TYPE OF ACCESS	DEPTH TO INVERT FROM COVER LEVEL (m)	MINIMUM INTERN	NAL DIMENSIONS	MINIMUM CLEAR OPENING SIZE	
		LENGTH x WIDTH (mm x mm)	CIRCULAR (mm)	LENGTH x WIDTH (mm x mm)	CIRCULAR (mm)
RODDING EYE	-	AS DRAIN BUT 100mm MINIMUM	-	-	SAME SIZE AS PIPEWORK ¹
ACCESS FITTING SMALL 150mmØ SMALL 150mmx100mm LARGE 225mmx100mm	0.6m OR LESS EXCEPT WHERE SITUATED IN A CHAMBER	150 x 100 225 x 100	150 225	150 x 100 ¹ 225 x 100 ¹	SAME SIZE AS ACCESS FITTING
INSPECTION CHAMBER					
SHALLOW	0.6m OR LESS	225 x 100	190 ²		190 ¹
MEDIUM	1.2m OR LESS	450 x 450	450	MINIMUM 430 x 430	430
DEEP	GREATER THAN 1.2m	450 x 450	450	MAXIMUM 300 x 300 ³	ACCESS RESTRICTED TO 350 MAXIMUM ³

THE CLEAR OPENING MAY BE REDUCED BY 20mm IN ORDER TO PROVIDE PROPER SUPPORT FOR THE COVER AND FRAME.

A LARGER CLEAR OPENING COVER MAY BE USED IN CONJUNCTION WITH A RESTRICTED ACCESS. THE SIZE IS RESTRICTED FOR HEALTH AND SAFETY REASONS TO DETER ENTRY.

	IIM	AIMUM DIMENSIC	dns for manhol	.ES	
TYPE OF ACCESS	SIZE OF LARGEST PIPE (DN)	minimum internal dimensions ¹		MINIMUM CLEAR OPENING SIZE ¹	
		RECTANGULAR LENGTH x WIDTH (mm x mm)	CIRCULAR DIAMETER (mm)	RECTANGULAR LENGTH x WIDTH (mm x mm)	CIRCULAR DIAMETER (mm
MANHOLE LESS THAN 1.5m DEEP	LESS THAN OR EQUAL TO 150	750 x 675 ⁷	1000 7	750 x 675 ²	N/A ³
TO SOFFIT	225	1200 x 675	1200	1200 x 675 ²	
	300	1200 x 750	1200		
	GREATER THAN 300	1800 x (DN+450)	THE LARGER OF 1800 <u>OR</u> (DN+450)		
MANHOLE	LESS THAN OR EQUAL TO 225	1200 x 1000	1200	600 x 600	600
GREATER THAN 1.5m DEEP TO SOFFIT	300	1200 x 1075	1200		
	375-450	1350 x 1225	1200		
	GREATER THAN 450	1800 x (DN+775)	THE LARGER OF 1800 <u>OR</u> (DN+775)		
MANHOLE SHAFT ⁴ GREATER THAN 3.0m DEEP TO SOFFIT	STEPS ⁵	1050 x 800	1050	600 x 600	600
	LADDER ⁵	1200 x 800	1200		
	WINCH 6	900 x 800	900	600 x 600	600

NOTES:

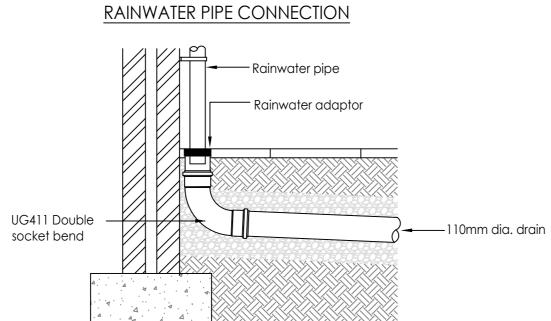
1. LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS

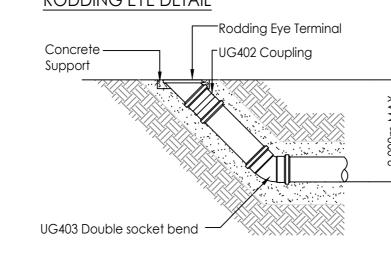
1. LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS MAY BE REDUCED TO 600mmx600mm WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO A SAFE SYSTEM OF WORK BEING SPECIFIED NOT APPLICABLE DUE TO WORKING SPACE NEEDED

MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2m FROM BENCHING TO UNDERSIDE OF REDUCING SLAB MINIMUM CLEAR SPACE BETWEEN LADDER OR STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROXIMATELY 900mm WINCH ONLY - NO STEPS OR LADDERS, PERMANENT OR REMOVABLE

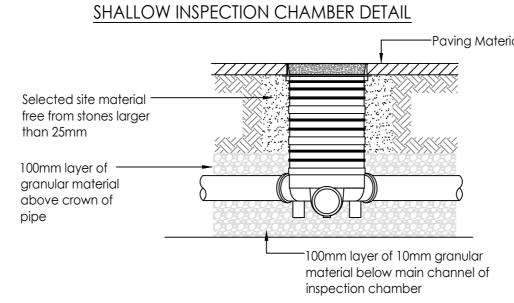
THE MINIMUM SIZE OF ANY MANHOLE SERVING A SEWER (i.e. ANY DRAIN SERVING MORE THAN ONE PROPERTY) SHOULD BE 1200mmx675mm RECTANGULAR OR 1200mm DIAMETER.

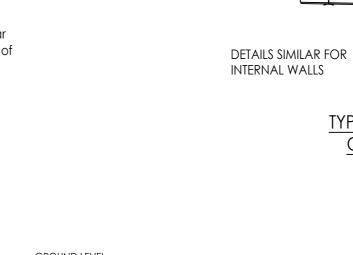
	NG PRIVATE MANHOLE/INSPECTION CHAMBER OVER GRADES AND AREAS OF USE
COVER GRADE TO BS EN 124	LOCATION
D400	FOR USE IN INDUSTRIAL ROADS AND PARKING AREAS ACCESSIBLE TO ALL TYPES OF ROAD VEHICLES INCLUDING HGVs
C250*	FOR USE IN PRIVATE ROADS OR PARKING AREAS, e.g. CAR PARKS AND MINOR PRIVATE ROADS ACCESSIBLE TO REFUSE VEHICLES, FIRE APPLIANCES, etc, WITH POSSIBLE OCCASIONAL HGV USE
B125	FOR USE IN FOOTWAYS, PEDESTRIAN AREAS, DRIVEWAYS AND CAR PARKS ACCESSIBLE BY LIGHT VEHICLES ONLY
A15	FOR USE IN AREAS WHICH CAN BE USED ONLY BY PEDESTRIANS AND PEDAL CYCLISTS
* D400 MAY BE USED I	N LIEU OF C250 IF PREFERRED

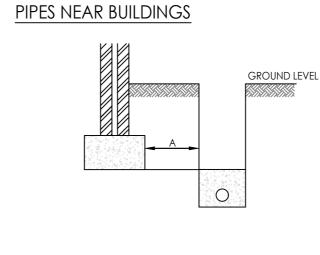


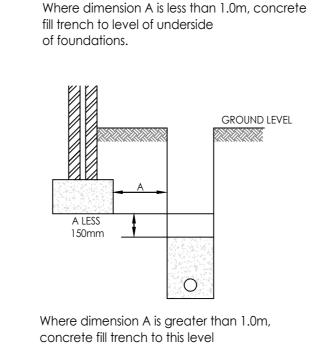


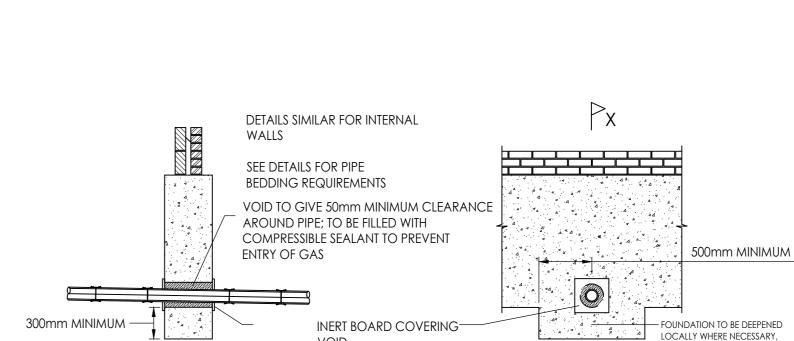
460mm dia. INSPECTION CHAMBER DETAIL











BOTH SIDES OF WALL TO PREVENT INGRESS OF SOIL OR 300mm MINIMUM BELOW OPENING

ELEVATION

VOID TO GIVE 50mm MINIMUM

TO PREVENT ENTRY OF GAS

- SEE DETAILS FOR PIPE

BEDDING REQUIREMENTS

INERT BOARD COVERING VOID

BOTH SIDES OF WALL TO PREVENT INGRESS OF SOIL OR VERMIN

PRECAST CONCRETE LINTEL —

TYPICAL DRAIN PASSING OVER FOUNDATION

SECTION X-X

CLEARANCE AROUND PIPE; TO BE

FILLED WITH COMPRESSIBLE SEALANT

TYPICAL DRAIN PASSING THROUGH FOUNDATION

VERMIN



150mm x 150mm concrete ———

surround required for support

of cover and frame. Where the inspection chamber is being

installed on a driveway subject to light vehicular traffic, or where B125 covers are being

used, the concrete support should be 300mm wide x 225mm deep

Selected site material -

free from stones larger

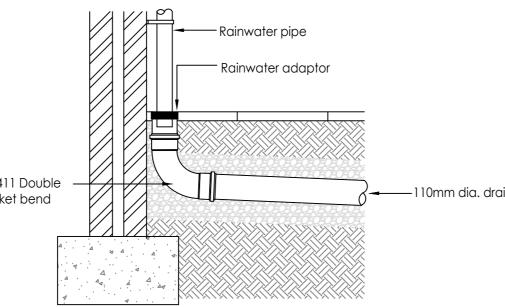
than 25mm

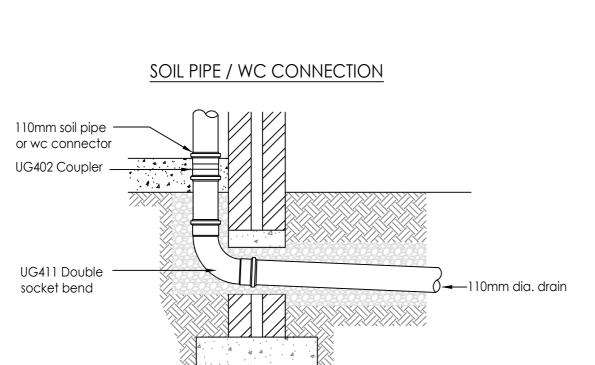
100mm layer of -

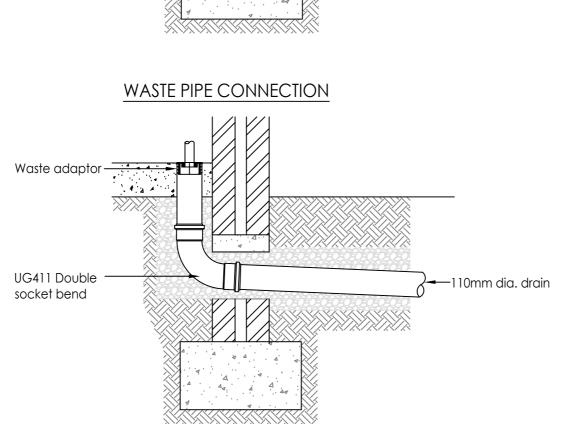
granular material

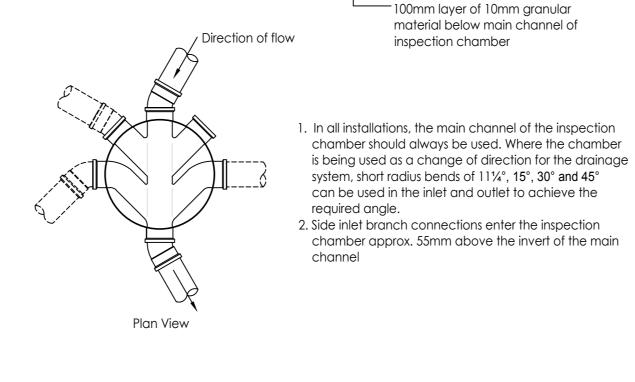
above crown of

pipe









Less Than

Flexible joints to be provided in

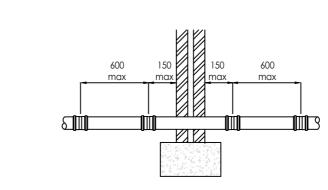
concrete at each pipe joint.

It is recommended that 3.0m

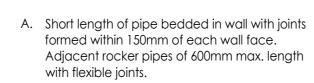
pipe lengths are used where

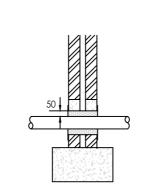
concrete encasement is

required



PIPES THROUGH WALLS

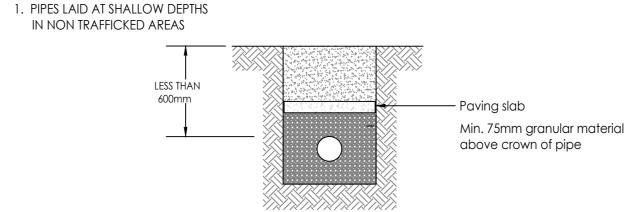




B. Arch or lintelled opening to give min 50mm space all round the pipe. A. Mask opeing on both sides of the wall with rigid sheet material to prevent entry of fill or

to prevent entry of gas.

Important Fill void with compressible material



Pipes laid in non-trafficked areas, e.g. in gardens with less than 600mm of cover, should be protected against damage by placing paving slabs or similar over them across the whole width of the trench. A layer of granular material of 75mm min thickness must be laid between pipes and slabs.

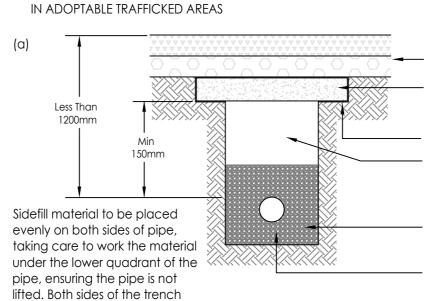
2. PIPES LAID AT SHALLOW DEPTHS

should be filled simultaneously to avoid horizontal movement

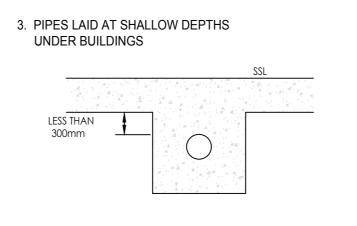
of the pipe

PROTECTION FOR PIPES

socket bend



Road construction 50mm Re-inforced concrete slab, min C20 with A393 mesh re-inforcement or as agreed with Adopting Authority Min. 200mm bearing on original ground - Mechanical compaction of main backfill material should not be commenced until there is a total depth of cover of 300mm above the crown of the pipe —Single sized or graded gravel to WIS 4-08-02 Table 2 -Lower bedding - min 100mm



Where the crown of the pipe is within 300mm of the underside of the slab, the pipework should be surrounded with 150mm concrete as an integral part of the floor slab Where pipes are surrounded in concrete, an 18mm compressible board, e.g. fibreboard or polystyrene should be placed around the pipe at each joint.

Road construction

——— Concrete grade C20

min. 150mm

Concrete bedding

ALL PRIVATE DRAINAGE TO BE SUPPLIED BY POLYPIPE OR SIMILAR APPROVED SUPPLIER

Create Consulting Engineers accept no responsibility for any unauthorised amendments

1) ALL BUILDING DRAINAGE TO BE INSTALLED AND TESTED IN COMPLIANCE WITH THE BUILDING REGULATIONS, 2000, DRAINAGE AND WASTE DISPOSAL APPROVED

2) ALL COMPONENTS AND MATERIALS ARE TO BE MANUFACTURED AND SUPPLIED IN

3) THE CONTRACTOR SHALL, BEFORE COMMENCING THE WORKS, VERIFY ALL SITE AND SETTING-OUT DIMENSIONS; THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TRUE AND PROPER SETTING-OUT OF THE WORKS AND FOR THE CORRECTNESS OF THE

POSITION, LEVELS, DIMENSIONS, AND ALIGNMENT OF ALL PARTS OF THE WORKS.

4) SMALL LIGHTWEIGHT ACCESS COVERS SHOULD BE SECURED (e.g. WITH SCREWS) TO

5) MANHOLES DEEPER THAN 1m TO HAVE GALVANISED STEEL STEP IRONS OR FIXED

6) ALL ABOVE GROUND DRAINAGE TO INCORPORATE RODDING ACCESS FACILITIES.

7) INSITU CONCRETE FOR USE IN GENERAL DRAINAGE WORKS TO BE GEN3 GRADE.

IN ACCORDANCE WITH THOSE STANDARDS, AND THE MANUFACTURER'S

ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, AND LAID AND BACKFILLED

DOCUMENT H, 2015 EDITION.

DETER UNAUTHORISED ACCESS.

INSTRUCTIONS.

to this drawing. Only figured dimensions are to be worked to. COPYRIGHT © RESERVED AMENDMENT DETAILS DRAWN APPROVED

PROJECT SHRUB END	DATE 07.12.17	DRAWING STATUS INFORMATION		
ICENI WAY, COLCHESTER ESSEX	SCALE(S)	DESIGNED JPP	DRAWN WL	
DRAWING TITLE PRIVATRE DRAINAGE CONSTRUCTION	N.T.S.	CHECKED JPP	APPROVED BWA	
DETAILS	JOB No			
	13	321		create
CLIENT	DRAWING No)	REVISION	CONSULTING
MARITIME & COASTGUARD AGENCY	02/0		-	CONSULTINENGINEERS L

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