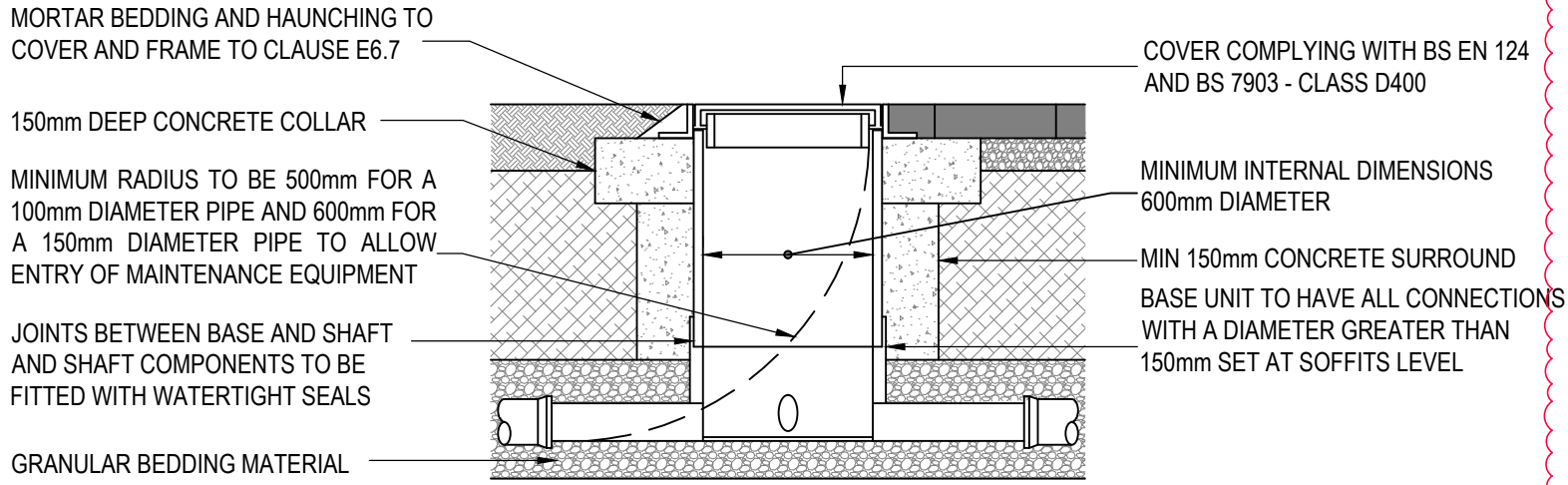
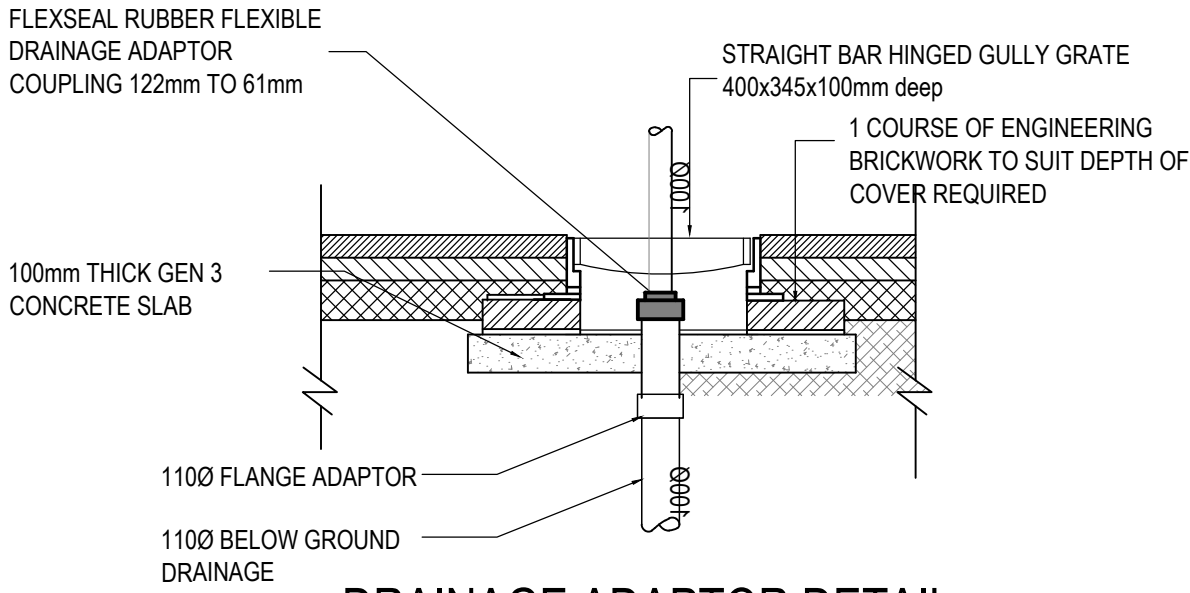


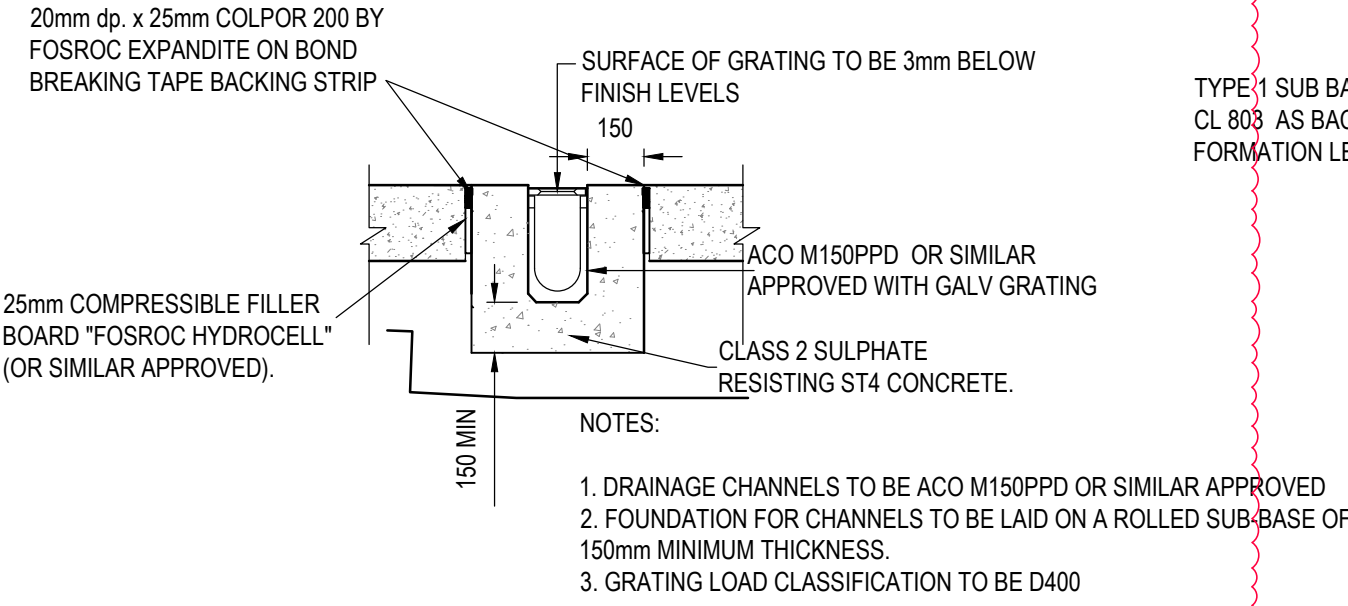


TYPICAL INSPECTION CHAMBER DETAIL
SCALE 1:20

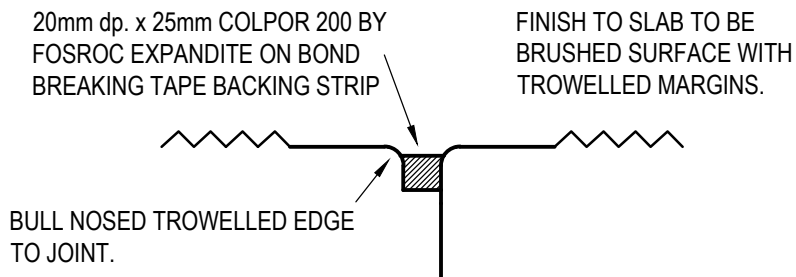
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 2m, NON-ENTRY PLASTIC CHAMBERS AND RINGS SHALL COMPLY WITH BS EN 13598-1 AND BS EN 13598-2 OR HAVE EQUIVALENT INDEPENDENT APPROVAL



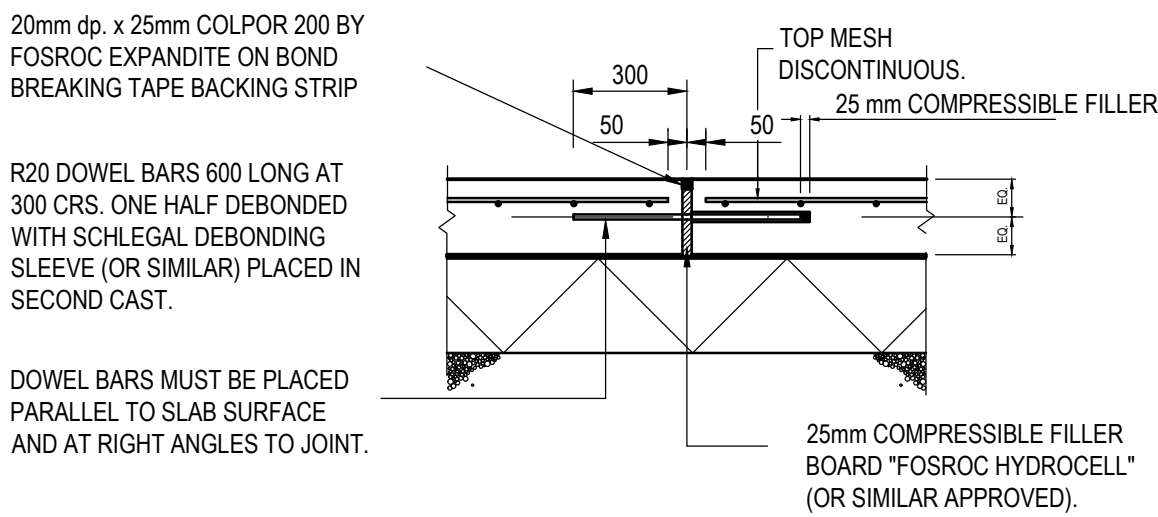
DRAINAGE ADAPTOR DETAIL
SCALE 1:20



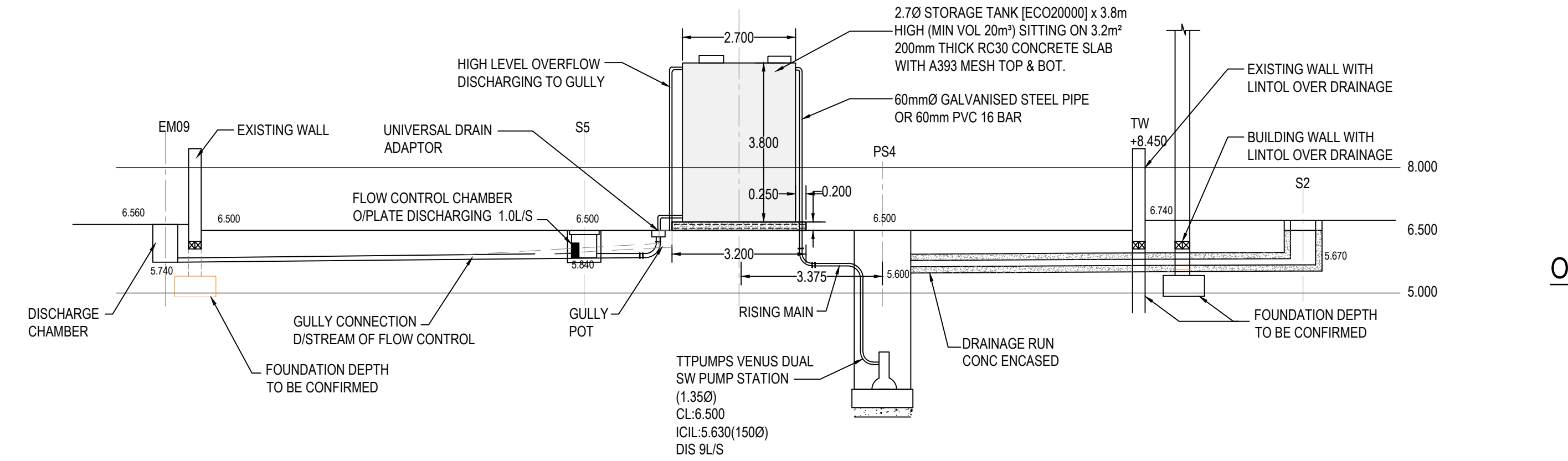
DRAINAGE CHANNEL DETAIL
SCALE 1:15



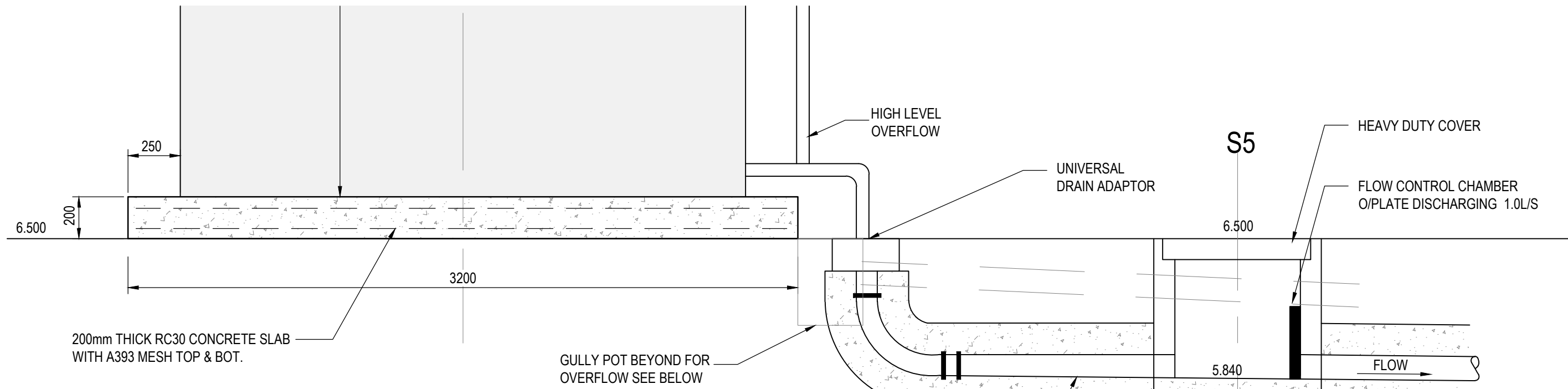
ENLARGED JOINT DETAIL.



JOINT E - EXPANSION JOINT 30m MAX. CENTRES.



SECTION X-X (DRAINAGE CONCEPT)
(TO BE READ IN CONJUNCTION WITH DRAWING 14995/C500)

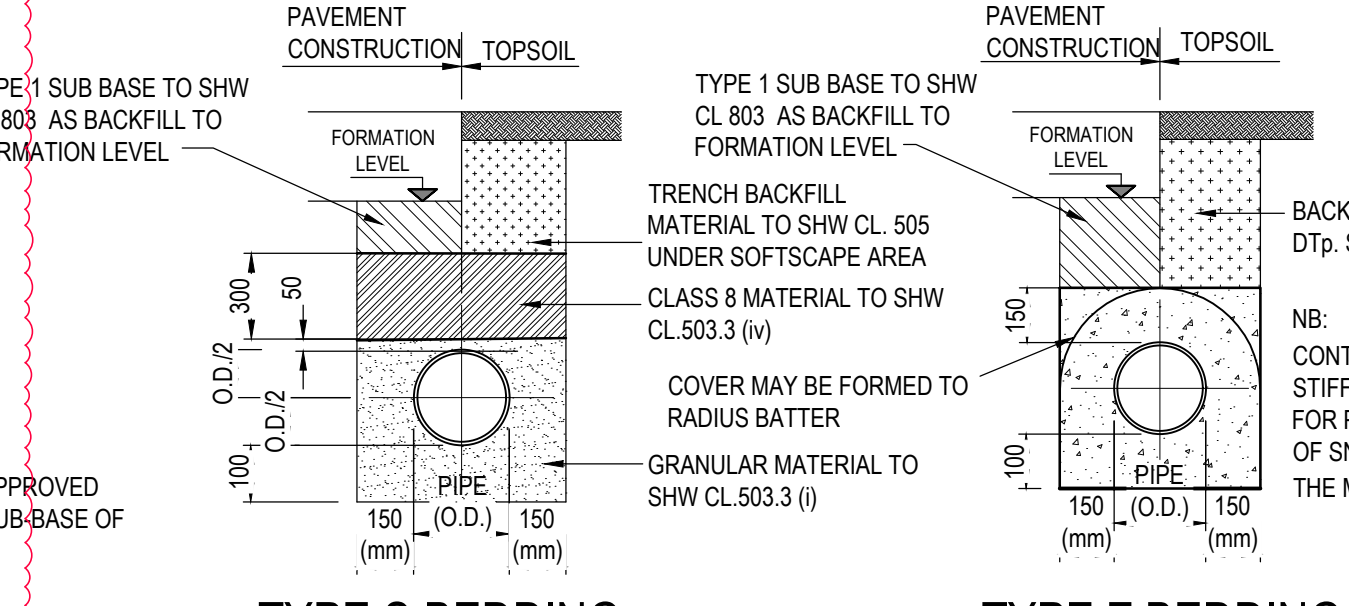


SECTION A-A

SCALE 1:20
(TO BE READ IN CONJUNCTION WITH DRAWING 14995/C500)

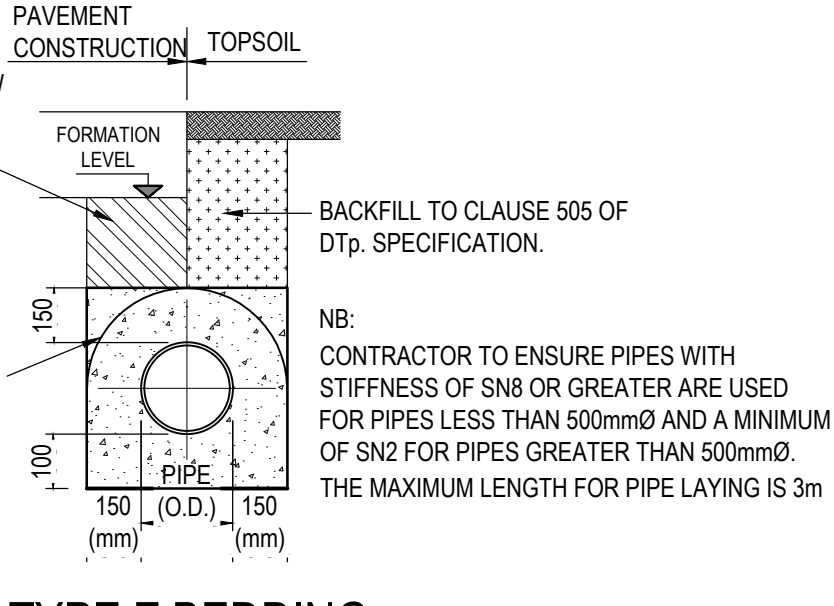
SECTION A-A

SCALE 1:20
(INDICATING OVERFLOW)



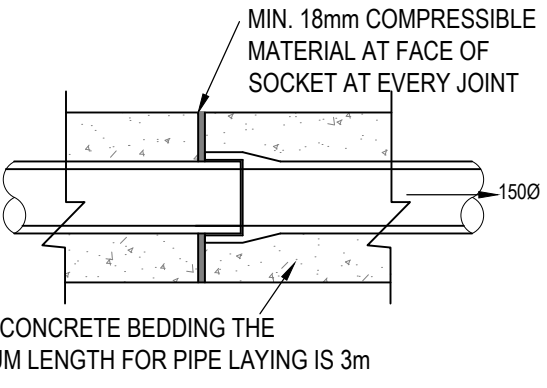
TYPE S BEDDING
CONCRETE BED AND SURROUND UNDER ROAD
(BEDDING FACTOR = 2.2)
SCALE 1:20

- NOTES:
1. REFER TO SHW TABLE 5/3 AND SHW TABLE 6/1
 2. BEDDING BENEATH AND AT SIDES OF THE PIPE TO BE WELL COMPACTED IN ACCORDANCE WITH CL.505.
 3. CONCRETE CRADLES AND ARCHES MAY BE EXTENDED TO THE SIDES OF THE TRENCH.
 4. GEOTEXTILES MAY BE USED WHERE DIRECTED OR APPROVED BY THE ENGINEER TO CONTAIN BEDDING MATERIAL IN CERTAIN SOILS E.G. RUNNING SAND.
 5. IN VERY WET CONDITIONS, WHERE DIRECTED OR APPROVED BY THE ENGINEER A TEMPORARY LAND DRAIN MAY BE LAID WITHIN THE GRANULAR BED.



TYPE Z BEDDING
CONCRETE BED AND SURROUND
(BEDDING FACTOR = 2.6)
SCALE 1:20

- NOTES: (TYPE Z ONLY)
6. WHERE PIPES WITH FLEXIBLE JOINTS ARE USED, THE CONCRETE PROTECTION IS TO BE INTERRUPTED OVER ITS FULL CROSS SECTION AT INTERVALS NOT EXCEEDING 5 METRES (OR AS DIRECTED BY THE ENGINEER) BY A SHAPED FORMER OF BITUMEN IMPREGNATED MIN. 18mm COMPRESSIBLE FILLER. THESE INTERRUPTIONS SHALL COINCIDE WITH PIPE JOINTS. (SEE TABLE E5 IN SFA 7th EDITION).
 7. CONCRETE TO BE FND4 WHERE FLEXIBLE PIPES ARE USED. CARE MUST BE TAKEN TO PREVENT THE PIPES FROM FLOATING.



TYPE Z CONCRETE BEDDING THE MAXIMUM LENGTH FOR PIPE LAYING IS 3m

TYPE Z BEDDING ELEVATION
CONCRETE BED AND SURROUND
SCALE 1:20

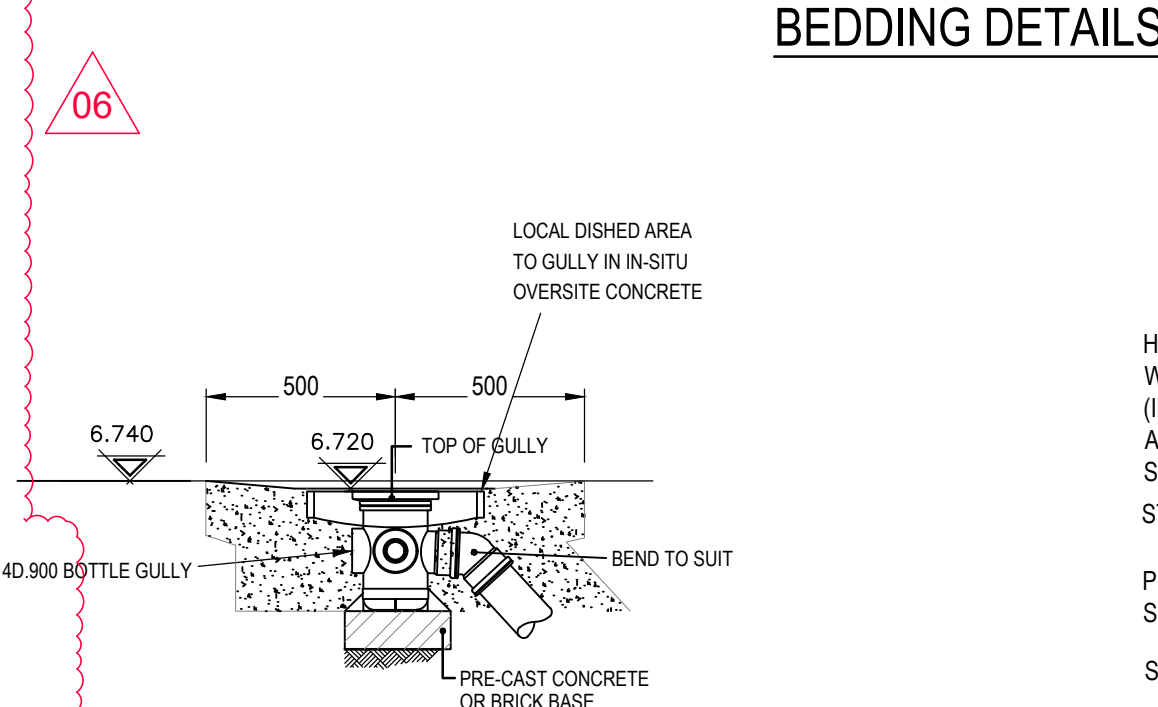
GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.
3. DO NOT SCALE FROM THE DRAWING. USE FIGURED DIMENSIONS ONLY.
4. ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
5. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.
6. EXISTING SERVICES HAVE NOT BEEN SHOWN BUT ARE PRESENT - THE CONTRACTOR IS TO LIAISE WITH ALL STATUTORY AUTHORITIES PRIOR TO THE COMMENCEMENT OF ANY WORKS.
7. TEMPORARY WORKS DESIGN BY OTHERS.
9. DESIGN RISK ASSESSMENTS AND METHOD STATEMENTS ARE TO BE PROVIDED TO THE PRINCIPLE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY WORKS.

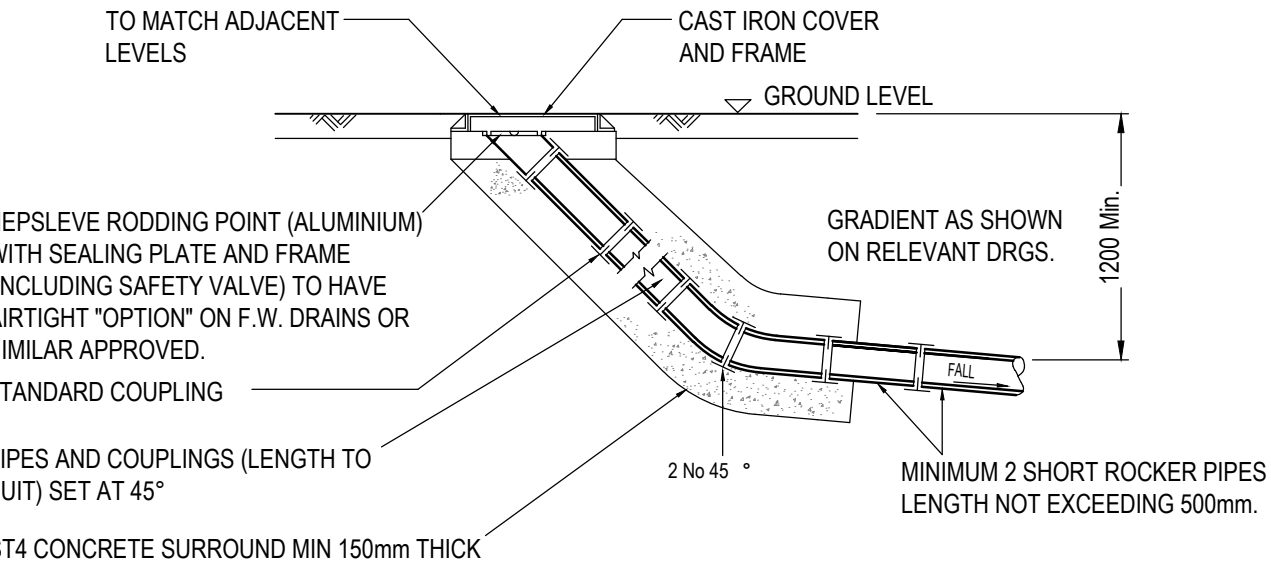
DRAINAGE NOTES:

1. MH COVERS AND FRAMES TO CONFORM TO BS EN 124: - HIGHWAYS AND FOOTWAYS TO FRONT OF BUILDINGS (D400)
2. TYPE S BEDDING AND SURROUND TO ALL PIPES EXCEPT IN THE FOLLOWING CIRCUMSTANCES, IN WHICH TYPE Z BEDDING AND SURROUND ARE TO BE USED:

- HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES, DEPTH LESS THAN 1.2m.
3. ALL EXISTING MANHOLE INVERTS TO BE CHECKED AND REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF DRAINAGE WORKS. EXISTING PIPE CONNECTIONS ARE TO BE CCTV SURVEYED AND INSPECTED BY THE ENGINEER AND LOCAL AUTHORITY IF THE PIPE CONNECTION IS FOUND TO BE DAMAGED OR IN DISTRESS, THE CONTRACTOR IS TO CARRY OUT REMEDIAL WORKS OR PROVIDE A NEW CONNECTION TO THE EXISTING SEWER (PIPE SIZE AND GRADIENT TO BE DETERMINED BY THE ENGINEER).
4. THE GRADIENTS INDICATED AGAINST THE DRAIN RUNS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL INSTALL DRAINS TO THE INVERT LEVELS SHOWN FOR EACH MANHOLE OR OTHER INDICATED POSITION.
5. ALL JOINTING IN ACCORDANCE WITH MANUFACTURERS TECHNICAL ADVICE & SPECIFICATION.
6. ALL NON ADOPTABLE DRAINAGE TO BE THE STANDARD UPVC 110mm, 160mm DRAINAGE AND MANUFACTURED TO BS-EN 1401 AND BS 4660 UNLESS NOTED OTHERWISE.
7. ALL STORM WATER DRAINAGE TO BE A MINIMUM OF 150mm DIAMETER UNLESS OTHERWISE NOTED.
8. PRIOR TO ORDERING ANY MATERIALS THE CONTRACTOR IS TO CONFIRM MANUFACTURER/PIPE MATERIAL AND GRADE PROPOSED WITH WATER AUTHORITY.

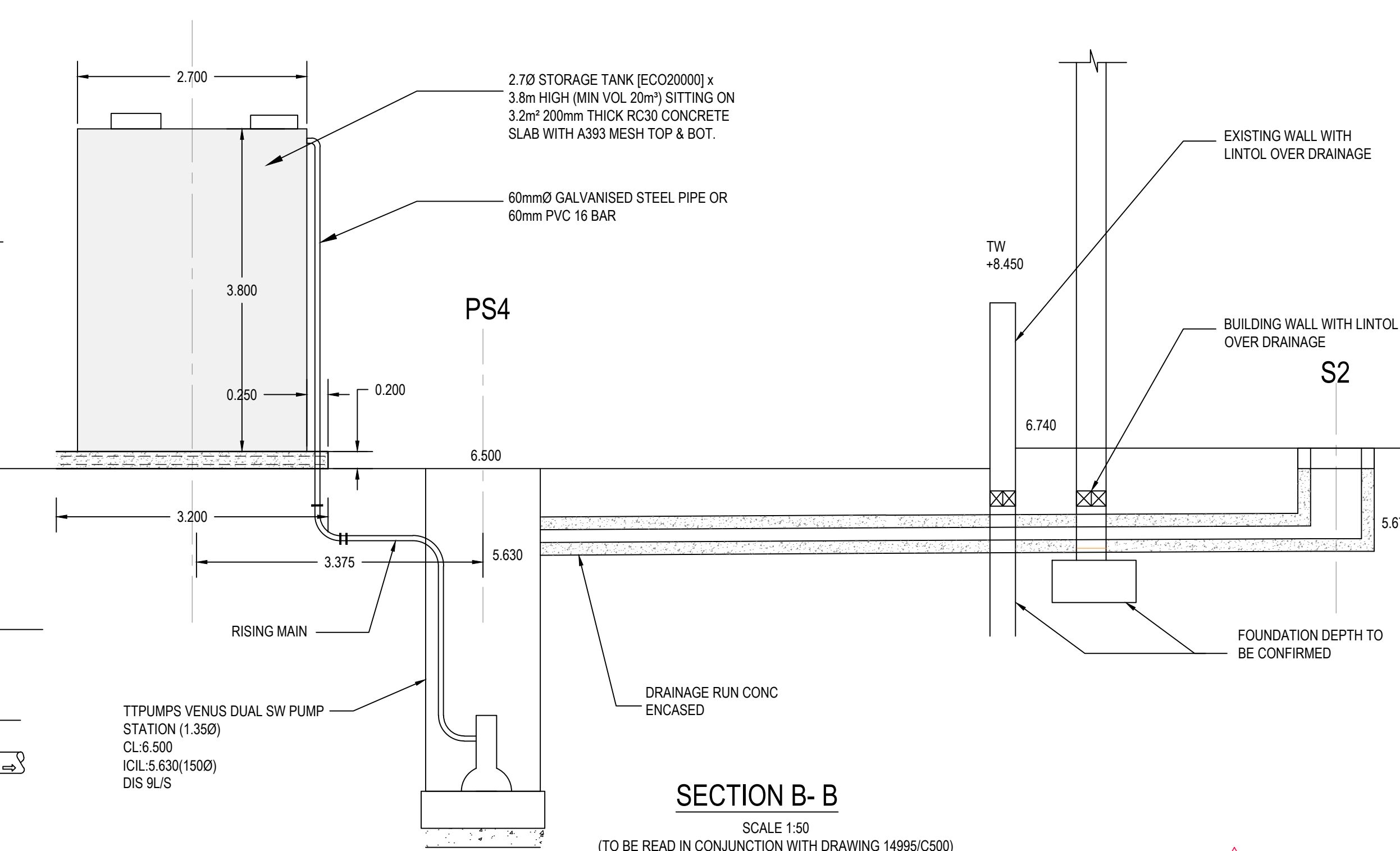


ONLINE RODABLE GULLY DETAIL



EXTERNAL RODDING EYE
SCALE 1:20

COVERS IN TRAFFICKED AREAS TO BE HEAVY DUTY
COVERS IN PATHS TO BE MEDIUM DUTY
COVERS IN GARDENS TO BE LIGHT DUTY



SECTION B-B

SCALE 1:50
(TO BE READ IN CONJUNCTION WITH DRAWING 14995/C500)

06	rev.	drawn	chkd.	approved	date	description
06	RGP	LR	LR	MJ	05-12-22	S3 OMITTED DRAINAGE CHANNEL TYPE REVISED - MD150 CHANNELS ADDED- QMAX OMITTED. JOINT DETAIL ADDED FOLLOWING VALUE ENG EXERCISE
05	RGP	LR	LR	MJ	10-01-2023	INVERTS REVISED TO SUIT REV LAYOUT. GULLY DETAIL AMENDED
04	RGP	LR	LR	MJ	06-01-2023	HIGH LEVEL OVERFLOW ADDED
03	RGP	LR	LR	MJ	05-01-2023	SECTIONS UPDATED TO SUIT REV LAYOUT
02	RGP	LR	LR	MJ	05-12-2022	A/GROUND STORAGE REPLACES U/GROUND. SECTION A & B & X ADDED. RE DETAIL ADDED
01	RGP	LR	LR	MJ	22-12-22	PRELIMINARY ISSUE
Client						
MID & WEST WALES FIRE SERVICE						
Project						
EARLSWOOD CFBT FACILITY BRITON FERRY SA11 2JT						
Title						
DRAINAGE CONSTRUCTION DETAILS						
						
Vale Consultancy CONSULTING CIVIL & STRUCTURAL ENGINEERS						
29 Bocam Park, Old Field Road, Pencoed, Bridgend CF35 5LJ. Phone: 01656 863794 Email: enquiries@vale-consultancy.co.uk						
date	drawn	checked	approved			
05.12.22	RGP	LR	MJ	05-12-22	05-12-22	
scale @ A1		project no.				
AS SHOWN		14995				
status	drw. no.				rev.	
P	14995_C501				06	