

SWP Surface Water Drainage Strategy (See also Drawings 2391-SKPH01-04)

Job Number 901 Waterhouse, Highgate, London

The surface water drainage design will be in accordance with the Environmental Agency and Government Guidelines. Rainfall modelling assumptions will be based on the Planning Policy Statement PPS 25, with an appropriate allowance for climate change.

The criteria used will be as follows;

- 1 in 2 year without surcharge in the surface water drainage system.
- 1 in 30 years without flooding.
- 1 in 100 years will be checked to determine what volume of flooding may occur.

The worst case surface water storage retention expected, based upon the Micro Drainage software package for a 1 in 100 year storm return period, will require on-site storage of approximately 15 cubic metres. On site retention of surface water, with a controlled outfall to the Mill field Lane combined sewer, will be provided to store the difference between a 1 in 30 and a 1 in 100 year storm return, as the PPS 25 Guidelines. The surface water retention will utilise soakaways and/or underground storage vessels to be developed as the design is progressed.

Additional ground water storage will be available within the Fin Drain system, provided to convey the flow of ground water around the basement structure. This could be in the region of 8 to 10 cubic metres.

The design of the Green Roof areas will also introduce addition surface water retention.

During the Construction Phase temporary storage of ground water will be available within the voids of the cut off land drain located to the front of the garden alongside Mill Field Lane; this storage will be in the region of 12 to 18 cubic metres.

The outfall from the cut off drain will discharge into a large silt separator. From the separator an overflow will discharge surface water into the existing site combined drain.

The existing surface water run off from the site has been estimated at being approximately 18L/S for a 1 in 100 year storm return period. There is no provision for the retention of surface water to the existing site, all surface water from the roof and hard standing areas discharges directly into the Mill Field Lane combined sewer.

By introducing the on site storage controls described above the estimated surface water run off will be reduced to below 6L/S which gives up to 60% reduction of flow off site. The proposed strategy for surface water retention will greatly reduce the potential risk of flooding to Mill Field Lane.