Drainage Strategy

The site is located in Flood Zone 1 but is over 1ha, therefore Topping Engineers have produced a site specific Flood Risk Assessment.

Ground conditions are expected to be viable for the use of soakaways. Ground conditions are shown to be sandy gravels from the geology maps. The site is located in Groundwater protection Zone 3 and therefore suitable protection measures are shown to deal with pollution risk by way of petrol/oil interceptors and the petrol station external area drainage to foul sewer with forecourt interceptor.

Detailed percolation testing has been undertaken on site and the average result is 1.5x10^-5m/s. The attached strategy is based on this infiltration rate. Please note permeable paving could be used on the scheme to reduce impermeable areas but permeable paving could only be used to the retail side of site and not the PFS.

Based on the infiltration rate private soakaways have been designed as indicated on the layout for the development surface water flows to accommodate flows up to 1m/100 years plus 30% climate change.

No foul water assets are located nearby and foul drainage via infiltration will not be viable due to the proposed site use and the site layout being too constrained in terms of suitable landscaped area for locating a drainage field. It is assumed a regulation sewer and pumping will be required for the development subject to further liaison with Anglian Water to determine the scope of any off site drainage works required. Should a suitable outfall to sewer not be viable then the site would have to discharge foul to septic tank.

RECOMMENDATION

A storm attenuation package with separate foul and surface water drainage systems is proposed. The foul drainage system will be carried out to Anglian Water specifications and all surfaces will be designed to allow prior infiltration.

RWP AND SVP LOCATIONS INDICATIVE ONLY

This drawing is for information purposes only and is not to be used in any other way. All dimensions are approximate and subject to further verification by the client. The client is advised to check all relevant site requirements prior to issue of plans or drawings and to include any necessary on site works, including any local planning requirements.

PLEASE NOTE:

RWP AND SVP LOCATIONS INDICATIVE ONLY AND SUBJECT TO REVIEW UPON RECEIPT OF ARCHITECTS DRAWINGS.

DRAINAGE ROUTES SHOWN AND PIPE DIAMETERS BASED ON INITIAL ASSESSMENT AND SUBJECT TO DETAILED DESIGN (DRAINAGE AND PROPOSED LEVELS).