Drainage Management & Maintenance Plan

Unit 6, Gateway 36

Dearne Valley Parkway, Barnsley

Prepared For

EOS Inc. Limited

Report: 7241-HJCE-00-XX-RP-C-3001.v2

Date: November 2025

Document Revisions

Revision	Date	Written by	Checked by
P01	09.10.25	AF	MH
P02	17.11.25	AF	MH

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Appendices

1. Introduction

1.1. This report is the property of HJ Consulting Engineers (HJCE) and is produced for the exclusive use of the client, EOS Inc. Limited. The contents may not be made use of by any third party without the express written consent of HJCE. Without such consent HJCE can accept no responsibility to any third party. By receiving this report and acting on it, the client, or any third party relying on it, accepts that no individual is personally liable in contract, tort, or breach of statutory duty (including negligence).

1.2. The purpose of this document is to establish the correct procedures to ensure the drainage system continues to function as designed throughout the design life of the development, while providing relative assurance that any work will be undertaken to a satisfactory standard.

1.3. Management information provided is based on the drainage design as shown within the drawings included in Appendix A.

1.4. All aspects of the drainage system form part of the development, and as such must be maintained throughout the life of the development to ensure continued operation to the specification as designed. This report relates to drainage aspects within the boundaries of Unit 6.

1.5. Off-plot infrastructure is to remain privately owned by EOS Inc. Limited and will be their responsibility via an appointed management company.

1.6. Drainage conduits are designed to be self-cleansing, where they are not assumed to be utilised as part of the long-term surface water attenuation system. However, regular inspections should still be undertaken, as isolated occurrences of obstructions within the system remain a possibility.

1.7. No work on the drainage system will be undertaken without the permission of the nominated persons who have access to information and working knowledge of the system. All operatives working on the system will have had appropriate training for the work.

1.8. All work on the system should be preceded by a risk assessment, with the appropriate measures recommended within the assessment undertaken prior to work starting.

1.9. Maintenance and inspections will be carried out in a safe manner by competent persons following training on the task to be completed and in accordance with current safe working policies.

1.10. Confined work is to be minimised where possible, with any confined operations done so following appropriate training and only when suitably equipped to do so.

1.11. Welfare facilities must be available for the purpose of ensuring high levels of hygiene.

2. Drains / Sewers

2.1. Maintenance of the piped drainage system includes the following items:

2.1.1. Repair or replacement of pipework or structures in the event of damage occurring, to provide continued operation.

2.1.2. Cleansing and removal of debris, detritus and sediment for the maintenance of the expected hydraulic performance.

2.1.3. Vacuuming and jetting where required, including the removal of rootlets in the case of ingress.

2.1.4. Inspection and maintenance are to be carried out in line with the intervals shown within the maintenance schedule in Appendix B.

2.2. Jetting pressures should be limited to the maximum recommended values as prescribed by the original equipment manufacturer.

2.3. Effluent and material arising from the cleansing is to be isolated to the area of works and disposed of appropriately.

3. Manholes / Access Chambers

3.1. All covers should be lifted, with chambers inspected for debris, damage and indications of blockages elsewhere in the system.

3.2. Debris is to be removed from the chamber, and not washed downstream.

3.3. Benching should be assessed where damage has occurred. This should be removed from the chamber and appropriate repairs undertaken to return the chamber to the original condition.

3.4. Covers and frames are to be inspected for degradation. Connecting bolts should be present, and the haunching in good condition.

3.5. Any replacement components of the chamber should be original equipment manufacturer specification only.

3.6. Interfacing surfaces are to be cleared of debris and corrosion. Grease to be applied, bolts and seals to be replaced and tightened to specification.

4. Silt Trap Chambers

4.1. As denoted on the drainage layout drawings, some chambers have been designated as silt trap chambers. They are intended to collect silt and debris in

specific locations to isolate materials prior to the entering attenuation structures. Treatment of these should be as per other chambers on site, although the clearance of silt may be required more often. Intervals for inspections should be as per the maintenance schedule.

5. Drainage Channels and Kerb Drains

5.1. Inspection of these assets should be regular, as the hydraulic performance may be easily impeded by build-up of sediment.

5.2. Annual cleaning of the channels and drains is incorporated into the maintenance schedule. Interim inspections and maintenance may be required depending on the environment and end user situation.

5.3. Channels and drains should be cleansed by use of proprietary equipment.

5.4. The throat of the channel should be kept clear to maintain a continued discharge from the unit.

5.5. Seating surfaces are to be cleared, and any corrosion treated; grease applied and covers refitted. Hardware is to be replaced where required and torqued to specification.

5.6. Damaged components are to be replaced with original equipment manufacturer parts

5.7. Traps are to be cleared of debris regularly to maintain hydraulic performance.

5.8. During prolonged dry periods, the traps should be replenished to prevent the release of odours.

6. Road Gullies

6.1. Regular inspections and maintenance are necessary to ensure effective operation and ensure they are free of debris and blockages.

6.2. Gullies require annual cleansing and is integrated into the maintenance schedule. Extreme weather and prolonged periods of dry weather can lead to build up of sediment more promptly as such interim cleansing will be required.

6.3. Gully gratings should be kept clear of debris, ensuring an uninterrupted flow into the gully.

6.4. Interfacing areas of the gully grating is to be cleaned prior to being reseated. Locking mechanisms should be engaged to prevent the grating being dislodged.

6.5. During prolonged dry periods, the gully should be replenished to prevent the release of odours.

7. Oil Separators

7.1. Oil separators are installed on the development with the aim of mitigating the risk of contamination release into the environment. In order to function as intended, maintenance must be adhered to in accordance with the manufacturer's recommendations.

7.2. Inspections on the units and the telemetry, along with interim evacuation of the units must be done so in accordance with the maintenance schedule.

7.3. Fitted telemetry will indicate when the units require emptying, although inspections should be made at regular intervals as a matter of redundancy.

7.4. All work undertaken should be done so by qualified and competent personnel, in accordance with EN858-2:2003 Section 6.

7.5. Procedures should be as follows:

7.5.1. Determine sludge/silt volume in upstream catchpits and remove.

7.5.2. Access the depth of accumulated oil and silt in the separator.

7.5.3. Check the condition of any coalescing device and replace as necessary.

7.5.4. Service any electrical equipment, i.e. alarms or management systems.

7.5.5. Physically inspect the integrity of the separator and any mechanical parts.

7.6. The contents of the separator should be removed when levels have built up significantly. All waste should be removed, the separator washed down and refilled with clean water.

7.7. Specialists in interceptor evacuation should be employed for the work, with caution applied in the event of a contaminant spillage on site.

7.8. A survey of the condition of the unit should be carried out every 5 years.

7.9. Logs should be recorded of all servicing, emptying and surveying of the unit. Additional records of on-site spillages should be kept. Failure to carry out

inspections and maintenance can lead to the release of pollution into the environment.

8. Funding

8.1. On completion of the commissioning of the drainage system, the developer will be responsible for the maintenance and inspection of all assets. Funding as such remains within the scope of the developer's responsibility.

8.2. Responsibility of maintenance and inspections may be transferred under agreement via tenancy or sale of the development, in whole or in part.

9. Health and Safety

9.1. Employers shall, as far as is reasonably practicable, provide and maintain systems of work that are safe, without unnecessary risk. All systems of work shall be covered, inclusive of above and below ground works.

10. Record History

10.1. Site management shall be responsible for the recording and updating of all details prior to maintenance operations. This shall be available for future reference.

10.2. Future maintenance works shall be scheduled by site management in accordance with the necessary procedures as set out in the maintenance schedule.

10.3. Checks that the work has been performed correctly shall follow any maintenance work on site.

Appendix A

DRAINAGE NOTES -

1. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT PARTS OF BS EN 752 'DRAINS AND SEWER SYSTEMS OUTSIDE BUILDINGS', THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.

2. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

3. ALL EXISTING DRAINAGE/STRUCTURES TO BE ABANDONED SHALL BE BROKEN OUT AND REMOVED FROM SITE, THE EXCAVATION SHALL BE BACKFILLED WITH A SUITABLE GRANULAR MATERIAL TO THE REQUIRED LEVEL. ALTERNATIVELY, DEEP DRAINS MAY BE CLEANED AND GROUTED WITH A 1:10 CEMENTITIOUS GROUT, WITH STRUCTURES BROKEN DOWN 1m BELOW FINISHED GROUND LEVEL AND BACKFILLED WITH A SUITABLE GRANULAR MATERIAL.

4. ALL PIPES UP TO AND INCLUDING 300Ø TO BE VITRIFIED CLAY OR U-PVC. PIPES 375Ø AND GREATER TO BE CONCRETE CLASS 120.

5. ALL EXTERNAL RIGID PIPEWORK SHALL BE LAID WITH A CLASS S PIPE BEDDING DETAIL WITH 1.2m MINIMUM COVER TO THE PIPE BARREL UNDER VEHICULAR TRAFFICKED AREAS, 0.9m COVER UNDER FIELDS AND 0.6m COVER UNDER FOOTWAYS/GARDENS. WHERE COVER IS LESS THAN THAT STATED, A CLASS A PIPE BEDDING DETAIL SHALL BE USED ON PIPES 225Ø AND LARGER, FOR PIPES LESS THAN 225Ø USE A CLASS Z PIPE BEDDING DETAIL. UNDER BUILDINGS A CLASS S PIPE BEDDING DETAIL SHALL BE USED. WHERE THERE IS LESS THAN 300mm BETWEEN THE BARREL OF THE PIPE AND THE UNDERSIDE OF THE STRUCTURAL FLOOR SLAB, THE PIPE SHALL BE CAST INTEGRAL WITH THE FLOOR SLAB WITH 150mm MINIMUM CONCRETE SURROUND WITH VERTICAL REINFORCEMENT TIED INTO THE SLAB.

6. ALL U-PVC PIPEWORK SHALL BE LAID WITH A CLASS T PIPE BEDDING DETAIL WITH 1.2m MINIMUM COVER TO THE PIPE BARREL UNDER VEHICULAR TRAFFICKED AREAS, 0.9m COVER UNDER FIELDS AND 0.6m COVER UNDER FOOTWAYS/GARDENS. WHERE COVER IS LESS THAN THAT STATED A CLASS Q PIPE BEDDING DETAIL SHALL BE USED.

7. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITIES.

8. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN-OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE-WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.

9. THE NEED FOR ANY TEMPORARY LAND DRAINAGE SHALL BE ASSESSED BY THE CONTRACT0R PRIOR TO ANY WORKS COMMENCING. THESE TEMPORARY WORKS SHALL TAKE INTO ACCOUNT THE PHASING OF THE WORKS AND THE CONTRACTORS METHOD OF WORKING. NO LAND DRAINAGE, TEMPORARY OR OTHERWISE, SHALL BE PERMITTED TO DISCHARGE INTO THE PERMANENT DRAINAGE SYSTEM OR DIRECTLY ONTO THE PUBLIC HIGHWAY.

10. ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

11. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS, LIVE SEWERS AND MACHINERY.

12. THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM THE WORKING AREAS.

13. ALL PIPES SHALL BE LAID WITH SOFFITS LEVEL AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUTLET PIPE (UNLESS OTHERWISE SHOWN). ALL PIPE RUNS SHALL BE LAID TO THE LEVELS INDICATED, ALL PIPE GRADIENTS INDICATED ARE APPROXIMATE.

14. ALL RAINWATER PIPES/INTERNAL FOUL DRAIN CONNECTIONS ARE SHOWN INDICATIVELY OR TO THE LATEST ARCHITECTS DRAWINGS, ADAPTORS AT FINISHED FLOOR LEVEL TO SUIT CONNECTION DETAILS BY OTHERS. POSITION OF RAIN WATER PIPES AND WASTE OUTLETS MUST BE CONFIRMED FROM ARCHITECT'S DRAWING BEFORE LAYING UNDERGROUND PIPEWORK.

15. ALL INTERNAL BELOW GROUND FOUL DRAINAGE IS TO BE LAID IN ACCORDANCE WITH THE BUILDING REGULATIONS H1 SECTION 2 'CLAUSE 2.34/TABLE 6.

16. ALL BELOW GROUND PLASTIC/GRP TANKS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. THEY SHALL BE PROVIDED WITH SUFFICIENT CONCRETE SURROUND TO COUNTER FLOATATION AND SHALL HAVE A WALL THICKNESS ADEQUATE TO RESIST THE HIGHEST GROUND WATER LEVEL WHICH COULD BE ENCOUNTERED AT THEIR LOCATION.

17. ALL INSITU AND PRECAST CONCRETE PRODUCTS SHALL BE DESIGNED TO SUIT THE GROUND CONDITIONS IDENTIFIED IN THE SITE INVESTIGATION REPORT AND IN ACCORDANCE WITH BRE SPECIAL DIGEST 1, CONCRETE IN AGGRESSIVE GROUND (2001) PART 1: TABLE 2.

18. ALL PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED. ALL PRECAST CONCRETE PIPES SHALL BE CLASS 120 AND COMPLY WITH THE REQUIREMENTS OF NOTE 17 ABOVE.

19. ALL VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 295 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN 295 PIPE CRUSHING STRENGTH AND BE OF A SLEEVED SYSTEM.

20. ALL U-PVC PIPES AND FITTINGS SHALL COMPLY WITH WIS 4-35-01 AND SHALL BE KITEMARKED.

21. WHERE CONCRETE PROTECTION IS REQUIRED TO PIPEWORK, THE CONCRETE SHALL BE DISCONTINUED AT EACH PIPE JOINT OVER THE FULL CROSS SECTION OF THE CONCRETE BY MEANS OF A SHAPED COMPRESSIBLE FILLER.

22. WHERE TWO PIPELINES CROSS WITH LESS THAN 300mm COVER, SURROUND EACH PIPE WITH A FULL CONCRETE BED AND SURROUND (CLASS Z DETAIL) FOR NOT LESS THAN 1m CENTRED ON THE CROSSING AND EXTENDED AS REQUIRED TO WITHIN 150mm OF THE NEAREST FLEXIBLE JOINT.

23. NO MECHANICAL COMPACTION OF FILL MATERIAL SHALL BE PERMITTED WITHIN 300mm ABOVE THE BARREL/CROWN OF THE PIPE.

24. SELECTED BACKFILL MATERIAL SHALL CONSIST OF UNIFORM SOIL, FREE FROM STONES LARGER THAN 40mm, CLAY LUMPS LARGER THAN 75mm, TREE ROOTS & CONTAMINATED MATERIAL. SELECTED BACKFILL MATERIAL IS TO BE PLACED IN LAYERS NOT EXCEEDING 150mm THICKNESS. SHOULD THE EXCAVATED MATERIAL BE UNSUITABLE OR WEATHER CONDITIONS AFFECT THE MATERIALS STABILITY, THEN A SUITABLE HARD GRANULAR MATERIAL SHALL BE USED.

25. GENERAL BACKFILL TO DRAINAGE TRENCHES IN VEHICULAR TRAFFICKED AREAS ABOVE THE PIPE BEDDING DETAIL, SHALL BE SUITABLY SELECTED MATERIAL (IN ACCORDANCE WITH BS EN 752) AND BE PLACED IN LAYERS NOT EXCEEDING 225mm, EACH LAYER COMPACTED TO FORM A STABLE TRENCH BACKFILL, SHOULD THE MATERIAL BE UNSUITABLE OR WEATHER CONDITIONS AFFECT THE MATERIALS STABILITY, THEN A HARD GRANULAR MATERIAL SHALL BE USED UP TO FORMATION LEVEL.

26. ALL TRENCH BACKFILL TO BE COMPACTED IN ACCORDANCE CLAUSE 612 OF THE SPECIFICATION FOR HIGHWAY WORKS (SHW) SERIES 600. METHOD OF COMPACTION SHALL BE BASED ON THE MATERIAL BEING PLACED AND SHALL BE CLASSIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF TABLE 6/1. MATERIAL TO BE PLACED AND COMPACTED USING 'METHOD COMPACTION' WITH LAYER THICKNESS AND NUMBER OF PASSES SELECTED USING TABLE 6/4.

27. ALL EXCAVATIONS IN AREAS OF HIGH WATER TABLES AND GRANULAR MATERIALS WITH HIGH SAND/SILT CONTENTS SHALL BE WRAPPED WITH A SUITABLE GEOTECHNICAL FILTER MEMBRANE TO PREVENT MIGRATION OF SANDS/SILTS. FULL HEIGHT CLAY STANKS ACROSS TRENCHES AND/OR AT MANHOLE LOCATIONS AT 25m INTERVALS TO RESTRICT WATER MOVEMENT ALONG THE EXCAVATION.

28. 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. THE CONTRACTOR SHALL CARRY OUT A COLOUR CCTV SURVEY OF ALL THE DRAINAGE SYSTEMS WITHIN THE AREA OF THE WORKS AND PROVIDE THE ENGINEER WITH TWO COPIES OF THE CCTV ON CD (MPEG-1 FORMAT) AND REPORT TO WRC STANDARD.

29. GEOTEXTILE FABRIC TO BE WRAPPED AROUND GRANULAR PIPE BEDDING WHERE SEWER TRENCHES ARE FORMED IN RUNNING SAND/SILT MATERIAL WHERE THERE IS A RISK OF FINE MATERIAL ENTERING THE VOIDED GRANULAR BEDDING. IN THESE CONDITIONS THE GEOTEXTILE IS TO BE EXTENDED UNDER THE MANHOLE BASES.

30. WHERE UTILITY/LAND DRAINAGE TRENCHES ETC CROSS OVER DRAINAGE TRENCHES, THE CONTRACTOR SHALL CONSTRUCT AN IMPERMEABLE BARRIER TO PREVENT GROUNDWATER INFILTRATING INTO THE DRAINAGE TRENCH.

30. DESIGN ASSUMES A GRAVITY CONNECTION FOR FOUL AND SURFACE WATER SYSTEMS IS POSSIBLE. IF THE EXISTING SEWERS ARE NOT DEEP ENOUGH THEN PUMP STATIONS WILL BE REQUIRED.

31. DESIGN ASSUMES THAT ALL WORKS ARE NOT TO BE ADOPTED AND THAT NO OFF SITE IMPROVEMENT WORKS ARE REQUIRED.

32. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 214, HAVE 600x600 CLEAR OPENINGS UNLESS OTHERWISE SPECIFIED AND BE OF NON-ROCKING DESIGN WITHOUT CUSHION INSERTS AND BE KITEMARKED. LOAD CLASS D400 IN TRAFFICKED AREAS AND LOAD CLASS B125 IN FOOTWAYS, LANDSCAPED AND PEDESTRIAN AREAS. WHERE REQUIRED, COVERS SHALL BE RECESSED TO RECEIVE THE ARCHITECTS SPECIFIED FINISH.

33. GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN:124 AND BE OF NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 IN INDUSTRIAL ESTATE ROADS AND AREAS CARRYING REGULAR HEAVY TRAFFIC AND LOAD CLASS C250 IN ESTATE ROADS AND CAR PARKING AREAS. IN ALL ROAD LOCATIONS, THE GRATE SHALL BE HINGED ON THE SIDE OF THE TRAFFIC DIRECTION (LEFT HAND OPENING).

34. ALL PRIVATE GULLY'S TO BE TRAPPED PCC POTS, 375Ø X 915 DEEP WITH 150Ø OUTLETS UNLESS NOTED OTHERWISE.

35. ALL LINEAR DRAINAGE CHANNELS TO HAVE TRAPPED OUTLETS, WITH 150Ø OUTLETS UNLESS NOTED OTHERWISE. ALLOWANCE SHOULD BE MADE FOR ACCESS/RODDING POINTS AT EACH END OF THE DRAINAGE CHANNEL RUN.

36. ALL WORKS ARE ASSUMED TO BE WITHIN PUBLIC HIGHWAY OR WITHIN LAND OWNERS LANDS & NO WORKS ARE REQUIRED ON THIRD PARTY LAND OWNERS PROPERTY.

37. ALL BELOW GROUND FOUL WATER DRAINAGE AND RWP'S TO BE 100Ø UNLESS NOTED OTHERWISE. ALL DRAINAGE CHANNEL & GULLY CONNECTIONS TO BE 150Ø (UNLESS NOTED OTHERWISE). ALL ITEMS TO BE RODDABLE AT LOCATIONS ABOVE GROUND LEVEL.

38. ALL SWRP's, RWP's AND DRAINAGE POP-UPS ARE SHOWN INDICATIVELY AND BASED ON THE LATEST ARCHITECTS LAYOUT DRAWING. ALL LOCATIONS SHALL BE CONFIRMED BY THE ARCHITECT AND/OR M&E ENGINEER.

39. PROPOSED COVER LEVELS ON THIS DRAWING ARE INDICATIVE ONLY. THE CONTRACTOR SHALL CONFIRM ALL LEVELS INDICATED ARE CORRECT AND REPORT ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

40. ALL POLYPROPYLENE INSPECTION CHAMBERS (PPIC'S) TO BE 450Ø & ALL PRECAST CONCRETE CHAMBERS ARE 1200Ø. (UNLESS NOTED OTHERWISE).

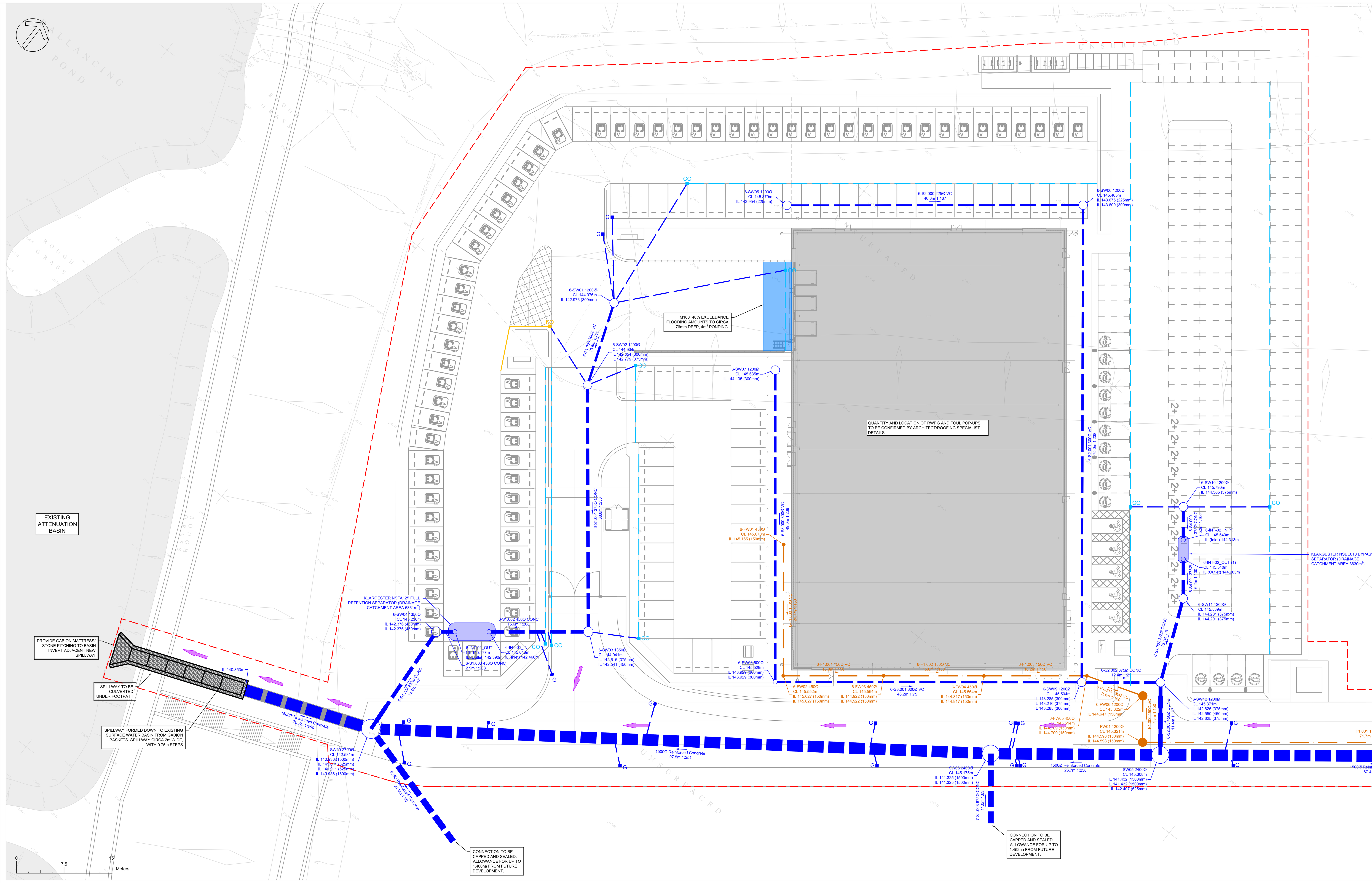
41. ALL WORKS WITHIN THE PUBLIC HIGHWAY TO BE REINSTATED TO HIGHWAY AUTHORITY REQUIREMENTS.

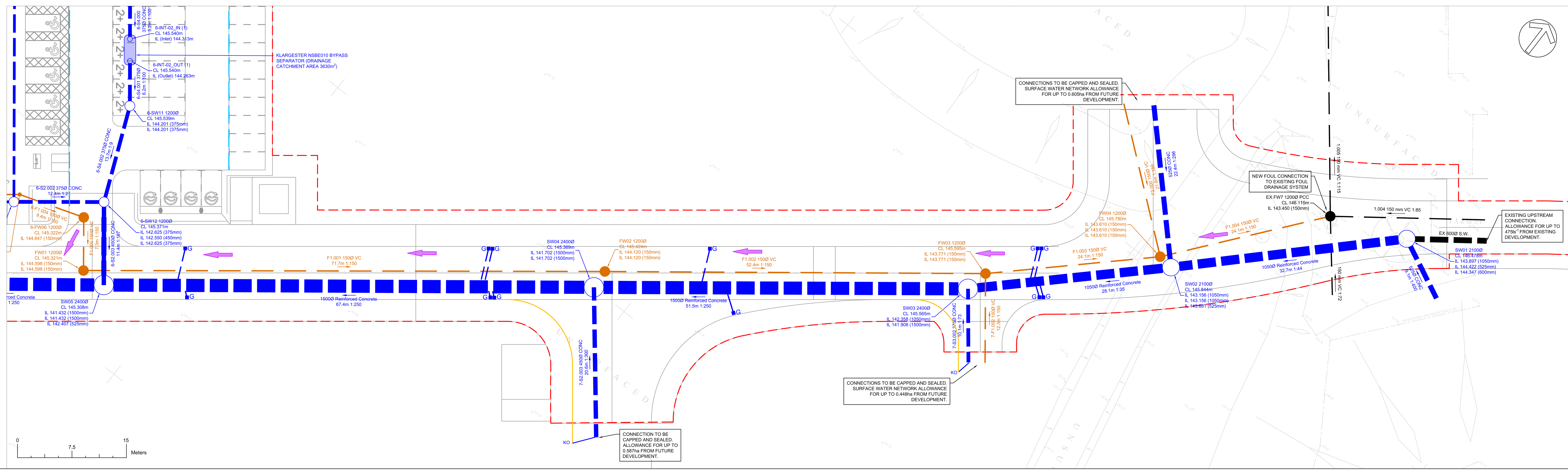
42. THE CONTRACTOR MUST MAKE PUBLIC SEWER CONNECTION APPLICATION TO RELEVANT WATER AUTHORITY PRIOR TO MAKING CONNECTION, WHEN/IF REQUIRED. THE CONTRACTOR SHALL ALSO ALLOW FOR ANY FEES REQUIRED IN CONNECTION WITH ROAD AND SEWER OPENING PERMITS.

43. ALL KERB DRAINAGE & DRAINAGE CHANNELS TO BE DESIGNED BY SPECIALIST SUB-CONTRACTOR.

44. ALL MANHOLES LESS THAN 1.5m DEEP ARE CONSIDERED AS NONE MAN ENTRY & SHALL BE MAINTAINED FROM GROUND LEVEL.

45. NO DEEP ROOTING TREES / VEGETATION SHOULD BE PLANTED WITHIN 5m OF ANY DRAINAGE WORKS.





THIS DRAWING SHOULD NOT BE SCALED. DIMENSIONS TO BE VERIFIED ON SITE. ANY DISCREPANCIES SHOULD BE REFERRED TO THE ENGINEER PRIOR TO WORK COMMENCING.

NOTES

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HJCE, ARCHITECTS AND M&E ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DRAWING NOT TO BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.
3. EXISTING GROUND LEVELS BASED ON A TOPOGRAPHICAL SURVEY BY ELLAM SURVEYS SURVEYS LTD REF 9141_2D/1 - SEPT 2025.
4. PLOT BOUNDARIES, BUILDING AND EXTERNAL WORKS FOOTPRINTS SHOWN ON THIS DRAWING ARE INDICATIVE ONLY, BASED ON THE LATEST MASTERPLAN DRAWING.
5. ALL DRAINAGE CHANNELS SHALL BE PROVIDED WITH A RODDABLE ACCESS COVER AT THE UPSTREAM END AND A OUTFALL UNIT WITH SILT COLLECTION. LOAD CLASS TO BE F900 TO SERVICE YARD AND C250 TO CAR PARK. CHANNELS INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. CHANNELS TO CAR PARK TO BE BIRCO LINEAR DRAINAGE SYSTEM BY MARSHALLS OR GATIC LINEAR DRAINAGE SYSTEM. DRAINAGE TO SERVICE YARD TO BE GATIC HEAVY DUTY LINEAR DRAINAGE SYSTEM.
6. FULL RETENTION/BYPASS SEPERATORS TO BE PROVIDED WITH OIL LEVELS MONITORS AND VISUAL ALARMS.
7. ALL INTERNAL MANHOLES TO HAVE DOUBLE SEALED/RECESSED & LOCKABLE TYPE COVERS.
8. ON COMPLETION OF THE WORKS INCLUDING ANY DEFECTS RECTIFICATION, ALL DRAINS ARE TO BE SURVEYED USING A CCTV SYSTEM.

DRAINAGE KEY:

(line)	PROPOSED SURFACE WATER DRAIN
SW	PROPOSED S.W. MANHOLE/PPIC
RE	PROPOSED RODDING EYE
(line)	PROPOSED DRAINAGE CHANNEL
G	PROPOSED ROAD GULLY
RWP	PROPOSED RAINWATER PIPE
SRWP	PROPOSED SIPHONIC RAINWATER PIPE
KO	PROPOSED KERB DRAIN OUTLET
CO	PROPOSED CHANNEL OUTLET CHAMBER
(line)	PROPOSED FOUL WATER DRAIN
FW	PROPOSED FOUL WATER MANHOLE/PPIC
BD	PROPOSED BACKDROP CONNECTION
(line)	EXISTING SURFACE WATER SEWER
(line)	EXISTING FOUL WATER SEWER
(line)	PROPOSED KERB DRAIN
(line)	SITE BOUNDARY
(arrow)	FLOOD ROUTING IN AN EXCEEDANCE EVENT (**GREATER THAN** 1:100 + 40% CC)
(hatch)	PERMEABLE PAVING

REV	DATE	DESCRIPTION	DRN	CHK
P02	14.11.25	DRAINAGE TO CAR PARK UPDATED	AF	DM
P01	08.10.25	INITIAL ISSUE	DM	AF

REVISIONS

PROJECT
UNIT 7 - GATEWAY 36, ROCKINGHAM, BARNSLEY

TITLE
DRAINAGE LAYOUT

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STATUS
PRELIMINARY

DRAWN BY	DM	CHECKED BY	AF	APPROVED BY	AF
HJCE REF.	7241	DATE	08.10.25	SCALES @ A0	1:250

PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER: 7241-HJCE-00-XX-DR-C-3000
REVISION: P02

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Appendix B

Drainage Asset Maintenance Schedule

Surface Foul

	Maintenance Activity	Drainage Component	Required Action	Typical Frequency
	Visual Inspection	Gully, Sump unit, Catch pit / silt trap, Channel drain outlet chamber	Inspect for sediment and debris	Monthly for first year and twice yearly thereafter, after severe storm
		Pipework		Twice yearly
		Oil interceptor		Twice yearly or after severe storm as a minimum, refer to manufacturer guidance. Forecourt interceptor requires emptying after fuel spillage
	Litter and Debris Removal	Manhole All sump units (gullies, channel drains and catch pits)	Remove all litter and debris	Twice yearly (spring, start of winter), or after severe storm
	Jet Wash	Pipework	High pressure jet-wash any pipe work which has silt accumulation. Care must be taken that any silts within the pipework are not unnecessarily flushed into the attenuation structures (use of bungs and jet-vac of chamber prior to removal of bungs)	Twice yearly, or as required
	Sediment Management and Removal	ALL SUDS	Sediment accumulation should be monitored as part of the inspection regime, rate of sediment accumulation noted	Appropriate frequencies determined upon inspection

	Inspection	Pipework Manhole	Check if functioning correctly	Once site is fully operational: twice yearly for 1st year, annually after
	Sediment Removal	Bin Yard Gullies	Inspect for build up of sediment and remove as required.	Quarterly for 1st year, twice yearly after. Refer to manufacturer guidance

Additional notes:

- Any defects (broken/misaligned pipes, root infestation, damage to soakaways, missing parts, etc.) that are identified during inspections/maintenance should be reported back to the property/site owner so that remedial actions can be undertaken promptly to repair these defects.
- SUDs maintenance based on CIRIA 2015 chapter 32 where further information can also be found.
- Refer to manufacturer guidance for maintenance schedules of all proprietary treatment systems.