M25 J30/A13 Corridor Relieving Congestion Scheme
Thurrock, Essex
Balfour Beatty Skanska – Joint Venture

BIG Biodiversity Challenge Award category: Community Engagement

Project overview
We engaged our local school, Tudor Court Primary to invite them to an interactive ecology learning event hosted by Balfour Beatty Skanska and The Ecology Consultancy. Our goal was to inspire a year 6 group of 90 children to help them connect with nature and develop an insight into a lesser understood element of our local ecosystem… bugs!

The pupils and staff arrived at our site offices in Grays, Essex where they created bug hotels in small groups, each named after a UK insect species. They used a variety of materials that they had gathered as part of their home learning and material brought in by our staff.
One of our ecologists gave a talk about British wildlife including badgers and bats. We also shared what the project was doing to improve habitats through the creation of a pond and what they can do within their local environment to encourage biodiversity.

What were the biodiversity conditions on site, prior to the enhancement?
Tudor Court Primary is situated within the urban area of Grays and is surrounded by housing. The school has a playing field which is bordered on three sides by trees. This area is not used by pupils and offers limited appeal for invertebrate species.

Were there any specific conditions that led to you carrying out this work?
There were no specific requirements to undertake this community engagement activity. However, we took the opportunity to share our knowledge with a local school and demonstrate our commitment to building positive legacies in the communities in which we work. As part of the scheme we have decommissioned a Highways Depot and transformed this into a diverse range of habitats.

Pupils listening to the instructions and advice on their bug hotel challenge.

Explaining the interconnectivity of habitats and their impact on wildlife types and diversity will hopefully inspire the next generation to appreciate and protect nature.

What were the biodiversity measures taken?

As part of their home learning, the children were provided with a rough guide on what types of habitat invertebrates would favour. They then, prior to visiting the site collected a variety of materials which would be suitable for invertebrates. We had a diverse mix which included twigs, cardboard, straw and bamboo canes. This was supplemented by some additional items brought in by the joint venture staff for those children not able to collect their own materials to ensure no one missed out on contributing.

The bug hotel frames were made onsite using offcuts of plywood to provide a total of 20 bug hotels which would provide a total habitat area of approximately 2.5m2 for placement within the school grounds. The bug hotels complement the rear plot line of existing vegetation at the school by adding habitat heterogeneity. Given the urbanised location of the enhancements these additional resources when multiplied are likely to have a significant cumulative beneficial effect on the local biodiversity.

In addition to the biodiversity benefits, the bug hotels provide an educational tool in the functioning of micro habitats. Monitoring overtime will allow pupils' to explore which types of materials are the most effective in creating suitable habitats for insects. They will also be able to compare insect communities in relation to the positioning of bug hotels. This experience has enabled the school to consolidate their curriculum on animals in their habitats and how local animals are adapted to their environment.

The 'earwig' and 'ladybird' groups are intrigued by an early resident of a bug hotel.

How would you best describe the project?
An enhancement

Further information
Once the bug hotels were complete, each group had the opportunity to present their box to share what they put in the bug hotel and why. We had hugely creative groups who showed a good understanding of habitat structure and the importance of layers to provide shelter for any animals. Graham, our Environmental Advisor and Matt, our Ecologist jointly chose the winning group which was the 'honey bees'. The four members of the group were each awarded with a book voucher.

Following the excitement of the judging and the awards, the children took their seats for the wildlife talk. Providing an overview of common species native to the UK, Matt had a number of tips for the children in identifying animals from their footprints and dung.

Mrs. Arnell from Tudor Court Primary expressed her thanks and stated "The children had a great time creating separate 'rooms' for their insects to enjoy – some even included a games room with slides made out of reeds! Some groups managed to find inhabitants already in their insect hotels! The hotels will put amongst the trees around school to try and encourage natural wildlife – we will have fun in monitoring these as time go on."

The groups busily working on completing their bug hotels ahead of the judging.

What was your personal motivation for carrying out the enhancement?
We wanted to encourage an active interest in the outdoors and help develop knowledge of biodiversity using a hands on learning approach. In sharing this passion for ecology through this method we hope to have sparked curiosity amongst the children to go and explore nature!