has recently undergone a £168m extension by Bowmer & Kirkland, increasing retail space by 40%. Biotecture's living walls were installed as a key architectural feature of the new retail space.

Project Details

The Biotecture living walls were specified by landscape architects McGregor Smith, to be featured internally and externally to enhance the retail experience and bring shoppers closer to nature. Based on the site of an old brewery, the client wanted to make the extension distinct from the original development, whilst incorporating as many authentic elements from the brewhouse as possible. This included integrating a number of beer barrels and mash tanks salvaged from Everards Brewery into the Biotecture living wall system.

Another challenge at Fosse Park was the large temperature variations in a large atrium area, where three living walls were to be located at height. This was caused by three large doorways that were open during retail hours. In winter, this resulted in temperatures dropping as low as 0° C, and in summer, the atrium experiences an element of solar gain through the large expanse of glass.

Indoor plants needed to be identified that could withstand these fluctuations in temperature. In normal conditions, indoor plants are not subjected to temperatures below 12-15 $^{\circ}$ C, whilst these at Fosse Park had to remain healthy at temperatures as low as 0° C when the doors were open on freezing winter days.

These demanding conditions required a living wall specialist that understood the capabilities of different indoor species and how these could be incorporated into a living wall that would thrive in the long term.

Highlights

- Comprehensive integrated design incorporates architectural fetures from the site's beer brewing past
- Three internal walls and five external walls with over 12,000 plants
- Challenging site conditions required specialist horticultural knowledge
- Fully tested solution to cope with fluctuating indoor temperatures







Image Courtesy of Studio One | Photographer Richard Kiely | Studio One produced and installed over 600 sq metres of large scale window display graphics at Fosse Park

Our Approach

Biotecture's first task was to identify indoor plants that would remain healthy despite the large temperature variations in the glass atrium. Trials were carried out at the Biotecture nursery and within the atrium itself to determine the best species.

Following the trials, Biotecture was able to identify a palette of species that would accommodate the conditions and allow the plants to thrive over the long term. A $2m \times 1m$ sample panel was installed on site to help demonstrate robustness and resilience of the plant species as well as showing how some interfaces might work.

Biotecture also delivered successful integrated design work that enabled the whiskey barrels and mash tun to be incorporated into the exterior living walls. These have created striking architectural features in high traffic areas of Fosse Park and serve to remind shoppers of the link that the site had with Everards Brewery.

The living walls at Fosse Park comprised of three internal and five external walls, including 153m^2 of external green walls with 9,000 plants and 52m^2 of internal living walls, incorporating 3,120 plants. The feature barrel living wall was an additional 15m^2 and incorporated 544 plants, which required careful design considerations to incorporate the historical brewery items.

The extension to Fosse Park demonstrates Biotecture's expertise in integrated design work as well as the company's horticultural expertise and ability to identify species that cope with the unusual site conditions.

Biotecture supplied Bowmer & Kirkland and ultimately The Crown Estate with a fully tested solution to maximise the impact, aesthetics and longevity of the living walls.

"Living walls formed a key architectural feature at Fosse Park across different locations. Biotecture delivered what they said in terms of seamless design integration and they successfully overcame the challenges of the temperature variations in the atrium. Biotecture's design and horticultural expertise played an important role in ensuring the project went smoothly, and the installation was delivered on time to a high standard. We're delighted with the end result."

- Philip Gibbs | Project Manager, Bowmer & Kirkland





