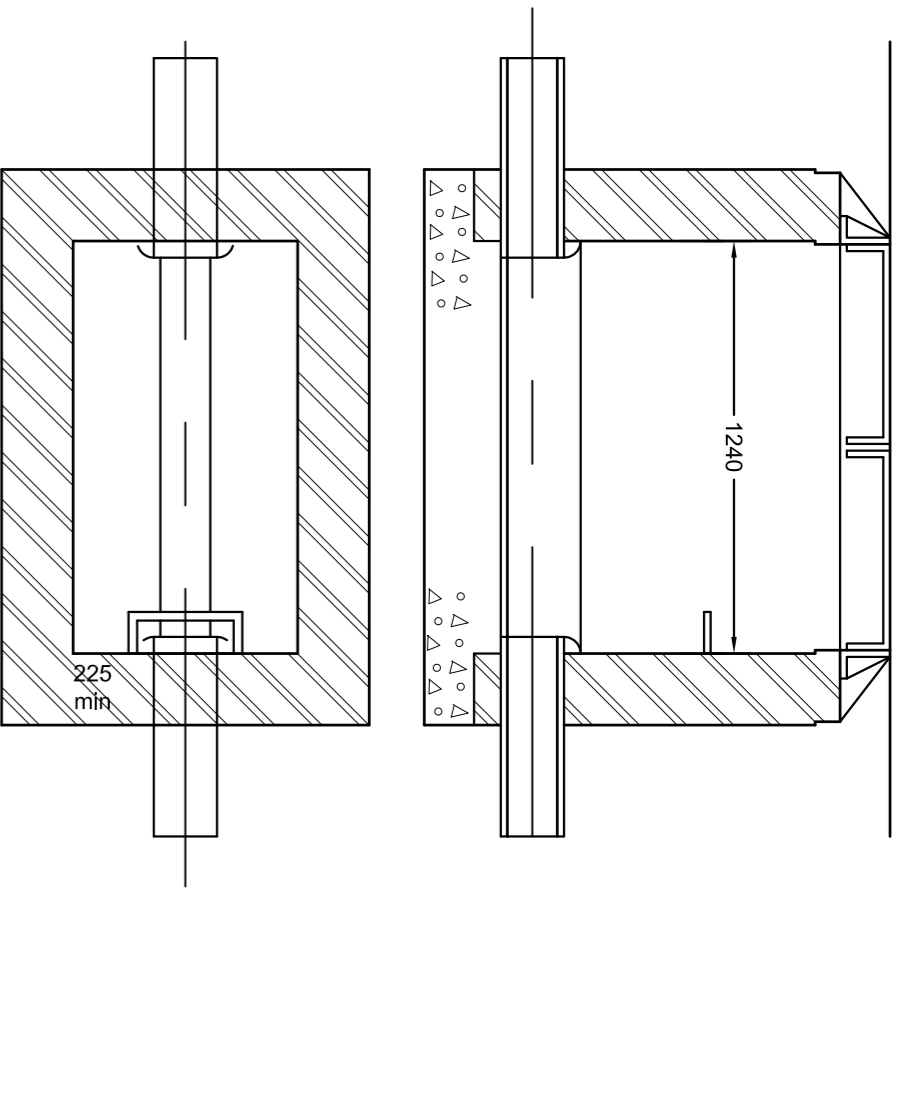


The Contractor is to check and verify in conjunction with the Architect suitable all setting out points, including and shall determine, levels and sewer flow levels at connection points and ensure that they are correct. The Contractor is to comply in all respects with current building regulations, British Standard Specifications, Building Regulations etc, neither or not specifically stated on the drawing.

Concrete and concrete products to be sulphate resisting. Plastics are not acceptable for any pipes or fittings forming part of the public sewer system including fittings forming any part of the sewer system. All concrete to be BS EN 124 class 400 bedded on mortar. All concrete and concrete products to be sulphate resisting. Plastics are not acceptable for any pipes or fittings forming part of the public sewer system including fittings forming any part of the sewer system. All concrete to be BS EN 124 class 400 bedded on mortar.

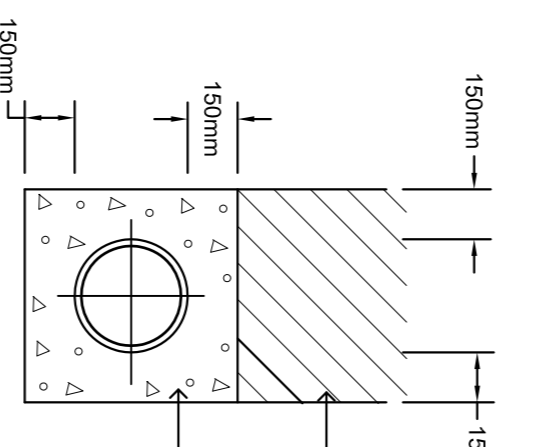
GENERAL NOTES  
 1. All manholes to be fitted for depths under 1.0m to the Water Table/Act of 1991 shall be constructed in accordance with Sewers for Adoption (6th Edition & Thames Water requirements).  
 2. Pipes to have a Class S Bed and surround where depths from cover to pipe soffit are greater than 1.2m.  
 3. Where the manhole cover to pipe soffit is less than 1.2m then concrete protection is to be provided.  
 4. Any pipe should be extra strength vitrified clay with spherulitic and spherulitic joints to BS EN 255.  
 5. Concrete pipes should be concrete with spherulitic and spherulitic joints to BS EN 11.  
 6. All concrete and concrete products to be sulphate resisting.  
 7. Plastics are not acceptable for any pipes or fittings forming part of the public sewer system including fittings forming any part of the sewer system. All concrete to be BS EN 124 class 400 bedded on mortar.

1220 x 850mm clear opening  
 Mortar haunch to frame.  
 Class B engineering bricks or precast concrete units 215mm thickness.  
 Double step iron.  
 Arch over pipe.  
 Channel to be formed using concrete topping to be brought up to a dense smooth face neatly shaped and finished to all branch connections. Benching slope to be 1 in 10 to 1 in 30.  
 Grade C20 concrete in min 150mm thickness base.



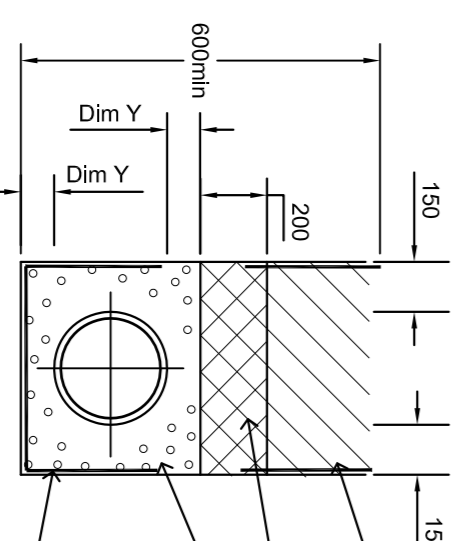
### Type C Manhole

Depth from ground level to soffit of pipe 1.0m to 1.5m



### Concrete Protection

Concrete protection shall be interrupted at each pipe joint by shaped compressible filler



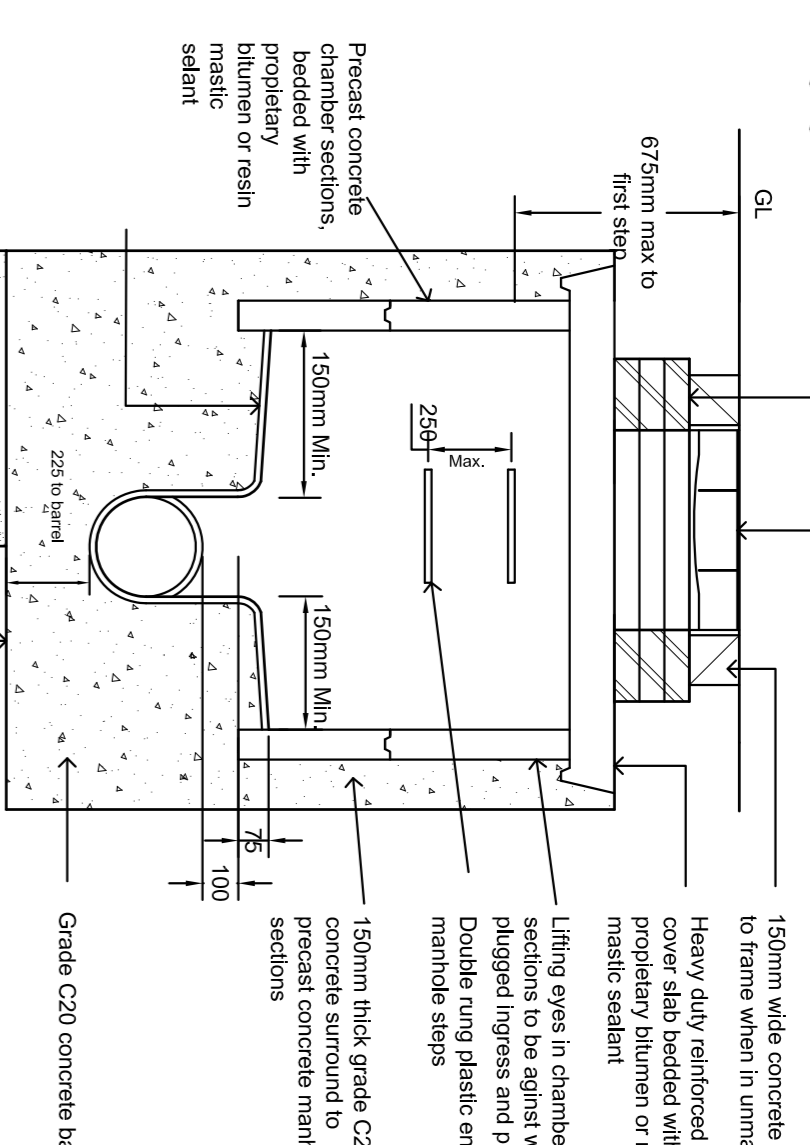
Type 1 granular material  
 Selected excavated material lightly compacted by hand with compaction factor not greater than 0.2.

NOTE  
 Provide impermeable membrane lining to trench where foul sewer is located above or adjacent to the proposed storm drain to avoid any possible cross contamination. The lining 'Ductulene' as supplied by Geosynthetics Ltd or similar approved.

### Class S Bedding

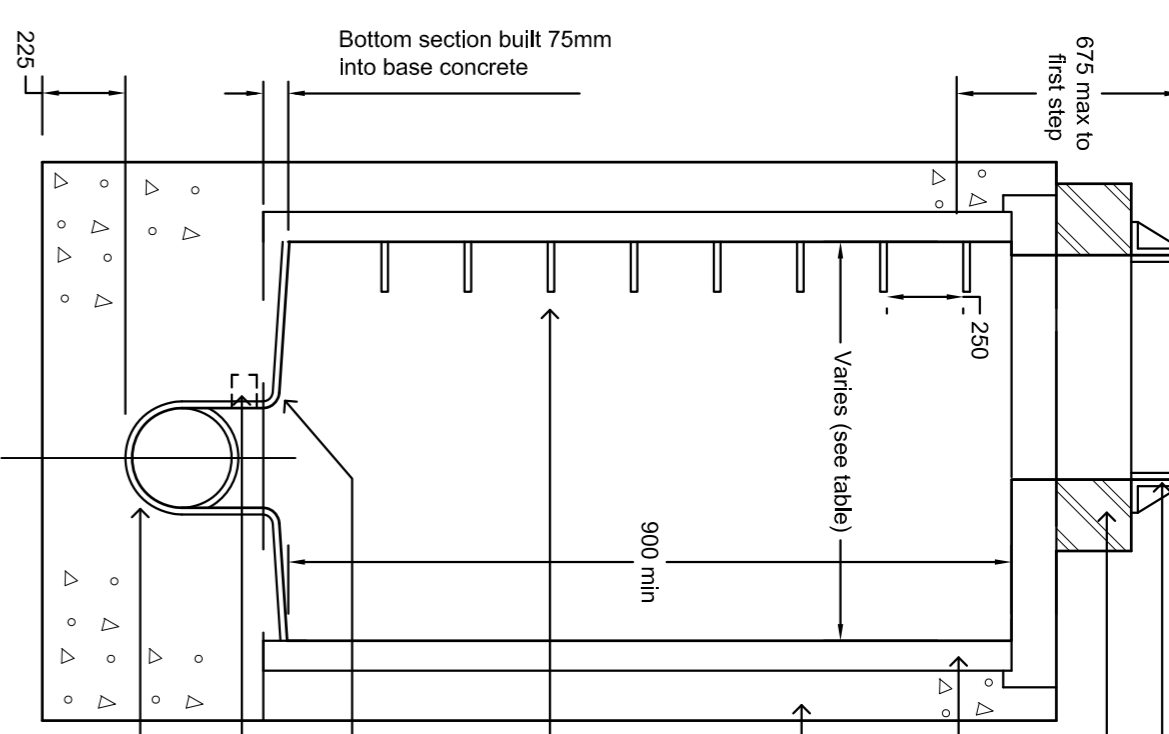
1/6 outside diameter of pipe or 100mm whichever is greater.  
 1/4 outside diameter of pipe or 150mm whichever is greater.

675x675 clear opening manhole cover and frame to BS EN 124 on resin modified mortar in highway or class M1 mortar in unmade ground



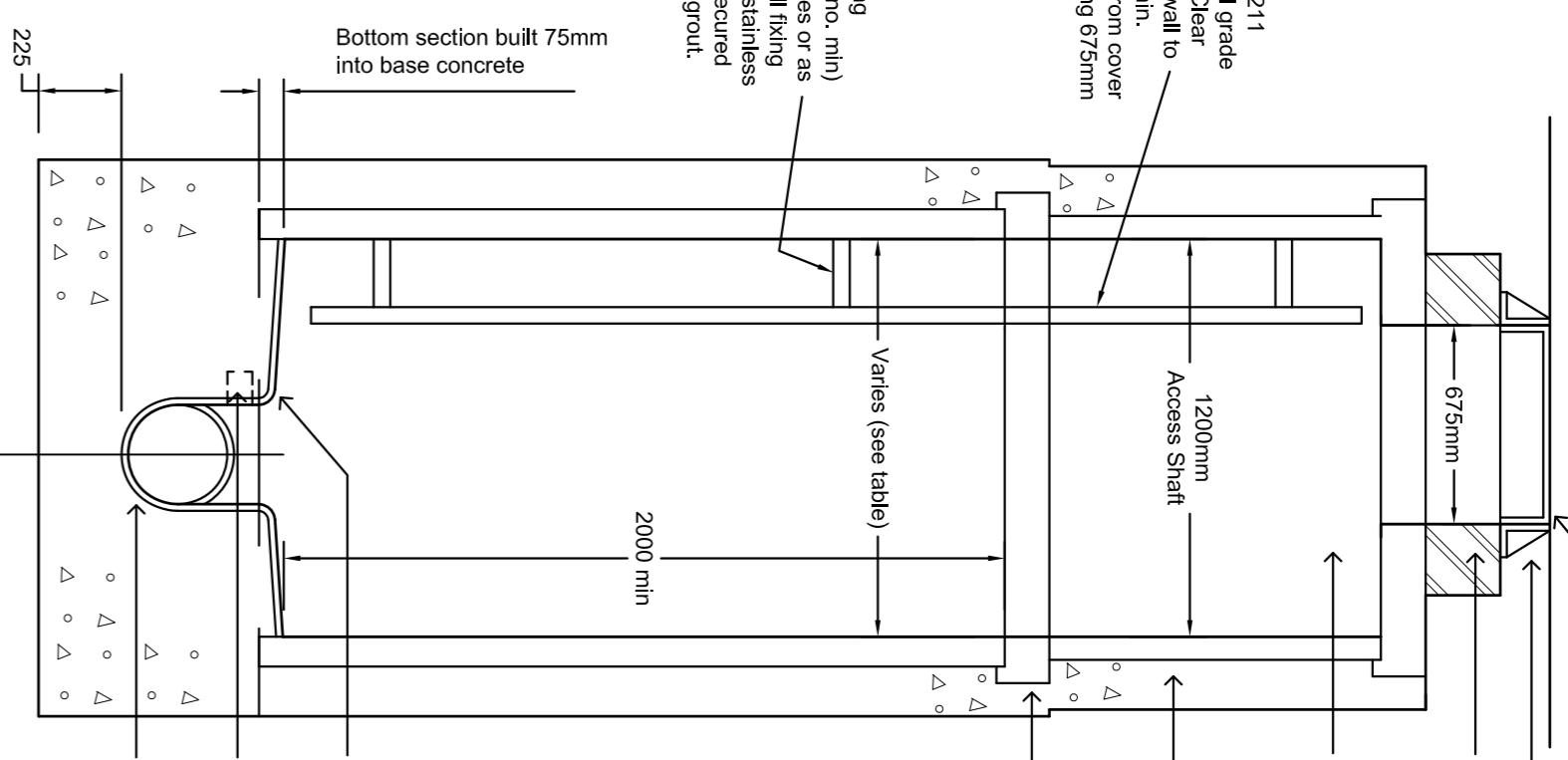
150mm wide concrete surround to frame when in unmade ground  
 Heavy duty reinforced concrete cover slab bedded with mastic sealant  
 Lifting eyes in chamber sections to be against water plugged rings and pointed double ring plastic encapsulated manhole steps  
 150mm thick grade C20 concrete surround to precast concrete manhole sections  
 Grade C20 concrete base

675 x 675mm clear opening manhole cover and frame to BS EN124 class D400.



Mortar haunching to manhole frame  
 Class B engineering bricks or concrete frame sealing rings (min 150 max 300mm overall depth).  
 Precast concrete manhole sections and cover slabs to be bedded with mortar, proprietary bitumen or resin sealant.  
 Grade C20 concrete in min 150mm thickness surround.

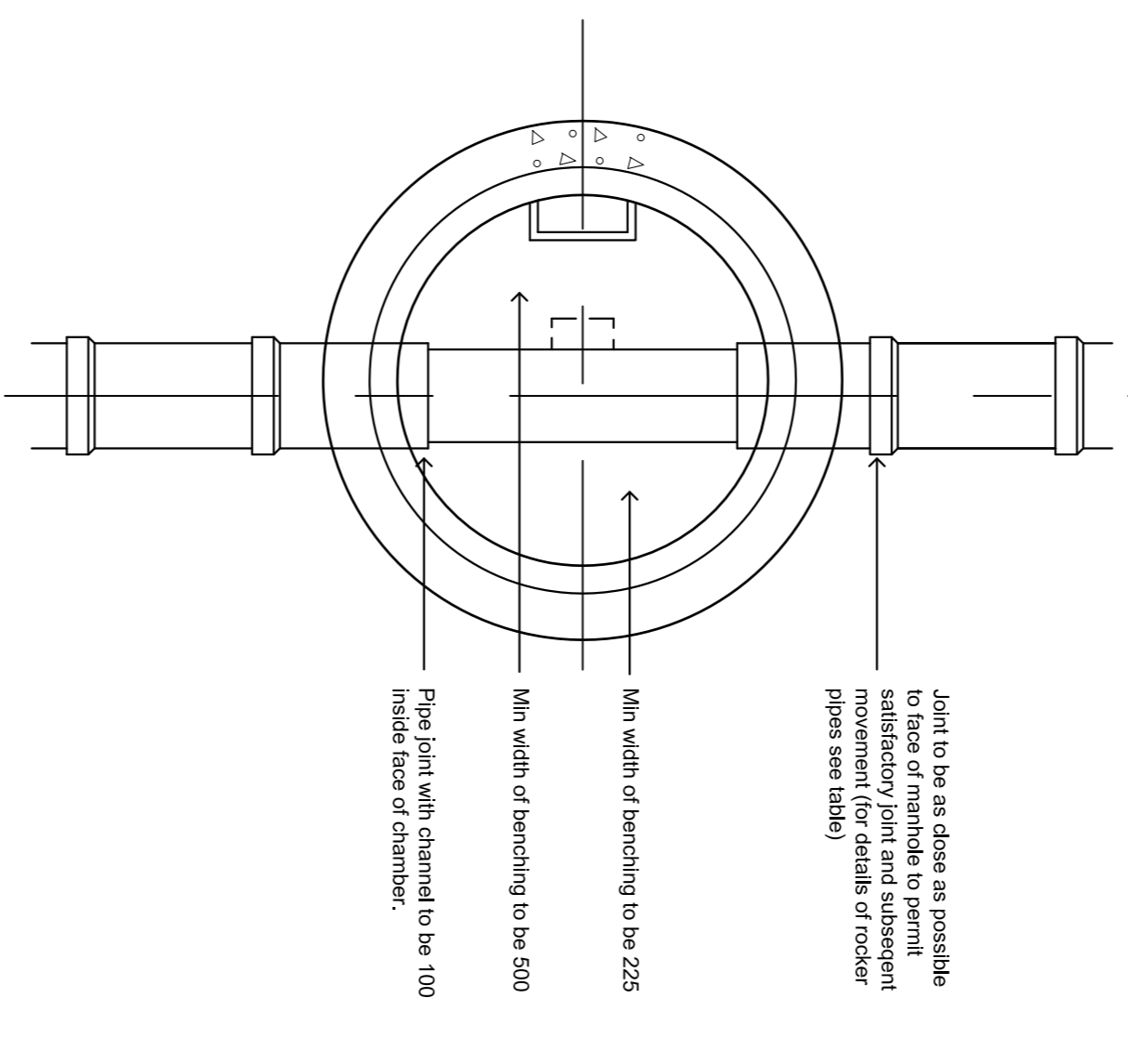
675 x 675mm clear opening manhole cover and frame to BS EN124 class D400.



Mortar haunching to manhole frame  
 Class B engineering bricks or concrete frame sealing rings (min 150 max 300mm overall depth).  
 Precast concrete manhole sections and cover slabs to be bedded with mortar, proprietary bitumen or resin sealant.  
 Grade C20 concrete in min 150mm thickness surround.

### Type B Manhole

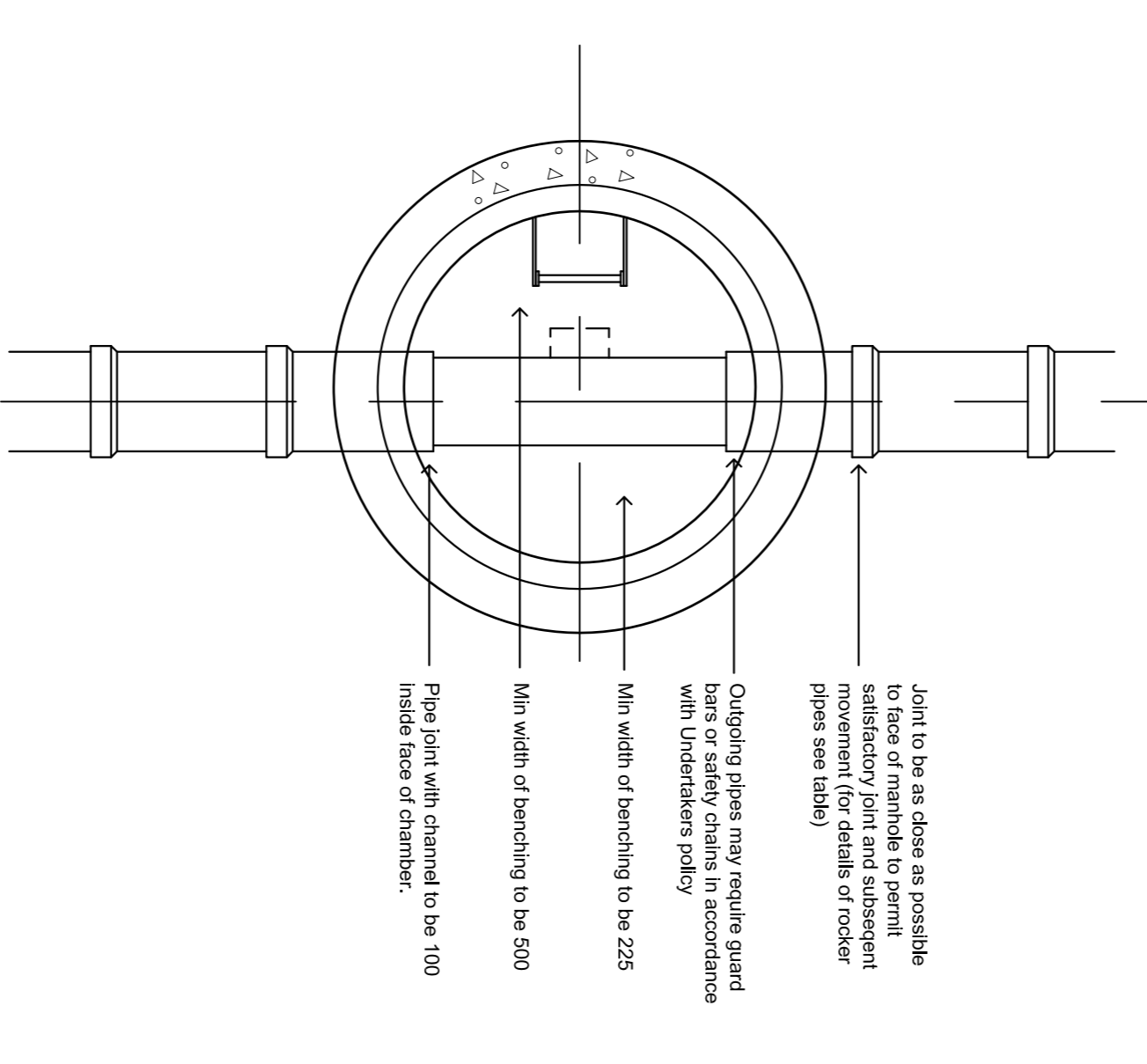
Maximum depth from ground level to soffit of pipe 5m



Mortar haunching to manhole frame  
 Class B engineering bricks or concrete frame sealing rings (min 150 max 300mm overall depth).  
 Precast concrete manhole sections and cover slabs to be bedded with mortar, proprietary bitumen or resin sealant.  
 Grade C20 concrete in min 150mm thickness surround.

### Type A Manhole

Depth from ground level to soffit of pipe 5m to 8m



Mortar haunching to manhole frame  
 Class B engineering bricks or concrete frame sealing rings (min 150 max 300mm overall depth).  
 Precast concrete manhole sections and cover slabs to be bedded with mortar, proprietary bitumen or resin sealant.  
 Grade C20 concrete in min 150mm thickness surround.

Diameters of manholes		
Diameter of largest pipe in manhole (mm)	1200	Internal diameter of manhole (mm)
Less than 375	1500	
375-700	1800	
750-900	1800	Consult Undertaker
Greater than 900		

Rocker Pipes		
Pipe diameter (mm)	Effective length (m)	
150-400	0.60m	
675-930	1.00m	
825 and over	1.25m	

**FOR CONSTRUCTION**

Subject to Section 38 & 104 approval

Rev.	Description	Date	By
A	Drawing status changed to 'For Construction'	26/06/15	JB
1	Prepared	15/06/15	JB

Project: **Colefield Farm Boddicote**

Adoptable Drainage Construction Details

CIVIL STRUCTURAL & ARCHITECTURAL DESIGN SERVICES  
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 Email: mail@bennettsga.com

Scale	Drawn	Checked	Drawing
NTS	CF	JB	15031-310 A
Date	June 2015		