PORLINGLAND & FRAMINGHAM EARL - SURFACE WATER DRAIANGE

In 2007/8 South Norfolk Council commissioned Millard Consulting to identify the main causes leading to localised flooding and drainage issues in the Poringland and Framingham Earl area as part of the Integrated Urban Drainage Pilot Studies sponsored by DEFRA. The main outcomes of the Report identified the most probable cause of the problems to be a result of water percolation through the overlying sands and gravels followed by surface run-off across the interface with the underlying chalky boulder clay, resulting in underground conduits or buried channels emerging as transient springs. The situation being exacerbated by the infilling and disruption to the predevelopment field drainage system.

Surface Water Drainage – Developer/Applicant Advisory

By ensuring a sustainable approach to surface water management we aim to ensure that flood risk is not increased either on site or elsewhere. The philosophy of sustainable drainage is about maximising the benefits and minimising the negative impacts of surface water run-off from developed areas.

The Poringland and Framingham Earl areas have been identified as having a predominantly clay geology, with pockets of sands and gravels. When combined with a high or perched water table, this can lead to many areas being unable to dispense with surface water via soakaways. Where areas of glacial sands and gravels are identified, direct infiltration to the ground can have adverse consequences for properties further down the catchment. Where infiltration drainage is proposed, careful consideration needs to be taken with regards to the on and off-site flood risks. The use of shallow soakaways over a wider area will help reduce the impact elsewhere. It is the Developers responsibility to properly investigate ground conditions to ensure that any direct discharge to the ground or a watercourse will not increase flood risk elsewhere.

Where percolation tests have confirmed soil conditions are suitable for infiltration devices they should be designed so that run-off from roofs and hard surfaced areas is completely contained for the 1 in 30 year storm event as a minimum. Flows exceeding the design standard of the soakaways and up to the 1 in 100 year climate change event should be contained on site with no flooding of buildings.
We support the use of rainwater and grey water harvesting systems to encourage rain water re-use and water conservation and recommend that water butts are incorporated into the design as a minimum.

Where percolation tests have confirmed that soil condition are unsuited to infiltration drainage careful consideration should be given to alternative options. If discharge to a watercourse is proposed you will be expected to provide attenuation prior to discharge to ensure that flood risk is not increased elsewhere.

If you wish to discharge roof water to the surface water sewer you must demonstrate that more sustainable drainage options have been fully explored and that the drainage hierarchy advised above has been followed. Any proposal to discharge to

the surface water sewer should be agreed with Anglian Water who may require you to attenuate flows.

Under no circumstances should the surface water be connected into the foul drainage system unless specific approval is obtained from the sewerage undertaker.

It should be noted that it is the applicant / developer's responsibility to ensure adequate provision for drainage of the site (including roofs, driveways and hard surfaced areas) so as not to adversely affect surrounding land, property or the highway and under no circumstances should contribute to flooding elsewhere and / or road safety issues.