



SURFACE WATER MAINTENANCE PLAN – REV. A

SIMPLY UK

HOOK LANE, PAGHAM

CS&P REFERENCE: 9418

DATE: 10/07/2024

INNOVATION IN THOUGHT AND STRUCTURE





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Document Approval

Originator : Lindsay Cunningham
Date: 10/07/24

Checked By Steven Hughes
Date:

Authorisation By Steven Hughes
Date:

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1	12/07/24	Design Team	DRAFT/First Issue
2	23/01/26	Design Team	Updated with Simply Details

Contents

1.0	Introduction	- 5 -
1.1	Brief	- 5 -
1.2	Limitations.....	- 5 -
2.0	Surface Water Maintenance Plan	- 7 -
2.1	Site Location Plan and Details	- 7 -
2.2	Proposed Surface Water Drainage.....	- 8 -
2.3	Maintenance Responsibility	- 8 -
2.4	Maintenance Schedule.....	- 9 -
2.5	Responsible Persons and Contact Details	- 11 -
Appendix A	Site Location Plan	
Appendix B	CS&P Drawings	
Appendix C	Maintenance Log sheets	

1.0 **Introduction**

1.1 **Brief**

Charles Scott & Partners have been commissioned by Simply UK to assist with investigations and reporting on a proposed development for the Planning Application. This is in relation to any potential existing drainage and flooding issues to the proposed residential care home development near Hook Lane and Pagham Road, Chichester, PO21 3NY. We are to provide the Surface Water Maintenance Document to accompany Planning comments for the proposed facility. This will assist with –

- summarizing the drainage features used within the site.
- Establish who is responsible for the maintenance of the drainage components.
- Ensure that all those involved in the maintenance and operation of the drainage system understand their functionality and maintenance requirements in terms of supporting long term performance.
- Maintenance inspections should be recorded in line with the organizational body responsible for the drainage elements on site and recorded.

1.2 **Limitations**

This report is made out on the instructions of, and on behalf of Simply UK. No responsibility is accepted to any third party for the whole or any part of its contents.

Neither the whole nor any part of this report, nor any reference thereto may be included in any document, circular or statement without the written approval of this firm as to the form and context in which it will appear prior to any agreed disclosure.

No excavations have been carried out to expose the depth, nature, and condition of the foundations. No tests have been carried out on the sub-soil to determine its load bearing ability.

We gained no access to any habitable buildings, nor were services and drainage installations inspected. We also never inspected any materials at the site during our inspection.

Our report is restricted to the terms of our brief. Where comments are made on other aspects or areas of the property, these comments are made for information purposes. No reliance can be made on these additional comments.

The general description of the property is provided for information purposes and is based on background information or our opinion. This description is not to be used as a reliance on the condition of the property at the time of our inspection.

The object of this report is to inform the client and the Local Authority of any key drainage and other issues which may influence the development process. The report has been produced in accordance with the guidance detailed in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance (PPG). Reference has also been made to the CIRIA SUDS manual (C753), Arun District Council correspondence and West Sussex

County Council (WSCC) Policy for the Management of Surface Water, Standards and Information including Strategic Flood Risk Assessment (SFRA) Council SuDS Design Guide.

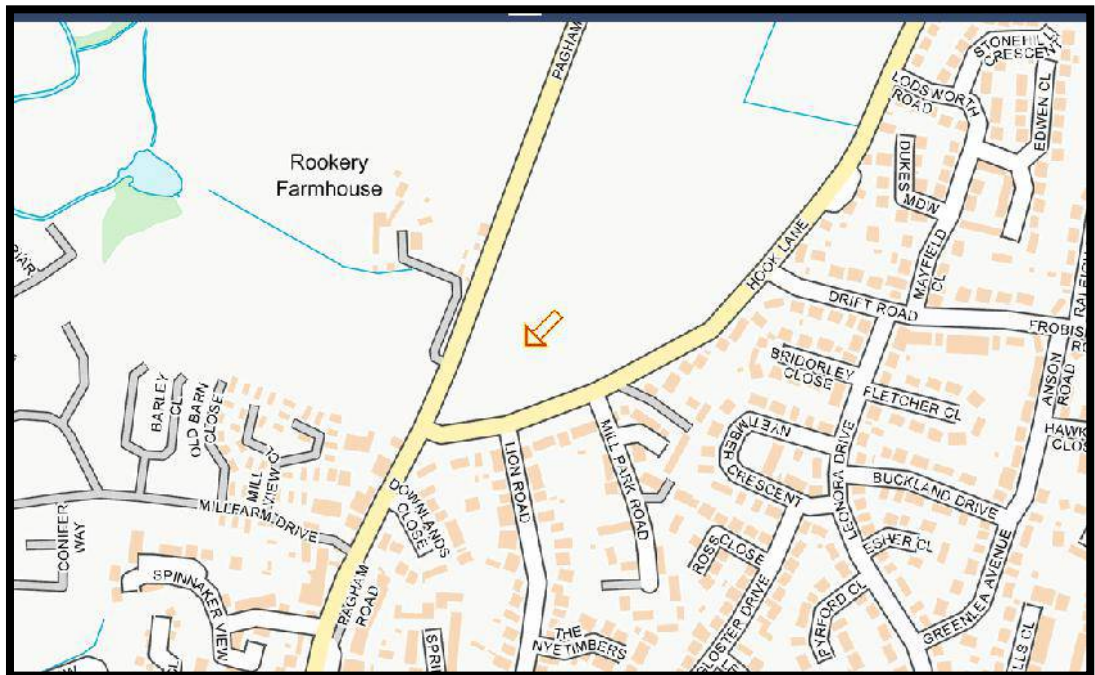
This report has been correlated from information gathered existing information and drawings, meetings/discussions with consultants, Southern Water, and other bodies. Information given by these bodies is referred to and reported within the body of this report.

2.0 Surface Water Maintenance Plan

2.1 Site Location Plan and Details

Charles Scott & Partners have been commissioned by Simply UK to assist with investigations and reporting on a proposed development for the Planning Application. This is in relation to any potential existing drainage and flooding issues to the proposed residential care home development near Hook Lane and Pagham Road, Chichester, PO21 3NY. We are to provide the comments within the body of an updated drainage strategy report to accompany Planning comments for the proposed facility.

The site is located at the corner of Hook Lane and Pagham Road, Chichester. The Ordnance Survey grid reference for the centre of the site is 489408, 98898 as shown on the Site Location Plan in Appendix A. the National Grid Reference for the site is SZ 894988 / 8940898889. The nearest Post Code is PO21 3NY.



The site is bounded by Hook Lane to the south and east. Pagham Road is to the north and west. Open fields are situated to the north/northeast of the site. Residential properties are located along the southern boundary of Hook Lane and west of Pagham Road.

2.2 Proposed Surface Water Drainage

Following the proposed redevelopment of the site the surface water contributing areas for the residential development are estimated as follows: -

- | | | | | |
|--------------------|---|----------------------|----|---------|
| • Total Site Area | = | 5,300 m ² | or | 0.53 ha |
| • Impermeable Area | = | 3,150 m ² | or | 0.32 ha |
| • Permeable Area | = | 2,150 m ² | or | 0.21 ha |

Treatment and attenuation size for the proposed SUDS for the development will likely take the form of a series of measures or treatment train for the site. A copy of these proposals is incorporated with Appendix B of this report.

The SUDS feature to be utilised on this site will be as follows:-

- Permeable pavement/Porous carparking
- Underground cellular storage

The use of these features will be incorporated with the detailed design and submitted to various statutory bodies for approval prior to being implemented on the site.

Maintenance plan and details are described as in section 2.3 of this report, it is also shown our drawings 9418 / C002 / C003. Client/ contractor will be required to upkeep the drainage maintenance in accordance with this strategy, a typical maintenance log sheet is attached in Appendix C.

2.3 Maintenance Responsibility

A Maintenance Plan will be required to ensure that the SuDS incorporated at the site remain functional for the lifetime of the development. This will ensure a continued reduction in local flood risk through the attenuation of surface water run-off on site. It is proposed to provide underground attenuation tanks and porous carparking features capable of storing the hardstanding impermeable area at the site.

Maintenance is a key element. Any item which presents a potential pollution risk if not properly maintained must be highlighted by the site manager to the designers, contractors and end users to ensure protection to the existing site drainage network.

Once highlighted a maintenance regime will be put in place to comply with the manufacture's guidelines, advice or instructions.

The maintenance regime will form part of the weekly construction meeting with all contractors to ensure compliance. All site staff as part of their induction process will be made aware of the site rules to the maintenance and reporting of faulty equipment and mitigation measures.

The impermeable and structural integrity of bunds will be assessed as part of the inspection process and maintained if required

All equipment, machinery and vehicles will be inspected as part of their maintenance program. Any plants with faults will be removed from site or stored in a safe area away from the watercourse to be repaired

Portable equipment such as generators, small fuel containers etc will be stored on a plant nappy or drip tray

Any debris and sediment built up in settlement basins, silt fencing, check dams, cut off trenches, gully bags and silt trap manholes will be removed during a dry period and disposed of.

Silo areas will be cleaned weekly and to minimise the amount of washout water generated, excess concrete will be scraped off the equipment before it is washed. These excess solids should be placed in a designated site storage container

Roads which require to be cleaned due to the construction process and build-up of site soils will be cleaned by a road brusher as and when required

If out with the maintenance due period there is found to be a requirement for maintenance to a protection measure this will be reported to the site manager by the end user who will make arrangements for maintenance to be carried out urgently if there is a potential risk to the existing drainage network.

2.4 Maintenance Schedule

The below table highlights typical maintenance requirements for the elements.

Type of SuDS	Illustration	Maintenance required	Regularity	Indicative Maintenance Costs
Underground attenuation tank	Underground plastic geocellular/modular systems can be used to create a below ground storage structure. Due to the modular nature of the systems, they can be tailored to suit the specific requirements of any site. Water can be attenuated on site, before discharging at a controlled rate to a watercourse or other drainage system.	Cleaning inlets/ outlets, manholes, associated pipework, and silt traps	Annual Inspection, or as required	£5k

Porous Pavement	Pervious surfaces provide a surface suitable for pedestrian and/or vehicular traffic, while allowing rainwater to infiltrate through the surface and into underlying layers. The water can be temporarily stored before infiltration to the ground, reused, or discharged to a watercourse or other drainage system. Surfaces with an aggregate sub-base can provide good water quality treatment.	Brushing and vacuuming (standard cosmetic sweep over whole surface area) attention should be taken were water runs from impermeable areas as this is most likely to accumulate silt.	BI-Annual cleaning and Inspections as required	£10k
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Table 4 – Extract from C753 SUDS Manual

Pipe Network Maintenance

Maintenance Schedule	Required Action	Recommended Frequency
<i>Regular Maintenance</i>	<i>Check the drainage for blockages and damage. Clean and repaired when required.</i>	<i>Monthly for the first 3 months of installation. Then every 6 months</i>
<i>Occasional Maintenance</i>	<i>Remove sediment from catchpits</i>	<i>Annually or after large storm events</i>
<i>Remedial Actions</i>	<i>Jetting of pipework to clear blockages</i>	<i>As required</i>
<i>Monitoring</i>	<i>Inspect for evidence of poor operation and/or damage at manholes.</i>	<i>Monthly for the first 3 months and then annually.</i>
	<i>Inspect inlets/outlets for blockages, and clear as required.</i>	<i>Annually</i>

Road Gullies Maintenance

Maintenance Schedule	Required Action	Recommended Frequency
<i>Regular Maintenance</i>	<i>Check the drainage for blockages and damage. Clean and repaired when required.</i>	<i>Monthly for the first 3 months of installation. Then every 6 months</i>
<i>Occasional Maintenance</i>	<i>De-silting gullies and channel drains.</i>	<i>As required</i>
	<i>Gratings on gullies/channel drains to be kept clear of debris.</i>	<i>As required or after large storm events</i>
	<i>Remove sediment from gullies catchpits</i>	<i>Annually or after large storm events</i>
<i>Monitoring</i>	<i>Inspect for evidence of poor operation of gullies</i>	<i>Monthly for the first 3 months and then annually.</i>

All maintenance carried out will require to be recorded to ensure that maintenance is being managed and performed to continue the life expectancy of the SUDS systems. This will require to be upheld with any successor/ title holder of the property. The applicant or any successor in title must maintain yearly logs of maintenance which should be carried out in accordance with the approved Maintenance Plan. Please see Appendix C for a typical maintenance log sheet.

The contractor will require to liaise with the client to update the Maintenance Plan in accordance with the regime in accordance with table 4 and appendix C. The contractor/client should take cognisance of the drainage drawing the drainage strategy maintenance plan and the maintenance log sheet as shown in appendix C.

2.5 Responsible Persons and Contact Details

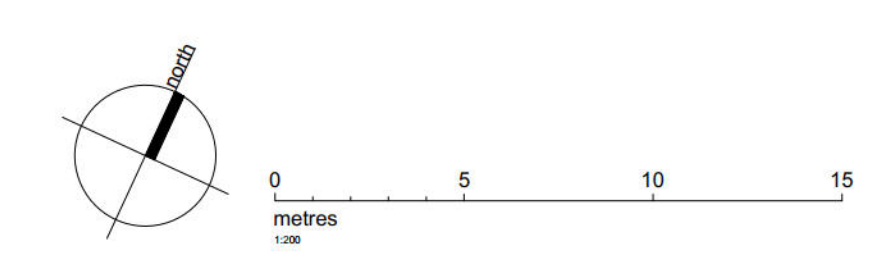
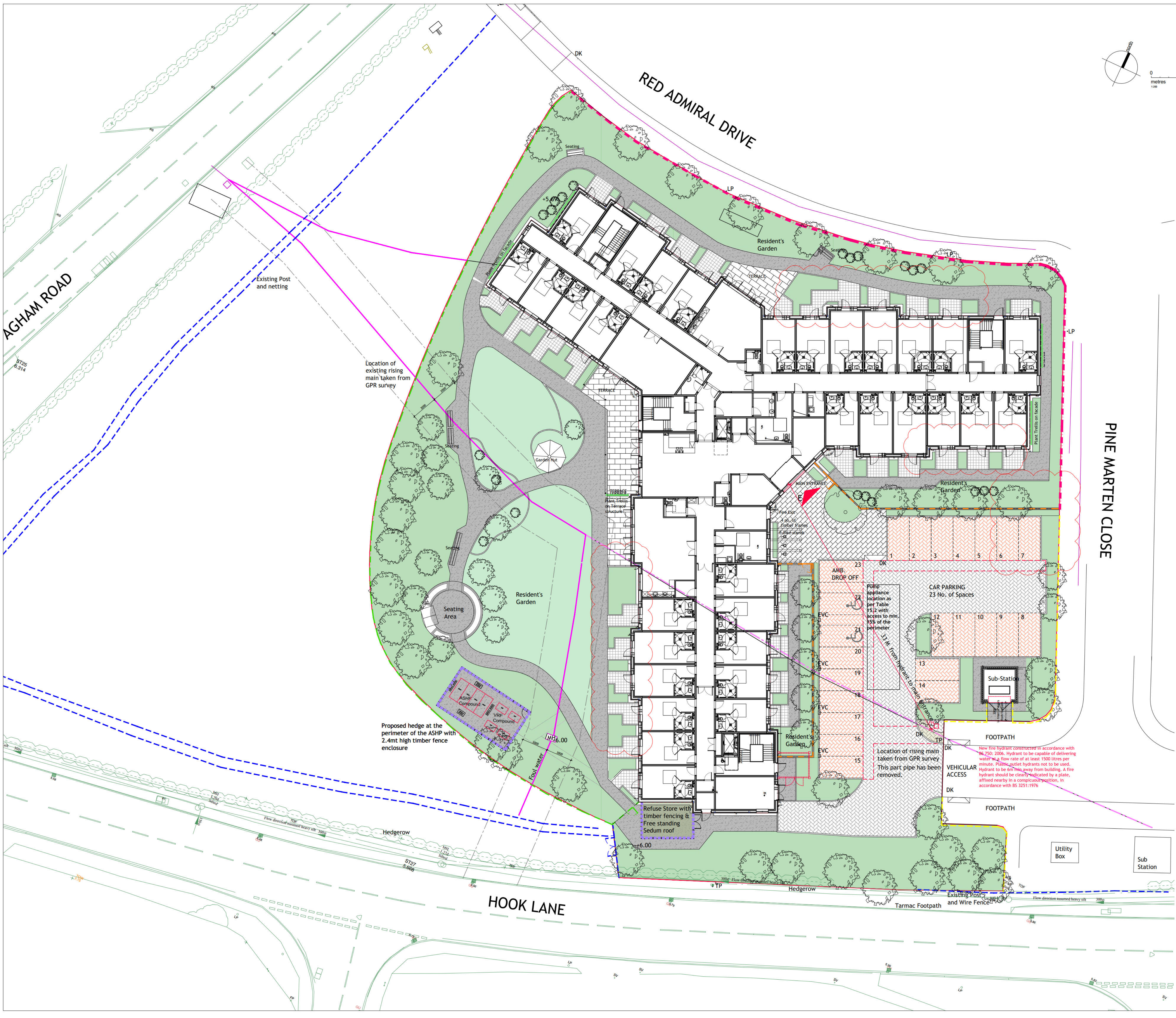
The client Simply UK will be responsible for the private drainage elements at the proposed development. This will include the SUDS Features, pipe network and Road gullies.

Persons with overall responsibility for ensuring this plan is implemented on a day to-day basis	Name: Paul Houldey Role: Operations Director (Southern Region) Email: paul.houldey@moraruk.co Contact No: +44 (0) 141 333 1495
Persons responsible for the maintenance programme	Name: Paul Houldey Role: Operations Director (Southern Region) Email: paul.houldey@moraruk.co Contact No: +44 (0) 141 333 1495
Persons responsible for the inspection programme	Name: Paul Houldey Role: Operations Director (Southern Region) Email: paul.houldey@moraruk.co Contact No: +44 (0) 141 333 1495
Persons responsible for ensuring appropriate rapid response to prevent or minimise pollution if something goes wrong	Name: Paul Houldey Role: Operations Director (Southern Region) Email: paul.houldey@moraruk.co Contact No: +44 (0) 141 333 1495
Reference to use when contacting Environment Agency	CONSTRUCTION WORKS – TO BE DETERMINED
ENVIRONMENT AGENCY 24H Pollution Hotline	0800 80 70 60

Main Tel:
Email:

APPENDIX A

Site Location Plan



General Notes:

If in doubt request clarification from this office. This drawing, and associated copyright, is the property of Convery Prently Shields Architects Ltd.

Revision	Initials	Date
A	SKP	07.01.25
1.	Site plan amended with the ASHP and Refuse Store locations, resident's garden re-arranged to suit.	
B	SKP	21.01.25
1.	ASHP path amended as requested by the client	
C	SKP	04.03.25
1.	ASHP layout amended.	
D	SKP	02.07.25
1.	Tree locations updated to match the landscaping proposals.	
E	SKP	03.07.25
1.	ASHP enclosure omitted from the NPA application proposal.	
F	SKP	07.07.25
1.	ASHP enclosure re-instated for planning.	
G	SKP	04.11.25
1.	Planting amended to avoid clashes with the drainage	

KEY:

- Planning Application Site Boundary
- Main Entrance
- Existing Tree
- Proposed Tree
- Existing Hedge
- Proposed Hedge
- 1.2mt high metal railing, black, Type A
- 2mt high metal railing, black, Type B
- 1mt high brick wall with 1mt high metal railing, black, Type C
- 1.8mt Green Fastmesh 3D PPC fence, Type D
- Personnel Gate with keypad override on secure side
- Post & Wire Stock Fence, Type E
- 1.8m high timber close board fence around refuse store and 2.4mt high timber close board fence around ASHP enclosure, Type F

Hard Landscaping

- HL01 Road Surface**
MARSHALLS TEGULA PRIORA 200 X 160 X 80MM
COLOUR PENNANT GREY
- HL02 Carpark Bay Surface**
MARSHALLS TEGULA PRIORA 200 X 160 X 80MM, COLOUR TBC.
WITH CHARCOAL TO DELINEATE PARKING SPACES
- HL03 Footpaths**
Resin Bound Gravel, colour tbc.
- HL04 Terrace Paving**
MARSHALLS PAVING SLABS Mixed Sizes, COLOUR TBC
- HL05 Gravel**
LIGHT GREY
- HL06 Residents Patios**

PLANNING

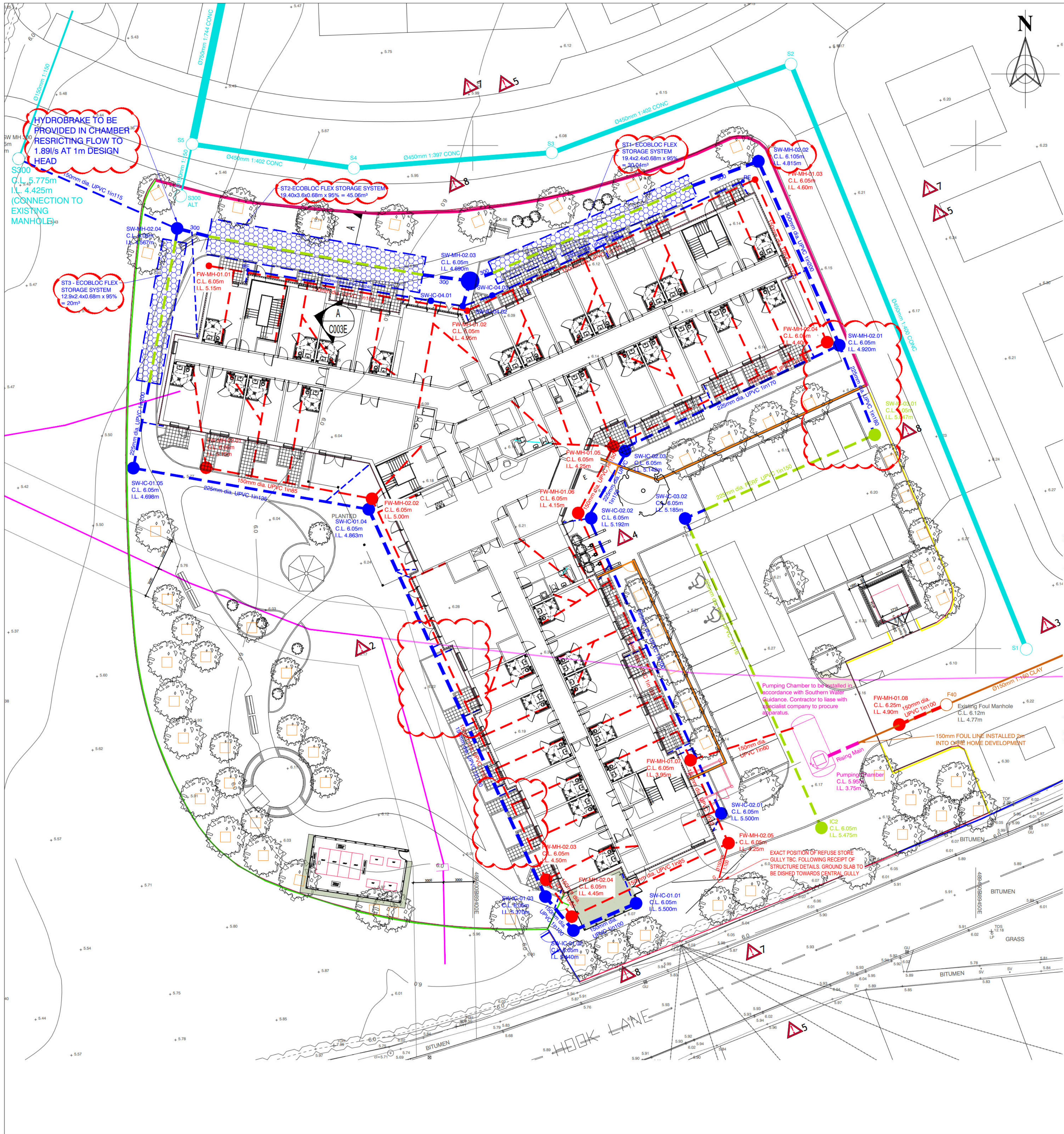
ConveryPrentlyShields ARCHITECTS		
144 West George Street, Glasgow, G2 2HG www.cpsarchitects.co.uk 0141 258 3100		
CLIENT	Simply Develop UK	
PROJECT	Proposed Care Home Hook Lane Pagham PO21 3PB	
DRAWING	Site Plan As Proposed	
PAPER SIZE	SCALE	DATE
A1	1:200	Sept 24
DRAWING NUMBER	REVISION	
2324_005	G	



STORM MAINTENANCE PLAN – Rev. A
SIMPLY UK
HOOK LANE, PAGHAM
CS&P REFERENCE: 9418
DATE:12/07/2024

APPENDIX B

CS&P Drawings



DRAINAGE MANAGEMENT / MAINTENANCE PLAN			
SUDS / DRAINAGE FEATURE	DESCRIPTION	MAINTENANCE REQUIRED	FREQUENCY OF MAINTENANCE
HYDROBRAKE FLOW CONTROL DEVICE / CHAMBER	FLOW CONTROL MECHANISM USED TO RESTRICT FLOW OF SURFACE WATER TO CONTROLLED DISCHARGE LIMITS AGREED WITH LOCAL AUTHORITY. ATTENUATED FLOWS STORED WITHIN UNDERGROUND ATTENUATION TANKS. FLOW CONTROL MECHANISM LOCATED WITHIN UNDERGROUND MANHOLE CHAMBER.	CLEANING INLETS / OUTLETS, MANHOLE AND ORIFICES OF FLOW CONTROL DEVICE TO ENSURE OPTIMUM PERFORMANCE OF DEVICE	ANNUAL INSPECTION OR AS REQUIRED
UNDERGROUND ATTENUATION TANK	UNDERGROUND PLASTIC GEOCELLULAR/MODULAR SYSTEMS CAN BE USED TO CREATE A BELOW GROUND STORAGE STRUCTURE. DUE TO THE MODULAR NATURE OF THE SYSTEMS, THEY CAN BE TAILORED TO SUIT THE SPECIFIC REQUIREMENTS OF ANY SITE. WATER CAN BE ATTENUATED ON SITE, BEFORE DISCHARGING AT A CONTROLLED RATE TO A WATERCOURSE OR OTHER DRAINAGE SYSTEM.	CLEANING INLETS / OUTLETS, MANHOLES, ASSOCIATED PIPEWORK, AND SILT TRAPS	ANNUAL INSPECTION OR AS REQUIRED
PERMEABLE PAVING	PERMEABLE SURFACES PROVIDE A SURFACE SUITABLE FOR PEDESTRIAN AND/OR VEHICULAR TRAFFIC, WHILE ALLOWING RAINWATER TO INFILTRATE THROUGH THE SURFACE AND INTO UNDERLYING LAYERS. THE WATER CAN BE TEMPORARILY STORED BEFORE INFILTRATION TO THE GROUND, REUSED, OR DISCHARGED TO A WATERCOURSE OR OTHER DRAINAGE SYSTEM. SURFACES WITH AN AGGREGATE SUB-BASE CAN PROVIDE GOOD WATER QUALITY TREATMENT.	CLEAN WITH STIFF BRUSH, CHECK/SCRAPE OUT JOINTS IF NECESSARY AND REFILL WITH AGGREGATE	ANNUAL INSPECTION (AFTER AUTUMN FALL OF LEAVES) OR AS REQUIRED

DRAWINGS ISSUED BASED ON CONCEPTUAL DESIGN & ASSUMPTIONS MADE BY CHARLES SCOTT & PARTNERS.

INFORMATION WILL BE VERIFIED UPON RECEIPT OF THE FOLLOWING :-

- RIDGE UPDATED SITE INVESTIGATION
- LGS LINE LOADS
- LGS FLOOR SPANS
- LGS POINT LOADS FOR PADS
- ARCHITECTS CO-ORDINATION

NOTES:

WATER TABLE AT 1-1.7m BELOW GROUND CONTRACTOR TO CARRY OUT DEWATER AS NECESSARY.

REMOVE ANY MADE GROUND/STOFT SPOTS AND FILL WITH TRENCHFILL

FORMATION LEVEL TO BE WELL BELOW ANY TREE ROOTS

ALL CONCRETE TO BE GRADE C28/35 UNLESS NOTED OTHERWISE

NOTES:

ROUTE OF INTERNAL DRAINAGE RUNS SHOWN ON PLAN OPPOSITE IS INDICATIVE.

CONTRACTOR TO COORDINATE INTERNAL DRAINAGE RUNS WITH FINALISED FOUNDATION LAYOUT (AFTER CONFIRMATION OF REQUIRED PAD FOUNDATION TO SUIT LSG MANUFACTURERS CONFIRMED LOADS)

Pumping Station Requirements. Client to confirm exact parameters:-

The pumping station requires to be sized to accommodate the following:-

- Maximum 80 care home residents
- 10 Full time staff over 3 shifts (Total of 30 in 24 hr period)
- Kitchen facilities for residents and staff serving 3 meals per day
- 3 washing machines at a rate of 0.35m³/hr for 4.5 hours per day (Operating 1.5 hours per eight hour shift)
- We are also limited to a final factored discharge of 3.81l/s into the public network so this needs to be factored into flow rates / storage requirements.

The proposed solution would require a duty and stand-by pump arrangement and associated telemetry back to care home plant room.

DRAINAGE DESIGN CRITERIA:-

WE PROPOSE TO INCORPORATE A SUDS DESIGN THAT REDUCES THE QUANTITY OF WATER AND IMPROVES THE WATER QUALITY DISCHARGING TO THIS SEWER ALL IN ACCORDANCE WITH SUDS PRINCIPLES.

THE SURFACE WATER NETWORK SHOWN OPPOSITE HAS BEEN DESIGNED TO CONVEY THE RUN OFF DISCHARGE FROM ROOFS AND HARD SURFACED AREAS IN TO THE NEW SURFACE WATER SEWER AND PIPED TO THE LOCAL AUTHORITY SEWER WITH FLOWS RESTRICTED TO AGREED RUN OFF LIMITS. WE PROPOSE TO REDUCE THE FLOW OF SURFACE WATER TO THE LOCAL AUTHORITY SURFACE WATER DRAIN TO A LIMITED FLOW OF 2.0 L/S BY INTRODUCING A HYDROBRAKE FLOW CONTROL DEVICE.

THE TOTAL ATTENUATION VOLUME REQUIRED TO ACCOMMODATE THIS LIMITING FACTOR IS 224m³. THIS VOLUME IS PROVIDED WITHIN THE PROPOSED DRAINAGE SCHEME USING 141m³ UNDERGROUND MODULAR STORAGE BOXES. THE REMAINING VOLUME OF 83m³ IS ACHIEVED BY USING THE STORAGE CAPACITY WITHIN THE DRAINAGE SYSTEM (PIPES AND MANHOLES) AND THE VOIDS WITHIN THE AGGREGATE FORMING THE PERMEABLE PAVED CAR PARKING AREA.

THIS ATTENUATION VOLUME HAS BEEN GENERATED TO ACCOMMODATE A 1 IN 100 YEAR STORM EVENT WITH ADDITIONAL 45% CLIMATE CHANGE.

THE ABOVE MEASURES **REDUCE THE QUALITY** OF WATER DISCHARGING TO THE LOCAL AUTHORITY SEWER IN ACCORDANCE WITH SUDS PRINCIPLES.

THE DESIGN OPPOSITE ALSO INCORPORATES THE TREATMENT REQUIREMENTS ASSOCIATED WITH SUDS SYSTEMS. ALL VEHICULAR ACCESS ROADS, CAR PARKING, Etc. IS GRADED TO FALL TO AREAS OF PERMEABLE PAVING WHERE FLOWS ARE TREATED BY PERCOLATION THROUGH GRANULAR FILTER MEDIUM BELOW SURFACE BLOCKS. PERCOLATION THROUGH THE FILTER MEDIUM ALSO RESTRICTS THE FLOW OF SURFACE WATER RESULTING IN FURTHER ATTENUATION OF COLLECTED RAINWATER FROM THE HARDESTANDING AREAS. RUN OFF FROM AREAS OF ROOF ARE CONSIDERED CLEAN RUN OFF AND ARE CONVEYED IN SURFACE WATER SYSTEM THROUGH ATTENUATION SYSTEM.

THE ABOVE MEASURES **IMPROVE THE QUALITY** OF WATER DISCHARGING TO THE LOCAL AUTHORITY SEWER IN ACCORDANCE WITH SUDS PRINCIPLES.

DRAINAGE MANAGEMENT REQUIREMENTS

AN INITIAL PRE INSPECTION OF THE DRAINAGE SYSTEM SHALL BE CARRIED OUT BY THE CLIENT PRIOR TO HANDOVER OF THE CONSTRUCTED DRAINAGE SYSTEM AND ALL ASSOCIATED SUDS FEATURES.

REGULAR INSPECTIONS OF SUDS FEATURES WILL THEN:

- HELP DETERMINE THE FUTURE MAINTENANCE REQUIREMENTS TO ENSURE OPTIMUM OPERATION OF THE DRAINAGE SYSTEM.
- HELP ESTABLISH ONGOING HYDRAULIC, WATER QUALITY AND BIODIVERSITY OF THE SYSTEM
- ALLOW IDENTIFICATION OF POTENTIAL PERFORMANCE FAILURES, SUCH AS BLOCKAGES, RESULTING FROM LACK OF MAINTENANCE.

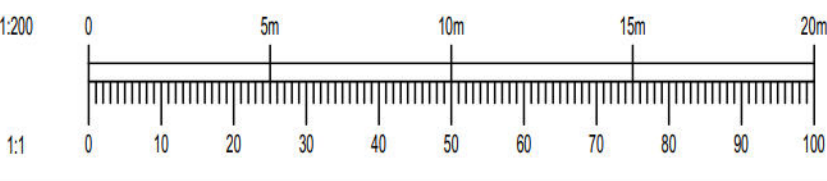
DURING THE FIRST YEAR OF OPERATIONS ALL TYPES OF SUDS FEATURES SHALL BE INSPECTED AT MONTHLY INTERVALS (AND AFTER SIGNIFICANT STORM EVENTS) TO ENSURE THE SYSTEM IS FUNCTIONING AS DESIGNED WITH NO LOSS OF SYSTEM PERFORMANCE.

SUDS FEATURES WILL BE INSPECTED BY THE CLIENT. THE CLIENTS DETAILS ARE AS FOLLOWS:-

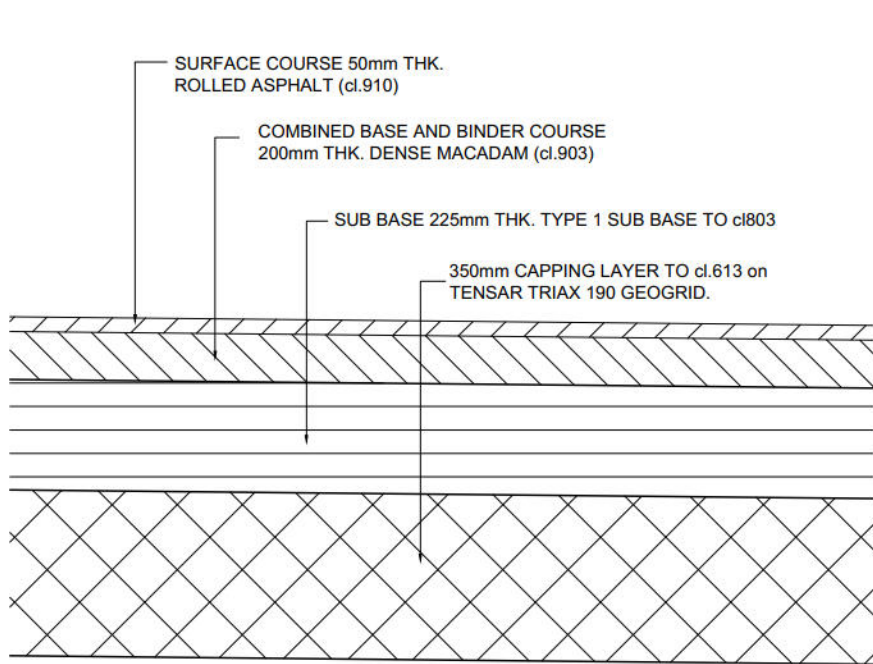
SIMPLY LTD
PAVILION 6
THE APPROACH
321 SPRINGHILL PARKWAY
GLASGOW
G69 6GA
UNITED KINGDOM
THEREAFTER THE MAINTENANCE REGIME SHALL INCORPORATE THE METHODS OF INSPECTION AS NOTED IN DRAINAGE MANAGEMENT/MAINTENANCE PLAN.

MANHOLE TYPES LEGEND		
CLASS	MAX. WEIGHT LOAD (TONNES)	USES
A15	1.5	VERY LIGHT DUTY FOR PEDESTRIAN AREAS LIKE GARDENS, PATIOS AND DRIVEWAYS.
B125	12.5	DOMESTIC DRIVEWAY THRESHOLDS FOR FAMILY CARS, VAN AND 4x4s.
C250	25	LIGHTLY TRAFFICKED ROADS AND SMALL PRIVATE CAR PARKS.
D400	40	MAIN ROADS, HIGHWAYS AND HIGH TRAFFIC AREAS LIKE PUBLIC CAR PARKS.
E600	60	INDUSTRIAL ESTATES, LOADING BAYS AND CARGO HANDLING YARDS.
F900	90	DOCK AND AIRPORTS, EXTREME HEAVY DUTY APPLICATION.

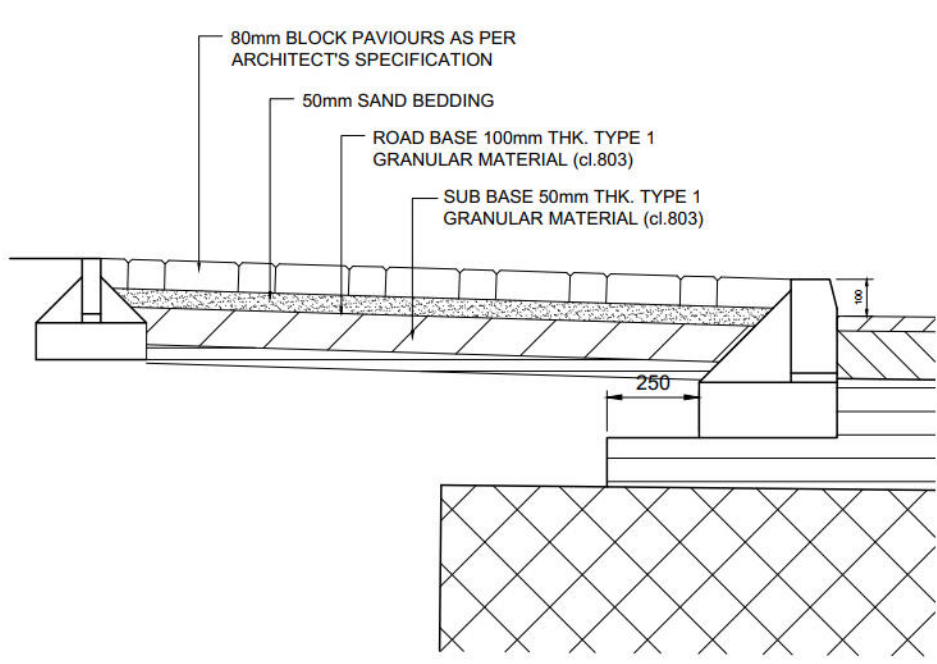
KEY	
	AS-INSTALLED SURFACE WATER DRAINAGE
	AS-INSTALLED FOUL DRAINAGE
	PROPOSED DEVELOPMENT SURFACE WATER DRAINAGE
	PROPOSED DEVELOPMENT FOUL DRAINAGE
	PROPOSED DEVELOPMENT 56mm BATH WASTE DRAINAGE
	INDICATES EXTENT OF TREE PIT - 1m x 1m



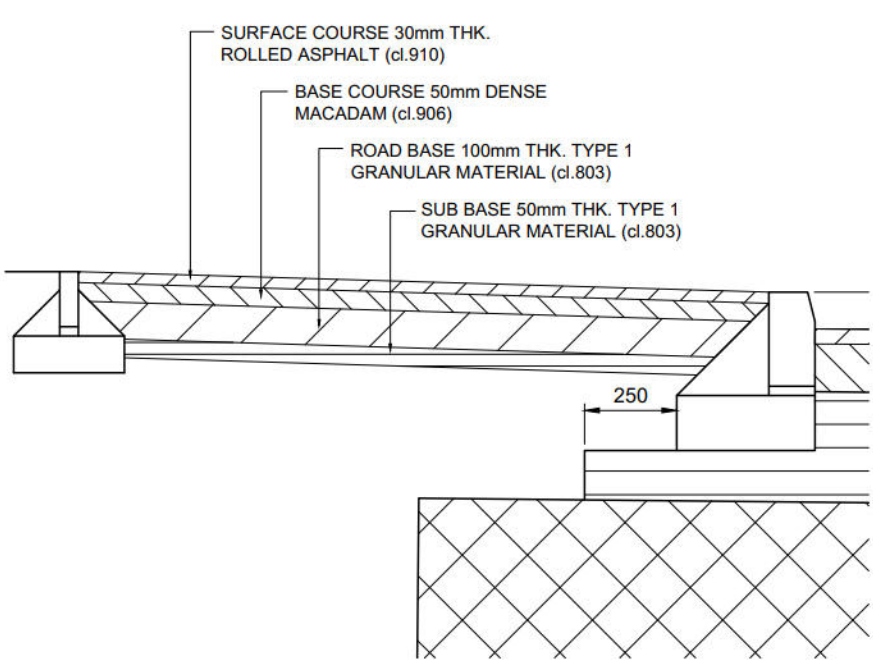
T	Ecobloc spec. & notes amended as clouded. Trees removed to clouded	12/11/25	CM	LC
T	Revised as Clouded	Aug/25	CM	LC
S	Tree Pit Locations Added	Mar/25	EM	LC
R	Rising Main Discharge Rate amended	Mar/25	JPC	BM
Q	150mm Pop-Up Pipes added to Assisted Bath areas as requested by client. (2x, 3x, 4x, 5x, 6x, 7x, 8x, 9x, 10x, 11x, 12x, 13x, 14x, 15x, 16x, 17x, 18x, 19x, 20x, 21x, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 30x, 31x, 32x, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 40x, 41x, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 50x, 51x, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 60x, 61x, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 70x, 71x, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 80x, 81x, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 90x, 91x, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 100x, 101x, 102x, 103x, 104x, 105x, 106x, 107x, 108x, 109x, 110x, 111x, 112x, 113x, 114x, 115x, 116x, 117x, 118x, 119x, 120x, 121x, 122x, 123x, 124x, 125x, 126x, 127x, 128x, 129x, 130x, 131x, 132x, 133x, 134x, 135x, 136x, 137x, 138x, 139x, 140x, 141x, 142x, 143x, 144x, 145x, 146x, 147x, 148x, 149x, 150x, 151x, 152x, 153x, 154x, 155x, 156x, 157x, 158x, 159x, 160x, 161x, 162x, 163x, 164x, 165x, 166x, 167x, 168x, 169x, 170x, 171x, 172x, 173x, 174x, 175x, 176x, 177x, 178x, 179x, 180x, 181x, 182x, 183x, 184x, 185x, 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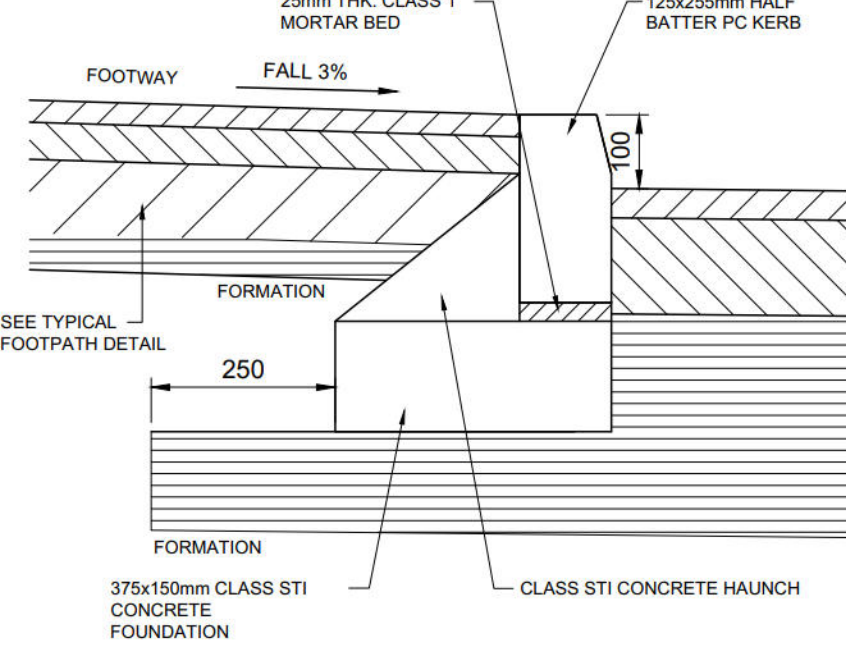
TYPICAL VEHICULAR CARRIAGEWAY CONSTRUCTION



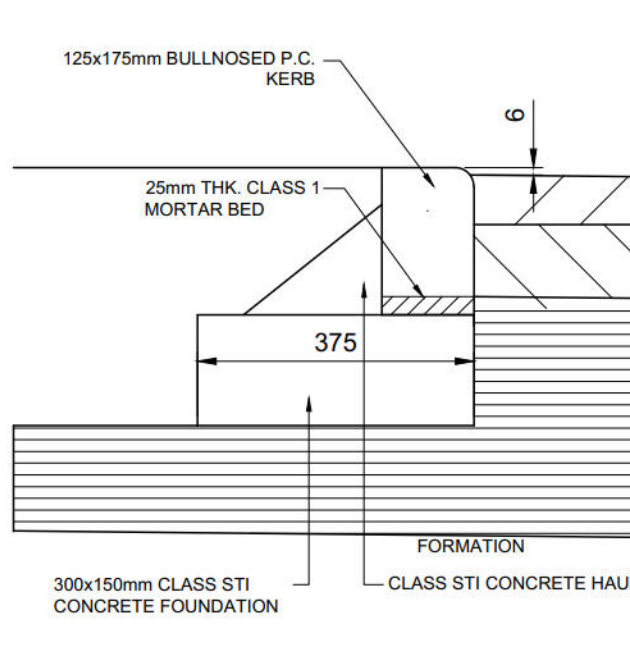
BLOCK PAVED PEDESTRIAN FOOTPATH CONSTRUCTION



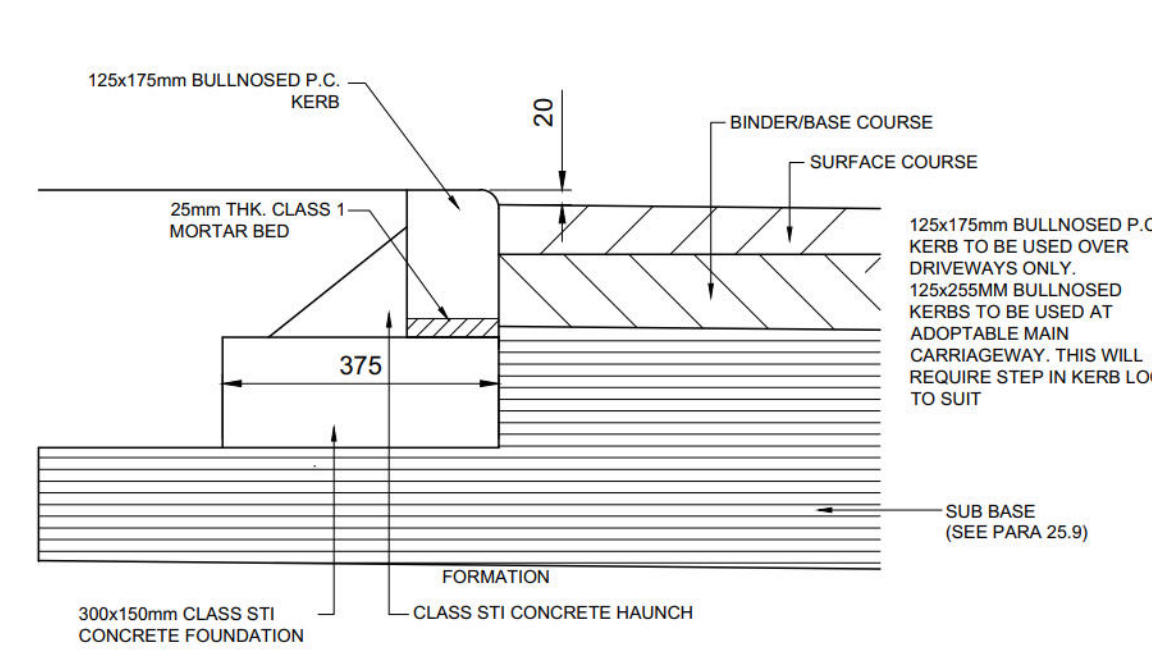
TYPICAL PEDESTRIAN FOOTPATH CONSTRUCTION



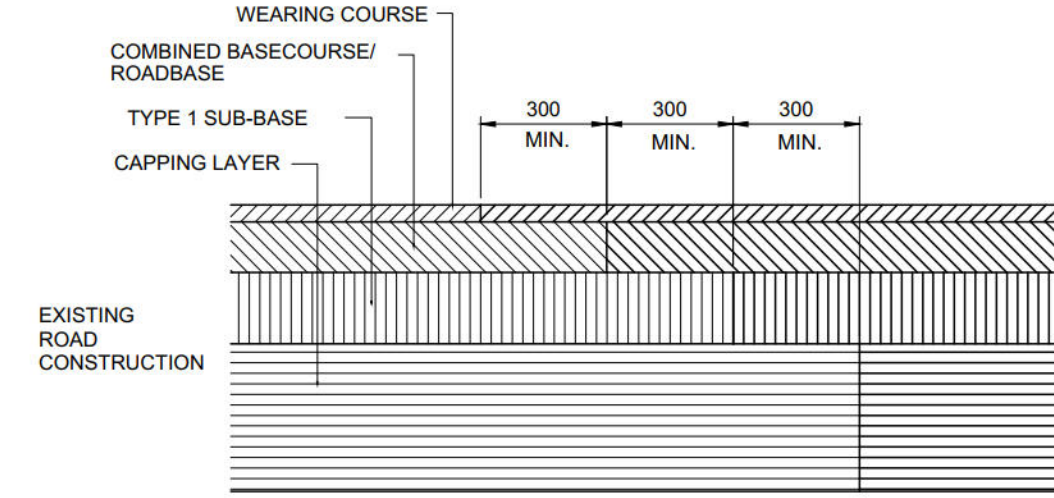
TYPICAL HALF BATTER KERB DETAIL



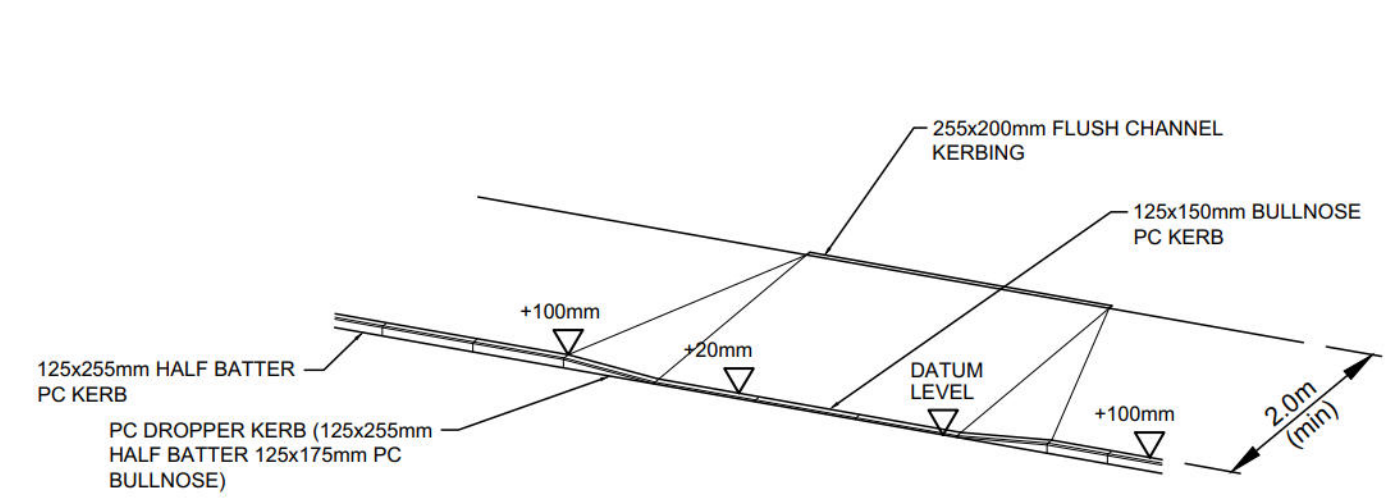
TYPICAL 6mm BULLNOSE KERB DETAIL



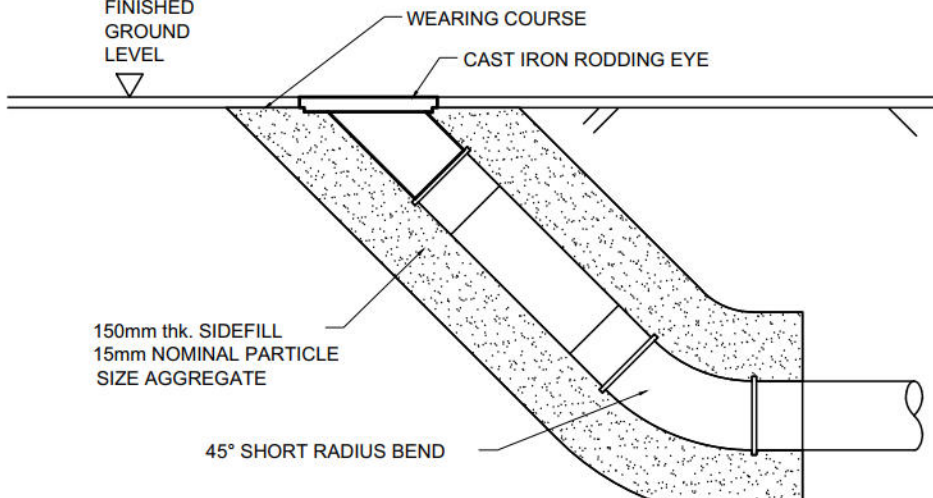
TYPICAL 20mm BULLNOSE KERB DETAIL



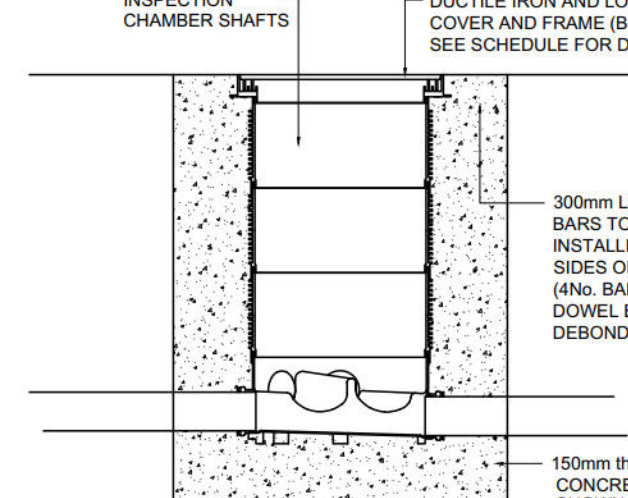
TYPICAL SURFACING TIE-IN DETAIL



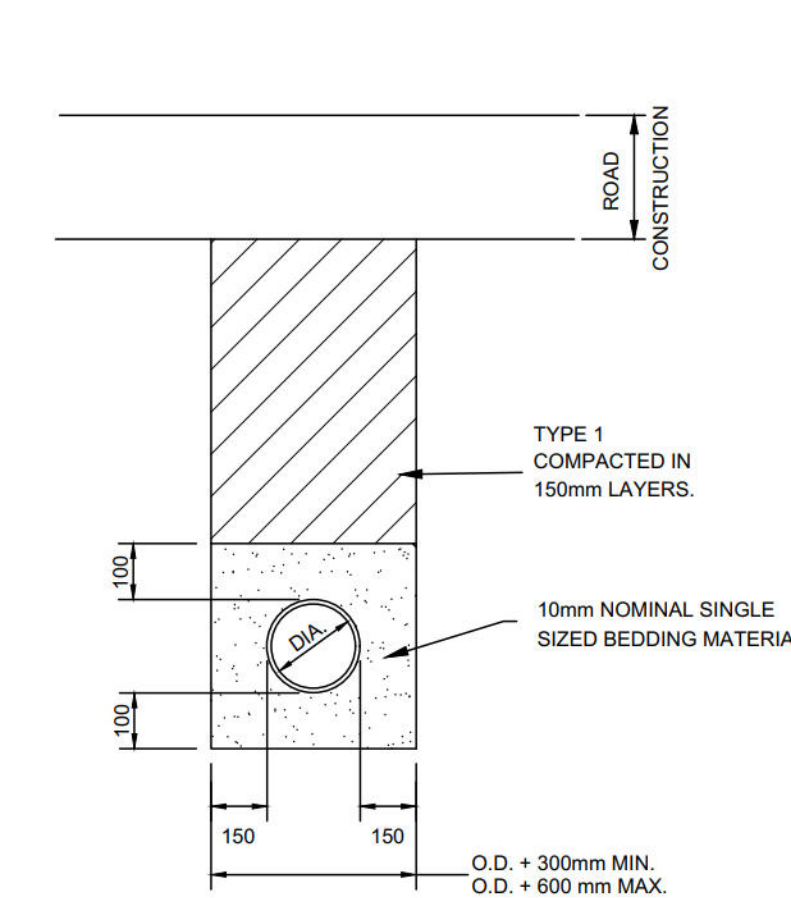
TYPICAL VEHICULAR ACCESS DETAIL



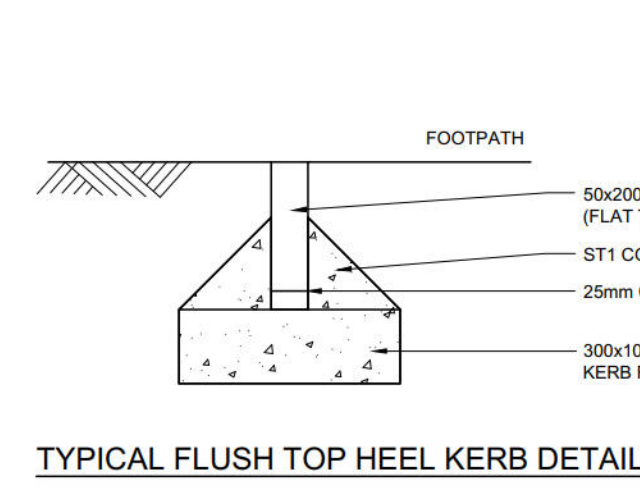
TYPICAL RODDING EYE DETAIL



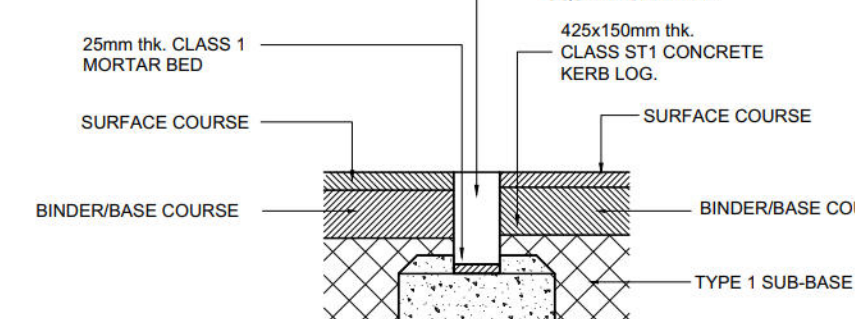
TYPICAL INSPECTION CHAMBER DETAIL



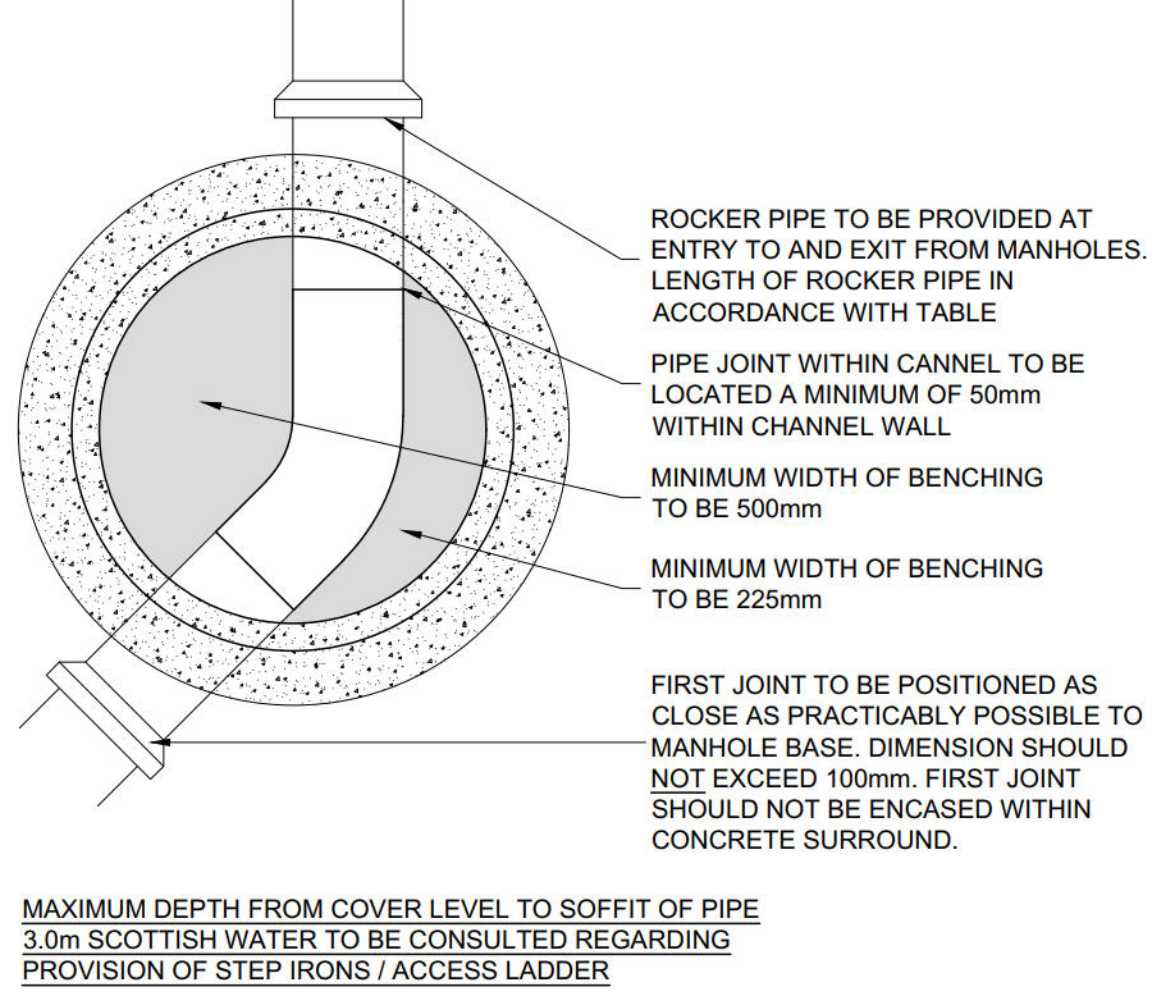
TYPICAL PIPE BEDDING DETAIL - VEHICULAR AREAS



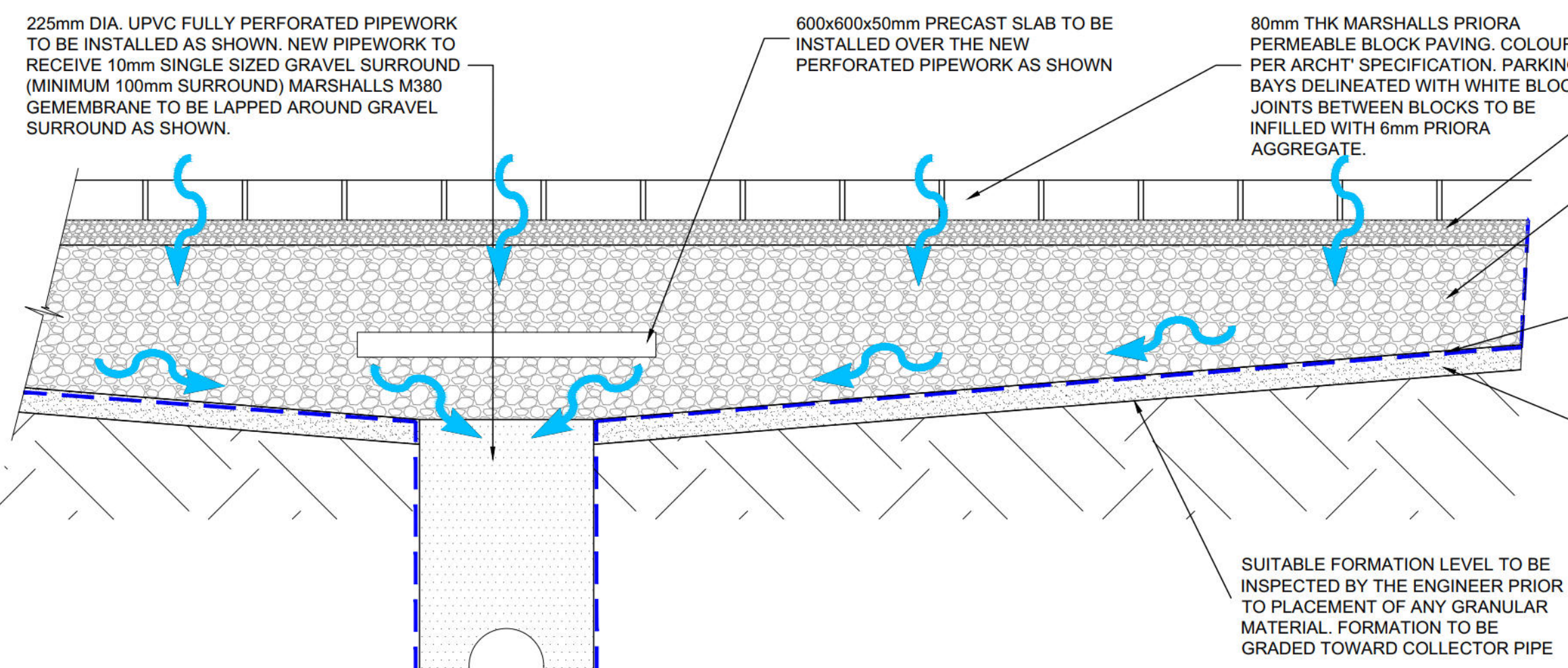
TYPICAL FLUSH TOP HEEL KERB DETAIL



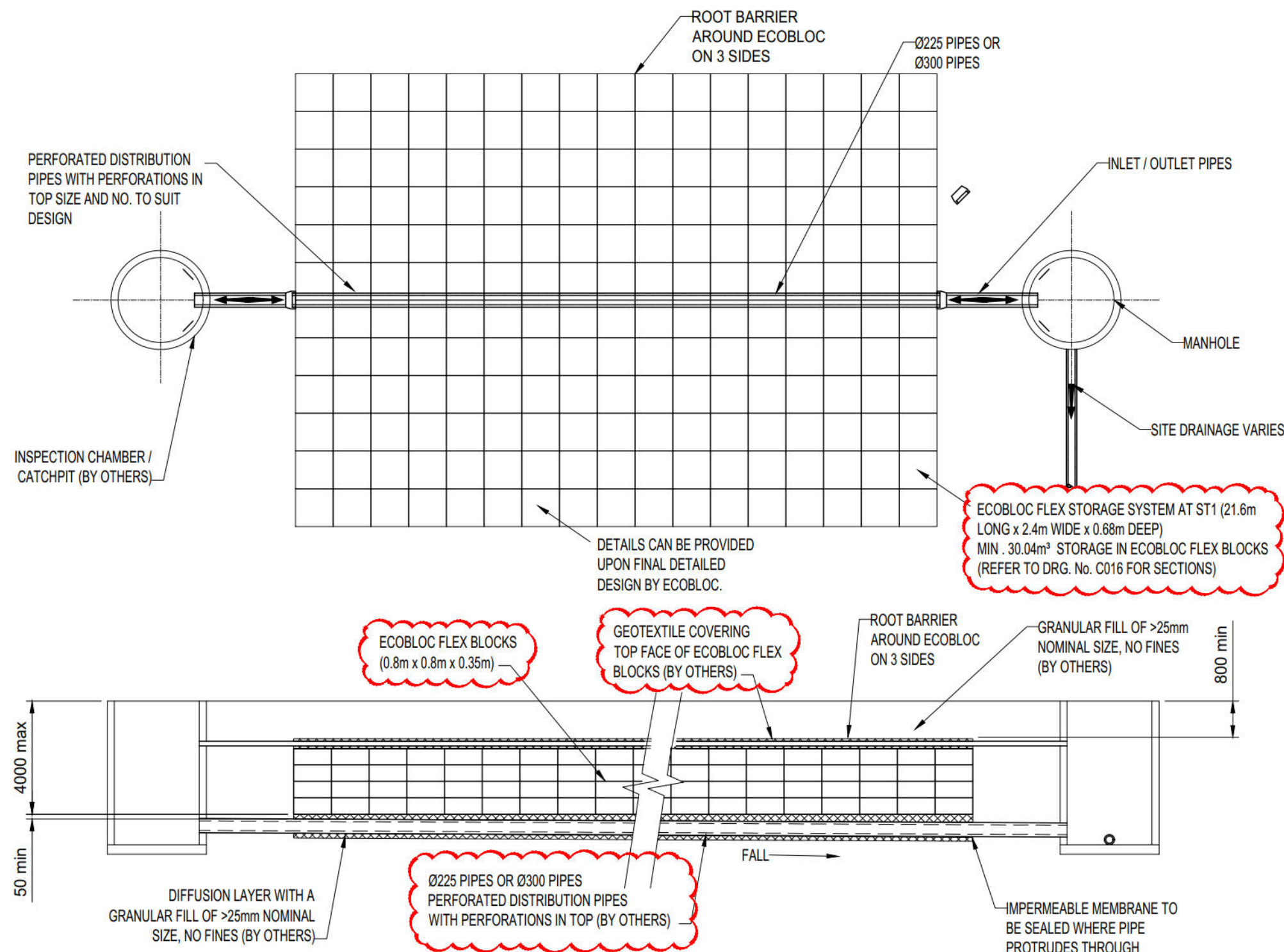
TYPICAL FLUSH CHANNEL KERB DETAIL



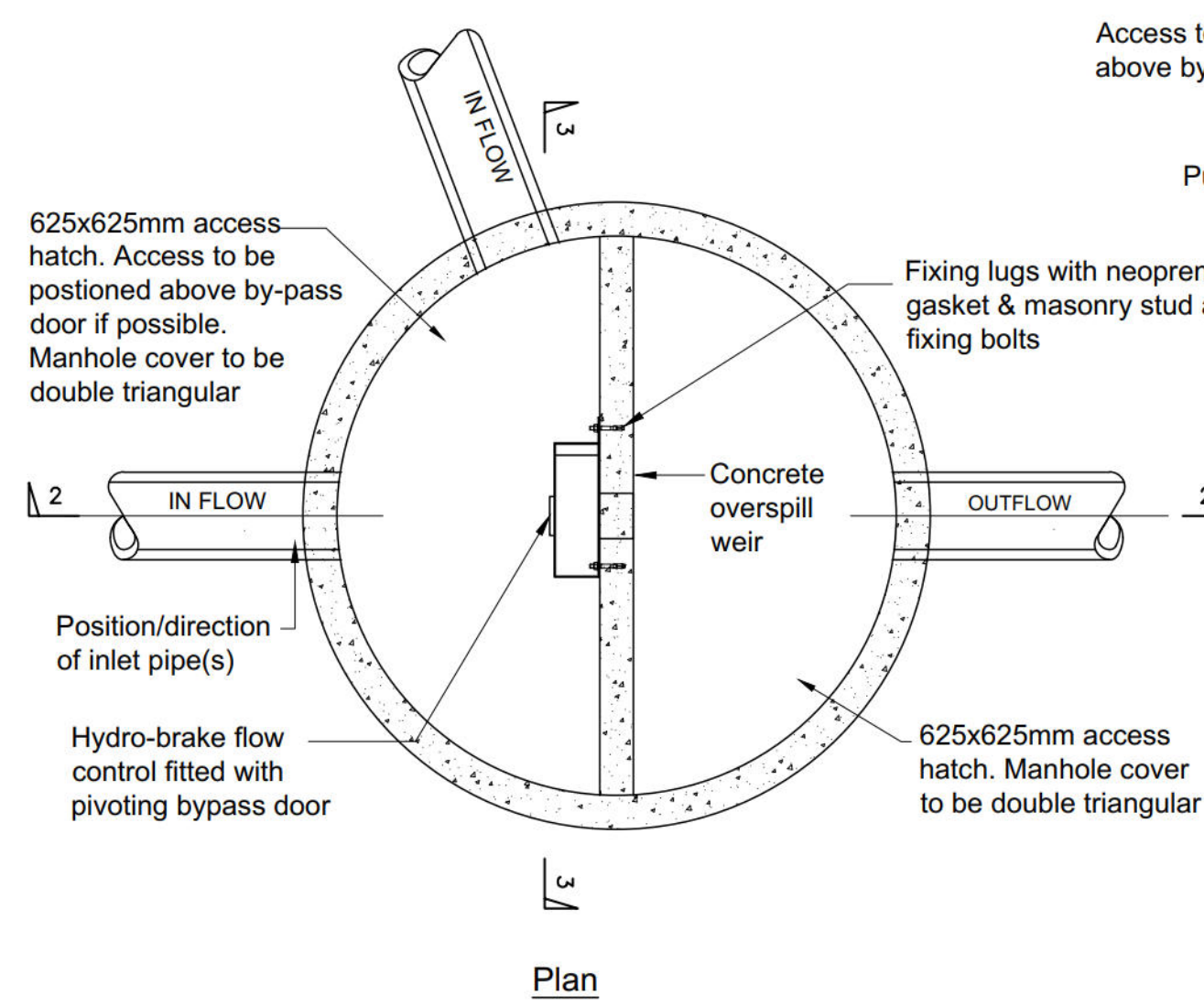
TYPICAL MANHOLE DETAIL <3m DEPTH - TYPE B



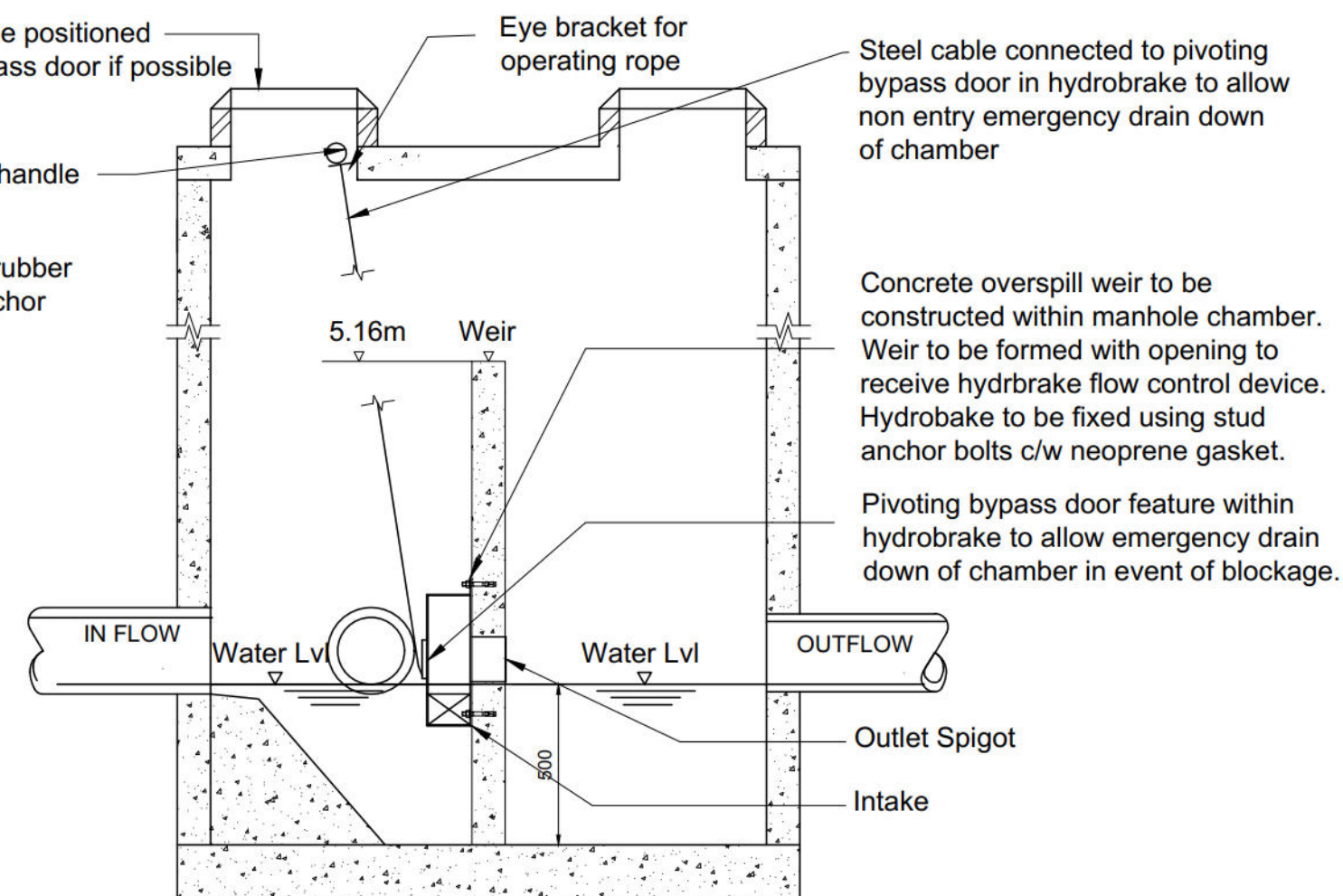
TYPICAL PERMEABLE PAVING DETAIL



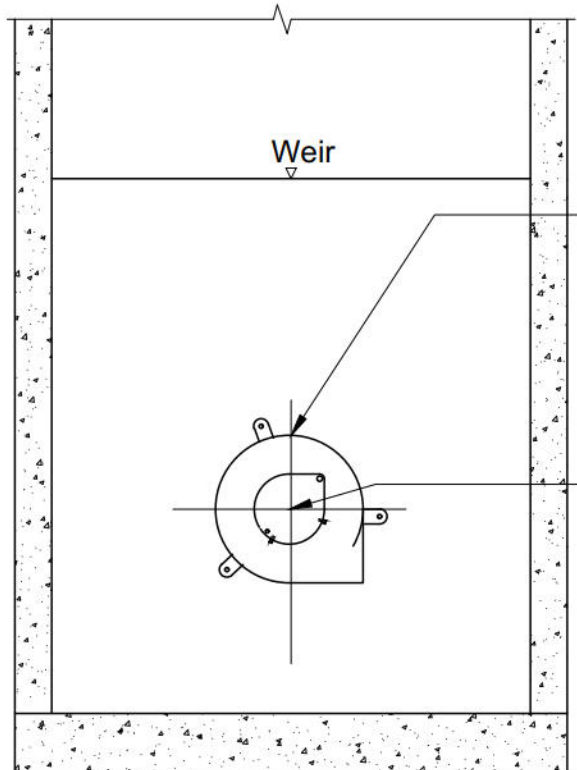
TYPICAL SECTION ALONG ATTENUATION SYSTEM (REFER TO DRAWING C016)



Dual entry weir wall control manhole detail as SW MH 02.04 Not to Scale



Section 2 - 2 as SW MH 02.04 Not to Scale



Section 3 - 3 as SW MH 02.04 Not to Scale

Concrete overspill weir to be constructed within manhole chamber. Weir to be formed with opening to receive hydrobrake flow control device. Hydrobrake to be fixed using stud anchor bolts c/w neoprene gasket.

Pivoting bypass door feature within hydrobrake to allow emergency drain down of chamber in event of blockage.

HYDROBRAKE NOTE:

PRODUCT NUMBER: CTL-SHE-0067-2000-1000-2000

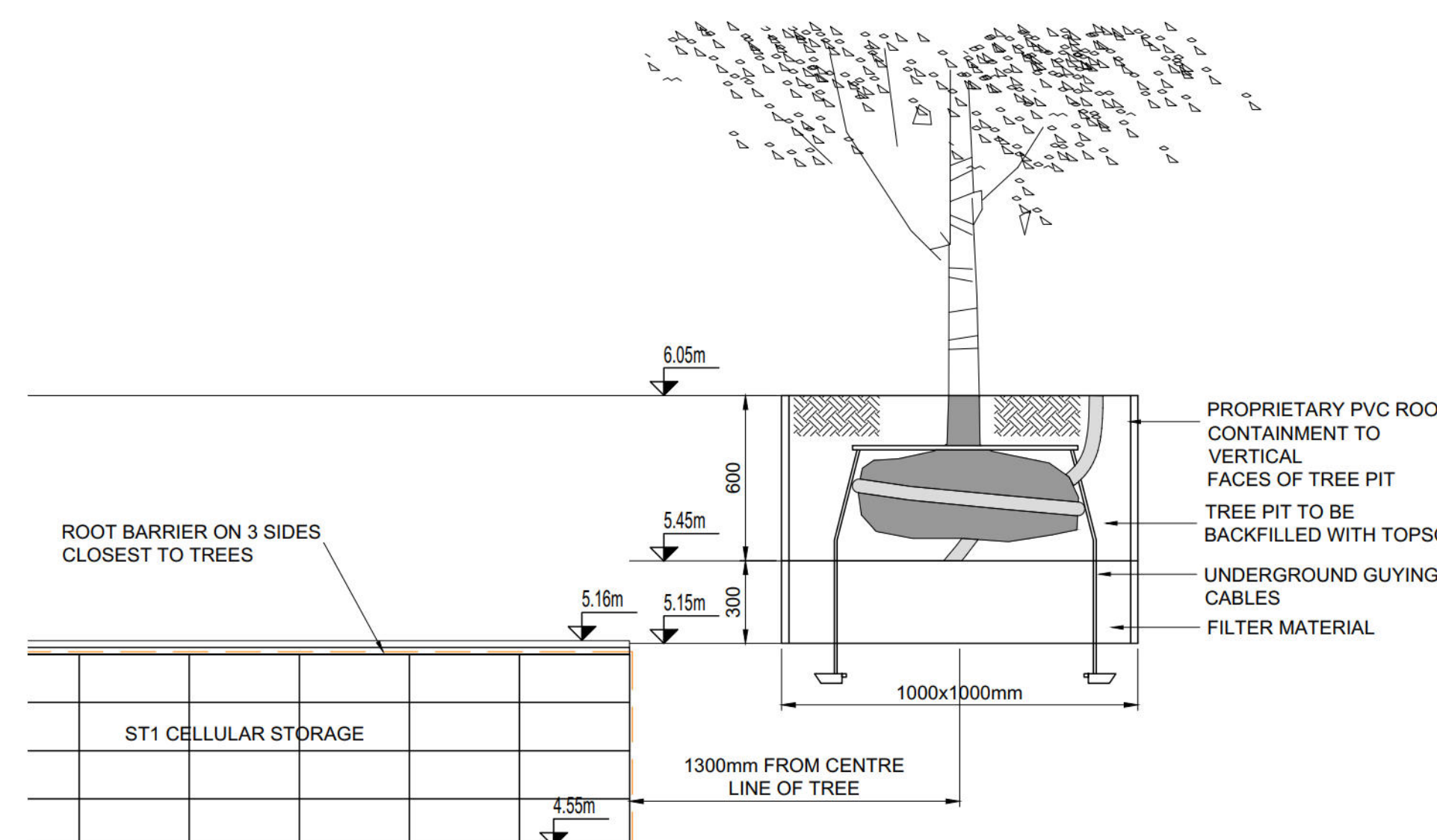
DIMENSIONS W x D (mm)
410x75.0

SUMP DIMENSIONS W x D (mm)
150.0x310.0

ECOBLOC FLEX VOLUMES
ST1 = 30.04m³
ST2 = 45.06m³
ST3 = 20m³

NOTE REFERRING TO B24058-404 SHEET 4 OF 4 (LANDSCAPE ARCHITECTS PLANS):

MOST TREES PROPOSED ARE UP TO 85 LITRE POT SIZE, SO AT THE TIME OF PLANTING, THEIR ROOT BALL WOULD BE APPROXIMATELY 500mm DIAMETER, BY 460mm DEPTH. ONE TREE IS PROPOSED LARGER, THE PRUNUS RANCHO THE POT SIZE FOR THIS WOULD BE APPROXIMATELY 850MM DIAMETER BY 630MM DEPTH. ROOTBALL SIZES WILL VARY DEPENDANT ON SPECIES AND NURSERY. TREE PIT DETAILS, AS PER PARA 17 ON THE SPEC NOTES TREE PITS ARE TO BE 1.0 X 1.0 X 0.6M DEEP, OR 300MM LARGER THAN ROOT BALL, WHICHEVER IS LARGER.



SECTION A-A (CLOSEST LOCATION TO TREES)
SCALE 1:20

NOTES

WHERE EXISTING GROUND LEVELS HAS BEEN EXCAVATED BELOW ORIGINAL / ASSUMED LEVELS GROUND CAN BE MADE UP TO REQUIRED LEVEL USING BE BELOW.

GOOD QUALITY GRANULAR MATERIAL SHOULD BE USED.

- IT SHOULD BE FREE OF ANY ORGANIC MATTER.
- IT SHOULD NOT CONTAIN MORE THAN 15% FINES (I.E. NOT MORE THAN 15% BY WEIGHT OF PARTICLES OF SILT AND CLAY SIZE).
- IT SHOULD BE FREE DRAINING.
- IT SHOULD BE DURABLE AND NOT EASILY DEGRADED WITHIN THE DESIGN LIFE OF THE PLATFORM.
- THE MAXIMUM PARTICLE SIZE SHOULD NOT BE GREATER THAN 2/3 OF THE THICKNESS OF THE LAYERS IN WHICH THE MATERIAL IS COMPACTED OR 150mm WHICHEVER IS THE SMALLER. (POSITIONAL TOLERANCES OF SOME PILES CANNOT BE MAINTAINED USING PLATFORM MATERIAL WITH PARTICLES AS LARGE AS 150mm AND IN SUCH CASES A SMALLER MAXIMUM PARTICLE SIZE OF, SAY, 75mm IS REQUIRED.)

ENGINEER TO INSPECT GROUND BUILD UP PRIOR TO THE WORKS PRIOR TO CONSTRUCTION OF WALL.

CBR VALUE	SUB-BASE	CAPPING LAYER
>5%	300mm	0mm
2% < CBR < 5%	225mm	300mm
<2%	150mm	600mm

NOTE:
NO MATERIAL WITHIN 450mm OF THE FINAL SURFACE IS TO BE FROST SUSCEPTIBLE.

NOTE:
ALL PROPOSED ROADS ARE WITHIN AREAS OF FILL MATERIAL. THEREFORE FILL CAPPING LAYER CONSTRUCTION WILL BE REQUIRED ALONG FULL LENGTH OF NEW ROAD CONSTRUCTION. ALL EXISTING ROAD WALLS SHALL BE REMOVED AND RECONSTRUCTED IN ACCORDANCE WITH BS81. IN AREAS OF ROADS ALL EXISTING ROADS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS SERIES 600.

ENGINEERING BRICKWORK:
CLASS B WITH A MINIMUM COMPRESSIVE STRENGTH OF 50N/mm², AND A WATER ABSORPTION RATE OF LESS THAN OR EQUAL TO 7%. ALL BRICKS TO BE OF FLTH QUALITY. THIS RELATES TO FROST RESISTANCE AND DURABILITY PURPOSES FOR BRICKWORK BELOW GROUND LEVEL AND FOR USE IN RETAINING WALLS. MORTAR DESIGNATION TO BE I OR II. MORTAR DESIGNATION I TO BE USED WHERE THERE IS A CAPPING/COPING BUT NO WATERPROOFING ON THE RETAINING FACE. MORTAR TYPE II TO BE USED WHERE COPING AND WATERPROOFING IS USED ON RETAINING FACE. WHERE S1 GLAY MASONRY UNITS ARE USED SULPHATE - RESISTING PORTLAND CEMENT MAY BE NECESSARY IN THE MORTAR DEPENDENT UPON GROUND CONDITIONS. IT IS STRONGLY RECOMMENDED THAT SUCH WALLS BE BACKFILLED WITH FREE DRAINING MATERIALS. THE PROVISION OF AN EFFECTIVE COPING WITH A DPC AND WATERPROOFING OF THE RETAINING FACE OF THE WALL IS DESIRABLE.

FACING BRICK/CLAY MASONRY UNITS:
TYPE HD - F1 OR F2 AND S1 OR S2 UNITS. MORTAR DESIGNATION TO BE I OR II. HD - F2 AND S1 OR S2 UNITS WITH MORTAR DESIGNATION I TO BE USED WHERE THERE IS A CAPPING/COPING BUT NO WATERPROOFING ON THE RETAINING FACE. MORTAR TYPE II TO BE USED WHERE COPING AND WATERPROOFING IS USED ON RETAINING FACE. WHERE S1 GLAY MASONRY UNITS ARE USED SULPHATE - RESISTING PORTLAND CEMENT MAY BE NECESSARY IN THE MORTAR DEPENDENT UPON GROUND CONDITIONS. IT IS STRONGLY RECOMMENDED THAT SUCH WALLS BE BACKFILLED WITH FREE DRAINING MATERIALS. THE PROVISION OF AN EFFECTIVE COPING WITH A DPC AND WATERPROOFING OF THE RETAINING FACE OF THE WALL IS DESIRABLE.

AGGREGATE CONCRETE BRICKS:
WITH A MINIMUM COMPRESSIVE STRENGTH OF >16.5 N/MM² WITH MORTAR TYPE II TO BE USED WHERE COPING AND WATERPROOFING IS USED ON RETAINING FACE. MINIMUM COMPRESSIVE STRENGTH CLASS OF >33N/mm² WITH MORTAR TYPE I OR II TO BE USED WHERE COPING/CAPPING WITH NO WATERPROOFING ON RETAINING FACE. IT IS STRONGLY RECOMMENDED THAT SUCH WALLS BE BACKFILLED WITH FREE DRAINING MATERIALS. THE PROVISION OF AN EFFECTIVE COPING WITH A DPC AND WATERPROOFING OF THE RETAINING FACE OF THE WALL IS DESIRABLE.

WHERE COPING/CAPPING WITH NO WATERPROOFING ON RETAINING FACE IS USED A MORTAR DESIGNATION I OR II SHOULD BE USED. SOME TYPES OF AUTOCLAVED AERATED CONCRETE BLOCKS AND AGGREGATE CONCRETE BLOCKS ARE NOT SUITABLE FOR THE ABOVE CONDITIONS - THE SPECIFIC MANUFACTURER SHOULD BE CONSULTED IN THESE OCCASIONS. BLOCKWORK TO COMPLY WITH DS1-AC-1S SOIL CONDITIONS.

BACKFILL BEHIND WALL
PROVIDED 100mm DIA. WAVIN COIL DRAIN WITH 150mm PEA GRAVEL SURROUND.

WALLS TO BE BACKFILLED WITH GRANULAR MATERIAL AS AGREED WITH ENGINEER. NO 'ON SITE' MATERIAL TO BE USED FOR BACKFILLING WITHOUT WRITTEN AGREEMENT.

NO CONTRACTORS PLANT TO OPERATE BEHIND WALL DURING CONSTRUCTION OR ON COMPLETION OF RETAINING WALL.

SLOPE BEHIND WALL NOT TO EXCEED GRADIENT SHOWN ON SECTION DETAILS AT ANY TIME DURING CONSTRUCTION WORKS.

FOUNDATION NOTES
ALL FOUNDATIONS TO BE REINFORCED A252 MESH.

CONCRETE TO BE GRADE C28/20.
FOUNDATION CONCRETE TO BE DS1-AC-1S GRADE IN ACCORDANCE WITH 1-2005 B.R.E. SPECIAL DIGEST-2005 CONCRETE IN AGGRESSIVE GROUND. 50mm BLINDING TO FOUNDATIONS THROUGHOUT.

FORMATION LEVEL TO BE INSPECTED BY ENGINEER, ANY REQUIRED OVERDIG TO BE BACKFILLED WITH LEAN MIX CONCRETE OR TYPE I GRANULAR MATERIAL COMPACTED TO D.T. SPECIFICATION.

TOP OF FOUNDATION NOT TO BE LOWERED BELOW DIMENSIONS GIVEN ON SECTION DETAILS.

DRAWINGS ISSUED BASED ON CONCEPTUAL DESIGN & ASSUMPTIONS MADE BY CHARLES SCOTT & PARTNERS.
INFORMATION WILL BE VERIFIED UPON RECEIPT OF THE FOLLOWING:-

- RIDGE SITE INVESTIGATION
- LSS LINE LOADS
- LSS FLOOR SPANS
- LSS POINT LOADS FOR PADS
- ARCHITECTS CO-ORDINATION

NOTES:
ASSUMED FORMATION LEVEL FROM RIDGE SITE INVESTIGATION IS 3.4m A.O.D.
FOUNDATION TO BE PLACED ON BROWN FIRM / STEEP CLAY WITH A BEARING CAPACITY OF 150 kN/m².
WATER TABLE AT 1-1.7m BELOW GROUND CONTRACTOR TO CARRY OUT DEWATER AS NECESSARY.
REMOVE ANY MADE GROUND/SOFT SPOTS AND FILL WITH TRENCHFILL.
FORMATION LEVEL TO BE WELL BELOW ANY TREE ROOTS.
ALL CONCRETE TO BE GRADE C28/20 UNLESS NOTED OTHERWISE.

Rev.	Description	Date	Drawn	Checked
1	ECOBLOC SPEC. REVISED AS CLOUDED	13.11.25	CM	LC
2	REVISED AS CLOUDED	08.11.25	CM	LC
3	REVISED AS CLOUDED	08.11.25	CM	LC
4	DIRECTION TO DERIVATIVES ON SECTION 1-1	08.11.25	JPC	LC
5	THICKNESS OF AGGREGATE ON PERMEABLE PAVING DERIVATIVES (BROWN FIRM) CHANGES	08.11.25	BM	LC
6	TREE ROOT PROTECTION ADDED	08.11.25	JPC	LC
7	TREE COVERING WITH LEAN MIX CONCRETE CHANGES	08.11.25	BM	LC
8	UPDATES TO SITE LAYOUT CHANGES	08.11.25	BM	LC
9	FIRST CONSTRUCTION ISSUE	08.11.25	BM	LC
10	DERIVATIVES LAYOUT DERIVED	08.11.25	BM	LC

Client: SIMPLY UK

Location: HOOK LANE, PUGHAM, PO21 3PB

Growing the EXTERNAL WORKS CONSTRUCTION DETAILS

Drawn by: JPC, Checked by: JPC, Date: 08.11.25, Project: 9418, Draw No: C003, Rev: J

CHARLES SCOTT & PARTNERS
CONSULTING ENGINEERS
Ventnor Building
349 Bath Street
Glasgow G2 4AA
Tel: 0141 333 2845
Fax: 0141 333 2873
www.charles-scott.co.uk



APPENDIX C

Maintenance Log Sheet

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MAINTENANCE LOG SHEET

SUDS Type:	HYDRO-BRAKE FLOW CONTROL		
Description:	Flow control mechanism used to restrict flow of surface water to controlled discharge limits agreed with local authority. Attenuated flows stored within underground attenuation tanks. Flow control mechanism located within underground manhole chamber.		Maintenance Required: Cleaning inlets / outlets, manhole and orifices of flow control device to ensure optimum performance of device
Period:	Inspection and removal of debris - MONTHLY	clean and removal of all sediment - ANNUALLY	

[illegible]

MAINTENANCE LOG SHEET

SUDS Type:	PERMEABLE PAVEMENT	
Description:	Permeable surfaces provide a surface suitable for pedestrian and/or vehicular traffic, while allowing rainwater to infiltrate through the surface and into underlying layers. The water can be temporarily stored before infiltration to the ground, reused, or discharged to a watercourse or other drainage system. Surfaces with an aggregate sub-base can provide good water quality treatment.	
Maintenance Required:	brushing and vacuming (standard cosmetic sweep over whole surface area) attention should be taken were water runs from impermeable areas as this is most likely to accumalate silt.	Period: BI-Annual or as required

[illegible]

MAINTENANCE LOG SHEET

SUDS Type:	UNDERGROUND STORAGE	
Description:	Underground plastic geocellular/modular systems can be used to create a below ground storage structure. Due to the modular nature of the systems, they can be tailored to suit the specific requirements of any site. Water can be attenuated on site, before discharging at a controlled rate to a watercourse or other drainage system.	
Maintenance Required:	Cleaning inlets/ outlets, manholes, associated pipework, and silt traps	
Period:	Removal of Debris - Monthly	Cleaning and Removal of Sediment - Annually

[illegible]

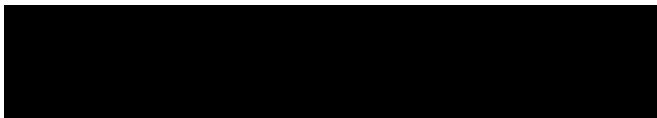


CHARLES SCOTT & PARTNERS

300 BATH STREET

GLASGOW

G2 4JR



www.csandp.co.uk