

TYPICAL SILT TRAP DETAILS

NOMINAL PIPE DIAMETER, mm	MAXIMUM EFFECTIVE LENGTH (m)
150-600	0.6
601-750	1.0
OVER 750	1.25

ROCKER PIPE DETAILS TO DCG APPROVED VERSION 2.2 RIGID PIPES BUILT INTO M/H TO HAVE FLEXIBLE JOINTS A S CLOSE AS POSSIBLE TO THE EXTERNAL FACE OF THE STRUCTURE AND THE LENGTH

OF THE NEXT ROCKER PIPE SHOULD BE AS SHOWN IN THE TABLE ABOVE.

MORTAR BEDDING AND HAUNCHING -TO MH COVER AND FRAME. REFER TO CLAUSE E6.7 FROM DCG APPROVED VERSION 2.2.

COVER SLAB BEDDED ON PC CHAMBER SECTION WITH MORTAR, PLASTOMERIC OR ELASTOMERIC SEAL CONFORMING TO BS EN 1917 AND BS 5911-3. SEE CLAUSE E2.29 FROM DCG APPROVED VERSION 2.2.

150mm THICK CONCRETE SURROUND TO BE -----GEN3 (DESIGNED TO BRE SPECIAL DIGEST 1 CONCRETE IN AGGRESSIVE GROUND) AND COMPLY WITH CLAUSE E4.1 FROM DCG **APPROVED VERSION 2.2** CHAMBER HEIGHT (NOT LESS THAN ____ 900mm)

MINIMUM 20mm THICK HIGH-STRENGTH CONCRETE TOPPING NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS COMPLYING WITH CLAUSES E4.3 AND E6.5 FROM DCG APPROVED VERSION 2.2. BENCHING SLOPE TO BE 1:10 TO 1:30.

CONSTRUCTION JOINT

SELF CLEANING TOE HOLES TO BE PROVIDED WHERE CHANNEL WIDTH EXCEEDS 600mm

IN-SITU GEN 3 CONCRETE COMPLYING WITH E4.1 AND BRE SPECIAL DIGEST 1

LAID OVER 150mm MIN. CONSOLIDATED THICKNESS OF TYPE 1 GRANULAR MATERIAL DEPENDING ON GROUND CONDITIONS.

JOINTS TO BE AS CLOSE AS POSSIBLE TO FACE OF MANHOLE TO PERMIT SATISFACTORY JOINT AND SUBSEQUENT MOVEMENT

DOUBLE STEP RUNGS PLASTIC ENCAPSULATED COMPLYING WITH CLAUSE E2.33 FROM DCG APPROVED VERSION 2.2

MINIMUM WIDTH OF BENCHING FOR LANDING-AREA TO BE 450mm FROM EDGE OF LADDER TO EDGE OF CHANNEL. SEE CLAUSE B5.2.29 FROM DCG APPROVED VERSION 2.2.

NOTE: OPENING TO BE LOCATED CENTRALLY OVER 900mm SHAFT AND OFFSET APPROXIMATELY 200mm FOR 1200mm DIAMETER WITH RUNGS/LADDER.

NOMINAL PIE DIAMETER, NOT EXCEED EXCEEDING BUT NOT EX EXCEEDING



SECTION

TYPICAL MANHOLE DETAIL - TYPE B DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 1.5M TO 3M



PLAN **TYPICAL MANHOLE DETAIL - TYPE B**

PE mm	AGGREGATE SIZE, mm	
	GRADED	SINGLE-SIZED
DING 140	-	4/10
140 CEEDING 400	2/14 or 4/20	4/10, 6/10 or 10/20
G 400	2/14, 4/20 or 4/40	4/10, 6/14 or 10/20 or 20/40

TABLE 5/3:(05/04) BS EN 13242, COARSE AGGREGATE FOR PIPE BEDDING, HAUNCHING AND SURROUND MATERIAL

600x600mm CLEAR OPENING MANHOLE, COVER AND FRAME TO BS EN 124 ON RESIN MODIFIED MORTAR IN HIGHWAY OR CLASS M1 MORTAR IN UNMADE GROUND.

COVER & FRAME TO BE AS FOLLOWS: GRADE D400 TO EN124 IN CARRIAGEWAYS, GRADE B125 IN VERGES & FOOTWAYS. COVERS & FRAMES ON PRIVATE MANHOLES TO HAVE 600mm CLEAR OPENING. COVERS AND FRAMES ON MANHOLES TO BE ADOPTED TO BE 150mm DEEP WITH 600mm CLEAR OPENING. ON RESIDENTIAL CUL-DE-SACS MIN. FRAME DEPTH TO BE 100mm

1-4 COURSES OF CLASS B ENGINEERING BRICKS, CONCRETE BLOCKS OR PRECAST CONCRETE COVER FRAME SEATING RINGS

PRECAST CONCRETE MANHOLE SECTIONS AND COVER SLAB TO BE BEDDED WITH MORTAR, PLASTOMERIC OR ELASTOMERIC SEAL CONFORMING TO BS EN 1917 AND BS5911-3. SEE CLAUSE E2.29 FROM DCG APPROVED VERSION 2.2

LIFTING EYES IN CHAMBER SECTIONS TO BE SEALED AGAINST WATER INGRESS AND POINTED.

- THE BOTTOM PRECAST SECTION TO BE BUILT INTO BASE CONCRETE MINIMUM 75mm

- DISTANCE BETWEEN TOP OF PIPE AND UNDERSIDE OF PRECAST SECTION TO BE MIN 50mm TO MAX 300mm 225mm TO BARREL OF PIPE

INVERTS TO BE FORMED USING CHANNEL PIPES

EXIBLE SE MINIMUM 50mm GAP BETWEEN SLAB AND CHAMBER UNIT MINIMUM 150mm THICK GRANULAR TYPE 1 SUB-BASE MATERIAL TO CLAUSE E2.43 OF DCG **APPROVED VERSION 2.2** OR GEN3 IN-SITU CONCRETE SURROUND COMPLYING WITH CLAUSE E4 1 (DCG) AND **BRE SPECIAL DIGEST 1** JOINTS BETWEEN -BASE AND SHAFT AND SHAFT COMPONENTS TO BE FITTED WITH WATERTIGHT SEALS GRANULAR BEDDING DA DO MATERIAL INVERT OF CONNECTING PIPE AT LEAST 50mm ABOVE THAT OF THE MAIN PIPE UNUSED INLETS TO BE SEALED AND WATERTIGHT

WHERE CHAMBERS ARE POSITIONED

MAIN CHANNEL BY FITTING A 45° BEND

ON 90° CORNERS ALWAYS USE THE

MORTAR BEDDING AND

FRAME TO CLAUSE E6.7

FROM DCG APPROVED

SURFACE COURSE -

BINDER COURSE -

BASE COURSE -

VERSION 2.2

HAUNCHING TO COVER AND

ON THE INLET AND OUTLET TYPICAL ACCESS CHAMBER **FLEXIBLE MATERIA**





CLASS Z BEDDING CONCRETE SURROUND

PIPES LAID WITHIN HIGHWAY LIMITS & TRAFFICKED AREAS: CONCRETE BED AND SURROUND TO BE USED WHERE COVER TO PIPE CROWN IS LESS THAN 1200MM. CONCRETE SURROUND TO PIPES TO HAVE EXPANSION JOINT AT EVERY PIPE JOINT.

1st FLOOR, ASHLEIGH COURT ASHLEIGH WAY AINC LANGAGE BUSINESS PARK PLYMPTON c o n ting PL7 5JX Tel: 01752 229119 Fax: 01752 222115 admin@aireyandcoles.co.uk PROJECT COMMUNITY DIAGNOSTICS CENTRE, PLYMOUTH DRAWING TITLE TYPICAL DRAINAGE DETAILS SCALE DATE DRAWN BY CHECKED DEC 23 JCF 1:20 CN INTERNAL REFERENCE REVISION 11409 - C120 PROJ-VOLUME-LEVEL-ROLE-ORIG-FILETYPE-CLASSIFICATION-NUMBER

P1

REV.

08.12.23

DATE.

PRELIMINARY ISSUE

NOTE.

JCF

CN

BY. CHK.

- AS SMALL AS PRACTICAL BUT NOT LESS THAN

GRANULAR BED AND SURROUND TO CLAUSE 503 TABLE 5/3 OF SPECIFICATION FOR HIGHWAY

- PIPES TO BE:- CONCRETE TO BS 5911, V.C TO BS EN

EXCAVATED OR IMPORTED GRANULAR MATERIAL, WELL CONSOLIDATED.

RINGS

FRAME

COVER TO COMPLY WITH BS EN 124 AND

GRANULAR TYPE 1 SUB-BASE

MATERIAL TO CLAUSE E2.43

OF DCG APPROVED VERSION

2.2 (THICKNESS VARIES)

BS 7903 TO CLAUSE E2.32 FROM DCG

- CLASS B ENGINEERING BRICKWORK,

CONCRETE COVER FRAME SEATING

CONCRETE BLOCKS OR PRECAST

PRECAST OR IN-SITU CONCRETE

SLAB TO SUPPORT COVER AND

APPROVED VERSION 2.2

SHAFT DURING

CONSTRUCTION

	ACCESS OPENING RESTRICTED TO		PERMIT TO
	350MM DIAMETER OR 300 x 300MM IF		FROM SWW
WITH	DISTANCE FROM COVER LEVEL TO		PUBLIC SEV
(DCG) AND	SOFFIT OF PIPE IS > 1M	5.	WHERE THE
DIGEST 1			PUBLIC SEV
			MANHOLE C
	OR 450 x 450MM		SUBMISSION
			FORM TO SI
		6	
ГS ТО ВЕ 💦 🥵 🖌 🖉	CONNECTIONS WITH SOFFIT	0.	
	LEVELS SET NO LOWER THAN		
T SEALS	THAT OF THE MAIN PIPE		
	SEE DCG APPROVED VERSION		SHALL DE I
	2.2 CLAUSE F6.6.2 FOR	_	ACCORDAN
	ROCKER PIPE DETAILS	7.	THE USE OF
			AND VALVE
			STEEL PLAS
CONNECTING			BE USED IN
ST 50mm ABOVE			PLASTIC EN
E MAIN PIPE			MH'S UP TO
			ACCORDAN
			DEEP. MH'S
	JOINT TO BE AS CLOSE AS		DESIGNED A
FLOW	POSSIBLE TO FACE OF		HOLES IN IN
	CHAMBER TO PERMIT		GALVANISE
$\lambda \parallel \langle \Lambda_{-} \rangle$	SATISFACTORY JOINT AND		FALLING TH
	SUBSEQUENT MOVEMENT		PERMIT THE
			GROUND LE
	FLEXIBLE INLETS / OUTLET AND	8	ONLYLOW
		0.	FOR VERTIC
	45°).	a	PROPOSED
		0.	
MBERS ARE POSITIONED	PLASTIC CHAMBERS AND RINGS		SERVICES
NERS ALWAYS USE THE 🎵 MAIN	SHALL COMPLY WITH BS EN		
IEL BY FITTING A 45° BEND V FLOW	13598-1 & BS EN 13598-2 OR HAVE		
T AND OUTLET	EQUIVALENT INDEPENDENT	10	
	APPROVAL	10.	
DICAL ACCESS CHAMBER DETA			EQUAL INSP
ICAL ACCESS CHAINDER DETA	TOAL ACCESS CHAINDER DETAIL - ITPE D		RED COLOU
ELEXIBLE MATERIAL DETA			SHALL BE LA
			THE PIPE. T
DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE IN AREAS SUBJECT TO VEHICLE			GRAVITY SI
LOADING UP TO 2M (NON ENTRY)			LENGTH AN

THE PLANNING, DESIGN AND CONSTRUCTION OF SEWERS SHALL BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (DCG APPROVED VERSION 2.2) FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION UNDER THE CODE FOR ADOPTION AGREEMENTS FOR WATER AND SEWERAGE COMPANIES OPERATING WHOLLY OR MAINLY IN ENGLAND ("THE CODE") - SEWERAGE SECTOR GUIDANCE APPENDIX C, THE CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7th EDITION AND SOUTH WEST WATER AMENDMENTS TO CESWI DATED MAT 1999. THE MINIMUM SIZE OF SEWER WHERE GUIDE BARS. SAFETY CHAINS, OR OTHER SAFETY DEVICES ARE REQUIRED IN MANHOLES SHALL BE 375MM DIAMETER. ALL TYPE A1 & B MANHOLES SHOULD HAVE A CONCRETE

This drawing is copyright.

NOTES

Contractors must check all dimensions on site.

reported immediately to the engineer before proceeding. Preliminary drawings must not be used for construction purposes

Only figured dimensions are to be worked from. Discrepancies must be

- SURROUND. CONCRETE RINGS SHALL BE SEALED USING 'TOKSTRIP' AND LIFTING EYES POINTED WITH RESIN MODIFIED MORTAR. PPIC'S SHOULD BE INSTALLED IN ACCORDANCE WITH
- DCG APPROVED VERSION 2.2. COMPLIANCE WITH HEALTH & SAFETY MATTERS ON ANY TRENCH/MANHOLE IS OBLIGATORY AND A PERMIT TO ENTER A CONFINED SPACE IS REQUIRED WHEN CONNECTING SITE DRAINAGE TO THE EXISTING PUBLIC SEWERAGE SYSTEM. A ENTER A CONFINED SPACE WILL BE OBTAINED
- V LTD PRIOR TO THE WORKS COMMENCING ON ANY WERAGE SYSTEM. E PROPOSED SITE DRAINAGE CONNECTS TO THE WERAGE SYSTEM EITHER BY NEW JUNCTION, NEW
- OR AT AN EXISTING MANHOLE, IT WILL REQUIRE THE ON OF AN APPLICATION FOR SEWER CONNECTION
- SWW LTD PRIOR TO WORKS COMMENCING. S AND FRAMES SHALL BE DUCTILE IRON WITH A QUARE OPENING OF 600x600MM. COVERS SHALL BE RIANGLE FOR 600MM SQUARE OPENINGS AND BE
- 150MM. COVERS TO PPIC'S SHALL BE IN NCE WITH DCG APPROVED VERSION 2.
- WITH LOOSE BOLTED CONNECTIONS. FRAME DEPTH LADDERS OR STEPS IN MANHOLES, WET WELLS CHAMBERS SHALL COMPLY WITH THE FOLLOWING: STIC ENCAPSULATED MH SINGLE STEPS SHALL NOT N MH'S OF A GREATER DEPTH THAN 1.0M. STEEL NCAPSULATED DOUBLE STEPS MAY BE PROVIDED IN 3.0M DEEP. LADDERS SHALL BE PROVIDED IN NCE WITH BS 4211 IN MH'S BETWEEN 3.0M & 6.0M GREATER THAN 6.0M DEEP SHALL BE SPECIALLY AND HAVE INTERMEDIATE LANDINGS. ACCESS
- NTERMEDIATE LANDINGS SHALL BE PROVIDED WITH

- ED MILD STEEL GRATINGS TO PREVENT PERSONS
- HROUGH. THE DESIGN OF DEEP MANHOLES SHALL
- E USE OF A WINCH OR LIFTING GEAR MOUNTED AT EVEL IN CASE OF EMERGENCIES. CARBON STEEL OR STAINLESS STEEL LADDERS
- CAL FIXING TO MANHOLES WILL BE ACCEPTABLE. ADOPTABLE SEWERS ARE ONLY PERMITTED TO ER SEWER/GULLY CONNECTIONS AND OTHER
- LAID AT AN ANGLE OF BETWEEN 45 DEGREES AND OF 300MM
- ES ACROSS THE LINE WITH A VERTICAL CLEARANCE VORK TO BE KITE MARKED BY BSI OR CERTIFIED BY
- PECTION AUTHORITY. URED PLASTIC MARKER TAPE AT LEAST 150MM WIDE LAID AT A MINIMUM OF 200MM ABOVE THE SOFFIT OF THE TAPE SHALL BE PRINTED WITH THE WORDS SEWER' IN BOLD CAPITAL LETTERS THROUGHOUT ITS ND AT INTERVALS NOT EXCEEDING 700MM AND
- SHALL INCORPORATE A CORROSION RESISTANT TRACING SYSTEM FOR NON-METALLIC PIPES
- . MINIMUM BACKDROP HEIGHT SHALL BE 1M. 3. ON NEW DRAINAGE SCHEMES, THE FIRST MANHOLE UPSTREAM FROM THE CONNECTION TO THE EXISTING FOUL WATER SEWER SHALL BE FITTED WITH A SUITABLE SCREEN, WHICH WILL REMAIN IN PLACE UNTIL THE NEW SEWER
- BECOMES LIVE. FOR TYPE D MANHOLES, OUTLET TO BE
- REMOVED ON COMPLETION OF WORK. THE EXISTING SURFACE WATER SEWER SHALL BE CONSTRUCTED AS A CATCHPIT UNTIL JUST PRIOR TO THE COMMENCEMENT OF THE TWELVE MONTH MAINTENANCE
- PERIOD. AT THIS TIME THE CHANNELS WILL BE INSTALLED AND

THE BENCHING CONSTRUCTED.

- BUNGED WITH SUITABLE STOPPER AND CHAIN WHICH CAN BE 4. THE FIRST MANHOLE UPSTREAM FROM THE CONNECTION TO