

## PROJECT

Hackbridge  
Primary School

## LOCATION

Mitcham, Sutton

## CLIENT

Willmott Dixon

## ARCHITECT

Architype

## INSTALLER

DF Roofing

## SIZE

1200m<sup>2</sup>

## OPTIGREEN SYSTEM

Solarbase 15

## COMPLETED

2019

## ACCOLADES

Passivhaus Plus  
certified



Hackbridge Primary in Mitcham has been designed by Architype to be the first Passivhaus Plus school in the UK. The aim was to effectively meet net-zero carbon targets by combining the Passivhaus levels of energy-efficiency by using renewables to generate as much energy as the building consumes throughout the year.

Working alongside Optigreen partner DF Roofing, we were able to design a system that incorporated an extensive wildflower & sedum green roof combined with a 252 PV modular layout. Manufactured from recycled plastic, Optigreen's Solarbase 15 units are secured with a ballasted load that fixes the support frames for the photovoltaics modules in place securely with the load of the green roof structure meaning there is no penetration of the waterproofing layer or roof itself.

The client required a specific variety of different plant species which was achieved by installing pre-cultivated wildflower and sedum mat to the pitched roof and lower entrance roof and planting sedum and wildflower plug plants around the Solarbase units.

A combination of drainage solutions were implemented taking into consideration wind calculations, varying structural requirements, build ups and roof pitches to deliver the exact specification required

There will be a high focus on sustainability in all areas of the school with, for example, outdoor learning with a lake and safe jetty to observe wildlife and encourage biodiversity. They will also grow some of their own food on site. The school will also support active travel and wherever possible seek to reduce energy consumption and waste.

This £9m scheme is part of the One Planet Sutton initiative which aims to demonstrate sustainable lifestyles and help promote global green economy.

