



**Drainage Strategy Report
Morello Avenue, Uxbridge**

Landmark Builders Ltd

20th April 2021

1. SURFACE WATER DRAINAGE STRATEGY

1.1 General

G30 Consulting Ltd have been commissioned by Landmark Builders Ltd to undertake the surface water drainage in relation to the proposed residential development at former garages site at land off Morello Avenue, Uxbridge.

The development comprises the construction of a single 3 bedroom residential property with two car parking spaces which are to be accessed off Morello Avenue.

In accordance with Building Regulations Part H - Drainage and Waste Disposal, surface water runoff generated by a site should look to discharge to one of the following listed in order of priority:

- An adequate soakaway or some other adequate infiltration system; or, where that is not reasonably practicable,
- A watercourse; or where that is not reasonably practicable,
- A surface water sewer; or where that is not reasonably practicable,
- A combined water sewer.

1.2 Infiltration System

At the time of producing this report an intrusive ground investigation report had not been undertaken to confirm ground conditions on site. In the absence of an intrusive ground investigation British Geological Survey (BGS) 1:50,000 scale geology mapping was reviewed to confirm the geology on site. The details of the underlying geology can be found below and in Figure 1 below:

Bedrock Geology: London Clay Formation - Clay, Silt and Sand. Sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by deep seas. These sedimentary rocks are marine in origin. They are detrital and comprise coarse- to fine-grained slurries of debris from the continental shelf flowing into a deep-sea environment, forming distinctively graded beds.

Superficial Deposits: Boyn Hill Gravel Member - Sand and Gravel. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by rivers (U). These sedimentary deposits are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).

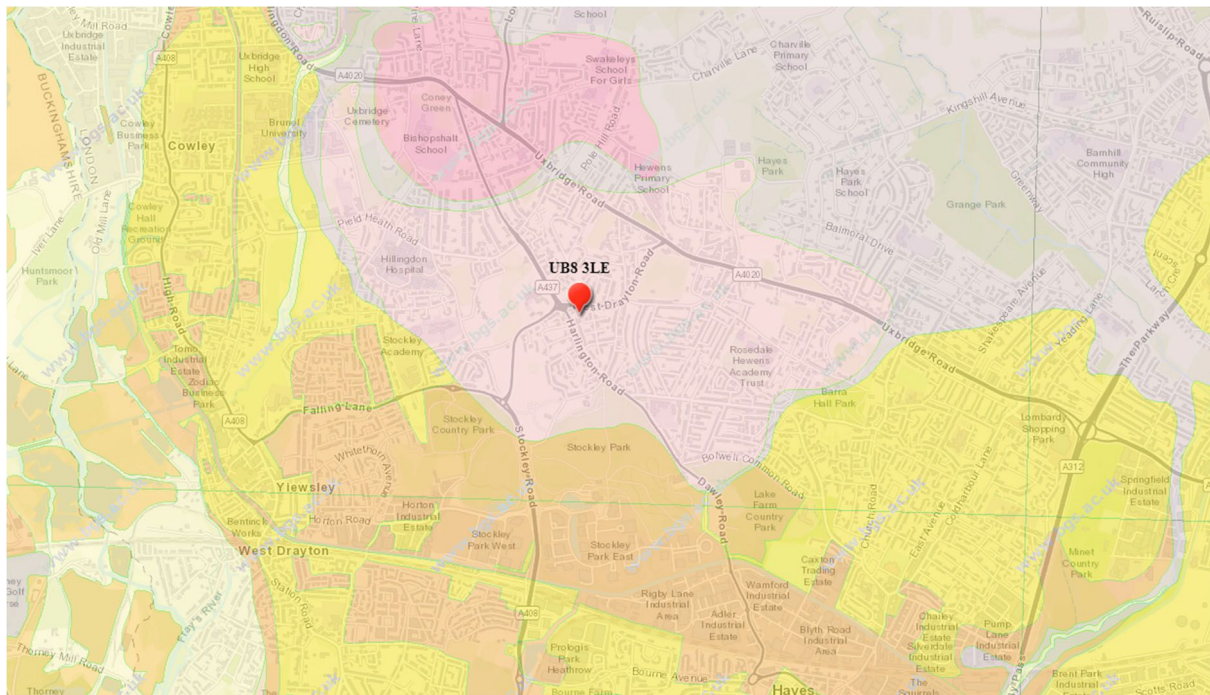


Figure 1 – British Geological Survey (BGS) 1:50,000 scale geology mapping

In addition to the geology the site is compact with the proposed property occupying a large proportion of the site and with other residential properties close by and adopted roads to the North and West. In accordance with Building Regulations Part H soakaways cannot be located within 5.00m of buildings and highways. Due to the size of the site, the proximity to buildings and the adopted highways there is insufficient space on site to locate a soakaway without being in breach of Building Regulations Part H.

Due to these local geology and the space required soakaways have been discounted as a potential solution for the discharge of surface water runoff from the development.

1.3 Watercourse

The nearest watercourse to the site is the Grand Union Canal which is located approximately 2.80km West of the site. Due to the distance from the site a direct discharge cannot be achieved.

1.4 Surface Water Sewer

Thames Water are responsible for adopted drainage assets in Uxbridge. Adopted surface water drainage assets are located in Morello Road.

Surface water runoff from the site is proposed to discharge to the surface water sewer at a restricted rate **1.2l/s** for all storm events up to and including 1 in 100 year + 40% climate change.

Surface water runoff from the residential property and the private driveway shall discharge to a new private onsite surface water drainage system.

Approximately 3.8m³ of cellular crate attenuation is to be provided on site to attenuate surface water runoff from the residential property and the private driveway for all storm events up to and including 1 in 100 year + 40% climate change.