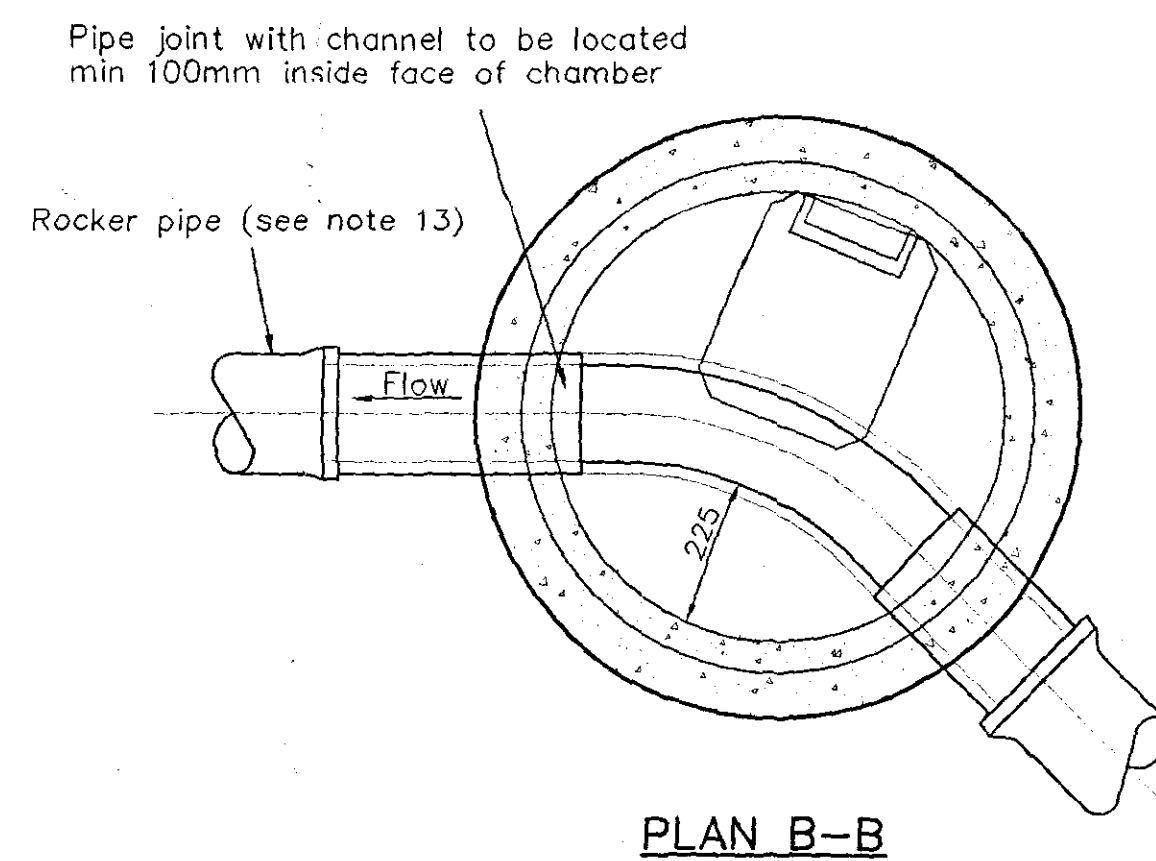
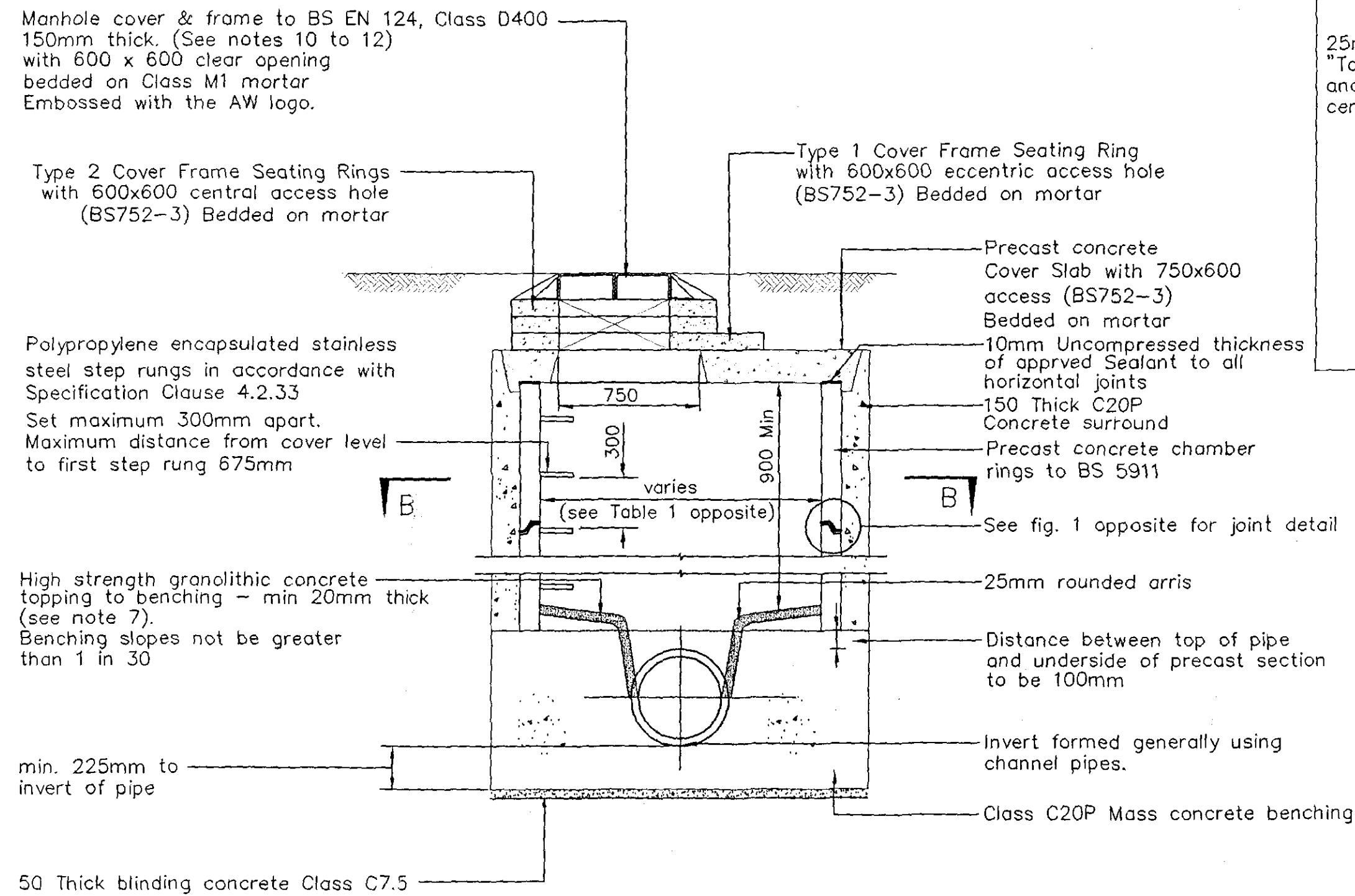
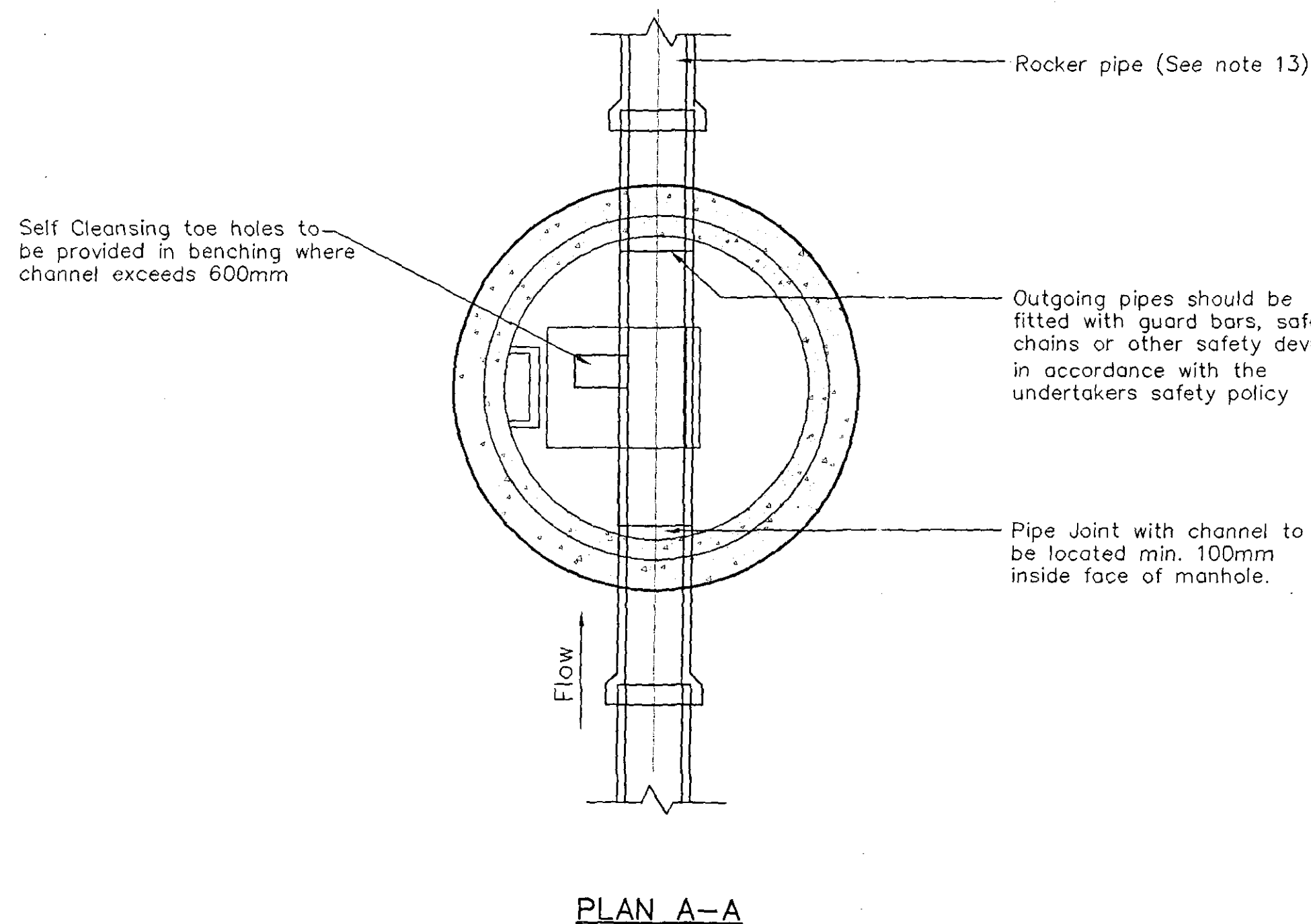
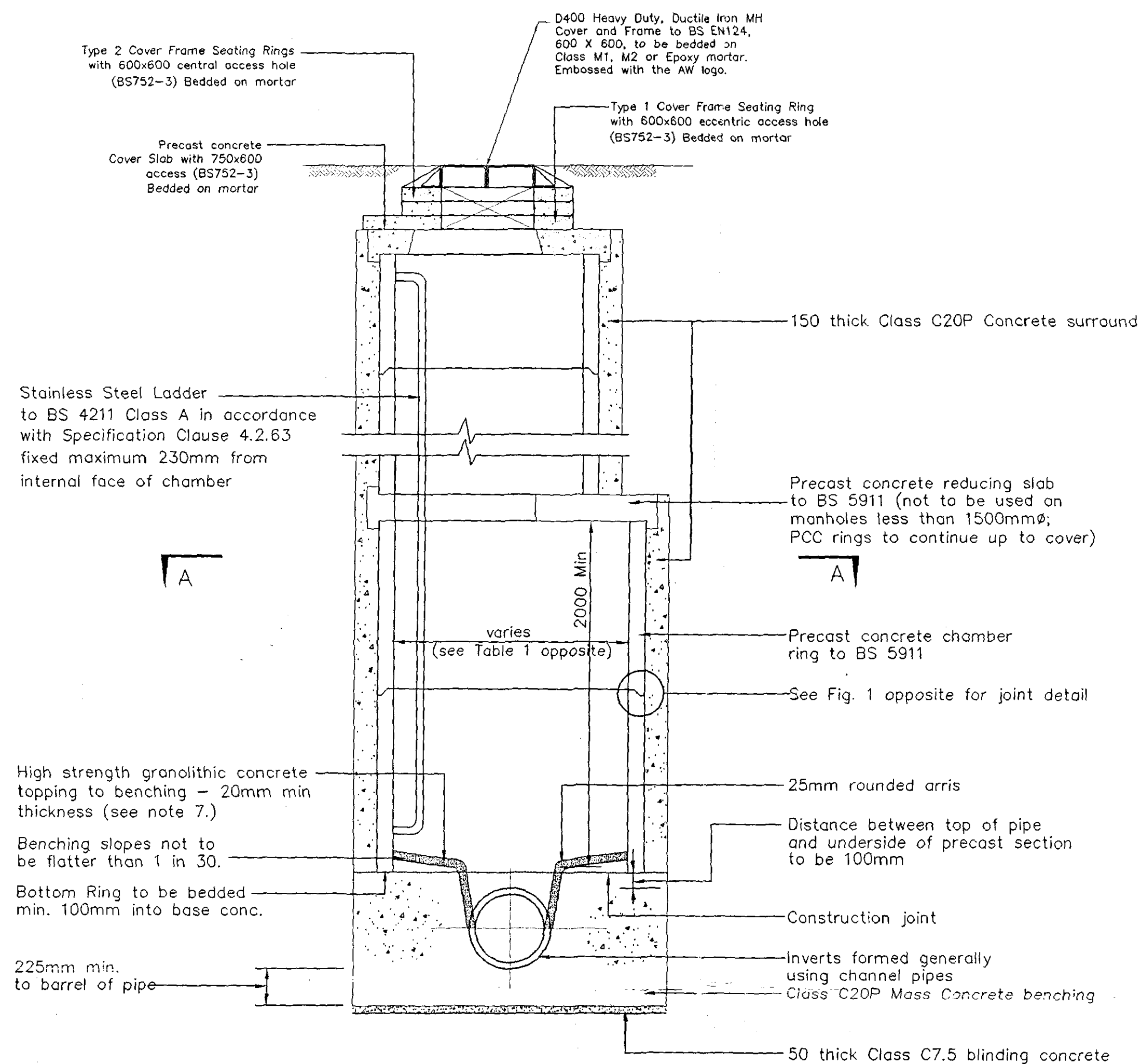
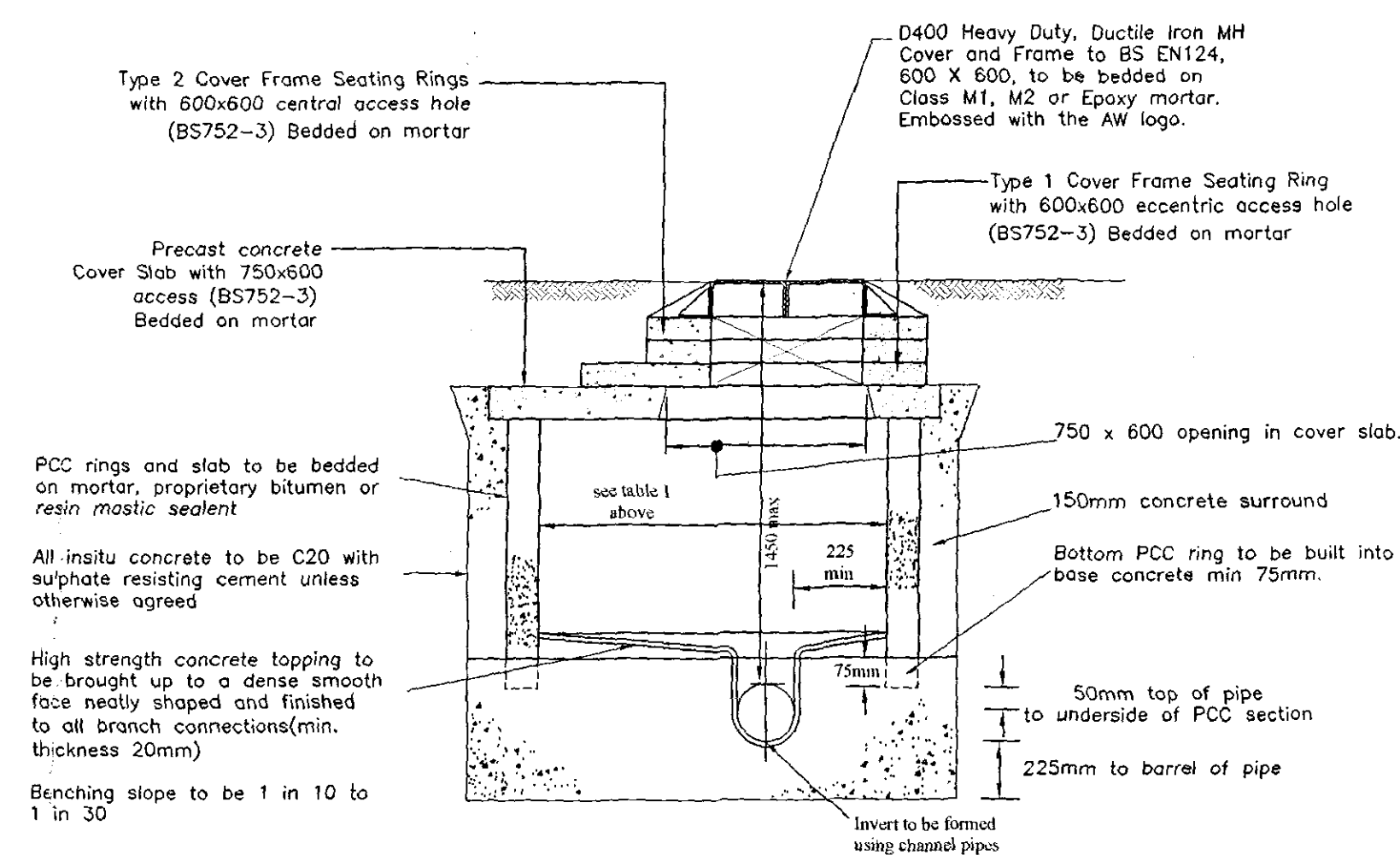




The sizes quoted are the minimum. If two or more pipes enter the manhole, the manhole size should be sufficient to accommodate adequate benching (typically 500mm wide) in accordance with Engineers requirements

Diameter of largest pipe in manhole (mm)	Internal Diameter of manhole (mm)
less than 375mm	1200
375-450	1350
500-700	1500
750-900	1800
975 and above	To be agreed with the Engineer/Undertaker

Table 1 - MANHOLE CHAMBER DIAMETERS



DIA OF LARGEST PIPE IN MH (mm)	INT. DIA OF MH (mm)
up to 450	1350

NOTE: IF PIPE DIAMETER EXCEEDS 450mm, USE MH TYPE B OR C

DETERMINED PLAN

DO NOT SCALE

This drawing is the Copyright protected intellectual property of The Diamond Wood Partnership and is not to be used or reproduced in any way without our written permission.

NOTES

- This drawing is to be read in conjunction with the Drainage Specification.
- This drawing is to be read in conjunction with all other relevant Engineers and Architects and specialists details.
- All work is to be carried out in accordance with the current British Standards, B.S. codes of practice & Building Regulations.
- Refer to CESM Specification C 2.75 for sand/cement mortar grades.
- All pipes entering & exiting manholes are to be connected with pipe soffits level unless otherwise stated.
- Pre-formed channels shall be used at manholes where possible.
- High strength granolithic concrete topping to benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections in accordance with CESM Specification C 4.23.
- All dimensions are in millimetres unless otherwise stated.
- Flow bands within manholes shall suit direction of flow.
- Manhole covers and frames to be ductile iron medium duty grade EN124 circular or rectangular to EN 124 light vehicle trafficked areas (Non adoptable areas).
- Manhole covers and frames to be ductile iron light duty grade A15 circular or rectangular to EN 124 in positions outside vehicle trafficked areas (Non adoptable areas).
- First flexible joint in pipes adjacent to a manhole shall be a max. 600mm from inside face of manhole, connecting to rocker pipe. For pipes of 150 - 450mm, the rocker pipe length shall be 300mm-750mm and for pipe diameters 451 - 750 rocker pipe shall be 750mm-1000mm. For pipes greater than 750mm, rocker pipe shall be 1250mm in length.
- Manholes with outgoing pipes greater than 600mm shall be fitted with guard bars, safety chains or other safety devices.
- All cement used in the construction of manholes shall be minimum Class 3 Sulphate Resisting Portland Cement (SRPC) to the relevant provisions of BS 4027 CESM Spec. C 2.13.
- All drainage works shall be carried out in accordance with WSA "Sewers for Adoption (5th Edition)" and "Civil Engineering Specification for the Water Industry (5th Edition)".
- Drainage to BS 8301 with pipes of approved type drainage system on granular bed and surround and all in strict accordance with the Manufacturer's instructions. Pipes with cover less than - 600 under buildings and gardens, 900 under car parking areas, 1200 under roads to be surrounded in minimum 150 thick concrete (Class 2).
- Differential movement joints/intels where drains pass through all construction elements. P.C. concrete intels to be used over pipes and ducts passing through walls.
- Brick manholes to be constructed in flush pointed English bond Class B Eng. bricks in cement mortar. Brick manholes in Class B Eng. brickwork, 215 thick solid type bricks to BS 3921.
- All redundant drains to be removed or concrete sealed.
- All soft spots within pipe trenches shall be removed.
- No water shall be allowed to accumulate in trenches.
- All fill material shall be consolidated in layers not exceeding 225mm.
- Concrete pipes and fittings with flexible joints to comply with BS 5511 Pt 100.
- Clayware pipes and fittings shall comply with BS EN 295.
- Rubber joint rings shall be type D to BS 2494 and shall be obtained from pipe manufacturer.
- Pipes shall be laid to their true line and level by laser or by bonn, etc. and middle.
- All in situ concrete use in pipe protection to be minimum Grade C 30.
- Compressible filler for interruption of pipe concrete protection shall consist of bitumen impregnated insulating board to BS 1142 at each pipe joint, thickness in accordance with CESM Clause 2.17.
- Precast concrete manholes, cover slab and seating rings to comply with BS 5911 Pt200.
- Manhole step irons to comply with BS 1247.

19 OCT 2004

Ref: 0971/03

B Amended to AWSL comments 03-06-04. 05/04 MD

A Details amended. AWSL letter received 26-04-04. 05/04 MD

Ref.	Revision	Date	By
Issue			

PRELIMINARY

THE DIAMOND WOOD PARTNERSHIP
Consulting Engineers

The Old School
Blay Road
Enderby
Leicester
LE18 4AS
T: 0116 284 8887
F: 0116 284 8887
E: mail@diamondwood.co.uk

Project Title
**PROPOSED DEVELOPMENT
BRIDGE ROAD, SUTTON BRIDGE,
LINCOLNSHIRE.
FOR CANNON KIRK (UK) LTD**

Drawn	MD	Date	02/07
Scale	1:5	Checker	

Drawing Title
**DRAINAGE CONSTRUCTION DETAILS
(ADOPTABLE)
SHEET 1 of 2**

Project No.	Drawing No.	Revision
03/6382	103	B.