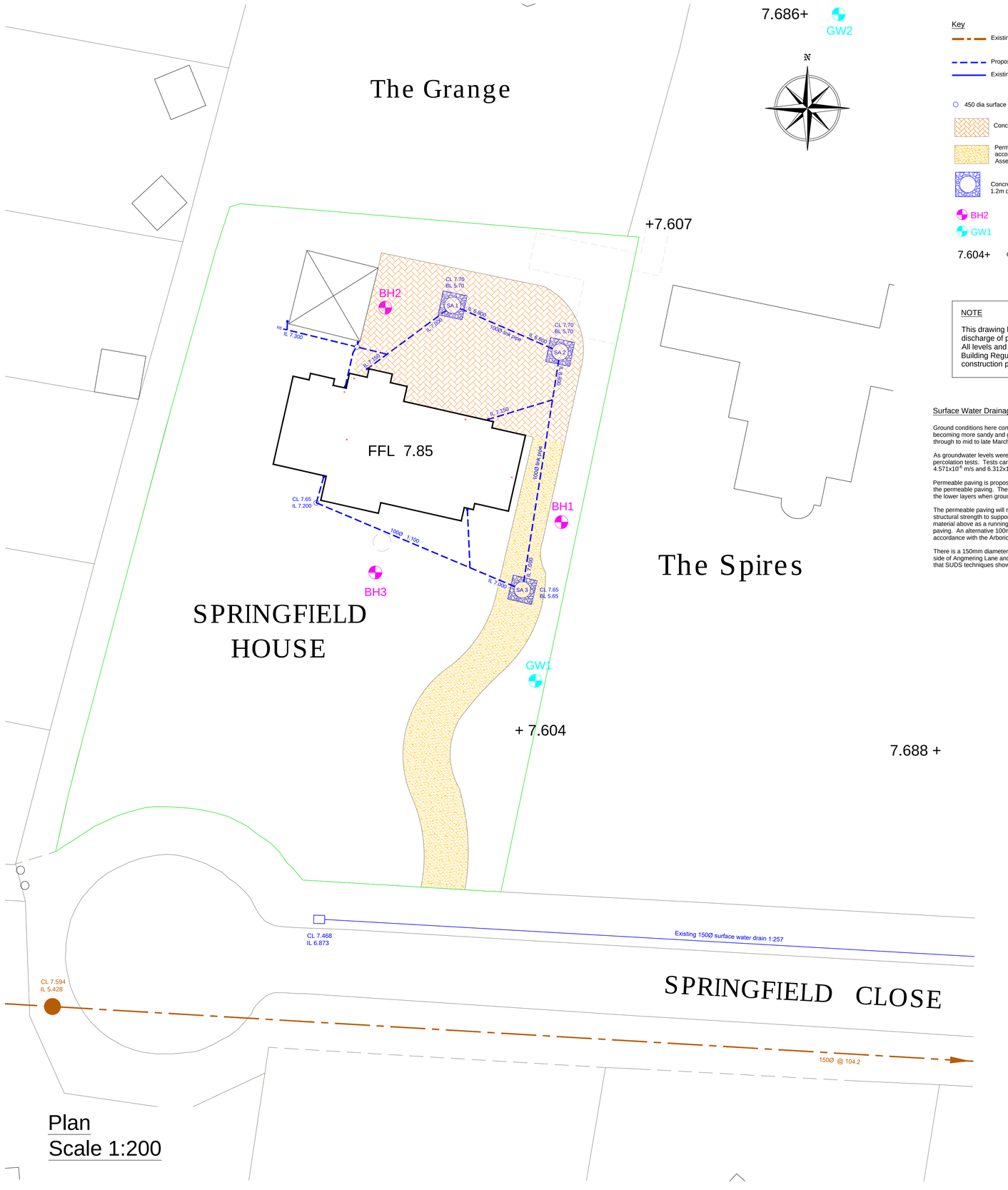


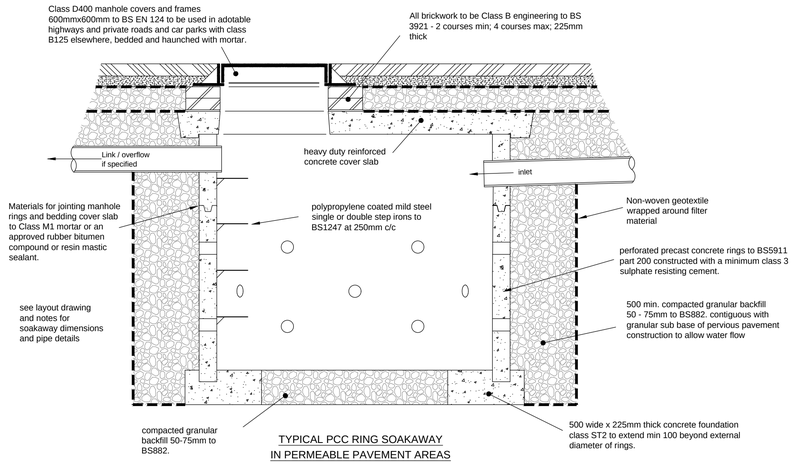
Plan
Scale 1:200

Key

- Existing public foul water sewer
- Proposed surface water drainage
- Existing private surface water drainage
- 450 dia surface water inspection chamber
- Concrete block permeable paving
- Permeable driveway constructed in accordance with Arboricultural Impact Assessment Report LLD 1149
- Concrete ring soakaway 1.2m diameter and 2.0m deep
- BH2 Borehole location
- GW1 Groundwater monitoring point
- 7.604+ Ground level to Ordnance Datum

NOTE

This drawing had been produced for discharge of planning conditions only. All levels and details to be checked for Building Regulations approval and construction purposes



TYPICAL PCC RING SOAKAWAY
IN PERMEABLE PAVEMENT AREAS

Surface Water Drainage Design Notes

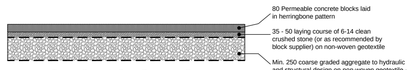
Ground conditions here comprise topsoil over River Terrace deposits which were found as soft becoming firm silty sandy clays with some grit and flint gravel becoming more sandy and gravelly at depth. two groundwater monitoring points were installed in January 2018 and these showed high levels from Mid-February through to mid to late March with a maximum level of 806mm below ground level.

As groundwater levels were known to be high, 3 No. shallow boreholes were drilled in March 2018 to depths from 725 to 1150mm in order to undertake shallow percolation tests. Tests carried out to BRE365 principles in the three separate test holes in late March 2018 gave soil infiltration rates varying between 4.571×10^{-6} m/s and 6.312×10^{-6} m/s with the higher values being obtained in the shallower depth test holes.

Permeable paving is proposed for the access drive and rear parking area, combined with three 1.2m dia. concrete ring soakaways, each 2.0m deep located in the permeable paving. The concrete ring soakaways will collect roof water and distribute it within the permeable paving as required and provide a connection to the lower layers when groundwater levels allow. The soakaways are shown interlinked to even out water levels within the paving sub-base.

The permeable paving will require just 120mm of coarse graded aggregate for surface water storage but more is likely to be required to provide the required structural strength to support vehicular loading and a minimum of 250mm is suggested. The paved areas may be provided with a 130mm layer of bituminous material above as a running surface during construction, so as not to damage the formation. If so, they will be punctured on completion prior to laying the block paving. An alternative 100mm thick sacrificial layer of hardcore on Terram could be used instead. Work within Tree Root Protection Zones is to be in accordance with the Arboricultural Impact Assessment and Method Statement Report LLD1149.

There is a 150mm diameter surface water drain in Springfield Close that connects to the main 300mm diameter piped section of the watercourse on the west side of Angmering Lane and an attenuated connection could be made subject to the Estate confirming that there is sufficient capacity. However, it is considered that SUDS techniques shown here for the on-site disposal of surface water would be both practical and preferable.



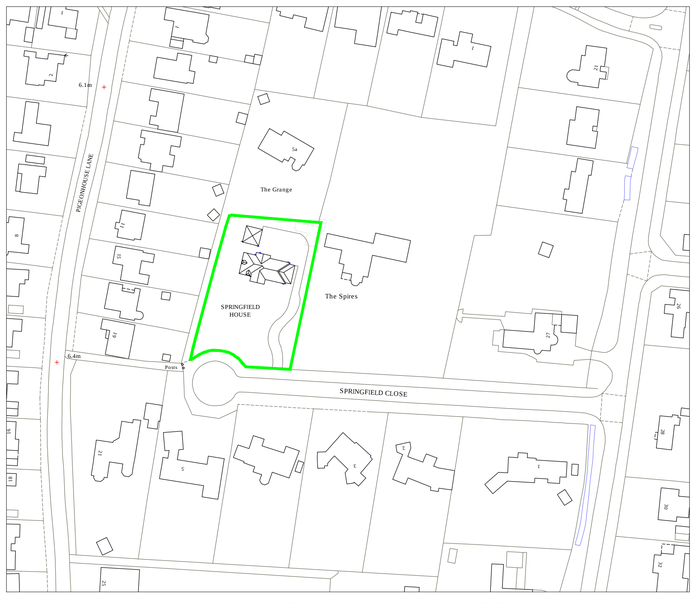
Typical Concrete Block Permeable Paving
Scale 1:20

Typical Permeable Surfacing within Tree Protection Zones
Scale 1:20

General Notes

Site is in Flood Zone 1 and is less than 1 hectare (approx 0.232ha)
OS Grid reference TQ 0626 0206
Post Code BN16 2SZ

Note
Permeable paving design is for hydraulic purposes only. The structural design will depend on the loads it is required to take and the strength of the formation and is to be carried out by others



Location Plan - scale 1:1250

Rev.	Description	App.	Chk.	Drn.	Date
-	Original	PC		RTFC	16.8.18

Client
Castle Property Developments

Project
Land at The Spires
6, Springfield Close
East Preston

Drawing Title
Surface Water Drainage Layout

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Scale: As shown
At original: A1
Drawing Number: 1772/SK8
Revision: -