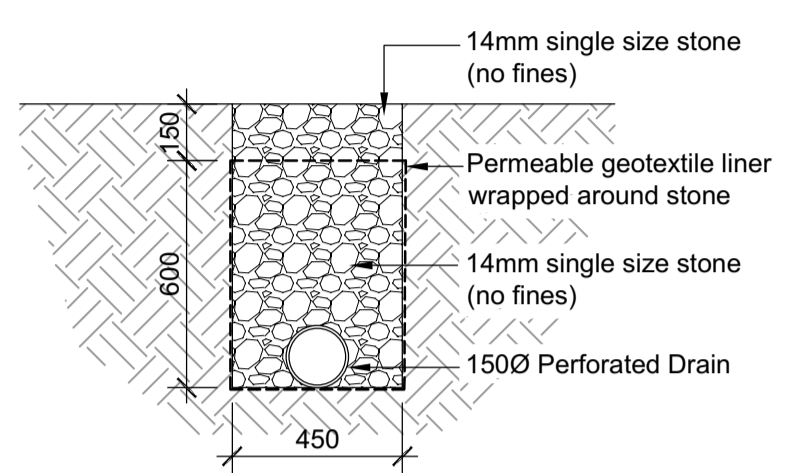


Typical ACO MultiDrain MD with M200D 20.0 Channel (or similar approved) "LD" Scale 1:10



Typical Section Through Filter Drain Scale 1:20

Permeable Paving (4/20 coarse aggregate) Sub-base, Laying and Jointing Material Specification

Aggregates should conform to Table A.1.

Table A.1 Sub-base grading

Sieve size mm	Percentage passing	
	Coarse aggregate, 4/40	Coarse aggregate, 4/20
80	100	—
63	98-100	—
40	90-99	100
31.5	—	98-100
20	25-70	90-99
10	—	25-70
4	0-15	0-15
2	0-5	0-5
1	—	—

NOTE: The gradings for 4/20 are typical and advice should be sought from the block manufacturer on specific gradings suitable for their productsystem.

Note: The surface course should be inspected soon after completion and at regular intervals thereafter. Additional jointing material should be brushed in where necessary and inspected 6 months after installation to refill as required to ensure joints are fully reinstated as per the original construction.

Table A.2 Grading for laying and jointing material

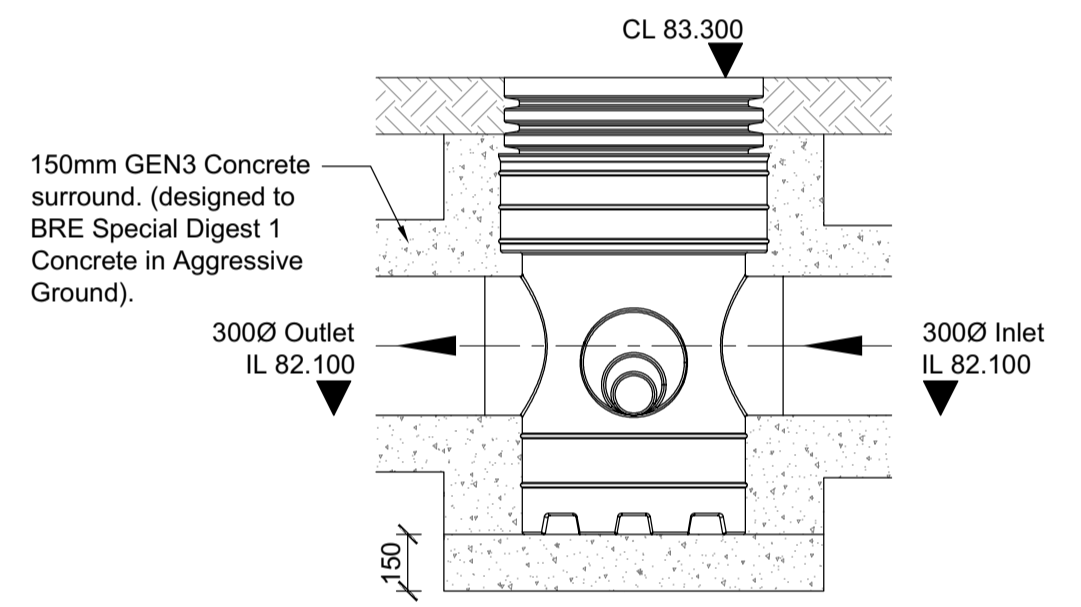
Aggregates for laying and jointing material should conform to Table A.2.

BS sieve size (BS EN 993-1) mm	Percentage passing	
	BS sieve size (BS EN 993-1) mm	Percentage passing
14	100	—
10	98-100	—
6.3	80-99	—
2.0	0-20	—
1.0	0-5	—

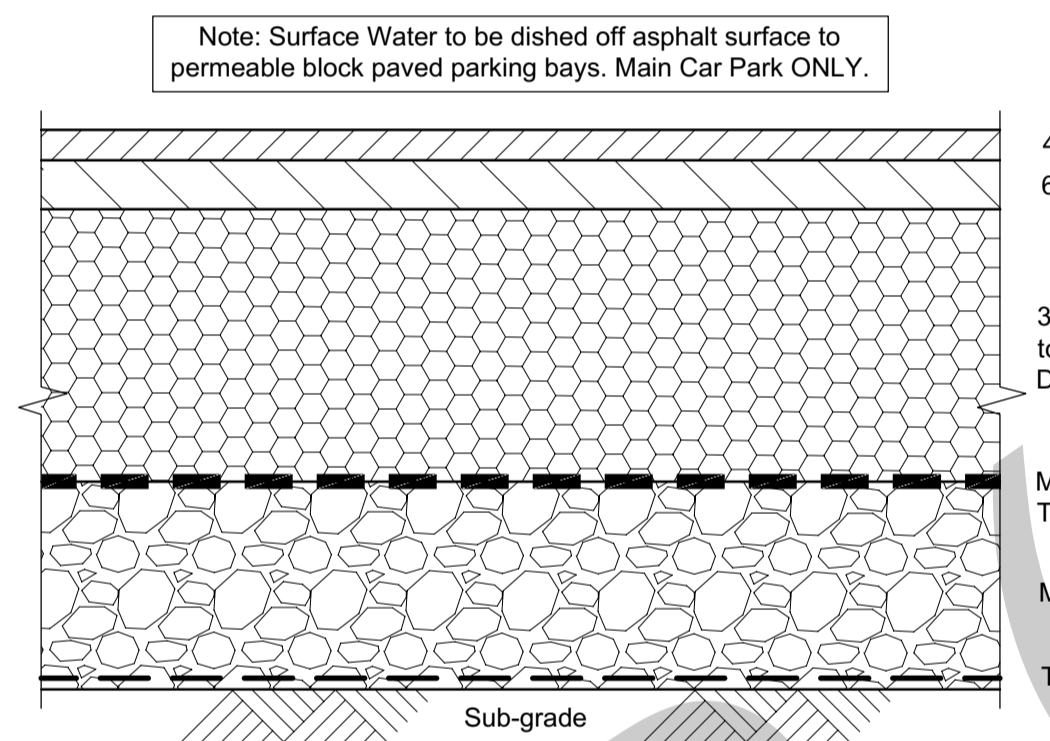
NOTE: These gradings are typical, advice should be sought from the block manufacturer on specific gradings suitable for their productsystem.

Note: ALL 4/20mm coarse graded aggregate material must not be contaminated and must be protected during construction works from trafficking in accordance with Interpave Guidance

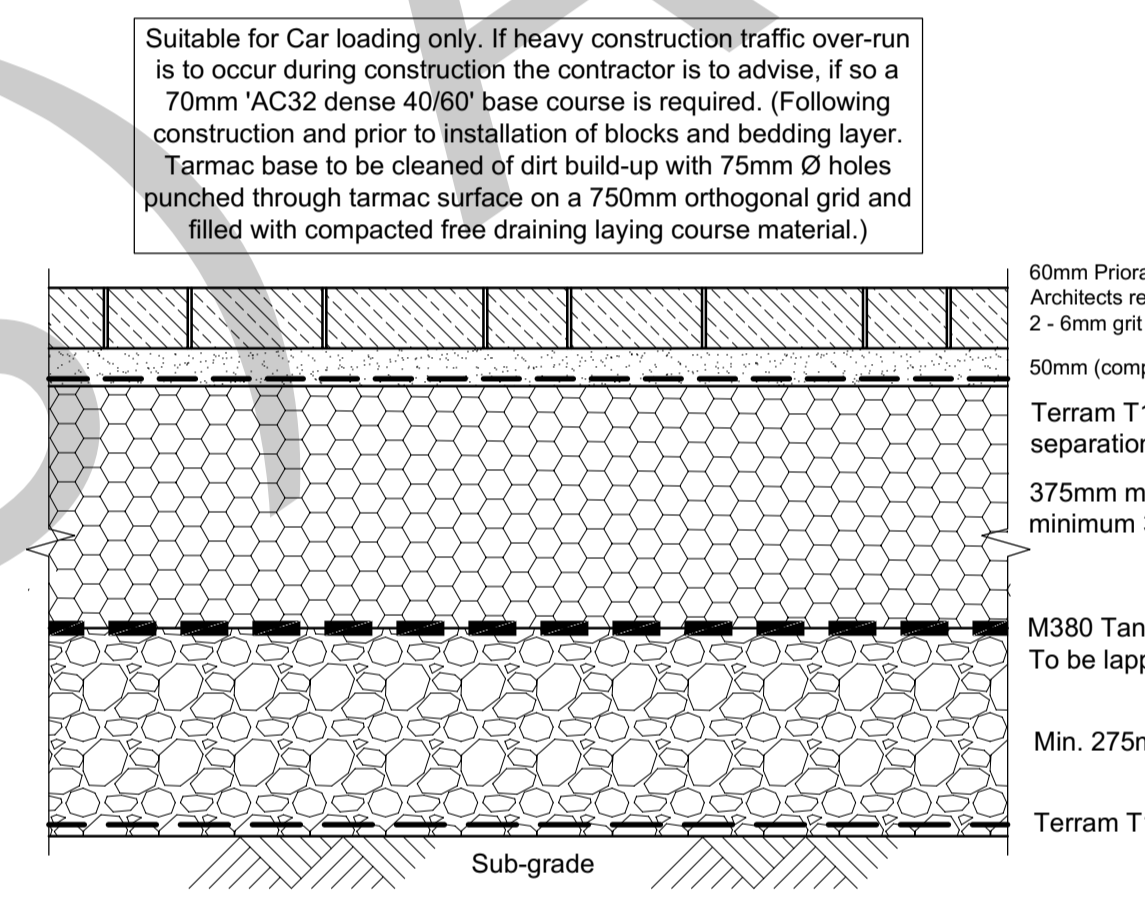
Note: Advice should be sought from the paving unit manufacturer about exactly what material is suitable for the laying course for that particular paving unit.



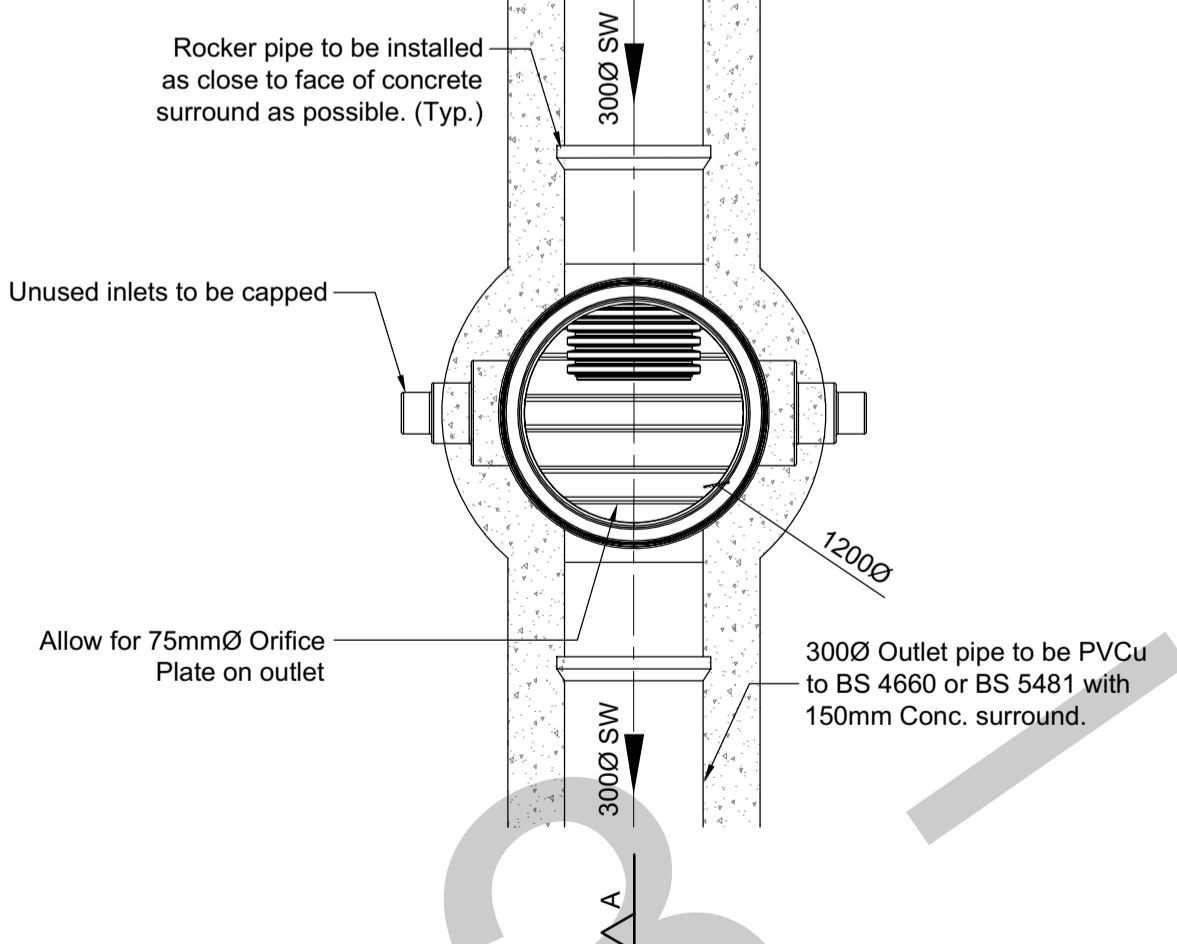
Section A - A on TurtleEnviro Orifice Chamber "SH2" Scale NTS



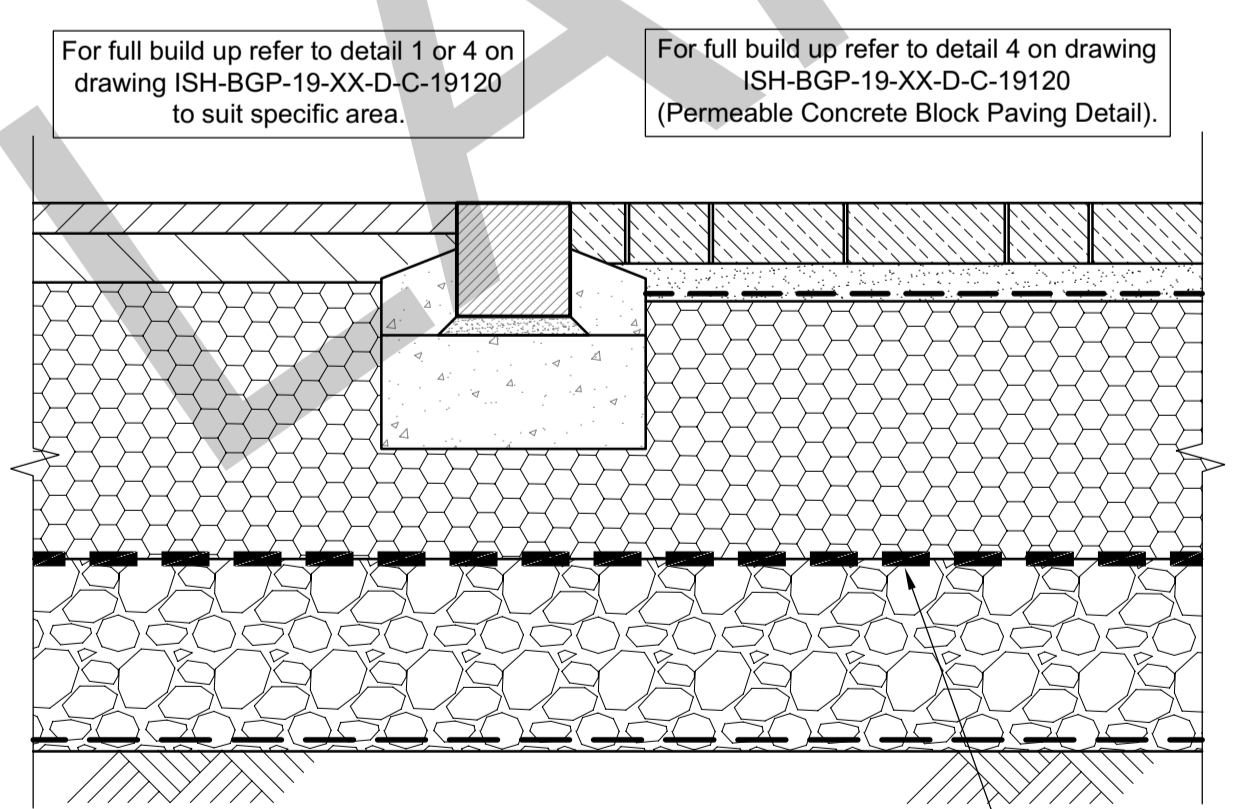
Asphalt Concrete Access Road (MPA (1) Heavier Usage) Scale 1:10



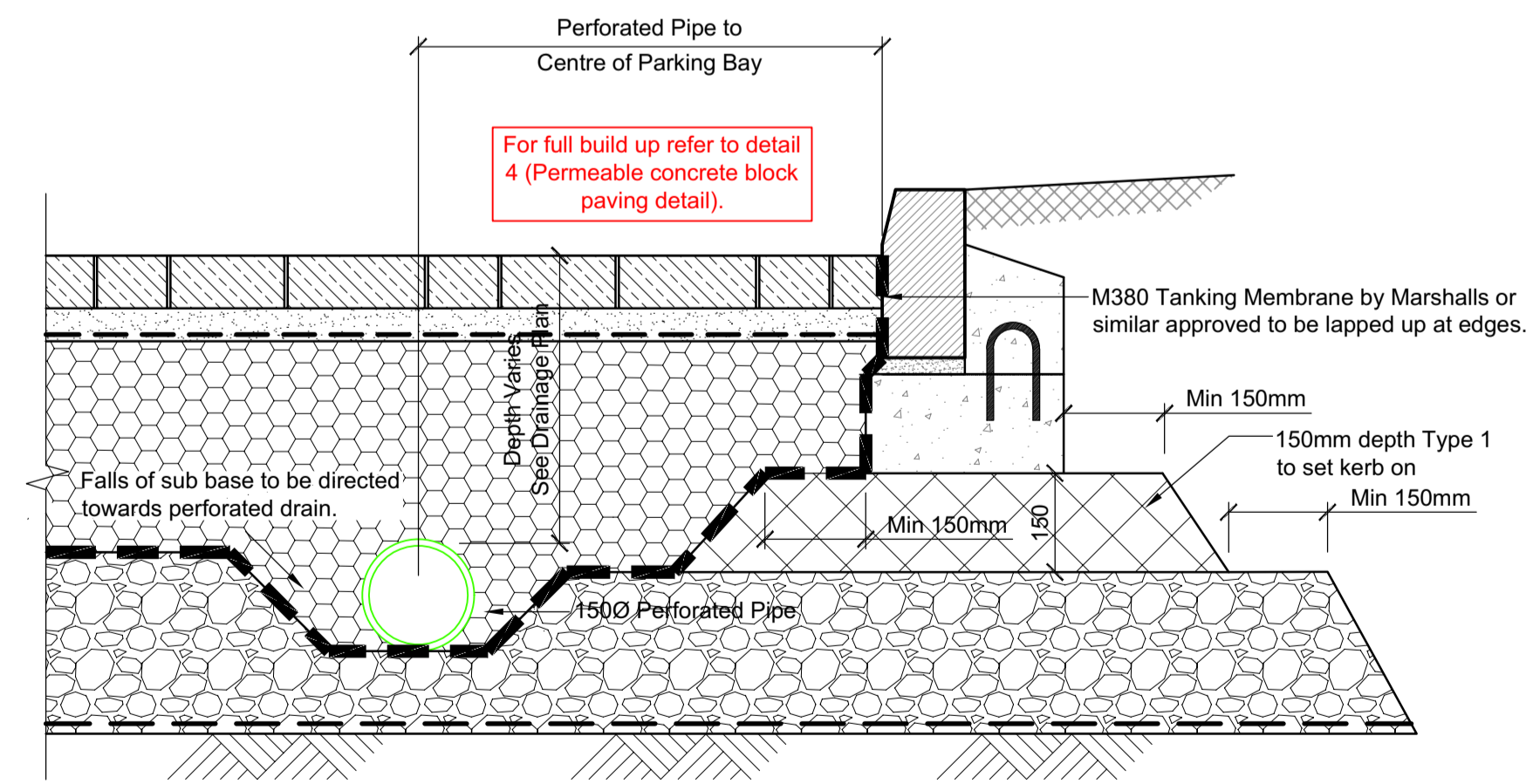
Permeable Block Paving Parking Bays (Interpave Traffic Category 3) Scale 1:10



Plan View of "SH2" TurtleEnviro Orifice Control Chamber Scale NTS



Section Through Permeable Parking Bay Adjacent to Tarmac Access Way Scale 1:10



Typical Section Through Permeable Paving and Perforated Drain Scale 1:10

- Notes
- All works to be carried out in accordance with:
 - Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
 - BS EN 752 - 'Drain and Sewer Systems Outside Buildings'
 - Current applicable Building Regulations
 - BGP Specifications
 - Manufacturer installation guidance and requirements
 - For clauses refer to Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
 - The developer should take all necessary precautions to avoid causing any damage to, or interference with flow in existing sewers and shall ensure that debris, silt, mud etc. do not enter the sewer.
 - Where works are to be carried out on sewers, the contractor must carry out their works in accordance with "The classification and management of confined spaces" published by Water UK. they must also comply with all other relevant health and safety legislation/ documentation.
 - All materials are to be stored in such a manner as to preserve their quality as to the standard specified in the specification.
 - All concrete to be produced on site must be mixed with only potable water, to ensure that it is clean from dirt and contaminants.
 - Aggregates for concretes shall comply with the relevant provisions of BS EN 12620 and PD 6682-1.
 - Sands for mortar and grouts shall be washed sand, complying with BS EN 13139 and PD 6682-3. All other sands are to comply with BS EN 12620 and PD 6682-1 or BS EN 13139 and PD 6682-3.
 - Pulverised-fuel ash (PFA) for use as a component material in emmentitious grout or non structural concrete shall comply with BS 3892-2 & 3.
 - Vertified clay pipes and fittings for sewers shall have flexible mechanical joints. Pipes for foul sewers and surface water sewers shall comply with the relevant requirements of BS EN295 and BS665 (Surface water pipes only).
 - Pre-cast concrete manhole units of circular cross section for manholes, chambers and wet wells shall comply with the relevant provisions of BS EN 1917 and BS 5911-3.
 - Ladders for manholes in a vertical plane are to be mild steel and comply with BS4211, Class A and PD 970.
 - GRP ladders shall be manufactured in accordance with BS EN 131, and from glass-reinforced polyester using an appropriate resin for the ladder location. Unidirection reinforcement shall be provided in the GRP matrix to maximise strength.
 - Manhole covers and frames shall comply with the relevant provisions of BS EN 124, BS 7903 and DMRB guidance document CD 534. They shall be of a non-rocking design which do not rely on the use of cushion inserts.
 - Clay bricks to be used within manholes are to be solid, Class B Engineering bricks complying to BS 3921.
 - All bricks shall be frost resistant category F.
 - Standard concrete mixes should be in accordance with BS EN 206-1 and BS 8500 and shall be used with a 20mm nominal maximum size of aggregate and a slump class of S2 for a target of 70mm.
 - GEN1 concrete to be used for; fillings, blindings, soft spots and drainage slumps. GEN3 concrete to be used for; all other applications. U.N.O.
 - Admixtures (including calcium chloride and pigments) shall not be used in the production of concrete.
 - High strength concrete topping shall be produced, laid and finished in accordance with the relevant provisions of BS 8204: part 2 and the following approximate mix proportions shall be used: 1part cement, 1part natural sand and 2parts single-sized coarse aggregate.
 - All mortar mixes shall be in accordance with BS 5628-1:2005.
 - All pipes to be either extra strength VC to BS 65 or PVC to BS 4660 or BS 5481 "UPONOR ULTRARIB" or Concrete pipes to class 120. The contractor should use the same material and manufacturer throughout (where feasible).

NOT FOR PRICING
NOT FOR CONSTRUCTION

Stage 3 Issue JN P01 JJH 11.04.2026
AMENDMENT BY REV CHK DATE



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Client	Cumberland Council					
Project	ISH Hub					
BGP Project No.	21T2034					
Drawing Title	SuDS Construction Details					
Drawn	Date	Checked	Date	Size	Scale	Rev.
JN	APR '26	JJH	APR '26	A1	Noted	P01
Location	Originator	Volume	Level	Form	Role	Unique No.
ISH	BGP	19	XX	D	C	19137
File Reference	ISH-BGP-19-XX-D-C-19137					

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