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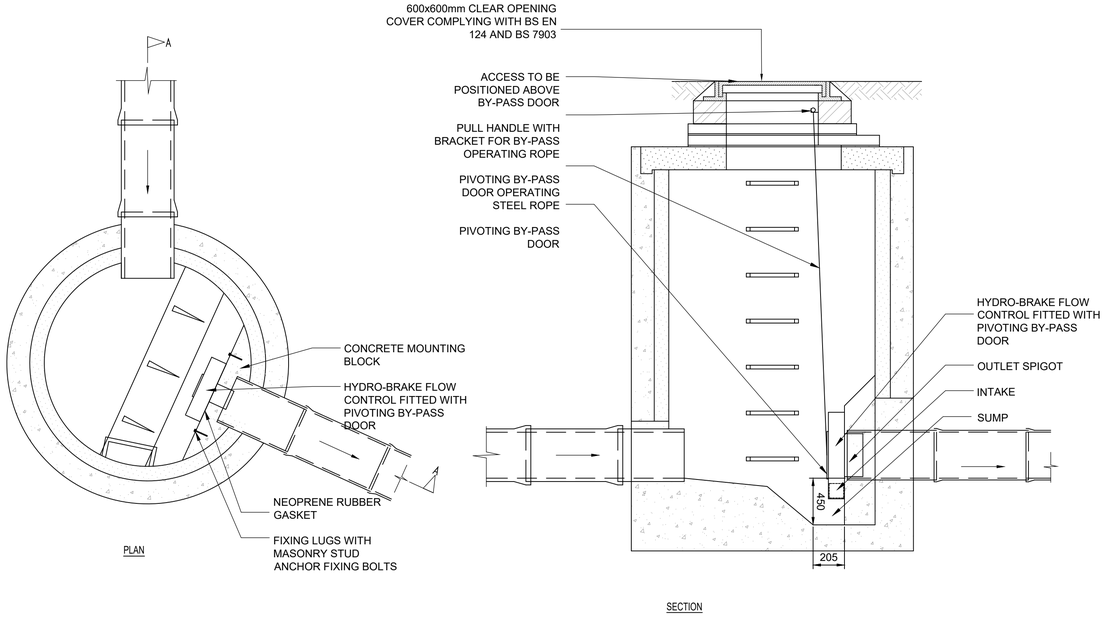
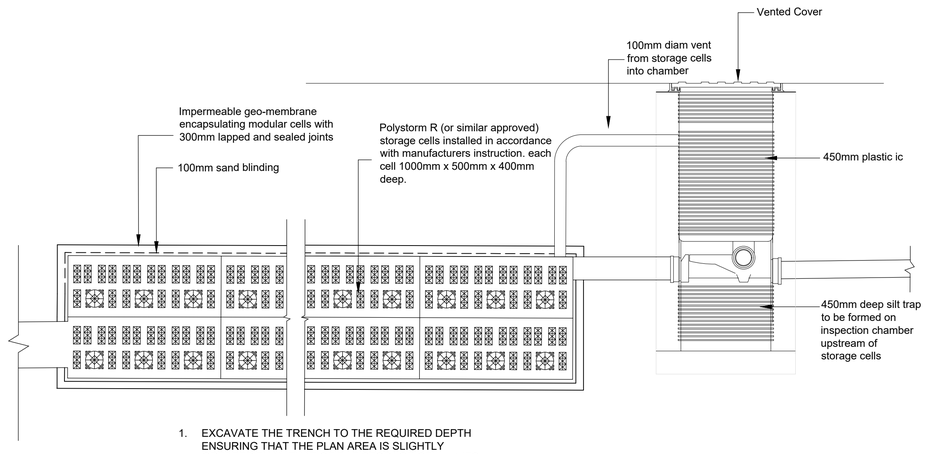
Status	PRELIMINARY		
No.	Revision	Date	Drwn



TYPICAL HYDROBRAKE CHAMBER

SCALE 1:20



1. EXCAVATE THE TRENCH TO THE REQUIRED DEPTH ENSURING THAT THE PLAN AREA IS SLIGHTLY GREATER THAN THAT OF THE STORAGE CELL UNITS.
2. LAY 100mm BED COURSE SAND, LEVEL AND COMPACT.
3. LAY THE GEOMEMBRANE OVER THE BASE AND UP THE SIDE OF THE TRENCH.
4. LAY THE STORAGE CELL UNITS PARALLEL WITH EACH OTHER OR IN A BRICK BONDED FORMATION. FOR MULTI LAYERS USE THE CLIPS AND THE SHEAR CONNECTERS.
5. WRAP THE GEOMEMBRANE AROUND THE UNITS, FORMING A DOUBLE SEAL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
6. DRAINAGE CONNECTIONS TO BE MADE USING PROPRIETRY ADAPTORS.
7. LAY 100mm OF COURSE SAND BETWEEN THE TRENCH WALLS AND THE STORAGE UNITS AND COMPACT.
8. LAY 100mm BED OF COARSE SAND OVER THE GEOTEXTILE AND COMPACT. BACKFILL WITH STONE FREE AS DUG MATERIAL.

SECTION THROUGH ATTENUATION STORM CELLS

(1:20)

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6. MANHOLES, SEWERS ETC AND ANY OTHER PART OF THE WORKS INTENDED FOR ADOPTION UNDER A SECTION 104 AGREEMENT OR GULLIES ETC INTENDED FOR ADOPTION AS HIGHWAY DRAINAGE ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE W.W.A. SPECIFICATION "SEWERS FOR ADOPTION" 7th EDITION, AND TO THE REGULATORS APPROVAL.
7. UN ADOPTED FW AND SW DRAINAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE BUILDING REGULATIONS, BS 8301 AND RELEVANT AGREEMENT CERTIFICATES.
8. DRAINS ARE TO BE CONSTRUCTED USING FLEXIBLY JOINTED VITRIFIED CLAY PIPES TO BS 65 "SUPER STRENGTH" SPECIFICATION (E.G. HEPWORTH SUPERSLEEVE OR SIMILAR) OR UPVC BUILDING DRAINAGE SYSTEM PIPEWORK TO BS .4660 AND BS. 2494, BEDDED AND BACKFILLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS BACKFILLING OF DRAIN TRENCHES ADJACENT TO DWELLINGS OR OTHER STRUCTURES TO BE IN ACCORDANCE WITH BS. 8301-FIG.9.
9. WHERE CLAY OR CONCRETE RIGID PIPES ARE LAID UNDER DRIVEWAYS THE MIN COVER WITHOUT CONCRETE PROTECTION IS 1200mm. WHERE PLASTIC FLEXIBLE PIPES (NOMINAL RING STIFFNESS SN4) IN CLASS S BEDDING ARE USED THE MIN DEPTH OF COVER BELOW DRIVEWAYS CAN BE REDUCED TO 900mm WITHOUT THE NEED FOR CONCRETE PROTECTION.
10. ALL PIPES TO BE 100mm DIAMETER UNLESS STATED OTHERWISE.
11. ACCESS FITTINGS AND INSPECTION CHAMBERS LESS THAN 1.2m DEEP ARE TO BE CLAYWARE OR PRE-FORMED POLYPROPELENE AS APPROPRIATE TO THE NUMBER OF CONNECTIONS. POLYPROPELENE CHAMBERS CAN BE USED UP 3.0m DEEP BUT REQUIRE MAX 350mm DIAM REDUCED COVER TO PREVENT MAN ENTRY. MANHOLE CHAMBERS ARE TO BE OF PRECAST CONCRETE CONSTRUCTION WITH 150mm INSITU CONCRETE SURROUND. INSPECTION CHAMBER SIZES ARE TO BE IN ACCORDANCE WITH TABLE 8 OF BS. 8301.
12. COVER LEVELS INDICATED ON THE DRAWING ARE NOMINAL AND MAY BE ADJUSTED TO SUIT FINISHED FOUND LEVELS AS NECESSARY.
13. RAINWATER DOWNPIPES TO BE CONNECTED DIRECT TO DRAIN USING AN APPROPRIATE ADAPTOR AND REMOVABLE SECTION OF DOWNPIPE TO PERMIT RODDING ACCESS.
14. WHERE DRAINS PASS THROUGH FOUNDATIONS OR OTHER RIGID STRUCTURES, A LINTEL OR SLEEVE IS TO BE USED AND PROVISION FOR FLEXIBILITY IS TO BE MADE WITH "ROCKER PIPES".
15. ANY EXISTING LAND DRAINS SEVERED BY SITE OPERATIONS SHOULD BE DIVERTED AROUND ANY PROPERTIES AND RECONNECTED TO THE EXISTING LAND DRAINAGE SYSTEM VIA A SILT TRAP.
16. THE POSITIONS OF SVP'S, STUB-STACKS, W.C. OUTLETS ETC AND RAINWATER DOWNPIPES ARE TO BE ACCURATELY LOCATED FROM THE ARCHITECTS WORKING DRAWINGS.
17. GULLIES SITUATED IN AREAS ACCESSIBLE TO WHEELED VEHICLES TO BE OF A SUITABLE CONSTRUCTION (E.G. HEPWORTH CODE 194 GULLY POT WITH INSITU CONCRETE BED AND SURROUND, FITTED WITH DRAINAGE CASTINGS CODE TD651 GRATING AND FRAME). UNLESS INDICATED AS HIGHWAY GULLIES.
18. DRAINS WITHIN AREAS OF "MADE GROUND" TO BE CONSTRUCTED BY FIRST MAKING UP THE AREA TO APPROXIMATE FINISHED LEVEL AND THEN EXCAVATING THROUGH THE FILL MATERIAL INTO UNDISTURBED GROUND. THE DRAIN TRENCH IS THEN TO BE BACKFILLED TO FORMATION LEVEL USING SUITABLE GRANULAR FILL MATERIAL WELL COMPACTED IN LAYERS NOT EXCEEDING 225mm.
19. PRIVATE DRAINAGE CONNECTIONS TO ADOPTABLE SEWERS TO BE VIA 45° JUNCTIONS AND NOT SADDLES.

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DRAWING TITLE
Drainage Details
Sheet 2 of 2

Drawn	Chkd	Date	Scale
JS	AD	January 2026	As Shown
Sheet Size	Drawing No.		Revision
A1	25791-DR-C-0103		P1