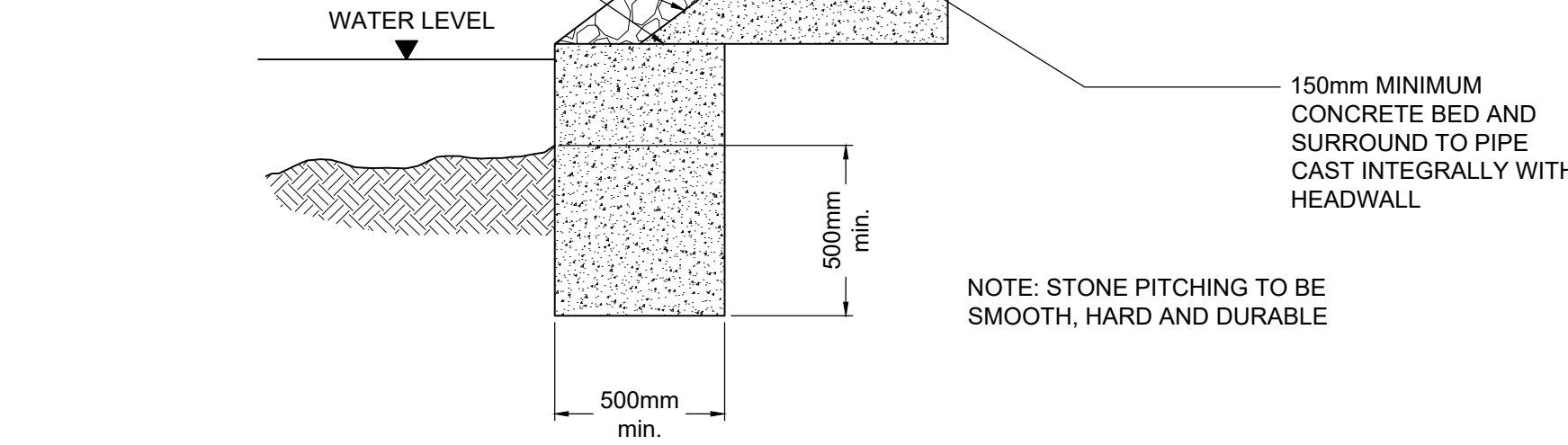


TYPICAL DETAIL OF OUTFALL TO WATERCOURSE
SUITABLE FOR OUTFALL PIPES LESS THAN 350mm

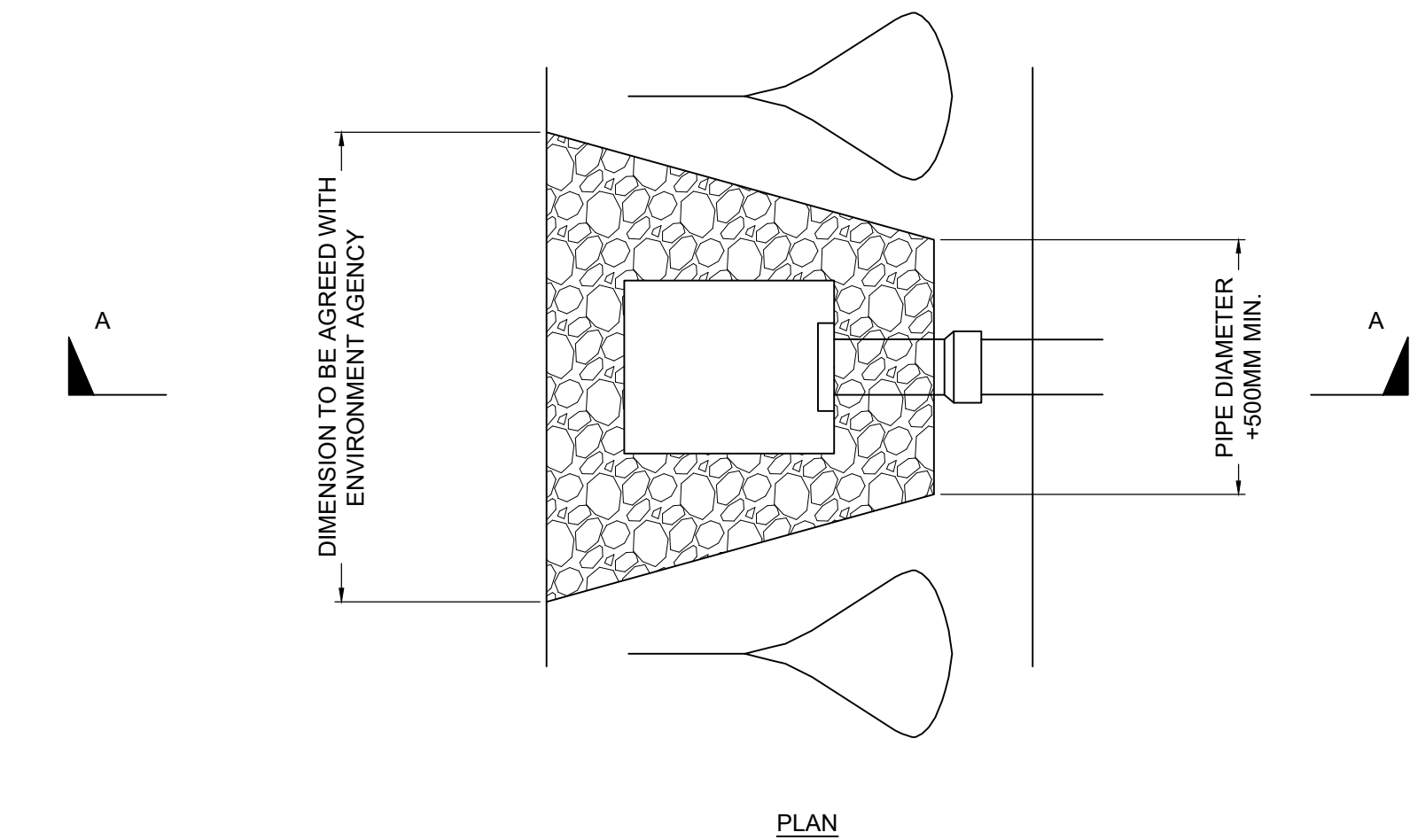
150mm THICK STONE PITCHING SET IN AND BEDDED ON IN-SITU CONCRETE OR PRECAST CONCRETE HEADWALL, DESIGNED TO BRE SPECIAL DIGEST 1, CONCRETE IN AGRESSIVE GROUND

FLAP VALVE REQUIRED FOR PS OVERFLOW, TIDAL OR OTHER AREAS AT RISK OF BACKING UP

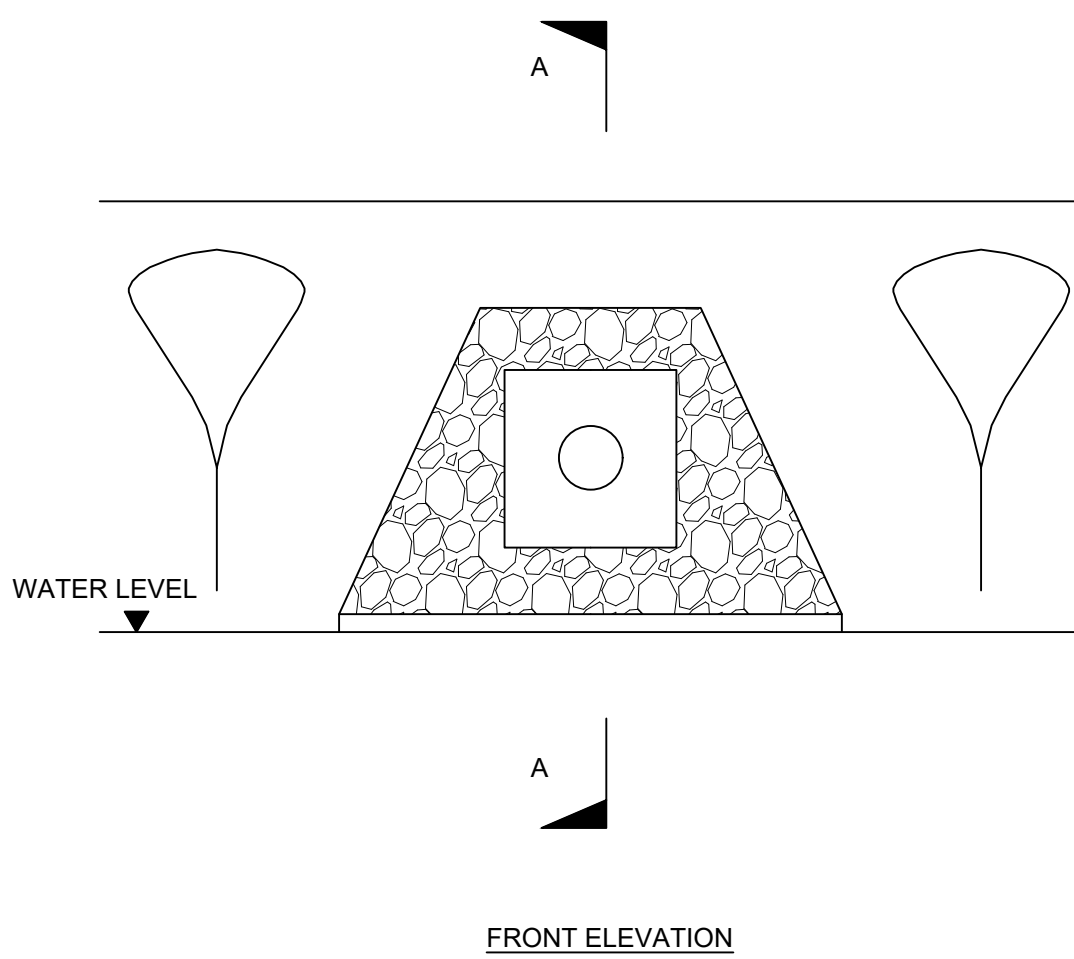
CONSTRUCTION JOINTS



SECTION A-A



PLAN

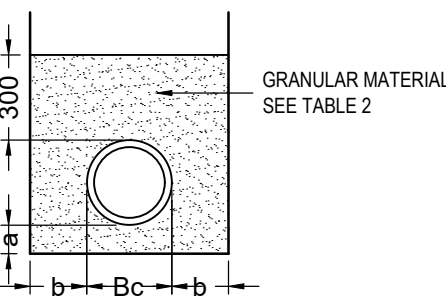


FRONT ELEVATION

GRANULAR SURROUND TO PIPES

CLASS S & T BEDDING

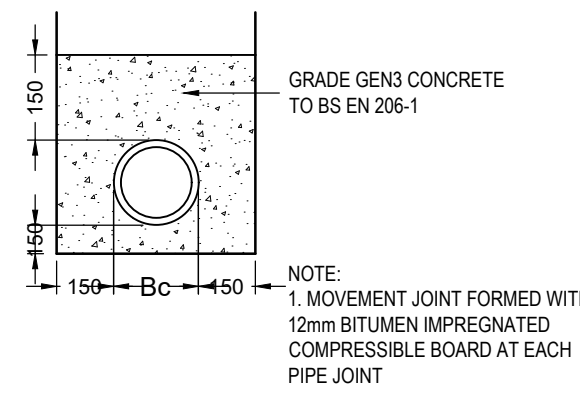
COVER GREATER THAN 1.2m



CONCRETE SURROUND TO PIPES

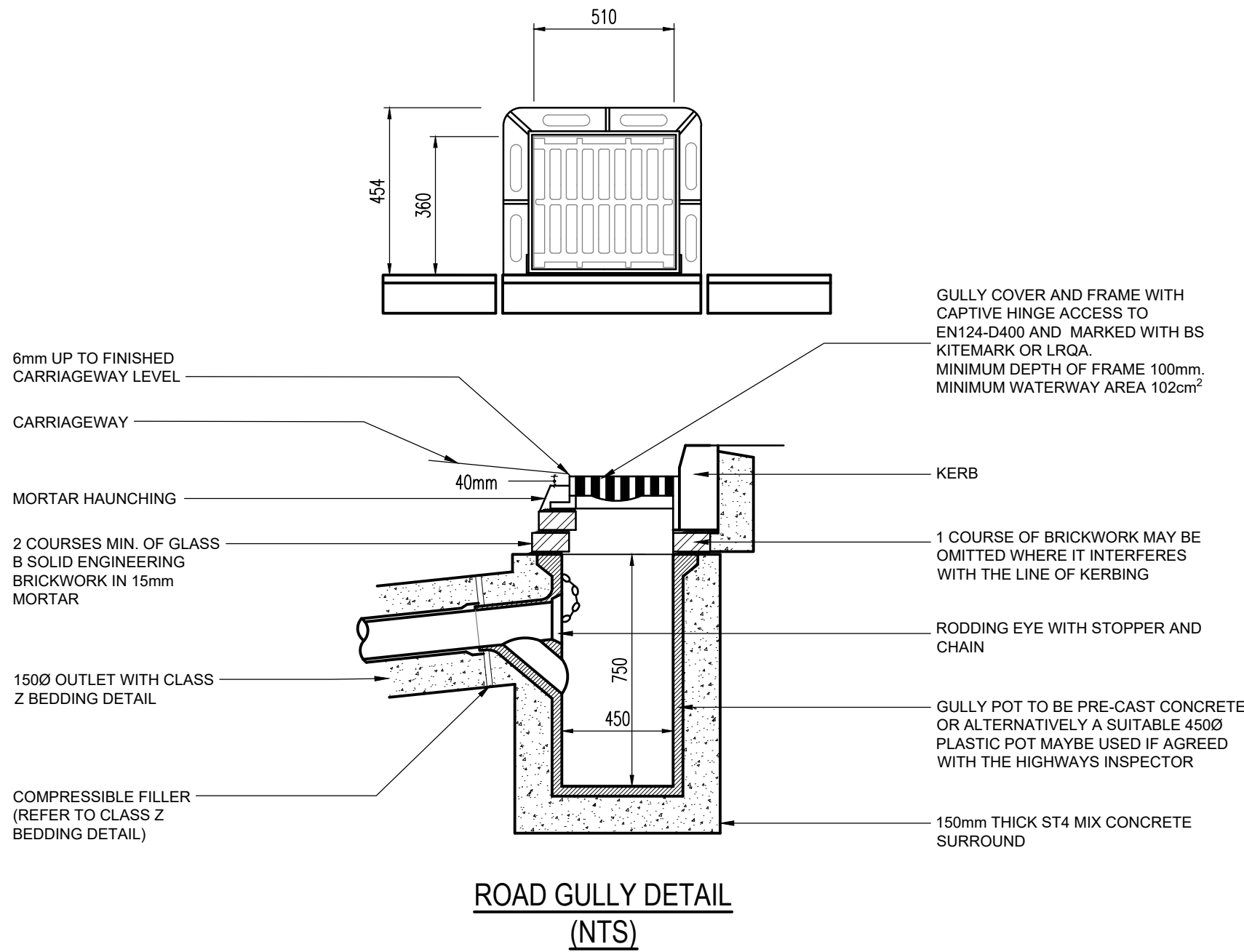
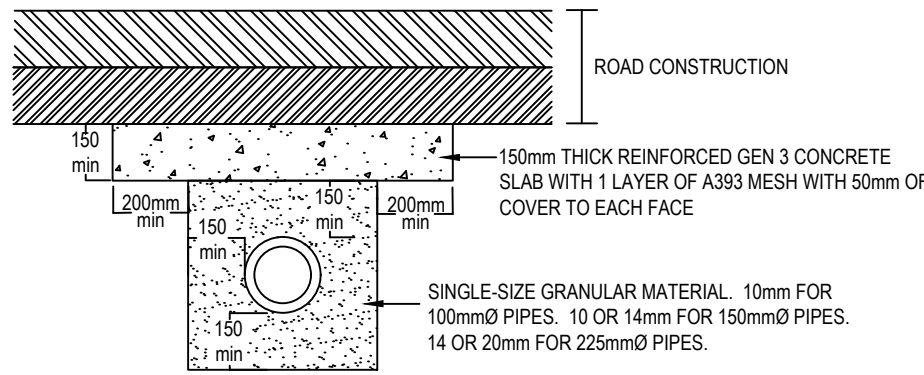
CLASS Z BEDDING

PIPE WITH COVER LESS THAN 1.2m & GULLY CONNECTIONS

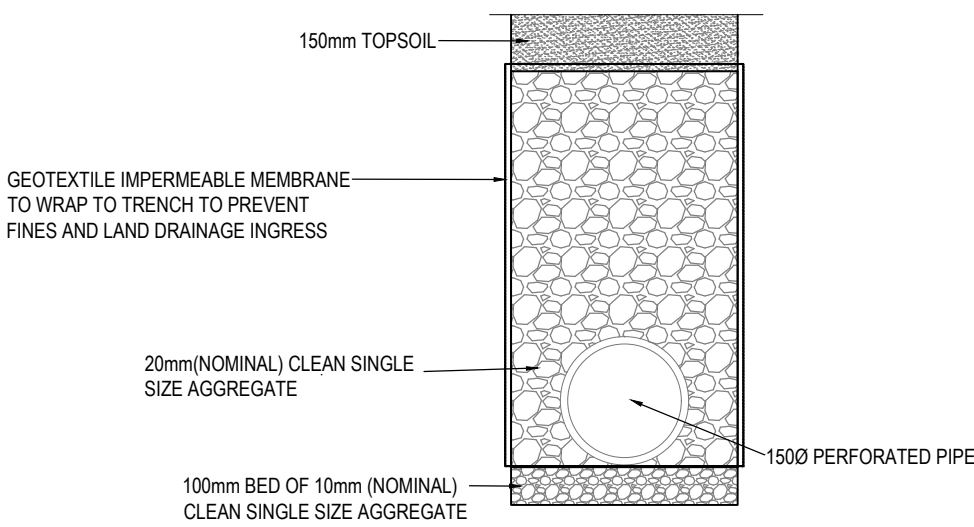


TYPICAL DETAIL THROUGH CLASS S BED AND SURROUND WITH CONCRETE SLAB PROTECTION

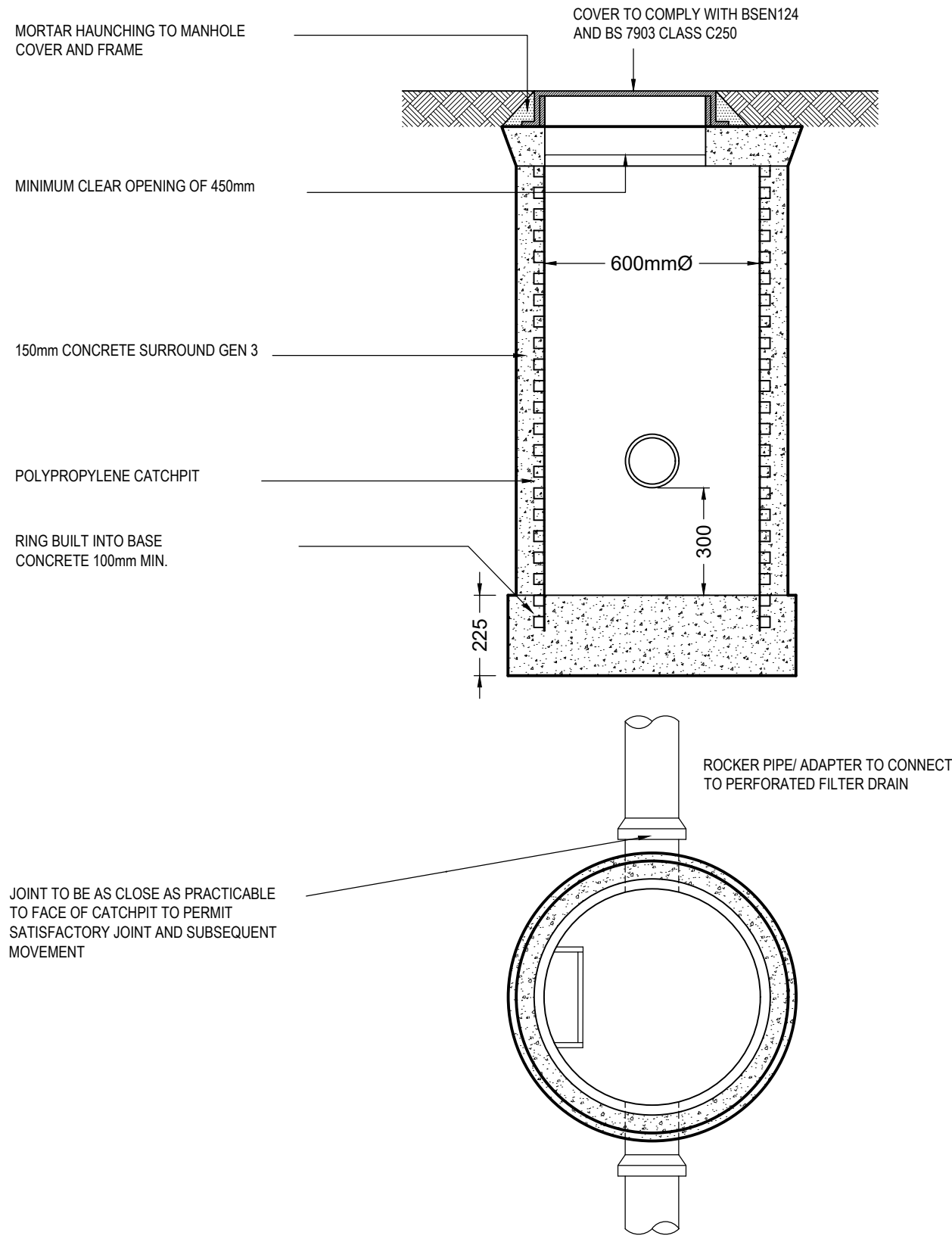
(TO BE USED WHERE SEWER IS LESS THAN 1200mm IN DEPTH IN TRAFFICKED AREAS AND LESS 900mm IN UN-TRAFFICKED AREAS)



ROAD GULLY DETAIL
(NTS)



TYPICAL FILTER DRAIN DETAIL
NTS



PLASTIC CATCHPIT DETAIL
NTS

NOTE

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NOTES:

GENERAL

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BECKWITH AND HANLON DRG. 23-026-200 SERIES DRAWINGS.

DRAINAGE NOTES

- ANY ADAPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE WATER AUTHORITIES PUBLICATION "CODES FOR ADOPTION DESIGN AND CONSTRUCTION GUIDE (DCG)" AS WELL AS ANY ADDITIONAL REQUIREMENTS OF THE ADOPTING AUTHORITY AND APPROVED DRAWINGS.
- PRECAST CONCRETE MANHOLE RINGS TO COMPLY WITH THE RELEVANT PROVISIONS OF BS5911: PART 200.
- ALL BRICKWORK TO BE CLASS B ENGINEERING COMPLYING WITH THE RELEVANT PROVISIONS OF BS 3921. CONCRETE BRICKS MAYBE USED IF THEIR SPECIFICATION IS THE SAME AS CLASS B ENGINEERING BRICKS. PLEASE SEEK APPROVAL FROM RELEVANT WATER AUTHORITY BEFORE USING.
- MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124 AND BE OF A NON-ROCKING, NON-VENTILATING DESIGN.
- THE USE OF PRECAST CONCRETE PRODUCTS & SULPHATE RESISTANT CEMENT IS MANDATORY, UNLESS A LABORATORY PROVES SUCH PRECAUTIONS ARE NOT NECESSARY.
- 150mm CONCRETE SURROUND IS REQUIRED AROUND PIPES WHERE THE DEPTH FROM FINISHED SURFACE TO PIPE SOFFIT IS LESS THAN 1200mm IN HARDSTANDING AREAS AND LESS THAN 900mm WITHIN OPEN SPACE.
- LOCATIONS OF ALL EXISTING SEWERS ON-SITE TO BE CONFIRMED & DETAILS PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
- ALL TRENCHES UNDER EXISTING & PROPOSED HIGHWAYS ARE TO BE BACKFILLED WITH THOROUGHLY COMPACTED DOT TYPE 1 SUB-BASE.
- ALL STREET WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY DESIGN GUIDE & SPECIFICATION & ARE TO BE THE SUBJECT OF A SECTION 38 AGREEMENT OF HE HIGHWAYS ACT 1980.
- ROADS AND SEWERS CONTRACTOR MUST INFORM WATER AUTHORITY PRIOR TO WORKS COMMENCING ANY CONNECTION WORKS TO ADOPTED SEWERS.
- ALL CONNECTIONS TO EXISTING ADOPTED SEWERS ARE SUBJECT TO WATER AUTHORITY APPROVAL AND SECTION 106 OF THE WATER INDUSTRIES ACT 1991.
- PRIVATE DRAINAGE TO BE 110mm DIA. UPVC PIPES WITH GRP OR UPVC INSPECTION CHAMBERS UNLESS NOTIFIED OTHERWISE. SYSTEM DESIGN & CONSTRUCTION TO CONFORM WITH MANUFACTURER'S INSTRUCTIONS & "GOOD PRACTICE GUIDE".
- ALL PRIVATE DRAINAGE TO BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATION REQUIREMENTS.
- ALL CONNECTIONS TO BE TURNED IN DIRECTION OF FLOW USING PIPE BENDS.
- ALL POLYPROPYLENE INSPECTION CHAMBERS SHALL BE IN ACCORDANCE WITH BS158.
- ALL DRAINAGE PIPES TO BE PLASTIC: UNPLASTICISED PVC PIPES TO BS 4660:200 & BS EN 1401-1 KITEMARKED. STRUCTURED WALL UNPLASTICISED PVC PIPES TO BS EN13476 AND WIS 4-35-01 KITEMARKED.

P2	NOTE 16 ADDED	JM	NB	09/04/24
P1	FIRST ISSUE	JM	NB	05/04/24
REV	AMENDMENT	BY	CKD	DATE

CLIENT

JOHN SWIFT HOMES LTD.

PROJECT

HARRAS ROAD,
WHITEHAVEN

DRAWING TITLE

DRAINAGE DETAILS
SHEET 2

Beckwith & Hanlon
Consulting Engineers Limited
F22 Willow Court, Marquis Court,
Team Valley Trading Estate,
Gateshead, NE11 0RU
tel: 0191 273 7582

SCALE	NTS	BY	JM	CHECKED	NB	DATE	MARCH '24
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DRAWING NO.	23-026-231
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STATUS	PRELIMINARY	REV	P2
		SIZE	A1