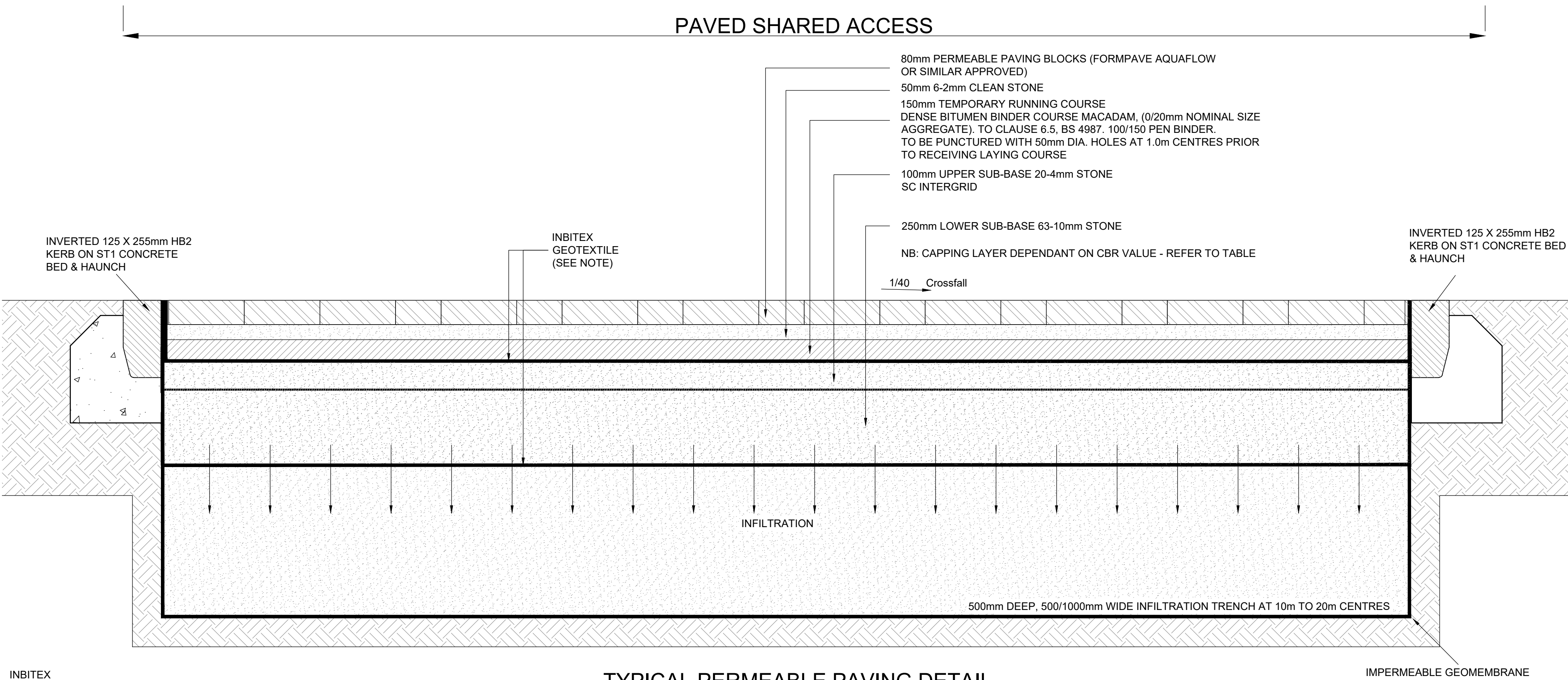




INBITEX

THERMALLY BONDED NONWOVEN GEOTEXTILE WHICH HAS BEEN SPECIFICALLY DEVELOPED TO OPTIMISE THE CLEANING OF WATER ENTERING THE SYSTEM. THE VARIOUS CHARACTERISTICS HAVE BEEN COMBINED TO CREATE A UNIQUE GEOTEXTILE THAT AIDS THE DEVELOPMENT OF THE NATURALLY OCCURRING MICROBES, AND OFFERS THEM REFUGE DURING PERIODS OF DROUGHT. HYDROCARBONS ARE COLLECTED AND STORED WITHIN THE CLEAN STONE AND DEGRADES OVER TIME BY THE NATURAL PROCESS OF SEDIMENTATION, FILTRATION, ADSORPTION AND BIOLOGICAL DEGRADATION

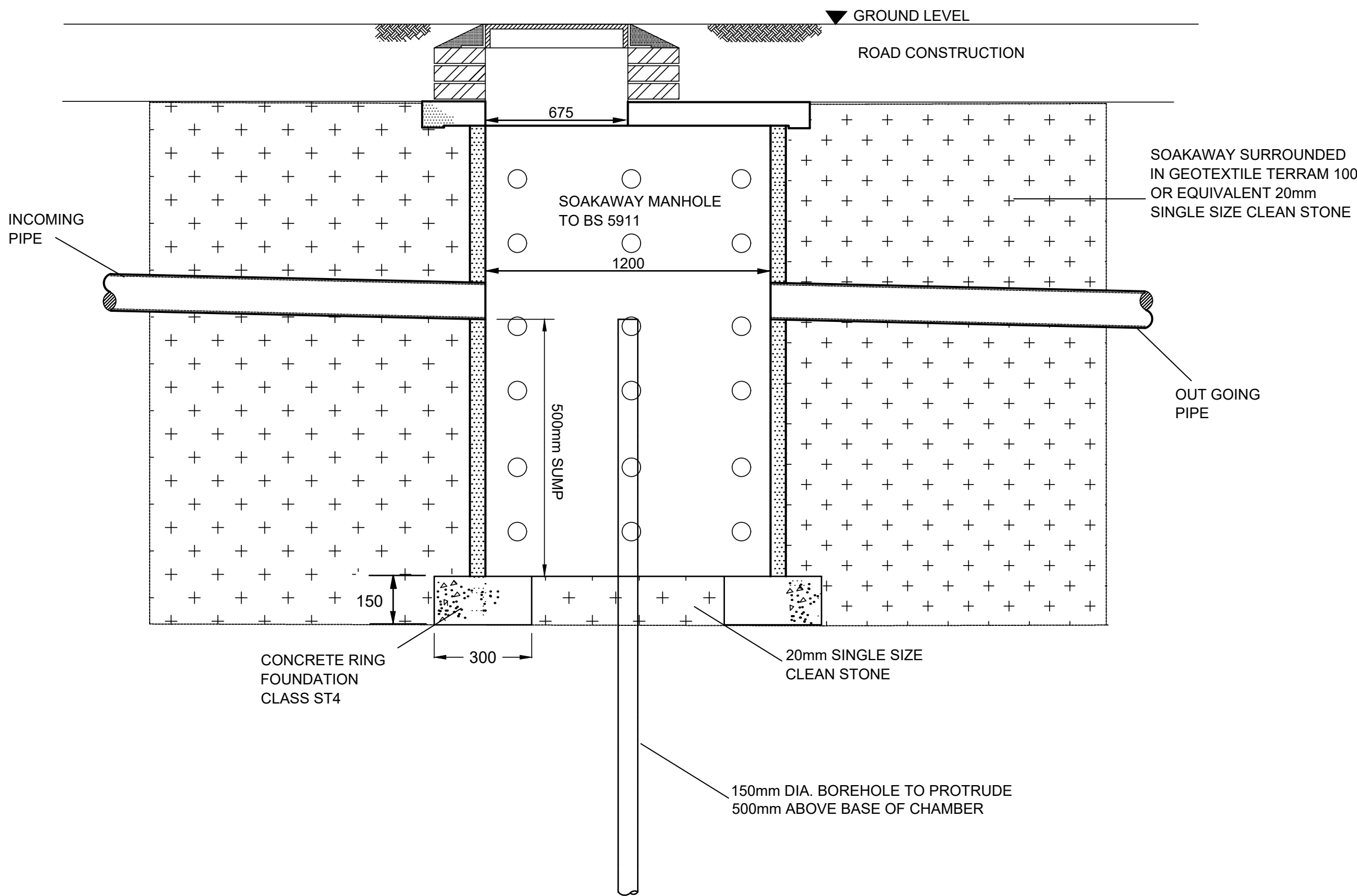
TYPICAL PERMEABLE PAVING DETAIL

TEMPORARY RUNNING COURSE

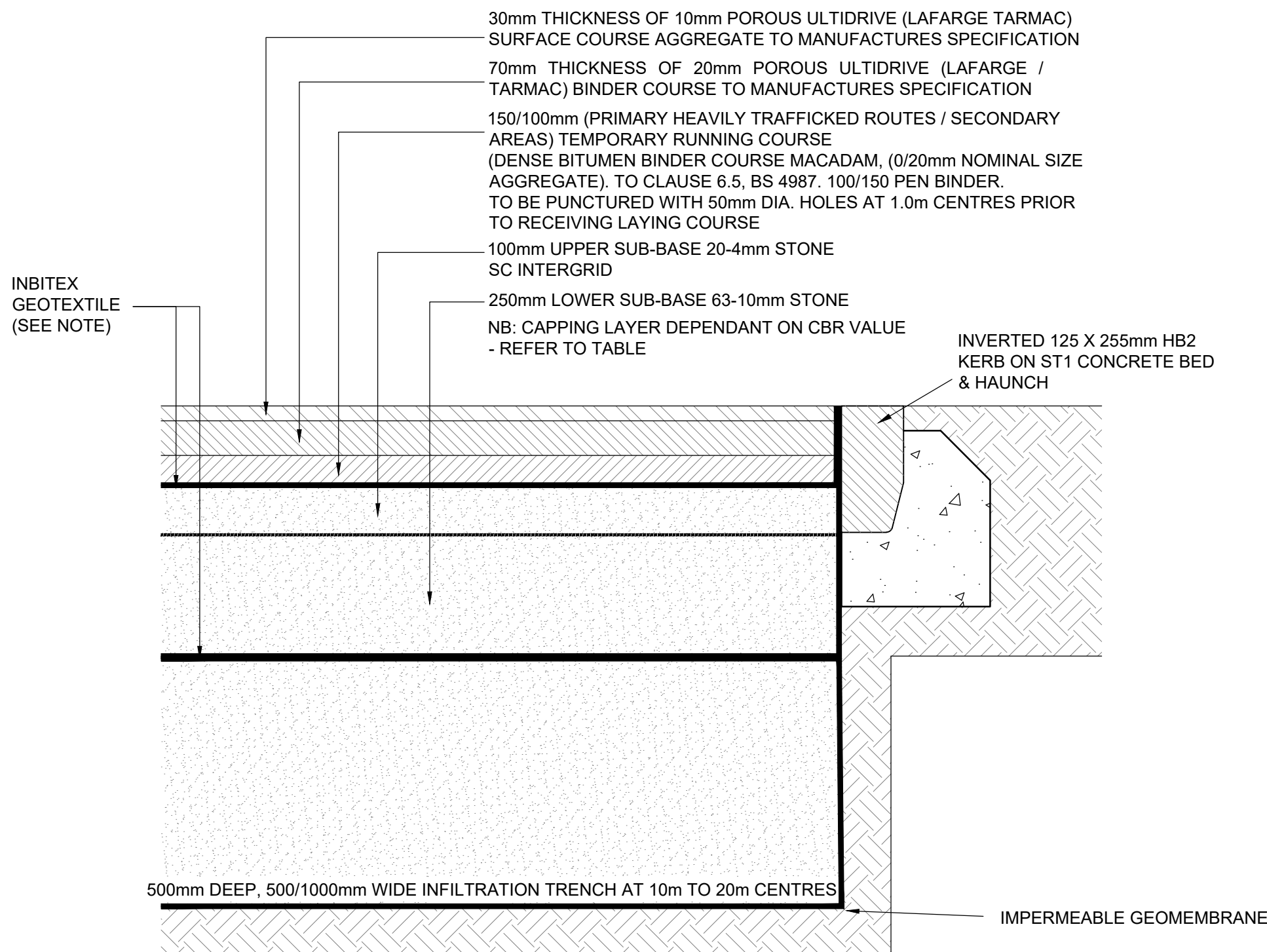
DENSE BITUMEN BINDER COURSE MACADAM, (0/20mm NOMINAL SIZE AGGREGATE). TO CLAUSE 6.5, BS 4987. 100/150 PEN BINDER. TO BE PUNCTURED WITH 50mm DIA. HOLES AT 1.0m CENTRES PRIOR TO RECEIVING LAYING COURSE

SUB GRADE EQUILIBRIUM CBR	<2%	2-5%	>5%
SUB-BASE	250mm	250mm	250mm
CAPPING LAYER	600mm	350mm	-

IF THE SUB GRADE IS FROST SUSCEPTIBLE THE PAVEMENT SHALL COMPRISE OF A MINIMUM OF 450mm THICKNESS OF MATERIAL NOT SUSCEPTIBLE TO FROST ACTION.



TYPICAL SOAKAWAY MANHOLE DETAIL



TYPICAL PERMEABLE SHARED DRIVE DETAIL

SEWER ADOPTION NOTES

- ALL WORKS FOR ADOPTION UNDER A SECTION 104 AGREEMENT SHALL BE CARRIED OUT TO THE NATIONAL WATER COUNCIL GUIDE "SEWERS FOR ADOPTION" 7TH EDITION AND THE REQUIREMENTS OF ONR CYMRU WELSH WATER AS THE STATUTORY SEWERAGE UNDERTAKER AND THE WELSH MINISTERS BUILD STANDARD.
- A SECTION 106 APPLICATION TO CONNECT MUST BE MADE TO DOWN, THE DEVELOPER SHALL GIVE 21 DAYS NOTICE PRIOR TO CONNECTION, THE WORKS MAY ONLY BE UNDERTAKEN BY A DOWN HEALTH & SAFETY APPROVED CONTRACTOR.
- AN ACCREDITED CONTRACTOR BY THE BRITISH PLASTICS FEDERATION WILL BE USED TO LAY ANY ADOPTABLE PLASTIC PIPES. A COPY OF THE ACCREDITATION CERTIFICATE TO BE SUPPLY TO DOWN BEFORE ANY ORDER IS PLACED OR WORK COMMENCES ON SITE.

GENERAL NOTES:

- THE PLANNING, DESIGN AND CONSTRUCTION OF SEWERS SHALL BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 7th EDITION.
- THE MINIMUM SIZE OF SEWER WHERE GUIDE BARS, SAFETY CHAINS, OR OTHER SAFETY DEVICES ARE REQUIRED IN MANHOLES SHALL BE 375mm DIAMETER.
- ALL TYPE 1 AND 2 MANHOLES SHOULD HAVE A CONCRETE SURROUND, CONCRETE RINGS SHALL BE SEALED USING "TOKSTRIP" AND LIFTING EYES POINTED WITH RESIN MODIFIED MORTAR.
- COMPLIANCE WITH HEALTH AND SAFETY MATTERS ON ANY TRENCH/MANHOLE IS OBLIGATORY AND A PERMIT TO ENTER A CONFINED SPACE IS REQUIRED WHEN CONNECTING SITE DRAINAGE TO THE EXISTING PUBLIC SEWERAGE SYSTEM. A PERMIT TO ENTER A CONFINED SPACE WILL BE OBTAINED FROM DOWN PRIOR TO WORKS COMMENCING ON ANY PUBLIC SEWERAGE SYSTEM.
- WHERE THE PROPOSED SITE DRAINAGE CONNECTS TO THE PUBLIC SEWERAGE SYSTEM EITHER BY NEW JUNCTION, NEW MANHOLE OR AT AN EXISTING MANHOLE OR AT AN EXISTING MANHOLE, IT WILL REQUIRE THE SUBMISSION OF AN APPLICATION FOR SEWER CONNECTIONS FORM DOWN PRIOR TO WORKS COMMENCING.
- MH COVERS AND FRAMES SHALL BE DUCTILE IRON WITH A MINIMUM SQUARE OPENING OF 675x675mm. COVERS SHALL BE DOUBLE TRIANGLE FOR 675mm SQUARE OPENINGS AND BE PROVIDED WITH LOOSE BOLTED CONNECTIONS. TYPICALLY FRAMES ARE 150mm DEEP BUT IN ALL CASES THE FRAMES SHALL COMPLY WITH SFA7.
- PROPOSED ADOPTABLE SEWERS ARE ONLY PERMITTED TO HAVE OTHER SEWER/GULLY CONNECTIONS AND OTHER SERVICES LAID AT AN ANGLE OF BETWEEN 45° AND 90° ACROSS THE LINE WITH A VERTICAL CLEARANCE IN EXCESS OF 300mm.
- ALL IRONWORK TO BE KITE MARKED BY BSI OR CERTIFIED BY EQUAL INSPECTION AUTHORITY.
- RED COLOURED PLASTIC MARKER TAPE AT LEAST 150mm WIDE SHALL BE LAID AT A MINIMUM OF 200mm ABOVE THE SOFT OF THE PIPE. THE TAPE SHALL BE PRINTED WITH THE WORDS "GRAVITY SEWER" IN BOLD CAPITAL LETTERS THROUGHOUT ITS LENGTH AND AT INTERVALS NOT EXCEEDING 700mm AND SHALL INCORPORATE A CORROSION RESISTANT TRACING SYSTEM FOR NON-METALLIC PIPES.
- ALL WORKS TO BE ADOPTED UNDER THE SECTION 104 AGREEMENT SHALL BE INSPECTED BY DOWN IN ACCORDANCE WITH THEIR REQUIREMENTS (FOUL AND SURFACE WATER SEWERS).
- ALL WORKS TO BE ADOPTED UNDER THE SECTION 38 AGREEMENT SHALL BE INSPECTED BY RCT IN ACCORDANCE WITH THEIR REQUIREMENTS (HIGHWAY DRAINAGE).
- REFER TO LONGITUDINAL SECTIONS FOR DETAILS OF PIPE SIZES, INVERT LEVELS, BEDDING, ETC.
- SUBJECT TO DRAINAGE AUTHORITY APPROVAL PLASTIC PIPES FOR GRAVITY SEWER, 150mm - 300mm ARE TO BE EITHER:-
 - HURLEY MINIMAX SYSTEM
 - UPONOR ULTRARIB SYSTEM
 - OSMA ULTRARIB SYSTEM
 - POLYSEWER MINIMAX SYSTEMPLASTIC PIPES APPROVAL BY DOWN FOR LARGER DIAMETER GRAVITY SEWERS ARE:
 - POLYPIPE - RIDGESTONE (400mm-600mm)
 - POLYPIPE - RIDGESTONE XL (750mm-900mm)ANY PROPOSED CHANGES TO THE MATERIAL MUST BE AUTHORISED BY DOWN.
- SULPHATE RESISTING PORTLAND CEMENT SHALL BE USED FOR ALL CONCRETES AND MORTARS HAVING EQUIVALENT COMPRESSIVE STRENGTH OF 20N/mm OR GREATER (INCLUDING PRECAST CONCRETE PRODUCTS), UNLESS TESTS INDICATE OTHERWISE.
- FOUL WATER MANHOLES TO BE BAGGED "FW". SURFACE WATER MANHOLES TO BE BAGGED "SW".