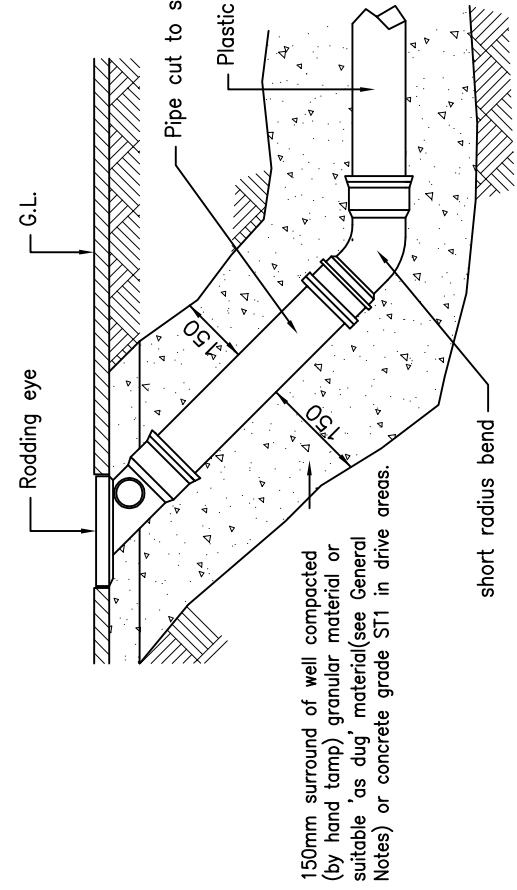
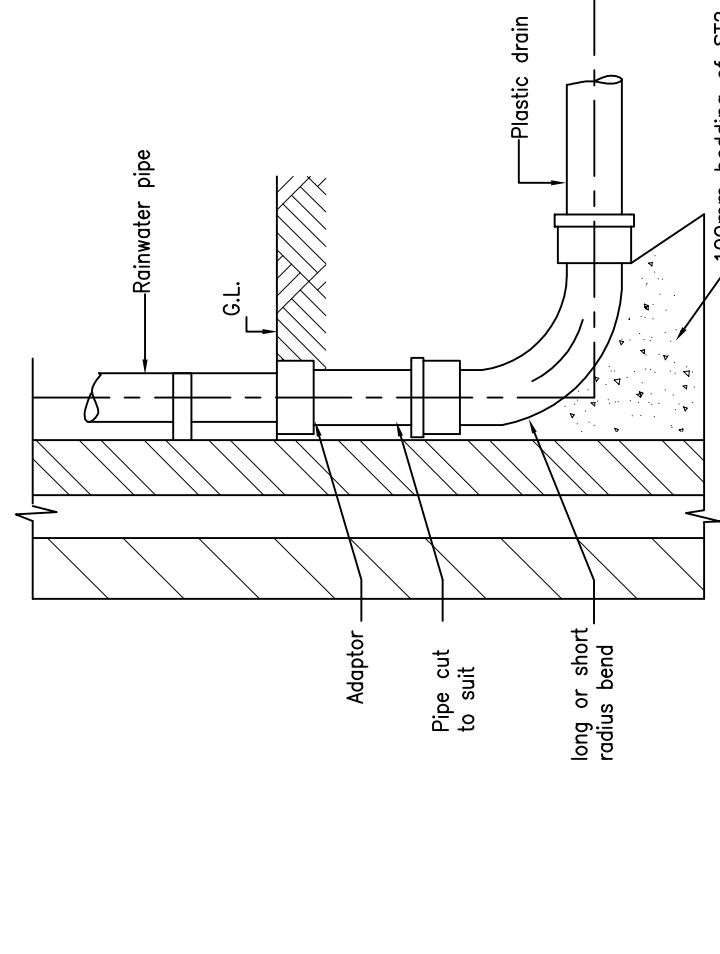
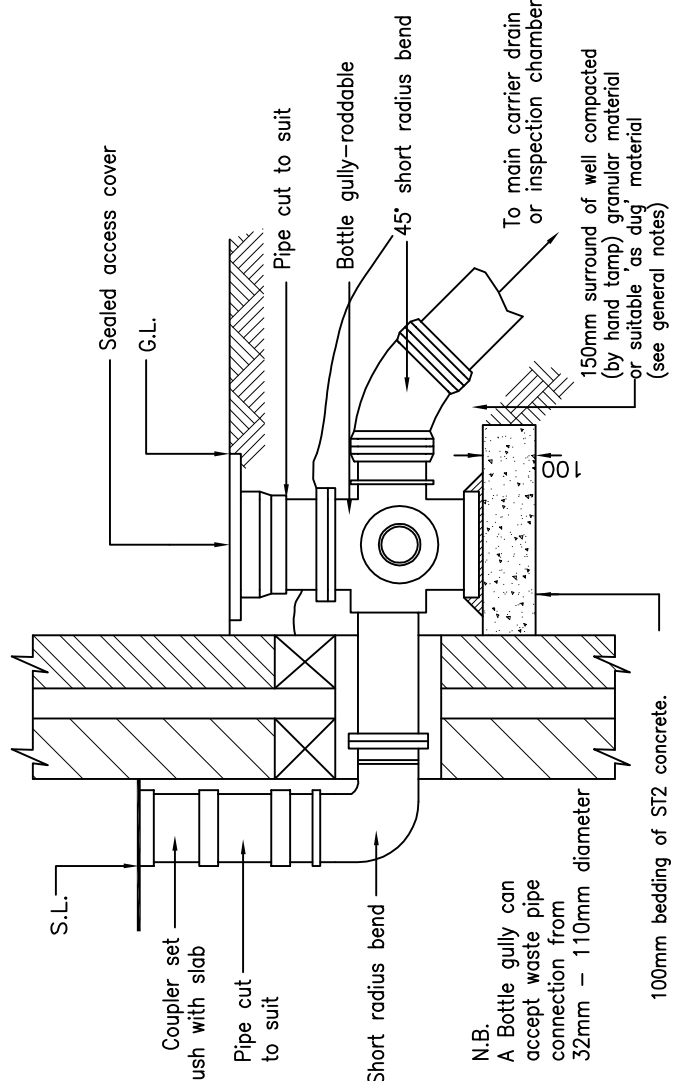




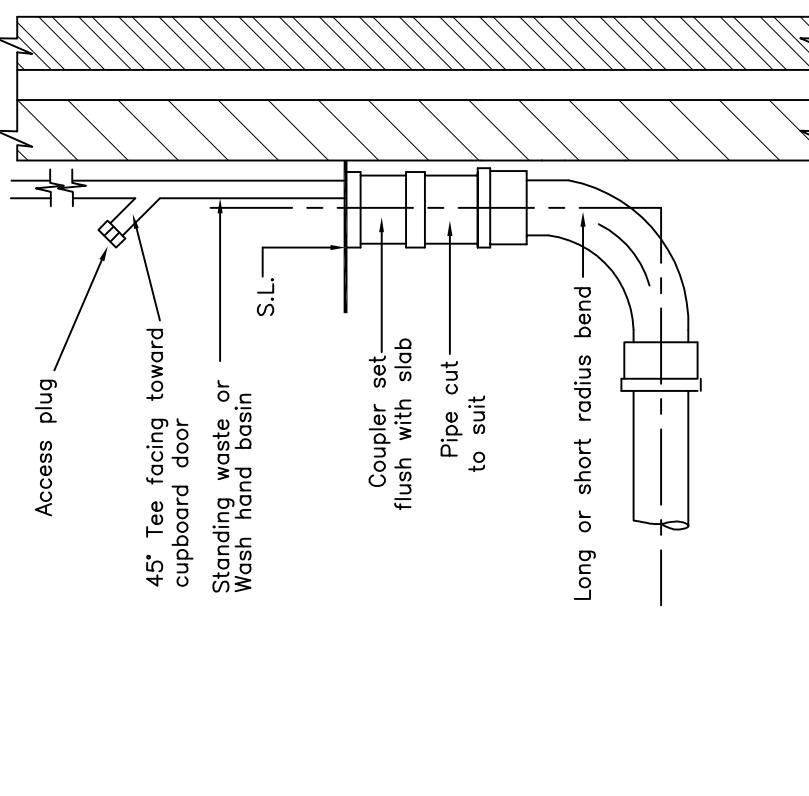
RODDING EYE



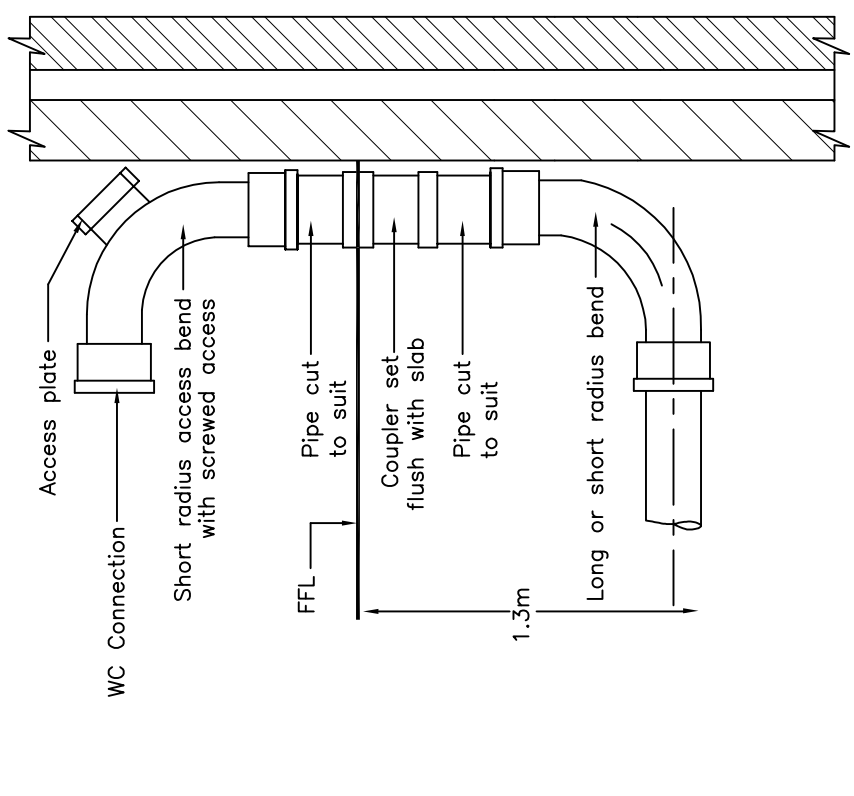
RAINWATER PIPE CONNECTION TO DRAIN



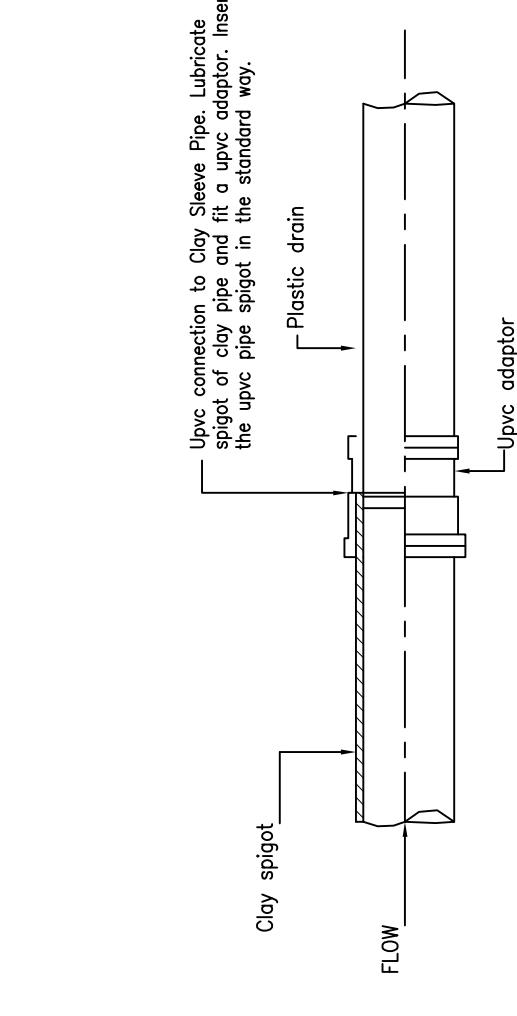
BOTTLE GULLY AS BACK INLET CONNECTION



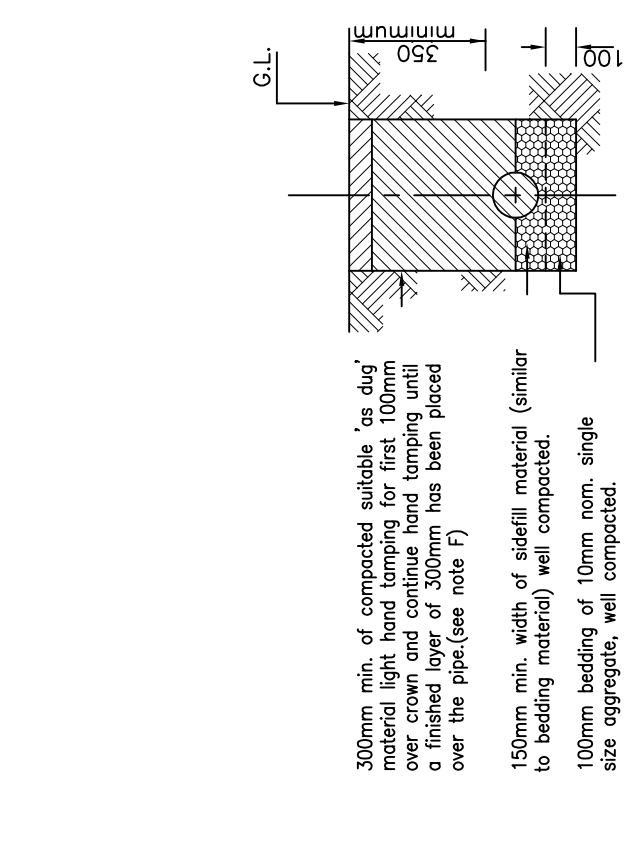
STANDING WASTE (sw) AND WASH HAND BASIN (whb) CONNECTION



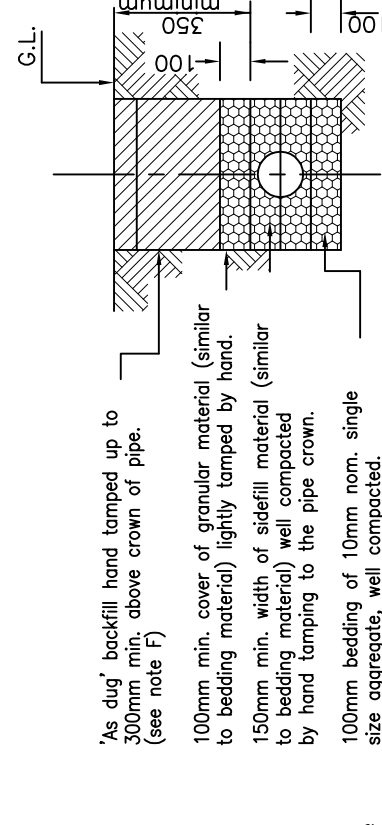
GROUND FLOOR WC CONNECTION



CONNECTION TO CLAY SLEEVE PIPE

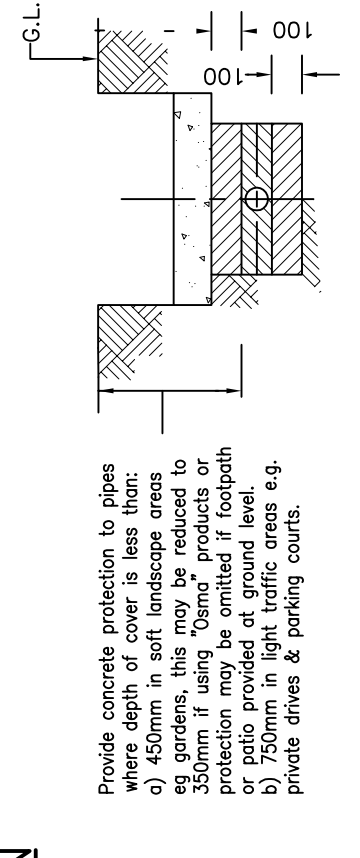


CLASS B PIPES-BEDDED IN GRANULAR MATERIAL

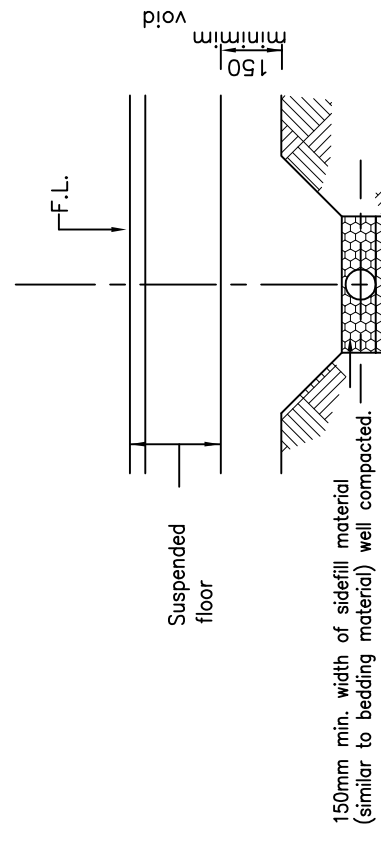


CLASS S PIPES-BEDDED AND SURROUNDED IN GRANULAR MATERIAL

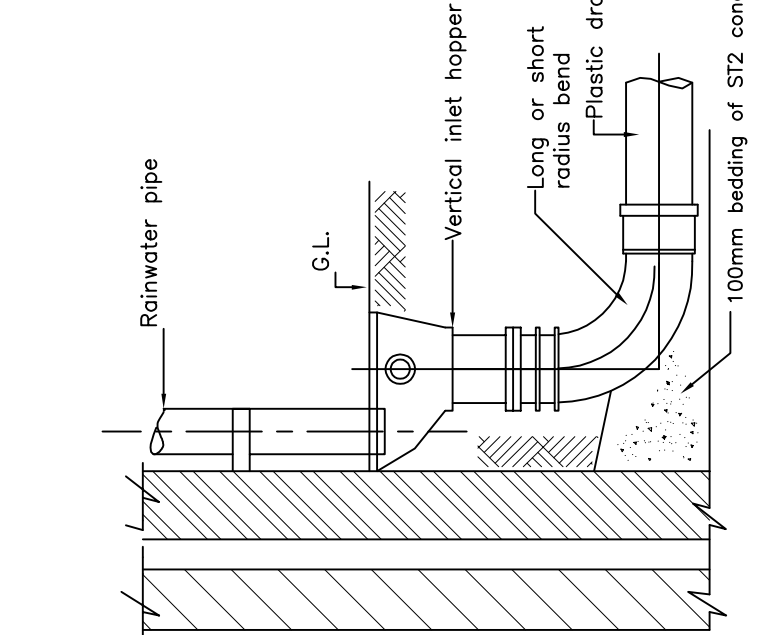
Used where 'as dug' is unsuitable (see general notes)



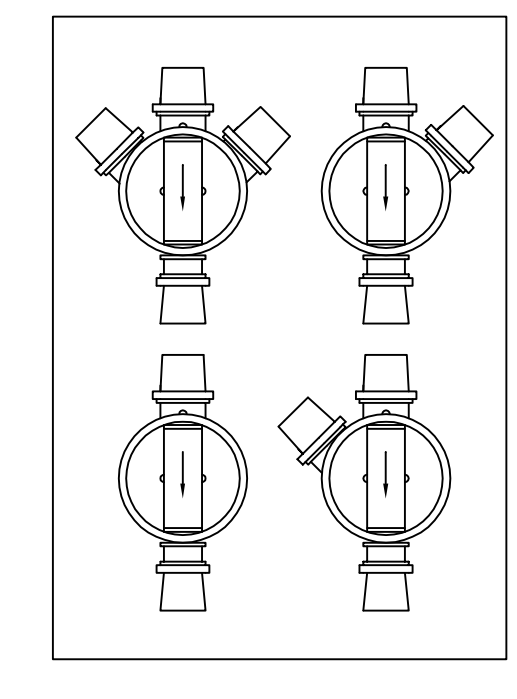
PIPES PROTECTED FROM SURFACE LOAD



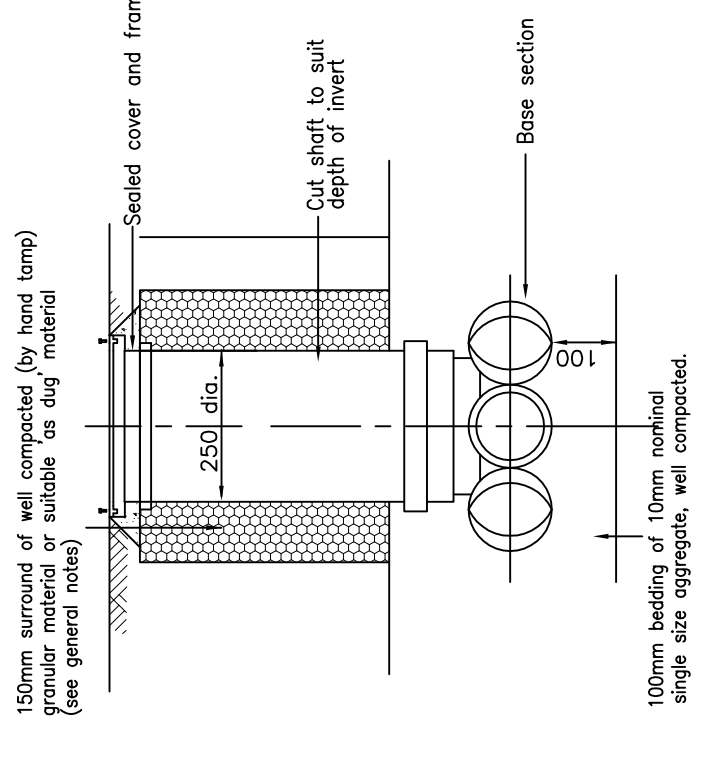
PIPES BENEATH CONCRETE SUSPENDED FLOORS



UNIVERSAL GULLY WITH VERTICAL INLET

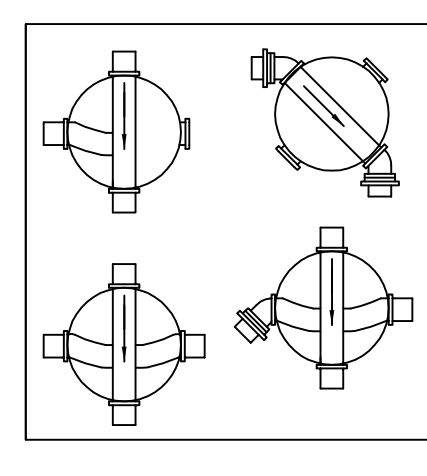


ALTERNATIVE BASE SECTIONS CONFIGURATIONS

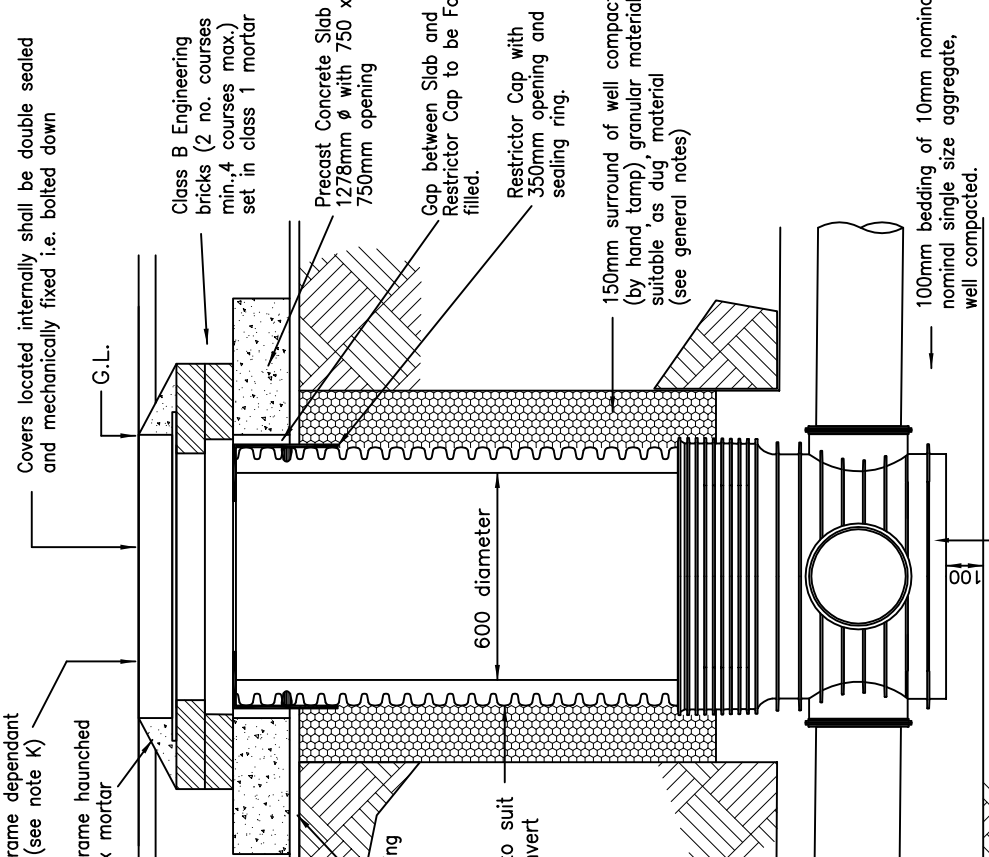


SHALLOW INSPECTION CHAMBER (Type A & B)

For invert depths up to 600mm MAX.
NB: Not to be used in drives or areas subjected to vehicle loadings

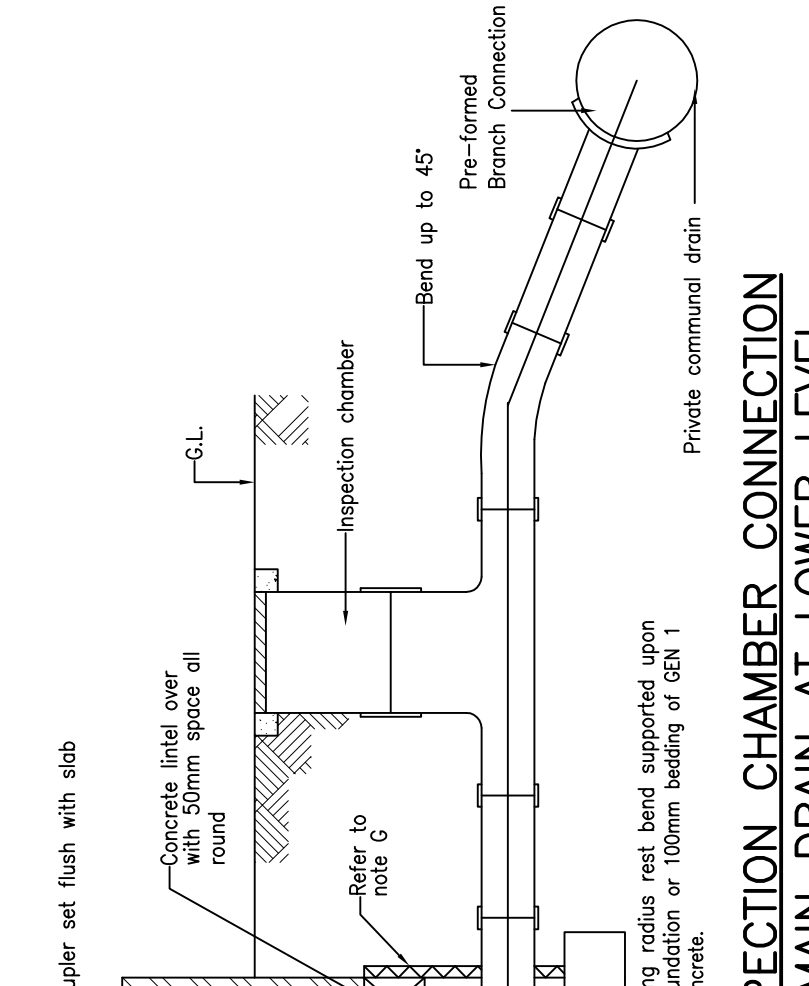


ALTERNATIVE CONNECTIONS

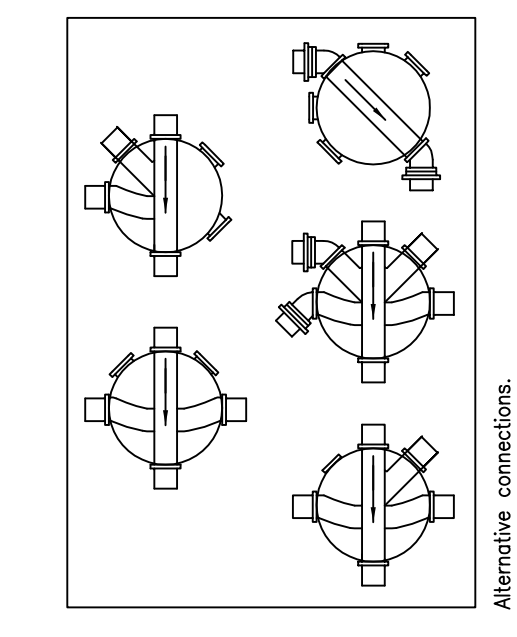


INSPECTION CHAMBER (Type J)

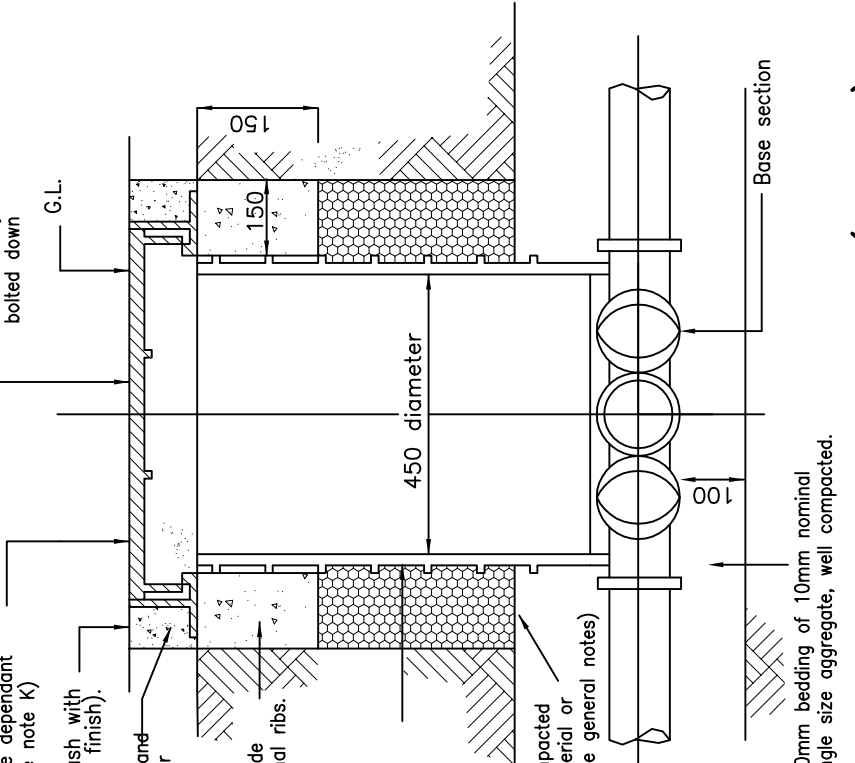
For invert depths up to 3.0m MAX.
For pipe sizes 100-300mm



INSPECTION CHAMBER CONNECTION TO MAIN DRAIN AT LOWER LEVEL

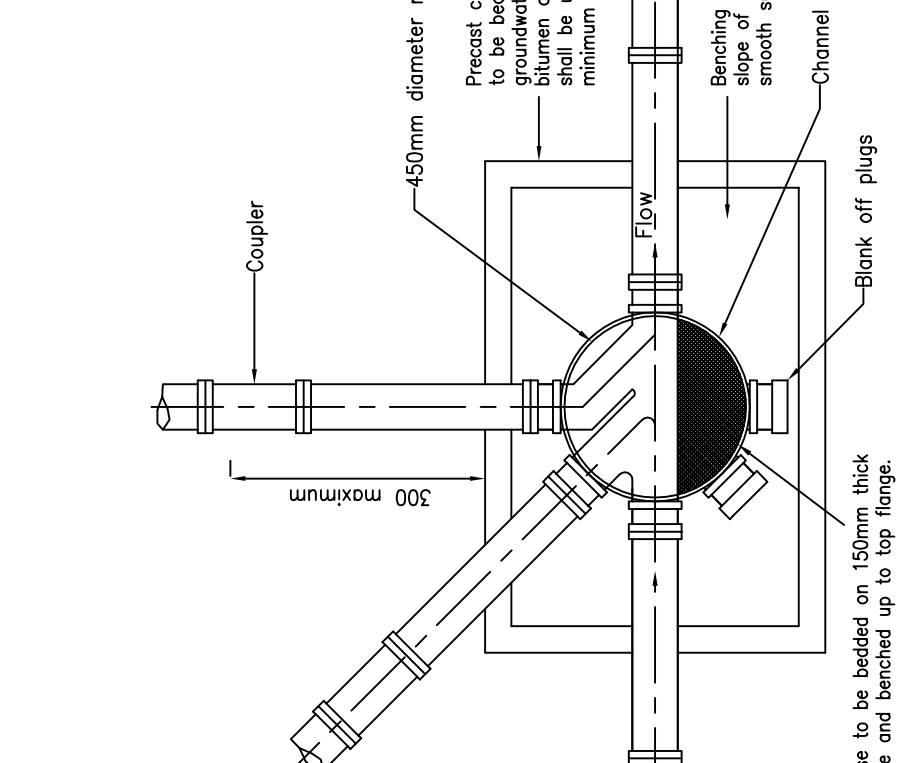


ALTERNATIVE CONNECTIONS

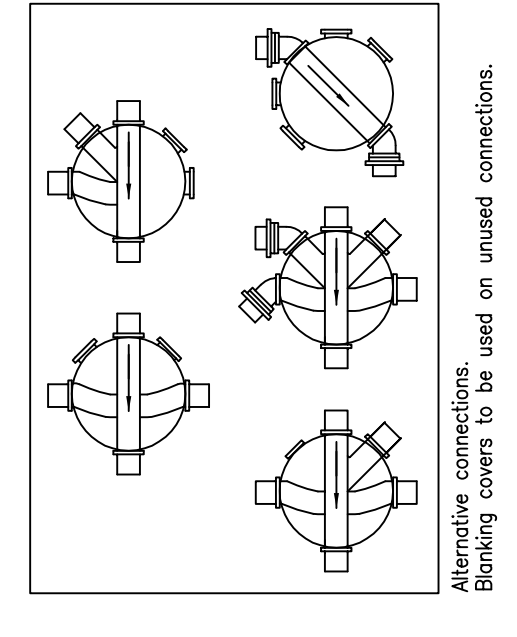


UNIVERSAL INSPECTION CHAMBER (Type C)

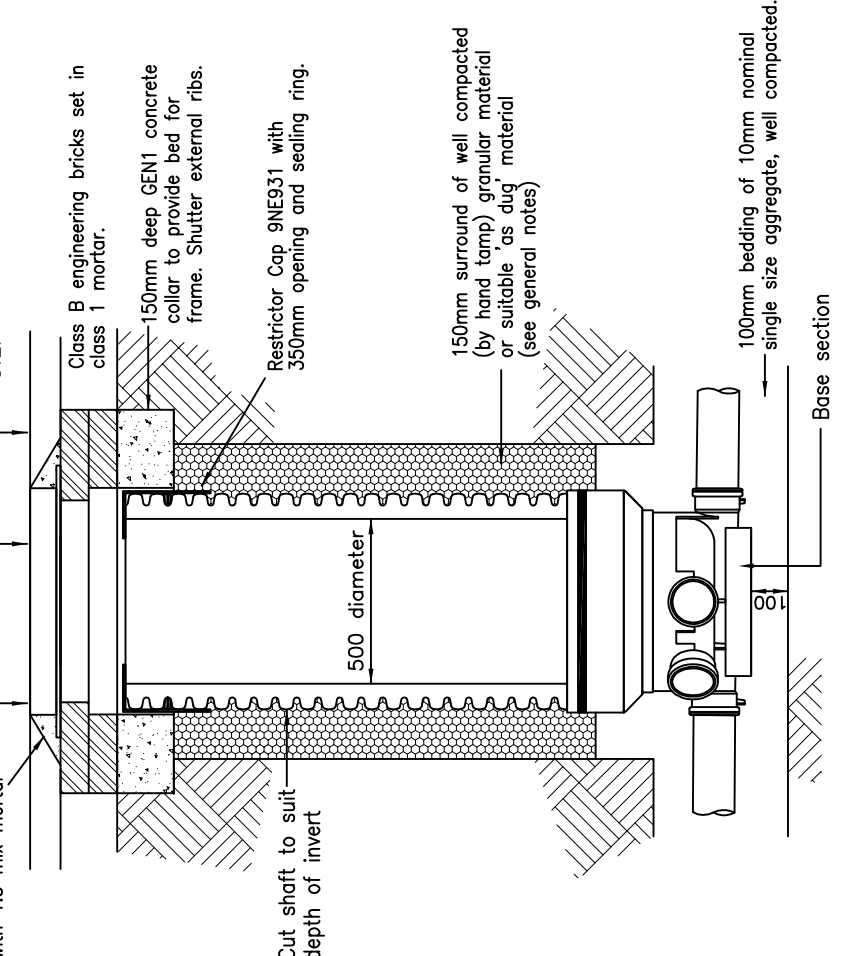
For invert depths up to 1.2m MAX.



MANHOLE BASE (Type D)

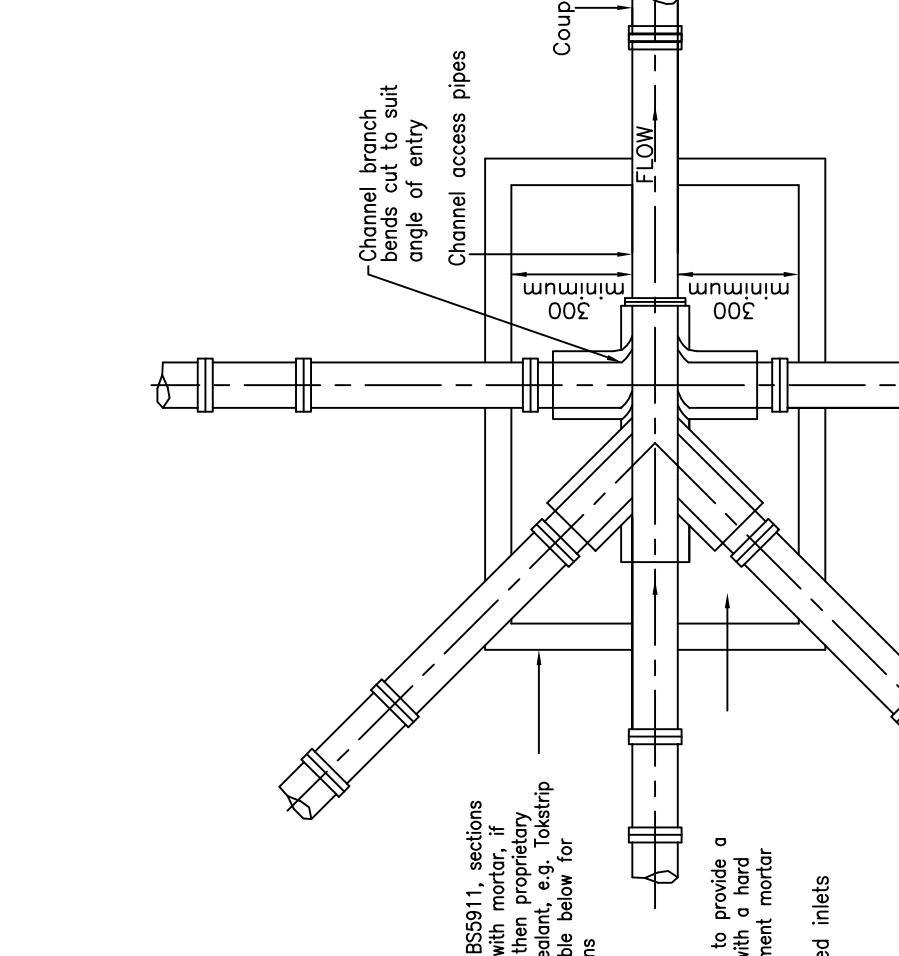


ALTERNATIVE CONNECTIONS

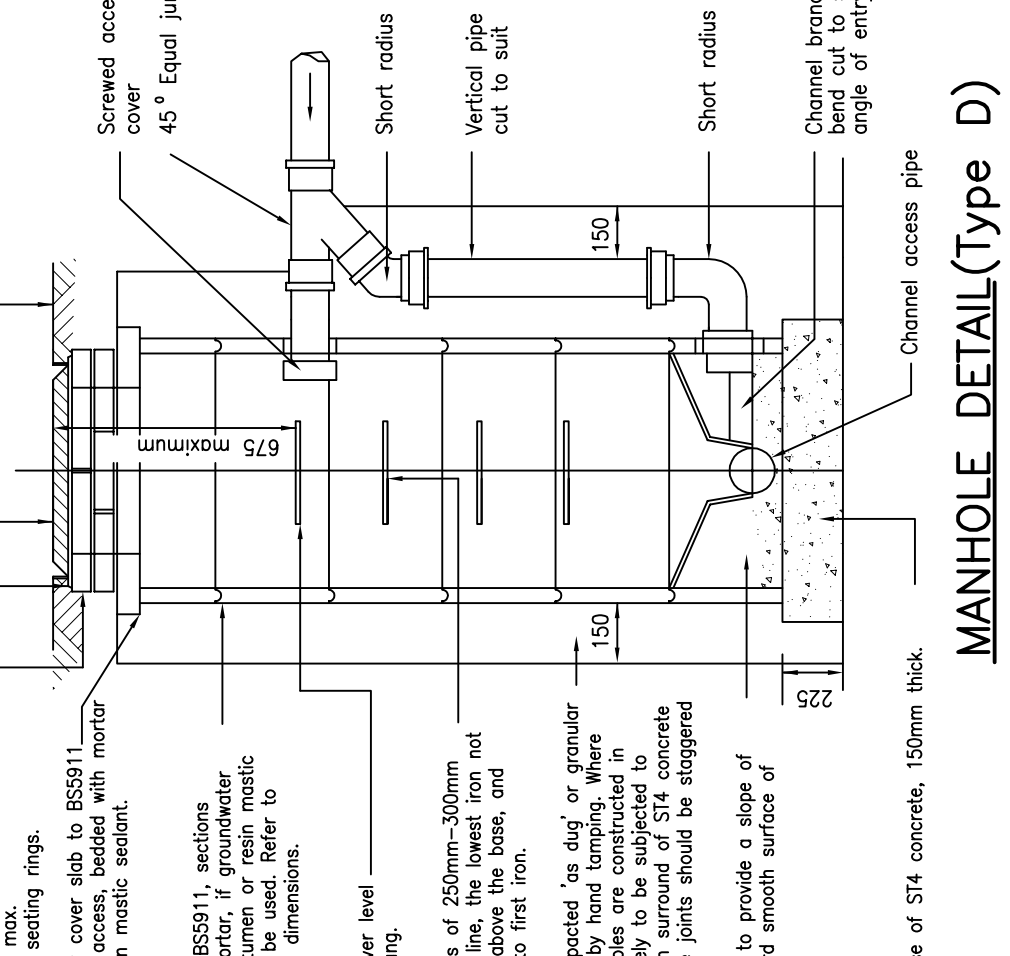
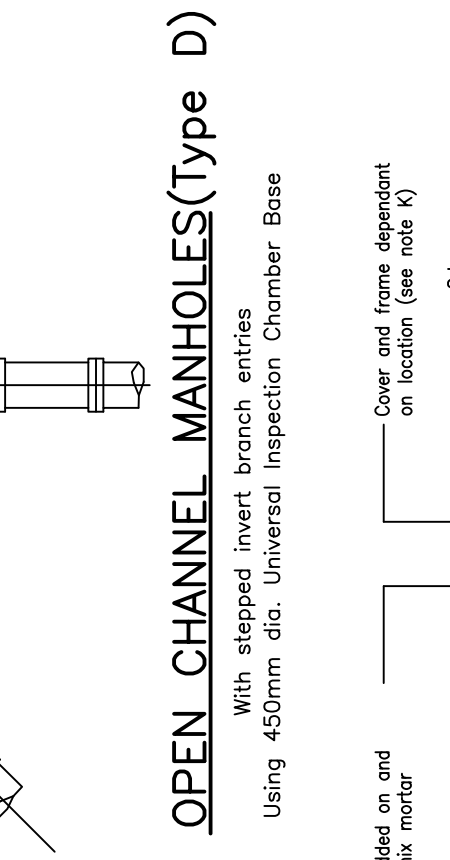


INSPECTION CHAMBER (Type H)

For invert depths up to 3.0m MAX.
For pipe sizes 100-150mm



OPEN CHANNEL MANHOLES (Type D)



MANHOLE DETAIL (Type D)

- General Notes**
- All house drainage is to comply and be laid in accordance with current part H of Building Regulations BS5301 and BS5955.
 - Only Polypipe upvc products complying with A. above are to be used unless stated otherwise.
 - Cover and frames to manholes/inspection chambers to comply with BS EN124.
 - Suitable 'as dug' material to comply with Appendix A of BS5955. The maximum particle size should not exceed 20mm and be free from stones exceeding 40mm. The presence of an open joint in the bedding is not acceptable. The bedding should be provided the total quantity of such particles is only a very small fraction of the whole, but shall not be allowed within the material shall be rejected.
 - Granular material shall comply with Table 2 of BS5955 e.g. 10mm nominal single size aggregate for 100mm diameter pipes.
 - Backfill should be placed in layers not exceeding 300mm uncompacted thickness, each layer being well compacted. The bedding should be placed in layers not exceeding 100mm and there is a minimum of 450mm of compacted material above the crown of the pipe.
 - Where a drain run passes through a wall or foundation it is necessary to:
 - form an opening using a concrete lintel with at least 50mm clearance all around the pipe and the openings filled with high strength sheet material to prevent entry of fill or vermin, or;
 - build a length of pipe with its joints as close as possible to the wall faces (150mm maximum) and connected on each side to 600mm long rockers pipes with flexible joints.
 - All materials shall comply to the BS Kitemark Certification Scheme and shall be marked with the BS1 Trademark (the Kitemark) or the containers of such materials.
 - Where ground slopes towards a building, an open vertical inlet gully is to be provided at the foot of any rainwater pipe (w/p).
 - Cover and frames to be Class B122 to BS EN124 where vehicle loading anticipated, otherwise to manufacturers spec.
 - A drain serving solely a wash hand basin can be connected via a Y junction under the building. Refer to engineering layout for locations of Y connections.

INSPECTION CHAMBER & MANHOLE REFERENCE			
TYPE	MINIMUM INTERNAL DIMENSIONS	MINIMUM INTERNAL DIMENSIONS	MINIMUM INTERNAL DIMENSIONS
A	225 x 100	225 x 100	225 x 100
B	225 x 100	225 x 100	225 x 100
C	225 x 100	225 x 100	225 x 100
D	225 x 100	225 x 100	225 x 100
E	225 x 100	225 x 100	225 x 100
F	225 x 100	225 x 100	225 x 100
G	225 x 100	225 x 100	225 x 100
H	225 x 100	225 x 100	225 x 100
I	225 x 100	225 x 100	225 x 100
J	225 x 100	225 x 100	225 x 100

Minimum dimensions for inspection chambers and manholes (taken from BS5301)			
Type of Access	Depth to invert (m)	Minimum internal dimensions	Remarks
Inspection Chamber	<0.6	Rectangular length & width	Rectangular circular diameter
		225 x 100	190
Manholes	0.6-1.2	450 x 450	450
		750 x 675	750 x 675
Manhole access shaft (b)	>1.5	1200 x 1200	1200
		1050 x 800	1050
Manhole access shaft (b)	>2.7	1050 x 800	1050
		600 x 600	600

- In the case of clayware and plastic inspection chambers, the clear opening may be reduced to 430mm in order to provide proper support for the cover and frame.
- Minimum height of chamber in access shaft manhole is 2.0m from crown of pipe to underside of reducing slab.
- Manholes to be constructed in accordance with the current publication BS5955.
- Wavin's Range 500/600 in MDPE may be used as an alternative for Type D manholes up to 1.5m deep.

Rev	Date	Details	By

Drainage Authority Approval Date	
Highway Authority Approval Date	

Do not scale from this drawing. Use written dimensions only. When shown relationships are indicated, dimensions are to be taken to centre line and Engineering Director. Note: This drawing is the copyright of Bovis Homes Ltd.

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SITE	
HAMPTON PARK LITTLEHAMPTON, WEST SUSSEX	

DRAWING TITLE	
TYPICAL UPVC HOUSE DRAINAGE DETAILS	

DRAWN BY	DATE	NOV 15	DRAWING NO.
NA			LITL-509

SCALE	CHECKED/DATE
AS SHOWN	

REV	