



Ref: J18-021-R01

Date: 10th April 2018

FAO: Mr Nigel Bennett

[REDACTED]
Dear Nigel,

Re: Initial Infiltration Assessment and Groundwater Monitoring – 10-12 Devonshire Rd, Bognor Regis

GCC was commissioned by Jubb Consulting Engineers Ltd in March 2018 on behalf of Nigel Bennett to undertake an initial infiltration assessment and groundwater monitoring at 2 properties located at 10-12 Devonshire Rd in Bognor Regis, PO21 2SX.

2 windowless boreholes (WS101 & WS102) were constructed on the 29th of March in the back gardens of the properties on Devonshire Rd (locations shown on Figure 1). Monitoring wells were installed in both boreholes to allow for a return visit to undertake groundwater monitoring, carried out on the 4th of April 2018.

Reference to the British Geological Survey (BGS) Geology of Britain viewer indicates the site to overlie superficial deposits of River Terrace Deposits (sand, silt and clay) over bedrock geology of London Clay Formation. The constructed boreholes on-site confirmed the presence of the anticipated superficial deposits, comprising River Terrace Deposits, with the following ground conditions encountered:

WS101:

- 0.0-0.1 Soft brown silty CLAY (grass over topsoil)
- 0.1-2.5 Soft brown CLAY
- 2.5-2.6 Brown clayey gravelly (small sub-angular flint) fine SAND
- 2.6-3.0 Firm brown grey slightly gravelly (small sub-angular flint) CLAY
- 3.0-4.0 Brown silty gravelly (small sub-angular flint) fine SAND

Groundwater was encountered at around 2.5m depth within the layer of fine sand and was measured at 1.93mbgl on completion of the site works on the 29th of March 2018.

The monitoring well in WS101 was installed with a response zone (slotted pipe section) between 1.0mbgl and 4.0mbgl and was sealed from ground surface to 1.0mbgl.



WS102:

- 0.0-0.2 Soft brown silty CLAY (grass over topsoil)
- 0.2-1.8 Soft brown CLAY
- 1.8-2.0 Firm brown gravelly (small sub-angular flint) CLAY
- 2.0-2.4 Soft grey brown slightly silty CLAY
- 2.4-3.7 Soft grey brown silty gravelly (small sub-angular flint) CLAY
- 3.7-4.0 Brown silty gravelly (small sub-angular flint) fine SAND

Groundwater was encountered at around 2.4m depth within the layer of silty gravelly clay and was measured at 1.42mbgl on completion of the site works on the 29th of March 2018.

The monitoring well in WS102 was installed with a response zone (slotted pipe section) between 0.6mbgl and 3.6mbgl and was sealed from ground surface to 0.6mbgl.

At the return visit, undertaken on the 5th of April 2018, the groundwater levels were measured at:

WS101: 0.61mbgl

WS102: 0.54mbgl

The ground and groundwater conditions indicate that the near surface low permeability clay layers are confining groundwater beneath them under artesian pressure, with the groundwater rising to near the ground surface when the clay layers are penetrated. Due to the encountered ground conditions, infiltration testing was not considered appropriate as part of this assessment and it is considered unlikely that soak-away drainage will be suitable for the proposed development on-site.

Yours sincerely

ANTONY PLATT
Director
For Ground Condition Consultants Ltd

RASMUS PALMGREN
Director
For Ground Condition Consultants Ltd

Encl. Figure 1