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REPORT FOR 211104 – SEEDFIELD CENTRE, BURY

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Revision	Date	Description	Prepared by	Checked by	Approved by
P01	07/07/2025	PRELIMINARY	HS	RA	RA

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1 INTRODUCTION

Lovell has appointed alliance Design UK Ltd t/a EDGE Consulting Engineers ("EDGE") to produce this drainage maintenance plan which outlines the procedures for maintaining the non-adopted "private" drainage system to ensure it functions correctly and efficiently.

Preventative maintenance protects the investment of the drainage infrastructure. Furthermore, frequent and thorough maintenance will prevent long term problems, costly repairs and ensure efficient and optimum working order of the drainage infrastructure.

Each component of the private storm water sewer network should be inspected and cleaned dependent upon its maintenance needs. The cleaning and inspection program should include sewer cleaning, CCTV inspection of pipes, visual inspection of the manhole structure and flow channels and an evaluation of the manhole and pipe condition.

This maintenance program will help identify any required repairs and the assessments may help judge the future frequency of cleaning and inspections. Effective maintenance can have a significant impact on extending the effective life of the system.

Cleaning includes water jetting to remove silt build-up and other debris within the pipes. CCTV surveys of the sewers and manhole inspections will be required to ensure the infrastructure is performing efficiently.

CCTV surveillance of the sewers will be focused on indicating leaking pipe joints, obstructions, or any excessive deposits as well as other pipe defects.

The site comprises 86 residential dwellings together with associated infrastructure on land off Parkinson Street in Bury.

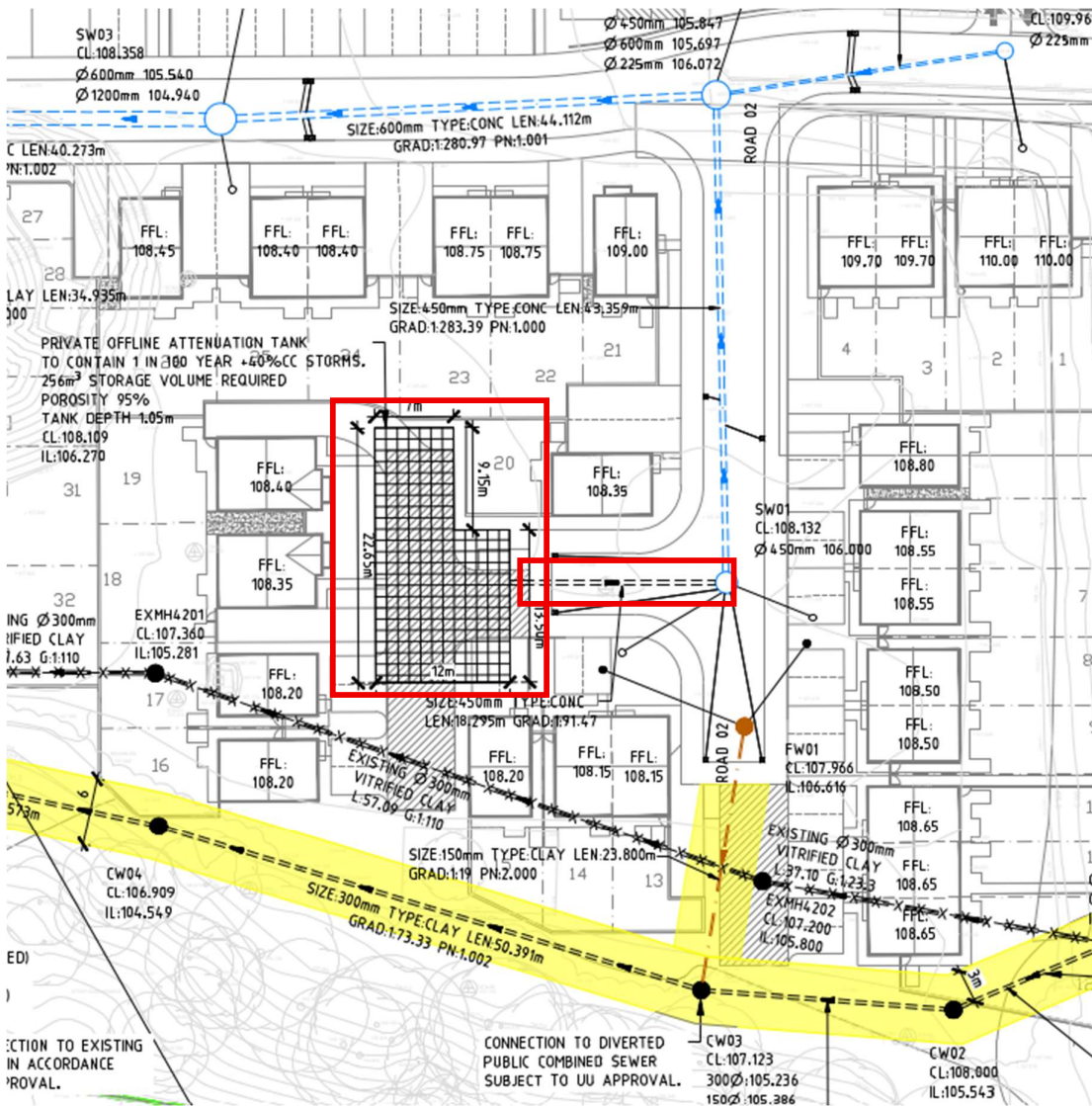
Most of the drainage infrastructure is to be adopted by a NAV company with management and maintenance of those elements will be under their own maintenance regime. Homeowners will be responsible for the domestic drainage within their property boundary.

The private storage tank is to be inspected and maintained by a management company. The drainage plan, in appendix A, shows the drainage infrastructure throughout the site, including the private tank.

2 TANK LOCATION

The proposed private storage tank that requires maintenance is shown on Figure 2.1. Extents of drainage structures which require management include the entirety of the private geocellular storage tank, the inspection block, the access shaft, the connection into SW01.

FIGURE 2.1 – TANK LOCATION



3 DRAINAGE MAINTENANCE PLAN

Inspection and maintenance should be in full accordance with the manufacturer's guidelines and procedures.

The inspection / maintenance tunnels within each tank module allows the entire volume of the unit to be inspected via CCTV and flushed through. A catch pit chamber immediately downstream of the system is recommended as this will reduce the amount of silt entering the installation.

The collection sump should not be allowed to overfill as this will lead to silt carry-over into the tank modules. As all schemes are different, the frequency at which the catch pit should be emptied will need to be determined on site.

It is recommended that any system be inspected no less frequently than at monthly intervals for the first 3 months and thereafter at 6 monthly intervals.

In addition, it is suggested that the installation is inspected immediately following the first storm event, whenever this should occur post installation.

It should also be noted that more regular inspections may be required should the catch pit fill more frequently and/or if the initial inspections reveal that maintenance / cleaning will be required more regularly than at six-month intervals.

Flushing of the system can be achieved using a jetting system with a 150-bar pump pressure (i.e. approximately 80 bar at the nozzle) at a discharge flow of 300 l/min. The jet nozzle should be introduced to the system via the tank inspect block / manhole and the integral inspection / maintenance tunnel. The silt should be flushed to the inspect block or catch pit manhole and removed from there.

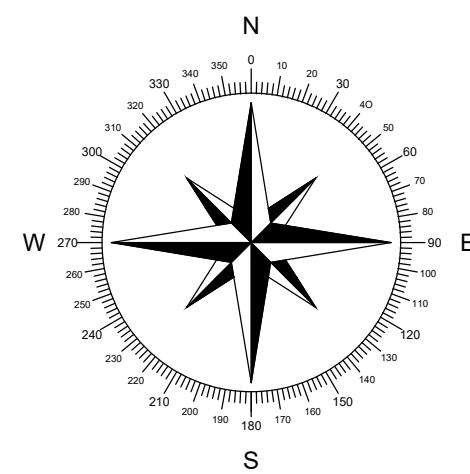
The newly constructed drainage infrastructure will be fully inspected / surveyed prior to hand over to the management company to ensure there are no construction defects, and they have been installed in accordance with the approved plans and specifications.

The inspections should ideally be conducted monthly (and no less than 3 monthly), at the same time as other routine maintenance activities.

Component	Maintenance Requirement	Frequency
Stormwater manholes.	Visual inspection to verify condition of manhole structure and flow channels.	Yearly
	Jetting/ cleaning of flow channels.	Yearly
Storm water pipes.	CCTV survey of pipes.	Yearly
	Jetting/ cleaning of pipes.	Yearly
Geocellular storage system	CCTV survey of unit.	Monthly for the first 3 months then every 6 months thereafter
	Jetting/ cleaning of unit, clear silts.	Monthly for the first 3 months then every 6 months thereafter
Sump	Visual inspection to verify condition.	Monthly for the first 3 months then every 6 months thereafter
	Jetting/ cleaning and emptying sump.	Monthly for the first 3 months then every 6 months thereafter

APPENDICES

Appendix A – Proposed Drainage Strategy



Spoil Heap Volume	
Summary For Heap 1	
Plan Area	1413.009m²
Side Area	102.7m²
Below Volume	0m³
Above Volume	4653m³
Total Volume	4653m³

- KEY:**
- PROPOSED SURFACE WATER SEWER
 - PROPOSED FOUL WATER SEWER
 - PROPOSED COMBINED WATER SEWER
 - EXISTING COMBINED WATER SEWER
 - SW DRAUGHT
 - FW DRAUGHT
 - GULLY
 - EXISTING SEWER TO BE ABANDONED
 - PROPOSED EASEMENT

- NOTES:**
- ALL SEWERS ARE DESIGNED IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION 2.1 VERSION AND UNITED UTILITIES GUIDELINES AND STANDARD DETAILS.
 - DRAWING IS SUBJECT TO APPROVAL BY UNITED UTILITIES UNDER A SECTION 104 AGREEMENT AND CONSTRUCTION WORKS UNDERTAKEN PRIOR TO TECHNICAL APPROVAL ARE AT THE DEVELOPER'S RISK.
 - ALL CO-ORDINATES AND LEVELS SHOWN ARE RELATIVE TO THE TOPOGRAPHIC SURVEY DRAWING S22-080 BY JLP SURVEYING CONSULTANTS LTD.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INVESTIGATING AND VERIFYING ALL THE EXISTING DRAINAGE CRITICAL TO THE PROPOSED SCHEME PRIOR TO COMMENCING ANY WORK AS FOLLOWS:
 - MANHOLE OUTFALL LOCATIONS
 - OUTFALL INVERT LEVELS
 - OUTFALL PIPE DIAMETERS
 - INTER-CONNECTION OF SEWERS
 - ANY INACCURACIES OR INCONSISTENCIES ON THE DRAWING RESULTING FROM THE FINDINGS SHALL BE REPORTED TO THE ENGINEER.
 - PRIOR TO THE COMMENCEMENT OF ANY ON SITE WORKS THE CONTRACTOR MUST CONTACT THE STATUTORY UNDERTAKER AND BE IN POSSESSION OF THE LATEST DRAWINGS SHOWING THEIR APPARATUS.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ALLOW FOR THE SUPERVISION OF THE CONSTRUCTION WORKS BY UNITED UTILITIES AND / OR THE HIGHWAYS AUTHORITY. THE CONTRACTOR WILL NOTIFY THE SUPERVISING OFFICER GIVING NOTICE WHICH WILL BE IN ACCORDANCE WITH THE AUTHORITIES REQUIREMENTS.
 - THE PROPOSED SEWERS WILL BE CLAY PIPE WORK AND SHALL BE EXTRA STRENGTH TO BS EN 295:1991 PART 1.
 - ANY PCC PIPE WORK WILL BE IN ACCORDANCE WITH BS EN 1917:2002.
 - THE CONTRACTOR MAY ELECT TO USE REINFORCED PVC PIPES COVERED BY BS EN 13476-2, B.S 4460:2002 & B.S EN 1401-1. STRUCTURED WALL UPVC PIPES TO COMPLY WITH WIS 4-35-01 UP TO AND INCLUDING 300mm MAX PIPE LENGTH TO BE 3.0m.
 - ALL MANHOLES AND CHAMBERS SHALL BE IN ACCORDANCE WITH BS EN 1917:2002.
 - ADAPTABLE SEWERS WITH COVER TO SOFFIT GREATER THAN 1.2m IN ROADS AND 0.9m IN FIELDS SHALL HAVE CLASS S GRANULAR BED AND SURROUND.
 - ANY SEWER FOR ADOPTION WITH A COVER OF LESS THAN 1.2m TO PIPE SOFFIT IN ROADS OR 0.9m TO PIPE SOFFIT IN FIELDS WILL HAVE A MINIMUM 150mm GEN 3 CONCRETE BED AND SURROUND WITH FLEXIBILITY MAINTAINED WITH FLEXCELL EXPANSION JOINT FILLER OR SIMILAR APPROVED AT EACH PIPE JOINT.
 - ALL PIPES BUILT INTO THE MANHOLE INVERTS SHALL BE INSTALLED WITH SOFFITS LEVEL UNLESS SHOWN OTHERWISE.
 - THE CONNECTION TO THE ADAPTABLE SEWER SHALL BE MANUFACTURED JUNCTION PIPES. A SADDLE CONNECTION IS NOT PERMITTED UNLESS IT IS CLEARLY SPECIFIED.
 - CONNECTIONS TO THE EXISTING PUBLIC SEWER WILL BE IN ACCORDANCE WITH APPROVAL GRANTED BY THE STATUTORY UNDERTAKER.
 - PRIVATE DRAINAGE CONNECTIONS TO THE SEWER WILL BE 150MM DIAMETER AND LAID TO THE SPECIFIED INVERT.
 - THE INVERT LEVELS SPECIFIED AT THE DRAUGHT CHAMBER ARE INCOMING LEVELS.
 - A PROTECTIVE GEOTEXTILE/PLASTIC MEMBRANE IS TO BE APPLIED TO ALL FOUL SEWERS LAID ABOVE STORM SEWERS WITH LESS THAN 500mm OF COVER.
 - CENTRE OF MANHOLES MAY NOT BE AT THE SAME LOCATION AS PIPE INTERSECTION OR AS SHOWN IN THE LAYOUT. THE MANHOLE RINGS SHALL BE ADJUSTED OVER THE MANHOLE BASE TO SATISFY THE FOLLOWING REQUIREMENTS:
 - CLEARANCE FROM THE ADJACENT PIPE WORK
 - CLEARANCE FROM THE KERB LINE THE BISCUIT OF THE MANHOLE SHALL NOT PROJECT UNDER THE ROAD CHANNEL LINE.
 - TO PROVIDE THE MINIMUM STANDING SPACE ON THE BENCHING AND THEREBY LOCATE THE MANHOLE COVER AND ENTRY ACCESS.
 - TO PROVIDE THE MINIMUM 250mm OF BEARING FOR THE MANHOLE RING OVER THE CAST IN STUB PIPES.
 - IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LIAISE WITH THE HIGHWAY AND SEWERAGE AUTHORITIES FOR APPROVALS, INTERIM INSPECTION, SNAGGING AND FINAL INSPECTIONS OF THEIR WORK TO ADAPTABLE STANDARDS.
 - AT THE CONCLUSION OF THE WORKS THE CONTRACTOR SHALL PROVIDE A MARKED UP DRAWING TO RECORD ANY AS BUILT VARIATIONS NOT SHOWN ON THE DRAWINGS.

C04 16.04.25	Amended combined sewer outfall.	H.S. R.A.
C03 28.03.25	Updated to revised combined sewer levels	C.M. M.A.
Rev	Date	Description
By	CHK	

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DO NOT SCALE DRAWINGS. IF IN DOUBT, ASK!

Project Name: **SEEDFIELD CENTRE BURY**

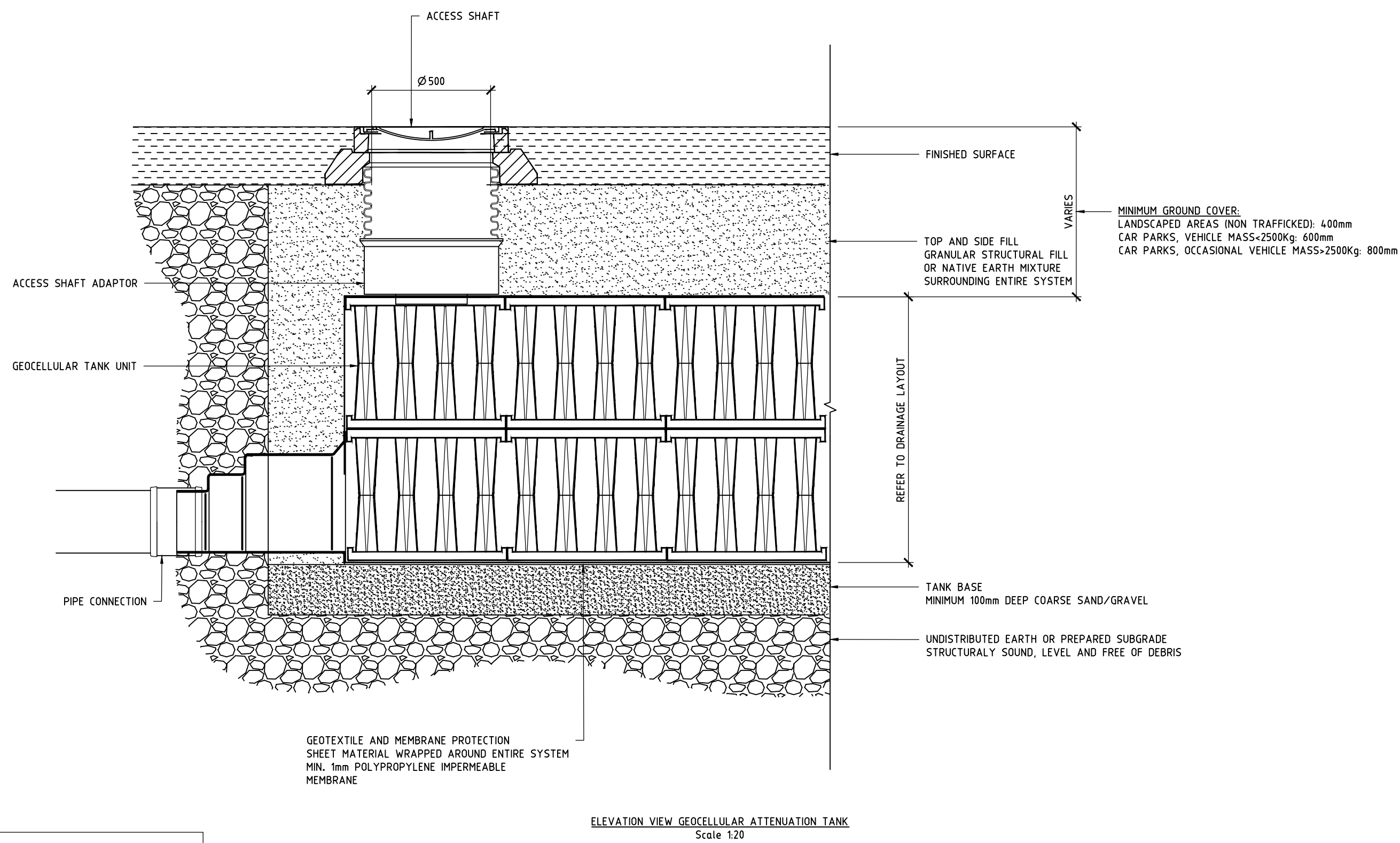
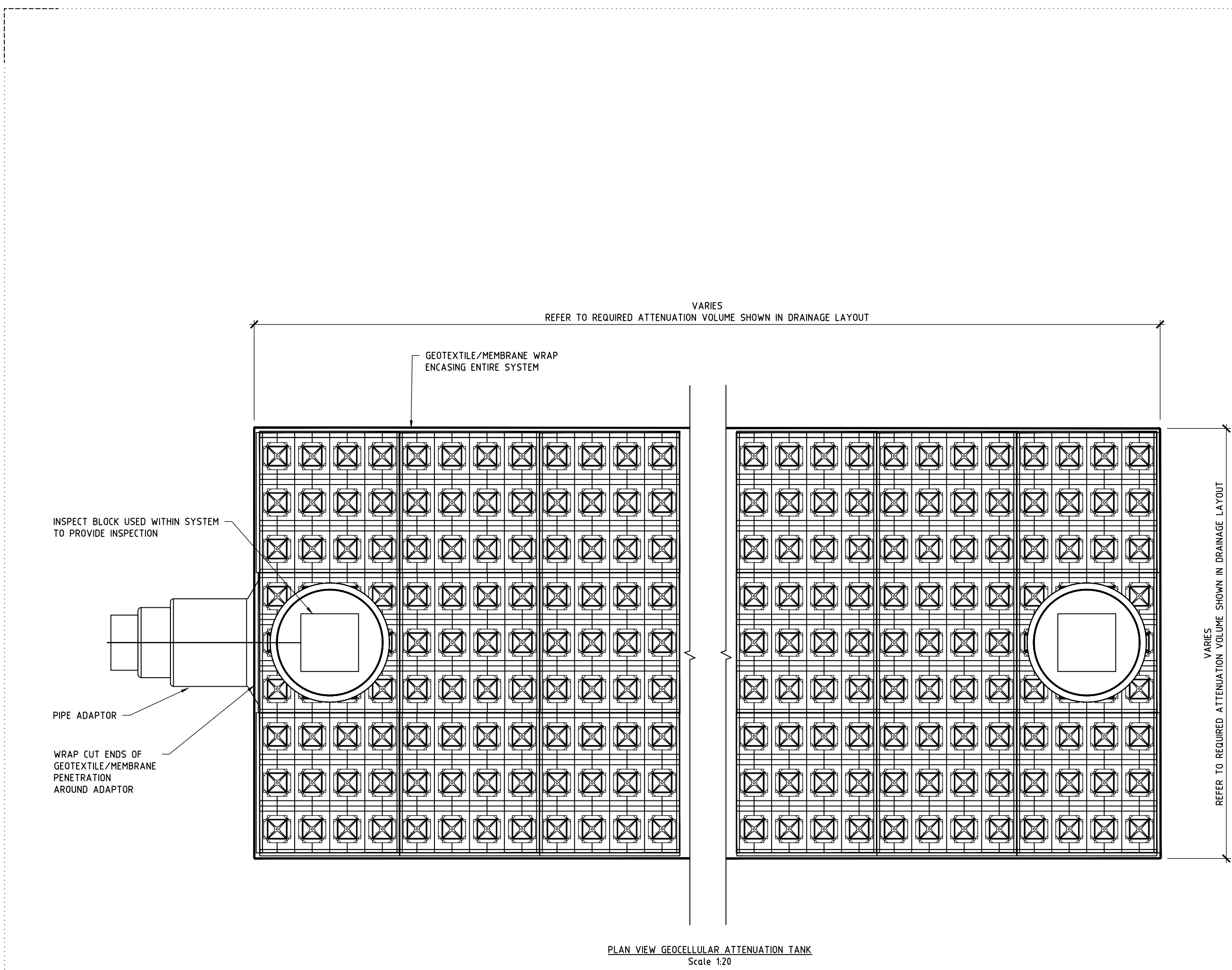
Client: **HIVE HOMES**

Designed	Drawn	Checked	Scale @ A1
A.R.	A.R.	M.A.	1:500

Drawing Title: **DRAINAGE LAYOUT**

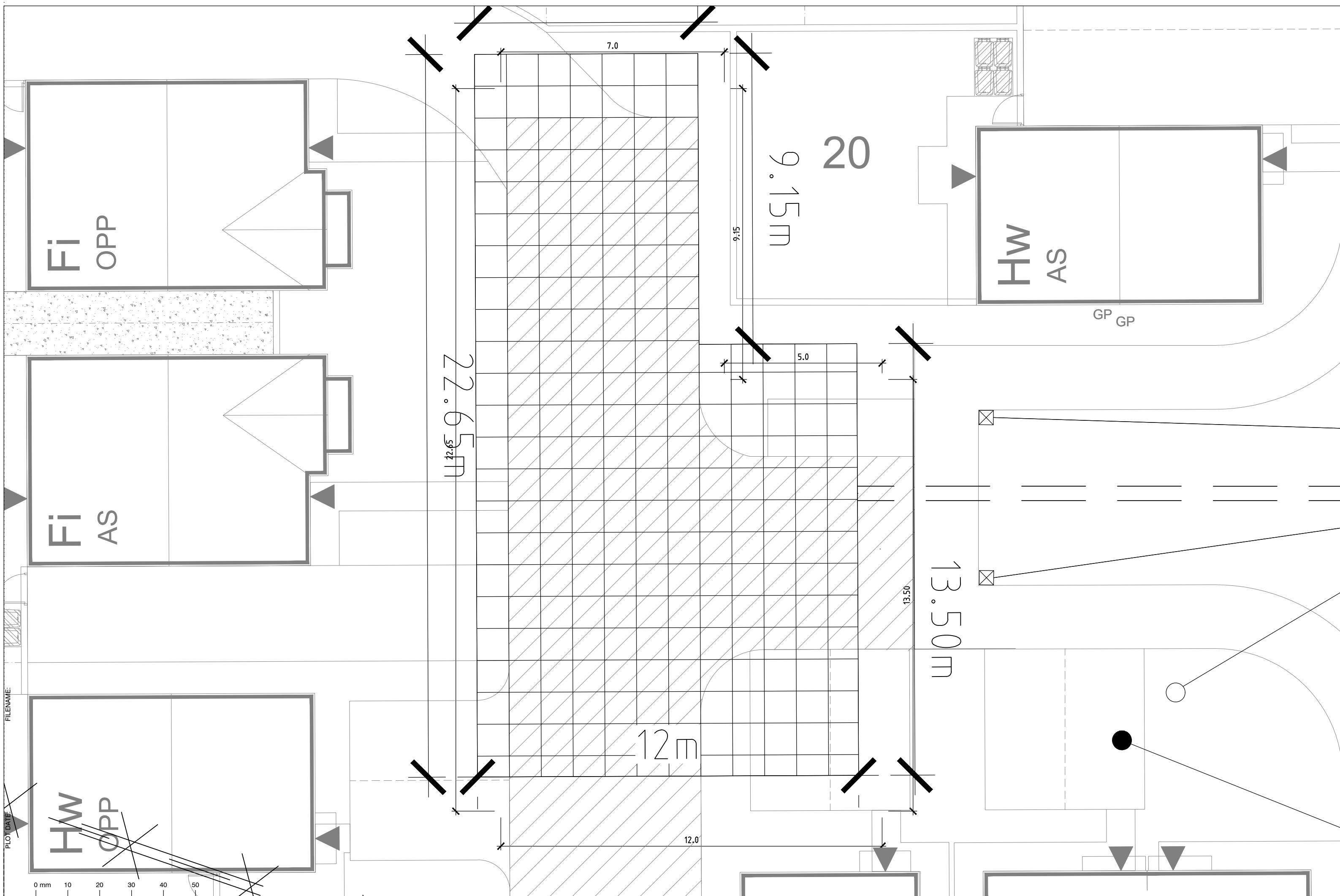
Project No.	2111104	ISSUED FOR CONSTRUCTION
Drawing No.	211104-EDGE-XX-DR-C-2002	
Revision	C04	

Appendix B – Drainage Construction Details



NOTES:

1. ALL SEWERS ARE DESIGNED IN ACCORDANCE WITH SEWERS FOR ADOPTION 6TH EDITION.
2. PROPOSED LAYOUT IS BASED ON RE-FORM LANDSCAPE ARCHITECTURE DRAWING 0858-RFM-ZB-00-DR-L-0001.
3. ALL CO-ORDINATES AND LEVELS SHOWN ARE RELATIVE TO THE TOPOGRAPHIC SURVEY AND ARCHITECTS DRAWING 0858-RFM-ZB-00-DR-L-0001.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE LINE AND LOCATION OF ANY EXISTING SEWERS, AS WELL AS ANY EXISTING GROUND AND INVERT LEVELS SHOWN ON THE DRAWING ARE CORRECT PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES MUST BE MUST BE REPORTED IMMEDIATELY.
5. NEW CONNECTIONS TO THE PUBLIC SEWER WILL BE MADE AT THE UNDERTAKERS CONSENT.
6. PVC-U PIPES SHALL BE WRAPPED WITH A LAYER OF PLASTIC SHEETING COMPLYING WITH UU CESWI 6 CLASS 2.95
7. DRAINAGE PIPES WILL BE 100MM DIAMETER UNLESS STATED OTHERWISE.
8. PROCESSED GRANULAR MATERIAL SHALL COMPLY WITH WIS 4-08-02. THE GRADING OF PROCESSED GRANULAR MATERIAL SHALL BE AS SPECIFIED.
9. PIPES TO BE BEDDED/SURROUNDED WITH CONCRETE SHALL BE SUPPORTED ON PRECAST CONCRETE SETTING BLOCKS, THE TOP FACE OF EACH BLOCK BEING COVERED WITH TWO LAYERS OF COMPRESSIBLE PACKING.
10. DRAINAGE POP-UP LOCATIONS (SVPs, RWP's AND FLOOR GULLIES, ETC.) ARE INDICATIVELY AND SET OUT SHOULD BE IN ACCORDANCE WITH THE LATEST RE-FORM LANDSCAPE ARCHITECTURE DRAWINGS.
11. INTERNAL RODDING ACCESS SHOULD BE PROVIDED ON ALL PIPES WITH JUNCTION CONNECTIONS.
12. ANY PCC PIPE WORK WILL BE IN ACCORDANCE WITH BS EN 1916:2002.
13. ALL MANHOLES AND CHAMBERS SHALL BE IN ACCORDANCE WITH BS EN 1917:2002.



C01 06.12.24 CONSTRUCTION - Issued for construction		F.S. R.A.
P01 27.06.23 PRELIMINARY - Issued for information		J.W. R.A.
Rev	Date	Description
By		
CHK		
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Project Name SEEDFIELD CENTRE BURY		
Client HIVE HOMES		
Designed	Drawn	Checked
R.A.	H.S.	R.A.
Drawing Title DRAINAGE CONSTRUCTION DETAILS		Scale @ A1 1:20
Project No. 211104		ISSUED FOR CONSTRUCTION
Drawing No. 211703-EDGE-XX-XX-DR-C-3202		Revision C01