



**LIDL GREAT BRITAIN LTD
LONDON ROAD
EAST GRINSTEAD**

**SURFACE WATER DRAINAGE
VERIFICATION REPORT
DISCHARGE OF CONDITION 18**

NOVEMBER 2025



the journey is the reward

**LIDL GREAT BRITAIN LTD
LONDON ROAD
EAST GRINSTEAD**

**SURFACE WATER DRAINAGE
VERIFICATION REPORT
DISCHARGE OF CONDITION 18**

NOVEMBER 2025

Report Reference:	LIDLEASTGRINSTEAD.23
Project Code:	LIDLEASTGRINSTEAD.23
Prepared by:	SF
Approved by:	PA
Issue Date:	06.11.2025
Status:	1st Planning Issue

Lidl Great Britain Ltd
London Road
East Grinstead
Surface Water Drainage Verification Report
Discharge of Condition 18

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1 Introduction

1.1 Mayer Brown Ltd (MBL) have been commissioned by Lidl GB to generate this surface water drainage verification report to inform the **discharge of Condition 18** associated with the approved store at their London Road site in East Grinstead, under Mid Sussex District Council planning reference **DM/24/0981**.

1.2 This report includes a comparison between the planning approved drainage strategy and the as-built drainage. The purpose is to confirm the scheme has been constructed in accordance with the approved drawings and is fit for purpose, which will enable the planning condition 18 to be discharged.

1.3 Condition 18 states:

No building is not to be occupied, or brought into use, until a Verification Report pertaining to the surface water drainage system, carried out by a competent Engineer, has been submitted to the Local Planning Authority. The Verification Report shall demonstrate the suitable operation of the drainage system such that flood risk is appropriately managed, as approved by the Lead Local Flood Authority. The Report shall contain information and evidence (including photographs) of earthworks; details and locations of inlets, outlets, and control structures; extent of planting; details of materials utilised in construction including subsoil, topsoil, aggregate and membrane liners; full as built drawings; and topographical survey of 'as constructed' features. The Verification Report should also include an indication of the adopting or maintaining authority or organisation.

Reason: *To ensure that the constructed surface water drainage system complies with the approved drainage design and is maintainable in accordance with DP41 of the Mid Sussex District Plan and national policy contained within the National Planning Policy Framework.*

2 Planning Background & Construction Stage

Planning Background

- 2.1 The scheme was granted planning permission on 11th October 2024 for the Demolition of the existing building and erection of a food store with customer car park and associated landscaping and access works under Mid Sussex District Council (MSDC) planning reference **DM/24/0981**.
- 2.2 The decision notice is contained in Appendix A and the approved site plan is contained in Appendix C. MBL produced the original drainage strategy that accompanied the planning application.
- 2.3 MBL also produced the more detailed surface and foul water information used to **discharge condition 6**, under MSDC planning reference **DM/24/2703**. The DOC6 decision notice is contained in Appendix B and approved DOC6 drainage general arrangement plan can be found in Appendix D. The full submission is not included in this report but can be viewed on the MSDC planning portal.

Construction Stage

- 2.4 The new store and associated surface water drainage network has been constructed by Adston Construction (Adston) who were commissioned by Lidl GB under a design and built contract.
- 2.5 Adston appointed SDS Design Engineers (SDS) as their Consulting Engineers to progress the planning approved drawings into a civil, drainage and structural package of information, so the new store could be constructed.
- 2.6 Included in their design was the progression of the planning approved surface water strategy. The as-built drainage layout is contained in Appendix E.

3 Approved Surface Water Strategy

- 3.1 This section provides an overview of the planning approved surface water strategy contained in Appendix D.
- 3.2 The full submission can be viewed on the MSDC planning portal under planning reference MC/24/2703.

Outfall Location

- 3.3 The surface water run-off discharges into the 225mm diameter Southern Water sewer located in London Road. It discharges via an existing shallow manhole and 100mm diameter pipe located just inside the site boundary.

Discharge Rate and Calculations

- 3.4 The approved strategy is to discharge at a Qbar greenfield rate of 4.3 litres/second using a hydro-brake flow control and surface water pump positioned immediately upstream of the outfall, with all surplus water backing up into an attenuation tank.
- 3.5 The approved surface water network has been modelled in Micro Drainage to ensure no flooding occurs for up to and including the critical 1 in 100 year return period, plus a 40% increase in rainfall intensity to account for climate change. The calculations include a full network model includes accurately modelled pipes, manholes and impermeable areas.

Impermeable Perimeter Fence

- 3.6 The car park finished levels results in two low points adjacent the boundary of neighbouring residential properties. It was agreed with the LLFA that up to 250mm of flooding surface flooding could occur in these locations in the event of extreme rainfall or system failure. It was specified as a "impermeable concrete gravel board" on the planning approved drainage plan in Appendix D.

Approved Levels

- 3.7 While undertaking the planning approved drainage design MBL worked in conjunction with SDS who had produced a levels design. Therefore, the approved drainage design has been undertaken using the SDS levels design that will be constructed.

Attenuation Volume

- 3.8 The volume of attenuation required for the critical 1 in 100 yr + 40% CC storm has been calculated as 658m³, which will be stored in an on-site attenuation tank located in the car park. The attenuation tank size is an irregular shape of 462m² (plan area) x 1.5m

deep, with a usable volume of 658m³. (The irregular shape is as a result of below ground services that need to be avoided)

Surface Water Layout

- 3.9 Water from the roof of the building will be collected via a traditional piped network and flow into the proposed attenuation tank by gravity.
- 3.10 The car park will drain via a gully system and piped network through a bypass separator and attenuation tank.
- 3.11 A flow control chamber and surface water pump will restrict the flow rate to 4.3 litres/second, with excess water backing up into the attenuation tank.
- 3.12 The drainage design ensures all flows are safely contained within the site boundary for up to and including the 1in100year event +40% climate change.
- 3.13 The attenuation tank will be a proprietary crate system wrapped in an impermeable membrane chosen by the Main Contractor based on availability and price. (A suggested typical product at the planning stage was the Geolight system manufactured and supplied by SDS Limited)

Surface Water Treatment

- 3.14 A Class 1 bypass separator will be included in the surface water drainage system, which will remove any oil, silts and sediments present in the water prior to discharging into the attenuation tank. A SPEL Stormceptor “ESR” was specified where the “ESR” stands for Enhanced Silt Removal that satisfies “medium” standard pollution mitigation indices.
- 3.15 The method of collection and conveyance in the upstream drainage network will use gullies and catchpits to capture silt prior to reaching the separator.

Adoption and Maintenance

- 3.16 The proposed store and associated external works and drainage will be owned and operated by Lidl UK. This should enable tight control over the operation and maintenance of the drainage/SuDS systems on site.
- 3.17 A site-specific Maintenance and Management Plan for the drainage network was produced specifically for the new store to satisfy the pre-commencement planning conditions. The plan details the required maintenance activities for the sustainable drainage network to ensure its effectiveness over the lifetime of the development.

As-Built Surface Water Drainage

- 4.1 The new store and associated surface water drainage network has been constructed by Adston Construction (Adston) who were commissioned by Lidl GB under a design and built contract.
- 4.2 Adston appointed SDS Design Engineers (SDS) as their consulting engineers to progress the planning approved drawings into a civil, drainage and structural package of information, so the new store could be constructed.
- 4.3 Included in their design was the progression of the planning approved surface water strategy. The as-built drainage plan is contained in Appendix E.
- 4.4 This section provides a review of the as-built surface water drainage network and how it compares to the planning approved drainage system described in the previous section of this report
- 4.5 The planning approved drainage network will be referred to as the “**approved scheme**”.

Outfall Location & S106 Approval

- 4.6 The as built matches the approved scheme that shows surface water run-off discharging into the 225mm diameter Southern Water sewer located in London Road. It discharges via an existing shallow manhole and 100mm diameter pipe located just inside the site boundary.
- 4.7 S106 Approval was obtained from Southern Water to make the indirect surface water connection from the new store. The S106 technical approval letter is contained in Appendix G.

Discharge Rate and Calculations

- 4.8 The as built matches the approved scheme and discharges at a greenfield rate of 4.3 litres/second using a hydro-brake flow control and surface water pump positioned immediately upstream of the outfall. The Adston supplied hydro-brake information is contained in Appendix J and the pump information is contained in Appendix K.

Impermeable Perimeter Fence

- 4.9 The “impermeable concrete gravel board” identified on the approved scheme was installed by Adston at the two low points in the car park. Refer to the installation and completion photos in Appendix L.

Approved Levels

- 4.10 The as-built levels in Appendix F continue to match the approved scheme.

Attenuation Volume & System

- 4.11 The as built attenuation tank matches the approved scheme and provides an attenuation volume of 658m³. The recommendation of using the Geolight system on the approved scheme has been implemented by Adston. The project specific “Geolight” drawing and installation photos are contained in Appendix I.

Surface Water Layout

- 4.12 The as-built network matches the approved scheme and follows the same design principles, which are set out below:
- Water from the roof of the building will be collected via a traditional piped network and flow into the proposed attenuation tank by gravity.
 - The car park will drain via a gully system and piped network through a bypass separator and attenuation tank.
 - The pipe diameter and gradients match those of the approved scheme
 - A flow control chamber and surface water pump will restrict the flow rate to 4.3 litres/second, with excess water backing up into the attenuation tank.
 - The as-built attenuation tank is the SDS Geolight proprietary crate system manufactured and supplied by SDS Limited, as suggested in the approved scheme

Surface Water Treatment

- 4.13 The as built matches the approved scheme by specifying a SPEL ESR Class 1 bypass separator which will remove any oil, silts and sediments present in the water prior to discharging into the attenuation tank. The specific Adston supplied information is contained in Appendix H.

Post Completion Handover & CCTV Survey

- 4.14 The drainage system has been cleaned and surveyed by Adston prior to handing over to Lidl. A CCTV survey of the cleaned network can be made available.

Adoption and Maintenance

- 4.15 The as-built surface sewer water system will remain in private ownership. The site specific Maintenance and Management plan has been updated to include the as-built information and is contained in Appendix M.

5 Conclusion

- 5.1 Having completed a review of the as-built surface water drainage it is evident the design principles are the same as those agreed at planning to discharge drainage condition 6.
- 5.2 The as-built system has been constructed to ensure water will be contained within the surface water drainage network for all events up to and including the critical 1 in 100 year event, plus 40% for climate change.
- 5.3 A surface water drainage maintenance and management plan has been updated to include the as-built drainage, plan, information and associated details.
- 5.4 Having completed this review it is MBL's recommendation that planning condition 18 can be discharged because the as-built drainage design follows the design principles agreed at planning. Therefore, the as-built surface water drainage system is fit for purpose and will be safe for the lifetime of the store without increasing the risk of flooding to itself or downstream/surrounding properties.

**APPENDIX A: Decision Notice - Overall Development (Cond 6 & Cond18
Extract)**

Mr Adam Forsdick
Mr Chris Tookey
CarneySweeney
Brunel House
2 Fitzalan Road
Cardiff
CF24 0EB

**TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE)
(ENGLAND) ORDER 2015**

PERMISSION

REFERENCE: DM/24/0981

DESCRIPTION: DEMOLITION OF EXISTING DIY RETAIL UNIT AND CONSTRUCTION OF CLASS E(A) RETAIL FOODSTORE WITH ASSOCIATED PARKING, LANDSCAPING AND ACCESS WORKS. ADDITIONAL DRAWING RECEIVED ON 01.05.2024 TO SHOW HEIGHT COMPARISON BETWEEN EXISTING AND PROPOSED SOUTH WEST ELEVATIONS. AMENDED DRAWINGS IN RELATION TO HIGHWAYS AND LANDSCAPING/BOUNDARY TREATMENT RECEIVED ON 14.06.2024. AMENDED DRAWINGS RECEIVED ON 28.06.2024 FOR STAFF CYCLE PARKING.

LOCATION: HOMEBASE, 219 - 225 LONDON ROAD, EAST GRINSTEAD, WEST SUSSEX

DECISION DATE: 11 OCT 2024

**CASE OFFICER: RACHEL RICHARDSON -
RACHEL.RICHARDSON@MIDSUSSEX.GOV.UK**

The Council hereby notify you that they **GRANT** planning permission for the above development to be carried out in accordance with the submitted application and plans and subject to compliance with the following conditions:-

Conditions

1. The development hereby permitted shall be begun before the expiration of 3 years from the date of this permission.

Authority), the following components of a scheme to deal with the risks associated with contamination of the site, including the identification and removal of asbestos containing materials, shall each be submitted to and approved, in writing, by the local planning authority:

a) A preliminary risk assessment which has identified:

- o all previous uses
- o potential contaminants associated with those uses
- o a conceptual model of the site indicating sources, pathways and receptors
- o potentially unacceptable risks arising from contamination at the site

and unless otherwise agreed in writing by the Local Planning Authority,

b) A site investigation scheme, based on (a) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site;

and, unless otherwise agreed in writing by the Local Planning Authority,

c) Based on the site investigation results and the detailed risk assessment (b) an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

Reason: To ensure that the risks from land contamination to the future users of the land are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with DP41 of the Mid Sussex District Plan 2014-2031 and national policy contained within the National Planning Policy Framework.

6. The development hereby permitted shall not commence unless and until details of the proposed foul and surface water drainage and means of disposal have been submitted to and approved in writing by the local planning authority. No building shall be occupied until all the approved drainage works have been carried out in accordance with the approved details. The details shall include a timetable for its implementation and a management and maintenance plan for the lifetime of the development which shall include arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime. Maintenance and management during the lifetime of the development should be in accordance with the approved details.

Reason: To ensure that the proposal is satisfactorily drained and to accord with the NPPF requirements and DP41 of the Mid Sussex District Plan (2014 - 2031).

7. All mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the Biodiversity Net Gain Statement & Assessment (Biodiverse Consulting, December 2023) and Preliminary Ecological Appraisal (Biodiverse Consulting, December 2023), as already submitted with the planning application and agreed in principle with the local planning authority prior to determination.

No site clearance works should be undertaken during the nesting bird season (March to August inclusive) unless the site has first been checked by a suitably qualified ecologist to confirm, no later than 48 hours before works commences, that there are no active nests.

Reason: To conserve and enhance protected and Priority species and allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 as amended and s40 of the NERC Act 2006

Reason: To ensure that the risks from land contamination to the future users of the land are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with DP41 of the Mid Sussex District Plan 2014-2031 and National Policy contained within the National Planning Policy Framework.

18. No building is not to be occupied, or brought into use, until a Verification Report pertaining to the surface water drainage system, carried out by a competent Engineer, has been submitted to the Local Planning Authority. The Verification Report shall demonstrate the suitable operation of the drainage system such that flood risk is appropriately managed, as approved by the Lead Local Flood Authority. The Report shall contain information and evidence (including photographs) of earthworks; details and locations of inlets, outlets, and control structures; extent of planting; details of materials utilised in construction including subsoil, topsoil, aggregate and membrane liners; full as built drawings; and topographical survey of 'as constructed' features. The Verification Report should also include an indication of the adopting or maintaining authority or organisation.

Reason: To ensure that the constructed surface water drainage system complies with the approved drainage design and is maintainable in accordance with DP41 of the Mid Sussex District Plan and national policy contained within the National Planning Policy Framework.

19. Prior to the installation of any external lighting to this site details of light intensity, spread and any shielding and times of use together with a report to demonstrate its effect on nearby residential properties shall be submitted to and approved in writing by the Local Planning Authority. It is recommended that the information be provided in a format that demonstrates compliance with the ILP Guidance Notes for the Reduction of Obtrusive Light. Relevant information is available from the following site:
<https://www.theilp.org.uk/documents/obtrusive-light>

Reason: To protect the amenity of neighbouring residents from light spill or reflection and to accord with policy DP29 of the Mid Sussex District Plan 2014 - 2031.

20. Unless otherwise agreed in writing, noise associated with fixed plant and machinery incorporated within the development shall be controlled such that the Rating Level, measured or calculated at 1 metre from the façade of the nearest existing noise sensitive premises, shall not exceed 37dB LA90,(T) daytime, and 27dB LA90, (T) nighttime. The Rating Level is to be determined as per the guidance provided in BS 4142:2014. Details of fixed plant or machinery and any mitigation measures required to achieve this standard shall be submitted to and approved in writing by the Local Planning Authority. The approved measures shall be implemented before the commercial operation concerned begins operating on site, and thereafter be maintained in accordance with the approved details. Details of post installation testing shall be submitted to the LPA upon request.

Reason: To safeguard the amenities of the occupiers of neighbouring properties and to accord with policies DP26 and DP29 of the Mid Sussex District Plan 2014 - 2031 and policy EG3 of the East Grinstead Neighbourhood Plan.

21. No commercial goods or commercial waste shall be loaded or unloaded onto or from a delivery or collection vehicle and no such vehicles shall arrive or depart within the application site except between the hours of 07:00 - 21:00 hours Monday to Saturday and between the hours of 08:30 - 18:00 hours on Sundays and bank holidays.

APPENDIX B: Condition 6 - Drainage Decision Notice

Tamdeep Sandhu
Max Lewis
Carney Sweeney
Brunel House
2 Fitzalan Road
Caerdydd
CF24 0EB

**TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE)
(ENGLAND) ORDER 2015**

PERMISSION

REFERENCE: DM/24/2703

DESCRIPTION: DISCHARGE OF PLANNING CONDITION NO 6 RELATING TO PLANNING APPLICATION DM/24/0981.

LOCATION: HOMEBASE, 219 - 225 LONDON ROAD, EAST GRINSTEAD, WEST SUSSEX

DECISION DATE: 19 MAY 2025

CASE OFFICER: RACHEL RICHARDSON -
RACHEL.RICHARDSON@MIDSUSSEX.GOV.UK

I refer to your application for approval of details reserved by condition received 5th November 2024.

The Authority has considered your application, and I can confirm the following:-

Conditions:

6. The additional information provided on 12th May 2025 is considered to be acceptable and this condition is hereby discharged.



Ann Biggs
Assistant Director Planning and Sustainable Economy

PEDCOZ

From: drainage <drainage@midsussex.gov.uk>
Sent: 16 May 2025 13:01:08 UTC+01:00
To: "Rachel Richardson" <Rachel.Richardson@midsussex.gov.uk>
Cc: "Steve Ashdown" <Steve.Ashdown@midsussex.gov.uk>; "David Thompson" <David.Thompson@midsussex.gov.uk>; "drainage" <drainage@midsussex.gov.uk>
Subject: 2025.05.16 DM/24/2703/DCOND- Condition 6 of Planning Permission DM/24/0981. 219-225 London Road, EG.

Dear Rachel,

Please find below our updated comments for DM/24/2703.

The Flood Risk and Drainage team have reviewed the additional information, and in this instance, sufficient information has been supplied for condition 6 and we therefore have no objection.

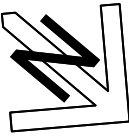
Best Wishes

Flood Risk and Drainage Team
Estate Services and Building Control
Mid Sussex District Council
drainage@midsussex.gov.uk

APPENDIX C: Planning Approved Site Plan



SCALE 1:250 @ A1



SCHEDULE	
LIDL	
Sales Floor	1373 m²
Ancillary	197 m²
Warehouse	399 m²
Internal walls	35 m²
GIA	2004 m²
Total Site Area Red (Approximate)	7686 m²
Standard Parking Spaces	87. spaces
Disabled Parking Spaces	06. spaces
P&T Parking Spaces	10. spaces
EVC Parking Spaces	02. spaces
Total Parking Spaces	105. spaces

28

LONDON ROAD

128.1m

Dismantled Railway

213 to 217

5

GREEN HEDGES AVENUE

13

21

25

35

43

FLAG POLE

MOE ROUTE >>>

TRACKING TO BE CONFIRMED BY OTHERS.

NO ENTRY

OVERFLOW / STAFF CAR PARK



DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO START OF WORKS AND MONO TO BE INFORMED OF DISCREPANCIES IMMEDIATELY. NO DIMENSIONS TO BE SCALED FROM THIS DRAWING. ALL MATERIALS AND WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST REVISION OF THE APPROPRIATE BRITISH STANDARDS OR EURO CODE. PLANNING APPROVAL, CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE. PARTY WALL ACT - NOTICES UNDER THE PARTY WALL ACT ARE TO BE SERVED BY THE PROPERTY OWNER OR APPOINTED THIRD PARTY BY PROPERTY OWNER. HEALTH AND SAFETY - CDM 2015 REGULATIONS APPLY TO ALL CONSTRUCTION WORKS TO BE CARRIED OUT AND APPLY TO DESIGNERS, CONTRACTORS AND THE CLIENT. AS SUCH ALL PARTIES HAVE DUTIES UNDER THESE REGULATIONS.

Notes



D	CYCLE RACKS AMENDED	27.06.24
C	SITE UPDATED TO SUIT PLANNERS COMMENTS	06.06.24
B	TREES ADDED IN LINE WITH LATEST LANDSCAPE PLAN	11.04.24
A	SITE UPDATED TO SUIT NEW FORMAT LAYOUT	01.12.23
Rev	Description	Date Rev by Chk by

Revisions

Client
LIDL GREAT BRITAIN LTD.
CRETE HALL ROAD, GRAVESEND, KENT, DA11 9BU

Project
EAST GRINSTEAD

Drawing
PROPOSED SITE PLAN

Project Number
23016

Drawing Number
AD_104

Purpose of Issue
PLANNING

Scale @ A1

1:250

Drawn by

Checked by

LMC

Revision

Date

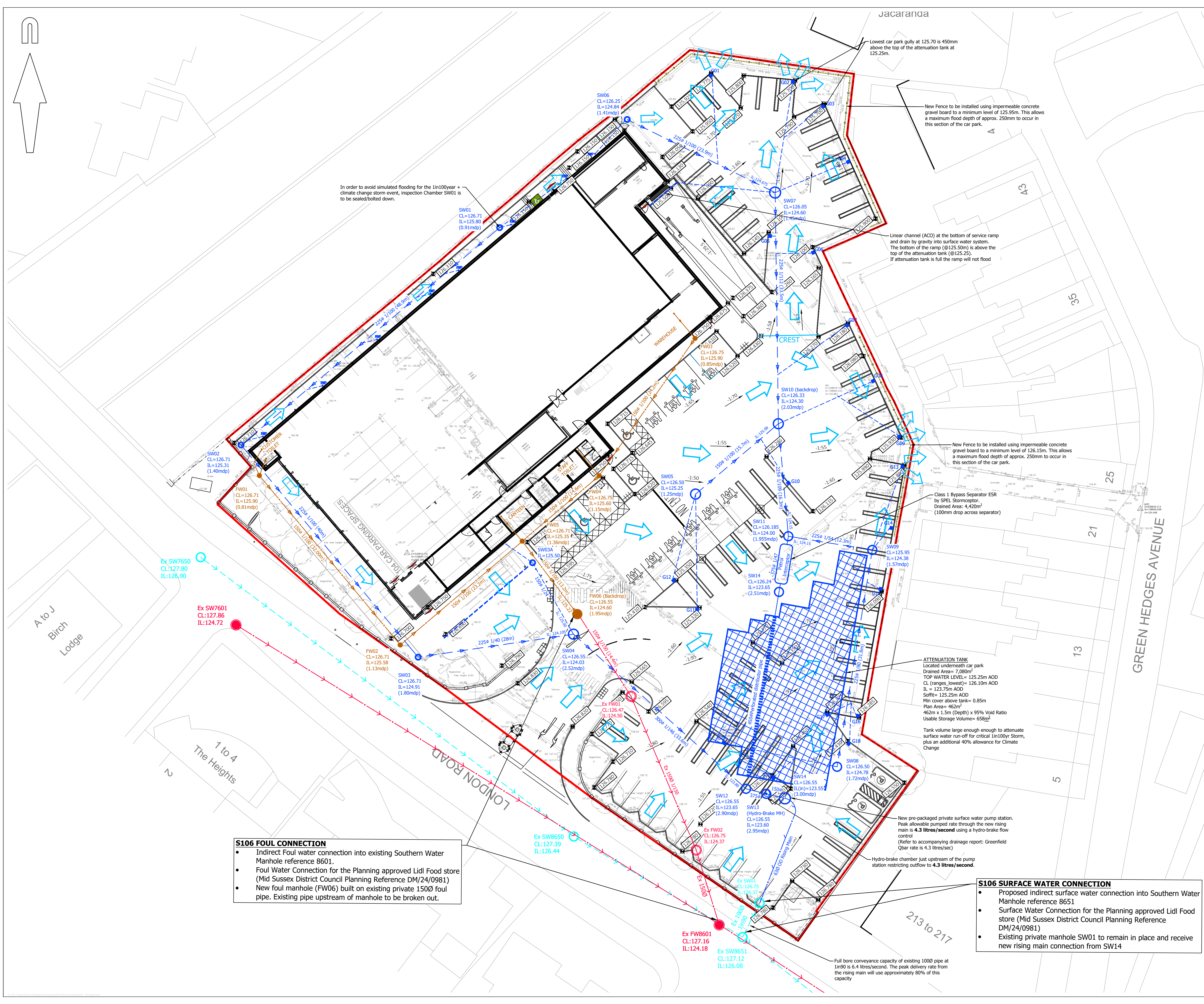
D OCT 2023



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Registered in England & Wales No: 14857583

DO NOT USE FOR CONSTRUCTION

APPENDIX D: DOC6 Approved Drainage Plan



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A1 ORIGINAL

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KEY (Drainage):

- PROPOSED SURFACE WATER SEWER AND MANHOLE
- PROPOSED SURFACE WATER SEWER AND INSPECTION CHAMBER
- PROPOSED PUMPING CHAMBER
- PROPOSED HYDROBRAKE
- PROPOSED SURFACE WATER LINEAR DRAINAGE CHANNEL
- PROPOSED RISING MAIN
- PROPOSED PERFORATED PIPE
- PROPOSED PETROL INTERCEPTOR
- PROPOSED ATTENUATION TANK
- PROPOSED RAIN WATER PIPE
- PROPOSED GULLY AND GULLY LEAD
- PROPOSED FOUL WATER SEWER AND MANHOLE
- PROPOSED FOUL WATER INSPECTION CHAMBER
- PROPOSED FOUL DRAINAGE RODDING EYE
- EXISTING FOUL SEWER AND MANHOLE
- EXISTING SURFACE WATER SEWER AND MANHOLE
- OVERLAND FLOW ARROWS
- RED LINE BOUNDARY

KEY (Other):

- PROPOSED FENCE
- PROPOSED GRAVEL BOARD

KEY (Design by others):

- PROPOSED SPOT LEVEL
- PROPOSED GRADIENT

NOTES:

- This drawing is not to be scaled.
- Levels design has been undertaken by SDS Design Engineers drawing reference "SDS 3021" revision CN3.
- This is a conceptual design and there may be slight deviations in the locations of pipes based on ground conditions on site.

FOR INFORMATION
NOT FOR CONSTRUCTION

P7	Note 3 added. (TC)	SF	20/05/2025
P6	Revised Architect layout received. Surface and Foul water drainage updated to suit SDS drainage layout. Specification of Petrol interceptor updated. (TC)	SF	09/05/2025
P5	Section 106 Notes added to drawing. (clouded) (TC)	SF	13/03/2025
P4	Tank Volume reduced and associated drainage updated accordingly. (TC)	SF	31/01/2025
P3	Drainage updated following revised Architect's layout received on 24/04/11. (TC)	SF	11/04/2024
P2	Discharge rate changed to greenfield, tank size increased. General updated to match revised levels design (SF)	SF	20/03/2024

rev.	amendment	checked	date
------	-----------	---------	------



Mayer Brown Limited
Lion House, Oriental Road, Woking, Surrey GU22 8AR
Telephone 01483 750 508 Fax 01483 750 437
wokingoffice@mayerbrown.co.uk www.mayerbrown.co.uk

client
LIDL GREAT BRITAIN LIMITED

project
EAST GRINSTEAD

scale
1:250

date
MAY 2025

title
SURFACE AND FOUL WATER DRAINAGE STRATEGY

drawn by
TC

checked by
SF

drawn number
LIDLEASTGRINSTEAD.23/20

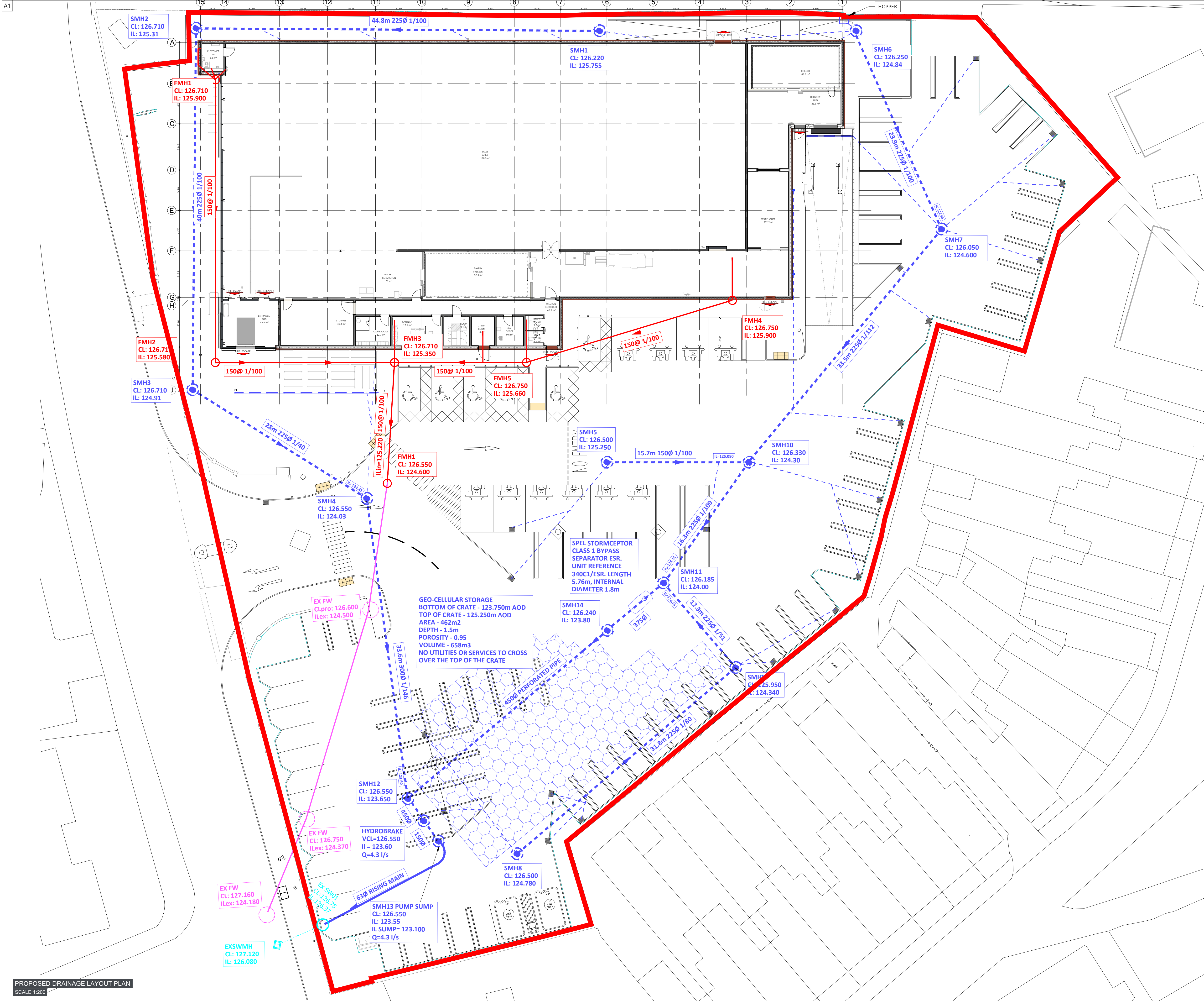
S106 FOUL CONNECTION

- Indirect Foul water connection into existing Southern Water Manhole reference 8601.
- Foul Water Connection for the Planning approved Lidl Food store (Mid Sussex District Council Planning Reference DM/24/0981)
- New foul manhole (FW06) built on existing private 1500 foul pipe. Existing pipe upstream of manhole to be broken out.

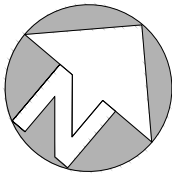
S106 SURFACE WATER CONNECTION

- Proposed indirect surface water connection into Southern Water Manhole reference 8651
- Surface Water Connection for the Planning approved Lidl Food store (Mid Sussex District Council Planning Reference DM/24/0981)
- Existing private manhole SW01 to remain in place and receive new rising main connection from SW14

APPENDIX E: As-Built Drainage Plan



DRAWING NOTES:
1. This Drawing is to be read in conjunction with the relevant Specifications & other Architectural & Engineering Drawings. Engineers to be informed immediately of any discrepancies before work proceeds.
2. Do Not Scale from this Drawing. Metric Figured Dimension only are to be used.
3. It is "The Contractors" responsibility to ensure that all works are carried out in accordance with the requirements of the current Building Regulations and all other statutory documents relevant to this project including the grant of planning permission, Fire Safety Certificate and Disability Access Certificate.
4. SDS (Structural Design Solutions) Ltd./ SDS-UK (Structural Design Solutions) Ltd. bear no liability for unilateral changes/modifications made during the course of construction based on the drawing prepared, without prior consultation and confirmation of acceptance of the revision by SDS (Structural Design Solutions) Ltd./ SDS-UK (Structural Design Solutions) Ltd.
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LEGEND -PROPOSED SITE DRAINAGE	
ELEMENT	SHOWN AS
PROPOSED FOUL DRAINAGE EXTERNAL 150mm Ø	
PROPOSED SW & FW PC RING MANHOLE	
PROPOSED SW DRAIN	
PROPOSED GULLY CONNECTION 150mm DIAMETER	
PROPOSED ACO CHANNEL	
PROPOSED SLOT CHANNEL	
ACCESS BOX FOR SLOT CHANNEL	
RAIN WATER PIPE	RWP
EXISTING MANHOLES (FOUL & SURFACE)	
EXISTING FOUL WATER	Ex.Foul
EXISTING SURFACE WATER	Ex.Storm
PROPOSED GULLY	G
ATTENUATION TANK	

AS BUILT
DRAWING

AB4	30.10.2025	PM	CLIENT COMMENTS
AB3	28.10.2025	PM	ISSUED FOR AS BUILT
AB2	23.10.2025	IMR	ISSUED FOR AS BUILT
AB1	21.10.2025	IMR	ISSUED FOR AS BUILT
REV.	DATE	BY	DESCRIPTION

CIVIL, STRUCTURAL & BUILDING ENGINEERS

DUBLIN • LONDON • CASTLEBAR • SPAIN

Head Office: 10/11 St. Nicholas Place, Castlebar, Co. Mayo F23 E283 Tel: +353 (0)91 8560404

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Email: info@structuraldesigns.ie Web: www.structuraldesigns.ie

SDS

design engineers

Client: ADSTON

Project Title: PROPOSED NEW LIDL FOODSTORE AT EAST GRINSTEAD LONDON ROAD, UK.

Drawing Title: SITE LAYOUT FOUL SEWER & SURFACE WATER LAYOUT

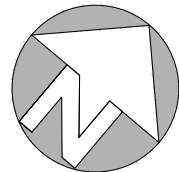
Scale: 1:200	Paper Size: A1	Status: AS BUILT
Drawn By: JAC	Checked: AM	Date: FEB 2025

Project No: 25047-SDS-00-SL-DR-C-3020-3021 Rev: AB4

APPENDIX F: As-Built Levels Plan



DRAWING NOTES:
1. This Drawing is to be read in conjunction with the relevant Specifications & other Architectural & Engineering Drawings. Engineers to be informed immediately of any discrepancies before work proceeds.
2. Do Not Scale from this Drawing. Metric Figure Dimension only are to be used.
3. It is "The Contractors" responsibility to ensure that all works are carried out in accordance with the requirements of the current Building Regulations and all other statutory documents relevant to this project including the grant of planning permission, Fire Safety Certificate and Disability Access Certificate.
4. SDS (Structural Design Solutions) Ltd./ SDS-UK (Structural Design Solutions) Ltd. bear no liability for unilateral changes/modifications made during the course of construction based on the drawing prepared, without prior consultation and confirmation of acceptance of the revision by SDS (Structural Design Solutions) Ltd./ SDS-UK (Structural Design Solutions) Ltd.
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LEGEND - PROPOSED SITE FINISHES	
ELEMENT	SHOWN AS
200X100X60mm PENCIL EDGED KEYBLOCK PAVING SETS TO FOOTPATHS AROUND FRONT OF STORE. STRETCHBOND PATTERN, ANTHRACITE IN COLOUR.	
STONE MASTIC ASPHALT (SMA) WITH 10mm CHIP ASP PER LIDL CORPORATE SPECIFICATION REFER TO DRAWING LD14-SP-04 FOR BUILD UP	
LANDSCAPED AREA	
SMA TO PATHS TO LIDL SPECIFICATION	
LOADING BAY RAMP & PLANT PLINTH -CONCRETE	
3 LAYER BITUMIN ACCESS ROAD.	
SITE BOUNDARY	
PROPOSED EXPOSED BRICKWORK	
PROPOSED RETAINING WALL	
PROPOSED LEVELS	
EXISTING LEVELS	
PROPOSED FALLS	

AS BUILT
DRAWING

AB4	28.10.2025	PM	CLIENT COMMENTS
AB3	28.10.2025	IMR	CLIENT COMMENTS
AB2	23.10.2025	IMR	ISSUED FOR AS BUILT
AB1	21.10.2025	IMR	ISSUED FOR AS BUILT
REV.	DATE	BY	DESCRIPTION

CIVIL, STRUCTURAL & BUILDING ENGINEERS
DUBLIN • LONDON • CASTLEBAR • SPAIN
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London: Congress House, 18 Elm Road, Northfleet, Kent, ME16 7EN Tel: +44 (0)20 8960720
Spain: Calle Virgen de Guadalupe, 44 Urbanización, 28400, San Tel: +3460255622
Email: info@structuraldesign.ie Web: www.structuraldesign.ie

SDS
design engineers

Client:
LIDL GB

Project Title:
**PROPOSED NEW LIDL FOODSTORE AT
EAST GRINSTEAD LONDON ROAD, UK.**

Drawing Title:
**SITE LAYOUT
PROPOSED LEVELS, GRADIENTS & SITE FINISHES**

Scale: 1:200	Paper Size: A1	Status: AS BUILT
Drawn By: JAC	Checked: AM	Date: FEB 2025

Project No: 25047-SDS-00-SL-DR-C-3020	Rev: AB4
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APPENDIX G: S106 Approval: Surface & Foul Connections



Miss Caroline Blackney
Mayer Brown Limited
Lion House
Oriental road
Woking
Surrey
GU22 8AR

Your ref
19730

Our ref
DSA000042116

Date
27 June 2025

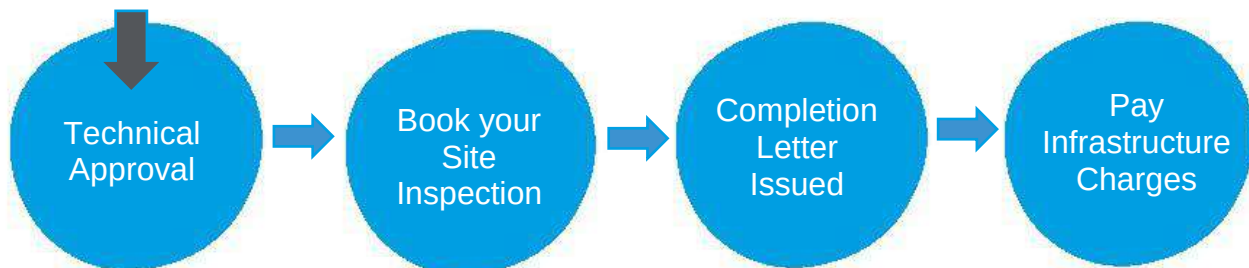
Contact
Tel: 07460 644246

Dear Miss Blackney,

Application to Connect to the Public Sewerage System - Section 106.

Location: Lidl Food Store, London Road, East Grinstead, West Sussex, RH19 1HA.

You are here



What happens next?

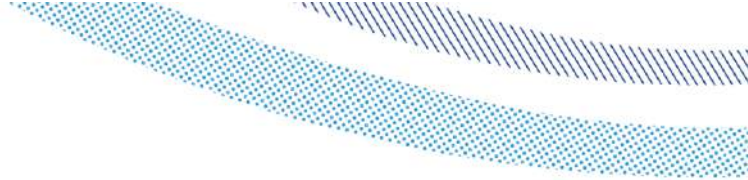
1. This is your technical approval.
2. Construction of the wastewater connection begins. Once completed, ensure you book a site inspection, so we know the connection is in line with your application.
3. Once the site inspection has confirmed the work is satisfactory, a completion letter will be issued. See the Essential Sewer Connection Information document to find out why this letter is important.
4. Your infrastructure charge invoice will be issued (if applicable*).

How to book your site Inspection

To progress, select the '**Accept**' option on the Get Connected customer dashboard. Or, if you have further questions, please select the 'Query' option. If you do not wish to progress with the application, then please select the 'Withdraw' option.

Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX
[southernwater.co.uk](https://www.southernwater.co.uk)

Southern Water Services Ltd, Registered Office: Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX Registered in England No. 2366670



Now you have received our approval, you will need to arrange with your contractor to carry out your works on site to connect into our sewer. Once the connection has been made it is a mandatory requirement for the point of connection to be inspected by one of our Assistant Adoption Managers.

To arrange this inspection, please select '**Ready for Inspection**' on your Get Connected customer dashboard. Once this has been selected, please contact **Malcolm Penny** our Assistant Adoption Manager for this area on **07922 860784** and request an inspection giving at least two full working days' notice.

Once we are happy that your connection to the public sewer complies with our requirements and have passed our inspection, we will send you a completion letter within 7 working days. It's important to ensure your connection is inspected to prevent any risk of disconnection at a later date.

Technical Approval

We are pleased to advise that your Section 106 application to connect **foul & surface Water** to the respected public **foul** and **surface water** sewers, as shown on your drawing **LIDLEASTGRINSTEAD.23/20**, Revision **P5**, dated **13/03/25**, is approved by Southern Water. Our approval means we are satisfied with your connection method. Inspection of the wastewater connection is required to complete your Section 106 application. Please note approval is valid for 2 years from date of issue.

Connections to existing/new Southern Water assets (i.e., manholes) and the arrangement of Southern Water assets (i.e., pipe junctions within manholes) should always be in accordance with the new Design and Construction Guidance manual ("the Code") and Southern Water's guidance documentation. [water.org.uk/sewerage-sector-guidance-approved-documents/](https://www.water.org.uk/sewerage-sector-guidance-approved-documents/)

This Section 106 approval does not confirm that public sewer network capacity is available at your location for the proposed development. The availability of capacity may be assessed through the Pre-Planning Enquiry process.

Please note that your connection should not proceed if:

- There are unapproved changes to your submitted plan or to the intended connection point. Any unapproved changes may lead to us disconnecting your connection under Section 109 of the Water Industry Act 1991.
- The relevant Planning Authority has set out conditions relating to the site's drainage and those conditions have not yet been discharged.
- You have not consulted our Health and Safety Advisory that can be viewed at the following link southernwater.co.uk/developing-building/health-and-safety
- You have not obtained the necessary Building Regulations Approvals or, if relevant, obtained a Highway Authority Road Opening License.
- Landowner consent has not been obtained where your connection is to be made through another Party's land.

Please contact the Developer Services Team via the Get Connected customer dashboard / on 0330 303 0119 should you require any further advice.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Dale Hughes', with a horizontal line drawn underneath it.

Dale Hughes
Technical Coordinator - Wastewater
Developer Services
07460 644246



Essential Sewer Connection Information

1. Site Inspection Checklist
2. What happens if the sewer connection is not inspected?
3. Adoption of a sewer
4. Infrastructure charges
5. Enforcement Policy

1. Site Inspection Checklist

We have prepared a site inspection checklist so that inspection of your sewer connection can be passed first time southernwater.co.uk/media/3028/ds-site-inspection-checklist.pdf

2. What happens if the sewer connection is not inspected and a completion letter is not issued?

Incidences where construction of the sewer connection has been completed but a site inspection has not been requested then the sewer connection application is not completed. You will need to request for a site inspection to finalise the application. If the sewer connection has not been built as per the designs submitted then we will ask you to rectify.

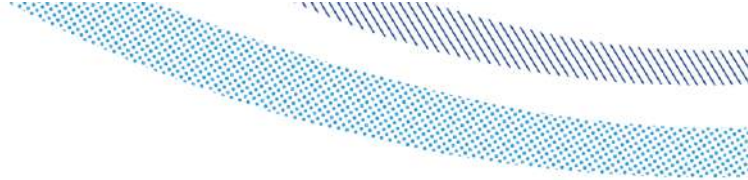
3. Adoption of a sewer

When a new development is planned, the developer can construct the sewers using approved materials and to a standard, which makes them suitable for adoption by Southern Water when construction is complete.

An adoption agreement can be entered into under Section 104 of the Water Industry Act 1991, prior to the sewers being built. This is the most desirable arrangement and if all new developments were covered by such adoption agreements, there would be few, if any, new private sewers on housing estates. However, there are many kilometres of existing private sewers that were built without an adoption agreement in place.

Section 102 of the Water Industry Act 1991 provides for the adoption of such sewers to be considered. It is important to draw a distinction between sewers, drains, and lateral drains:

- Sewers are pipes carrying sewage from more than one property
- Drains are pipes carrying sewage from only one property to the curtilage of the building or premises
- Lateral drains are those pipes which extend from the curtilage of a single building to the point of connection with an existing public or private sewer



To start the process of having the private sewer adopted, please visit our website and fill in the S102 Adoption Form.

4. Infrastructure charges

New developments increase the load on our networks and may require investment in upstream network reinforcement. This investment is funded through the Infrastructure Charge where the cost of network reinforcement is levied per property at the time of final connection.

* In addition to the sewer connection application charge, a charge for sewerage infrastructure is levied on each dwelling connecting onto the sewerage system. Non domestic properties will be individually assessed according to the number of appliances/fittings producing wastewater. Infrastructure charges are applicable even if the connection is made via a private sewer providing that the private sewer ultimately discharges into the public system.

There are three scenarios:

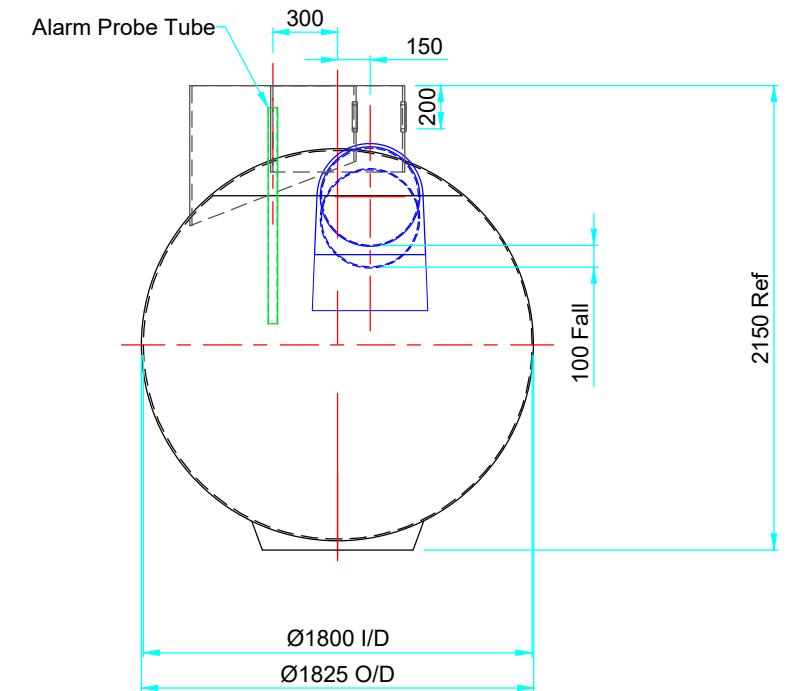
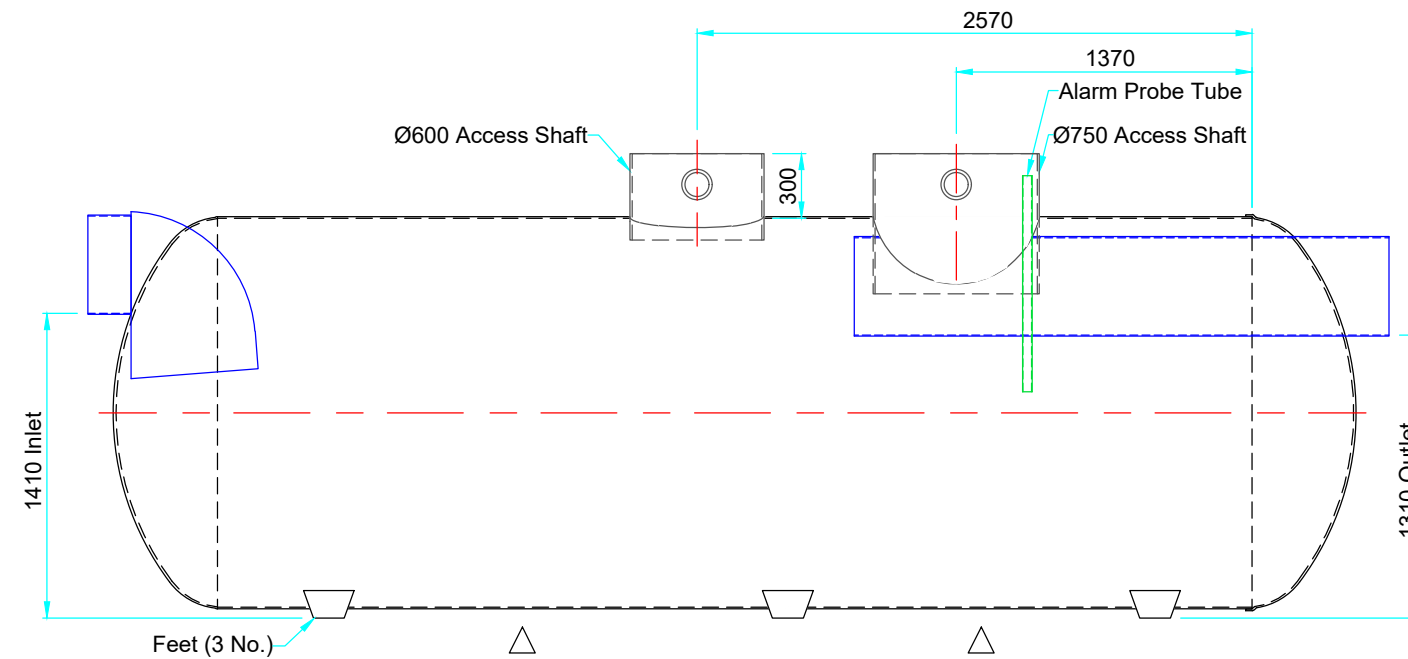
1. Water and wastewater connections are made within Southern Waters supply area. Infrastructure charges will be included in you water connection quote.
2. Water connections are made within another water company's supply zone and Wastewater is within the Southern Water supply area. Infrastructure charges will be invoiced following connection of the meters as advised by each water company.
3. You already have a water connection and require a wastewater connection in the Southern Water supply area. Infrastructure charges will be invoiced directly following completion of the wastewater connection.

For information and our current Connection Charges please refer to section 2 of the Southern Water Charging Arrangements [Connection charging arrangements \(southernwater.co.uk\)](https://www.southernwater.co.uk/connection-charging-arrangements)

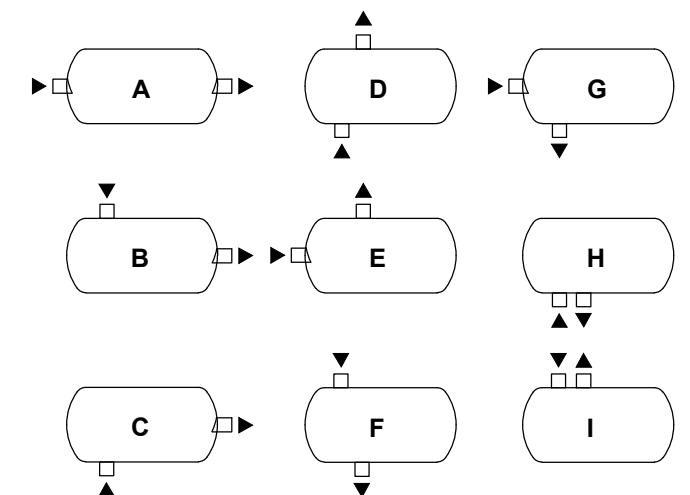
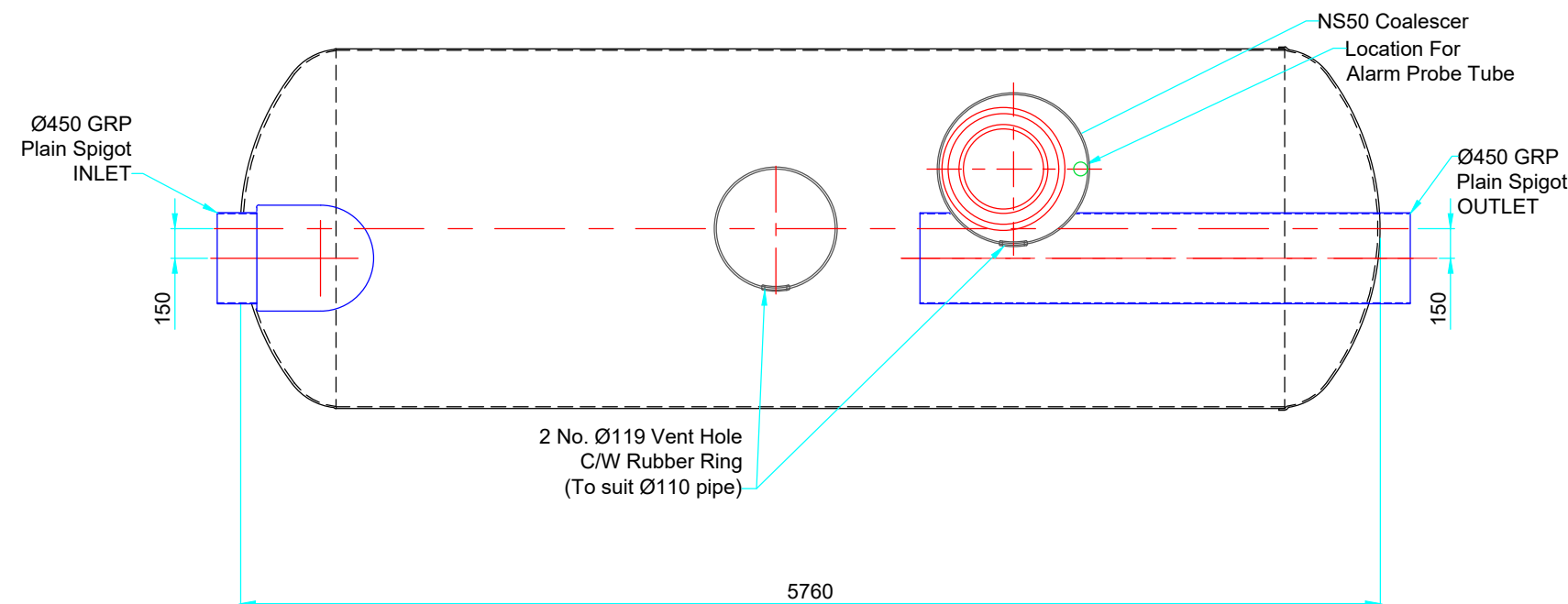
5. Enforcement Policy

It is an offence to not comply with the requirements of a S106 Water Industry Act 1991, which are detailed in the body of the letter. This can result in prosecution and a fine and/or removal of the illegal connection.

APPENDIX H: Bypass Separator



Orientation: A
 Inlet: Ø450 GRP Plain Spigot
 Outlet: Ø450 GRP Plain Spigot



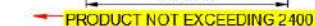
Nine Inlet/Outlet options are available to assist with design and installation

Access shafts subject to change depending on pipe orientation

Key to Symbols: Lifting Point Hold-down strap rib locations where mechanical anchoring is required Manufacturing Joint BoQ's reference no.

This drawing is confidential and must not be copied, reproduced or passed to a third party without written permission from SPEL PRODUCTS	DIMENSIONS ARE SUBJECT TO DIMENSIONAL TOLERANCES. If critical, check physically prior to installation	Water table & Burial Depth: The customer must check tank specification is compatible with ground water table level (in winter) and burial depth. If in doubt refer to SPEL Data Manual Section 7 or contact SPEL Products Sales or Technical Department	Title: SPEL 300 Series ESR Bypass Treatment System 340C1/ESR Orientation (A-C)		Capacity 13,650 Ltrs	 All sizes in mm If in doubt ASK!	 Lancaster Road, Shrewsbury Shropshire, SY1 3NQ, England Telephone: +44 (0)1743 445200 www.spelproducts.co.uk	Drawn	TANK SERIAL No.		
			Contract:		Tank Specification			Checked			
					Laminate Specification			Date			
								Scale 1:35 Sheet A3	Revision		

Models with in/out orientation A-C



Yes

No

Yes

No

Yes

No

ANY OPTION NOT CURRENTLY INCLUDED IN QUOTATION WILL INCUR ADDITIONAL COSTS.

Signature: _____

Date:

Water table & Burial Depth; -
The customer must check tank specification is compatible with ground water level (in winter) and burial depth. If in doubt refer to SPEL Data Manual – Installation section or contact SPEL Products Sales or Technical Department.

DIMENSIONS ARE SUBJECT TO
DIMENSIONAL TOLERANCES. If
critical, check physically prior to
installation.

**Model
340C1/ESR**

Contract:

**New Lidl, 219-225 London
Road, East Grinstead,
RH19 1HA
Customer Order No.
K00097213**

Internal
Ref.

26803/001

Date _____

05/06/25

Serial No.

33447



Lancaster Road, Shrewsbury,
Shropshire, SY1 3NQ, England
Telephone: +44 (0)1743 445200
www.spelproducts.co.uk

SPEL ESR Bypass

Treatment System

Overview

The SPEL ESR Bypass Treatment System treats flows up to and including the 1 in 1 year return events (27mm/h) in line with guidance from the CIRIA SuDS Manual (C753).

The SPEL ESR Bypass System is fully certified to meet the CIRIA SuDS Mitigation Index. It has been tested by WRc to the British Water Code of Practice for Manufactured Treatment Devices. This unit is also certified to the British and European Standard BS EN 858 by HR Wallingford.

SPEL's ESR range is a total treatment system removing Hydrocarbons, Total Suspended Solids (TSS) and Metals. It's a highly efficient, single unit, water quality SuDS component.

Product Range

200 Series

(1.2m internal diameter):
Treated Flow Rate: 10-15 l/s
Catchment Area: 1,333m² - 2,000m²

300 Series

(1.8m internal diameter):
Treated Flow Rate: 20-50 l/s
Catchment Area: 2,665m² - 6,665m²

400 Series

(2.6m internal diameter):
Treated Flow Rate: 60-160 l/s
Catchment Area: 8,000m² - 21,333m²

500 Series

(3.5m internal diameter):
Treated Flow Rate: 180-250 l/s
Catchment Area: 24,000m² - 33,333m²

600 Series

(4m internal diameter):
Treated Flow Rate: 300-700 l/s
Catchment Area: 40,000m² - 93,333m²

Applications

The ESR Bypass Treatment System will treat up to the 1 in 1 year storm event for surface water run-off to a Pollution Hazard Index of 'Medium'. This covers surfaces such as:

Roofs
Private and public car parks
Residential roads and drives
Low and medium use roads
Commercial yards and delivery areas

The ESR Bypass Treatment System can be used as part of a treatment train to achieve a 'High' Mitigation Index. (See other SPEL SuDS treatment systems).

Shell Design

Designed with reference to BS EN 13121. All tank shells carry the SPEL 25 Year Warranty and life expectancy in excess of 50 years.

Shell Specifications

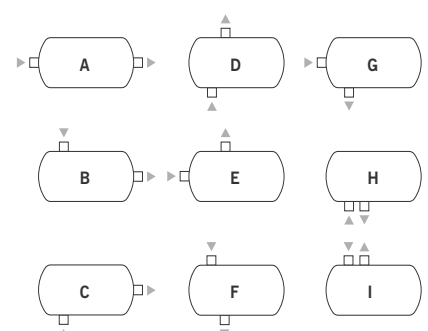
Different tank shell specifications are available dependent upon tank invert levels, ground conditions and ground water levels. (See Section 7)

Inlet/Outlet Connections

160/225/300mm diameter PVCU socket/spigot.

450, 600, 750, 900 and 1200mm diameter GRP spigot available, for connecting to site pipework via Flex-Seal/Band-Seal or similar flexible couplings.

The nine inlet/outlet options below are available to assist with design and installation.



SPEL ESR Bypass Treatment System

Stormwater Treatment System

The SPEL ESR Bypass Treatment System is fully certified to meet the CIRIA SuDS Mitigation Index. It has been tested by WRc to the British Water Code of Practice for Manufactured Treatment Devices. This unit is also certified to the British and European Standard BS EN 858.

SPEL's ESR range is a total treatment system removing Hydrocarbons, Total Suspended Solids (TSS) and Metals. It's a highly efficient, single unit, water quality SuDS component.

The coalescer inserts are easy to clean and simple to replace but rarely require replacing. The unique 'insert' format ensures that this unit can be extracted complete every time, compared to other systems where 'wrap around' style units allow the foam to slip off, requiring confined space entry to retrieve.

SPEL ESR Bypass Treatment System

Certified Mitigation Index

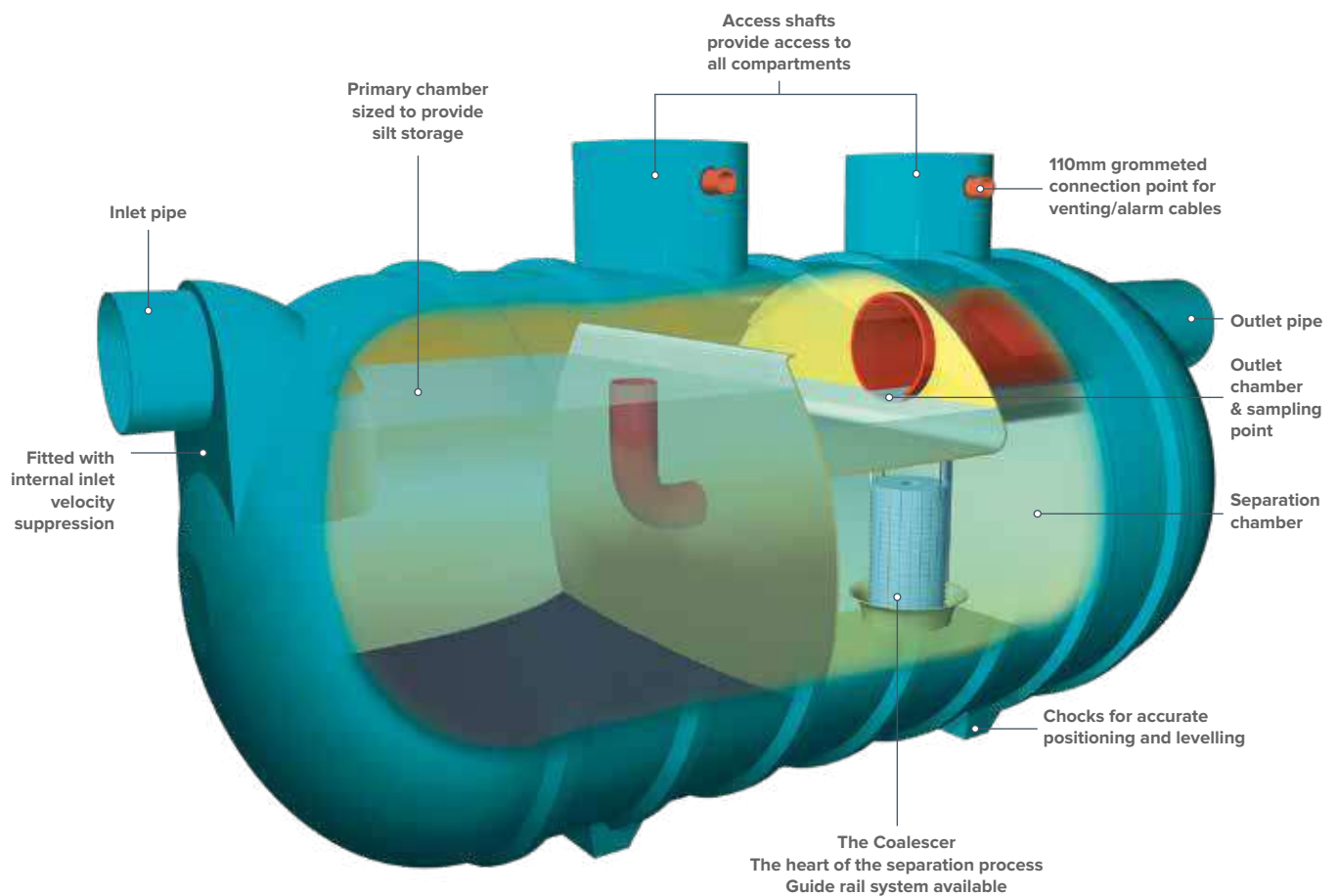
TSS	0.8
------------	------------

Metals	0.6
---------------	------------

Hydrocarbons	0.9*
---------------------	-------------

**H R Wallingford test results to BS EN 858*

The total treatment solution for SuDS



SPEL ESR Bypass Treatment System

Testing and Certification

Research and development is at the heart of what we do at SPEL, our passion as Zero Pollution Ambassadors is to be at the cutting edge of clean surface water technology.

Months of rigorous testing has resulted in the SPEL ESR Range.



Surface Water Treatment Device Performance Declaration

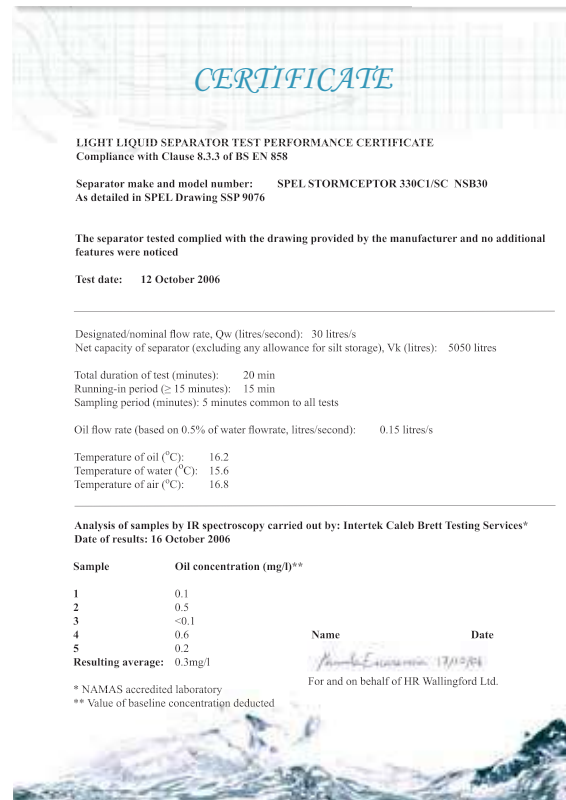
Testing carried out according to British Water Code of Practice

Product Details	Description
Manufacturer	SPEL Products
Treatment Device Name/Model	Stormceptor Type 210 C1/SC
General description	Class 1 By-pass Separator with Silt Capacity
Envisaged application	Treatment of Surface Water Run-off
Pollutant(s) captured	Suspended Solids

Test	Value	Unit
Treatment device capacity	3200	litres
Sediment Storage capacity	1000	litres
Treatment Flow rate	10	l/s
Connected Area	1,333	m ²
Pollution retention flow rate	10	l/s

Parameter	Value	Unit
Maximum capacity flow rate	100	l/s
Device head loss (at treatment flowrate)	0.15	m
Device head loss (at maximum capacity treatment flowrate)	-	m
TSS capture and retention efficiency (Milisil W4 test sediment)	82	%
Zinc capture efficiency (if tested)	Not tested for dissolved metals	%
Zinc retention efficiency (if tested)	Not tested for dissolved metals	%
Copper capture efficiency (if tested)	Not tested for dissolved metals	%
Copper retention efficiency (if tested)	Not tested for dissolved metals	%
Dissolved Metals reduction	0.0	%
Particulate metals reduction*	61.5*	%
Total Metals reduction*	61.5*	%
Total Metals Mitigation Index	0.615*	-

* Extrapolated value in accordance with British Water How to Guide: Applying the CIRIA The SuDS Manual (C753) Simple Index Approach to Proprietary / Manufactured Stormwater Treatment Devices. Version 7, Section 4.3, (2021- under pre-publication review).



SPEL's Head of Technical Development alongside the WRC testing officer.

SPEL ESR Bypass Treatment System

Specification Chart

As directed by the SuDS Manual, treatment trains should be sized according to the **connectible area**, see column 5 below.

Model	Series	Treated Flow Rate	Maximum Flow	Connectible/Catchment area (m ²)*	Oil Storage (litres)	Silt Capacity (litres)	Tank Length (mm)	Internal Diameter (mm)	Inlet Invert (mm)	Base to Inlet (mm)	Base to Outlet (mm)	Optimum in/out pipe diameter** (mm)	Number of Access Shafts A-C*** (dia. mm)			
													600	750	900	1200
210C1/ESR	200	10	100	1,333	150	1,000	2,920	1,220	550	1,350	1,300	300	-	1	-	-
212C1/ESR	200	12	120	1,600	180	1200	3,570	1,220	550	1,350	1,300	300	-	1	-	-
215C1/ESR	200	15	150	2,000	225	1,500	4,237	1,220	550	1,350	1,300	300	-	1	-	-
320C1/ESR	300	20	200	2,665	300	2,000	3,200	1,800	700	1,450	1,350	450	2	-	-	-
325C1/ESR	300	25	250	3,333	375	2,500	3,535	1,800	700	1,450	1,350	450	2	-	-	-
330C1/ESR	300	30	300	4,000	450	3,000	4,420	1,800	700	1,450	1,350	450	-	1	1	-
340C1/ESR	300	40	400	5,333	600	4,000	5,760	1,800	740	1,410	1,310	450	1	1	-	-
345C1/ESR	300	45	450	6,000	675	4,500	6,563	1,800	740	1,410	1,310	450	1	1	-	-
350C1/ESR	300	50	500	6,665	750	5,000	7,060	1,800	740	1,410	1,310	450	1	1	-	-
460C1/ESR	400	60	600	8,000	900	6,000	8,400	2,600	950	2,100	2,000	600	-	1	1	-
470C1/ESR	400	70	700	9,333	1,050	7,000	9,250	2,600	950	2,100	2,000	600	-	1	1	-
480C1/ESR	400	80	800	10,665	1,200	8,000	10,170	2,600	950	2,100	2,000	600	-	1	1	-
4100C1/ESR	400	100	1,000	13,333	1,500	10,000	12,400	2,600	1,100	1,950	1,850	750	-	1	1	-
4125C1/ESR	400	125	1,250	16,665	1,875	12,500	15,000	2,600	1,100	1,950	1,850	750	-	1	1	-
4150C1/ESR	400	150	1,500	20,000	2,250	15,000	18,930	2,600	1,100	1,950	1,850	750	-	-	2	-
4160C1/ESR	400	160	1,600	21,333	2,400	16,000	19,830	2,600	1,250	1,950	1,850	750	-	1	2	-
5180C1/ESR	500	180	1,800	24,000	2,700	18,000	22,472	3,500	1,185	2,690	2,550	900	-	1	2	-
5200C1/ESR	500	200	2,000	26,665	3,000	20,000	25,530	3,500	1,185	2,425	2,325	1,200	1	1	2	-
5250C1/ESR	500	250	2,500	33,333	3,750	25,000	32,040	3,500	1,185	2,425	2,325	1,200	2	1	2	-
6300C1/ESR	600	300	3,000	40,000	4,500	30,000	40,310	4,000	1,325	2,850	2,675	1,200	1	1	2	-
6350C1/ESR	600	350	3,500	46,665	5,250	35,000	46,499	4,000	1,325	2,850	2,675	1,200	-	2	3	-
6400C1/ESR	600	400	4,000	53,333	6,000	40,000	53,690	4,000	1,325	2,850	2,675	1,200	-	2	3	-
6500C1/ESR	600	500	5,000	66,665	7,500	50,000	67,880	4,000	1,325	2,850	2,675	1,200	-	2	4	-
6600C1/ESR	600	600	6,000	80,000	9,000	60,000	82,256	4,000	1,325	2,850	2,675	1,200	2	1	4	-
6700C1/ESR	600	700	7,000	93,333	10,500	70,000	97,250	4,000	2,850	2,850	2,675	1,200	-	2	5	-

*These connectible/catchment areas are based on the SuDS Manual requirement for bypass devices to treat the 1 in 1 year storm event (27mm).

**SPEL ESR Bypass Treatment Systems are designed for a maximum flow (NS/NSB) but can be fitted with larger than the recommended maximum connection size IN/OUT or with the addition of adapters providing the maximum flow (NS/NSB) cannot be exceeded or any increase in the operating level in the SPEL Separator to cause the captured pollutants to escape into the vent connections or through access shaft connections. Any overriding of the above criteria could jeopardise performance to the European Standard BS EN 858-1.

***D-I configurations available upon request.

Shell Specification

The 'standard' specification is normally adequate for most installations but Heavy, Extra Heavy, Special, Extra Special, Ultra and Ultra Plus specifications are available depending upon the burial depth and water table level, in winter. The concern is when the system is emptied completely and remains empty for a period of time.

For more information and to see burial depth charts see Section 7.

200 Series ESR – Inside diameter 1200mm, outside diameter 1225mm.

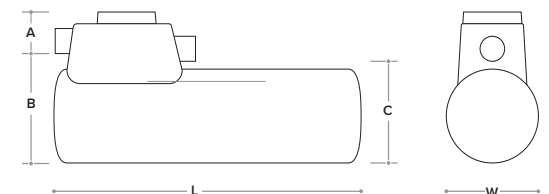
300 Series ESR – Inside diameter 1800mm, outside diameter 1875mm.

400 Series ESR – Inside diameter 2600mm, outside diameter 2700mm.

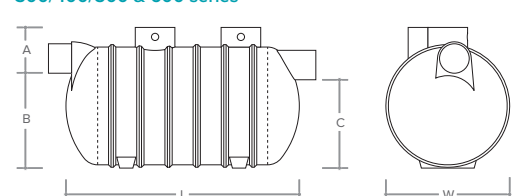
500 Series ESR – Inside diameter 3500mm, outside diameter 3650mm.

600 Series ESR – Inside diameter 4000mm, outside diameter 4150mm.

200 series



300/400/500 & 600 series



SPEL ESR Bypass Treatment System

Components and Accessories

SPEL Coalescer Guide Rail Systems

To facilitate easy insertion of coalescer units, the optional SPEL guide rail system manufactured in stainless steel can be incorporated into SPEL ESR Bypass Treatment Systems.

Brackets fixed to the top and bottom of the coalescer unit simply engage with the stainless steel guide rail which is fixed to the top of the stub access shaft. The coalescer unit is then lowered in the normal way, being guided at the correct angle into the conical base.

Lifting chains are available for the larger coalescer units and where extension shafts are fitted.

Extension guide rails can be incorporated into SPEL extension shafts to suit.

SPEL Coalescer Lifting, Locating and Locking system (3L)

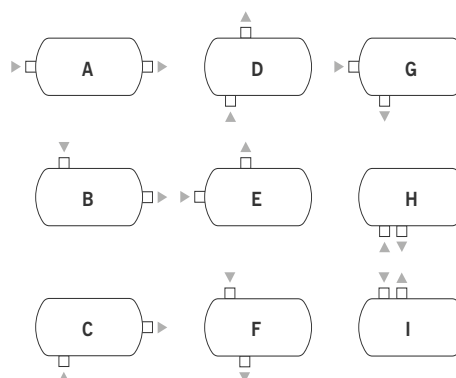
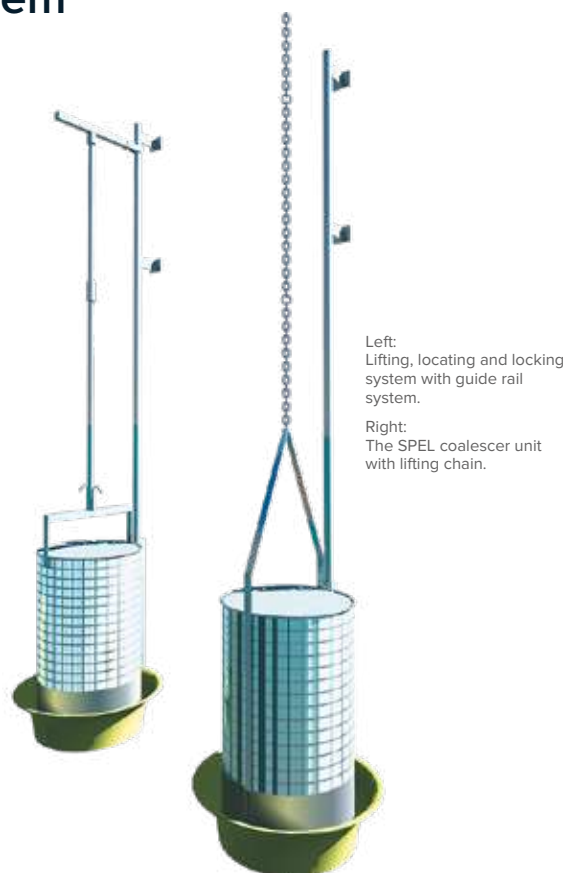
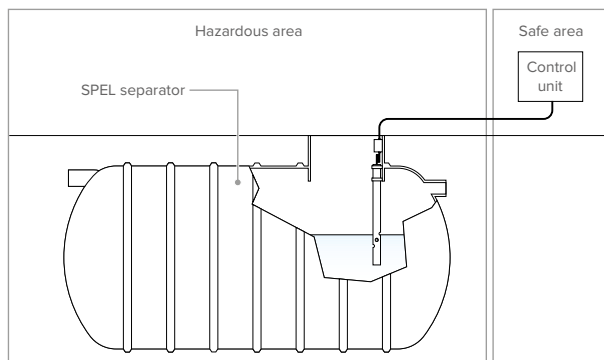
Where SPEL ESR Systems can be subjected to surcharging and/or tidal outfall, then the SPEL 3L system should be included.

The SPEL Lifting, Locating and Locking system is manufactured in stainless steel and replaces the standard coalescer unit handle.

The locating/locking handle ensures the coalescer unit is seated and locked in its correct position.

SPEL Automatic Monitoring Alarms

SPEL offer a range of alarms, for full details refer to the SPEL Data Manual Section 8.



SPEL ESR Range Inlet/Outlet Orientation

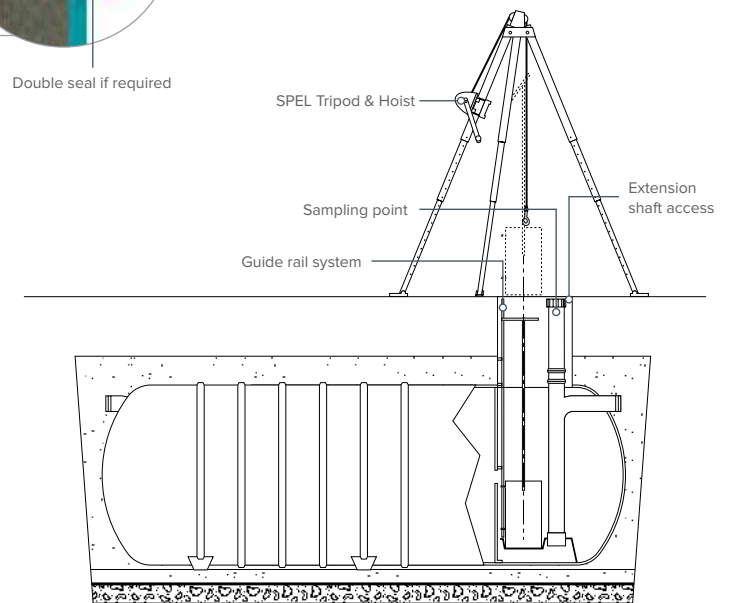
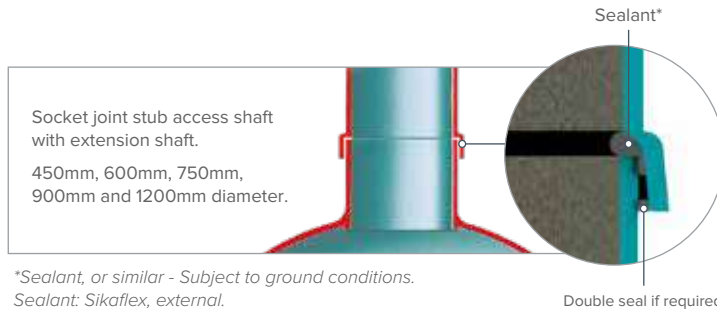
Dependent upon model and diameter of connections, these nine different orientations are available. However on the larger models it is important to check with our technical department.

SPEL ESR Bypass Treatment System

Components and Accessories

SPEL extension access shafts

Extension access shafts are available for deep invert applications.



SPEL tripod and hoist

Where surface water run-off has a high silt content the coalescer units can become filled, making them heavy to lift out. In order to facilitate easy withdrawal of coalescer units the SPEL tripod and hoist is recommended.



APPENDIX I: Geolight Proprietary Attenuation Tank

CONSTRUCTION AS BUILT

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.

-	ISSUED FOR CONSTRUCTION	23.10.25
	CG SP	
-	ISSUED AS BUILT	23.10.25
	CG SP	
B	TANK REDESIGN	17.04.25
	ISSUED FOR CONSTRUCTION / APP	CG SP
-	ISSUED FOR CONSTRUCTION	03.04.25
	CG SP	
A	TITLE BLOCK UPDATED	01.04.25
	ISSUED FOR APPROVAL	CG SP
-	ISSUED FOR APPROVAL	01.04.25
	CG SP	
Rev	Comments	Date
		DRW CHK



Clearwater House
Castlemills
Biddisham
Somerset
BS26 2RE
+44 (0)1934 751303

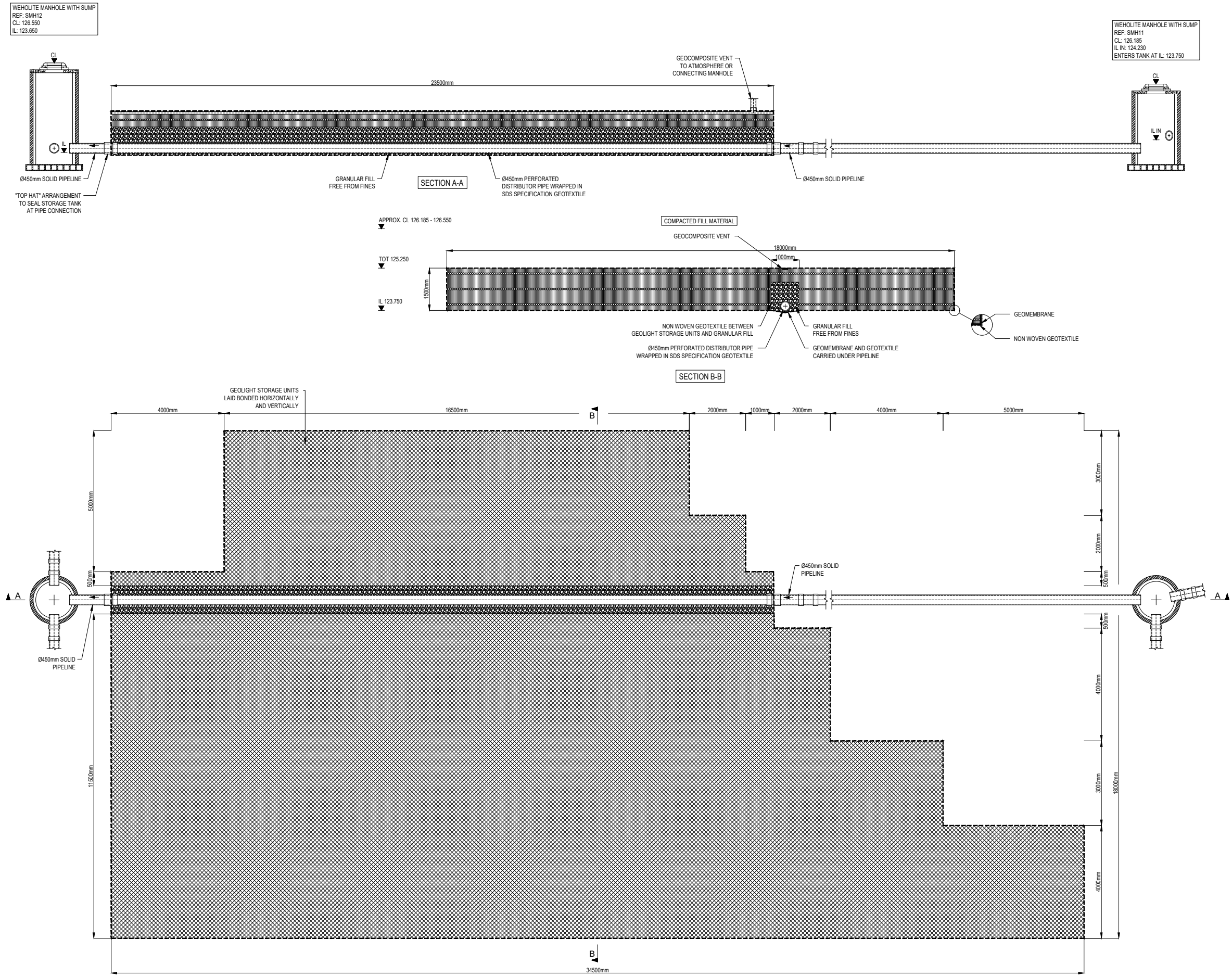
[sdslimited.com](https://www.sdslimited.com)

LIDL EAST GINSTEAD

ADSTON

ATTENUATION TANK 1 DETAIL

Scale: NTS Date: 01.04.25
SDS Drawing No: E259124_01 Rev: B





















SDS

Water
Infrastructure
Systems

INNOVATORS IN
WATER TECHNOLOGY

SDS GEOLight®

Stormwater Management System



SDS
Water
Infrastructure
Systems

SDS GEOLight® is an ultra lightweight honeycombed modular structure, made from recycled PVC, that provides an underground storage facility for the application of stormwater attenuation or infiltration.

Stormwater Management

The Environment Agency is keen to promote the wider use of sustainable drainage systems, which reduce the impact of surface water runoff. There are two main ways of storing surface water for stormwater management:

- Stormwater attenuation tanks
- Soakaway infiltration systems

Stormwater Attenuation Systems

This consists of underground water storage facilities that hold excess water during periods of peak rainfall.

The stored water is gradually released in a controlled manner into the surface water drainage system or directly into watercourses, reducing the risk of upstream and downstream flooding.

Soakaway Infiltration Systems

Soakaways are designed to store surface water runoff until it can be gradually absorbed by the surrounding ground.

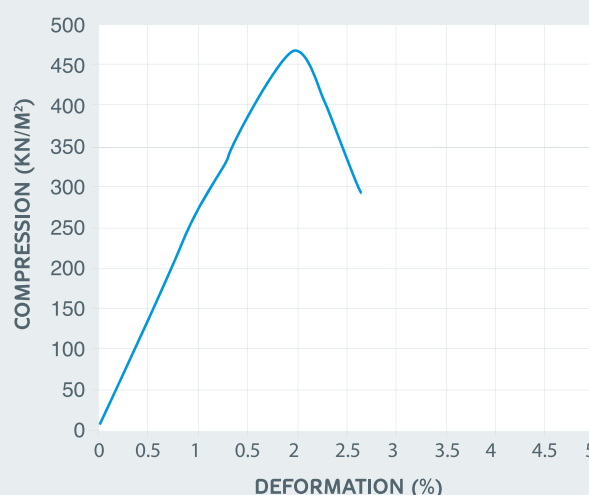
SDS GEOLight® – an efficient and economic solution for stormwater management.

SDS GEOLight® Attenuation

SDS GEOLight® has been specifically designed to form underground water storage reservoirs in stormwater management schemes. Its honeycombed structure gives it certain unique characteristics that make it ideal for this purpose:

- The high void rate (95%) of GEOLight® means that the maximum volume of water is stored in the minimum volume of storage unit.
- High compressive strength. GEOLight® is available in two strengths as standard: 200 and 400kN/m². Note: Higher compressive strengths available from 600 to 1000 kN/m². The graph on the right shows the results of a compression test, where samples of GEOLight® 400 were compressed at the rate of 1mm per minute. The deformation at 400kN/m² is about 1.6%.

RESULTS OF COMPRESSION TEST ON SDS GEOLIGHT® 400



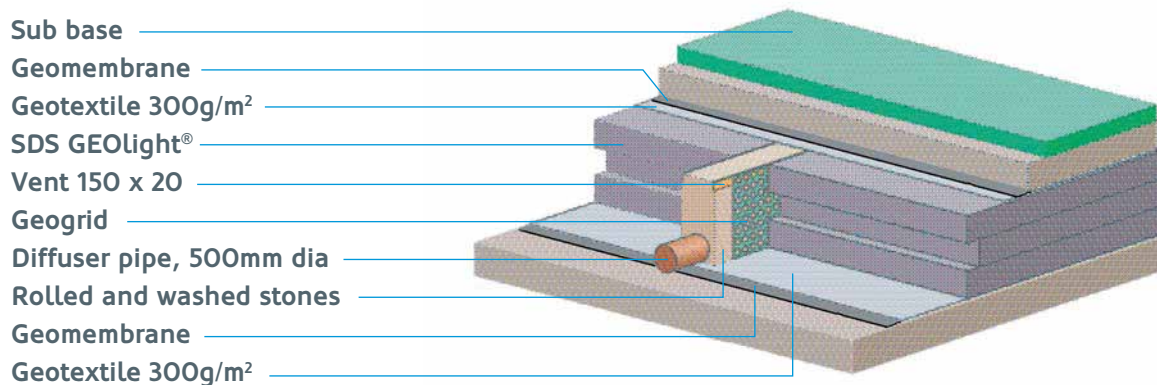
The GEOLight® Stormwater Attenuation System consists of two manholes (inspection chambers) connected by a length of perforated distribution pipe which feeds the stormwater storage reservoirs on either side formed from GEOLight®.

The distribution pipe is normally from 225mm up to 500mm diameter, generally covered in a trench that is filled with draining material such as 15/25 clean graded stone, free from fines.

The reservoirs and distribution pipe are wrapped in a waterproof membrane, such as butyl, to prevent seepage of water into the surrounding ground. The top of each GEOLight® reservoir has a vent which is connected back to the upstream manhole.

A geotextile or 10mm mesh geogrid is laid between the distribution pipe and GEOLight® to prevent the GEOLight® units being clogged by the draining materials.

SDS GEOLight® Attenuation



How does it work?

- 1. In normal conditions, water enters a back drop manhole. This is the upstream manhole and any silt or sediment will collect in the bottom of the chamber. The water then flows along the distribution pipe into the downstream manhole. The upstream pipework is sized to cope with normal flow conditions. The distribution pipe and attenuation tank are sized to cope with storm conditions. The outflow pipe is sized to cope with the permissible discharge.
- 2. In storm conditions the flow restrictor (vortex flow control or orifice plate) in the downstream manhole limits the amount of water flowing out of the manhole. This causes the water level in the distribution pipe to rise and water to spill into the GEOLight® reservoirs on either side. As the water level rises in the reservoirs, air is forced out of the high level vents into the upstream manhole.

- 3. Once the storm has passed, the water level in the GEOLight® reservoirs gradually falls as water passes through the flow restrictor in the downstream manhole. The vents now allow air to return into the GEOLight® reservoirs. Gradually the reservoirs empty. The flow restrictor prevents excess surges of flood water to pass downstream and uses the storage reservoirs to store the water for the period of the storm.

Calculating the storage capacity

The storage capacity of the GEOLight® reservoirs is determined by the maximum outflow permitted, (set by the water company or Environment Agency), the impermeable area of the site and the rainfall return period – normally 1 in 30 years, but again can be dictated by the water company. A full design service, including calculations, can be supplied via a third party consultant.

Please contact SDS for details.

Other uses

The water storage ability of SDS GEOLight® lends itself to a number of other uses:

- Water recycling combines with irrigation systems – this is increasingly popular: GEOLight® is used to retain stormwater which is then pumped as required to a network of standpipes for irrigation.
- Drainage channels – the natural permeability of GEOLight® lends itself for use as an underground drainage channel that collects and drains away groundwater.
- Pollution control – improved water runoff quality. When used in combination with oil / petrol separators, GEOLight® can replenish groundwater without the risk of contamination from oil, chemicals or suspended solids.
- To form lightweight embankments (slope stabilisation) – GEOLight® can be used to quickly form the base of embankments that only weigh a fraction of earth embankments.

Stormwater Attenuation System

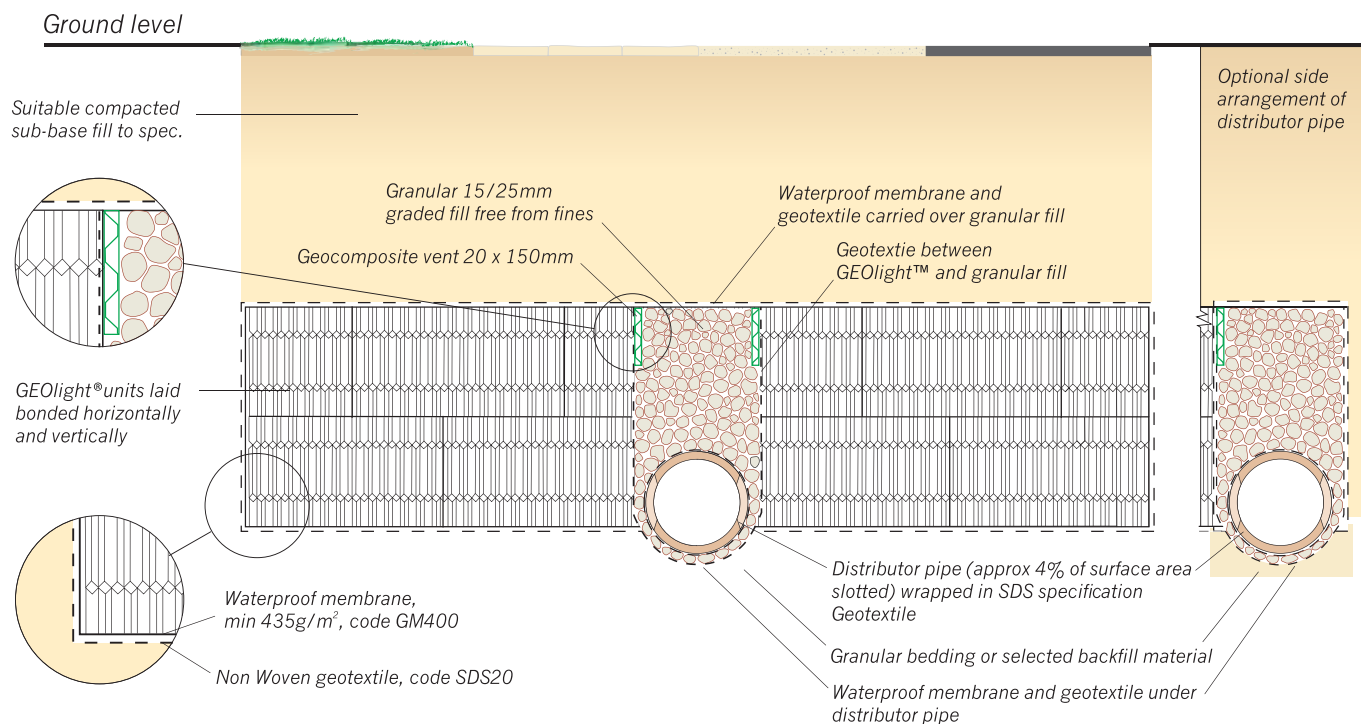
Design Details

The details on these two pages illustrate the construction of a typical SDS GEOLight® Stormwater Attenuation System. The length and height of the GEOLight® reservoirs is determined by the quantity of water to be stored.

The layout of each scheme is specifically designed to suit the characteristics and limitation of the site. Typically the distributor pipe would be arranged in the centre of the reservoir, but can alternatively be placed at the side where topographical constraints dictate.

The high performance waterproof membrane should be sealed continuously to encapsulate the GEOLight® reservoirs, distributor pipe and granular fill. It is protected by a heavyweight needle punched, non woven geotextile. To help with maintenance a high flow geotextile is placed between the granular fill and GEOLight® attenuation units to prevent silt and particles being washed into the reservoir. GEOLight® can be used under a range of surfaces e.g. grass, porous paving, standard paving block, tarmac and concrete.

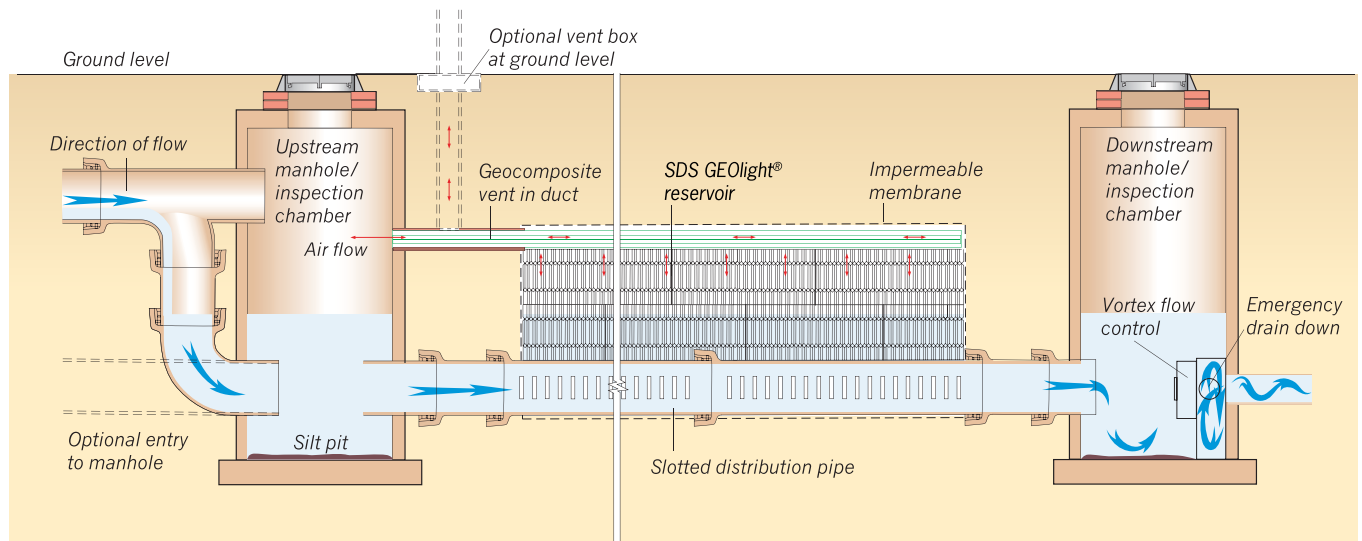
Cross Section



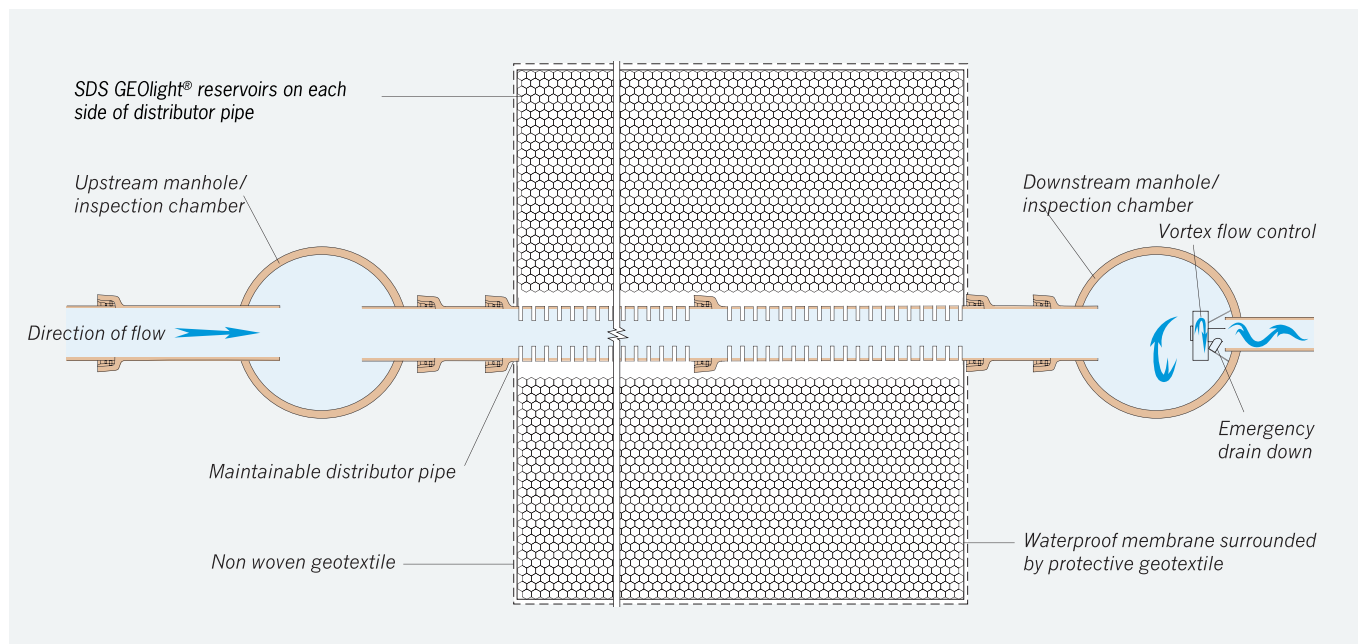
Stormwater Attenuation System

Design Details

Long Section



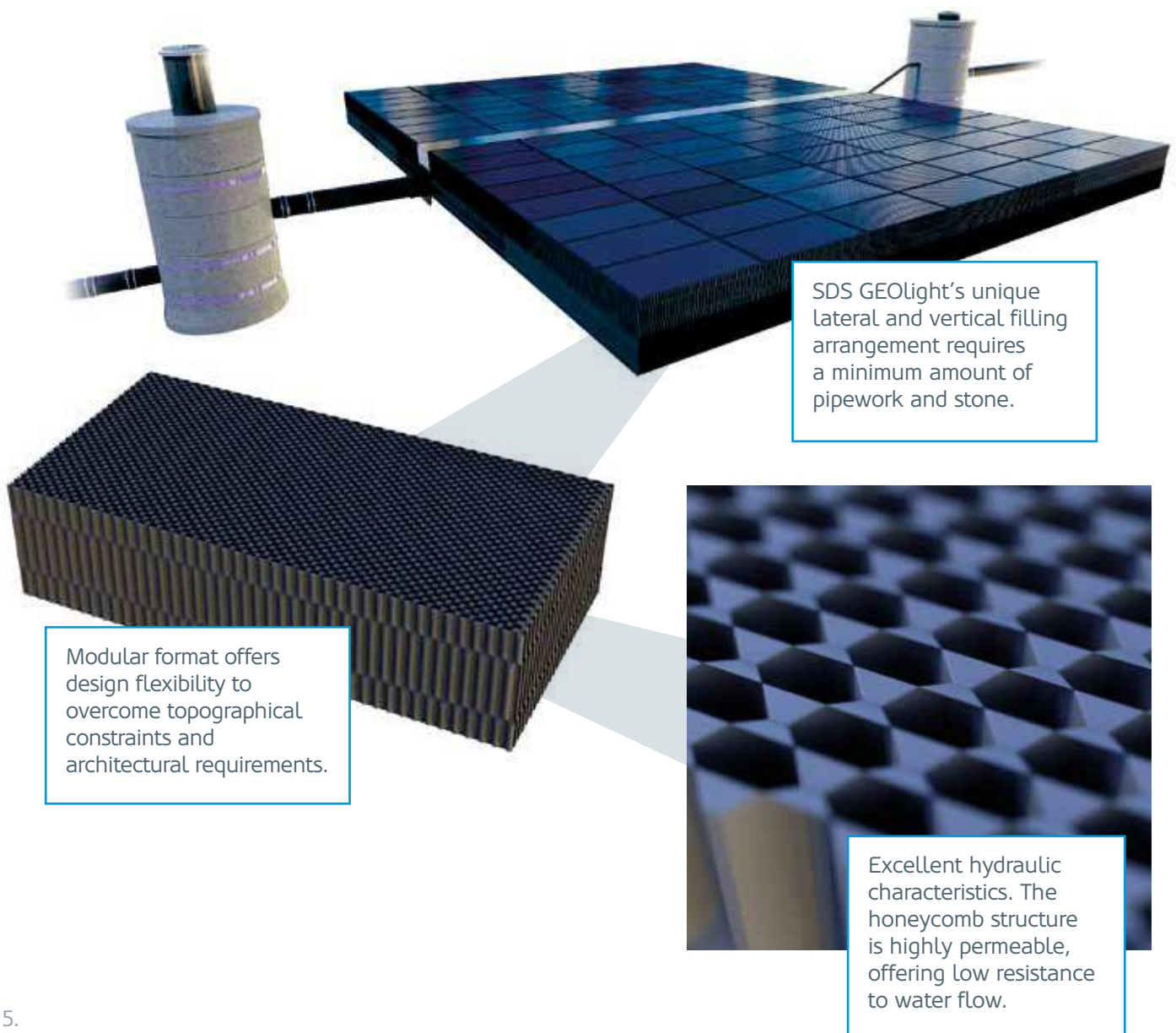
Plan



Benefits

- High compressive strength – can be located under all roads, car parks and amenity area surfaces.
- Reduced excavation costs – the very high void rate (95%) minimises the required volume of earthworks.
- Speed of installation – 1000m³ reservoir, completed in one week.
- Light and easy to handle.
- Depth of tank invert reduced by using patented lateral supply.
- Simplified distribution pipe network, easy maintenance – dispensing with costly and complicated pipework configurations.
- Greatly reduces the risk of flooding when used as stormwater storage.
- Can also be used for water recycling and combining with irrigation systems.
- Can virtually eliminate pollution when used in combination with specialist petrol / oil separators.
- Design service available, including calculations.

GEOLight® block



COSHH and Handling Information

1. COMPOSITION/INFORMATION ON INGREDIENTS:

Hazardous ingredients:

None as finished goods or products.

Types of materials:

Polyvinyl chloride (PVC)
MEK

2. HAZARDS IDENTIFICATION

Nature of hazard:

There are no health risks from the products during normal use. The products may contain various pigment colours and stabilisers that may be toxic. The chemicals are, however, bound within the product material and not easily extracted.

3. FIRST-AID MEASURES

Eye contact:

Plastic materials may cause physical irritation in the eyes. Wash out with large amounts of water. If irritation persists, seek medical advice.

Skin contact:

Not applicable.

Inhalation:

Not applicable.

Ingestion:

Not expected to have any toxic effects.

4. FIRE-FIGHTING MEASURES

Extinguishing media:

On small fires use any hand-held extinguisher type.
On large fires use water.

Fire and explosion hazards:

Melting plastics may flow and spread in a large fire.
Products of fire will be thick black toxic smoke.

Material characteristics:

PVC products will burn in the presence of a flame but are classed as self-extinguishing.

Protective equipment:

Wear self-contained breathing apparatus and protective clothing.

5. HANDLING AND STORAGE

Handling:

There are no hazards associated with the finished products. However, when cutting SDS GEOLight®, we recommend that the correct tools are used e.g. Handsaw or Alligator saw. When cutting, dust may be created; avoid inhaling these dusts. Take care of heat build-up within materials during cutting etc. The pallets of SDS GEOLight® units should be placed on level ground and should not be stacked on site. The maximum weight of the pallet of SDS GEOLight® units as delivered to site is 650kg (700kg on one copy), including packaging. Machines used to lift the pallet should be able to lift this weight safely. Loose individual units should not be stored more than three units high. SDS GEOLight® units are lightweight ranging from 23kg to 55kg and can be easily handled – one or two person lift.

Storage:

SDS GEOLight® units will resist the effects of UV light for up to six months; however, prolonged storage in direct sunlight should be avoided. SDS GEOLight® units should not be stored near to any fuel storage areas or any other solvents. SDS GEOLight® units are very robust and resistant to damage during normal handling; however, they should be secured in areas where impacts from vehicles or construction plant will be avoided.

Material characteristics:

PVC products will burn in the presence of a flame but are classed as self-extinguishing.

Protective equipment:

Wear self-contained breathing apparatus and protective clothing.

6. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:

Not required under normal conditions of use. Where cutting etc. creates dust, wear a disposable half-mask to the standard FFP2S.

Hand protection:

Wear impervious strong gloves to prevent cuts to the hands while handling, cutting etc.

Eye protection:

Wear safety glasses when cutting etc.

Skin protection:

Wear overalls.

7. SITE HAZARDS

Other hazards for consideration:

Working in excavations and trenches – SDS GEOLight® may be designed with a shallow invert for infiltration (soakaway) or attenuation (storage) system. This negates the need for deep excavations or trenches, excavation near services e.g. gas, electricity or contaminated soil areas. N.B. All risk assessments should be undertaken by the main contractor for forklift, access to and working in excavations and trench support.

8. STABILITY AND REACTIVITY

Decomposition products:

Major thermal decomposition products are oxides of carbon. Relevant differences are (in addition): PVC may produce amounts of Hydrogen Chloride.

Stability:

These materials are stable at temperatures up to normal operating limits (moulding parameters).

9. ECOLOGICAL INFORMATION

Biodegradability:

Plastic products are not readily biodegradable but are not detrimental to terrestrial wildlife.

Aquatic toxicity:

Non-toxic to marine life.

10. DISPOSAL CONSIDERATIONS

Method:

The preferred method of disposal is collection and recycling. Plastics can safely be placed with regular industrial or household wastes where recycling is not available.

11. OTHER INFORMATION

As the handling, storage, use and disposal of the product are beyond our control SDS disclaims all liability for loss, damage, injury or expense in any way connected with such activities and further makes no warranties, expressed or implied, as to the suitability of the product for any particular use.

The preferred method of disposal is collection and recycling. Plastics can safely be placed with regular industrial or household wastes where recycling is not available.

SDS

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Infrastructure
Systems

INNOVATORS IN WATER TECHNOLOGY



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E info@sdslimited.com



sdslimited.com

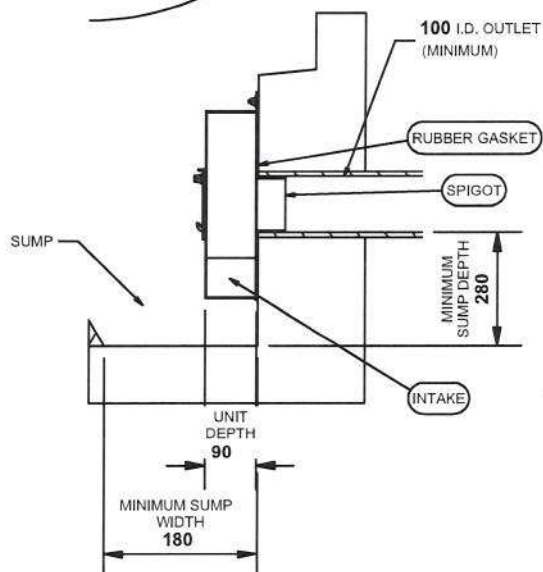
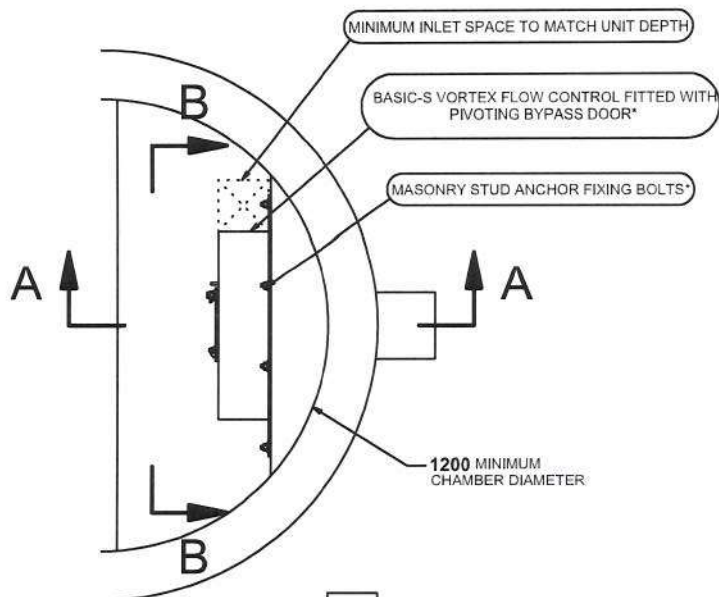
APPENDIX J: HydroBrake Information

Technical Specification

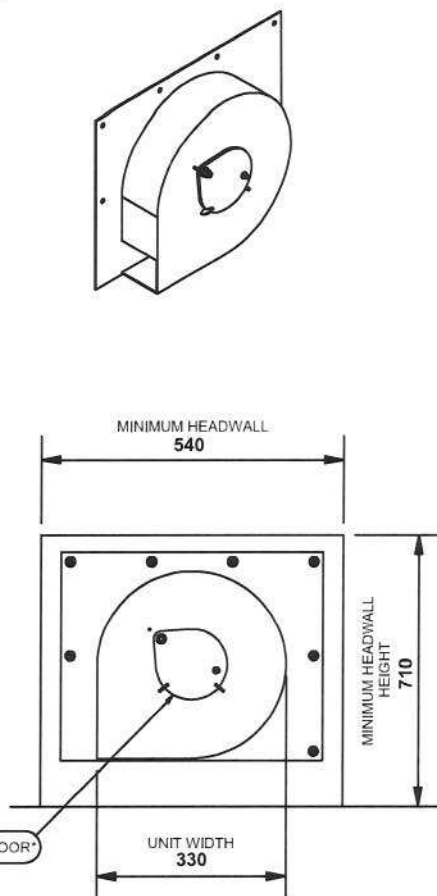
Control Point	Head (m)	Flow (l/s)
Primary Design	1.500	4.300

Basic-S Vortex Flow Control including:

- 3 mm grade 304L stainless steel
- Integral stainless steel pivoting bypass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Bead blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet
- Identification plate on operating handle



SECTION A-A



SECTION B-B

* All measurements are in millimetres unless otherwise specified

IMPORTANT:  LIMIT OF HYDRO INTERNATIONAL SUPPLY
THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS
FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL
ALL CIVIL AND INSTALLATION WORK BY OTHERS * WHERE SUPPLIED

THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.

DESIGN ADVICE



The head/flow characteristics of this Basic-S Vortex Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.
The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.

**Hydro
International**
A CRH COMPANY

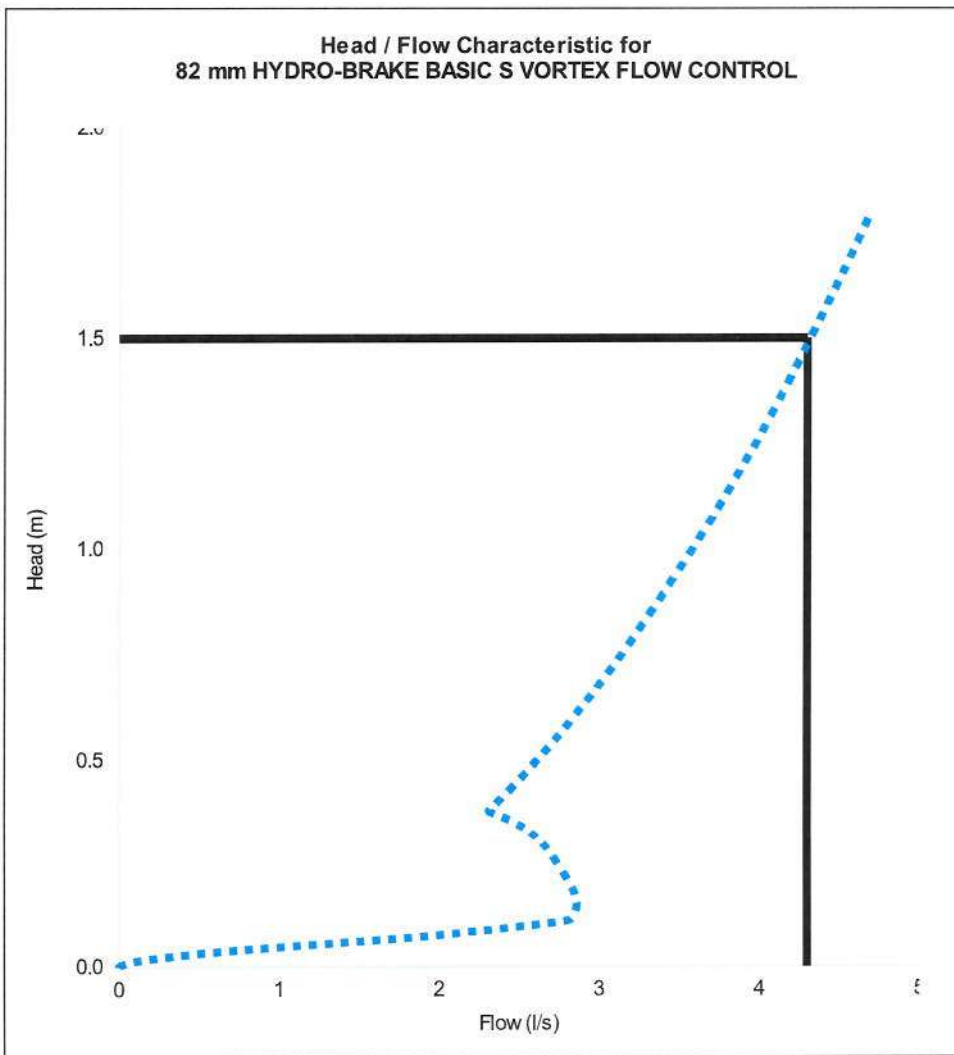
DATE	07/08/2025 14:18
SITE	25_21_4836 New Lidl 219-225 London Road East Grinstead
DESIGNER	
REF	HQT-194614 As per customers email

82 mm
Basic-S Vortex Flow Control

82 mm HYDRO-BRAKE BASIC S VORTEX FLOW CONTROL SPECIFICATION SHEET

Project Information			
Date:	07/08/2025 14:18	Site Ref:	HQT-194614 As per customers email
Site Name:	25_21_4836 New Lidl 219-225 London Road East Grinstead		

Primary Design Point			
Flow (l/s)	4.30	Head (m)	1.50



Head (m)	Flow (l/s)
0.000	0.000
0.052	1.163
0.103	2.667
0.155	2.862
0.207	2.809
0.259	2.724
0.310	2.622
0.362	2.417
0.414	2.401
0.466	2.532
0.517	2.655
0.569	2.772
0.621	2.883
0.672	2.990
0.724	3.092
0.776	3.191
0.828	3.286
0.879	3.379
0.931	3.468
0.983	3.555
1.034	3.640
1.086	3.722
1.138	3.803
1.190	3.881
1.241	3.958
1.293	4.033
1.345	4.107
1.397	4.179
1.448	4.250
1.500	4.319

APPENDIX K: Surface Water Pump Information

17 February 2025

Enquiry Ref: Maxi R Two
TWWS/8771/DG -R1

Adston Construction

FAO Cormac Brides

RE: Surface Water Package Pump Station 1942 Lidl East Grinstead 219-223 London Road, East Grinstead RH19 1HA

Thank you for your recent enquiry, we are pleased to submit the following quotation for your approval, based on the information supplied for the supply on 1no Surface Water Packaged Pump Station. The scope of supply includes for the Chamber, Pumps, Control panel, level controls, access cover, lifting chains and D-link, internal pipework and valves, and M & E commissioning with fault beacon in managers office

Surface Water Pump Station rated for 4.3 l/s

The pumps and equipment have been selected using the parameters submitted and listed in the attached schedule of technical details. We have opted for a 1100mm Dia x 3500mm Vertical pump chamber Based on cover level 16.40 and invert 123.50. Please note that the chamber is not a structural unit and will need a sufficient concrete surround for protection against any external forces or adverse ground conditions.

126.55

We have opted to install dual 50mm pipe work, including 2no ductile ball type non return valves and a metal faced gate isolation valve. The Pipe work will terminate outside the chamber wall with a 2"– 63mm MDPE adaptor for connection of a 63mm o/d PE100 SDR 17 Rising Main. We have allowed for a D400 weight access cover and associated incoming pipe connections. We have also allowed for a 110mm cable duct, 110mm vent connection

The chamber will be delivered to site for off-loading and installation by others but in accordance with our guidelines.

We have been advise the distance from the cover of the pump chamber to the control panel is 55m, and have allowed for 60m pump and float cables extension with junction boxes.

← TWWS advised junction box will be inside tank at top and is IP68 rated.

We have based the flow rate on 4.3l/s per pump. We have made allowances for 24 hour storage (see specification below)

Pump Type

Water tight, guide rail mounted, fully submersible IP68 heavy duty surface water pump

Double seals, lip seal and mechanical for extra protection

Construction

Motor housing:	Stainless Steel
Motor Shaft:	Stainless Steel
Volute:	Cast Iron
Impeller:	Cast Iron

Guide Rail System

We have opted for installation of 2no Guide rail pedestal for easy removal of the pumps from the wet well for maintenance. We have allowed for the 90deg pedestals, upper guide rail brackets and mild steel galvanised guides.

Pipes and Valves

We have opted for dual pipes and valves, one for each pump. The pipes are galvanised steel and connect by a common tee at high level. The non-return valves are ball type, full passage ductile iron. The gate valve is brass.

Control Panel

Dual 230v (1 phase) alternating control panel in an IP54 protected enclosure suitable for indoor wall mounting or kiosk mounting

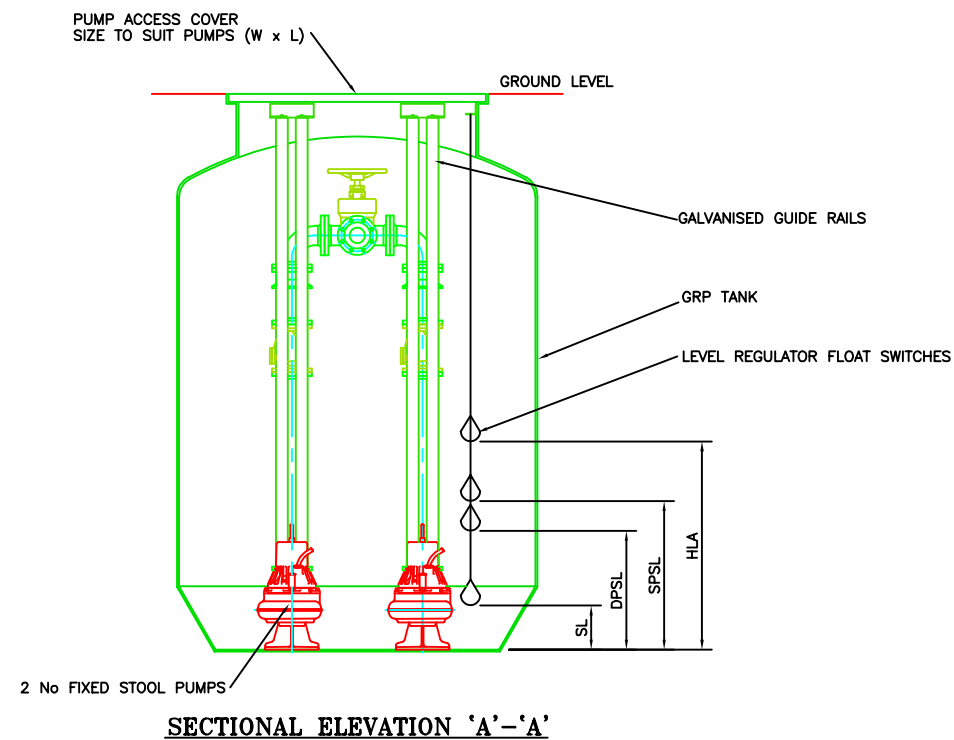
Door locking isolator
Motor fuses
Hand/off/auto switches
Power healthy lamp
Individual pump / run and trip lamps
High Water level lamp and buzzer
Optional low level dry run float
Phase direction lamp
Volt free contacts

Connections for auxiliary beacon

← TWWS included for supply & installation of fault beacon in managers office

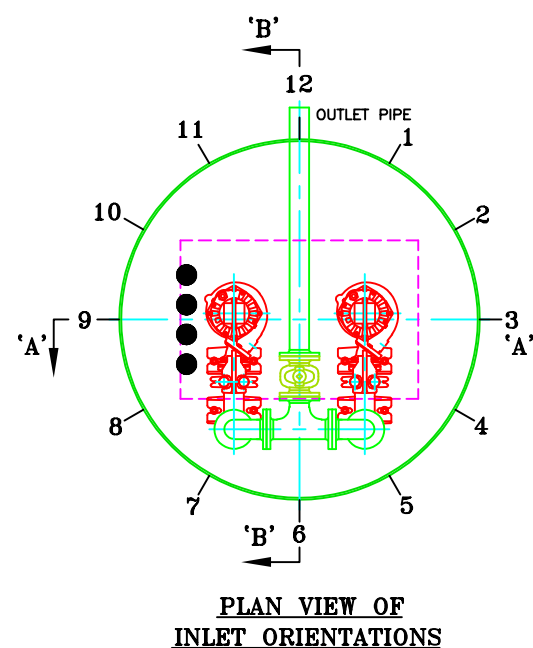
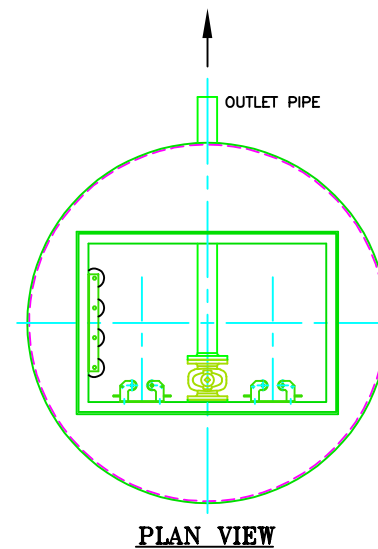
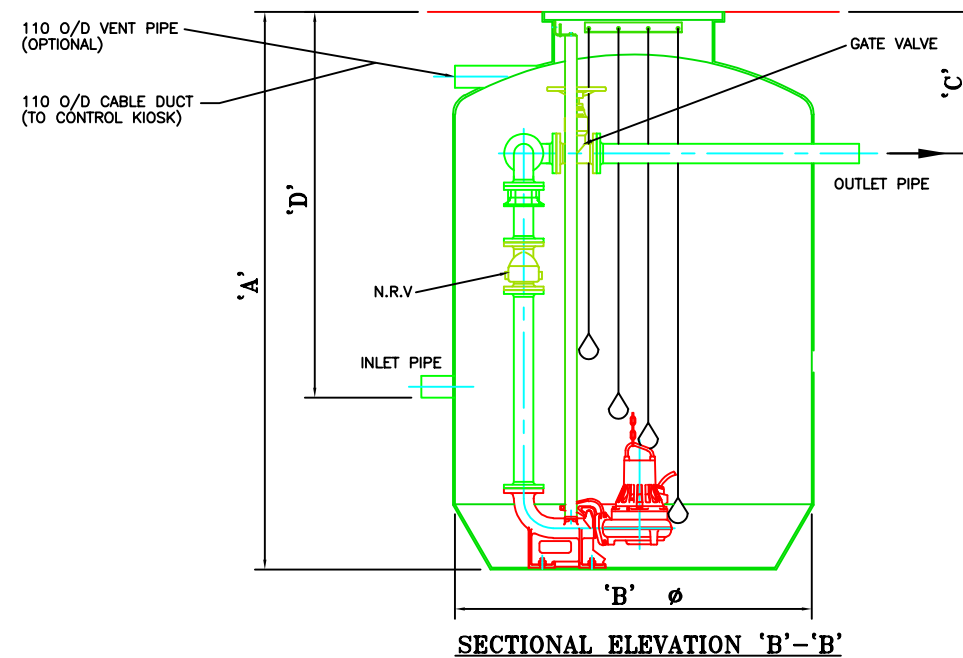
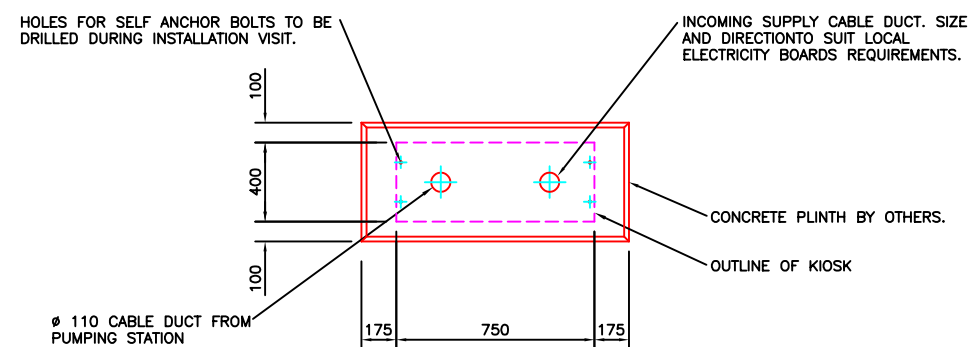
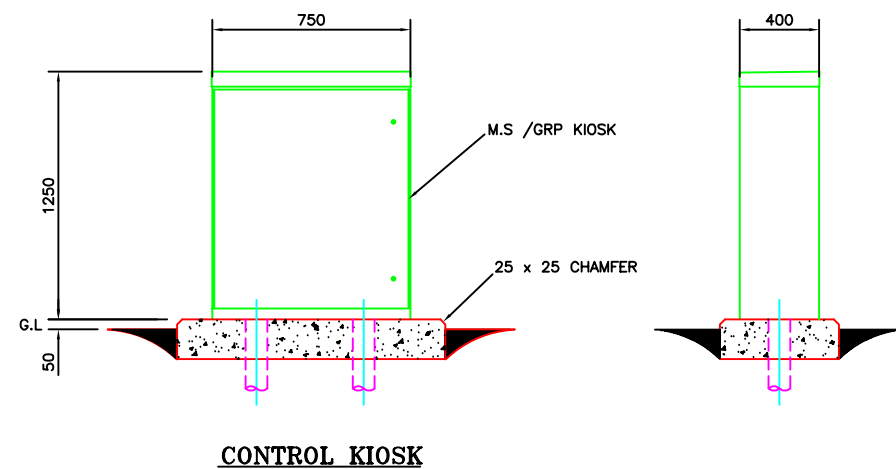
Level Controls

Encapsulated non-mercury float switches with suspension cable and weight, with suspension/mounting bracket.



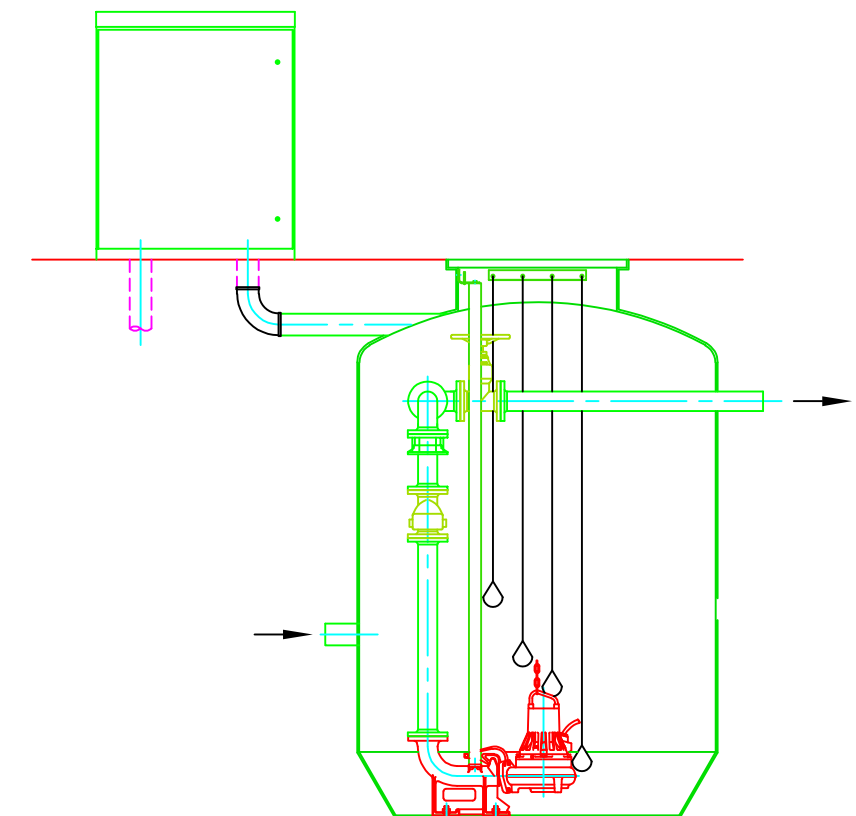
PUMP OPERATING LEVELS

	DESCRIPTION	HEIGHT ABOVE TANK FLOOR
SL	PUMP STOP LEVEL	*
DPSL	DUTY PUMP START LEVEL	*
SPST	STANDBY/ASSIST START LEVEL	*
HLA	HIGH LEVEL ALARM	*



TANK DIMENSIONS

		SIZE
'A'	DEPTH OF TANK *	
'B'	DIAMETER OF TANK *	
'C'	HEIGHT OF OUTLET TO CENTRE LINE *	
'D1'	HEIGHT OF INLET TO INVERT *	
'D2'	HEIGHT OF INLET TO INVERT *	
'D3'	HEIGHT OF INLET TO INVERT *	
'D4'	HEIGHT OF INLET TO INVERT *	



—	—	—	DM	—
Rev.	Description	Requested by	Insert by	Date
This drawing should not be scaled if in doubt ask.		This document may not without our permission, be copied, shown or handed out to competitors or any other unauthorized persons.		
Engineer	DG	Customer Name	Site	
Drawn by	R.U. — A22	.	.	
Date	04/02/2025	.	.	
Scale	Title			
1 : 20 @ A1	GRP VERTICAL PUMPING STATION G.A			
 Waste Water Systems (UK) Ltd		Unit 6, Goodhill Court, Ilkston, Derbyshire. DE7 1AZ		
Tel. (01335) 342246 www.totalwastewatersystemsuk.co.uk		Drawing Number TWWS—11001		Iss
				—

APPENDIX L: Impermeable Gravel Board Pictures

NEW LIDL STORE, LONDON ROAD, EAST GRINSTEAD

Impermeable Concrete Gravel Board,

Allowing flood depths of approx. 250mm to occur in the car park low points.



APPENDIX M: SuDS Management and Maintenance Plan



**LIDL GREAT BRITAIN LTD
LONDON ROAD
EAST GRINSTEAD**

**SUDS MANAGEMENT AND
MAINTENANCE PLAN**

NOVEMBER 2025



**LIDL GREAT BRITAIN LTD
LONDON ROAD
EAST GRINSTEAD**

**SUDS MANAGEMENT AND
MAINTENANCE PLAN**

NOVEMBER 2025

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**LIDL Great Britain Ltd
London Road
East Grinstead
SuDS Management and Maintenance Plan**

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1 Introduction

- 1.1 Mayer Brown Ltd have been commissioned by Lidl Great Britain Ltd to provide a SuDS Management and Maintenance Plan to discharge planning **Condition 18** for their approved new food store located at approved store located at London Road, East Grinstead under Mid Sussex District Council planning reference **DM/24/0981**.
- 1.2 The proposed surface water drainage network (refer to Appendix A) utilises Sustainable Drainage techniques (SuDS) including a petrol interceptor and an attenuation tank. The management and maintenance of these features is of paramount importance to ensure their effectiveness over the lifetime of the development.
- 1.3 The proposed surface water attenuation features **will not be adopted** by any public body and will **remain in private ownership**. There will be a designated site maintenance team employed who should enable tight control over the operation and maintenance of the drainage/SuDS systems as proposed in this report.
- 1.4 This Owner's Manual is for advising the required maintenance activities for the sustainable drainage network. This report has been prepared with reference to CIRIA document C753 – The SuDS Manual and provides current best practice guidance on Sustainable Drainage Systems (SuDS) to facilitate their effective implementation within developments.

2 Management and Maintenance of SuDS Features

Introduction

- 2.1 Unlike conventional drainage systems, SuDS features should be visible and their function should be easily understood by those responsible for maintenance. When problems occur, they are generally obvious and can be remedied simply, using standard landscaping practice. If systems are properly monitored and maintained, any deterioration in performance can often be managed out.
- 2.2 There are three categories of maintenance activities:
- **Regular Maintenance** (*including inspections and monitoring*) – Consists of basic tasks done on a frequent and predictable schedule, including vegetation management, litter and debris removal, and inspections.
 - **Occasional Maintenance** – Comprises tasks that are likely to be required periodically, but on a much less frequent and predictable basis than the routine tasks (e.g. sediment removal).
 - **Remedial Maintenance** – Comprises intermittent tasks that may be required to rectify faults associated with the system.

Health and Safety

- 2.3 All those responsible for maintenance should take appropriate health and safety precautions of all activities (including lone working, if relevant) and risk assessments should always be undertaken.

Attenuation Tank

- 2.4 The primary purpose of the attenuation tank is to attenuate surface water run-off during extreme rainfall events.
- 2.5 Regular inspection and maintenance are required to ensure the effective long-term operation of the below ground storage tanks, see Table 2.1 below for details:

Maintenance Schedule	Required Action	Recommended Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then annually
	Debris removal from catchment surface (where may cause risk to performance).	Monthly.
	Remove sediment from pre-treatment structures.	Annually, or as required.
Remedial Actions	Repair/rehabilitation of 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 and after large storms.
	Survey inside of tank for sediment build-up and remove if necessary.	Annually until evidence this is too regular, every 5 years thereafter.

Table 2.1: Attenuation Tank Maintenance Requirements

Petrol Interceptor

- 2.6 The petrol interceptor is designed in this system to remove oils, silts and sediments from the surface water before it is discharged into the sewer.
- 2.7 A petrol interceptor is a type of proprietary treatment system which are surface and subsurface manufactured products designed to provide treatment of water through the removal of contaminants.
- 2.8 Regular inspection and maintenance are important for the effective operation of proprietary treatment systems as designed; these are described in Table 2.2:

Maintenance Schedule	Required Action	Recommended Frequency
Routine Maintenance	Remove litter and debris and inspect for sediment, oil and grease accumulation.	Six monthly.
	Change the filter media.	As recommended by manufacturer.
	Remove sediment, oil, grease and floatables.	As necessary – indicated by system inspections or immediately following significant spill.
Remedial Actions	Replace malfunctioning parts or structures.	As required.
Monitoring	Inspect for evidence of poor operation.	Six monthly.

	Inspect filter media and establish appropriate replacement frequencies.	Six monthly.
	Inspect sediment accumulation rates and establish appropriate removal frequencies.	Monthly during first half of operation, then every six months.

Table 2.2: Proprietary Treatment System Maintenance Requirements

- 2.9 However, there are specific requirements for oil/water separators. The following should be undertaken every six months as a minimum:
- Check volume of sludge,
 - Check thickness of light liquid,
 - Check function of automatic closure device,
 - Empty the separator, if required,
 - Check the coalescing material and clean or change if necessary (class 1 only), and
 - Check the function of the warning device (if fitted).
- 2.10 General inspection of the integrity of the oil/water separator should take place every five years and should cover:
- Watertightness of system,
 - Structural condition,
 - Internal coatings,
 - In-built parts,
 - Electrical devices and installations, and
 - Adjustment of automatic closure device.
- 2.11 It is usually required to fill separators with clean water before they are put into operation and after every time it is emptied for maintenance. Failure to do this will cause the separator to malfunction until surface water builds up the required permanent water level in the facility. It is possible to fit an alarm to separators that will indicate when the collected oil volume is at a maximum, and this may be a regulatory requirement. The alarms should be placed in a location that is clearly visible to those responsible for maintenance of the system.

3 Maintenance Activities

Regular Maintenance Activities

Inspections and Reporting

- 3.1 Inspections can generally be carried out at monthly site visits and should be subsumed into regular maintenance requirements. During the first year of operation, inspections should ideally be carried out after every significant storm event to ensure proper functioning, but in practice this may be difficult or impractical to arrange.
- 3.2 Typical routine inspection questions that will indicate when occasional or remedial maintenance activities are required, and/or when water quality requires investigation include:
- Are inlets or outlets blocked?
 - Is there evidence of sediment build up?
 - Is there evidence of structural damage that requires repair?

Litter/Debris Removal

- 3.3 This is an integral part of SuDS maintenance and reduces the risks of inlet and outlet blockages, retains amenity value and minimises pollution risks.

Irregular Maintenance Activities

Sediment Removal

- 3.4 To ensure long-term effectiveness, the sediment that accumulates in SuDS should be removed periodically.
- 3.5 Sediment accumulation will typically be rapid for the entire construction period (including time required for the building, turfing and landscaping of all upstream development plots). Once a catchment is completely developed and all vegetation is well-established, sediment mobility and accumulation is likely to drop significantly.

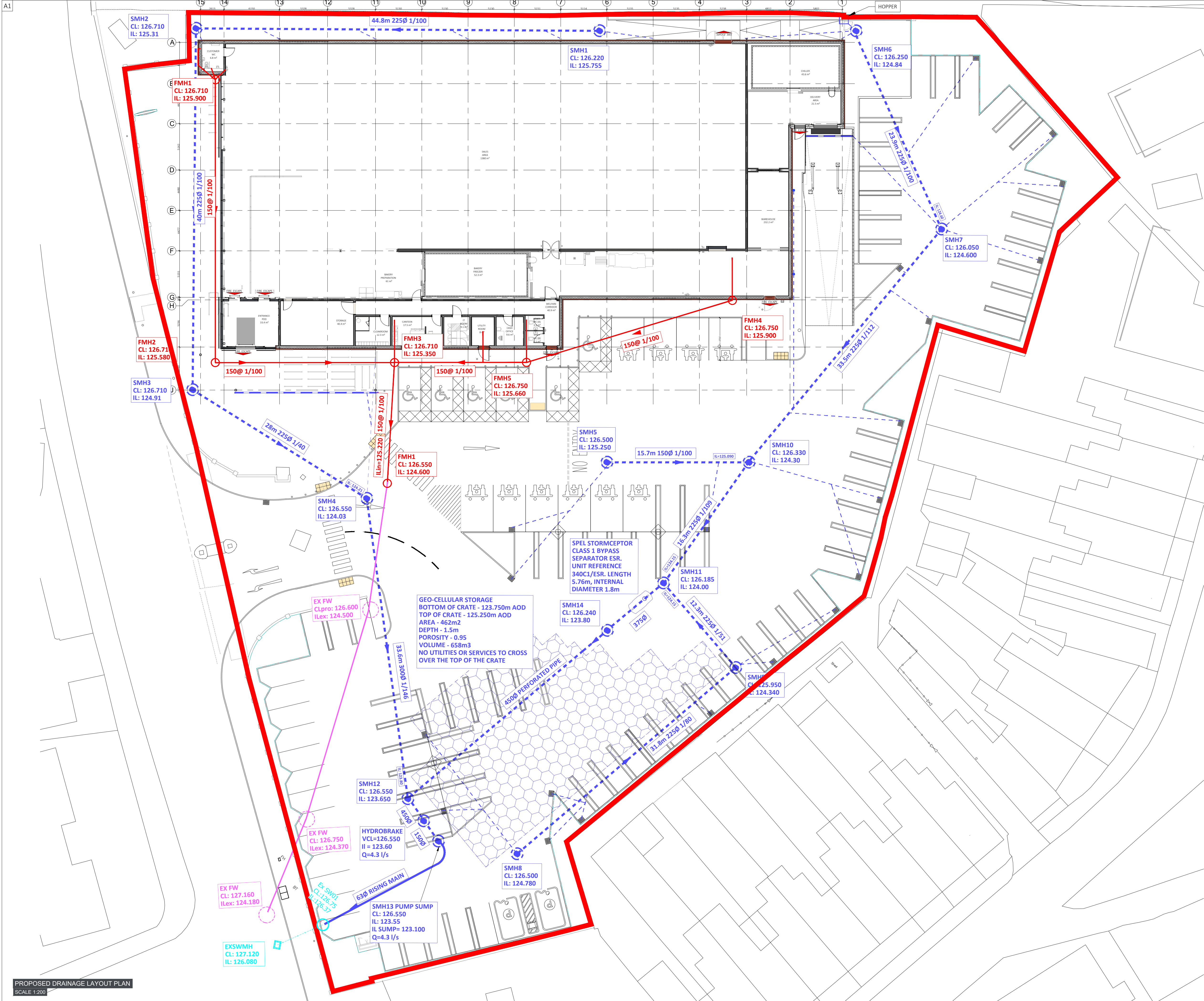
Remedial Maintenance

Structure rehabilitation/repair

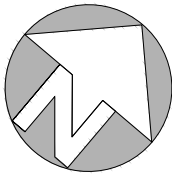
- 3.6 There will come a time with most SuDS techniques when a major overhaul of the system is required to remove clogged filters, geotextiles, gravel etc. This will typically be between 10 and 25 years, depending on the technique and factors such as the type of catchment and sediment load.

- 3.7 Major overhaul is most likely to be required on techniques that rely on filtration through soils or aggregates, such as sand filters and infiltration devices. Other SuDS techniques are unlikely to need major overhaul if routine maintenance is undertaken as required.

APPENDIX A: Drainage General Arrangement Plan



DRAWING NOTES:
1. This Drawing is to be read in conjunction with the relevant Specifications & other Architectural & Engineering Drawings. Engineers to be informed immediately of any discrepancies before work proceeds.
2. Do Not Scale from this Drawing. Metric Figure Dimension only are to be used.
3. It is "The Contractors" responsibility to ensure that all works are carried out in accordance with the requirements of the current Building Regulations and all other statutory documents relevant to this project including the grant of planning permission, Fire Safety Certificate and Disability Access Certificate.
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LEGEND -PROPOSED SITE DRAINAGE	
ELEMENT	SHOWN AS
PROPOSED FOUL DRAINAGE EXTERNAL 150mm Ø	
PROPOSED SW & FW PC RING MANHOLE	
PROPOSED SW DRAIN	
PROPOSED GULLY CONNECTION 150mm DIAMETER	
PROPOSED ACO CHANNEL	
PROPOSED SLOT CHANNEL	
ACCESS BOX FOR SLOT CHANNEL	
RAIN WATER PIPE	RWP
EXISTING MANHOLES (FOUL & SURFACE)	
EXISTING FOUL WATER	Ex.Foul
EXISTING SURFACE WATER	Ex.Storm
PROPOSED GULLY	G
ATTENUATION TANK	

AS BUILT
DRAWING

REV.	DATE	BY	DESCRIPTION
AB4	30.10.2025	PM	CLIENT COMMENTS
AB3	28.10.2025	PM	ISSUED FOR AS BUILT
AB2	23.10.2025	IMR	ISSUED FOR AS BUILT
AB1	21.10.2025	IMR	ISSUED FOR AS BUILT

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SDS

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Client: ADSTON

Project Title: PROPOSED NEW LIDL FOODSTORE AT EAST GRINSTEAD LONDON ROAD, UK.

Drawing Title: SITE LAYOUT FOUL SEWER & SURFACE WATER LAYOUT

Scale: 1:200	Paper Size: A1	Status: AS BUILT
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