Doc Ref: **2835-BCL-00-XX-C-RP-0003**

Date: **18th August 2026**

Rev: **P01**

Client

Short Construction Ltd
Stanley Green Business Park
Unit H2
Oak Green
Handforth
SK8 6QL

Site Address

Land off High Lane
Chorlton
Manchester
M21 9FA

Document Title

Drainage Management and Maintenance Plan

Planning Condition 9 Part C

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Contents

1.0 Introduction 4
2.0 Management & Maintenance Plan 5
3.0 Drainage Related Planning Condition and Responses 9
Appendix A – Brennan Consult Drawings

Revision History

Issue	Date	Status	Prepared By	Signature
P01	18.08.26	First Issue	Lee Meadowcroft BSc(Hons) PgDip MScCHE CEng MIStructE MICE IHBC	[redacted]

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1.0 Introduction

1.1 In 2023 a planning application was submitted to Manchester City Council (MCC) for the construction of fourteen town houses, six apartments and refurbishment of existing building into two dwellings, with associated access, landscaping and car parking on land off High Lane, Chorlton, Manchester, M21 9FA.

1.2 Planning approval was granted on the 2nd April 2025 via application number 137994/FO/2023 and encompassed a number of planning conditions, including Condition 9 Part C which relates to the drainage management and maintenance plan for the development.

1.3 This report has been prepared to remove Part C of this drainage related planning condition relevant to the application, as noted below: -

Condition 9 Part C

Management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime.

2.0 Management & Maintenance Plan

2.1 The drainage network encompasses standard pipework, manholes and a soakaway crates. As long as the gullies at the base of the rainwater pipes are kept clear of leaves and detritus by regular inspection by the property owners then this should negate it passing into the network.

2.2 All management and maintenance of the drainage will be with the property owners and the elected property manager for the communal areas. This will involve general maintenance of the drainage network in accordance with best practice. All drainage will remain private and not be adopted by the local sewerage authority.

2.3 This section is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details. Where proprietary products are specified, the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints. The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

2.4 There are three types of maintenance activities associated with surface water drainage systems. The SuDS Manual, CIRIA C753, defines these as:

- Regular Maintenance – 'basic tasks undertaken on a frequent and predictable schedule' including vegetation management, litter and debris removal, and inspections.
- Occasional Maintenance – 'tasks that are likely to be required periodically, but on a much less frequent and predictable basis than the routine tasks (sediment removal is an example)
- Remedial Maintenance – 'intermittent tasks that may be required to rectify faults associated with the system, although the likelihood of faults can be minimised by good design. Where remedial work is found to be necessary, it is likely to be due to site-specific characteristics or unforeseen events, and as such timings are difficult to predict.'

2.5 Specific maintenance needs should be monitored and maintenance schedules adjusted to suit the location and condition of the drainage feature in question.

Piped Networks, Inspection, Manhole and Catchpit Chambers

2.6 The appropriate health and safety equipment must be used when accessing manholes. Confined space certificates must be held by any personnel entering a manhole and the appropriate permits should be obtained from the Maintenance Manager prior to any access.

2.7 Pipes are proprietary products, and the materials can vary across the site and as such where used the manufacture's recommendations should be followed.

2.8 Pipes are intended to be the main conveyance across the development. They are intended to be dry except for during rainfall events. These have been designed to be self-cleaning where possible for smaller diameter pipes, and for larger diameters the risk is reduced due to the overall pipe size.

2.9 Access for maintenance is provided through access chambers and manholes.

2.10 Regular inspection and maintenance are important to identify areas which may have been obstructed / clogged and may not be drainage correctly thus exposing the site to a greater level of flood risk.

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify any features that are not operating correctly. If required, take remedial action	Monthly for three months, then six monthly
	Debris removal from catchment surface / gratings (where may cause risks to perfor-mance)	Monthly (and after large storms)
	Remove sediment from trapped sumps, manholes and catchpits.	Annually or as required
Remedial Maintenance	Repair / rehabilitation of gratings, inlets and outlets	As required
Monitoring	Inspect / check all gratings, trapped sumps, manholes and catchpits to ensure that they are in good condition and operating as de-signed	Annually and after large storm events
Structure Rehabilitation / Repair	Regular Maintenance and Monitoring to identify if repair and / or replacement of features or pipework is required.	As required

Figure 1: Operation and Maintenance Requirements of Piped Networks and Inspection Chambers

Permeable Paving

2.11 Permeable paving provides a surface suitable for vehicular traffic, while allowing rainwater to infiltrate through the surface and into the underlying structural layers. The surface itself is impervious to water, but the blocks are laid to provide void space through the surface to the sub-base. The water is temporarily stored within this sub-base before controlled discharge downstream.

2.12 Permeable surfaces, together with their associated substructures, are an efficient means of managing surface water runoff close to its source – intercepting runoff, reducing the volume and frequency of runoff, and providing a treatment medium. Treatment processes that occur within the surface structure, sub-base and geotextile layers include filtration, absorption, biodegradation and sedimentation.

2.13 Permeable paving should be inspected regularly, preferably during and after heavy rainfall to check effective operation and identify areas of ponding. Permeable paving needs to be regularly cleaned of silt and other sediments to preserve their infiltration capacity. Evidence suggests that sweeping once per year should be sufficient to maintain an acceptable infiltration rate on most developments.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, or when required during autumn leaf fall
	Inspect infiltration surfaces for ponding, compaction, silt accumulation, record areas where water is ponding for > 48hours	Every 3 months, 48 hours after large storms.
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Manage other weeds and vegetation and remove nuisance plants	Once a year, or when required
Remedial Actions	Repair erosion of any adjacent soft landscaping adjacent to the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks.	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	As required
	Remove and dispose of oils or petrol residues using safe standard practices	As required

Figure 2: Operation and Maintenance Requirements for Permeable Paving

Geocellular Soakaway Tank

2.14 Geocellular tanks are modular storage systems made with plastic units. These units can be assembled to achieve the required volume and usually on multiple layers. Generally, the units have 95% of voids content and are used to create an efficient below ground structure to store surface water.

2.15 The geocellular units and geotextile are proprietary products and therefore manufacturer's recommendations should also be taken into consideration.

2.16 Access for maintenance should be provided by an access shaft located on the tank and from the manhole chambers downstream of the tank.

2.17 Regular inspection and maintenance are important for the effective operation of attenuation tanks as designed. As the feature is buried, a regular inspection regime is very important to ensure the correction functionality of the surface water drainage network.

Maintenance schedule	**Required action**	**Typical frequency**
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then annually.
	Remove debris form the catchment surface (where it may cause risks to performance).	Monthly.
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockages by sediment, algae or other matter; remove and replace surface infiltration medium as required.	Annually.
	Remove sediments from pretreatment structures and/or internal forebays.	Annually, or as required.
Remedial Actions	Repair/rehabilitate inlets, outlets, overflows and vents.	As required.
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed.	Annually
	Survey inside of tank for sediment build-up and remove if necessary.	Every 5 years or as required.

Figure 3: Operation & maintenance requirements for soakaway crates - Based on CIRIA SuDS Manual 015

4.0 Drainage Related Planning Condition and Responses

4.1 Planning Conditions

Condition 9 Part C is detailed below in *italics* with the Brennan Consult response beneath in Blue.

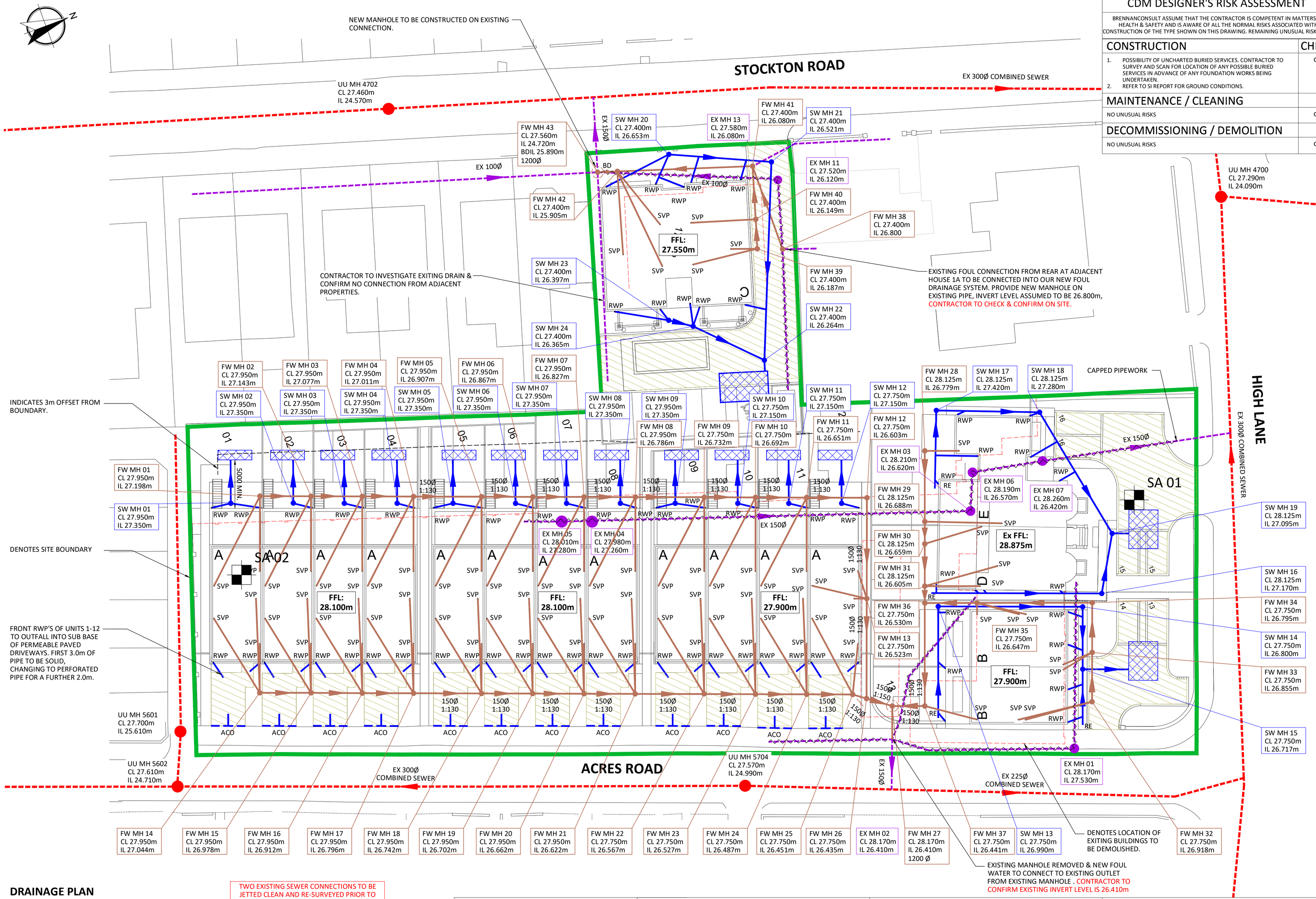
Condition 9 Part C

Management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime.

The drainage scheme is not adopted and shall remain private and be the responsibility of the individual house holders and the management company appointed to manage the communal areas.

Appendix A – Brennan Consult Drawings

- 2835 0101 Rev C03 – Drainage GA



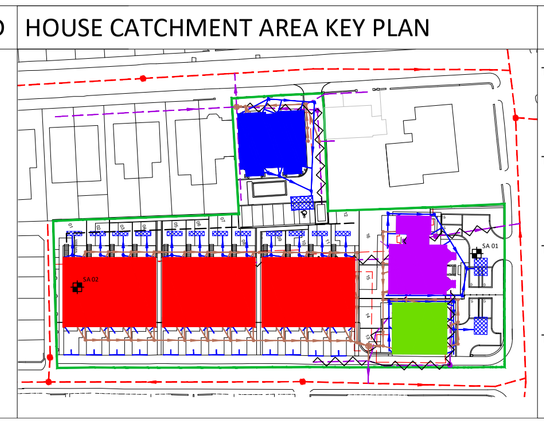
DRAINAGE PLAN
SCALE 1:200

TWO EXISTING SEWER CONNECTIONS TO BE JETTED CLEAN AND RE-SURVEYED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.

HOUSE CATCHMENT AREA LEGEND

- HOUSE TYPE A - 60m² PER PLOT
- HOUSE TYPE B - TOTAL AREA 150m²
- HOUSE TYPE C - TOTAL AREA 210m²
- HOUSE TYPE D&E - TOTAL AREA 210m²

HOUSE CATCHMENT AREA KEY PLAN



PLOT A - E ATTENUATION TANK SIZES

TYPE A - 'WAVIN' AQUACELL CORE-R 3.5m x 1.0m x 0.8m DEEP (2.8m³) INFILTRATION TANK WITHIN THE REAR GARDEN OF UNITS 1-12, BASED ON INFILTRATION RATE OF 7.4x10-5M/S AND FACTOR OF SAFETY OF 5. INVERT LEVEL OF TANK TO BE 26.6m AOD. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

TYPE B - 'WAVIN' AQUACELL CORE-R 4m x 3m x 0.8m DEEP (9.6m³) INFILTRATION TANK WITHIN THE FRONT CAR PARK OF UNITS 13-14 & 15-16, BASED ON INFILTRATION RATE OF 7.4x10-5M/S AND FACTOR OF SAFETY OF 5. INVERT LEVEL OF TANK TO BE 26.0m AOD. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

TYPE C - 'WAVIN' AQUACELL CORE-R 5m x 3m x 0.8m DEEP (11.4m³) INFILTRATION TANK WITHIN THE REAR CAR PARK OF UNITS 17-22, BASED ON INFILTRATION RATE OF 7.4 x10-5M/S AND FACTOR OF SAFETY OF 5. INVERT LEVEL OF TANK TO BE 25.60m AOD. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

TYPE D/E - 'WAVIN' AQUACELL CORE-R 5m x 3m x 0.8m DEEP (12m³) INFILTRATION TANK WITHIN THE FRONT CAR PARK OF UNITS 15-16, BASED ON INFILTRATION RATE OF 7.4x10-5M/S AND FACTOR OF SAFETY OF 5. INVERT LEVEL OF TANK TO BE 26.0m AOD. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

DRAINAGE LEGEND

- INDICATES NEW FW DRAINAGE
- INDICATES NEW SW DRAINAGE
- INDICATES PERMEABLE SURFACING REFER TO DRG 2835 - 0204
- BD INDICATES BACKDROP
- INDICATES EXISTING CW SEWER
- INDICATES EXISTING CW DRAINAGE
- INDICATES EXISTING DRAINAGE TO BE ABANDONED
- INDICATES SITE BOUNDARY

ALL MANHOLES TO BE CONCRETE ENCASED 450Ø PPIC'S UNO, REFER TO DETAILS ON DRAWING 2835 - 102.

ALL MANHOLE COVERS TO BE B125 LOAD RATING TO PEDESTRIAN AND DRIVEWAY AREAS

ALL PIPEWORK TO BE 100Ø UNLESS NOTED OTHERWISE

CDM DESIGNER'S RISK ASSESSMENT

BRENNANCONSULT ASSUME THAT THE CONTRACTOR IS COMPETENT IN MATTERS OF HEALTH & SAFETY AND IS AWARE OF ALL THE NORMAL RISKS ASSOCIATED WITH CONSTRUCTION OF THE TYPE SHOWN ON THIS DRAWING. REMAINING UNUSUAL RISKS ARE:-

CONSTRUCTION	CHK'D.
1. POSSIBILITY OF UNCHARTED BURIED SERVICES. CONTRACTOR TO SURVEY AND SCAN FOR LOCATION OF ANY POSSIBLE BURIED SERVICES IN ADVANCE OF ANY FOUNDATION WORKS BEING UNDERTAKEN. 2. REFER TO SI REPORT FOR GROUND CONDITIONS.	CB
MAINTENANCE / CLEANING	
NO UNUSUAL RISKS	CB
DECOMMISSIONING / DEMOLITION	
NO UNUSUAL RISKS	CB

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GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ASSOCIATED DRAWINGS. ANY DISCREPANCY TO BE RAISED PRIOR TO CONSTRUCTION. ANY CONSTRUCTION WORKS WHICH COMMENCE BEFORE THESE DRAWINGS ARE APPROVED ARE AT THE RISK OF THE BUILDING CONTRACTOR.
2. ALL DIMENSIONS ARE IN MILLIMETERS (mm). DO NOT SCALE FROM THIS DRAWING, WORK TO STATED DIMENSIONS ONLY.
3. BUILDING CONTRACTOR TO ENSURE ALL WORKS COMPLY WITH THE CURRENT EDITION OF THE BUILDING REGULATIONS. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH APPROVED DOCUMENT REGULATION 7.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, FABRICATION, ERECTION AND REMOVAL OF ALL TEMPORARY WORKS AND SHALL PROVIDE ALL TEMPORARY BRACING AS NECESSARY TO MAINTAIN STRUCTURAL STABILITY DURING CONSTRUCTION.
5. IF THE CONTRACTOR CONSIDERS THAT HE DOES NOT HAVE SUFFICIENT INFORMATION TO SAFELY COMPLETE THE WORKS DETAILED ON THIS DRAWING, HE SHOULD CONTACT THE ENGINEER.

DRAINAGE NOTES

1. ALL PRIVATE DRAINAGE WITHIN THE SITE IS TO COMPLY WITH THE REQUIREMENTS OF BS EN 752 AND BUILDING REGULATIONS PART H.
2. DETAILS OF EXISTING SEWERS SHALL BE CONFIRMED BY THE CONTRACTOR ON SITE PRIOR TO THE COMMENCEMENT OF WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHOULD CHECK THE LEVELS OF ALL NEW OUT FALLS IN RELATION TO EXISTING SEWERS PRIOR TO ANY CONSTRUCTION TO ENSURE THE PROPOSED DESIGN CAN BE ACHIEVED.
3. THE CONTRACTOR SHALL ASCERTAIN THE DEPTHS, SIZES AND LOCATIONS OF ALL SERVICES TO BE CROSSED BEFORE EXCAVATION COMMENCES. ANY CONFLICT IN LEVELS BETWEEN NEW AND EXISTING SEWERS TO BE NOTIFIED TO THE ENGINEER.
4. ALL PIPES, CONNECTIONS, GULLIES, ACCESS FITTINGS, INSPECTION CHAMBERS, AND MANHOLES ARE TO COMPLY WITH THE BUILDING REGULATIONS.
5. PIPE BEDDING MATERIAL TO BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, TAKING ACCOUNT OF THE DEPTH & LOADING IN RELATION TO THE PIPE STRENGTH, AND MODIFIED IF NECESSARY WHERE BELOW WATER LEVEL. BEDDING PROPOSALS ARE TO BE ISSUED FOR CONSIDERATION.
6. PIPES CONNECTED TO CHAMBERS ARE TO HAVE SOFFITS LEVEL U.N.O. PIPES 150mm IN DIAMETER OR SMALLER MAY BE LOWERED TO CENTRE LINES LEVEL.
7. ALL RWP & SVP CONNECTIONS TO BE 100mm DIAMETER U.N.O. LAID TO A FALL NO FLATTER THAN 1:40 AND WITH ROD ACCESS AT THE BASE.
8. ALL BRICKWORK IN CONNECTION WITH DRAINAGE IS TO BE SOLID CLASS B ENGINEERING BRICK TO BS3921.
9. ALL PRECAST CONCRETE PIPES, CHAMBER PRODUCTS AND ROAD GULLIES SHALL BE TO BS5911 AND BE KITE MARKED.
10. ALL INSITU AND CONCRETE PRODUCTS SHALL COMPLY WITH CLASS DS1 REQUIREMENTS FOR SULPHATE EXPOSURE IN ACCORDANCE WITH BRE SPECIAL DIGEST 1, CONCRETE IN AGGRESSIVE GROUND (2001) PART 1: TABLE 2.
11. UPON COMPLETION OF THE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE EXISTING DRAINAGE SYSTEM.
12. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS.
13. ALL RWP'S TO DISCHARGE BY DIRECT CONNECTION INTO RODDABLE ACCESS GULLY, WITH INTERGRAL TRAP.
14. ALL SVP'S & WWP'S POP UP'S TO CONSIST OF SLOW BENDS.
15. ALL INSPECTION CHAMBERS AT A DEPTH OF >1.2m REQUIRE CHAMBER REDUCING RING.
16. DRAWING BASED ON MPSL'S DRAWING No. 22114-02 P04
17. ALL SW AND FW FALLS MH TO MH TO BE 1:80 U.N.O.
18. PROPOSED PIPEWORK WITH LESS THAN THE FOLLOWING DEPTHS TO SOFFIT REQUIRES A CONCRETE SURROUND:
    - 1.2m IN ROADS
    - 0.75m UNDER PRIVATE DRIVES
    - 0.6m UNDER FOOTPATHS AND UNDER BUILDINGS.
19. ALL MANHOLES AND INSPECTION CHAMBERS WITHIN HARD SURFACING TO HAVE RECESSED COVERS U.N.O.

REV	REVISION DESCRIPTION	BY	DATE	CHECKED
C03	ACO'S ADDED TO DRIVEWAYS OF PLOTS 1 - 12	WSS	19.11.25	CB
C02	CONSTRUCTION ISSUE	WSS	03.10.25	CB
C01	CONSTRUCTION ISSUE	FB	12.09.25	WSS
P04	DRAINAGE CATCHMENT PLAN	MM	18.06.25	CB
P03	MINOR AMENDMENTS - REFER TO REV CLOUDS	SD	07.10.24	CB
P02	PLOT C SOAKAWAY UPDATES	MM	03.09.24	CB
P01	ISSUED FOR TENDER	DF	22.08.24	CB

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RESIDENTIAL DEVELOPMENT
DRAINAGE PLAN

Status
CONSTRUCTION

Project No.	Originator	Zone	Level	Type	Role	Drawing No.	Revision
2835	BCL	00	XX	DR	D	0101	C03

Scale	Size	Drawn	Date	Checked	Passed
1:200	A1	DF	AUG24	CB	CB