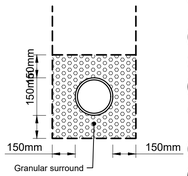
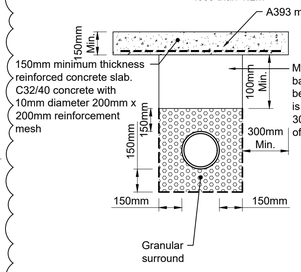
Class S

(Bedding factor = 2.2)
Cover greater than 1.2m



Reinforced Concrete Cover Slab

(Bedding factor = 2.2) Cover less than 1.2m



Typical Pipe Bedding Details

N.T.S

Notes:

1) Any suitable excavated material used as backfill to be approved on site by engineer.

2) Granular surround to be single sized aggregate, 10 or 14mm in size.

3) Trench in Public Highway: Where depth from GL to crown of pipe is less than 1.2m Grade GEN3 concrete cover slab is to be used.

4) Trench in Private Land: Where depth from GL to crown is less than 0.9m in vehicle trafficked areas and less than 0.6m in soft landscaped areas, bed and surround in C20 concrete is to be used.

5) Compressible filler to be bitumen impregnated insulating board to BS1142 or similar approved.

6) All trenches and other excavations beneath or within 1m of carriageways and footways, including drains in carriageways, footways and vehicle crossings, must be refilled with sub- base as specified in Clause 8.1. It is accepted that due to trench widths, the requirements to use rollers to compact the sub-base in trenches may be inappropriate. In these circumstances, alternative compaction equipment may be used to ensure that the compaction requirements are met.

NOTES

1. This drawing to be read in conjunction with all other relevant Engineers and Architect's details.
2. All work is to be carried out in accordance with the current British Standards, codes of practice, building regulations and with Sewers for Adoption 6th Edition guidance.
3. The exact position, level, size and use of existing sewers to be confirmed on site. Any discrepancies to be reported to the Engineer prior to commencement of works.
4. All uncovered and shallow pipework to be protected against construction traffic as part of the Contractor's temporary works requirements.
5. Proposed drainage passing through new foundations to be sleeved with cast-in oversized pipework.
6. Exact location line and level of existing stubs to existing manholes in the road to be confirmed on site prior to construction.
7. See Architect's details for all setting out dimensions to buildings and boundaries etc
8. All connections to road gullies and channels shall be 150mm nominal bore pipework. Connections to RWPs to be 100mm nominal bore pipework subject to confirmation of RWP sizes and/or design flow. No pipe work to be downsized in the direction of flow.
9. Connections to foul terminal fittings to be 100mm nominal bore pipework subject to confirmation of above ground pipe diameters and/or design flow. No pipe work to be downsized in the direction of flow.
10. All pipework to be Vitrified Clay in accordance with BS EN295 unless otherwise noted.
11. All pipes connecting to adopted manholes up to and including 300mm dia. to be Vitrified Clay.
12. All pipes connecting to adopted manholes greater than 300mm dia. to be Concrete.
13. All pipework entering and exiting manholes to be connected with pipe soffits level.
14. Pre-formed channels to be used at all manholes.
15. High strength concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification.
16. Pipe bends to be provided to suit direction of flow.
17. All manhole covers and frames to be ductile iron heavy duty Grade D400 double triangular to BS EN 124 unless otherwise noted. Covers to be labelled 'FW' and 'SW' as appropriate.
18. Gully tops and manhole covers to be provided in accordance with BS EN 124.
19. All new drainage to be constructed adjacent new and proposed tree planting to be protected against root activity using 'rootcontrol' root barrier material by green-tech. All in accordance with the manufacturer's recommendations.
20. First flexible joint in pipes adjacent to a manhole shall be 600mm max. From inside face of manhole, connecting to rocker pipe. For pipe diameters 150mm - 450mm the rocker pipe length shall be 500mm - 750mm and for pipe diameters 451mm - 675mm the rocker pipe length shall be 750mm - 1000mm.
21. All soft spots encountered in the trench formation to be removed and replaced with graded granular material unless instructed otherwise.
22. Where a pipe trench is within 1m of a building, the pipe is to be provided with concrete protection and the trench filled with concrete up to a level below the building equal to the distance from the building less 150mm.
23. Where the formation of a pipe trench is above original ground level, levels are to be made up with compacted DTP Type 2 material or better.
24. All buried concrete must cater for Class 2 sulphates conditions in accordance with Table 1 of BRE digest 363.
25. Concrete protection shall be provided to all pipes with less than 300mm cover in pedestrian areas, to all pipes with less than 600mm cover in private driveways not used by commercial vehicles, and to all pipes with less than 1200mm cover in roads or private driveways used by commercial vehicles. Where concrete surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each point.
26. The design of any temporary works required shall be the responsibility of the Contractor.
27. Do not scale this drawing. All dimensions are in millimetres unless noted otherwise. Any discrepancies are to be recorded and reported to the Engineers immediately.
28. All work is to be to the satisfaction of the Engineer, Anglian Water and Lincolnshire County Council Highways.
29. The Contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
30. All workmanship and materials are to be to current British standards.
31. All services are to be located and protected as necessary by the Contractor prior to the commencement of the works.

General Notes

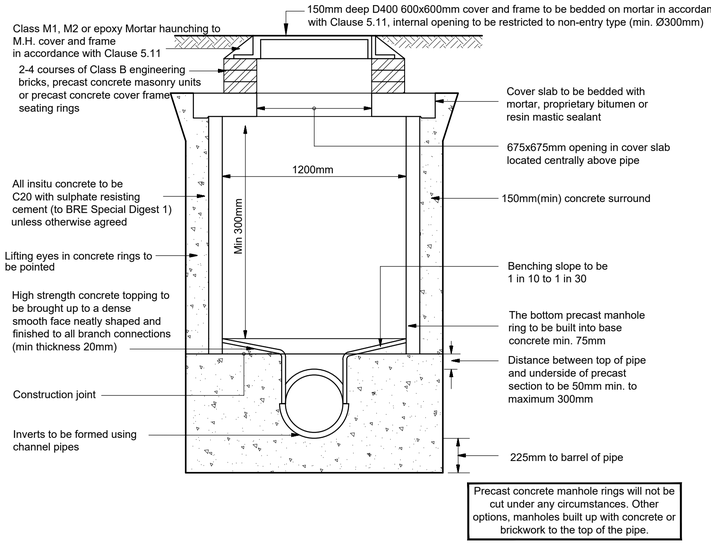
1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings and details.
3. Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
4. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the Contractor commence site work prior to such approval being given it is entirely at their own risk.
5. Sketch proposals are for illustrative purposes only and as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design and planning / density negotiations.
6. All dimensions are in millimetres unless otherwise stated.
7. The Farrow Walsh Consulting Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any works on site.

Typical Type E Manhole Detail

N.T.S

Depth from ground level to soffit of pipe 1.0m to 1.50m

Approval of the Undertaker must be given for installation of this type of manhole



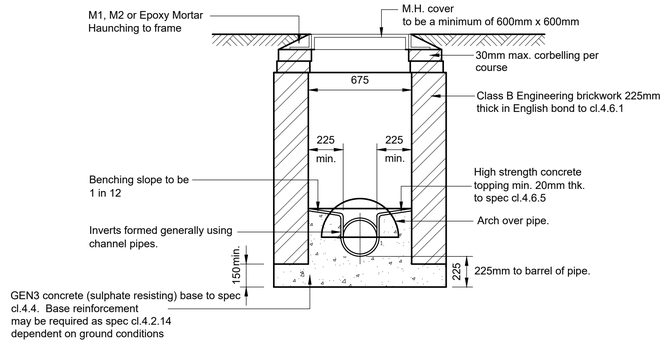
Precast concrete manhole rings will not be cut under any circumstances. Other options, manholes built up with concrete or brickwork to the top of the pipe.

Typical Type D Manhole Detail

N.T.S

Depth from cover level to soffit of pipe less than 1.00m.

Approval of the Undertaker must be given for installation of this type of manhole

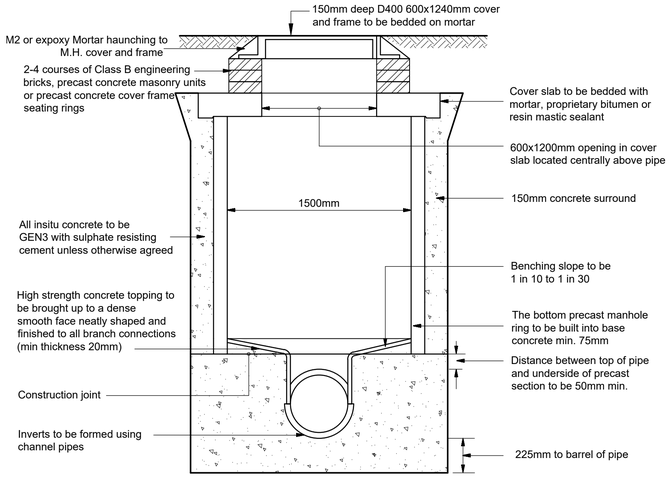


Typical Type E (Special) Manhole Detail

N.T.S

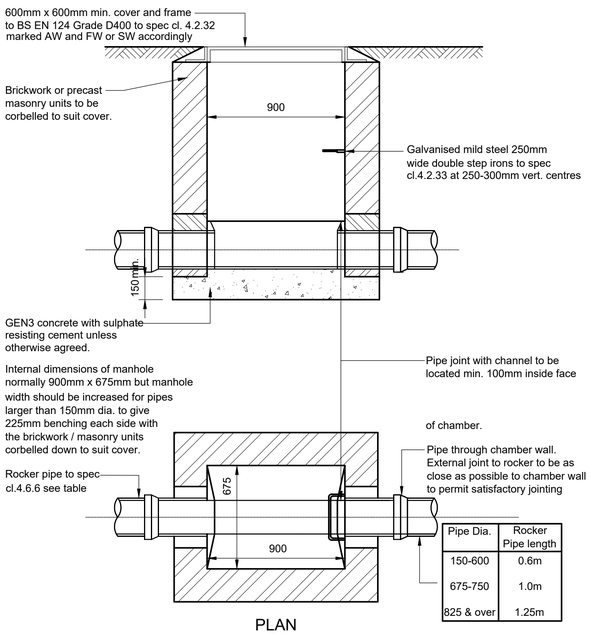
Depth from ground level to soffit of pipe 1.0m to 1.5m

Approval of the Undertaker must be given for installation of this type of manhole



Precast concrete manhole rings will not be cut under any circumstances. Other options, manholes built up with concrete or brickwork to the top of the pipe.

All materials used are to be BS kite marked



Pipe Dia.	Rocker Pipe length
150-600	0.6m
675-750	1.0m
825 & over	1.25m

PLAN

Rev	Description of updates	Drawn	Check'd	Appr'd	Date
T6	Details updated to suit comments received from LCC.	PU	CB	JD	22.10.19
T5	Drawing updated to suit AW comments dated 03.10.2019.	CB	BM	JD	04.10.19
T4	Type A & B Manhole details replaced with Type E(S) and D to suit revised design	JD	BM	DM	02.10.19
T3	Type A & B Manhole details amended to suit Anglian Water comments.	CC	BM	JD	16.07.19
T2	Client updated to GEDA Construction Ltd.	CC	CB	BM	24.05.19
T1	Issued for Tender.	PU	CC	JD	18.04.19

Revision Schedule

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TENDER

Client: GEDA Construction Ltd.

Project: Station Road, Long Sutton

Title: Adoptable Drainage Construction Details Sheet 1 of 2

Drawn:	Checked:	Approved:	Date:	Scale:
PJ	CC	JD	April 2019	As Shown @ A1

Drawing No. **FW1733-D-405** Revision: **T6**

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