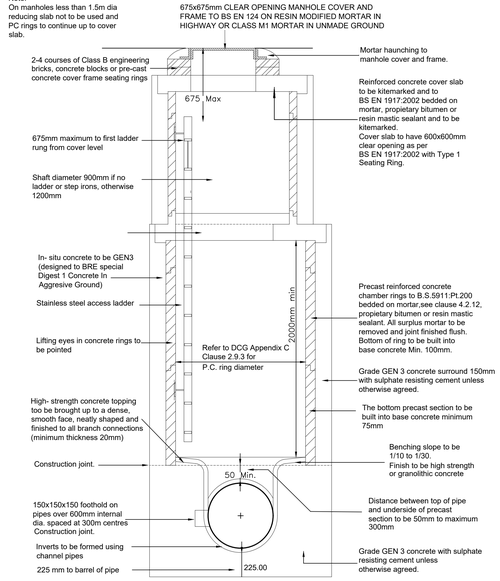
CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing.
Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.

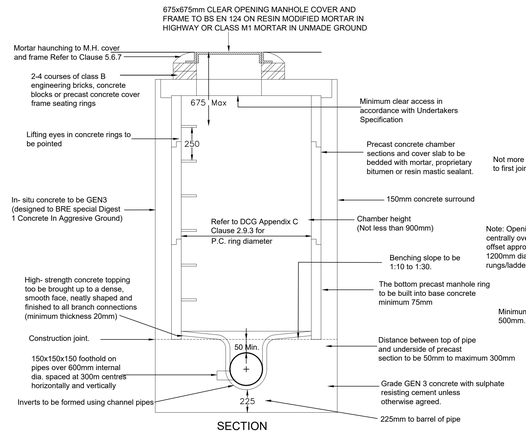
Drawing Subject to change following comments from highways & Staffordshire Moorlands District Coucil.

Note:
On manholes less than 1.5m dia reducing slab not to be used and PC rings to continue up to cover slab.



SECTION

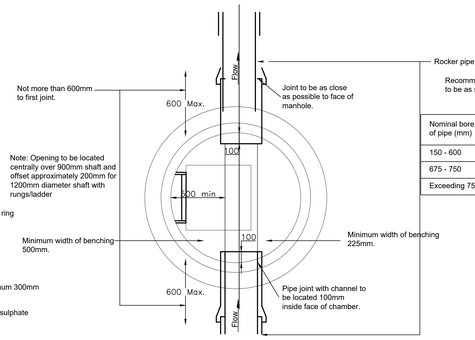
MANHOLE TYPE A.



SECTION

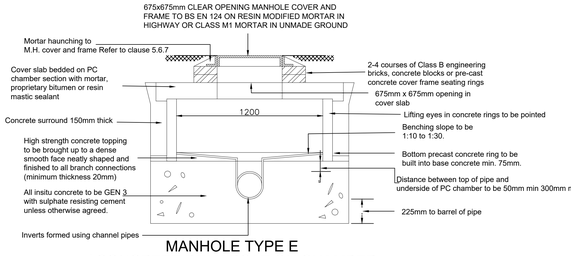
MANHOLE TYPE B.

NOTE
Double width step irons required to all manholes up to 3m deep.



Nominal bore of pipe (mm)	Effective Length (m)
150 - 600	0.6
675 - 750	1.0
Exceeding 750	1.25

PLAN OF TYPE A & B
TYPICAL MANHOLE DETAIL
DEPTH TO CROWN < 3.0m (CHAMBER HEIGHT NOT LESS THAN 900mm)



MANHOLE TYPE E
/ CONCRETE DEMARCATION CHAMBER

Depth from Ground level to soffit of pipe less than 1.5m

Minimum depth of Lateral drains

Location	Minimum Depth (m)
Gardens	0.9
Agricultural/Open spaces	0.9
Highways (inc footways)	1.2

Demarcation chamber covers & frames

Surface	Class (Loading in kN)	Loading
Road	D400	Vehicle Impact
Footway & Driveway	B125	Occasional vehicle loading
Garden	A15	Occasional pedestrian loading

Lateral connection pipes

Diameter (mm)	Gradient	
	Foul	S.W.
150	Min 1:150	Min 1:150

Vitrified clay pipes to BS EN 295 kitemarked.
Unplasticised PVC pipes to BS 4660:200 & BS EN 1401-1 kitemarked.
Structured Wall Unplasticised PVC pipes to WIS 4-35-01 kitemarked.

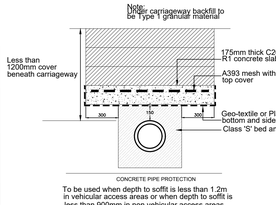
Note
All Drainage works and materials to conform with 'DCG Appendix C'.

Chambers
Type C, D, E & F are non preferred chambers. For type 'B' chambers less than 1.2m from top of benching to the underside of the cover slab, shall have the cover fixed in the centre of the slab and the channels intersecting beneath the cover.

Covers
Manhole covers to be class D400 and have 150mm deep frames where located in the highway.

Step Irons
All step irons shall be double rung and complying clause 4.2.31.
Step irons are suitable for type B manholes, type A manholes require ladders.

Brickwork
All brickwork to be constructed using Class B engineering solids.



To be used when depth to soffit is less than 1.2m in vehicular access areas or when depth to soffit is less than 900mm in non vehicular access areas

Nominal bore of pipe (mm)	Size mm Single sized	Size mm Graded
100-125	10	
150-200	10 or 14	14 to 5
225-300	10, 14 or 20	14 to 5 or 20 to 5
375-500	14 or 20	14 to 5 or 20 to 5
Exceeding 500	14, 20 or 40	14 to 5, 20 to 5 or 40 to 5

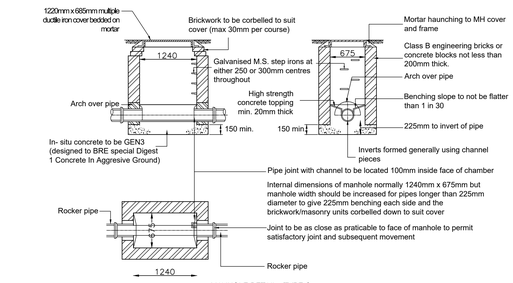
All granular material to be single sized or graded in accordance with BS 882: 1983, sintered pulverized-fuel ash to BS 3797: Part 2: 1976 and air-cooled blast furnace slags to BS 1047: 1983 are suitable.



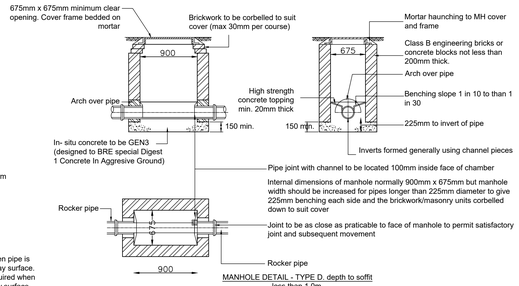
Class S Bedding Factor 2.5
Scale 1:10

Class S bedding to be used when pipe is more than 1200mm from highway surface. Concrete bed and surround required when less than 1200mm from highway surface.

LATERAL DRAIN BEDDING DETAIL



MANHOLE DETAIL - TYPE C,
depth to soffit 1.0m to 1.50m
Not to scale



MANHOLE DETAIL - TYPE D, depth to soffit less than 1.0m.
Not to scale

P1	26.09.25	First Issue		CB	MS
Rev	Date	Amendment		Drawn	Chkd	Appd

LDE
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Client: SALBOY

Project Title: Daisy Bank Farm Tean

Status: DETAILED DESIGN

Drawing Title: Drainage Construction Detail

Drawn	Date	Checked	Date	Approved	Date
CB	SEPT 25	MS	SEPT 25		

Scale	Orig Size	Dimensions
NTS	A0	m

Project No.	File Name
882930	40-16

Drawing No.							Rev.
882930	LDE			DR	D	40-16	P1
Project No.	Orig.	Vol./Sys.	Lev./Loc.	Type	Role	Draw. No.	