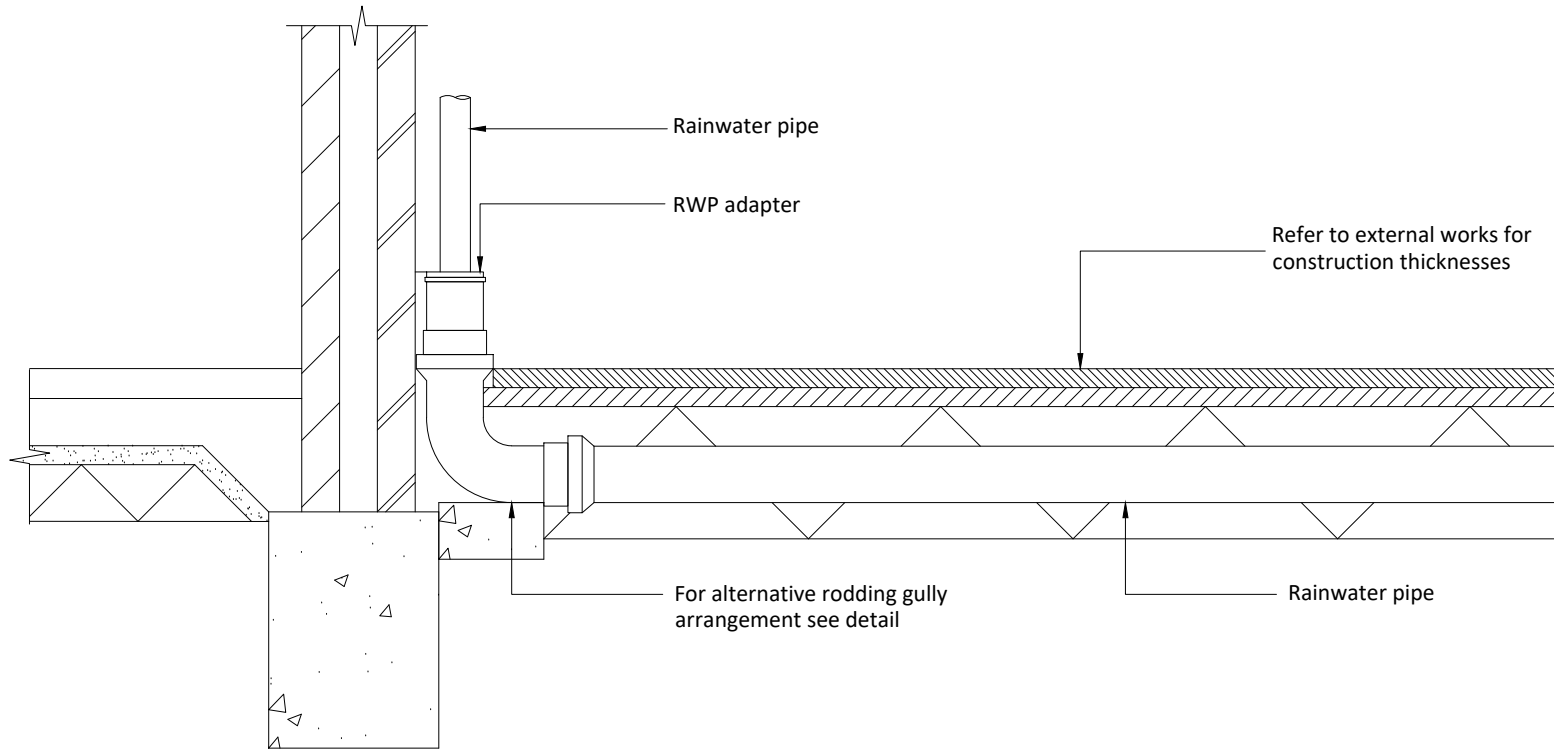
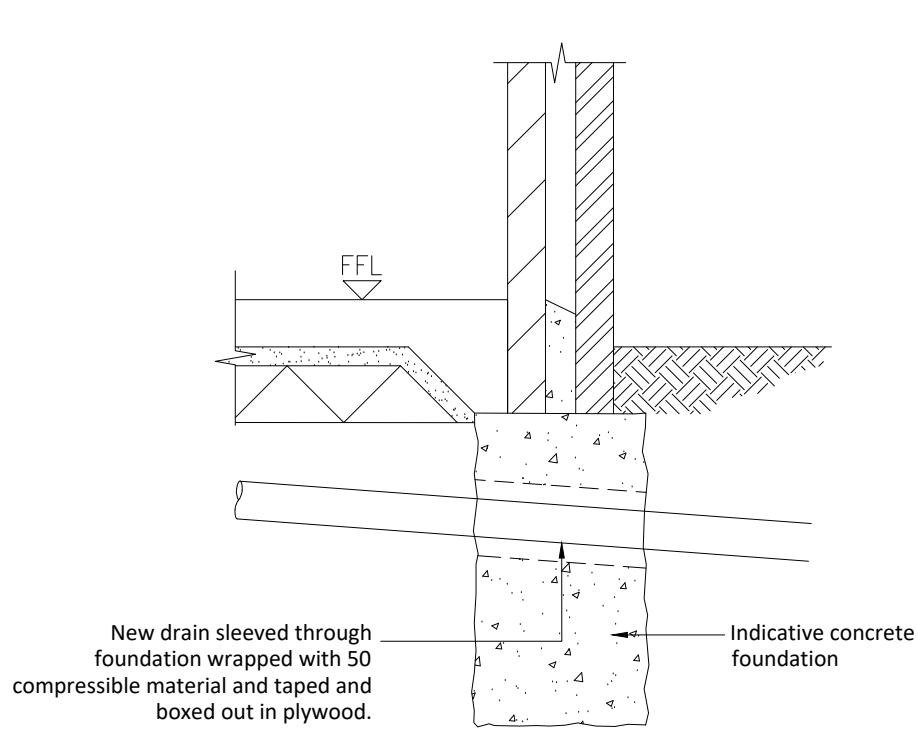




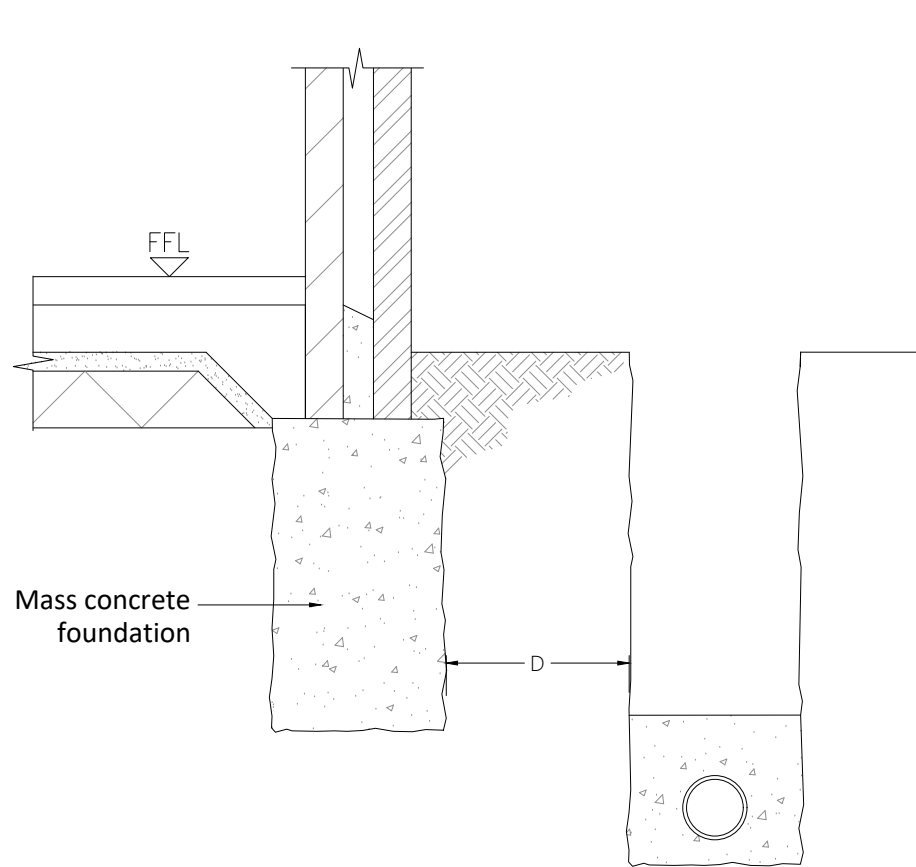
Typical Rainwater Pipe Detail

Scale 1:20

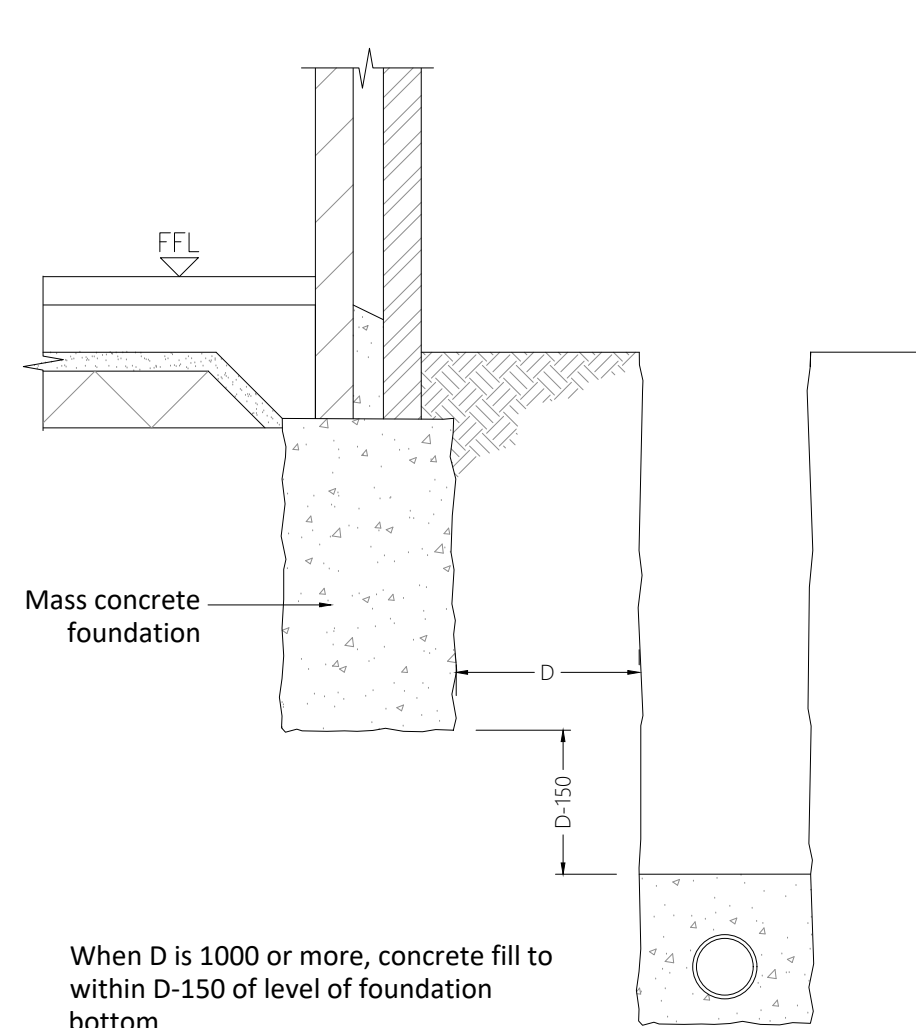


Drain Sleeved Through Foundation Detail

Scale 1:20



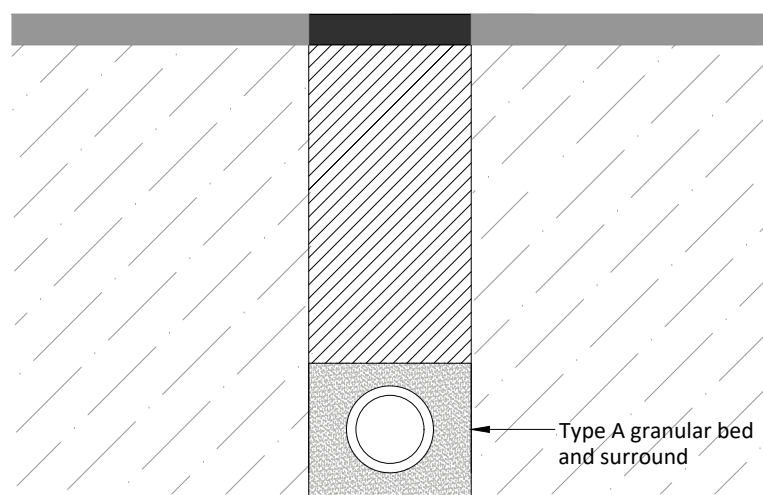
When D is less than 1000, concrete fill to level of foundation bottom



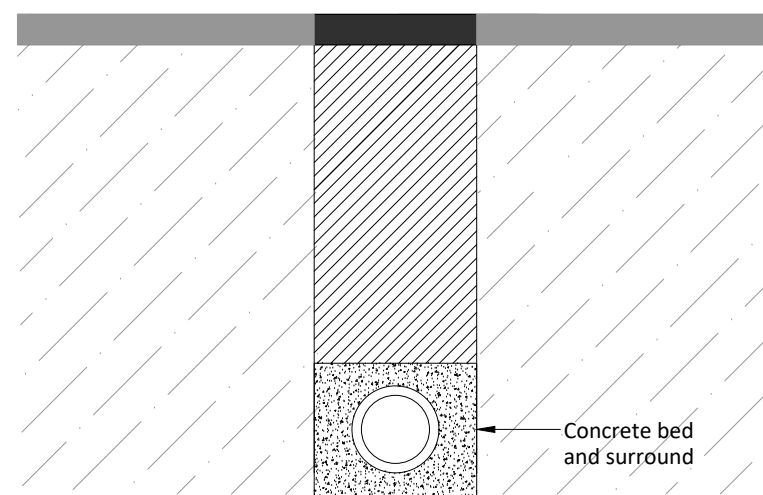
When D is 1000 or more, concrete fill to within D-150 of level of foundation bottom

Pipe Protection Near Foundation Details

Scale 1:20



Class S granular bed and surround - pipe cover depth >900mm trafficked areas or >600mm non-trafficked areas

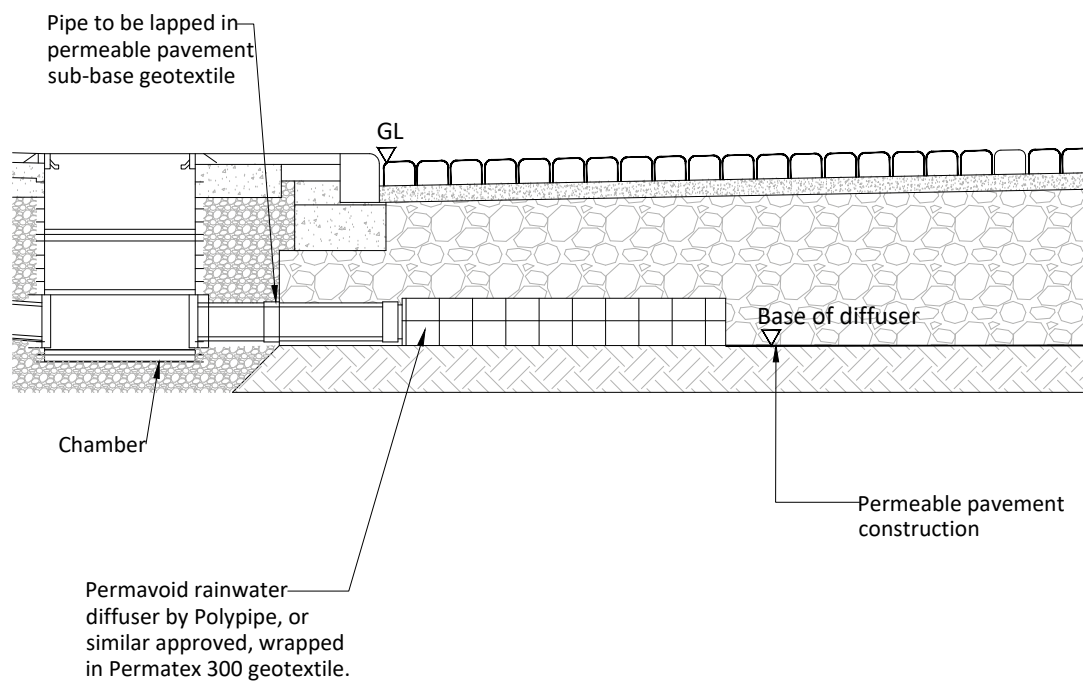


Class Z concrete bed and surround - pipe cover depth <900mm trafficked areas or <600mm non-trafficked areas

Typical Pipe Bedding Details

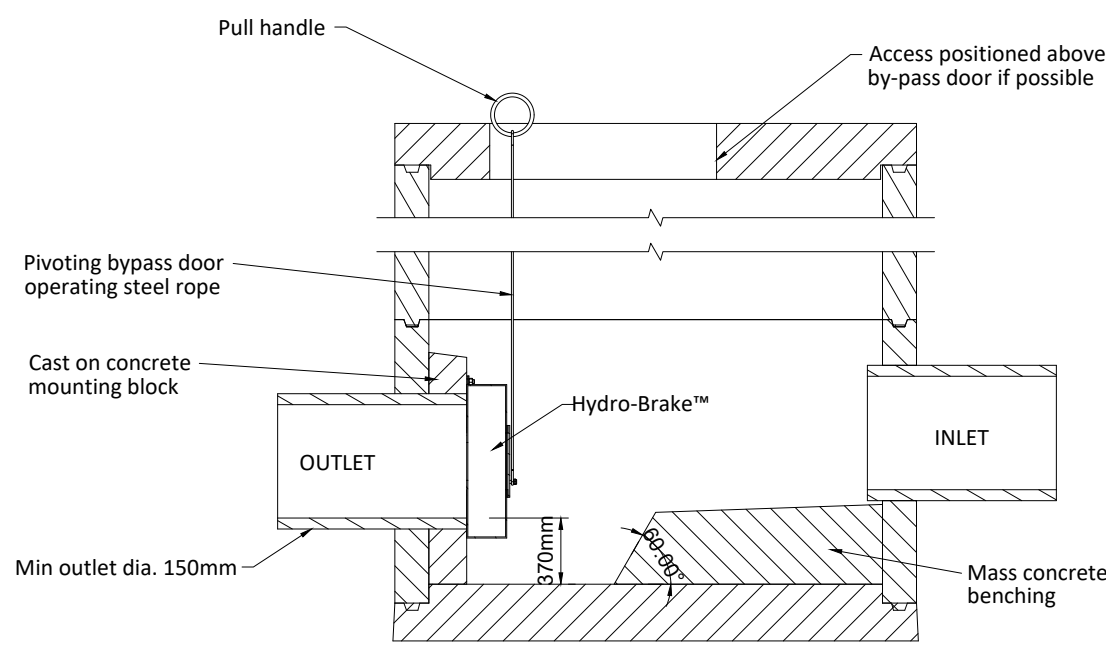
Scale 1:50

- Selected backfill material
- Granular bedding material
- Concrete bedding material
- Surface reinstatement as per soft or hard landscaping specification



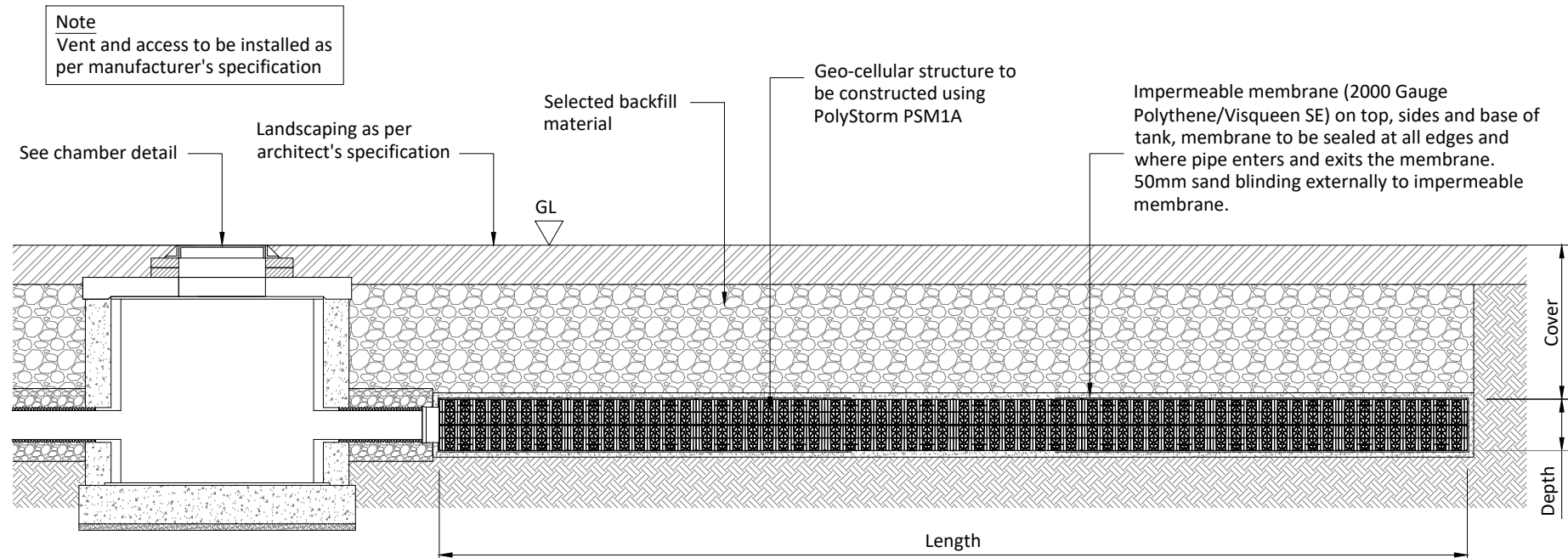
Typical Permavoid Diffuser Unit Detail

Scale 1:25



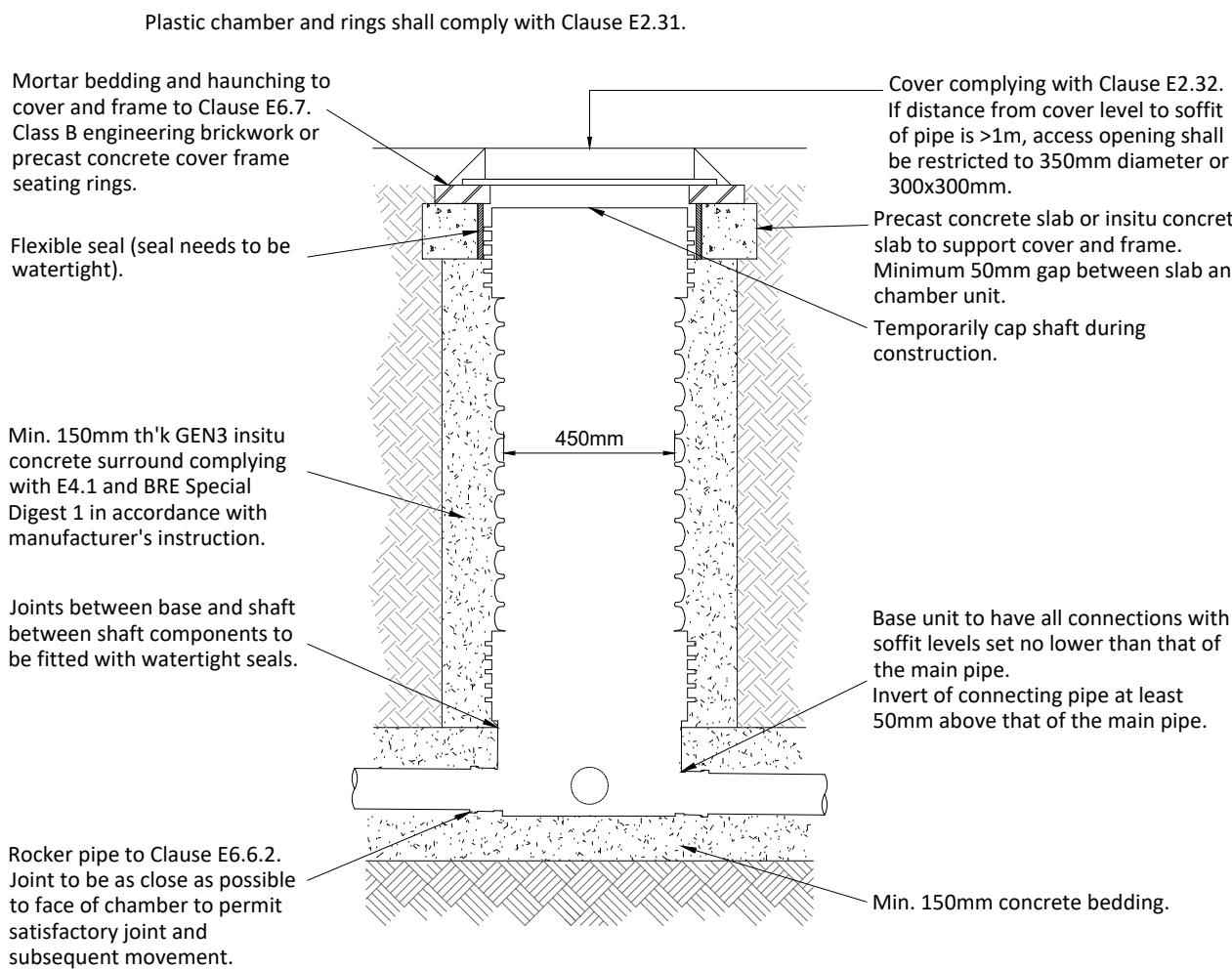
Typical HydroBrake Chamber Detail

Scale 1:20



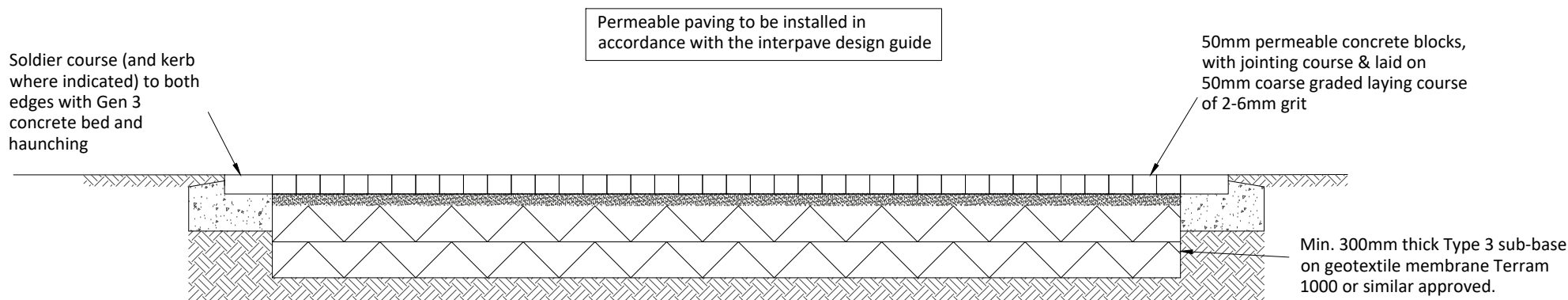
Typical Geo-Cellular Attenuation Detail

Scale 1:50



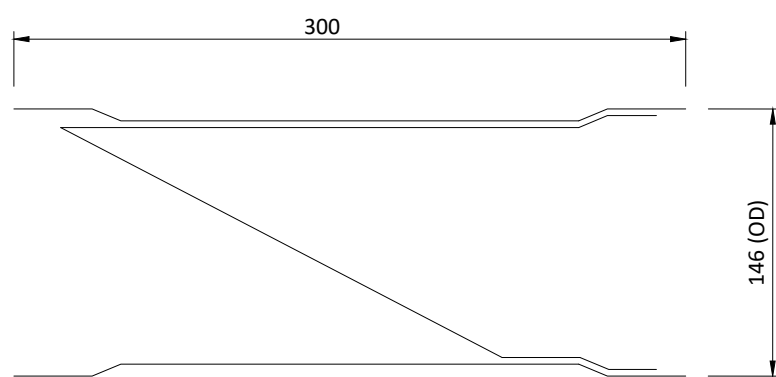
Typical Inspection Chamber Detail

Scale 1:20



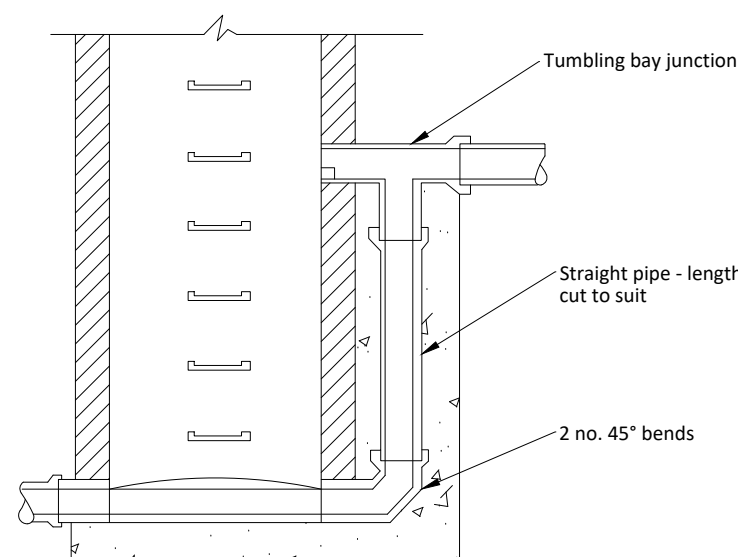
Proposed Permeable Pavement Detail

Scale 1:25



Typical Non-Return Valve Detail

Scale 1:20

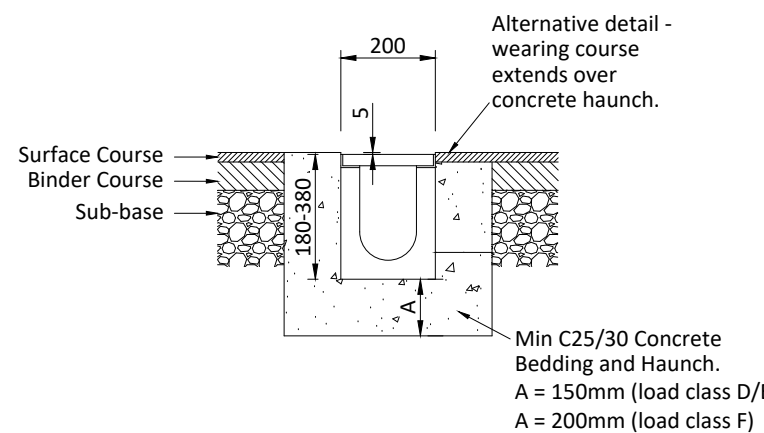


Typical Backdrop Detail

Scale 1:50

- Notes
- Do not scale this drawing.
 - This drawing is to be read in conjunction with all other project drawings and specifications.
 - All dimensions are in millimetres unless stated otherwise.
 - Should there be any conflict between the details indicated on this drawing and those indicated on other drawings the Project Engineer shall be informed prior to construction.
 - Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and not for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
 - All 1000 proposed drainage pipes shown are to be laid at a minimum gradient of 1:80.
 - All 1500 proposed drainage pipes shown are to be laid at a minimum gradient of 1:150.
 - All existing land drains encountered on site during construction are to be re-connected.
 - Temporary protection to be provided to drainage work during construction as necessary.
 - Topographical survey and architectural layout based on third party information.
 - Anticipated foul flow rates calculated using discharge unit method to BS EN 12056-2.
 - Drawing to be read in conjunction with Causeway Flow design pack.
 - Pipes to be structured wall to BS EN 13476. Polypropylene to BE EN 1852 or PVC-U to BS EN 1401.
 - Both clay and concrete pipes shall be strength class 120 (100/150mm min crushing strength 28kN/m).
 - Thermoplastic pipes shall have a minimum ring stiffness of SN4
 - Pipes which run adjacent to buildings shall be installed in strict accordance with Building Regulations Part H, clauses 2.23 to 2.25.
 - Class 2 concrete bed and surround to all foul and surface water pipes with less than 900mm cover depth. Type S granular bed and surround to all foul and surface water pipes with greater than 900mm cover depth.
 - All manholes and inspection chambers subject to vehicular trafficking to have D400 load-rated covers and frames to BS EN 124. All manholes and inspection chambers not subject to vehicular trafficking to have B125 load-rated covers and frames to BS EN 124.
 - Concrete to be GEN1 unless specified otherwise.
 - The first flexible joint in pipes adjoining a manhole shall be a maximum length of 600mm from the inside face of the manhole, connecting to a rocker pipe. The length of the rocker pipe shall be 600mm.
 - All foul and surface water pipes to be constructed to Building Regulations Part H.
 - Permeable pavement sub-base to consist of min. 300mm thick MoT Type 3.
 - Geo-cellular units to be PolyStorm PSM1A or similar approved.
 - Geo-cellular units to be installed in accordance with manufacturer's instructions and specification.
 - Manufacturer to provide structural calculations to relevant industry guidance which confirm the product is suitable for use at the proposed depth and expected loading conditions.

- CDM Requirements
- Risk - Deep excavation
Control method - Contractor to design trench support to depths shown on drawings and in the manhole schedule, appropriate to the ground conditions.
- Risk - Water ingress into excavations, including ground water
Control method - Contractor to specify method of dealing with ingress of water into excavations, in particular if ground water is experienced. Contractor to undertake trench inspections prior to entry into any excavation, and again if left overnight or if conditions change.



Typical Linear Drain Detail

Scale 1:20

Typical Flexible Joint to Concrete Bed and Surround Detail

Scale 1:20

-	-	-
Revision	Details	Date
NC29 Ltd Newstead House, Pelham Road Nottingham, NG5 1AP Tel : 07753 168226 Web: www.nc29.co.uk Email : info@nc29.co.uk		
Project	Proposed Replacement Dwelling Tivy Dale Drive, Cawthorne	
Client	James and Gemma Ixer	
Title	Proposed Drainage Details	
Drawn	CC	Checked CC
Date	July 2026	Scale As Shown
Number	2189/002	Status Preliminary