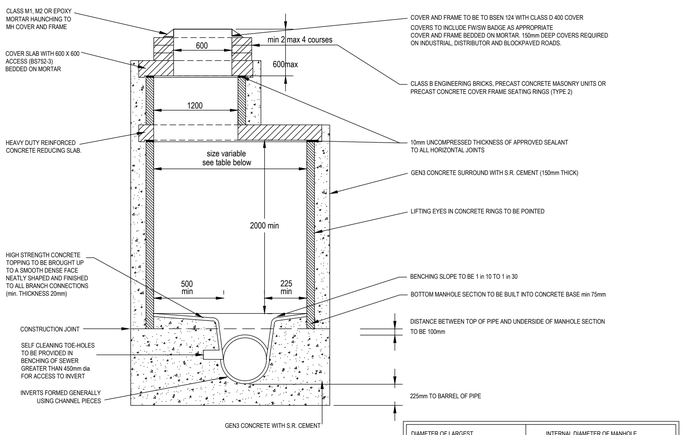
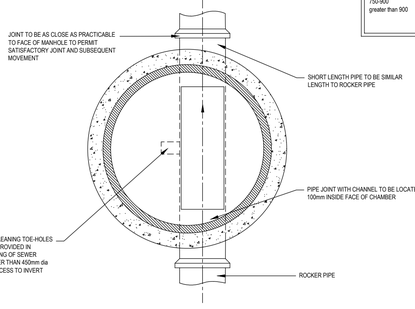
TYPICAL MANHOLE DETAIL - TYPE A

depth to soffit 3m to 6m (measured from finished cover level to soffit of pipe).



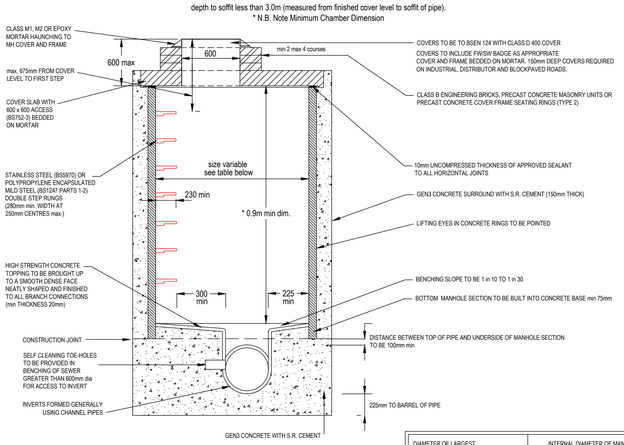
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE
less than 375	1200
375-700	1500
750-900	1800
greater than 900	Consult Sewerage Undertaker



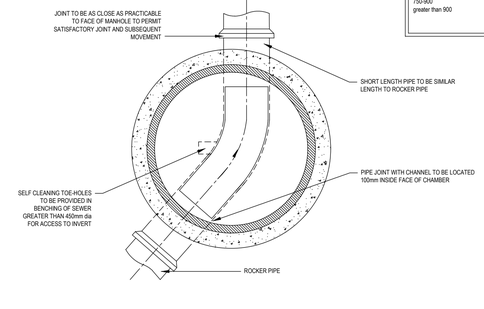
PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.600
675-750	1.000
OVER 750	1.250

TYPICAL MANHOLE DETAIL - TYPE B

depth to soffit less than 3.0m (measured from finished cover level to soffit of pipe).
* N.B. Note Minimum Chamber Dimension

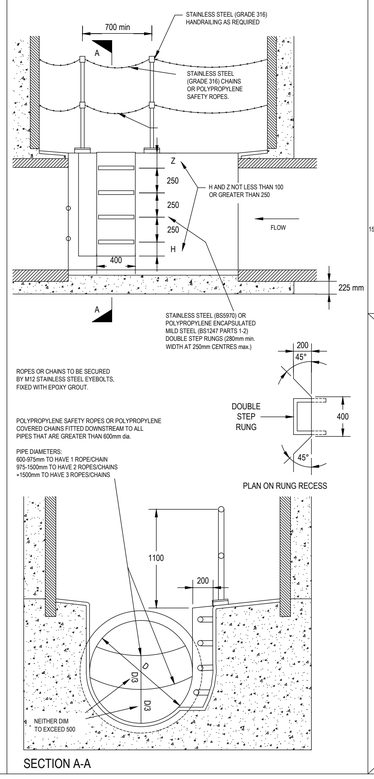


DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE
less than 375	1200
375-700	1500
750-900	1800
greater than 900	Consult Sewerage Undertaker



PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.600
675-750	1.000
OVER 750	1.250

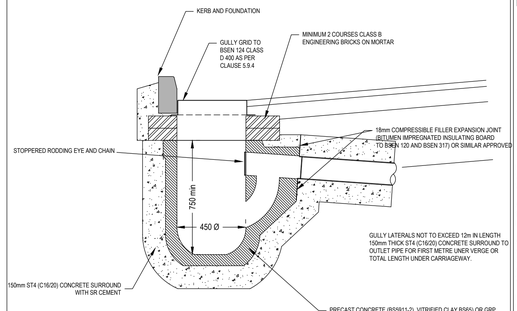
ACCESS TO INVERT FOR PIPES EXCEEDING 600mm Ø.



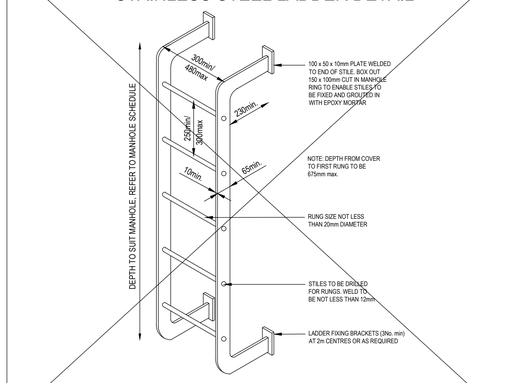
SECTION A-A

PLAN ON RUNG RECESS

SECTION THROUGH ROAD GULLY



STAINLESS STEEL LADDER DETAIL



NB: IF A GLASS REINFORCED PLASTIC (GRP) LADDER IS TO BE USED INSTALLATION SHALL BE TO THE MANUFACTURERS INSTRUCTIONS.

NOTES:

MANHOLES WITH AN INCOMING SEWER OF 900mm DIAMETER AND OVER TO BE AS APPROVED BY THE WATER AUTHORITY

CHAMBERS WITH OUTGOING PIPES GREATER THAN 600mm DIAMETER SHALL BE FITTED WITH STAINLESS STEEL SAFETY CHAINS TO SDS/05 OR POLYPROPYLENE SAFETY ROPES

ALL PRECAST CONCRETE PRODUCTS TO CONTAIN A MINIMUM CLASS 3 SULPHATE RESISTANT CEMENT.
ALL SEWERS PROPOSED FOR ADOPTION UNDER A SECTION 104 AGREEMENT OF THE WATER INDUSTRY ACT 1991 TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROCEDURES AND SPECIFICATIONS OF SEWERAGE SECTOR GUIDANCE (SSG) V1.0 (OCTOBER 2019) AND DESIGN AND CONSTRUCTION GUIDANCE (DCG) V2.0 (MARCH 2020).

FOUL BRANCH CONNECTIONS TO BE 100mm dia. LAID NO FLATTER THAN 1:80 WHERE SERVING 9 PLOTS OR LESS AND 150mm dia. LAID NO FLATTER THAN 1:150 WHERE SERVING 10 PLOTS OR MORE (UNLESS OTHERWISE STATED).

ALL SEWERS AND LATERAL DRAINS WITHIN DOMESTIC CURTILAGE OF DIAMETER 100mm AND 150mm TO BE EITHER CLAY PIPES EXTRA STRENGTH OR PVC-U TO BS EN 1401-1:1998 & BS 4660:2000.

ALL PIPEWORK TO BE LAID SOFFIT TO SOFFIT UNLESS OTHERWISE STATED.
ALL PIPES 100mmØ & 150mmØ TO BE PROVIDED WITH CLASS S BEDDING (14mm - 5mm GRAVEL BED AND SURROUND).
ALL PIPES 100mmØ & 150mmØ WITH COVER LESS THAN 1.2m TO BE PROVIDED WITH CONCRETE PROTECTION.

PRECAST CONCRETE PRODUCTS AND IN-SITU CONCRETE TO CONTAIN A MINIMUM CLASS 3 S.R.C.
STRUCTURAL CONCRETE TO BE IN ACCORDANCE WITH BS 5328 AND NOT TO BE LESS THAN GRADE FND2 WHEN REINFORCED AND GEN3 IN ALL OTHER SITUATIONS.
CAST CONCRETE SHALL BE FINISHED TO PRODUCE A "FAIR" SURFACE WHERE EXPOSED AND SHALL HAVE A "ROUGH" FINISH IN ALL OTHER SITUATIONS.
STEELWORK SHALL BE IN ACCORDANCE WITH BS4483.

ALL MANHOLE COVERS TO BE 600x600 CLEAR OPENING IN ACCORDANCE WITH B.S. EN124 CLASS D400 AND EMBOSSED FW.

MANHOLES ON SEWERS 600mm DIAMETER AND GREATER TO BE FITTED WITH SAFETY CHAINS TO AWS ORG SDS/05.

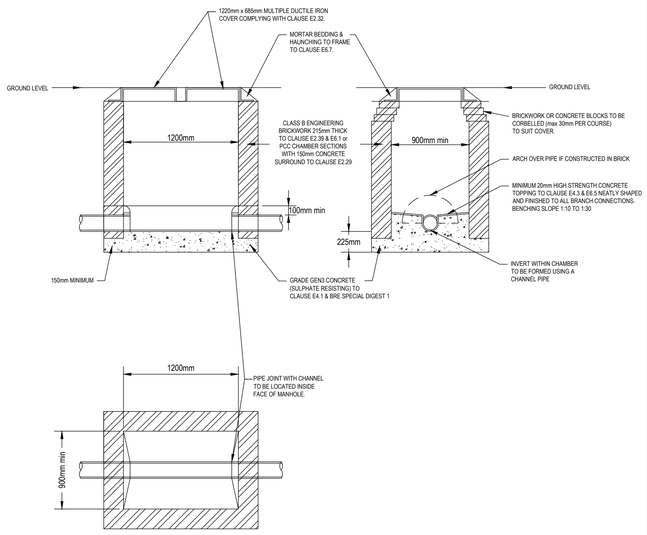
THE FIRST MANHOLE UPSTREAM FROM THE CONNECTION TO THE (EXISTING) PUBLIC SEWER SHOULD, WHEN CONSTRUCTED, BE FITTED WITH A SCREEN IN ORDER TO PREVENT CONSTRUCTION DEBRIS ENTERING THE PUBLIC SEWER. THE SCREEN SHOULD NOT BE REMOVED UNTIL IMMEDIATELY PRIOR TO THE OCCUPATION OF THE FIRST DWELLING TO BE SERVED BY THE SEWER.

ALL GULLIES WITHIN THE HIGHWAY SHALL CONFORM TO BSEN124,GRP 4 (CLASS D400). ALL GULLIES SHALL BE HINGED BUT NON- REMOVABLE AND SHALL HAVE A NOMINAL WIDTH OF 450mm WITH A MINIMUM AREA OF WATERWAY OF 900cm² FOR CARRIAGEWAYS AND A CLEAR OPENING OF AT LEAST 300mm x 300mm FOR FOOTWAYS. THE UPPER SURFACE OF GULLY GRATINGS SHALL BE FLAT AND SLOTS IN GRATINGS OR BETWEEN GRATINGS AND FRAMES SHALL NOT BE ORIENTATED PARALLEL TO THE DIRECTION OF TRAFFIC EXCEPT WHERE THE SLOTS ARE LESS THAN 150mm LONG OR LESS THAN 20mm WIDE. WHERE GRADIENTS ARE STEEPER THAN 1:50, STORM PATTERN GRIDS SHALL BE PROVIDED.

GULLIES WITHIN SHARED SURFACE (BLOCK PAVED) AREAS SHALL BE FITTED WITH CROSS-HATCH COVERS SUCH AS CLARK DRAIN 185kmd OR SIMILAR.

TYPICAL MANHOLE DETAIL - TYPE C (rectangular option)

depth to soffit less than 1.5m (measured from finished cover level to soffit of pipe).



NOTE:
INTERNAL DIMENSIONS OF CHAMBER NORMALLY 1200 x 900 BUT CHAMBER WIDTH SHOULD BE INCREASED FOR PIPES LARGER THAN 225 DIA. (max 450mm DIA)
TO GIVE A min. 225mm BENCHING EACH SIDE, WITH THE BRICKWORK / MASONRY UNITS CORBELLED DOWN TO SUIT COVER.

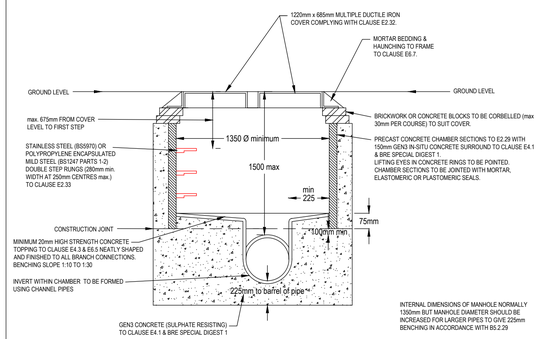
ALL PIPES UP TO AND INCLUDING 450mm DIA ENTERING OR LEAVING MANHOLES SHALL HAVE A FLEXIBLE JOINT WITHIN 600mm OF THE INSIDE FACE OF THE MANHOLE. THE NEXT PIPE SHALL BE A 600mm LONG "ROCKER PIPE"

THE USE OF PRECAST CONCRETE CHAMBER UNITS TO E2.29 WITH 150mm GEN3 IN-SITU CONCRETE COMPLYING WITH CLAUSE E4.1 AND BRE SPECIAL DIGEST 1 IN PLACE OF BRICKWORK CONSTRUCTION IS PERMITTED.

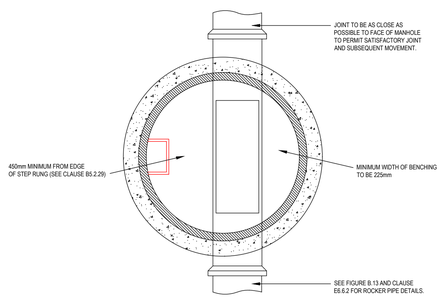
REDRAWN FROM AWS FIGURE B 14 - SSG Appendix C

TYPICAL MANHOLE DETAIL - TYPE C (circular option)

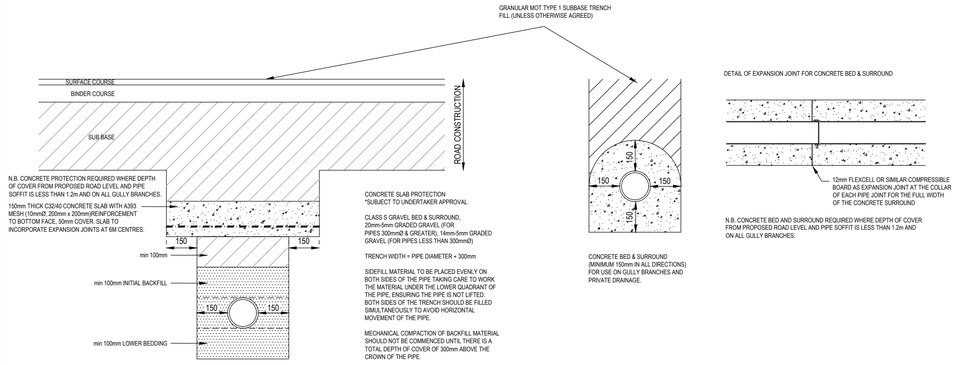
depth from finished cover level to soffit of pipe less than 1.50m
(N.B. Approval of the undertaker must be given
for the installation of this type of manhole).



INTERNAL DIMENSIONS OF MANHOLE NORMALLY 1350mm BUT MANHOLE DIAMETER SHOULD BE INCREASED FOR LARGER PIPES TO GIVE 225mm BENCHING IN ACCORDANCE WITH BS.2.29



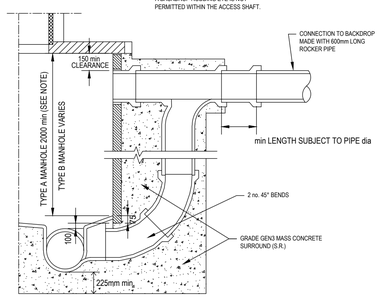
PIPE SURROUND DETAILS



N.B. CONCRETE BED AND SURROUND REQUIRED WHERE DEPTH OF COVER FROM PROPOSED ROAD LEVEL AND PIPE SOFFIT IS LESS THAN 1.2m AND ON ALL GULLY BRANCHES.

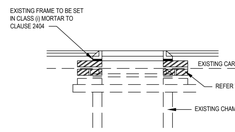
SECTION THROUGH BACKDROP INLET

NOTE:
STEEPER GRADIENT TO SEWER ARE PREFERRED RO THE USE OF BACKDROPS. A BACKDROP RODDING EYE IS NOT PERMITTED WITHIN THE ACCESS SHAFT.



REDRAWN FROM AWS DRG No SD-S-04

ADJUSTMENT OF COVERS & FRAMES

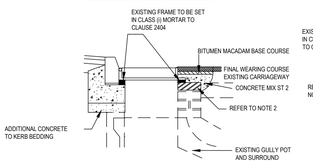


RAISING OF MANHOLE COVER AND FRAME

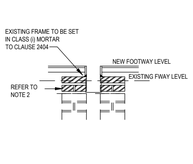
NOTES:

1. ALL RAISING (OR LOWERING) OF COVER AND GRATINGS ON EXISTING CHAMBERS GULLIES AND SERVICE BOXES TO BE CARRIED OUT IN ACCORDANCE WITH CLAUSE 507.

2. CLASS 'TYPE' ENGINEERING BRICKS TO CLAUSE 2406 LAID IN ACCORDANCE WITH CLAUSE 2412 IN CLASS (i) MORTAR TO CLAUSE 2404. TOP COURSE TO BE LAID AS HEADERS.



RAISING OF GULLY COVER AND FRAME



RAISING OF SERVICE BOX

DO NOT SCALE. USE FIGURED DIMENSIONS ONLY. CHECK ON SITE AND ALL DISCREPANCIES TO BE REPORTED TO HALL infrastructure DESIGN LTD.

AMENDMENTS:

REF.	DESCRIPTION.	DATE.	BY.
A	Type A detail amended to AWS requirements	25.06.10	GWH
B	GULLY DETAIL UPDATED TO LCC:2010 STANDARDS	15.11.10	GWH
C	Manholes type C & K removed as requested by AWS.	30.08.11	GWH
D	Ladder removed from Type A manhole detail.	06.03.14	GWH
E	Gully detail amended.	30.10.14	GWH
F	Type E manhole detail added.	11.12.15	GWH
G	Type A & B manhole cover slabs changed to 600x600 opening.	15.02.17	GWH
H	Type 1 seating rings removed as requested by AWS 28.06.17	28.06.17	GWH
I	Gully note added as requested by NELC 08.02.18	08.02.18	GWH
J	Raising of gully cover and frame detail amended.	16.05.19	GWH
K	Pipe surround concrete protection detail amended to fig 5/13 LCCDRS	17.02.20	GWH
L	Amended to suit SSG / DCG specification.	11.01.21	GWH

CLIENT:
Truelove Property & Construction Ltd

PROJECT:
Low Road
Worlaby
North Lincs

TITLE:
SSG and DCG Specification
Manhole, gully & bedding details

SCALE:	DATE:	SIZE:
N.T.S.	October 2009	A1

DRAWING No:	DRAWN BY:	CHECKED BY:
SD/002-L		

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