



Windmill Views, Yapton SuDS Installation Report

Prepared for Redrow Homes Southern Counties
By Technical & Development Services
(Southern) Ltd

Project Information

Title	SuDS Installation Report
Site Location	Windmill Views, Yapton
Client	Prepared for Redrow Homes Southern Counties
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Prepared by	Technical & Development Services (Southern) Ltd Hillreed House, 54 Queen Street Horsham West Sussex RH13 5AD
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Issue History

Issue	Date	Author	Author signature	Approver	Approved signature
01	08/09/2021	S. Smith		R. Bishop	<i>Robin Bishop</i>

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1 The Site

Proposed residential development by Windmill Views, Yapton which includes a range of SuDS features to facilitate the storage and removal of the S278 Highway Surface Water.

2. Principal Activity

To provide a detailed Report to the Client (with supporting information), verifying that the construction of the SuDS System has been completed in accordance with the technically approved design and specifications.

Due to the system being kept within the control of the Management Company, this process will also be undertaken in conjunction with the requirements of both the LLFA and NHBC, for the purposes of their sign off.

3. Scope of Works

- Review the relevant drawings and the scheme as a whole, to ensure the Technically Approved status of the design is appropriate for the conditions for which we are reporting against.
- Arrange a prestart meeting to go through the initial comments on how the role will work, including agreeing the requirements of the inspection process, which will include the method for organizing the call off timings required (i.e. minimum 24 hours call out period for any site visits).
- To act as the Client's SuDS installation supervising Engineer/Authority, for the construction of the Attenuation Tank and Pond.
- To monitor and ensure that the installation works are completed in accordance with the approved designs and specifications provided by the client, including the monitoring of both materials and workmanship on site.
- To provide a regular update to the client, including photographic evidence, indicating the progress and status of each of the elements being installed, until such time as the installation is complete.
- To provide a report (see below), once installation has been completed, covering the build out process, including evidence of the initial excavations, the preparation of the Sub-Base, the installation of any reinforcing membrane, the installation of the filtering media itself (Crates), the wrapping and securing of the system with a geomembrane, the appropriate connection of all necessary pipework and fittings, the Testing and Commissioning sign off for each of the systems and finally the backfilling and grading of the specified capping layer (Top Soil etc), where applicable.

4. Report

The pond and attenuation tank construction drawings can be found in Appendix 1.

Construction of the pond commenced mid April 2021 but was delayed due to the availability of a suitable clay liner.

Appendix 2 Photos 1 & 2 show the excavation of the pond box, note Photo 2 the southern bank profile is too steep, this was later regraded with the clay liner.

The construction of the pond through to its completion recommenced during WC 23rd August

The following photos show the construction of the pond and associated attenuation tank:

Photo 3-6 Installation of bentonite liner and placing of suitable clay liner

Photo 7-8 Placing of top soil trimmed and compacted

Photo 9-10 Installation of bio-degradable erosion mat, completed 6th September

Photos 11-12 Excavation for attenuation tank and fines free gravel base

Photos 13-14 Installation of drainage crates sealed in a geo-membrane with a porous pipe running through the middle wrapped in a geotextile and backfilled with a fines free gravel

Photos 15 -16 Show welded geo-membrane wrapped in geo textile

Photos 17-18 Shows the backfilling of the finished attenuation tank

5. Summary

The pond and attenuation tank described in the report and shown in the photographs in Appendix 2 have been constructed in accordance with the construction drawings and specification shown in Appendix 1.

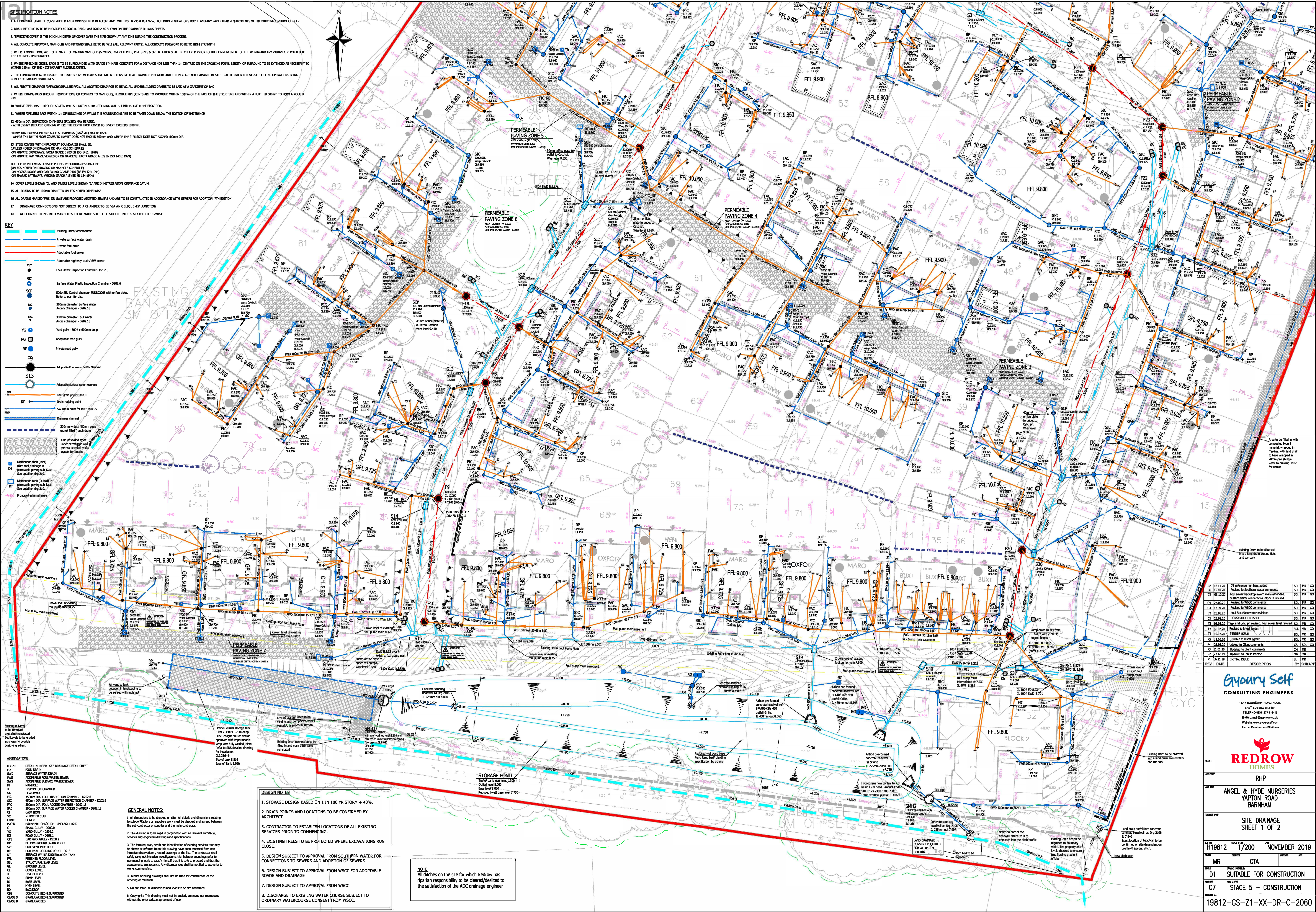
It should be noted that this report has not verified the connections from the weired manhole to the west or the outfall to the existing ditch to the south west of the ditch

APPENDIX 1

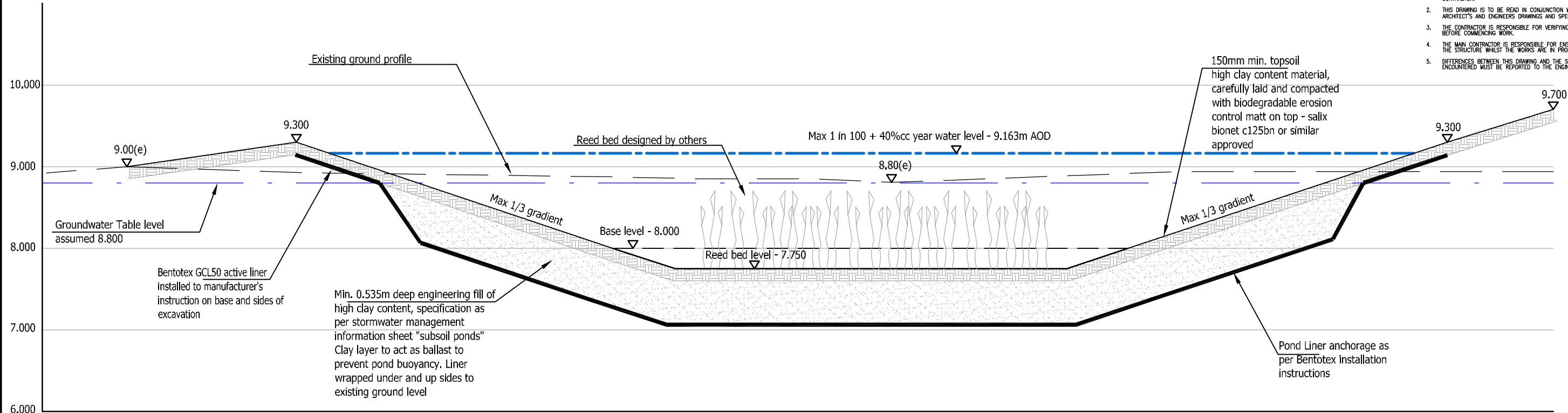
Site Plan

Pond Construction Details

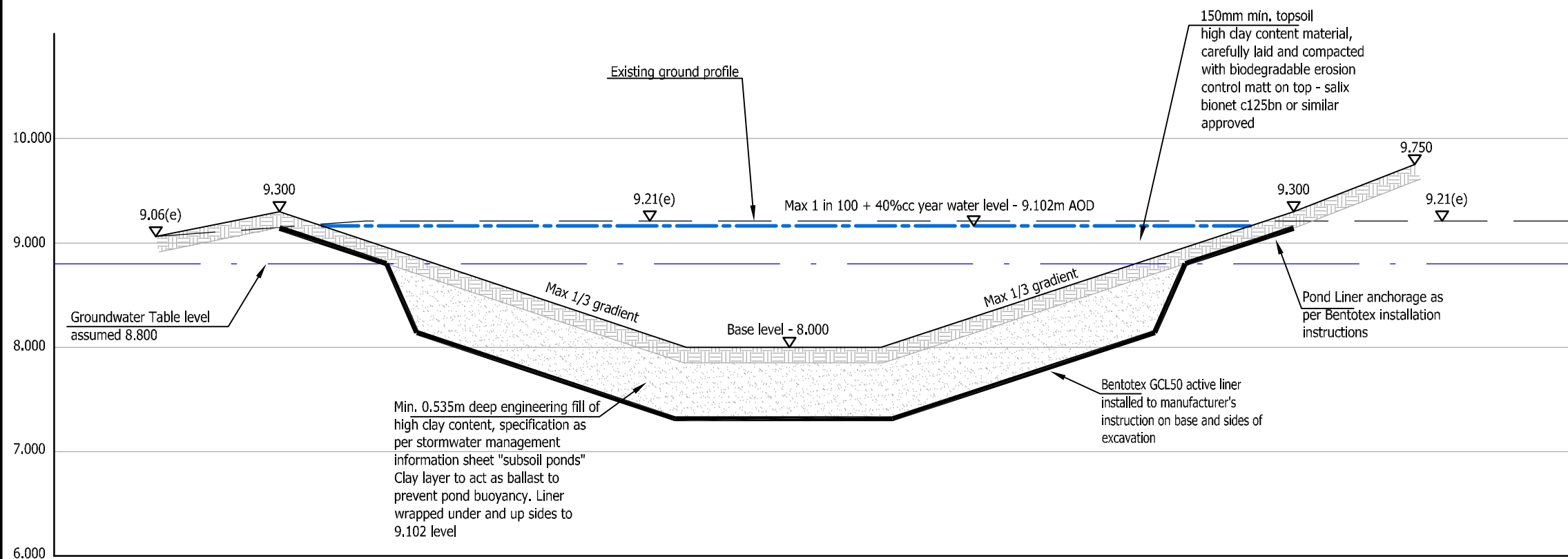
Attenuation Tank Construction Details



- GENERAL NOTES:**
- DIMENSIONS ON THIS DRAWING SHALL NOT BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE. ALL DETAILS AND DIMENSIONING RELATING TO SUB-CONTRACTOR'S OR SUPPLIER'S WORK MUST BE CHECKED AND AGREED BETWEEN THE SUB-CONTRACTOR OR THE SUPPLIER AND THE GENERAL CONTRACTOR.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEERS DRAWINGS AND SPECIFICATION.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE DIMENSIONS BEFORE COMMENCING WORK.
 - THE MAIN CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STABILITY OF THE STRUCTURE WHILST THE WORKS ARE IN PROGRESS.
 - DIFFERENCES BETWEEN THIS DRAWING AND THE SITE CONDITIONS ENCOUNTERED MUST BE REPORTED TO THE ENGINEER.

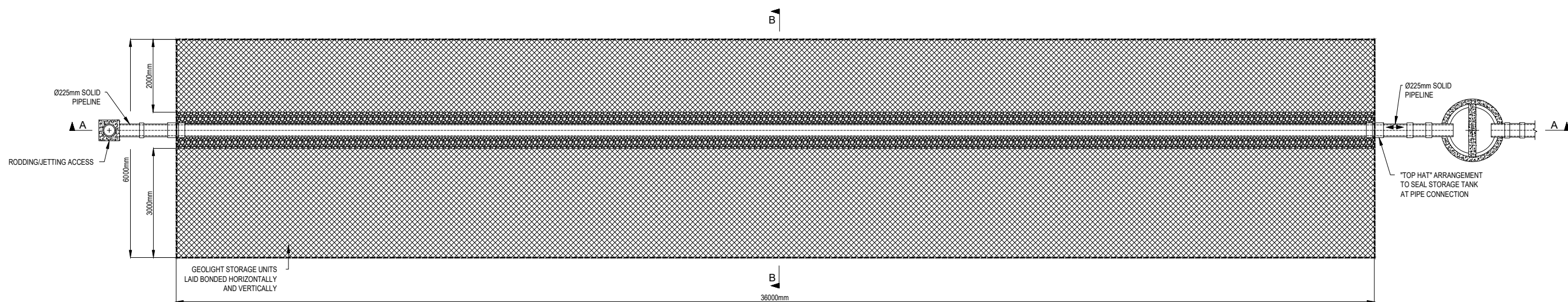
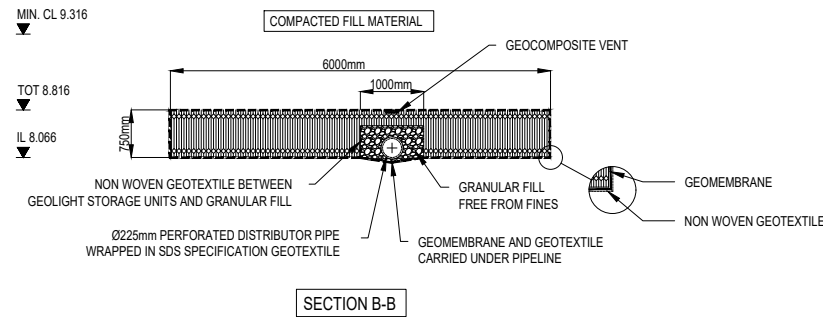
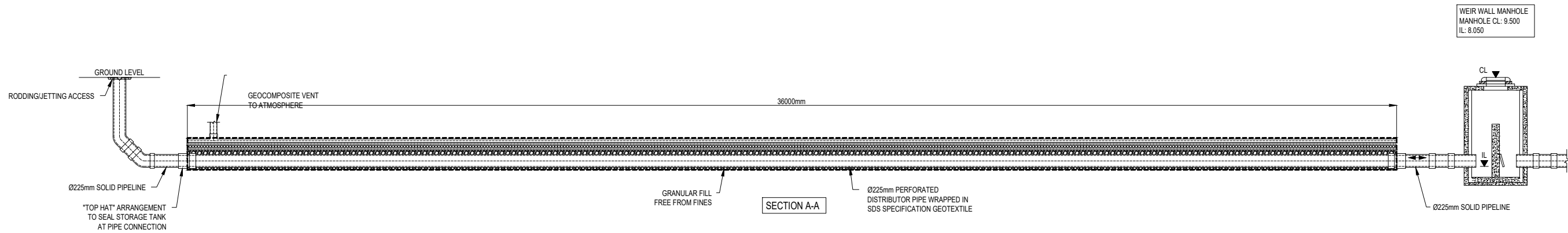


SECTION AA - POND CONSTRUCTION DETAILS
(1:50)



SECTION BB - POND CONSTRUCTION DETAILS
(1:50)

C1	28.08.20	CONSTRUCTION ISSUE			SDL MR GO
T1	04.08.20	TENDER ISSUE			SDL MR GO
REV	DATE	DESCRIPTION			BY CHK APP
Gyoury Self CONSULTING ENGINEERS 18/17 BOUNDARY ROAD, HOVE, EAST SUSSEX BN1 4EF TELEPHONE 01273 414413 E-MAIL: mail@gspove.co.uk Website: www.gyourysel.com Also at Fareham and St Albans					
CLIENT		REDROW HOMES			
ARCHITECT		RH PARTNERSHIP			
JOB TITLE		ANGEL & HYDE NURSERIES YAPTON ROAD BARNHAM			
DRAWING TITLE		POND SECTIONS			
JOB No.		SCALE @ A3		DATE	
H19812		1:50		AUG 2020	
DRAWN		ENGINEER		CHECKED	APP
SDL		GTA		-	-
STATUS		DRAWING SUITABILITY			
D2		SUITABLE FOR CONSTRUCTION			
REVISION		REVISION STATUS			
C1		STAGE 5 - CONSTRUCTION			
DRAWING No.					
19812-GS-Z1-XX-DR-C-2108					



Notes:

This Drawing is to be read in conjunction with all relevant Architect's Engineer's and specialists' drawings and specifications.

Do not scale from this drawing in either paper or digital form. Use written dimensions only.

SDS to leave solid stub only, exiting tank for connection by others.

All external Manholes, Access Points, Junctions & Pipe are shown for guidance only and not part of the SDS program unless otherwise agreed.

A	AMENDED PER NEW REF DRAWING	30.09.20
	ISSUED FOR APPROVAL	GM SPT
-	ISSUED FOR APPROVAL	08.09.20
		GM BP
Rev	Comments	Date
		GRW GHK



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Client
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File
ATTENUATION TANK 1 DETAIL

Scale
NTS

Date
08.09.20

Drawing No
E199320_01_A

Rev
A

REFERENCE DRAWINGS:			
Drawing Number	Revision	Drawing Title	Date
2060	C4	SITE DRAINAGE SHEET 1 of 2	24.09.20

APPENDIX 2 - AS-BUILT CONSTRUCTION PHOTOGRAPHS



Photo 1 - Excavation of pond looking from east to west



Photo 2 - Excavation of pond looking from west to east, note slope of southern bank too steep, corrected later with clay liner



Photo 3 - Installation of bentonite liner and placement of blue clay pond liner

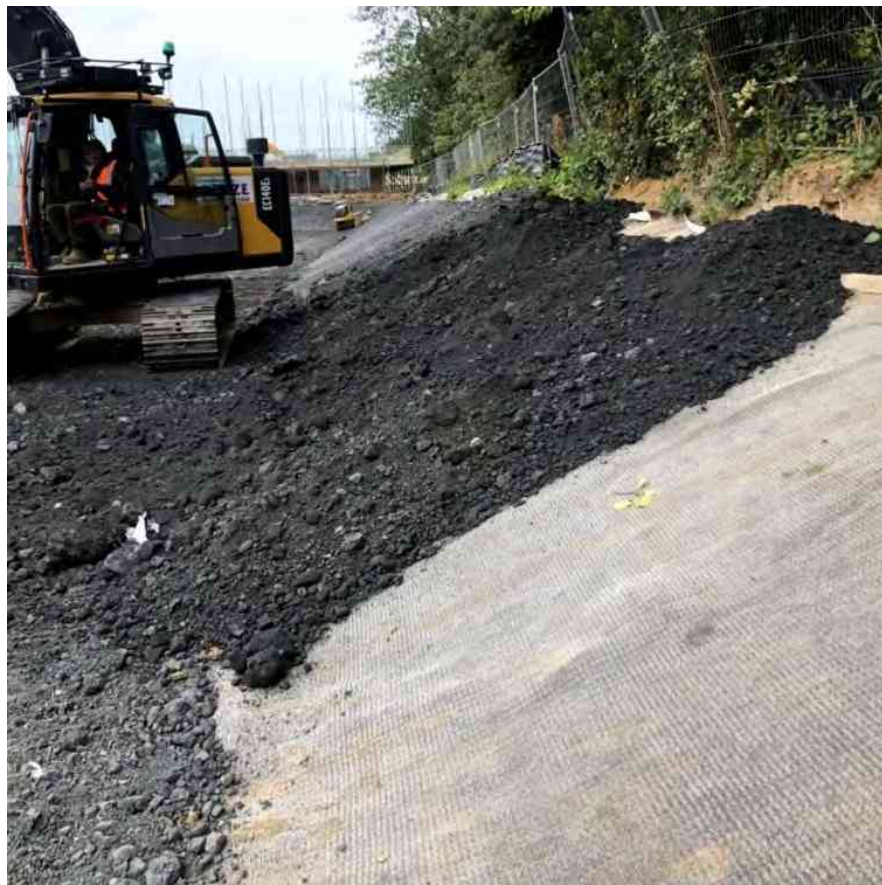


Photo 4 - Shaping southern bank to achieve 1 in 3 slope



Photo 5 - Compaction of blue clay liner



Photo 6 - Blue clay liner looking west towards inlet pipe



Photo 7 - Placing 150mm topsoil layer over clay



Photo 8 - Top soil layer looking east, trimmed and compacted



Photo 9 - Installation of bio-degradable erosion mat, east end looking at outfall



Photo 10 - Finished bio-degradable erosion mat looking west



Photo 11 - Excavation for attenuation tank, note level control, and fines free shingle backfill



Photo 12 - Shingle base complete



Box 13 - Shows central perforated pipe wrapped in geotextile back filled with fines free shingle crates both sides looking east



Box 14 - Shows central perforated pipe wrapped in geotextile back filled with fines free shingle crates both sides looking west



Photo 15 - Drainage crates wrapped in geo-membrane (seen here black), welded joints and wrapped in a geotextile (seen here white)



Photo 16 - Shows welded geo-membrane around air vent



Photo 17 - Backfill of attenuation tank looking east



Photo 18- Backfill of attenuation tank looking west

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