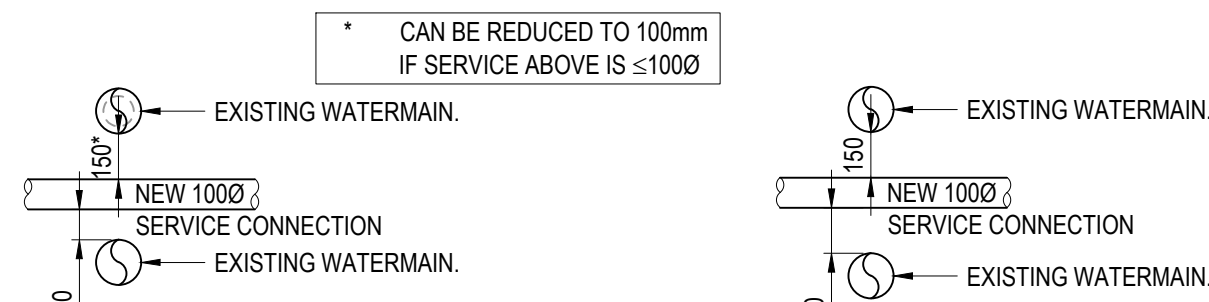
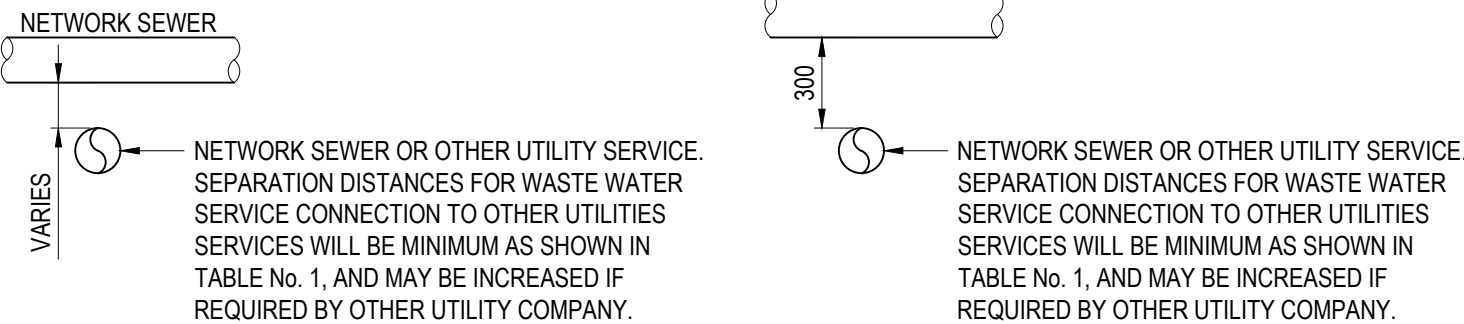
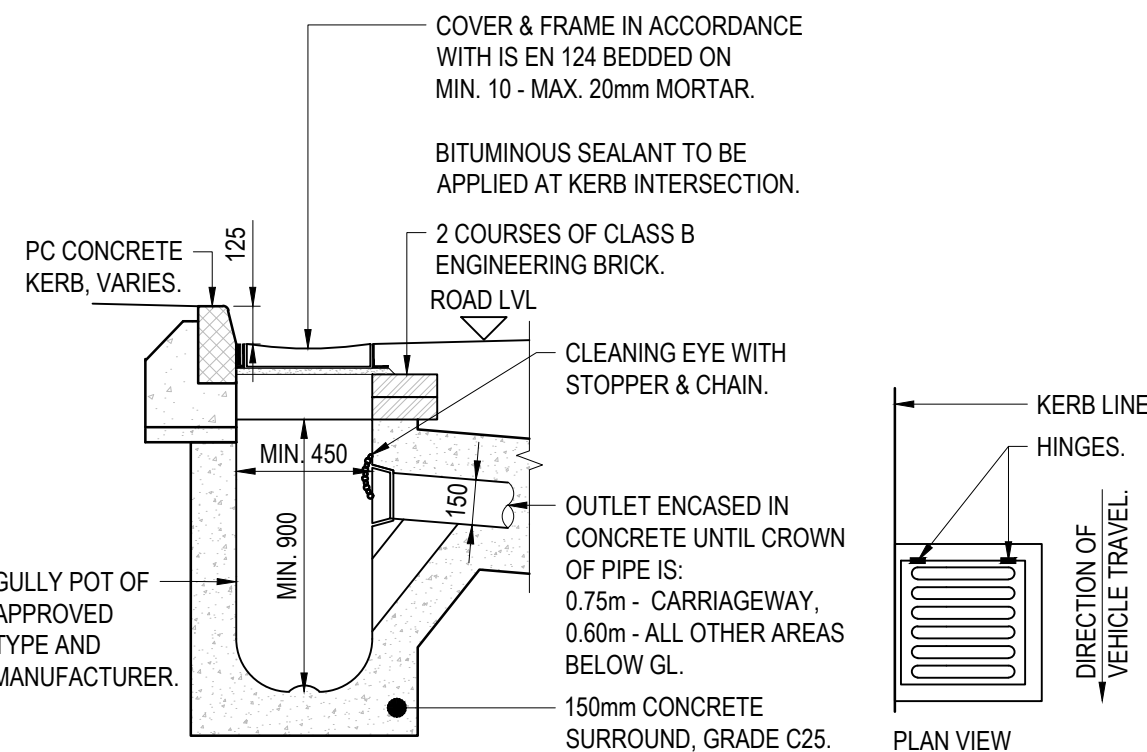




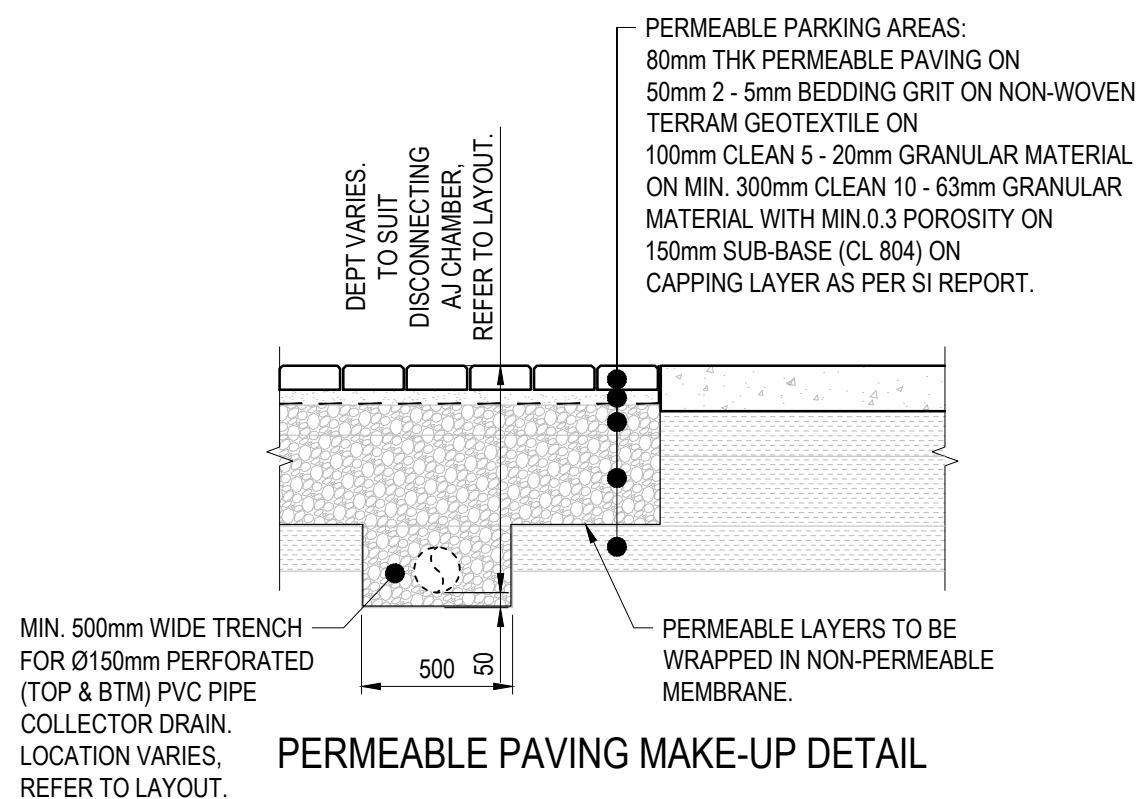
SERVICE CONNECTION - VERTICAL SEPARATION DISTANCES
NON-TRAFFICKED GREEN AREAS / VERGES / FOOTPATHS
SCALE 1 : 25



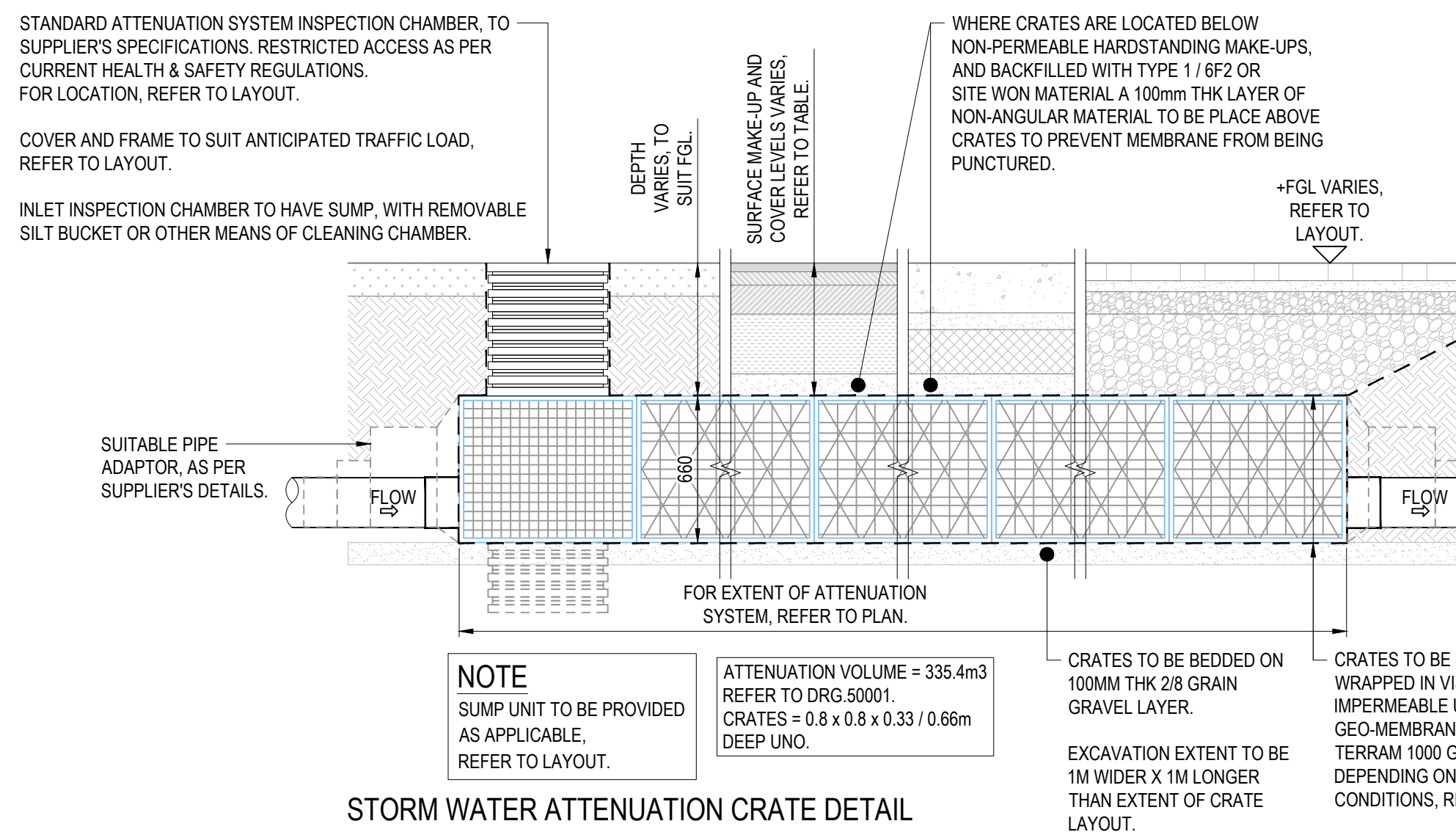
SERVICE CONNECTION - VERTICAL SEPARATION DISTANCES
TRAFFICKED AREAS / ROADS
SCALE 1 : 25



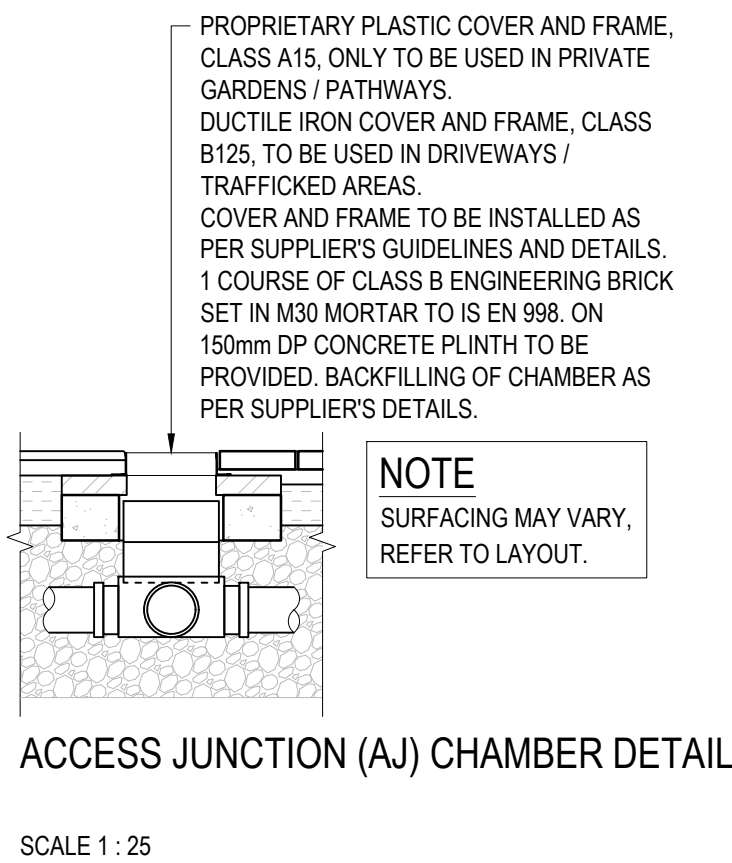
PC CONCRETE ROAD GULLY DETAIL
SCALE 1 : 25



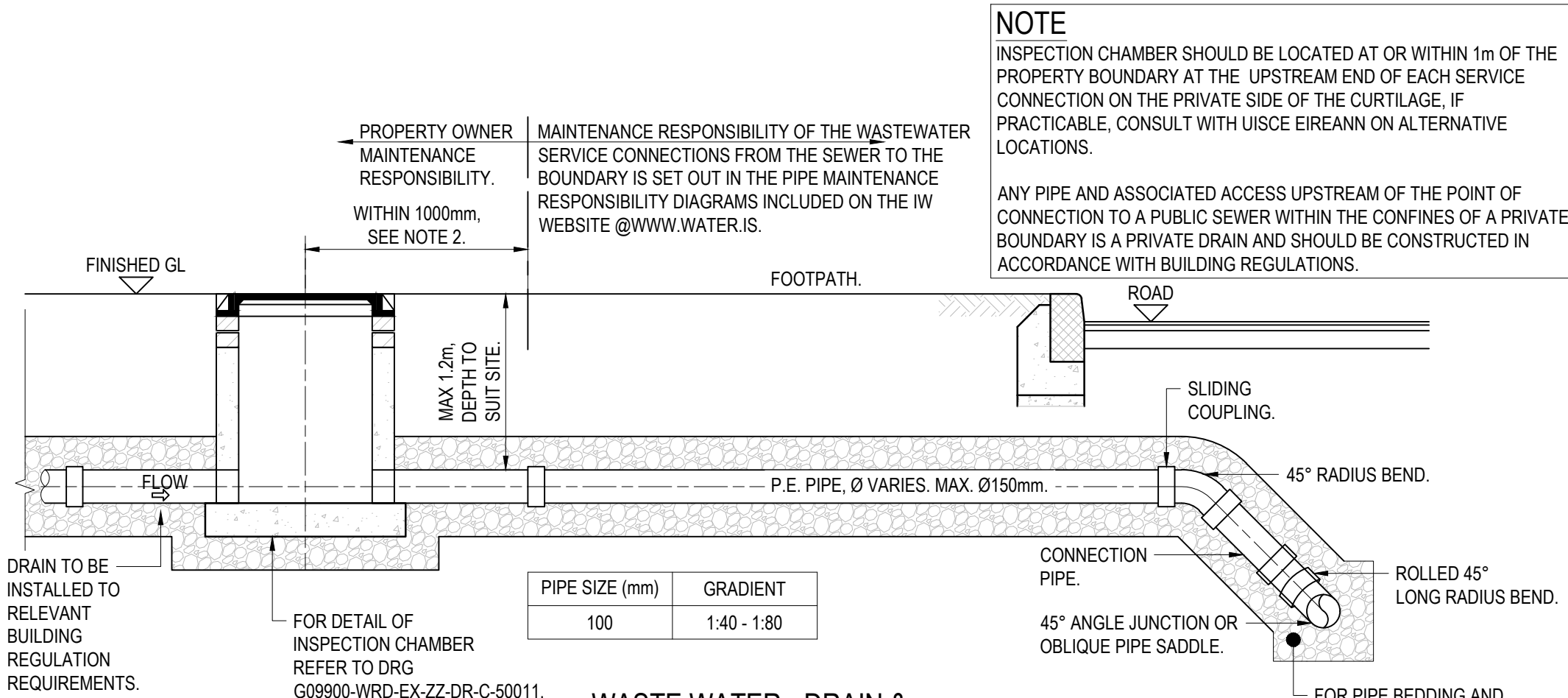
PERMEABLE PAVING MAKE-UP DETAIL
SCALE 1 : 25



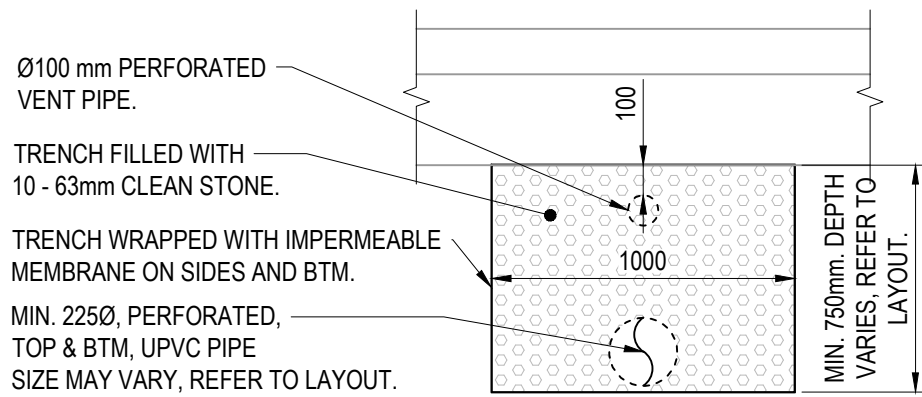
STORM WATER ATTENUATION CRATE DETAIL
SCALE 1 : 25



ACCESS JUNCTION (AJ) CHAMBER DETAIL
SCALE 1 : 25



WASTE WATER - DRAIN & SERVICE CONNECTION PIPEWORK
SCALE 1 : 25



BURIED FILTER TRENCH DETAIL
SCALE 1 : 25

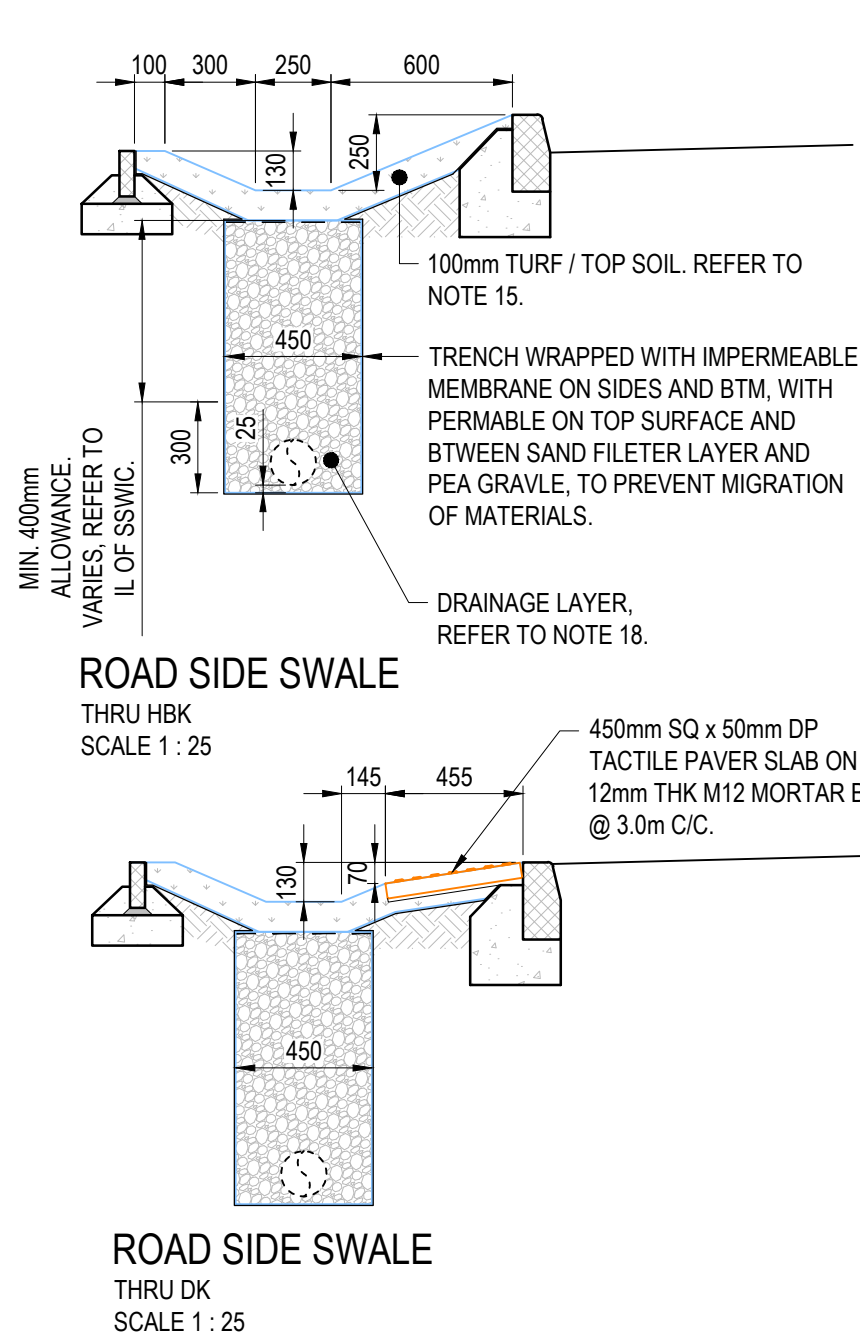
TRAFFIC LOADING			
	SOFT LANDSCAPE D AREAS, NO VEHICULAR ACCESS ALLOWED.	HARD LANDSCAPE D AREAS: CAR PARKS WITH TRAFFIC LOAD = 2.5T	HARD LANDSCAPE D AREAS: ROADS & HGV LOADING YARDS WITH TRAFFIC LOAD < 44T
COVERAGE C (m)	C ≥ 0.4	C ≥ 0.6	C ≥ 0.8
INSTALLATION DEPTH D (m)	D ≤ 4.0	D ≤ 4.0	D ≤ 4.0
HEIGHT H OF SYSTEM (m)	0.36 ≤ H ≤ 2.64	0.36 ≤ H ≤ 2.64	0.36 ≤ H ≤ 2.64
GROUNDWATER	NONE	NONE	NONE

NOTE - THE GROUND UNDERNEATH THE ATTENUATION CRATES MUST HAVE SUFFICIENT LOAD BEARING CAPACITY (COMPRESSIVE STRENGTH). IF NECESSARY, MEASURES TO INCREASE THE LOAD BEARING CAPACITY MUST BE TAKEN. THE SYSTEM MUST NOT BE INSTALLED IN PERMANENT OR INTERMITTENT GROUNDWATER, STRATUM OR IMPOUNDED WATER (THE DISTANCE FROM HIGHEST AVERAGE GROUNDWATER LEVEL MUST GENERALLY BE AT LEAST 1.0m).

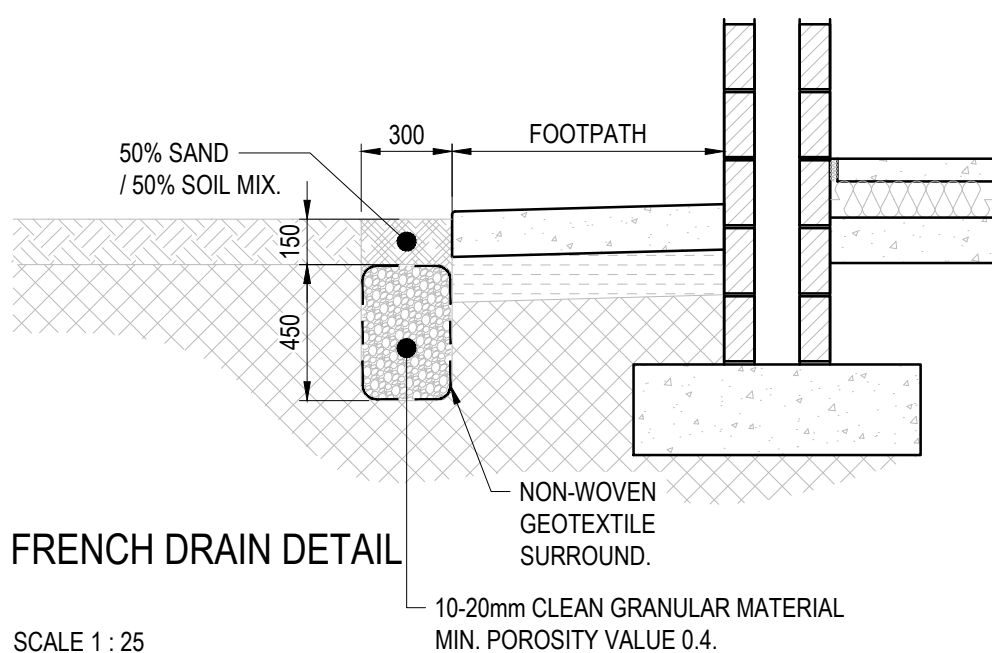
NOTE
ATTENUATION SYSTEM BASED ON HYDRO INTERNATIONAL STORMBLOC SYSTEM. ALTERNATIVE SYSTEMS CAN BE USED, SUBJECT TO AGREEMENT WITH WRD. INSTALLATION AND REQUIRED COMPONENTS TO BE AS PER SUPPLIER'S GUIDELINES AND DETAILS.

FORMATION, INVERT LEVELS AND OUTLET LEVELS TO BE REVIEWED AGAINST PROPOSED SYSTEM.

ATTENUATION SYSTEM TO BE SUITABLY VENTILATED, AS PER SUPPLIER'S INSTALLATION GUIDELINES.



ROAD SIDE SWALE
THRU DK
SCALE 1 : 25



FRENCH DRAIN DETAIL
SCALE 1 : 25

TABLE No. 1

	SEPARATION DISTANCE BETWEEN SERVICE CONNECTION ABOVE AND UISC EIREANN PIPE BELOW (mm)	SEPARATION DISTANCE BETWEEN SERVICE CONNECTION BELOW AND UISC EIREANN PIPE ABOVE IF PIPE ≤1000 (mm)	SEPARATION DISTANCE BETWEEN SERVICE CONNECTION BELOW AND PIPE ABOVE IF PIPE ≥1000 (mm)	SEPARATION DISTANCE BETWEEN NETWORK SEWER ABOVE AND PIPE BELOW (mm)	SEPARATION DISTANCE BETWEEN NETWORK SEWER BELOW AND PIPE ABOVE (mm)
NON-TRAFFICKED AREAS	100	100	150	PIPE BEDDING DEPTH OF THE UPPER PIPE.	PIPE BEDDING DEPTH OF THE PIPE BELOW.
TRAFFICKED AREAS	150	150	150	300	300

SEPARATION DISTANCES FOR WASTE WATER SERVICE CONNECTION TO OTHER UTILITIES SERVICES WILL BE AS SHOWN, AS A MINIMUM, AND MAY BE INCREASED IF REQUIRED BY OTHER UTILITY COMPANY.

SEWER / SERVICE PIPE CONNECTION NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- AS FAR AS PRACTICABLE, JUNCTIONS AND SERVICE CONNECTIONS SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHERE IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SERVICE CONNECTION TO THE INSPECTION CHAMBER, INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE CONNECTION IS REQUIRED.
- THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE WITHIN THE ACCEPTABLE RANGE OF 30° to 90°.
- WHERE THE SERVICE PIPE CONNECTION WITHIN THE FOOTPRINT OF THE SELF LAY AGREEMENT IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER OF 300mm DIAMETER OR LESS, CONNECTIONS SHALL BE MADE USING 45° ANGLE JUNCTIONS.
- WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER GREATER THAN 300mm, THE FOLLOWING SHALL APPLY :
A. WHERE THE DIAMETER OF THE CONNECTING PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR
B. WHERE THE DIAMETER OF THE CONNECTION PIPE IS LESS THAN OR EQUAL TO HALF THE DIAMETER OF THE SEWER, THEN THE CONNECTION SHALL BE MADE USING A PREFORMED Y-BRANCH FITTING WITH A 45 DEG. SLOW BEND TO FORM THE CONNECTION TO THE WORKS.
- CONNECTION USING SADDLES MAY ONLY BE USED IN EXCEPTIONAL CIRCUMSTANCES AND ONLY TO WHERE THE CONNECTION IS TO AN EXISTING SEWER. CONNECTIONS MADE WITH SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND JOINING THE SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATERTIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS.
- THE USE OF 90° "Y"-BRANCH OR SADDLE CONNECTIONS TO THE SEWER MAY BE ALLOWED, PROVIDED THE SADDLE OR BRANCH INCORPORATES A SWEEP TEE CONNECTION TOWARDS THE DIRECTION OF FLOW OF THE SEWER.

NOTE

DETAILS AND SPECIFICATIONS BASED ON UISC EIREANN'S CURRENT STANDARDS. CONTRACTOR TO ENSURE LATEST STATUTORY BODY GUIDELINES, DETAILS AND SPECIFICATIONS ARE FOLLOWED.

OUTLINE SPECIFICATION NOTES FOR FOR SUD FEATURES

CONTRACTOR TO FAMILIARISE THEMSELVES WITH 'GUIDANCE ON THE CONSTRUCTION OF SUDS', CIRIA C768, 2017; 'THE SUDS MANUAL', CIRIA C753, 2015, 'SITE HANDBOOK FOR THE CONSTRUCTION OF SUDS' CIRIA C698, 2007.

- FOR KERBING SPECIFICATION, REFER TO DRAWING G09653-WRD-EX-ZZ-DR-C-33011.
- FREEBOARD: 130mm MAX. DEPTH 'FREEBOARD' PROVIDES POTENTIAL WATER STORAGE SPACE ABOVE THE TOPSOIL.
- 1:2.3 GRADIENT SIDE SLOPE DOWN TO FILTER MEDIUM TO PROVIDE 'FREEBOARD' STORAGE IN INUNDATIONS, PLANTED WITH VEGETATION.
- AT KERB SIDE-CUT TO BE LANDSCAPED WITH 600mm WIDE GRASS SEEDING TO SLOW SURFACE WATER INGRESS SPEED/SCOUR/EROSION PROTECTION.
- THE FOLLOWING PLANTING MIX SHALL BE PROVIDED IN THE SWALE:
10% - IRIS PSEUDOCORUS (WATER IRIS)
10% - CAREX RIPARIA (GREAT POND SEDGE)
10% - CAREX NIGRA (COMMON SEDGE)
10% - CAREX ACUTIFORMIS (LESSER POND SEDGE)
10% - SPARGANIUM ERECTUM (BRANCHED BUR-REED)
10% - TYPHA ANGUSTIFOLIA (LESSER REED MACE)
- IN THE GRASSGUARD SYSTEM, THE TOPSOIL SHALL BE CAREFULLY HAND RAMMED INTO THE VOIDS LEAVING A 25mm SPACE AT THE TOP. THE SEEDS SHALL BE MIXED WITH THE TOPSOIL AND PLACED IN THE 25mm VOID AND LIGHTLY COMPACTED.
- ROAD SIDE SLOPED EDGES SHOULD BE SEEDED WITH A NORMAL AMENITY GRASS MIX WITH A WILDFLOWER COMPONENT.
- FILTER FABRIC / MEMBRANE: COLD APPLIED SINGLE LAYER ROBUST WELDED FLEXIBLE MEMBRANE, SUITABLE FOR WATERPROOFING TO STRUCTURES AND FOR WATER CONTAINMENT.

COMPOSITION

- THE ROOTZONE MIX SHALL COMPRISE OF 70/30 MIX OF SAND / TOPSOIL TO BS 3882:2015
- FILTER GROWING MEDIA CAN COMPRISE A FREE-DRAINING AMENDED SOIL MIX COMPRISING 55% SAND, GRADED AS ABOVE: 30% MULTI-PURPOSE GRADE TOPSOIL TO BS 3882:2015 AND 15% PEAT-FREE COMPOST TO IS 441. MATERIAL SHOULD BE WELL-MIXED AND MEET THE PERMEABILITY REQUIREMENTS AS LISTED ABOVE.
- FILTER GROWING MEDIA CAN COMPRISE A CUSTOM MIX OF CRUSHED AND SANDY SILT LOAM TO PROVIDE A VERY FREE-DRAINING GROWING MEDIUM.
- VOLUME OF FILTER GROWING MEDIA SHOULD BE BASED ON 110% OF PLAN VOLUME, TO ACCOUNT FOR SETTling OR COMPACTION.
- SIZE DISTRIBUTION: 100% PASSING THROUGH A 25MM SCREEN; 50% PASSING THROUGH A 10mm SCREEN.
- MOISTURE CONTENT: 12-30%
- PERMEABILITY RANGE: 100-300mm/H
- PURITY: SUSTAINABLE, FREE FROM PHYSICAL AND CHEMICAL CONTAMINANTS AND PATHOGENS.
- TRANSITION LAYER OR GEOTEXTILE SEPARATOR LAYER: NON-WOVEN GEOTEXTILE FABRIC WITH A FLOW RATE OF >10 LITRES PER MINUTE PER METRE, TO PREVENT INTER-MIXING OF GRANULAR MATERIALS AND SOILS, AND PREVENT THE INGRESS OF FINES INTO DRAINAGE MEDIA.
- DRAINAGE LAYER: SUB-BASE MATERIALS SUCH AS 4/20 AGGREGATE OR CRUSHED RECYCLED CONCRETE WITH NO FINES' PARTICLES (TESTED TO ENSURE IT WILL NOT LEACH CONTAMINANTS INTO THE WATER). COARSE GRADED AGGREGATE 4/20 AND 4/40 TO BS 7533-13-2009.

- AGGREGATES FOR PLANTING BEDS:
SAND: COARSE, GRAINED SHARP SAND WITH NEUTRAL PH.
GRIT: 2-5MM HORTICULTURAL GRIT
CRUSHED MATERIALS: CRUSHED AND GRADED RUBBLE

GENERAL NOTES

- DO NOT SCALE FROM THIS DRAWING - IF IN DOUBT CONTACT PROJECT ENGINEER.
- ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
- ALL LEVELS AND COORDINATES ARE IN METRES REFERENCED TO IRISH TRANSVERSE MERCATOR GRID (ITM)
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, CONSTRUCTION AND SERVICES DRAWINGS.
- THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON SITE AND IS RESPONSIBLE FOR ACCURATE SETTING OUT.
- THE CONTRACTOR IS TO CONFIRM THE EXISTING BOUNDARY AND SITE STRUCTURES ETC. PRIOR TO COMMENCING THE WORKS AND IMMEDIATELY INFORM THE SUPERVISING OFFICER SHOULD THESE BE AT VARIANCE WITH THE ASSUMPTIONS SHOWN ON THE DRAWING.

ALL DIMENSIONS SHOWN ON THIS DRAWING ARE TO BE VERIFIED BY THE ARCHITECT PRIOR TO FABRICATION / MANUFACTURE / CONSTRUCTION

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

THE DESIGNS ON THIS DRAWING ARE PREPARED WITH CONSIDERATION OF THE NEED TO IDENTIFY HAZARDS AND GIVE REGARD TO THEIR ELIMINATION OR MINIMISATION. REFERENCE MUST BE MADE TO HEALTH AND SAFETY INFORMATION PREPARED BY THE PRINCIPAL DESIGNER.

P01	Issued for Planning	04/06/26	AO	ES
ISSUE	DETAILS	DATE	BY	CHK

STATUS:

PLANNING

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CLIENT:

TIPPERARY COUNTY COUNCIL

PROJECT TITLE:

**HOUSING DEVELOPMENT AT GLEAN CAOIN,
BORRISOLEIGH CO. TIPPERARY**

DRG TITLE:

DRAINAGE DETAILS, SHEET 03

DRAWN BY:	AO	DATE DRAWN:	28/05/2026
CHECKED BY:	ES	DATE CHECKED:	28/05/2026

SCALES:	AS NOTED	SHEET SIZE:	A1
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PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - NUMBER	REV:
G09900 - WRD - EX - ZZ - DR - C - 50013	P01