

NOTES

- 1. This drawing is copyright. Refer to details above.
2. This drawing is only to be used for the purposes described in the status box below. Work to figured dimensions only, do not scale for construction purposes.
3. This drawing is to be read in conjunction with all other drawings, details and specifications pertaining to the work described. It should only be used for the purpose marked in the status box below, and shall not be used for construction unless clearly marked CONSTRUCTION.
4. Materials and workmanship shall comply to the appropriate British Standards and Codes of Practice unless otherwise stated.
5. The activities required to construct the work, shown on drawings clearly marked CONSTRUCTION, may be subject to the provisions of the Construction (Design & Management) Regulations 2015. The Contractor and Client must ensure that they are adequately conversant with these regulations and that the appropriate procedures required under the regulations are observed at all times.
6. The contractor is responsible for locating services prior to excavation. Any services shown on the drawing should be considered 'indicative' only. Where no services are shown on the drawing it does not necessarily mean there are no services present, only that a services search has not been undertaken. Where in doubt refer to HSE booklet "avoiding danger from underground services".
7. Design Risk Assessment

A risk assessment relating to potential hazards associated with the works described within this drawing, in so far as they have been designed by EDS Ltd, has been undertaken. Risks identified have been eliminated by design wherever practicable. The status with regard to residual risks is as follows:

The work is of low complexity with low level of risk; it is considered that there are no significant residual risks that would not be readily foreseeable by a competent contractor, observing good working practices.

Designer - EDS Drawing revision - A
Date - 07/12/23

Table with 4 columns: DATE, DRWN, CHKD, REV and 1 column: NOTES. Includes revision history for PROJECT MANAGER, PROJECT ENGINEER, DRAWN DATE, SCALE & SHEET SIZE.

PRELIMINARY



- Flood Risk Assessment
• SUDS and Surface Water
• Foul and Sewage Treatment
• Highway Design
• Civil Engineering
• Statutory Approvals

EDS, Unit E4, Threemilestone Industrial Estate, Threemilestone, Truro, Cornwall TR4 9LD (01872) 306311 (Mob) 07973816457
Email: jan@edsolutions.co.uk
www.edsolutions.co.uk

CLIENT
ALMa SW Ltd

PROJECT
NEW DWELLING, LAND SOUTHEAST OF BRYHER COTTAGE, TRETTHOSA, ST STEPHEN

DRAWING TITLE
SURFACE AND FOUL WATER DRAINAGE DESIGN

Table with 3 columns: PROJECT No., DRAWING No., REV. Values: J-3268, 3001, A

KEY
- SW (Proposed Private Surface Water Drainage 100mm @ 1/100min)
- FW (Proposed Private Foul Sewer/Drain 100mm @ 1.80 MIN)
- Power Supply Cable Designed by Others
- Air Line in Duct
- Blower Chamber
- Proposed Deep Pit Soakaway
- Proposed Treatment Plant WPL Diamond DMS2 (or similar)
- Proposed Private Surface Water Polypropylene Inspection Chamber (475x/450d P.P.I.C.)
- Proposed Private Foul Water Polypropylene Inspection Chamber (475x/450d P.P.I.C.)
- Proposed Catchpit with Leaf and Debris Filter
- Percolation Test Location

SURFACE WATER
THE SITE IS LOCATED IN THE VILLAGE OF ST STEPHEN, PERCOLATION TESTS WERE PERFORMED ON SITE TO BRE 365 TO DETERMINE WHETHER THE IMPERMEABLE AREAS CREATED BY THE PROPOSED DEVELOPMENT COULD BE DRAINED BY INFILTRATION. TESTS CONFIRMED THAT AN INFILTRATION DRAINAGE SYSTEM COULD BE USED TO DISCHARGE SURFACE WATER FROM THE PROPOSED DEVELOPMENT. A RATE OF 1024m/hr HAS BEEN USED FOR THE CALCULATION TO DETERMINE THE DIMENSIONS OF THE SOAKAWAY REQUIRED.

MICRO-DRAINAGE SOFTWARE HAS BEEN USED TO SIZE THE STORAGE REQUIRED TO DRAIN THE IMPERMEABLE AREAS FROM THE PROPOSED DEVELOPMENT. THIS CALCULATION IS BASED ON MODULAR INFILTRATION UNITS TO ACCOMMODATE THE WORST CASE DESIGN STORM (100-YEAR) WITH RAINFALL INTENSITIES INCREASED BY 50% TO ALLOW FOR THE EFFECTS OF CLIMATE CHANGE. AS REQUIRED BY THE LOCAL DRAINAGE GUIDANCE FOR THIS AREA.

FOUL WATER
THERE ARE NO MAINS SEWERS OR CLOSE TO THE SITE. THEREFORE A NON MAINS SOLUTION FOR FOUL DISCHARGE IS REQUIRED.
DUE TO SPACE CONSTRAINTS ON SITE IT IS PROPOSED THAT THE DWELLING DRAINS TO A PRIVATE DEEP PIT SOAKAWAY ON SITE.
A PACKAGE TREATMENT PLANT SUCH AS A WPL DMS2 OR SIMILAR WOULD BE SUITABLE FOR THE PROPOSED DWELLING.

AN ENVIRONMENTAL PERMIT WILL BE REQUIRED FOR THE DEEP PIT SOAKAWAY WHICH WILL BE PROVIDED BY THE ENVIRONMENT AGENCY

LOCATIONS OF SERVICES NEED TO BE CONFIRMED BEFORE CONSTRUCTION BY THE CONTRACTOR.

FUTURE MANAGEMENT PLAN & MAINTENANCE OF THE SYSTEM

THE PROPOSED SURFACE WATER SYSTEM WILL REMAIN PRIVATE AND WILL BE OPERATED AND MAINTAINED BY OWNERS OF THE PROPERTIES.

REGULAR INSPECTION AND CLEANING OF THE DRAINAGE INFRASTRUCTURE INCLUDING GUTTERING, DOWN-PIPE/GULLEY NETWORKS SHOULD BE CARRIED OUT FREQUENTLY TO PREVENT BUILD-UP OF SILT AND DEBRIS, WHICH WILL REDUCE THE SYSTEM CONVEYANCE CAPACITY. VISUAL INSPECTION SHOULD IDEALLY BE CARRIED OUT AFTER ANY HEAVY RAINFALL EVENT DURING THE FIRST YEAR OF OPERATION, THEN SIX-MONTHLY AFTER THAT. PARTICULAR ATTENTION SHOULD BE PAID DURING THE AUTUMN MONTHS WHEN LEAF LITTER AND OTHER DEAD PLANT MATERIAL MAY CAUSE OBSTRUCTION.

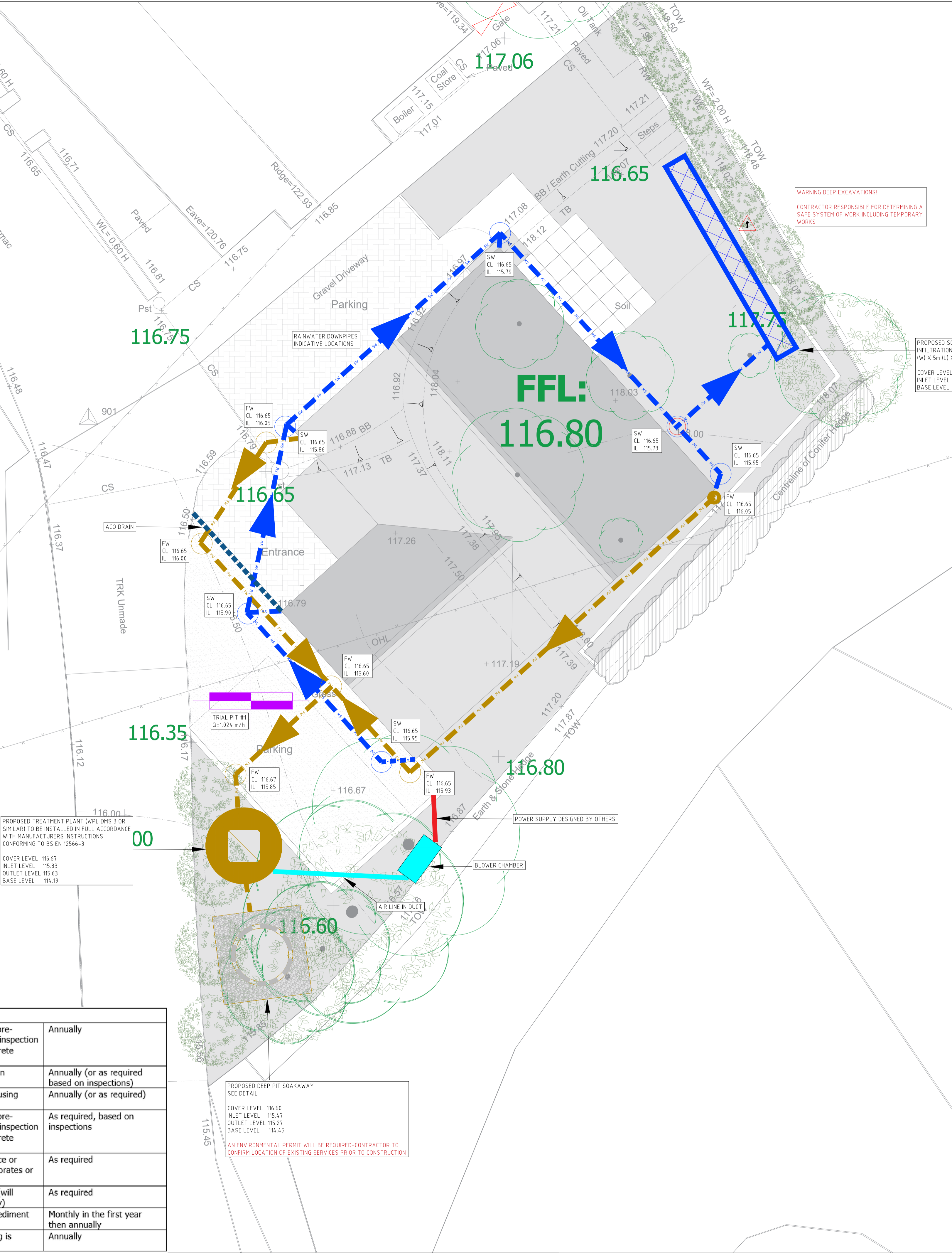
INSPECTION OF UPSTREAM CATCH-PITS, UPSTREAM GULLIES AND PIPEWORK TO INCLUDE REMOVAL OF DEBRIS SHOULD BE UNDERTAKEN AS NECESSARY. OPTIONAL CCTV INSPECTION AND DE-SILT SHOULD BE UNDERTAKEN IF REQUIRED ON A TEN-YEARLY BASIS.

ROUTINE INSPECTION OF THE SOAKAWAYS SHOULD OCCUR TO ENSURE THAT THEY REMAIN EFFICIENT, SILT REMOVAL MAY BE NEEDED FROM TIME TO TIME.

A MAINTENANCE SCHEDULE FOR THE SOAKAWAYS IS OUTLINED ON THE TABLE BELOW, OBTAINED FROM CIRIA 753 SUDS MANUAL

ANY ISSUES OR FAILURES IDENTIFIED WITH THE SYSTEM SHOULD BE RECTIFIED IMMEDIATELY BY A SUITABLE CONTRACTOR, OBSERVING SUITABLE WORKING PRACTICES AND FOLLOWING THE GUIDANCE AND PROCEDURES AS IDENTIFIED ABOVE.

SOAKAWAYS maintenance table with columns for SOAKAWAYS, Description, and Frequency. Includes Regular maintenance (Annually), Occasional maintenance (As required), Remedial actions, and Monitoring.



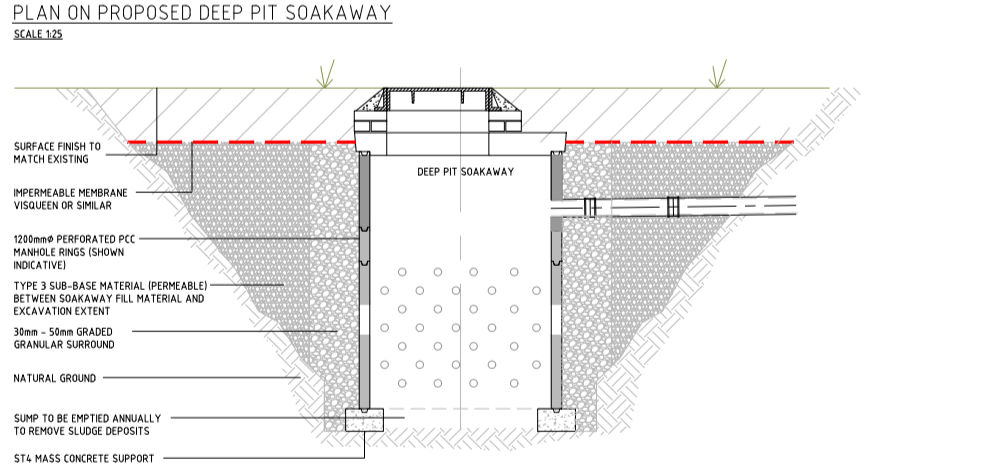
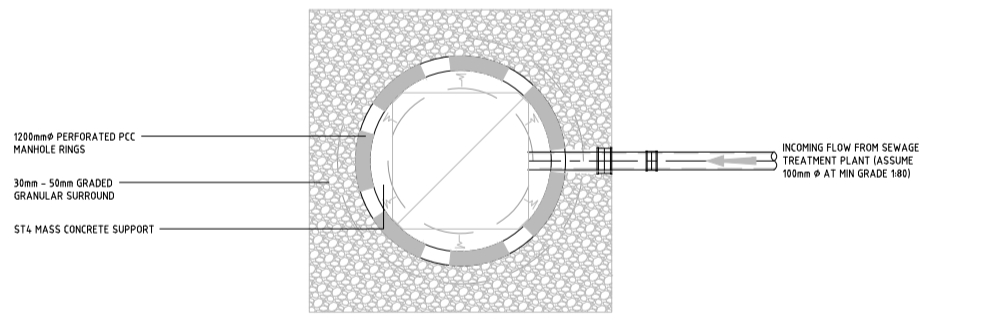
WARNING DEEP EXCAVATIONS!
CONTRACTOR RESPONSIBLE FOR DETERMINING A SAFE SYSTEM OF WORK INCLUDING TEMPORARY WORKS

PROPOSED SOAKAWAY COMPRISED OF MODULAR INFILTRATION UNITS WITH 95% VOID RATIO 0.5m (W) X 5m (L) X 1.2m (D)
COVER LEVEL 117.75
INLET LEVEL 115.70
BASE LEVEL 116.65

PROPOSED TREATMENT PLANT (WPL) DMS 3 OR SIMILAR TO BE INSTALLED IN FULL ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS CONFORMING TO BS EN 12566-3
COVER LEVEL 116.67
INLET LEVEL 115.83
OUTLET LEVEL 115.63
BASE LEVEL 114.19

PROPOSED DEEP PIT SOAKAWAY SEE DETAIL
COVER LEVEL 116.60
INLET LEVEL 115.47
OUTLET LEVEL 115.27
BASE LEVEL 114.45

AN ENVIRONMENTAL PERMIT WILL BE REQUIRED-CONTRACTOR TO CONFIRM LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION



NOTES ON SOAKAWAY DESIGN
DUE TO THE LIMITED SPACE ON SITE IT IS THEREFORE DEEMED UNSUITABLE FOR THE INSTALLATION OF A STANDARD RECTANGULAR AND SHALLOW INFILTRATION TRENCH SYSTEM (AS THEREFORE PROPOSED TO INSTALL A PACKAGE TREATMENT PLANT AND DEEP PIT SOAKAWAY).