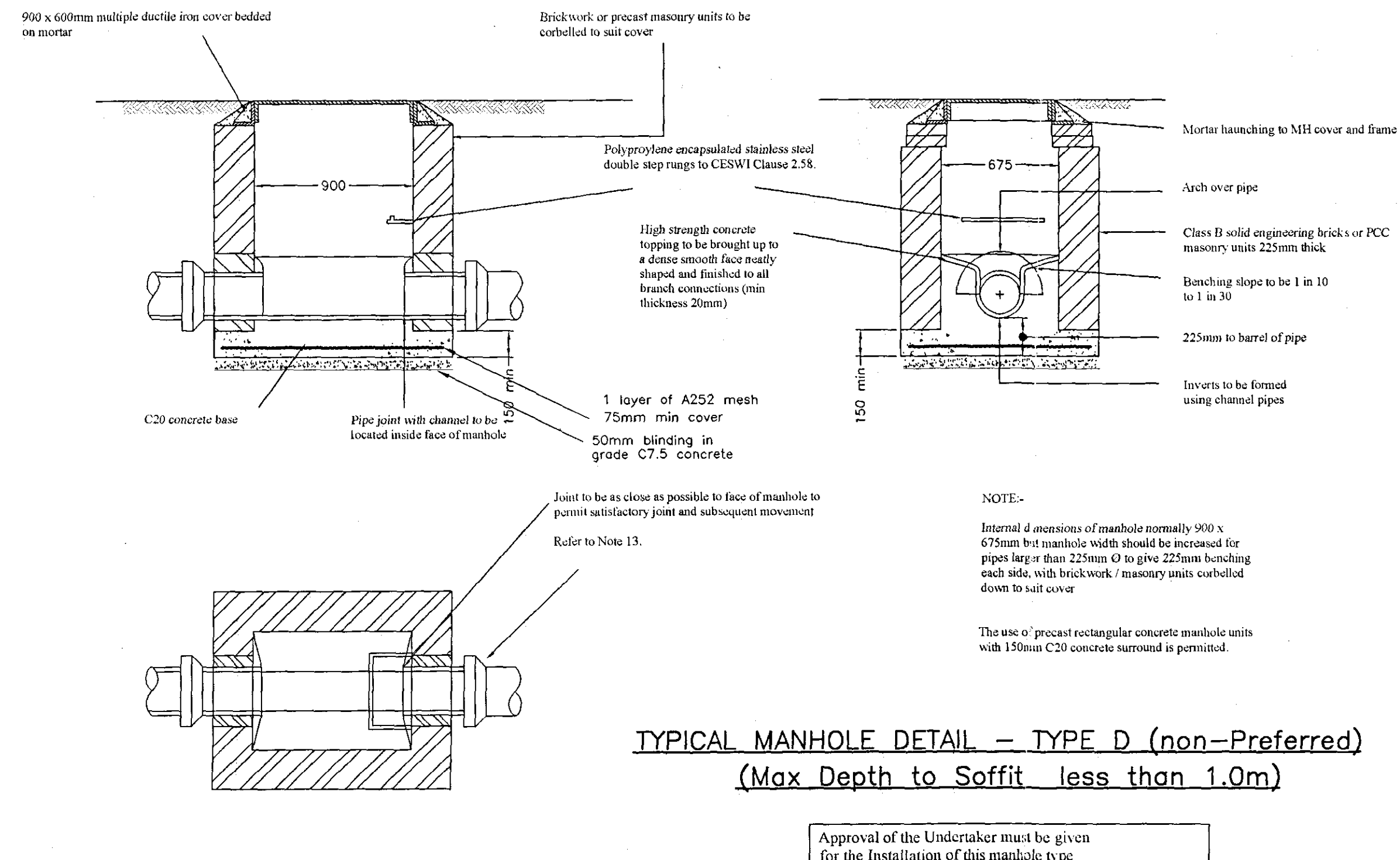
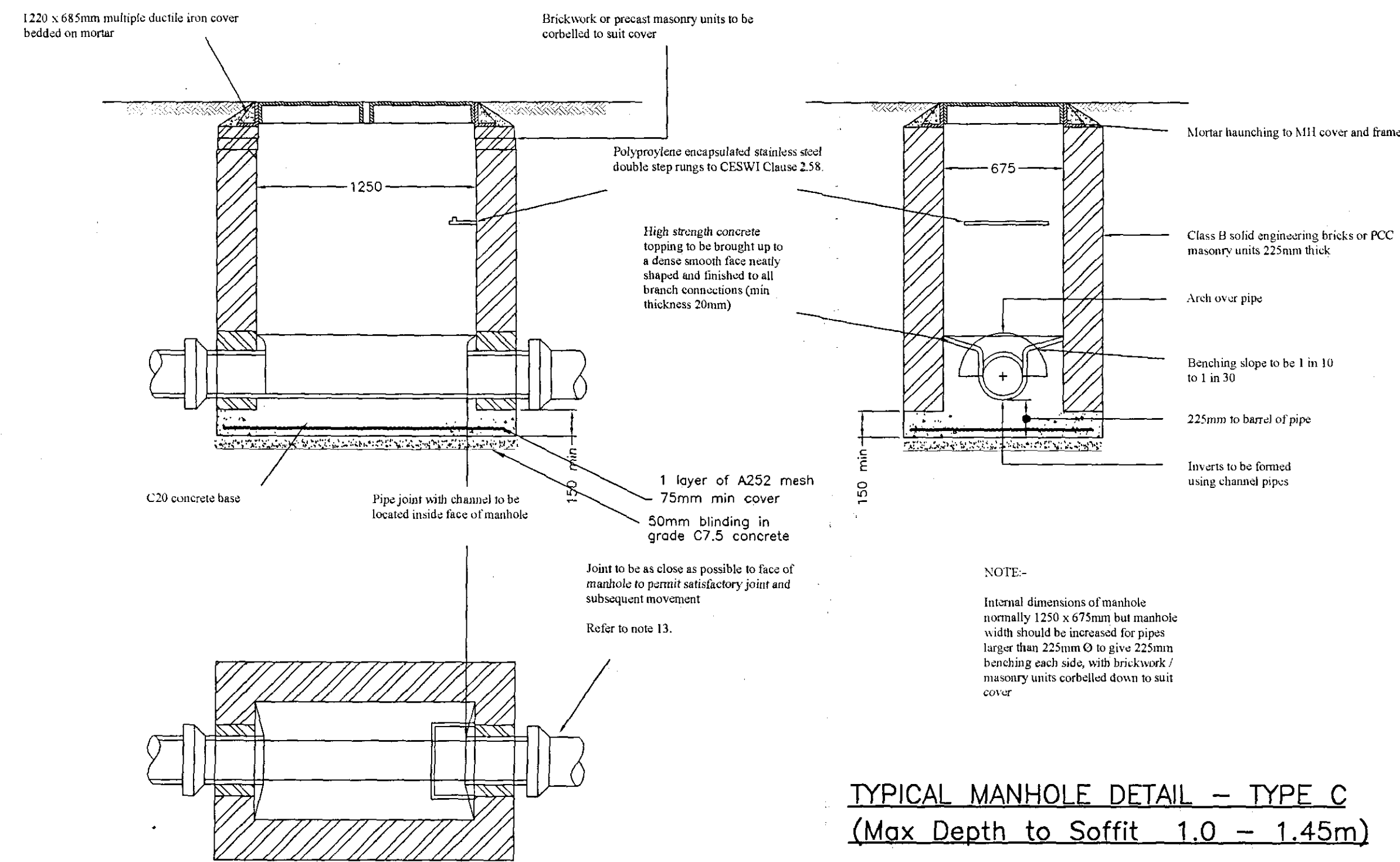
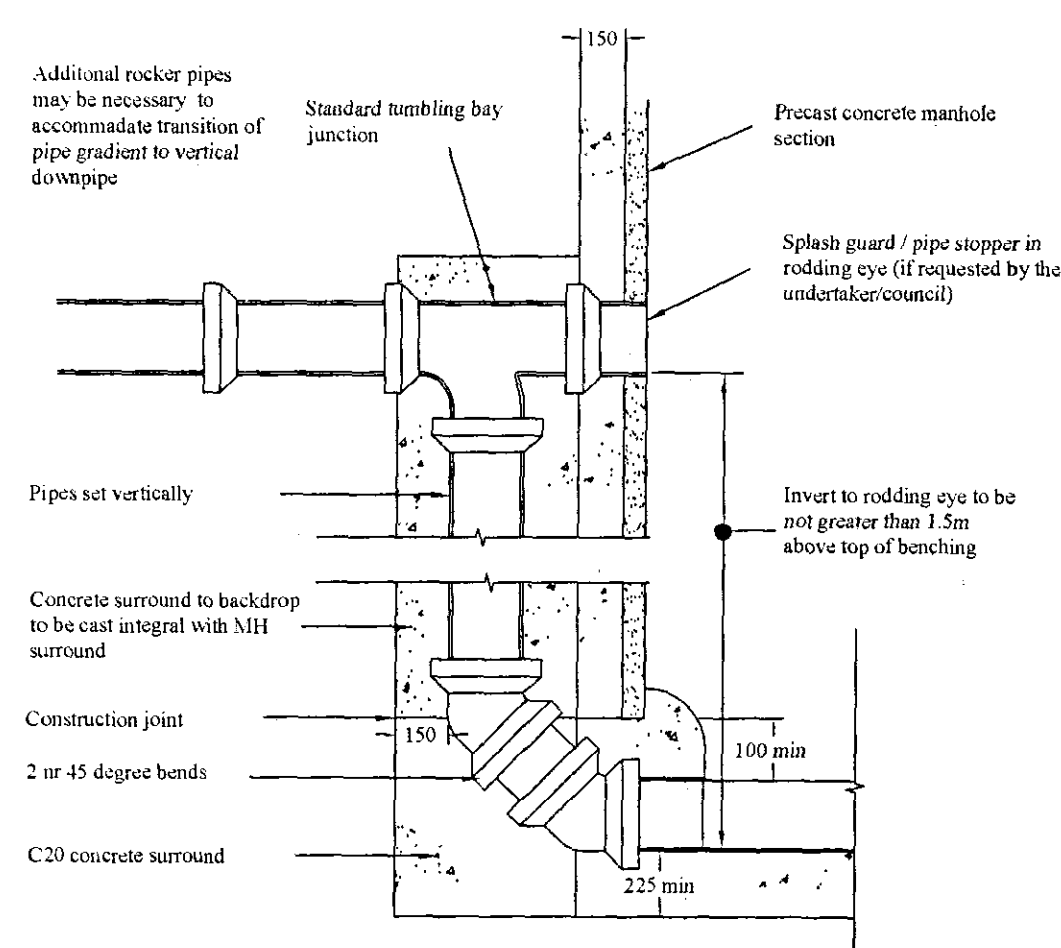


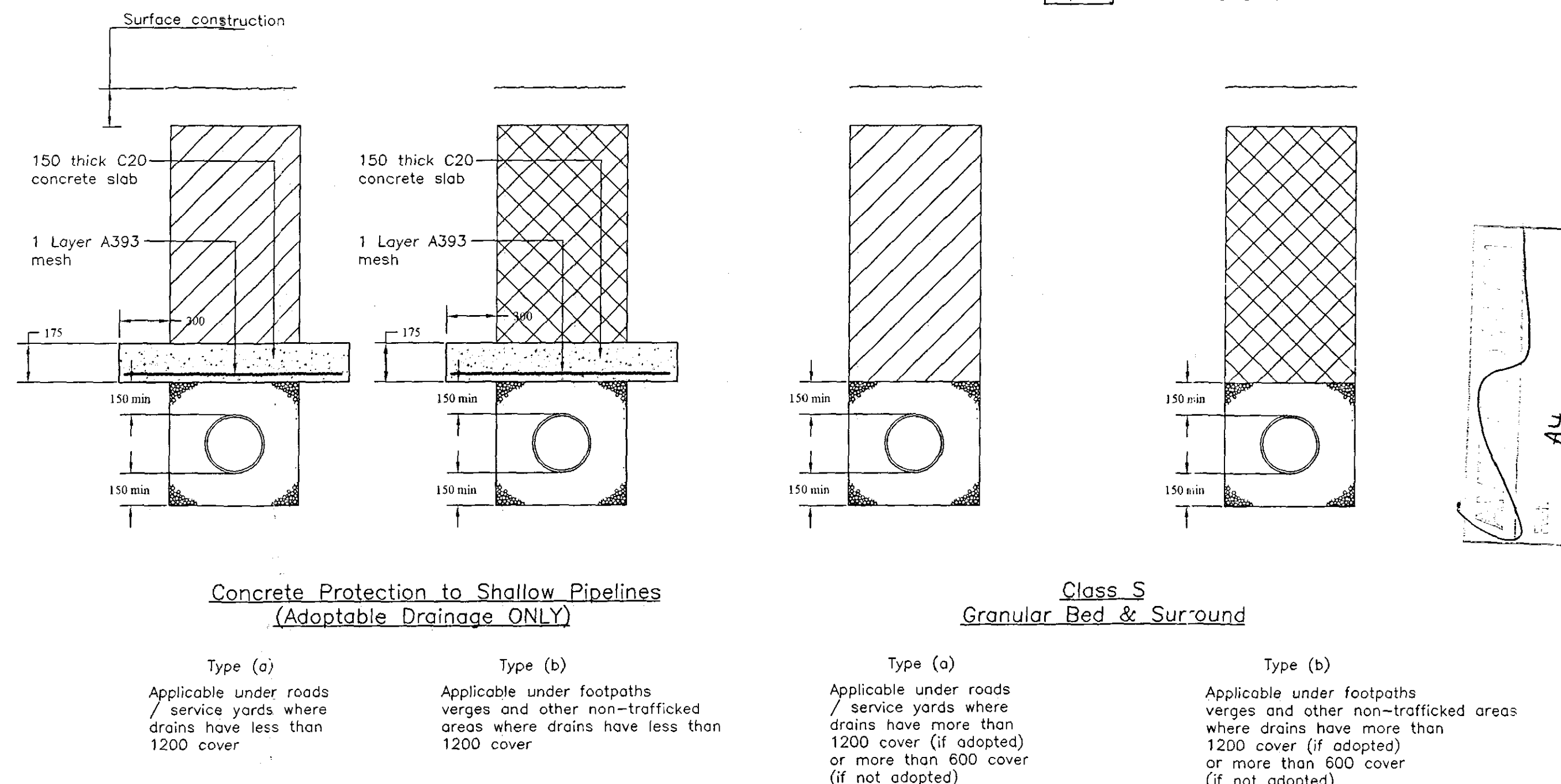


- NOTES:-**
- No mechanical compaction to occur within 300mm of crown of pipe.
 - Where pipes are laid under buildings, refer to Engineer for further details.
 - Expansion joints shall be placed along concrete slab at max. 6m intervals using bitumen impregnated filler board.



TYPICAL VERTICAL BACKDROP DETAIL
(Refer to Engineering Drawings for manholes where backdrop is required and depth of backdrop)

TRENCH WIDTHS	
PIPE (mmØ)	WIDTH (mm)
100	550
150	600
225	700
300	750
375	1050
450	1150
525	1200
600	1350
675	1450
750	1500
825	1600
900	1900
975	2000
1050	2300
1200	2300
OVER 1200	DIA. + 1000



BEDDING & TRENCH DETAILS

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 to be read in conjunction with the Drainage Specification.
- This drawing is to be read in conjunction with all other relevant Engineers and Architects details.
- All work is to be carried out in accordance with the current British Standards, B.S. codes of practice & Building Regulations.
- Refer to CESWI Specification CI 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 CESWI Specification Cl. 4.29.
- All dimensions are in millimetres unless otherwise stated.
- Pipe bends within manholes shall suit direction of flow.
- Manhole covers and frames to be Ductile Iron Heavy Duty Grade D400 double triangular to BS EN 124 in carriageways and heavy vehicular trafficked areas (150mm thick) and embossed 'FW' or 'SW' accordingly in accordance with Anglian Water Services Ltd requirements.
- Manhole covers and frames to be ductile iron medium duty grade B125 circular or rectangular to EN 124 light vehicular 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 vehicular 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 500mm-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 Portland (SRPC) to the relevant provisions of BS 4027 CESWI Spec Cl 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 constructional elements. P.C. concrete lintels 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 5911 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 boning; each end and middle.
- All new concrete used in pipe protection to be minimum Grade 4.20.
- 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 CESWI 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

0971/03

Ref. Revision Date By

Issue

PRELIMINARY

THE DIAMOND WOOD PARTNERSHIP
Consulting Engineers

The Old School
Baby Road
Eccleston
Leicester
LE11 4AR
T: 0116 284 8880
F: 0116 284 8890
E: mail@diamondwood.co.uk

Project Title

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

Drawn **MD** Date **02/03**

Scale **NTS** Checked **R**

Drawing Title

DRAINAGE CONSTRUCTION DETAILS
(ADOPTABLE)
SHEET 2 of 2

Project No. **03/6392** Drawing No. **104** Revision