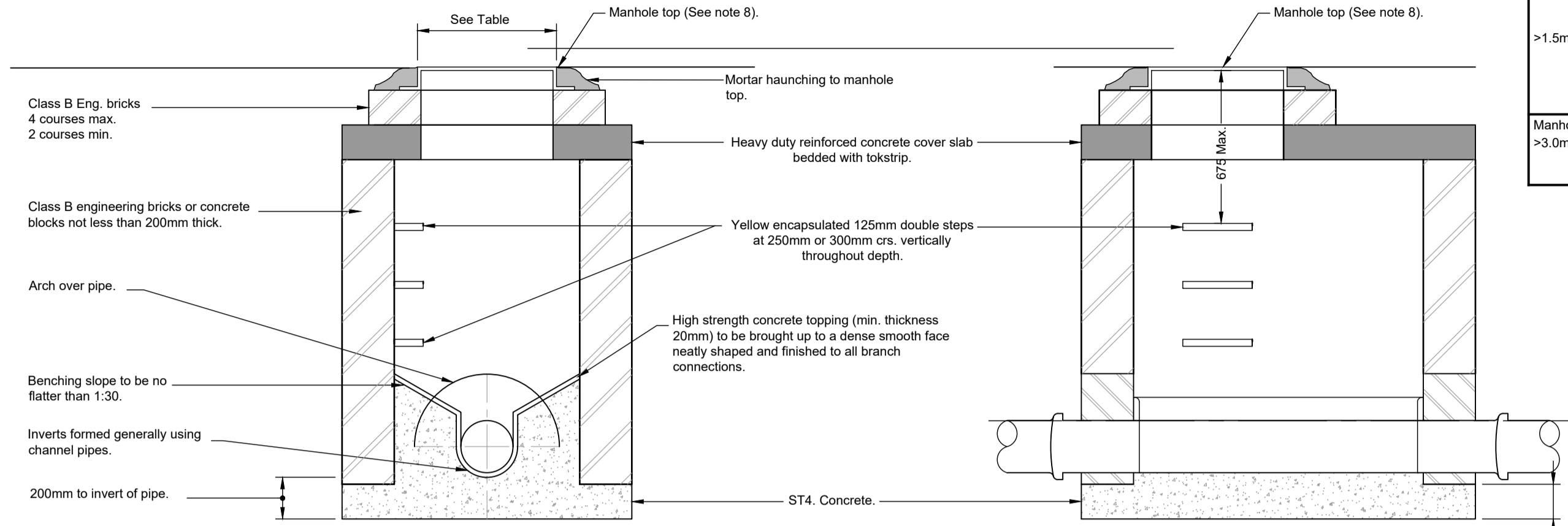


Type	Depth to invert from cover level	Min internal dimensions		Min clear opening size	
		Rectangular length and width	Circular diameter	Rectangular length and width	Circular diameter
Inspection chamber					
Shallow	0.6 or less	225 x 100	190 ^b	-	190 ^a
Deep	1.2 or less	450 x 450	450	Min. 430 x 430	430
	> 1.2	450 x 450	450	Max. 300 x 300 ^c	Max 350 ^d

NOTES:
 a The clear opening may be reduced by 20mm in order to provide proper support for the cover and frame.
 b Drains up to 150mm.
 c A larger clear opening cover may be used in conjunction with a restricted access. The size is restricted for health and safety reasons to deter entry.
 d A larger clear opening cover may be used in conjunction with a restricted access. The size is restricted for health and safety reasons to deter entry.

Type	Size of largest pipe (DN)	Min internal dimensions ^a		Min clear opening size ^a	
		Rectangular length and width	Circular diameter	Rectangular length and width	Circular diameter
Manhole <1.5m Deep to soffit	≤150	750 x 675 ^b	1000 ^f	750 x 675 ^b	Na ^e
	225	1200 x 675	1200	1200 x 675 ^b	
	300	1200 x 750	1200	1200 x 750 ^b	
>1.5m Deep to soffit	>300	1800 x (DN+450)	The larger of 1800 or (DN+450)		
	≤225	1200 x 1000	1200	600 x 600	600
	300	1200 x 1075	1200		
	375-450	1200 x 1225	1200		
Manhole shaft >3.0m Deep to soffit	Steps ^g	1050 x 800	1050	600 x 600	600
	Ladder ^h	1200 x 800	1200		
	Winch ⁱ	900 x 800	900	600 x 600	600

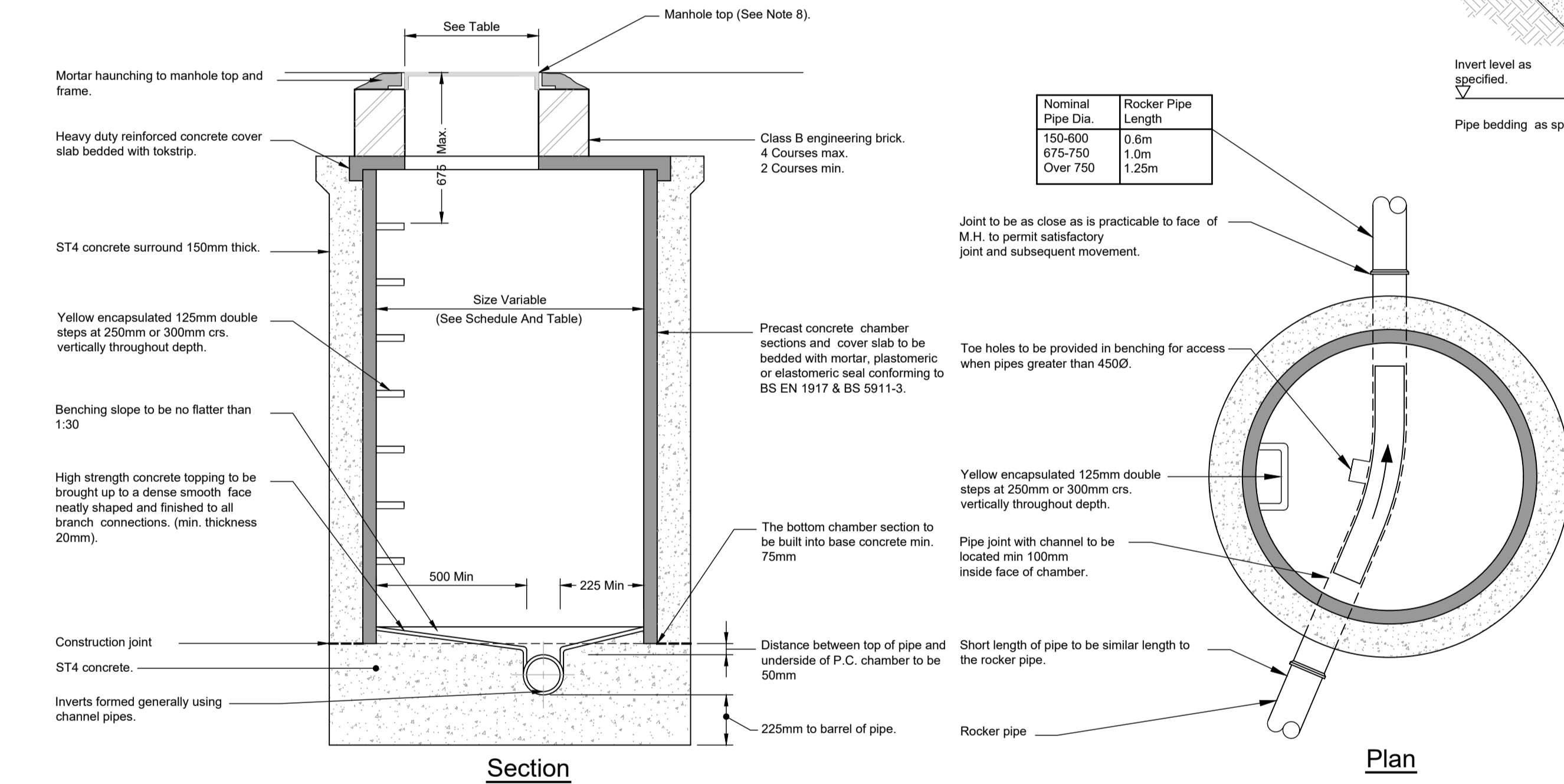
NOTES:
 a Larger sizes may be required for manholes on bends or where there are junctions.
 b May be reduced to 600 by 600 where required by highway loading considerations, subject to safe system of work being specified.
 c Not applicable due to working space needed.
 d Minimum height of chamber in shafted manhole 2m from bending to underside of reducing slab.
 e Minimum clear space between ladders or steps and opposite face of shaft should be approximately 900mm.
 f Winch only - no steps or ladders, permanent or removable.
 g The minimum size of any manhole serving a sewer (i.e. any drain serving more than one property) should be 1200mm x 675mm rectangular or 1200mm diameter.



SECTIONS

Rectangular Private Manhole Detail. See Table

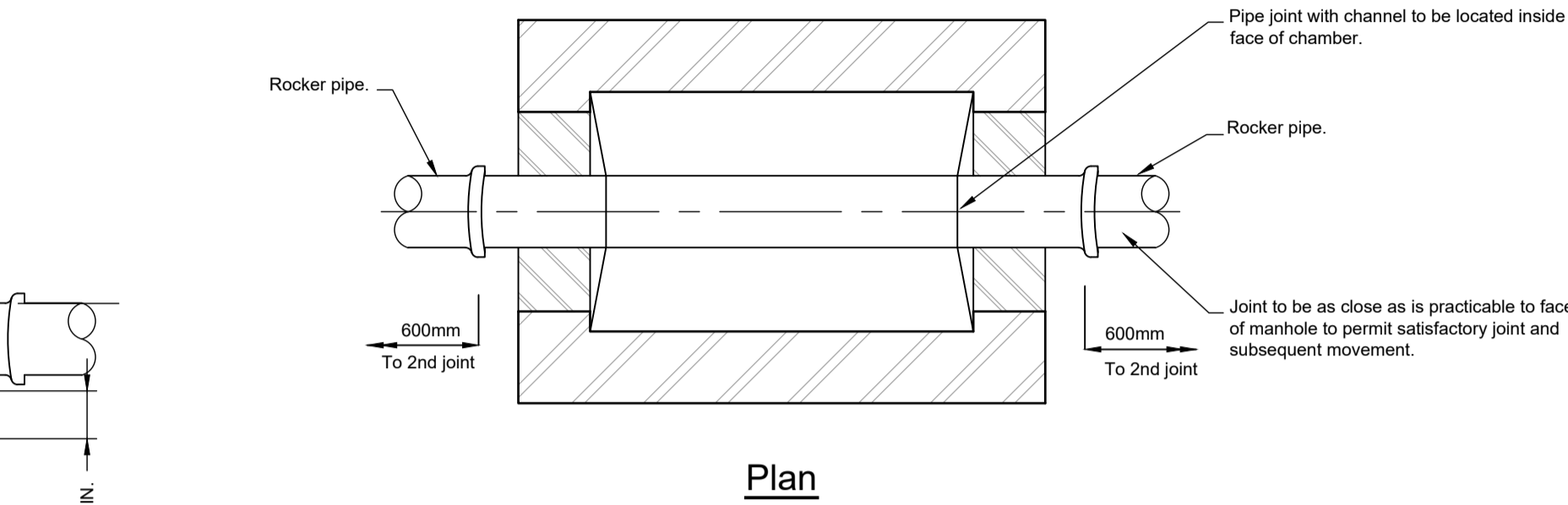
(Alternatively use precast concrete chamber sections installed to manufacturers recommendations)
 Scale 1:20



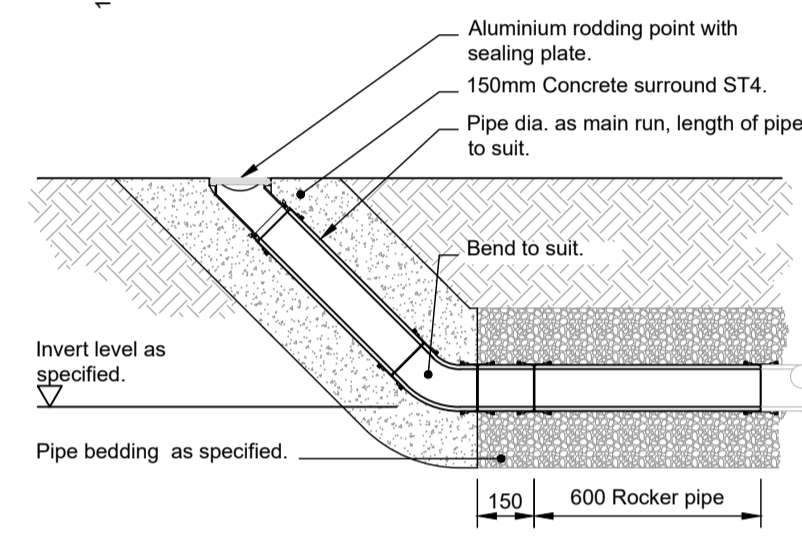
Section

Circular Private Manhole Detail. See Table

Scale 1:20

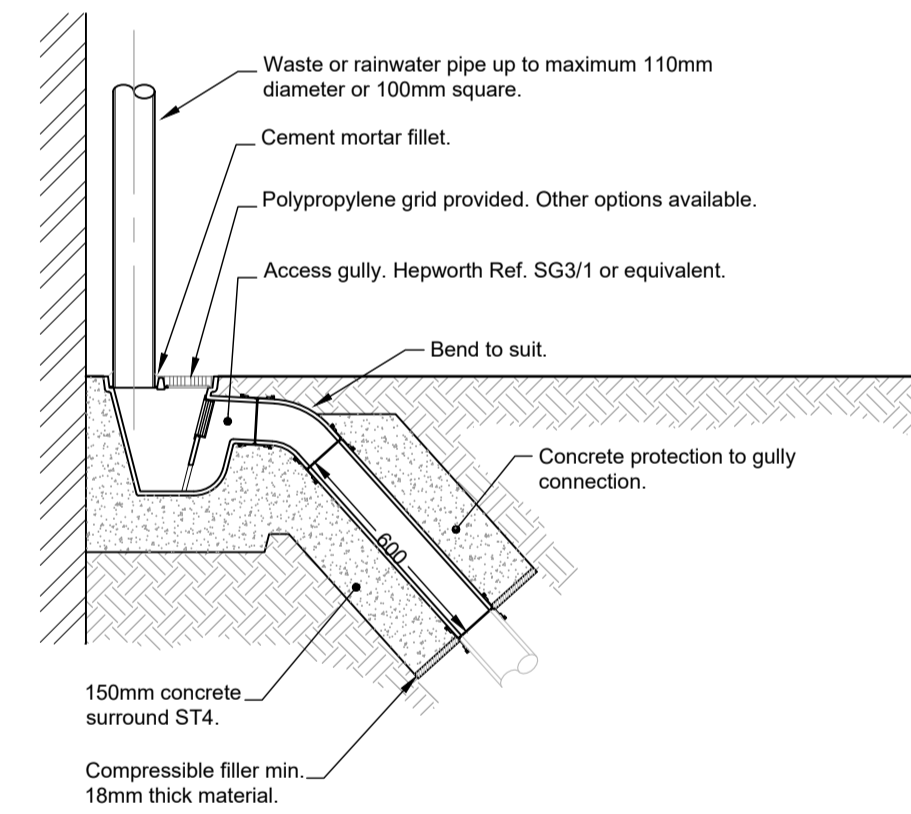


Plan



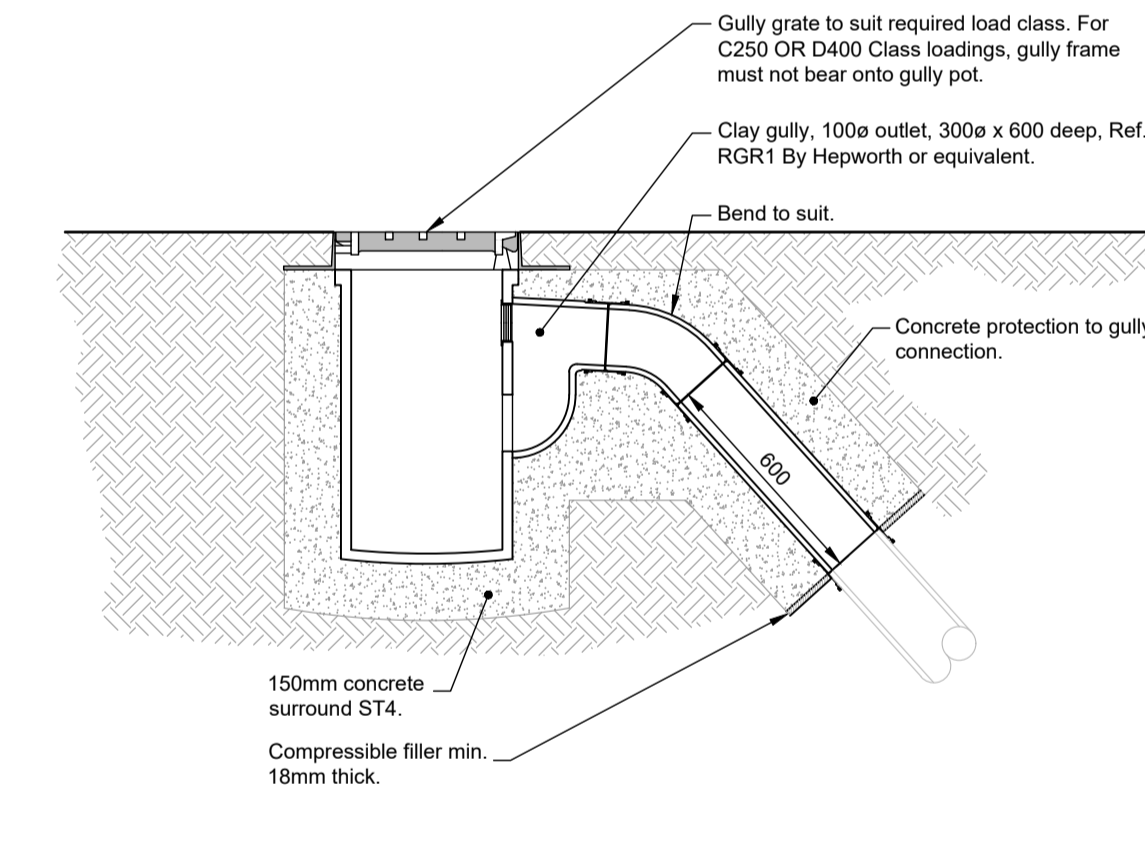
Rodding Eye Detail

Scale 1:20



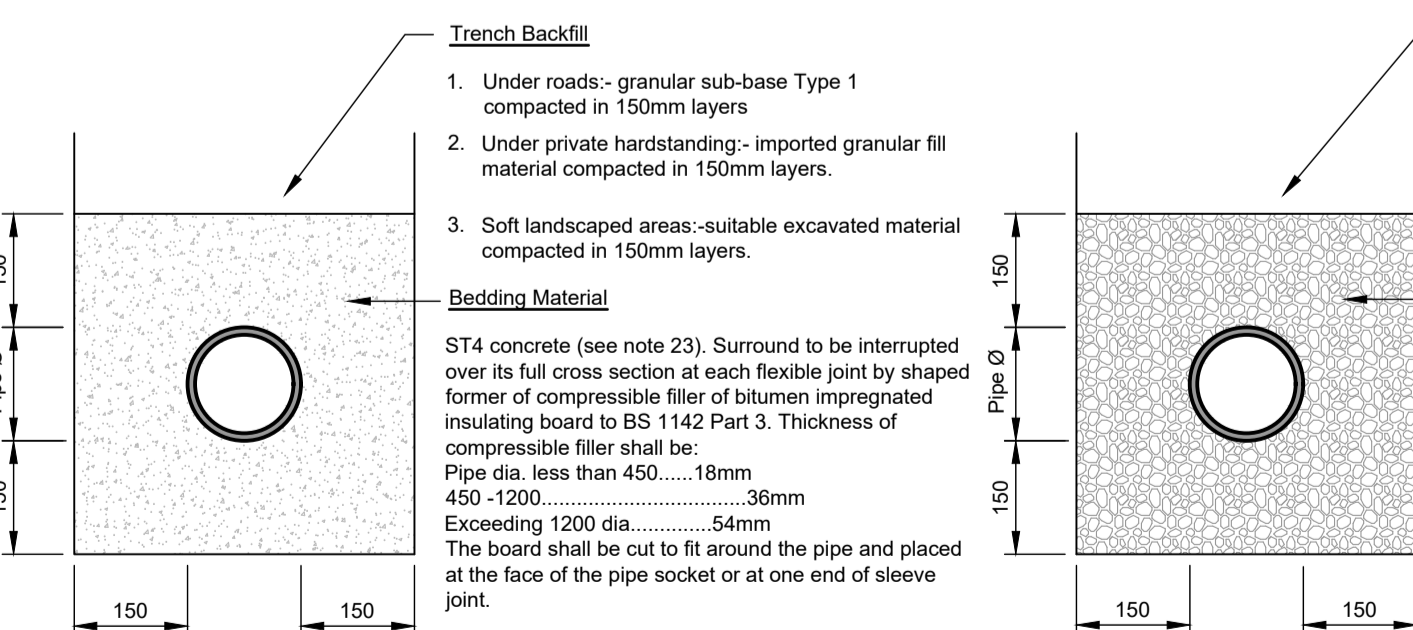
Access Gully Detail

Scale 1:20

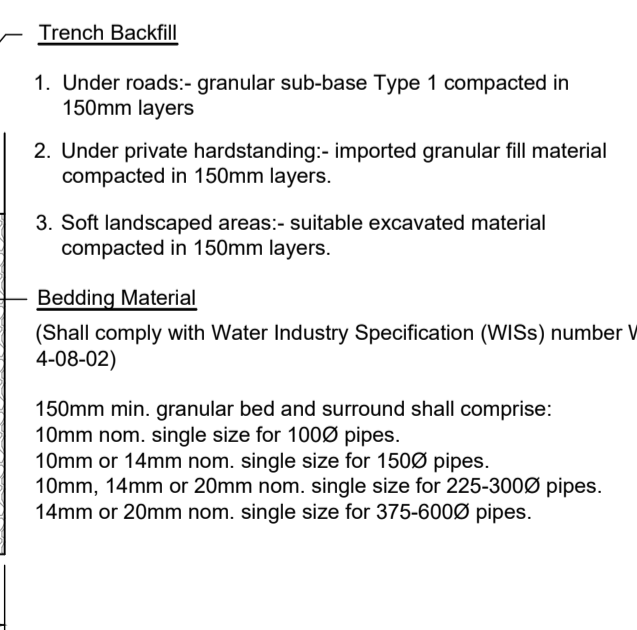


Yard Gully Detail

Scale 1:20

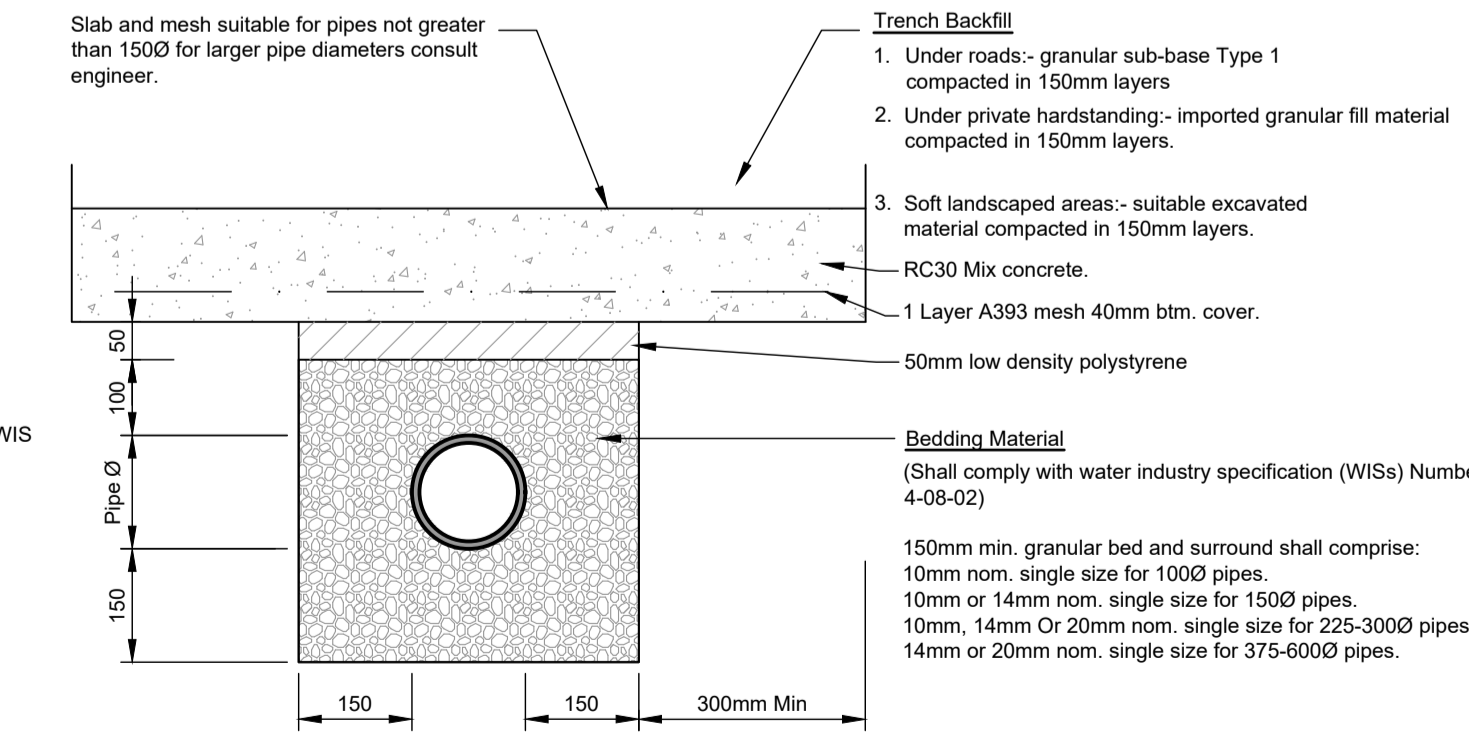


Concrete Protection Rigid Pipes

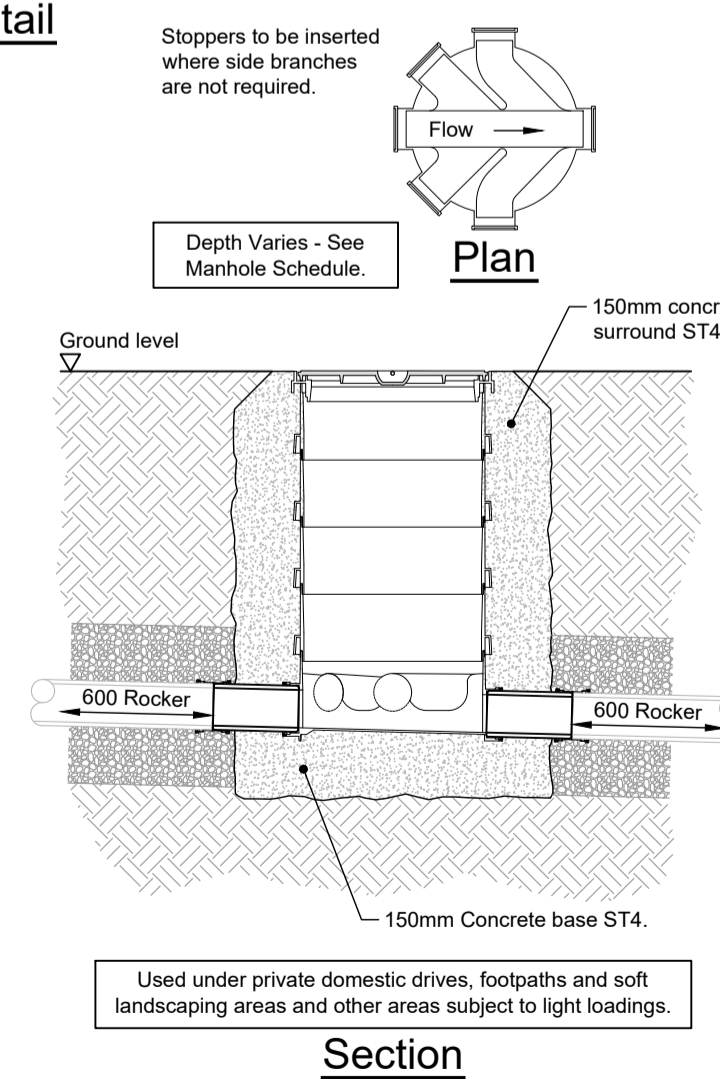


Granular Surround Bed And Surround Details

See note 11
 Scale 1:10



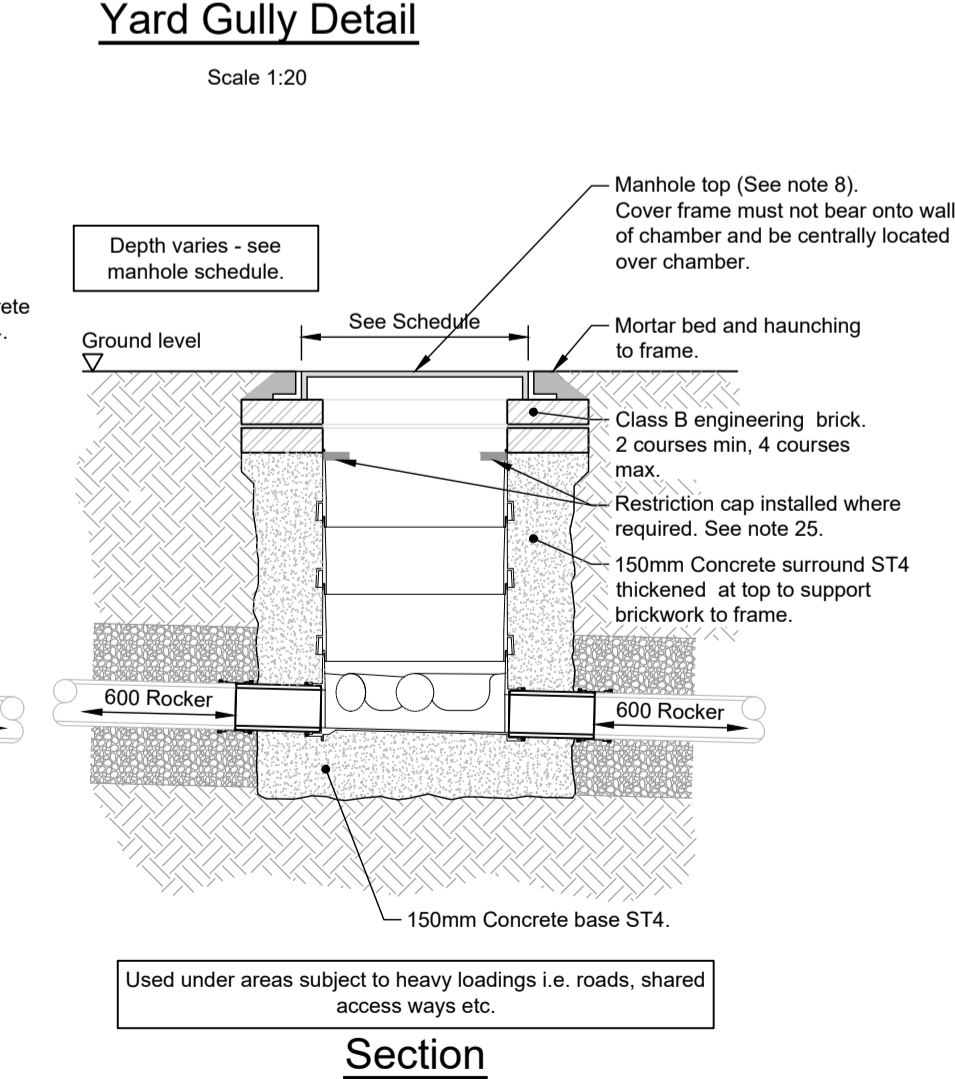
Concrete Protection Flexible Pipes



Section

Polypropylene Inspection Chamber (PPIC) For Depths Up To 3.0m.

Scale 1:20



Section

NOTES

- Do not scale this drawing.
- This drawing is to be read in conjunction with all relevant architects and engineers drawings.
- All building drainage works to be in accordance with BS EN 752 building drainage and the current building regulations.
- For precise locations of RWPS, SVPS and TBGS refer to architects plans.
- For precise locations and setting out of houses, private drives and parking areas - refer to architects plans.
- Private manhole and inspection chamber cover, invert level and sizes shown on manhole schedules.
- Cover levels to be adjusted locally to suit finished ground levels.
- Manhole tops to be ductile iron class D400 in carriageways, class B125 in car parking areas and class A15 only in pedestrian areas and footways all to BS EN 124:1994 having 600mm minimum clear opening, non ventilating type with closed keyways.
- PPIC's - Cast iron cover and plastic frame is suitable for use where wheel loads do not exceed 1.5 tonnes. Covers to be bolt down type.
- For heavy loading installations cover to be replaced with appropriate type.
- Levels to existing chambers, manholes and sewers to be verified on site prior to drainage works commencing.
- Gullies - Gullies ref. 'RG' shall be trapped PC concrete 900 dp x 450mm dia. with 150 dia. outlet and 150mm ST4 concrete surround.
- Gullies ref. 'YG' shall be trapped PC concrete/clay extra strength 600 dp x 300mm dia. with 100 dia. outlet and 150mm ST4 concrete surround. All gullies shall have tops to BS EN124:1994 Class B125 in pedestrian only areas, C250 in car parking areas, and D400 in roads.
- Bedding shall be 150mm granular bed surround where cover:
 - Greater than 450mm for 100 dia. rigid pipes in soft landscape areas.
 - Greater than 600mm for all pipe dia's greater than 100mm in soft landscape areas.
 - Greater than 900mm for pipes in trafficked areas.
 - Greater than 1.2m for pipes in adopted areas. All other cases including gully connections use 150mm (min) concrete protection.
- Access shall be provided at the base of all RWPS using trapped access gullies bedded and surrounded in 150mm ST4 concrete. Gullies to be Hepworth Ref. SG3/1.
- Private pipe runs to enter into top half of existing sewers. All new pipe connections to be via y-junctions.
- Pipes at manholes to be soffit to soffit unless noted otherwise.

06/11/23 JOD Issued for comment.
 Rev Date By Chkd. Revision notes

Job Title
Newfoundland Road Deepcut

Drawing Title
Private Drainage Construction Details.

Client
Little Rock Developments Ltd

HODEL CONSULTING ENGINEERS mail@hodel.uk

01732 617555

Scale at A1:
 1:10 1:20

Status:
FOR COMMENT

Drawn: JGD
 Date: Nov/23

Checked: JGD
 Date: Nov/23

Approved: -
 Date: -

Drawing No.:
23-158_C04

Revision:
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