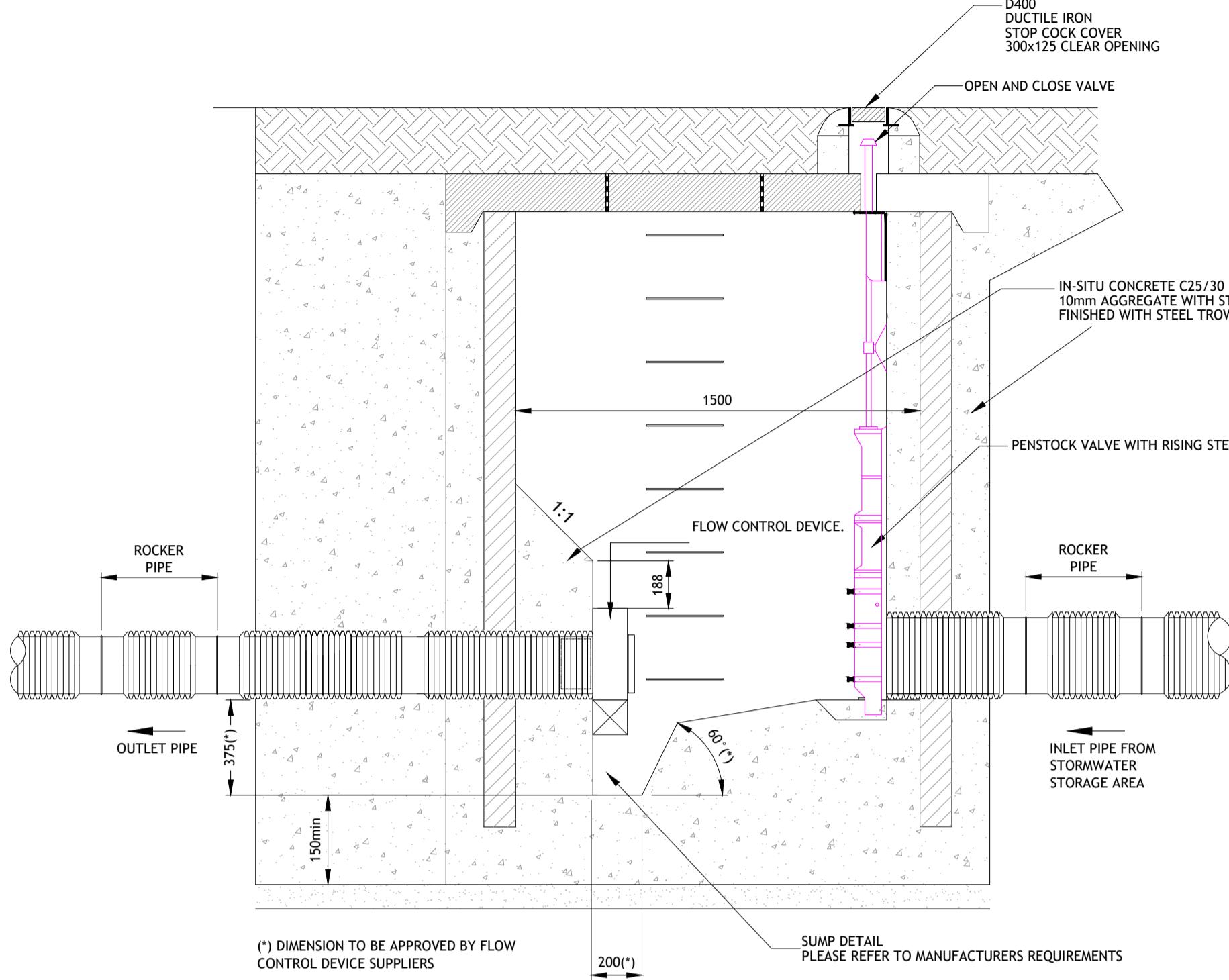
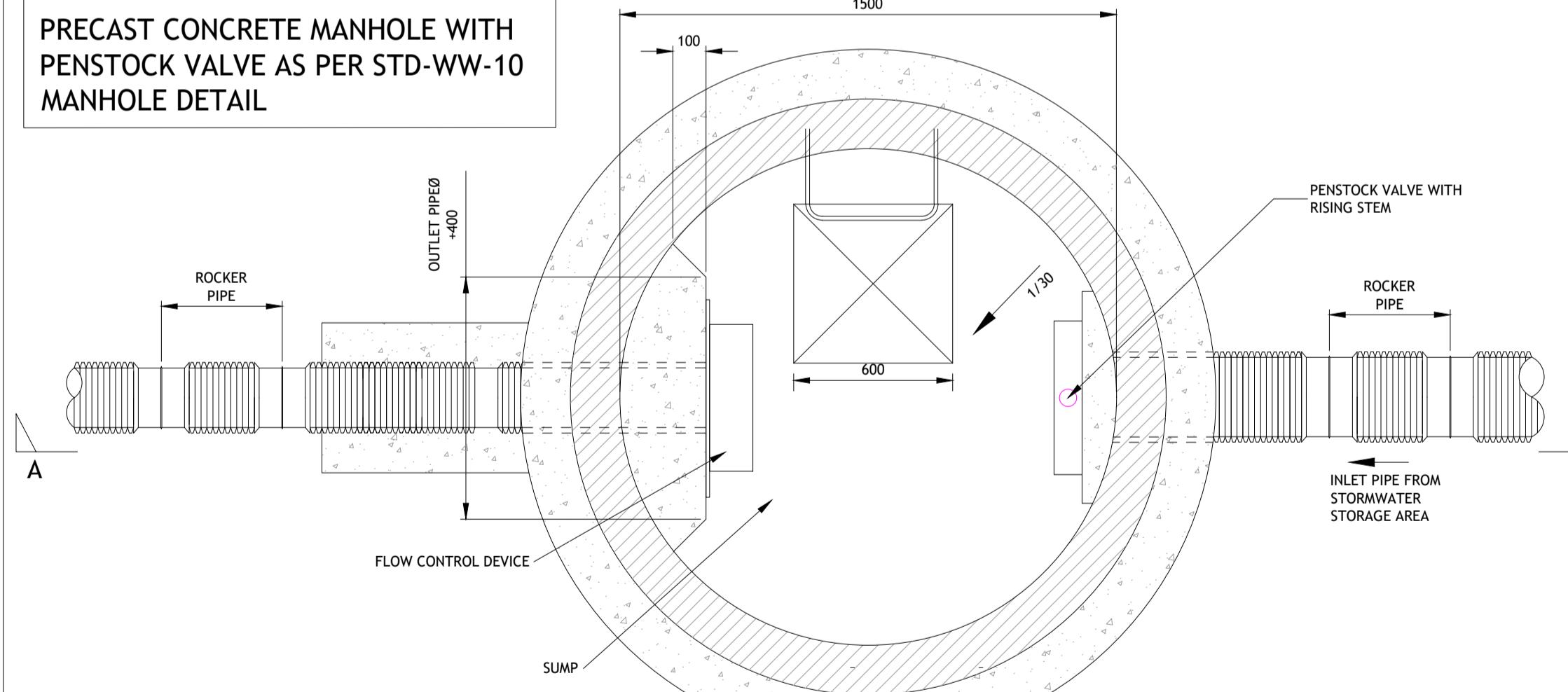


**PRECAST CONCRETE MANHOLE WITH PENSTOCK VALVE AS PER TYPICAL MANHOLE DETAIL**



SECTION A-A

**PRECAST CONCRETE MANHOLE WITH PENSTOCK VALVE AS PER STD-WW-10 MANHOLE DETAIL**



PLAN

"HYDROBRAKE" MANHOLE DETAIL  
SCALE 1:20

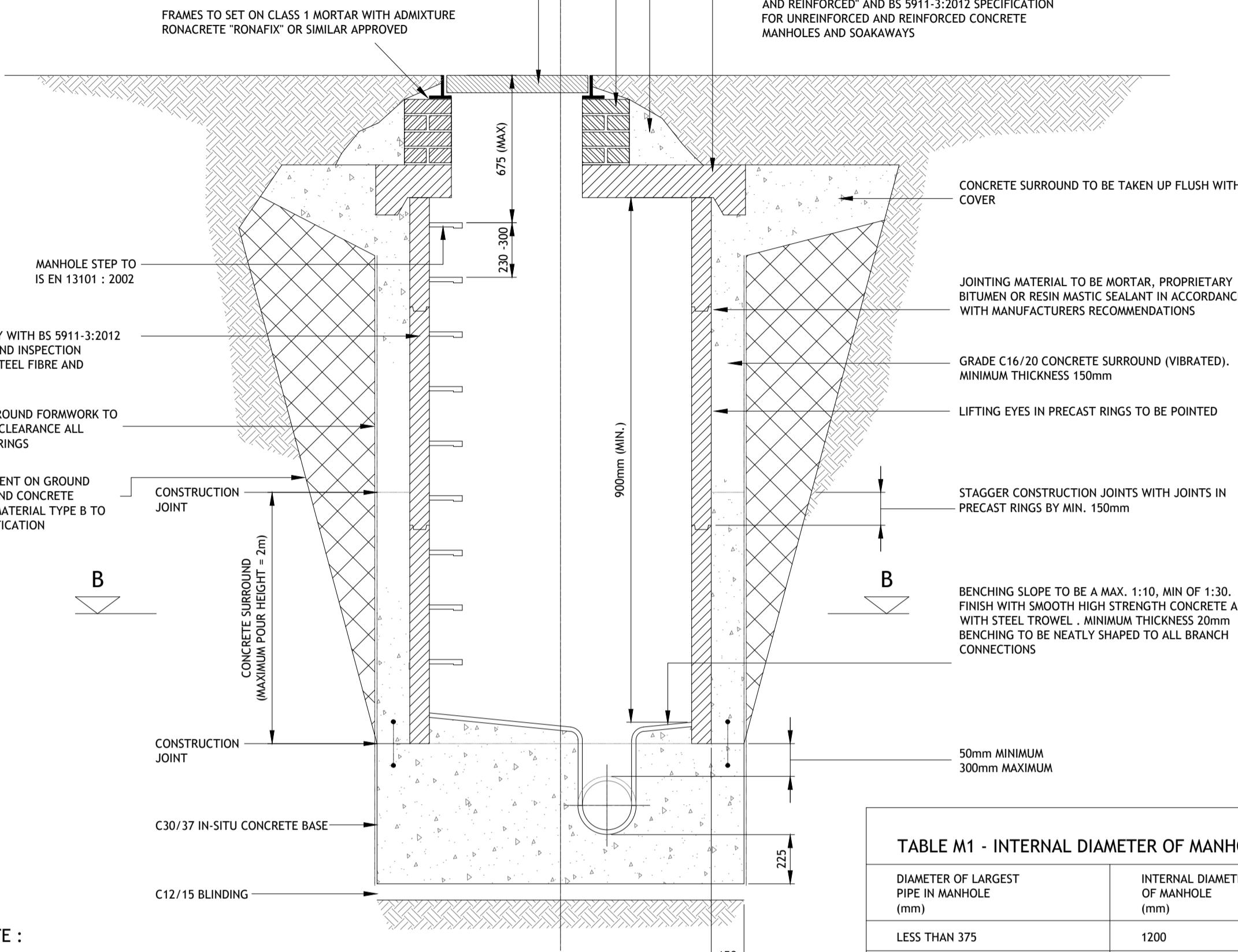
**NOTE :**  
THE USE OF THIS DETAIL ASSUMES  
1. THE GROUNDWATER TABLE IS BELOW THE BASE OF THE MANHOLE.  
CONTRACTOR TO ADVISE ENGINEER WHERE THE WATER TABLE LEVEL IS  
HIGHER THAN THE BASE OF MANHOLE

D400 LOCKABLE, NON ROCKING DUCTILE IRON COVER AND  
FRAMES TO EN 124 'GULLY TOPS AND MANHOLE TOPS FOR  
VEHICULAR AND PEDESTRIAN ACCESS'.  
MINIMUM CLEAR OPENING TO 600mm DIA.  
RECESSED COVERS WITH PAVING INLAID TO BE USED IN  
PAVED AREAS TO MATCH THE SURROUNDING FINISH. PLEASE  
REFER TO 507.8 SR OF THE SITEWORK SPECIFICATION

2-4 COURSES OF CLASS B ENGINEERING BRICK TO BS 3921  
& IS EN 771/772 "SPECIFICATION FOR CLAY BRICKS"  
BRICKS TO BE LAID ENGLISH BOND USING  
CEMENT/SAND (1:3 MIX) MORTAR WITH 10mm SOLID  
ILLED BED AND JOINTS FLUSH POINTED.

BRICKWORK AND FRAME HAUNCHED USING  
CEMENT/SAND (1:3 MIX) MORTAR

HEAVY DUTY PRECAST CONCRETE COVER TO COMPLY  
WITH BS EN 1917- 2003 'CONCRETE MANHOLES AND  
INSPECTION CHAMBERS, UNREINFORCED, STEEL FIBRE  
AND REINFORCED' AND BS 5911-3:2012 SPECIFICATION  
FOR UNREINFORCED AND REINFORCED CONCRETE  
MANHOLES AND SOAKAWAYS



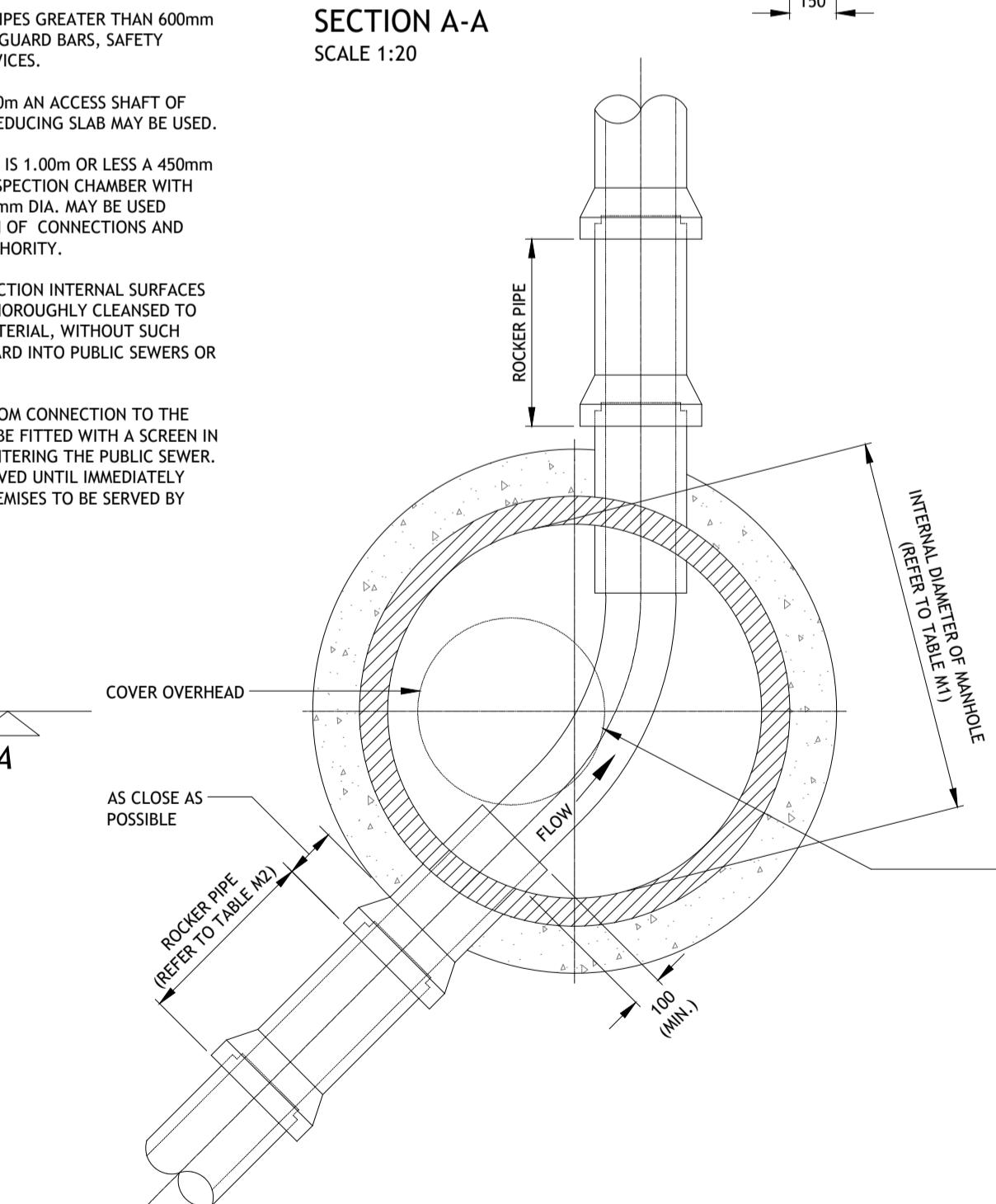
SECTION A-A  
SCALE 1:20

TABLE M1 - INTERNAL DIAMETER OF MANHOLES

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 - 450	1350
500 - 700	1500
750 - 900	1800
> 900	CONSULT LOCAL AUTHORITY

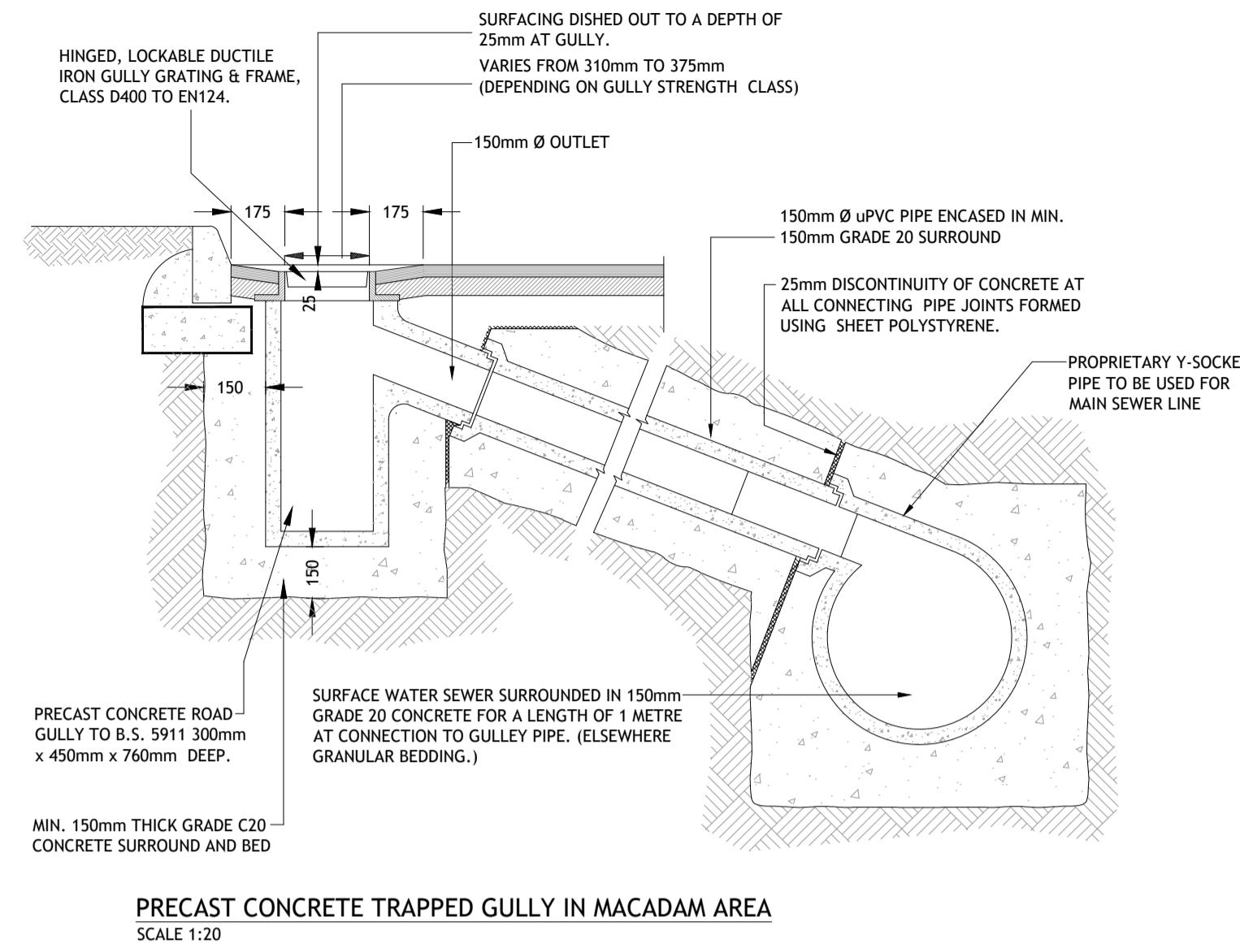
NOTE :

1. MANHOLES WITH OUTGOING PIPES GREATER THAN 600mm DIA. SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES.
2. FOR DEPTHS TO INVERT >2.700m AN ACCESS SHAFT OF MIN. 900mm DIAMETER AND REDUCING SLAB MAY BE USED.
3. WHERE THE DEPTH TO INVERT IS 1.00m OR LESS A 450mm x 450mm (450mm DIA.) INSPECTION CHAMBER WITH MINIMUM COVER SIZE 1.00m DIA. MAY BE USED SUBJECT TO ACCOMMODATION OF CONNECTIONS AND APPROVAL OF THE LOCAL AUTHORITY.
4. ON COMPLETION OF CONSTRUCTION INTERNAL SURFACES OF MANHOLES & SEWERS TO BE FINISHED TO REMOVE ALL DANGEROUS MATERIAL, WITHOUT SUCH MATTER BEING PASSED FORWARD INTO PUBLIC SEWERS OR WATERCOURSES.
5. FIRST MANHOLE UPSTREAM FROM CONNECTION TO THE (EXISTING) PUBLIC SEWER TO BE FITTED WITH A SCREEN IN ORDER TO PREVENT DEBRIS ENTERING THE PUBLIC SEWER. THE SCREEN NOT TO BE REMOVED UNTIL IMMEDIATELY PRIOR TO OCCUPATION OF PREMISES TO BE SERVED BY SEWER.



SECTION B-B  
SCALE 1:20

TYPICAL MANHOLE DETAIL  
SCALE 1:20



PRECAST CONCRETE TRAPPED GULLY IN MACADAM AREA  
SCALE 1:20

TABLE M2 - ROCKER PIPE LENGTH

NOMINAL PIPE DIAMETER (mm)	EFFECTIVE LENGTH (M)
150 to 600	0.6
675 to 750	1.0
Over 750	1.2

NOTE :  
USE 1050 DIAMETER RINGS FOR PIPES LESS THAN 375mm DIAMETER WHERE DEPTH TO SOFFIT IS 1.35 - 1.5m

- MANHOLE COVER TO BE HINGED AT RIGHT ANGLES TO KERBLINE SO THAT THEY CLOSE IN DIRECTION OF TRAFFIC.
- MANHOLE COVERS ON ROADS SHOULD BE LOCATED IN THE MIDDLE OF TRAFFICKED LANES INSIDE WHEEL TRACKS
- COVER AND FRAME TO BE INSTALLED SO THAT NO PART OF THE UNIT IS RAISED OR SUNKEN IN A WAY THAT COULD CAUSE A HAZARD TO PEDESTRIAN OR VEHICULAR TRAFFIC