Super Gully

reduced flooding, improved safety:
managing surface water with innovative preventative maintenance

F looding is a major issue for many roadways in the United Kingdom and is becoming more and more common as we see heavier rainfall due to changing climatic conditions. This can cause a serious danger to drivers and it is important to provide solutions that help make travelling safe, regardless of the conditions. Heavy rainfall can surpass drainage limitations on many networks, leading to system surcharges, flooded roads and dangerous standing water. The problems are exacerbated in winter, when standing water permeates into the asphalt layer and freezes; as the water expands during freezing, it can damage the road surface, leading to time-consuming and costly repairs.

Super Gully system installation

Drainage problems

The drainage systems themselves aren't without fault. Networks located in low-lying areas often see higher flow rates as well as a quick build-up of silt and sediment, resulting in lowered performance and leading to further flooding problems. The problem is compounded even further due to budgetary constraints, as authorities lack the funds to perform preventative maintenance.

The Super Gully system

The development of Super Gully has been a collaborative project between Surrey County Council highways engineers, Stanton Bonna and Saint-Gobain PAM. The system is an effective, low maintenance, high capacity road gully for kerb-side stormwater management which rapidly removes water from highways prone to flooding.

The system was created to solve common issues such as:

- Flooding at low lying areas.
- Lack of regular highways maintenance.
- Failure of carrier pipes to cope with extreme rainfall conditions.
- No real alternative to road gullies.

It can be installed within the kerb line or just within the road channel to provide surface water drainage for many areas including:

- Roads and motorways.
- Railways.
- Car parks and Park & Ride.
- Housing developments
- Industrial estates.
- Airports and runways.
- Bus stations.
- Distribution yards and loading docks.

Benefits

Super Gully is an ideal system for use on new developments working with carrier pipes as part of the stormwater system. In troublesome areas, the Super Gully can be installed in groups - initial units are designed to take the silt and sediment and further units designed to take the water.

Key benefits include:

- Offsite manufacture.
- Quick installation.
- Minimum maintenance.
- High capacity.
- Rapid removal of rainwater.

Case study: Belmont Roundabout

Located on a stretch of road known as the 'Mad Mile', the Belmont Roundabout was consistently flooding under any sustained period of rainfall. This was causing a real danger to road users, which resulted in Surrey County Council searching for a drainage solution to solve the problem.

The site was particularly prone to flooding due to the inclination, which meant any rainfall flowed onto the roundabout. This flow was comprised of both water and a large amount of silt which would all gather at the low point of the roundabout.

Surrey County Council turned to Saint-Gobain PAM and Stanton Bonna, who delivered the innovative Super Gully system which, by combining high performance gully gratings with a high capacity solution, can cope with the most severe conditions.

The Super Gully system is ideal for areas that suffer from a large amount of flooding or standing water. It is quick to install and provides a low maintenance solution that reduces the pressure

on local authorities to perform preventative works by reducing the dangers of standing water and increasing the longevity of the asphalt surface.

Since the installation of the Super Gully, there has been some severe rainfall and no silt or water has gathered on the roundabout the flooding issues on this part of the road network are significantly reduced.

This article was prepared by Saint-Gobain PAM UK.
(T) 0115 930 5000
(E) innovations.uk.pam@saint-gobain.com
(W) www.saint-gobain-pam.co.uk

Super Gully drainage system