

## Becketts Corner, Silverstone

## Track Flooding



Becketts Corner on the Silverstone Formula One race circuit was experiencing standing water issues in the center of the grassy area adjoining the track. French-drains were dealing with surface water running off the track, the central area of Becketts was having to deal with surface water run-off from several other higher areas nearby. This situation was dangerous for any car leaving the track at high speed. We were asked to design a GD90™ system to remove the standing water without connecting to Silverstone's existing drainage infrastructure.

In addition, Silverstone has a significant internal network of service roads, that provides race day access and transportation for Race Marshalls, recovery vehicles and other staff. One such service road was experiencing increased flooding. The integrity of the road was being undermined as the road surface itself was sinking due to the amount of water present underneath the tarmac. We were asked to design a GD90™ system to remove the standing water, stop the continuous flooding, enabling the ground to dry out and the road to be resurfaced.

### INTRODUCING THE GD90™

- Deals with storm water at source
- Unique design that forms a differential hydraulic head to move water down
- Moves ground water to multiple unsaturated soil stratas
- Installed to depths of 12 metres plus
- No moving parts, no external power needed, self-cleaning sealed system
- A CARBON NEGATIVE drainage system
- Now with over 300 successful installations

### GD90™ Technical System Specification

Project 1:	Becketts Corner standing water on grass run-off area
GD90™ system size <sup>1</sup> :	17 Primary and 324 Secondary GD90s™
Total GD90™ rod lengths:	750m
Project 2:	Service road flooding and sinking
GD90™ system size <sup>1</sup> :	6 Primary and 20 Secondary GD90s™
Total GD90™ rod lengths:	66m

<sup>1</sup> A Primary GD90™ is either 6 or 12 metres in length, a Secondary GD90™ is either 1.5 or 3 metres in length.

### £2 MILLION WARRANTY

Every GD90™ installation has £2 million of Professional Indemnity cover. We can increase this for individual projects.

## The GD90™

### Transforming Drainage Design & Scope

The GD90™ is an internationally patented product with unique characteristics that solve a multitude of drainage problems. We launched it in the UK under licence in 2012, since when we have completed over 300 successful installations, from commercial and residential new builds to car parks and cemeteries. We also have our 'Hall of Fame' installs.

Made from high density polyethylene (HDPE), standard drainage extrusion, the unique GD90™ design uses a multiple open chamber system that creates lateral (horizontal) water transfer to soil stratas to a depth of over 12 metres (go to [www.groundwaterdynamics.co.uk](http://www.groundwaterdynamics.co.uk) for full information).

Our ethos is that the time has come for a new drainage solution that:

- does not move large amounts of storm water from A to B in conventional horizontal pipes creating problems "down the line", including the flooding of water treatment facilities that then discharge into critical marine, river and stream ecosystems
- improves the carbon footprint by removing external energy requirements to deal with storm water, with no need for pumps moving water or the energy requirements of treatment works
- stimulates plant growth, creating GD90's™ CARBON NEGATIVE standard
- does not take storm water directly off the surface into deep borehole systems creating possible pathways for contaminants.

Instead, we have introduced a drainage system that takes ground water, indirectly, laterally through the ground into an installation of multiple GD90s™, **changing the drainage characteristics of soils which previously were unable to accommodate positive infiltration rates.** That's the game changer.

"The GD90™ design requires no maintenance, has no mechanical moving parts and needs no external energy requirement to function. It uniquely harnesses soil based gravitational pressure, porosity and waters enthusiasm to keep on moving."

"The unrivalled result is that a GD90™ installation uses the entire volume of soil to a depth of 12m below the ground for water drainage, creating a massive volume of earth to deal with storm water. For new build sites this results in less area for drainage, more for building and higher GDVs."



Edgbaston CC



Gleneagles



Royal Ascot



Silverstone