

The Hill Group
The Power House
Gunpowder Mill
Powdermill Lane
Waltham Abbey
Essex
EN9 1BN

Dennys Suarez
By e-mail only: dennyssuarez@hill.co.uk

10 July 2023

Subject: Borehole decommissioning strategy – St Ann's Hospital
Our ref: L-21914-2.4.2-23-545-RJG

Dear Mr Suarez,

INTRODUCTION

Thank you for your instruction to provide a borehole decommissioning strategy. It is understood that the strategy is required in connection with the Planning Conditions attached to the redevelopment of the site.

BOREHOLES

Two phases of intrusive site investigation have been undertaken at the site with the following installations.

- i. Six borehole installations by RSK: WS2, WS4, WS5, WS16, WS17 and BH17.

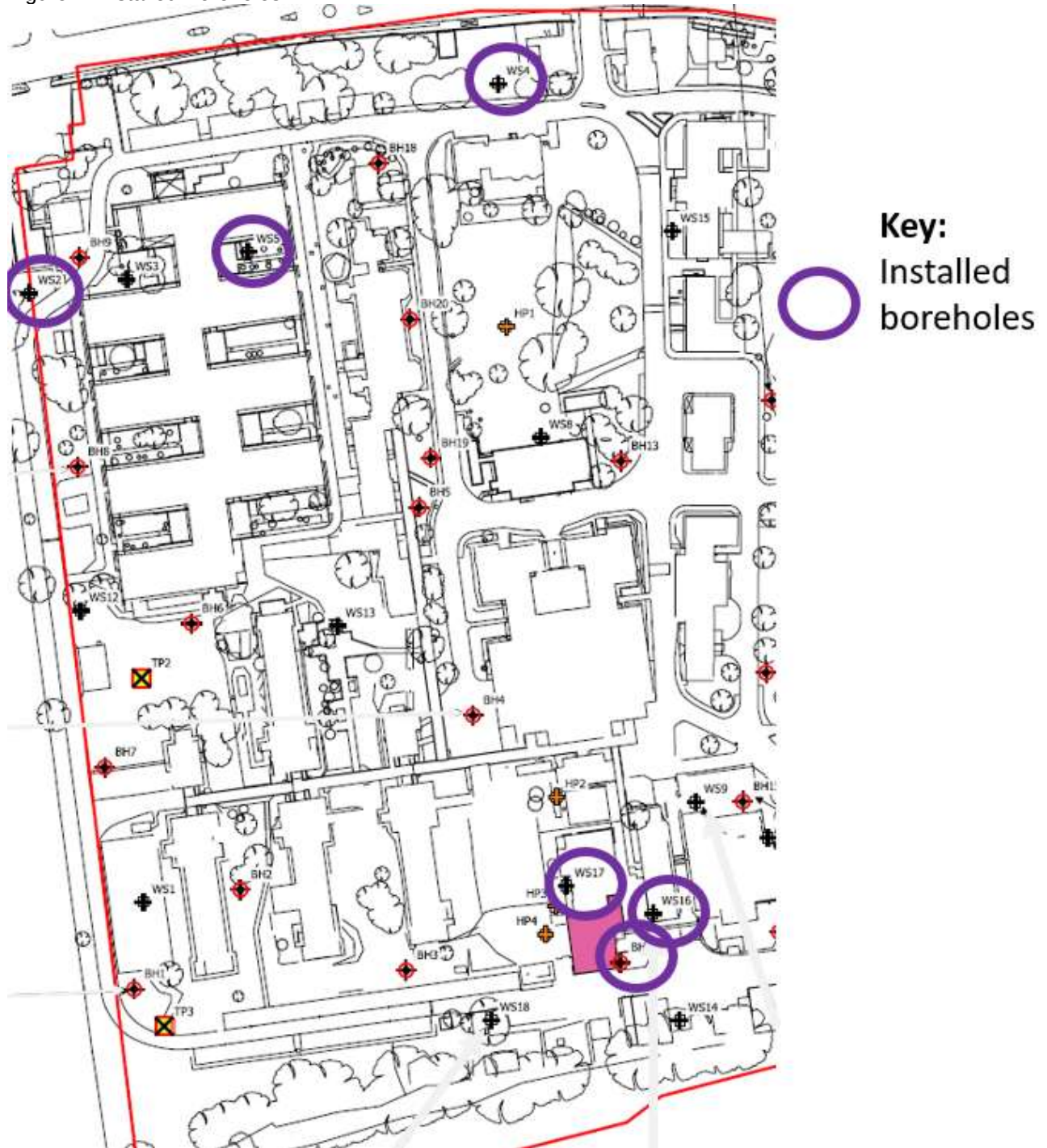
The location of these boreholes is illustrated by Figure 1.

It is understood that all of these boreholes were installed into the shallow made ground/London Clay formation. Boreholes WS2, WS4, WS5 and WS16 could not be located during the IDOM site inspections.

Borehole BH17 was dipped to a maximum depth of 3.85 metres below ground level, with standing water at 0.85 metres below ground level.

WS16 was measured to a depth of 2.97 metres below ground level, with standing water at 2.11 metres below ground level.

Figure 1: Installed Boreholes:



Subject: Borehole decommissioning strategy – St Ann's Hospital
Our ref: L-21914-2.4.2-23-545-RJG
Page: 3/3

IDOM

DECOMMISSIONING STRATEGY

The boreholes are no longer required for monitoring purposes and therefore can be decommissioned. No boreholes are required to be retained for ongoing monitoring.

At the borehole locations, shallow made ground directly overlies the impermeable London Clay Formation. The boreholes do not create a preferential pathway to deeper permeable strata as the London Clay has a significant thickness in this area. Nevertheless, it is good practice to decommission the redundant wells.

Decommissioning should be carried out following Environment Agency guidance document *Good practice for decommissioning redundant boreholes and wells*, October 2012.

The following procedures should be adopted:

- i. Removal of gas tap and bung;
- ii. Measure groundwater level prior to backfilling;
- iii. Backfilling the borehole with bentonite pellets;
- iv. Backfill materials should be added slowly taking care to avoid formation of voids or bridging.
- v. A small amount of water may need to be added to the hole in dry conditions to aid hydration of the bentonite and formation of a seal.
- vi. Whilst not a requirement from an environmental protection perspective, it will be permissible to remove the top section of standpipe and borehole cover if necessary to facilitate construction.

The following records should be made:

- i. Borehole reference and location;
- ii. Measured groundwater level prior to backfilling;
- iii. Quantity of bentonite used.

Please do not hesitate to contact me should you have any queries or require additional information.

Yours sincerely,



Rob Glavin

For IDOM Merebrook Ltd