## Streatham Common Community Garden Invertebrate Hotels
## Streatham Common, Streatham, London
Atkins Ltd and Network Rail

*BIG Challenge 2015 submission category: Small scale permanent*

### Project overview
Two 'bug hotels' of approximately 1m2 in floor area x 1m high were constructed within the Streatham Common Community Garden.

Ten enthusiastic people were involved, with staff from Network Rail and Atkins, and local community volunteers including families. There were equal numbers of staff and volunteers.

Atkins ecologists were present to explain the benefits of the hotels for wildlife. The cost of the project was minimal, with purchased materials costing less than £200.

Staff gave up their time for free, and most of the materials were recycled from the Victoria Phase 2 re-signalling scheme, an infrastructure project renewing the signals, and other railway assets, in the suburban Streatham area.

The bug hotels provide a popular local biodiversity enhancement within a suburban area, while showcasing sustainable principles with the re-use of



*Photo: Project team photo*

materials, wildlife benefits and involvement of the local community.

### What were the biodiversity conditions on site, prior to the enhancement?
Streatham Common Community Garden is an old walled garden and former council nursery located on the edge of Streatham Common, a valuable greenspace in London.

Almost derelict in 2010, volunteers are lovingly reinstating the once overgrown and unmanaged garden. Adjacent is a restored orchard, flowering gardens and pond.

### Were there any specific conditions that led to you carrying out this work?
Network Rail and Atkins were looking to provide biodiversity enhancements as part of the nearby Victoria Phase 2 re-signalling scheme.

It is a Network Rail IP Signalling Sustainability Policy objective to enhance ecological value on signalling schemes, and Atkins ecologists promote biodiversity enhancement as best practice on projects.

Available habitat for enhancement was limited within the scheme area and Streatham Common Community Garden was

identified as an ideal off-site location for biodiversity enhancement.

This project helped towards providing net gain for local wildlife, drawing on the enthusiasm of the local community and the staff of the Victoria Phase 2 scheme.

### What were the biodiversity measures taken?

The bug hotels represent innovation because they were designed by Atkins to create value as offsite biodiversity enhancement using recycled signalling equipment.

Their design is cheap and replicable, using recycled waste material generated from the re-signalling scheme, making this innovation transferable to other sites.

The hotels require little long term management as they are built to last.

The bug hotels were quick to build and low in cost, their design follows sustainability principles, their construction delivers a better project outcome helping achieve a net gain in biodiversity, and we hope the bug hotels will be award winning.

The bug hotels provide new, small scale wildlife habitat, and will help maximise biodiversity in the local area.



*Photo: Bug hotel*

One was built under the mulberry tree in the south of the garden and the other alongside a hedgerow.

They are of ecological value not only for invertebrates, including pollinator species, but for hedgehogs (a hedgehog house was provided on the lowest level of each hotel) and for amphibians, such as frogs, newts and toads.

All these species help contribute to a healthy and functioning local ecosystem for the benefit of all.

Additionally, the bug hotels can be used as an educational facility for the community.  In 2015 the bug hotels were the focus for a bug hunt led by volunteers from the Institute for Biology.

The enhancements aim to benefit nationally notable invertebrates and UK Biodiversity Action Plan species, including hedgehog, common toad and stag beetle which, although relatively widespread in Southern England, is a nationally scarce and globally threatened species.

The bug hotels were built during a volunteering day engaging staff from Network Rail, Atkins, Streatham Common Community Garden volunteers and members of the public including local children.

### How would you best describe the project?

An enhancement.

## Further information

The bug hotels were installed from the bottom up: Cable trough lids were installed to create a suitable base and to extend the life of the hotel.

The lowest pallet was placed upside down to create openings for the hedgehog house. Each pallet was filled before the next one was added, and pallets were secured to increase stability.

Each layer was filled with a variety of materials to create habitats to benefit the widest range of species.

On the middle layers, logs with drill-holes and dead wood for beetles; half plastic bottles filled with rolled paper for lacewings; and pipes filled with bamboo for solitary bees.

The central space of each pallet was filled with dry leaves, straw, wood chippings and hay, suitable for small mammals, burrowing invertebrates, beetles and spiders. Roofing tiles, air bricks, broken terracotta and sand was used to create cool damp conditions near the base for amphibians.

Finally, a board was nailed to form a roof, which was covered with roofing felt to ensure the hotel remained generally dry.



*Photo: Construction of bug hotel*

The roof provides space for potted flowers of native species to attract pollinating insects.

A visit from a member of the project team is planned in August. An event held by the Community Gardens 'Bug Hunt' was held in July and led by volunteers from the Institute for Biology which was 'very successful' - Andrew Simpson (Streatham Community Garden).

Lessons learnt - The hotels required a lot of 'fill'; collecting materials in quantity beforehand is the key.

## What was your personal motivation for carrying out the enhancement?

Invertebrates are often overlooked on projects particularly in urban areas but are a vital part of our ecosystem and we think it's important to protect them.

The gardens provided the perfect setting to engage with the local community and promote 'ecosystem services' that bugs provide, something we are passionate about.