

**FELPHAM
BOGNOR REGIS
WEST SUSSEX**

**Development Foul & Surface Water
Statement**

SS/18:0439 /5782
28th June 2018

This statement outlines the foul & surface water drainage strategies for the above development. Hampshire Homes is seeking outline planning permission for the construction of 18No. residential dwellings with associated infrastructure.

The 0.49ha site is located in Flansham, Felpham in West Sussex.

Foul Water:

The foul water flows from the property will drain via gravity through the private house drainage before out-falling to the new adoptable manholes and sewer located within and to the land off the access road. There is an existing manhole (FWMH F5.14) directly opposite the development which can be utilised.

Southern Water will be consulted to assess the capacity of the existing foul and surface water network and determine any upgrading works required to accommodate the proposed development flows. This will ensure that the proposed development has a 'no detriment' impact on the existing foul and surface sewer system within Felpham and does not create an increase in flood risk.

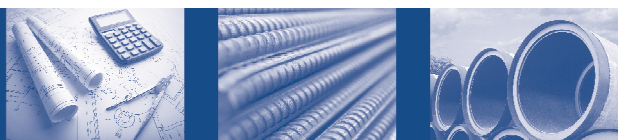
Surface Water:

The existing site is relatively level with no notable gradient.

Information published by the British Geological Society (BGS) indicates the underlying geology at the site as various chalk formations, with superficial river terrace deposits: sand, silt and clay.

The outline drainage strategy provides one point of outfall with all flows being restricted to 5 l/s for all storm events up to and including the 1 in 100 year + 40% climate change as agreed with Arun District Council.

All flows will be attenuated on site and discharged at a restricted rate to the adjacent watercourse. The drainage strategy also confirms that the existing sub strata is unsuitable for infiltration type SUDs.



The surface water flows from each property will drain via gravity through the private house drainage before out-falling to a new storm drain located within the development road network. The storm water drains to a cellular attenuation tank along the north eastern boundary before outfalling at a controlled rate to the watercourse.

The following SUDs techniques are proposed for the development site and form part of the drainage treatment train.

- Sealed permeable paving / permeable sub base to drives and parking areas
- Piped storm drains
- Cellular attenuation

Roof Runoff:-

Roof runoff will be collected by a conventional system of guttering and downpipes where it will be discharged to a main storm sewer or to a permeable paving stone sub base within the drive or parking courts, which would then connect to the main storm drain.

Water Butts are to be provided per plot where feasible on a rainwater downpipe to collect roof runoff for re-use.

Private Drives & Parking Courts:-

All private drives and parking courts will either drain via a traditional gully & piped system or via a permeable block paving stone sub base prior to outfalling to the main storm drain.

Cellular attenuation crates:-

Runoff from the piped drainage will be attenuated within these tanks to prior to discharging to the adjacent ditch.

The final surface water runoff from each catchment area will be strictly controlled via Sustainable Drainage Systems (SuDS). All catchment areas will discharge at 5 l/s and be designed to manage the 1 in 100 year return storm plus an extra allowance of 40% for the potential predicted increase in peak rainfall up to 2115.

The designed foul and surface water drainage systems proposed for this site are the most suitable, sustainable and robust solutions for the lifetime of the development, while considering the engineering constraints of the site, Environment Agency guidance, and additional government legislation such as the Flood and Water Management Act 2010 (Defra) and The National Planning Policy Framework (NPPF & PPG).

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