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Whitechapel Station roof canopy transformed with Blackdown Greenroofs' NatureMat®

East London's Whitechapel Station, which will eventually become one of the stations on Crossrail's brand new Elizabeth Line, has taken advantage of its canopy roof area and transformed it into a valuable environmental asset.

An extensive sedum NatureMat® green roof from Blackdown Greenroofs, an Alumasc company, was specified and installed at the station. This came as a result of the horticultural partnership between the Transport for London network and Kalzip Standing Seam Roofing Systems, which has been a partner company of Blackdown since 1999.

Being experts in the green roof field, Blackdown were able to effectively recommend the most appropriate green roof system to be installed over the Kalzip standing seam roof.

NatureMat® is part of Blackdown's extensive green roof range. It is lightweight with a relatively shallow substrate, however, still offers a wide range of planting possibilities, including drought tolerant succulents such as sedum, rockery and alpine plants. Blackdown extensive green roofs provide a wealth of ecological and economic benefits such as reduced water run-off and increased biodiversity.

The £50,000 project was completed in November 2019, installed by contractors BBMV, a partnership between Balfour Beatty, Bemo Tunnelling, Morgan Sindall, and Vinci Construction.

BBMV Section Engineer Nasi Payman, who worked on the project explained: "This project involved a lot of coordination with other services and trades due to the restricted access, location above a rail track, and the fact that it is a prestigious project."

One of the main challenges with this project was that the station roof was curved from 0 to 22 degrees, which meant the green roof system had to be specially designed to function on a unique sloping surface. A specialised NatureMat® system was specified as it incorporated a 25mm fully wrapped drainage layer, a 50mm substrate and a 25mm sedum mat.

“As the roof pitches at 22 degrees it required a high degree of planning and meticulous attention to detail throughout planning and installation,” explained Nasi. “Moreover, the pitched areas required the addition of substrate retention battens to stop the migration of the materials down the slope.”

“We are delighted with the very successful outcome, which delivered an addition to the scheme that will have both aesthetic and environmental benefits for anyone using the Crossrail facility,” concluded Nasi.

