

BOLTON INTERCHANGE BOLLINGS YARD, BOLTON, UK

Kier Construction – Northern

BIG Biodiversity Challenge Award category: Small Scale Permanent Award & Pollinator

Project overview

Bolton Interchange is a modern bus station which replaces an aging existing facility elsewhere in the town. It consists of 23 bus stands located around a central concourse building, with a further facility for the bus crews also situated on the project.

There is also an undercroft under half of the site which provides access for maintenance to a diverted sewer and to the two railway lines that the project sits between.

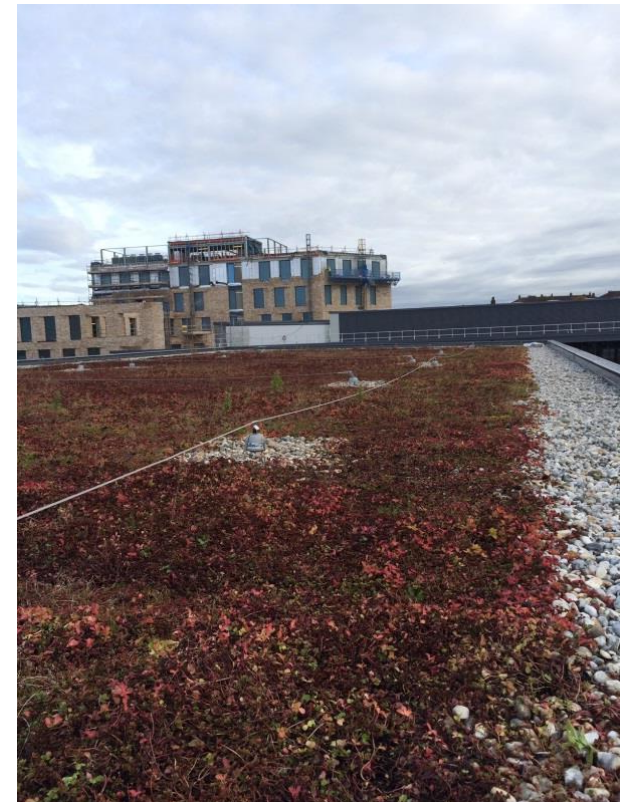
What were the biodiversity conditions on site, prior to the enhancement?

The site was a brownfield site, enabling works were carried out by the client previous to us starting on site.

Were there any specific reasons that led to this project?

The project was undertaken to promote biodiversity, contribute to Considerate Constructors and BREEAM.

The green roof was part of discharging the planning conditions. Both the green roof and green wall help with natural rain attenuation.



Green Roof

What were the biodiversity measures taken?

As the site is within the town centre, it was felt to be important to provide an area for wildlife, an amenable area for the workforce and a focus for the local residents who overlook the project. The project have instigated a number of biodiversity measures.

The 'Green wall' provides a warm welcome to the visitors and passers-by, by providing a piece of greenery in an otherwise build up area. The green wall has been easy to maintain, and would be easy to replicate on other projects, it provides enough security to the cabins.

The site also has had a wildflower boxes and a bird feeding area. Next to the site cabins.

The highlight however has been the green roof on top of the crew and ops building. This is a new habitat created in the centre of town. This was laid in the summer. On a sunny day the amount of insects and bees that is attracted to the area is wonderful. This provides a wonderful view for the local residents who overlook the project. There was some excess green roof material left over the site team volunteered to place over the roof of a site cabin to further enhance the wildlife. It is possible to view the wildlife enjoying this from the 2nd tier site cabin. Which brings enhancement to the work force as this was enhanced green space.



Site cabin Green roof

How would you best describe the project?

Enhancement

Further information

For the green roof a drainage membrane was installed, and then a wildflower sedum was lifted in rolls onto the roof and knitted together. A gravel margin was added as basalt to the system. The sedum is required to be water everyday for the first year to ensure it establishes. Once established the sedum will rely on natural precipitation.

The green wall was created by a planter being placed at the bottom on the heras fence, then ivy was planted and weaved through the fencing to create a visual barrier to the site cabins. In addition this helped reduced dust escaping from site, and therefore reduced the amount of water required for dust suppression.

Planters were created from defective scaffold boards for the wildflowers. A bird feeding table and bird feeding hanger were also provided. In one instance the 'employee of the month' nominated his reward to be used for bird seed.

One lesson learnt would be to arrange for the sedum to be delivered 'just in time'. On this project it was delivered early and therefore it had to be watered. This increased the weight of the rolls when being lifted into place.

This project allowed us and our design team to research and implement new technologies which otherwise would not have been employed, and this also allows us to provide a case study for use on other projects.



Green Wall

What was your personal motivation for carrying out the enhancement?

Enhancing the feel of the workplace for the workforce and improving the visual appeal of the development to the residents.