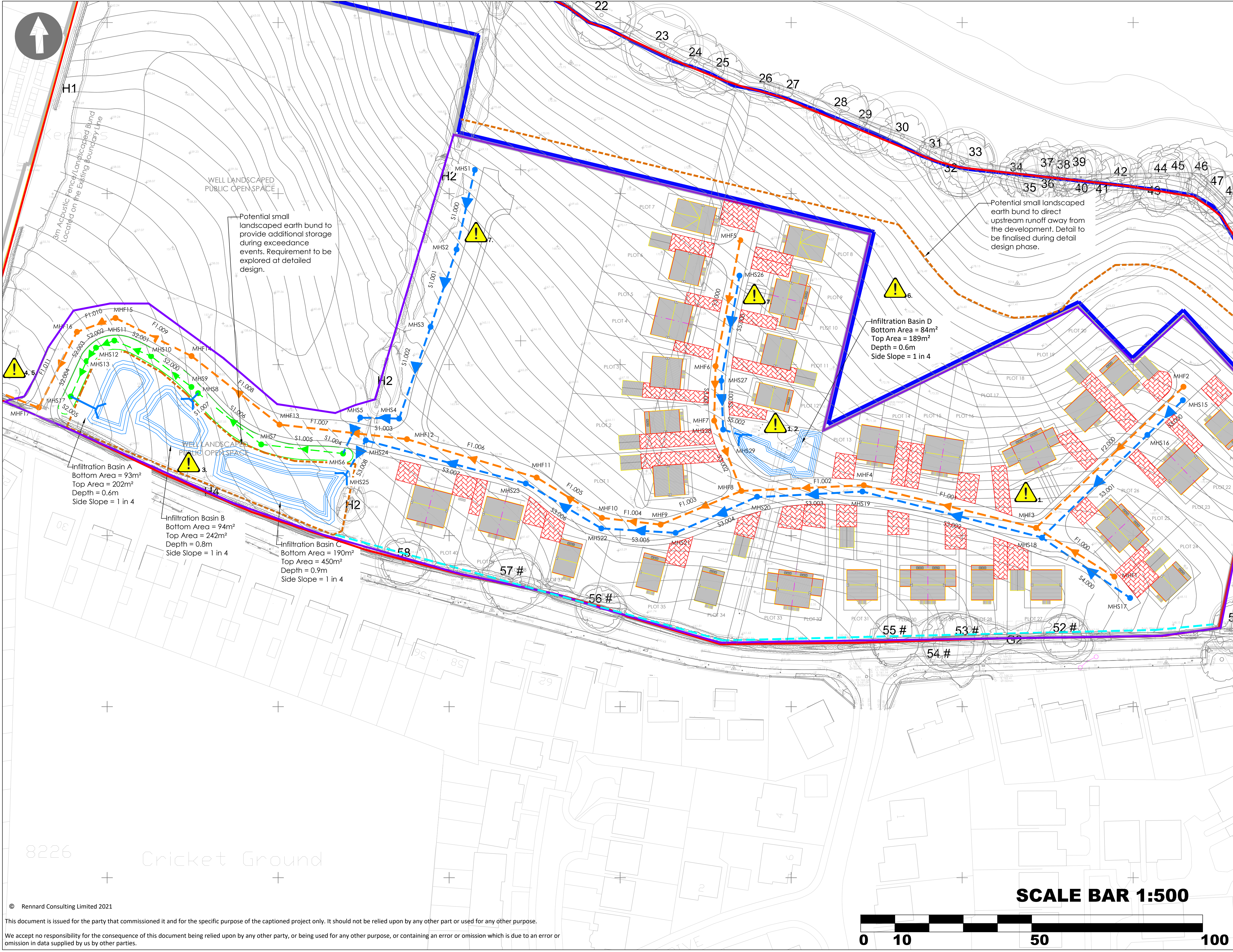




NOTES

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4. This drawing should be read in conjunction with the accompanying planning document (Ref: 00019/TEN/DOC/001/A)
5. For planting regimes reference should be made to the separately issued Landscape Architect drawings:
 - AWO127-PL-001 - Softworks Proposals including Ecological enhancements
 - AWO127-PL-002 - Hardworks Proposals

Key

- Proposed Surface Water Drainage
- Proposed Foul Water Drainage
- Proposed Cut Off Drain
- Earth Bund
- Proposed Swale
- Permeable Paving (see calculation pack for indicative size)

Reference Drawings

00019/TEN/DR/1002 Impermeable Area Plan
00019/TEN/DR/1004 Exceedance Plan
00019/TEN/DR/1005 Typical Standard Details (Sheet 1 of 2)
00019/TEN/DR/1006 Typical Standard Details (Sheet 2 of 2)

Wherever possible, risk is designed out during the design process. Where this is not possible, the risk will be minimised and any significant residual risk will be noted and indicated by a hazard warning triangle.

1. Deep Manhole
2. Overhead Power Cables
3. Buried Services
4. Connection into Live Drainage Asset
5. Connect in live road
6. Overland Flow
7. Construction on Sloped Site

D	19.07.2021	Updated with revised layout	FEG
C	09.07.2021	For Planning	FEG
B	05.07.2021	DRAFT - For Comment	FEG
A	14.06.2021	Work in Progress. Issued for information	FEG
Rev	Date	Revision notes	By

NOT FOR CONSTRUCTION

Status	For Planning
Project	Tenford Road
Title	Proposed Drainage Strategy
Client	A.R Alcock

Rennard Consulting Limited
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Drawn By	Publish Date	Scale(s)
FEG	15.06.2021	1:500 @ A1
Drawing no.	Revision	
00019/TEN/DR/1003	D	

8226 Cricket Ground

SCALE BAR 1:500

0 10 50 100

Appendix B – Proposed Development Plans

Component Inspected:				
Inspection Date:				
	Details	Y/N	Action Required	Date Completed
General Inspection Items				
Is there evidence of poor hydraulic performance (i.e. standing water)?				
Is there any evidence of accidental spillages (oils etc.)?				
Have any H&S risks been identified?				
Is there any deterioration of surfacing, /component covers?				
Silt/Sediment Accumulation				
Is there any sediment accumulation in the catch-pits? (If yes remove)				
Does the permeable paving need sweeping to remove silt?				
System Blockages				
Is there any evidence of litter within the system? Can it cause blockages?				
Is there any evidence of blockages in the system?				
Is there any evidence of root ingress within the system?				
Infrastructure				
Is there any evidence of accidental damage (i.e. broken or misplaced covers, settlement in vicinity of the permeable paving?)				
Is there any evidence of cross connections or other contamination (i.e. oils)				
Other observations				
Appended information (i.e. photos)				
Suitability of current maintenance regime				
Continue as current? Increase maintenance? Decrease maintenance?				
Next inspection				
Proposed date for next inspection				

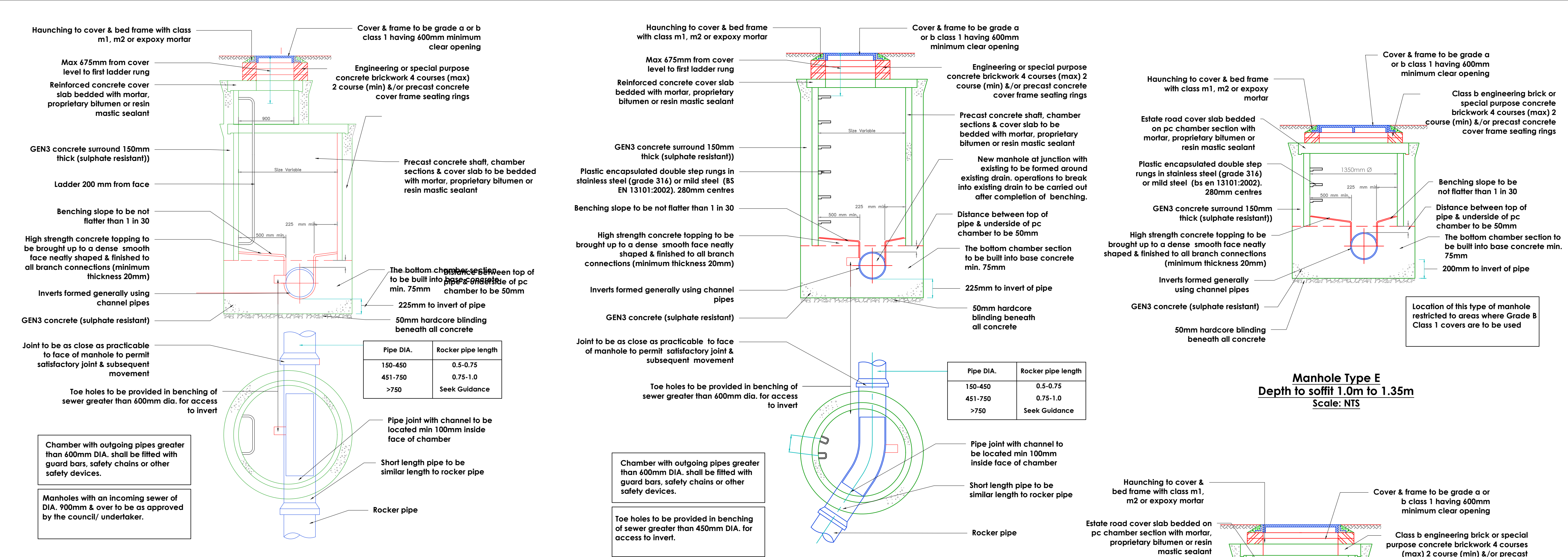
Appendix P – DHRA

Designers' hazard elimination and management record

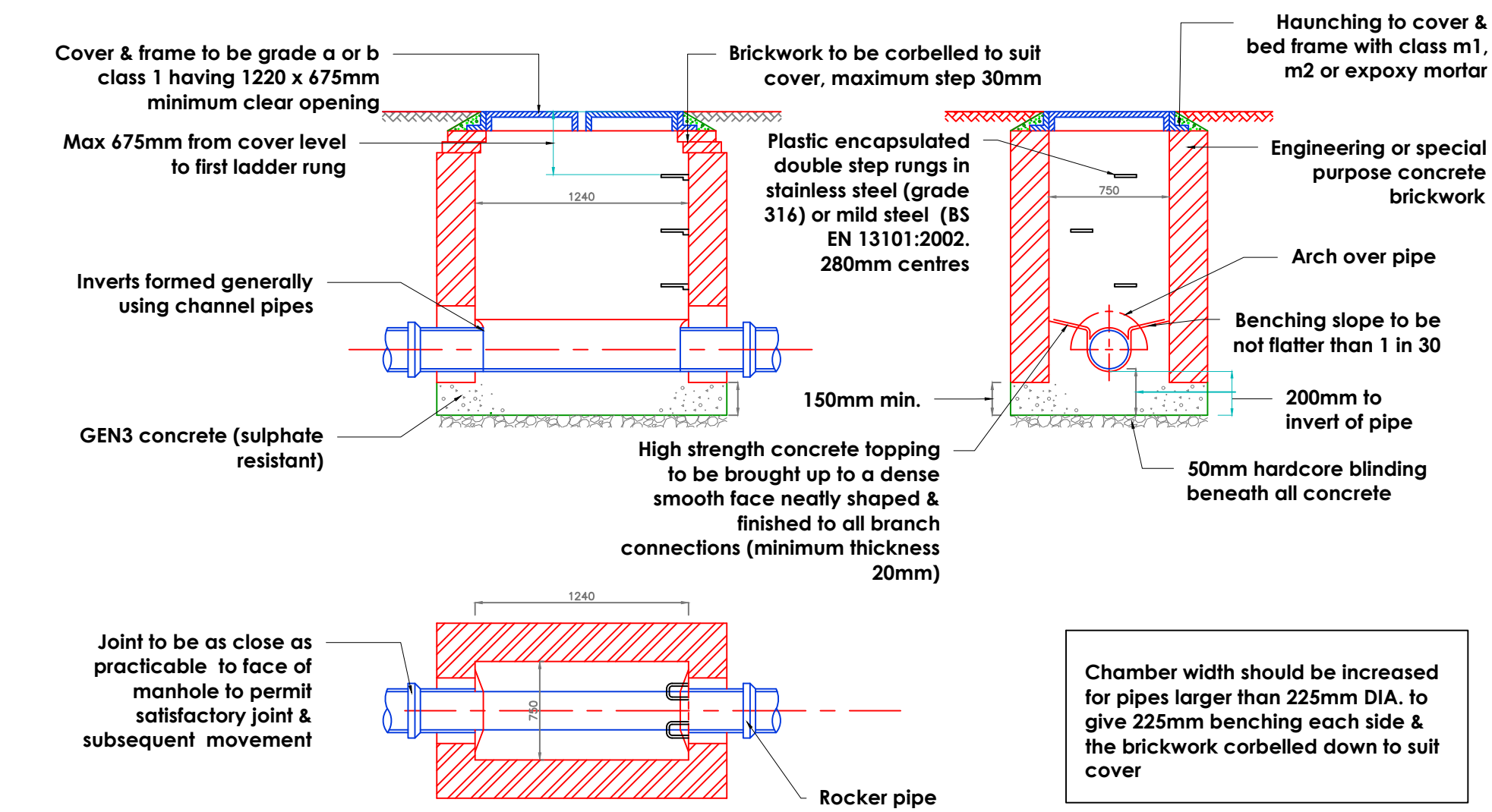


Project Title		Project Number			Designer		
Tenford Lane Residential Development		00019			F.Gennard		
		Stage of Design Process Planning			Discipline Foul and Surface Water Drainage Design		
Scope of Design: New residential development consisting of 40 units, associated access roads and landscaping.					Revision A		
Ref	Activity/ Process/ Material/ Element - What is being undertaken?	Hazard	Stage of Works	Designer Risk Control Measures, Design action taken, record of decision process, including option considered, design constraints and justification for options/ actions not having been taken.	Is there a 'significant' residual risk to be passed on? (Y/N)	If yes where is the risk highlighted? (D/P/F)	Current Status of Risk (Active/ Closed)
1	Construction and maintenance of proposed foul system	Deep Manholes	Construction and maintenance	Where possible drainage has currently be designed based on minimum cover to match the existing ground profile. Due to levels currently MHF3 is approximately 3.6m deep and as such there could be a residual risk as a result of deep excavation during construction and when undertaking future maintenance. Once the proposed level strategy is finalised the depth of this manhole should be reduced if possible.	Y	D	Open
2	Construction of Infiltration basin	Overhead Power Cables	Construction	Where possible the infiltration basin has been positioned away from any known services. The exception to this is Infiltration Basin D which has currently been shaped around the existing overhead power cables. Further discussions will need to take place during detailed design to confirm firstly whether the power cables can be relocated. If not a further assessment should take place to determine whether it is feasible to have an infiltration basin in this location and if not the attenuation storage requirement should be added to one of the three other proposed infiltration basins located on the southern boundary. A provisional assessment has confirmed that there should be sufficient capacity in this location.	Y	D	Open
3	Construction of proposed foul and surface water drainage system	Buried Services	Construction and maintenance	At the time the design was produced no information was available about any existing buried services which may or may not be located in this area. It is recommended that prior to detailed design a utilities survey is undertaken so that the drainage design can be assessed to mitigate any clashes.	Y	D	Open
4	Construction and maintenance of proposed foul system	Connection into Live Drainage Asset	Construction and maintenance	Connection into live drainage assets have been kept to a minimum. The system should be cleaned and jetted prior to any works on existing assets.	Y	D	Open
5	Construction and maintenance of proposed foul system	Connection into live road	Construction and maintenance	The current proposed foul connection has been located in a small access road as opposed to the main carriageway. This connection will need to be confirmed by Severn Trent who are the adopting authority.	Y	D	Open
6	Operation of proposed development	Overland flow	Operation	The site is currently sloped and while the location of bunds and earthworks to direct water away from development have been indicated, the actual design of these elements will need to be finalised at detailed design.	Y	D	Open
7	Construction of proposed foul and surface water drainage system	Construction on sloped site	Construction	Where possible drainage has been designed to work with the contours of the land and to utilise the natural low spots. They have also been located in proposed carriageways and verges to ensure that there is sufficient space for construction and maintenance. The design will need to be revisited once the proposed level strategy has been finalised.	Y	D	Open

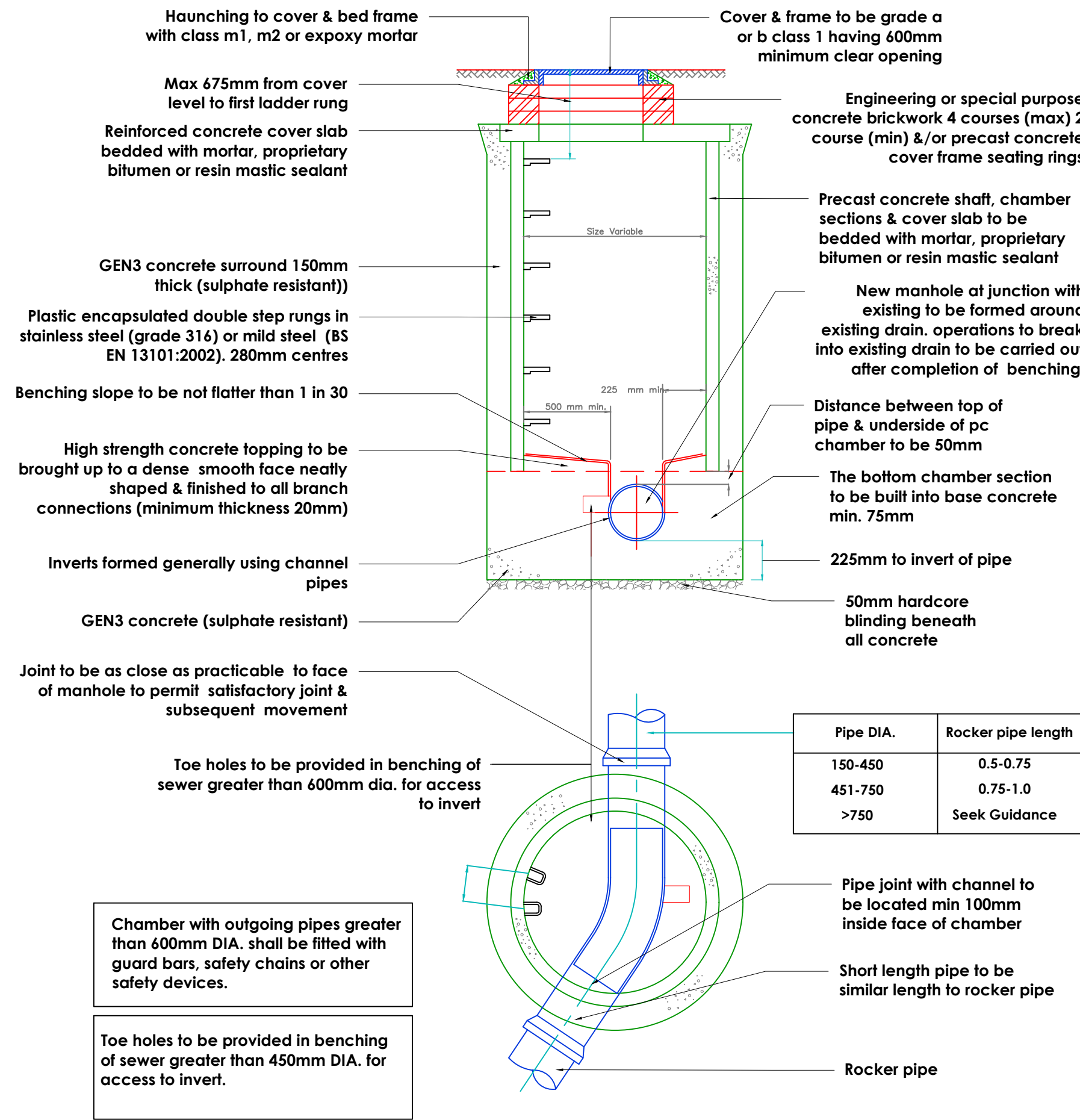
Appendix Q – Standard Details



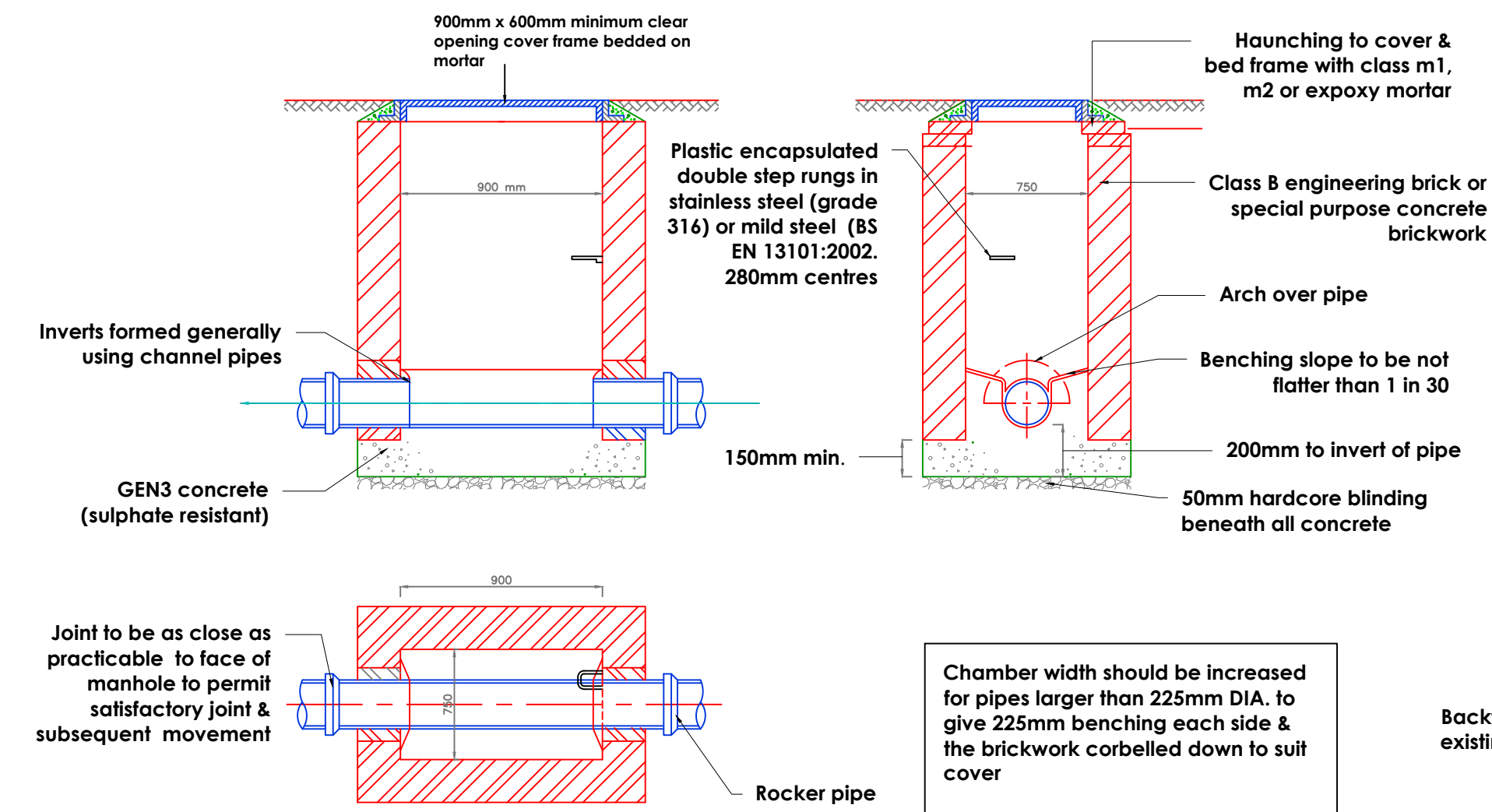
Manhole Type A
3.0m to 6.0m Depth, (1200mm diameter minimum)
Scale: NTS



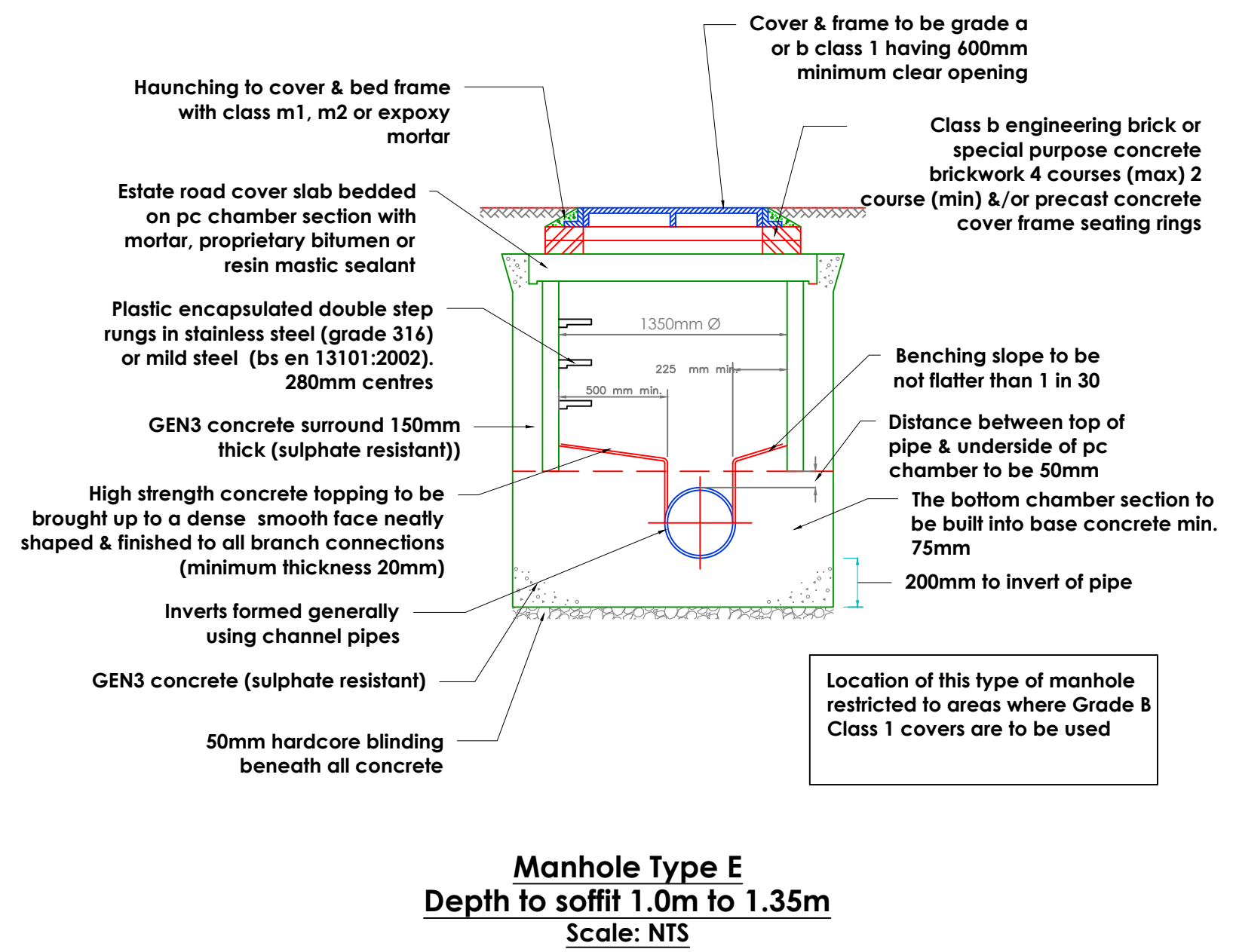
Manhole Type C
Depth to soffit 1.0m to 1.35m
Scale: NTS



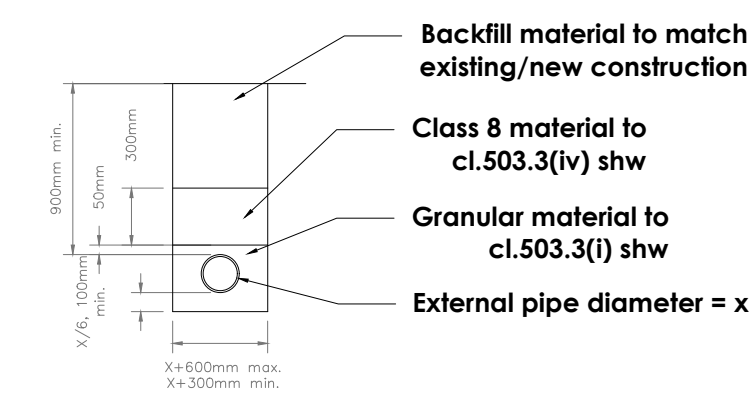
Manhole Type B
1.35m to 3.0m Depth, (1200mm diameter minimum)
Scale: NTS



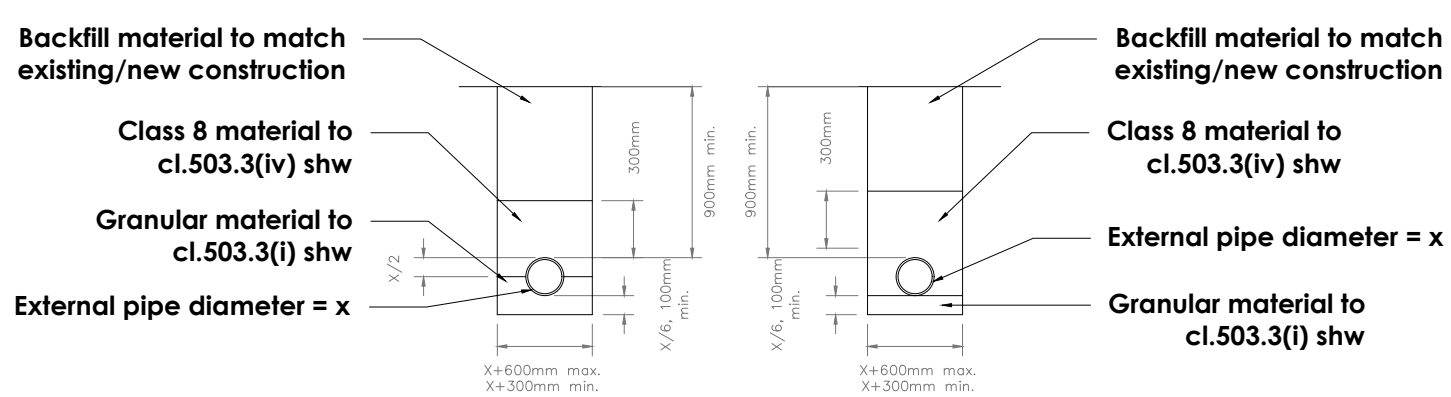
Manhole Type D
Depth to soffit less than 1.0m
Scale: NTS



Manhole Type F
Depth to soffit less than 1.0m
Scale: NTS



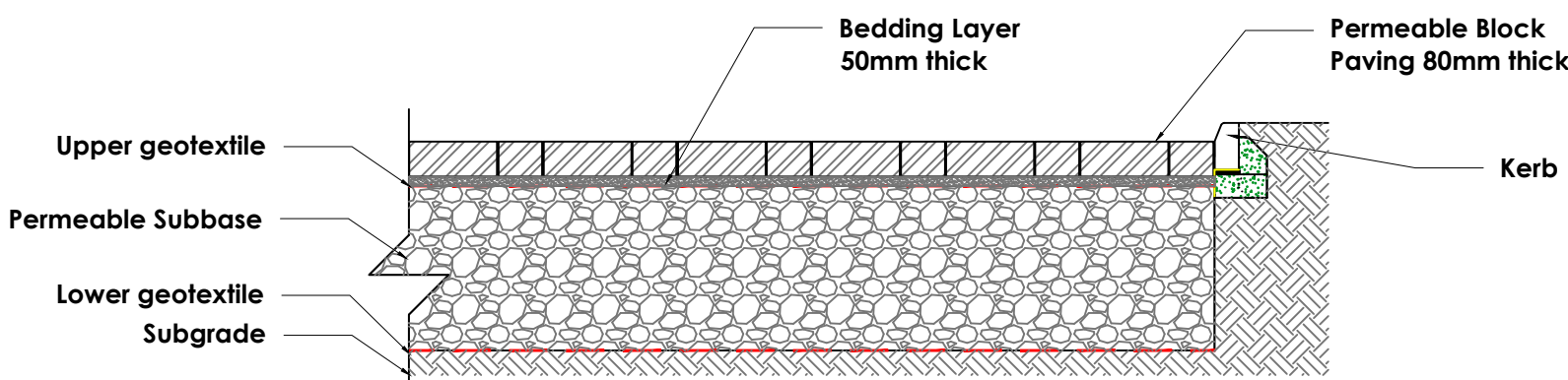
Bedding Detail
Type S
Scale: NTS



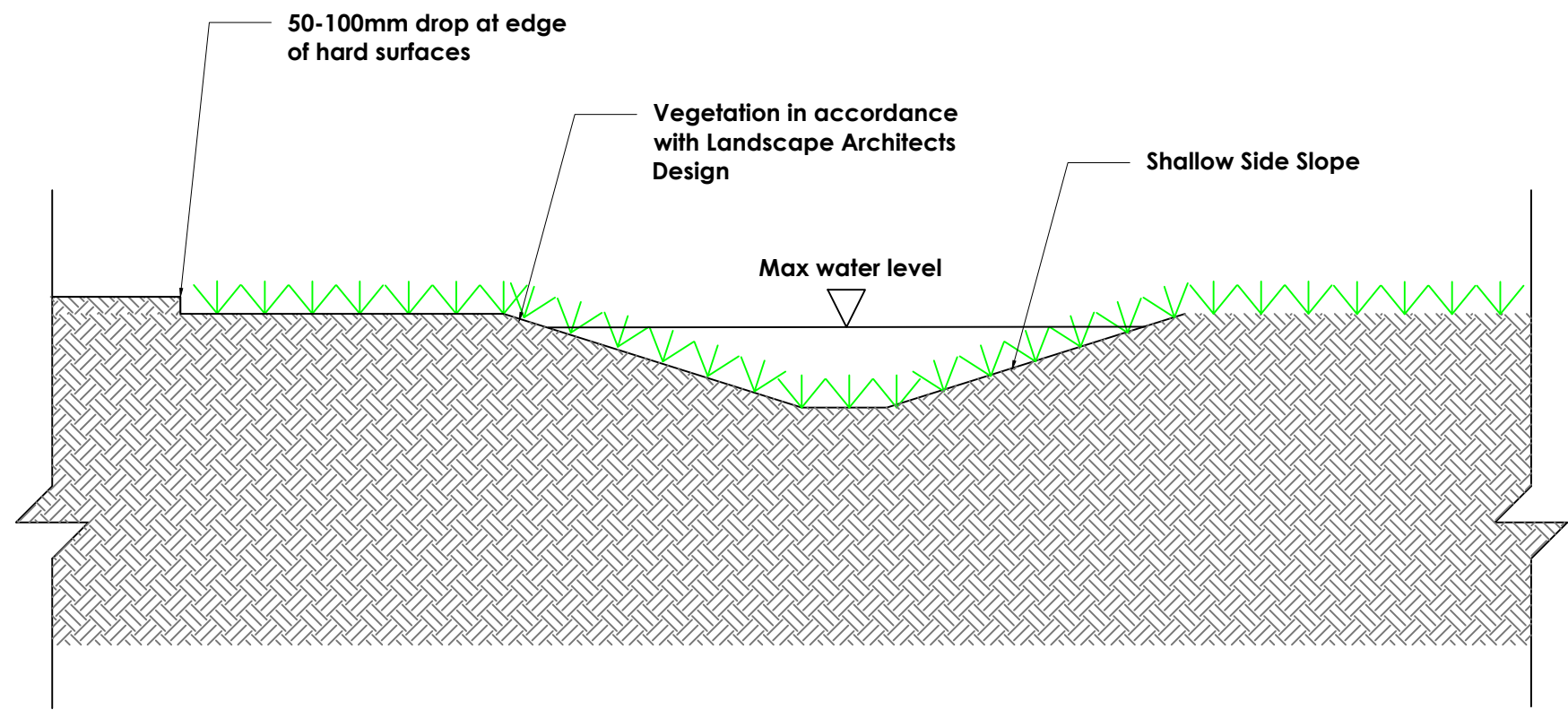
Bedding Detail
Type B
Scale: NTS

Bedding Detail
Type N
Scale: NTS

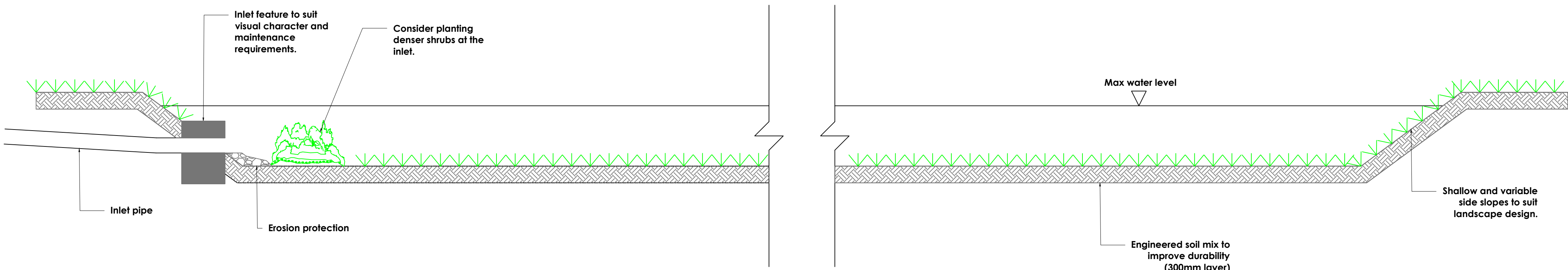
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Typical Section through Permeable Paving
Scale: NTS



Typical Section through Swale
Scale: NTS



Typical Infiltration Basin Detail
Scale: NTS

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Key

Reference Drawings

00019/TEN/DR/1002 Impermeable Area Drawing
00019/TEN/DR/1003 Proposed Drainage Strategy
00019/TEN/DR/1004 Proposed Exceedence Plan
00019/TEN/DR/1006 Typical Standard Details (Sheet 2 of 2)

A	09.07.2021	For Planning	FEG
A	05.07.2021	Draft - Issued for Comment	FEG
Rev	Date	Revision notes	By

NOT FOR CONSTRUCTION

Status For Planning

Project Tenford Road

Title Typical Standard Details
(Sheet 2 of 2)

Client

A.R Alcock

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FEG	05.07.2021	1:500 @ A1
Drawing no.	Revision	
00019/TEN/DR/1006	B	