

SuDSPlanter® case study

Project: Merstham Primary School
Flood Prevention and Environment Enhancement
Location: Redhill, Surrey
Client: Department for Education
Project value: NA
Date: October 2020 - July 2021



On the 13th of August 2020 Merstham Primary School suffered extensive flooding when the South East of England experienced severe thunderstorms. The rainwater overwhelmed the schools drainage system and ran straight into the school building causing extensive damage throughout. Approximately 80% of the school was affected, leaving just 3 usable classrooms.

After an extensive clean up operation, the school team and Department for Education began researching possible solutions to reduce the risk of flooding again, while also taking into account possible benefits that such a solution might offer. The simplest solution of installing flood doors onto the school was rejected in favour of an approach to stop flood water from reaching the school in the first place.

In October 2020 the Sudsplanter Ltd team became involved with the project with an initial site visit. A proposal was developed that would include multiple SuDSPlanter® units located around the school site to manage rainwater run off by capturing and attenuating the flow into the drainage system. Installation of the SuDSPlanter® system would not only address the flood prevention issue but would also offer a host of benefits in the educational setting , enabling the school children to be involved with the flood prevention project from conception to installation and beyond.



P.1. SuDSPlanter® units were sited in 28 locations across the school site to capture and attenuate the flow of rainwater run off.



P.2. Bespoke disconnect designs were installed to increase the children's engagement with the planters including rain chains and this cloud effect rain tray.



SuDSPlanter® case study cont.

During the planning stage of the project, the Sudsplanter Ltd team conducted online zoom sessions with the students at Merstham Primary School to teach them about the use of SuDS and how the SuDSPlanter® system will help prevent future flooding at their school. This has prompted the development of a “SuDSPlanter® Education Pack” which can be used as a tool in any future projects in educational settings.



As part of the process, each year group produced artwork to be used on signage placed alongside the planters to show how the planters work, and what the biodiversity and flood prevention benefits are of having the planters in the playground.

At completion this project has introduced 10m³ of soil onto the school site which not only reduces the risk of future flooding by adding permeable surface area, but also increases the biodiversity from the soil up. The 20m² of green space created by the planters also increases biodiversity by creating new habitat for insects, butterflies and bees so playing a very important part in environmental enhancement for the school.

The provision of green solutions to prevent flooding has provided access to nature for those students attending the school who do not have gardens at home. Other students have sensory needs that the plants and flowers can help with. All of the children in the school were enthused and interested by the planting lessons and are looking forward to the new opportunities for learning, outside of the classroom using the SuDSPlanter® system as inspiration.



P.3 The children helped to design signage for the planters as well as helping to plant flowers around the school. The planters will be used throughout the year to aid teaching.

P.4 The planters not only address the flooding issues but have also created new green space to the playground, increasing biodiversity and enhancing the school environment.

