

**Quebec Way
SE16 London**

London Square / Assael Architects / Greengage Environmental Ltd

BIG Biodiversity Challenge Award category: Medium Scale Permanent

Project overview

A residential-led mixed use scheme with a vision to regenerate a low-quality brownfield site with a high quality and sustainable development which integrates with the surrounding area. The development is set in an urban environment surrounded by mostly light industrial/commercial and residential development. The Stave Hill Ecological Park, a Site of Importance for Nature Conservation (SINC), is to the NE. The site area is 0.47ha and the total build cost is £24m. The biodiversity elements of the scheme involved three organisations with the biodiversity enhancement being led by Greengage Environmental Ltd.

What were the biodiversity conditions on site, prior to the enhancement?

The site was dominated by a 1980's brick-built and cladded building and areas of hardstanding. The site also supported small areas of non-native ornamental introduced shrub and scattered trees.

The site had negligible to low value for biodiversity with the only value being for nesting birds in trees on site.

Were there any specific reasons that led to this project?

The vision was to create a high-quality, sustainable development, as required by the Canary Wharf Area Action Plan (CWAAP), which would achieve BREEAM Excellent. The AAP states: *'New development...will be expected to strengthen links between spaces ... and also improve the nature conservation value of sites through measures such as living roofs and walls, tree planting and landscaping'*. Green Infrastructure was included across the development to act as a stepping stone habitat for Stave Hill Ecological Park SINC. The biodiversity enhancements were designed to be beneficial for habitats and species of local provenance including stag beetle, house sparrow and pipistrelle bat.



Photo Description: 24 – 28 Quebec Way pre-development

What were the biodiversity measures taken?

The proposals were designed with biodiversity in mind. In particular we wanted to add to and improve the existing green grid in the area.

Species-rich living roofs will be installed on ~50% of the total roof space with a composition of at least 24 native species, all of which are known to grow in the area and have value for wildlife. The areas will be enhanced by using deadwood and sandy piles and coiled rope.

The landscaping at ground level has also been designed as wildlife friendly. A designated 'ecology zone' will be incorporated and include native, shade tolerant wild flower species of local provenance. Bird and bat boxes aimed at supporting local species including house sparrow and pipistrelle bat will be installed on the building. A stag beetle loggery will be included in the ecology zone and an invertebrate living wall will also be created.

The project is very replicable as the products and species being used are relatively standard and readily available on the market. Multiple new areas of habitat will be completed including deadwood habitat, nesting and roosting opportunities for local bird and bat species and wildflower living roofs with habitats ideal for invertebrates and foraging birds and bats.

The new habitats will be of high value for biodiversity and will result in a significant net gain, not only on the site itself but also as a stepping stone for biodiversity in the wider area. The measures being implemented are in line with the Southwark and London BAP targets, including bats and house sparrow, and these BAPs were used to inform the design. The proposals were very well received by the local residents during the Public Consultation.



Photo Description: Proposed finished development



Photo Description: Public Consultation

How would you best describe the project?

Enhancement

Further information

The living roof will be a standard Bauder biodiverse / brown roof with plug planting. This type of living roof uses a substrate with a high proportion of recycled crushed brick and aggregate and the protection, filtration and isolation layers are manufactured from recycled material. The plug planting is proposed in order for the living roof to establish quicker. Overtime, self sown flora species from the surrounding area will establish alongside the plug plants. The roof itself will be planted with plants of local provenance. The species of plant chosen are wind tolerant and can survive in drought conditions. The species will flower at different times of the year providing an extended foraging resource for insects, birds and bats. The substrate depth will vary across the roof so that different plants and micro-conditions can establish/form. The substrate will differ between 80mm and 150mm. The landscaping at ground level is using predominantly shade tolerant plant species. The species have been chosen for their value for bees and butterflies so to complement the local Biodiversity Action Plans. The tree line around the outside of the site will create a green corridor around the site and beyond, a feature that will be important for whole host of animals, in particular commuting and foraging bats.

A real advantage on this project and something we will be promoting on future projects, is the advantage of having a team in place which included the ecologist, architect and the landscape architect at an early stage. Early collaboration, in particular pre-planning, meant all involved were fully aligned to the vision of the project.



Photo Description: The development commencing on site

We could incorporate the biodiversity enhancements more readily as they were part of the early design process as opposed to having to make changes later or limiting the enhancements we could include due to structural or design constraints from previously frozen design elements.

What was your personal motivation for carrying out the enhancement?

The biodiversity enhancement strategy was led by ecologist Morgan Taylor who also lives and works in Southwark. A large motivation was therefore having an influence over the quality of green space being provided – helping to further the cause of protecting and enhancing urban ecology, directly on our doorstep in the heart of south London.