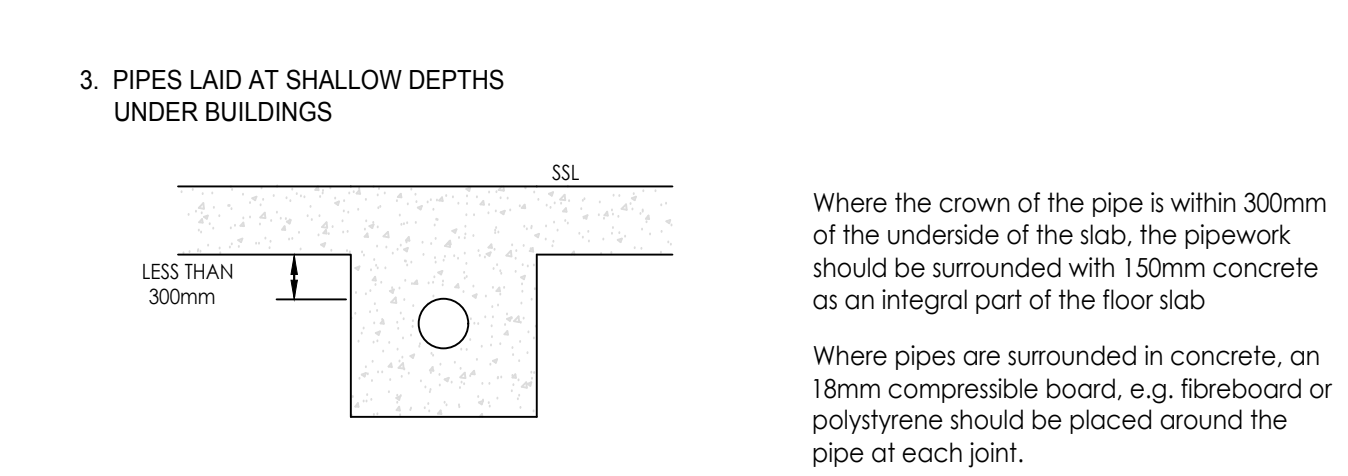
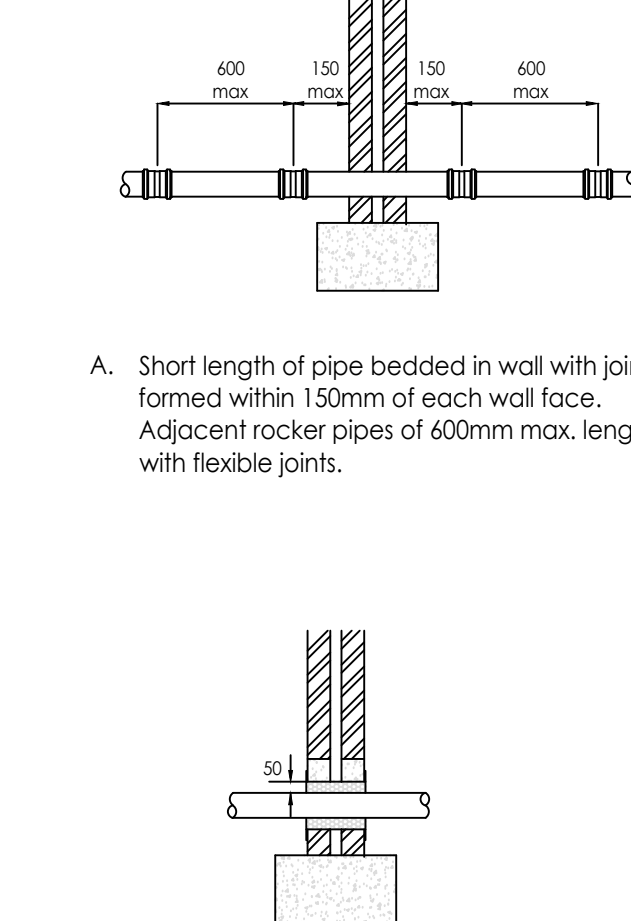
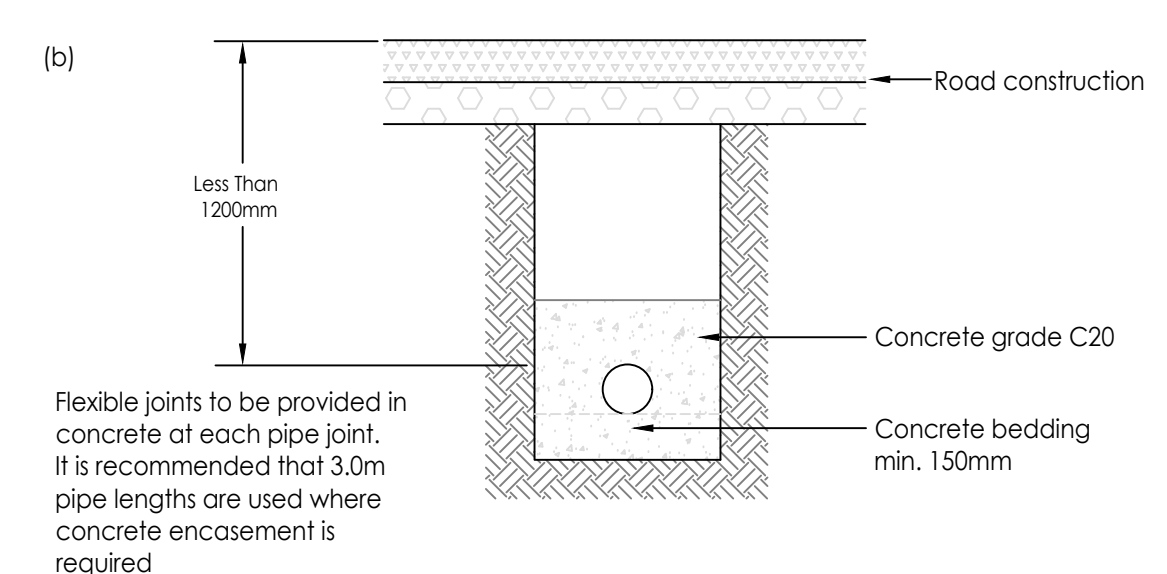
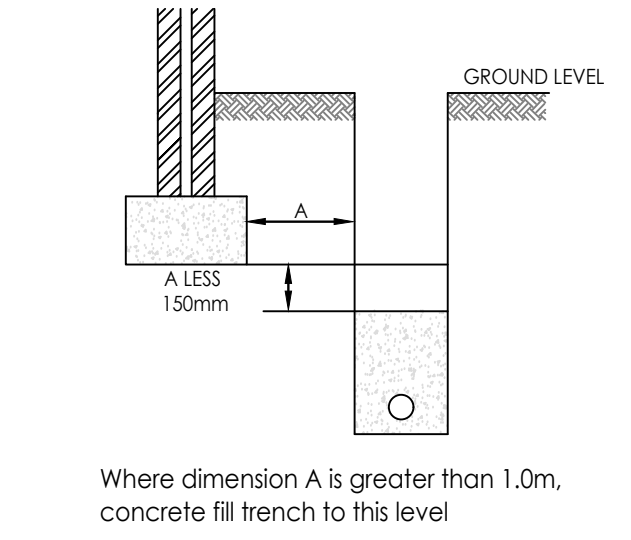
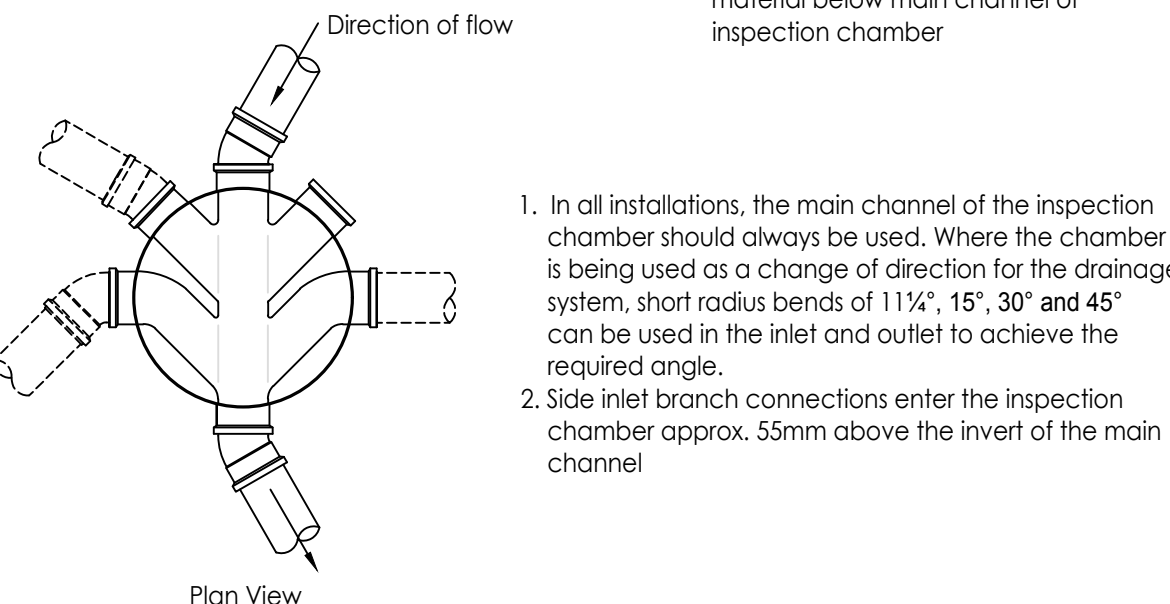
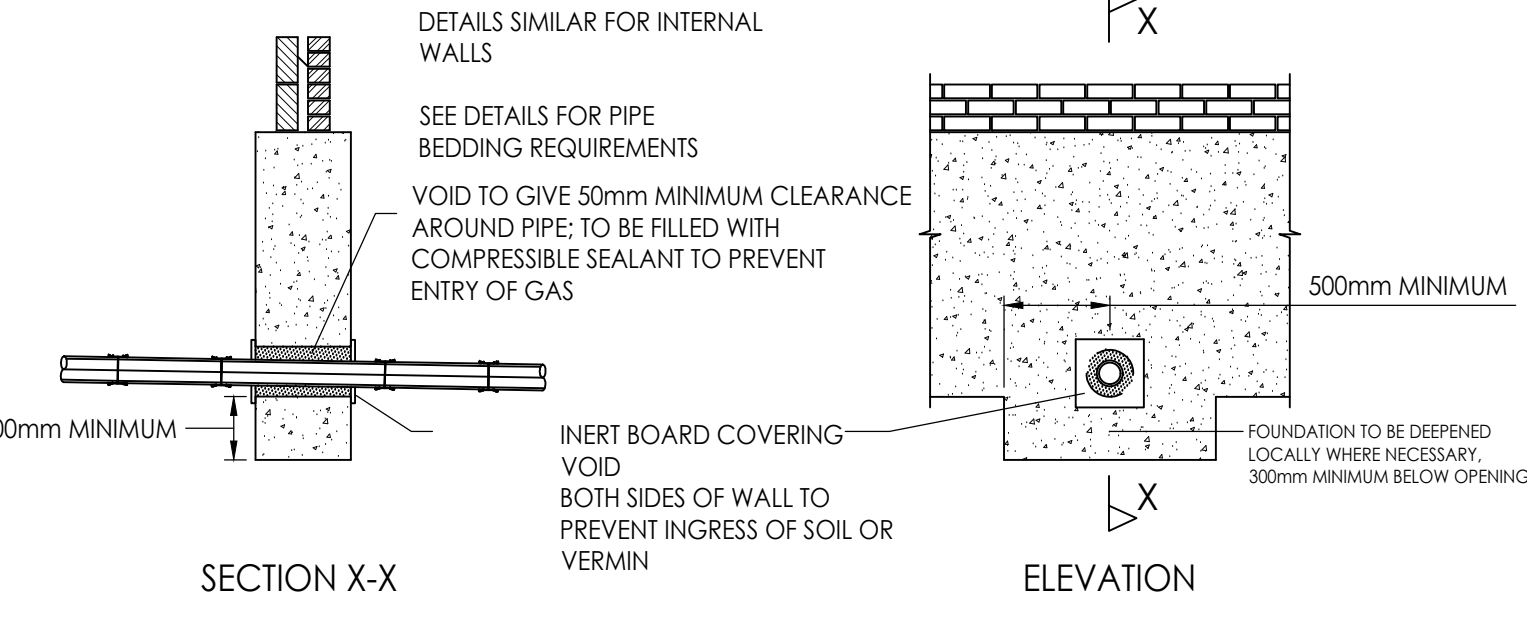
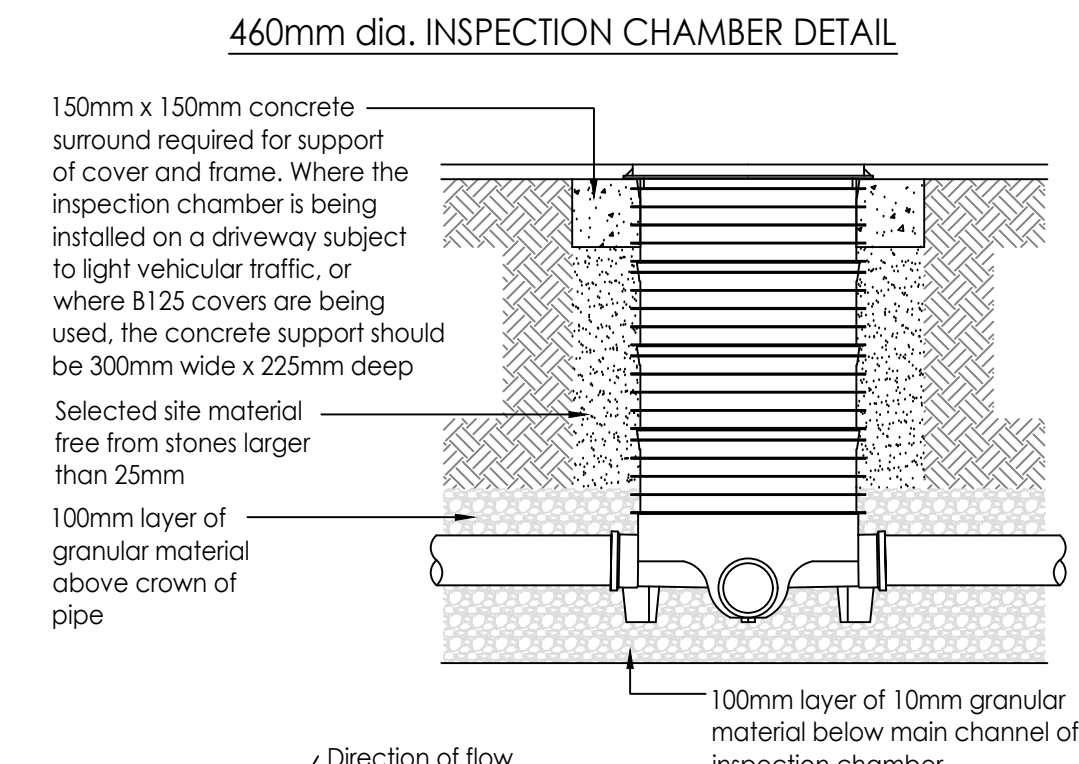
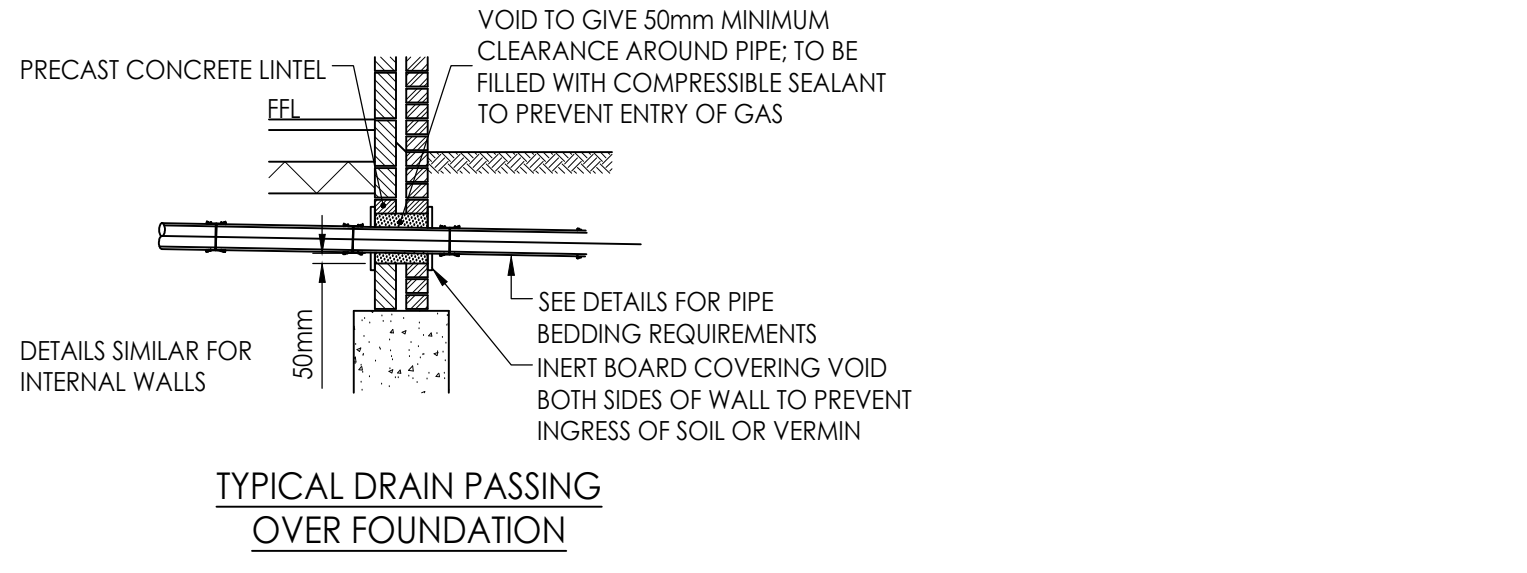
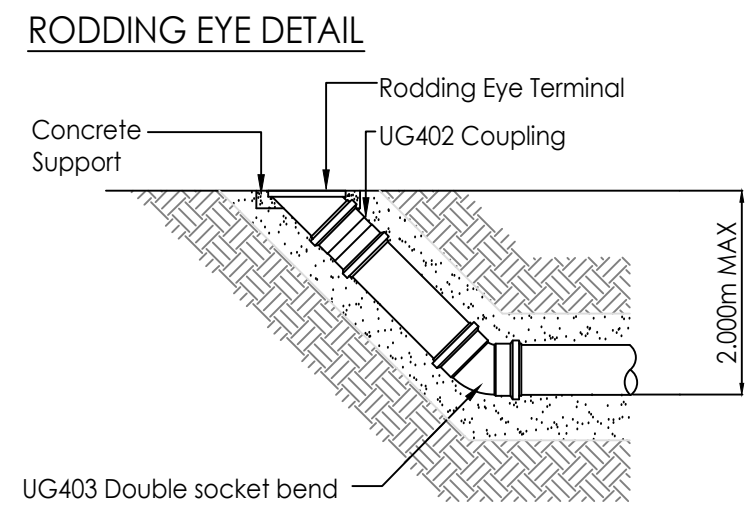


MINIMUM DIMENSIONS FOR MANHOLES					
TYPE OF ACCESS	SIZE OF LARGEST PIPE (mm)	MINIMUM INTERNAL DIMENSIONS <sup>1</sup>		MINIMUM CLEAR OPENING SIZE <sup>2</sup>	
		RECTANGULAR (DEPTH x WIDTH) (mm x mm)	CIRCULAR DIAMETER (mm)	RECTANGULAR (DEPTH x WIDTH) (mm x mm)	CIRCULAR DIAMETER (mm)
MANHOLE	LESS THAN OR EQUAL TO 150	750 x 475 <sup>3</sup>	1000 <sup>4</sup>	750 x 475 <sup>3</sup>	N/A <sup>5</sup>
LESS THAN 1.5m DEEP TO SCUFF	225	1200 x 475	1200	1200 x 475 <sup>3</sup>	
	300	1200 x 750	1200		
	GREATER THAN 300	1800 x (200+420)	THE LARGER OF 1800 (mm) (200+420)		
MANHOLE	LESS THAN OR EQUAL TO 225	1050 x 1000	1200	800 x 400	600
GREATER THAN 1.5m DEEP TO SCUFF	300	1200 x 1075	1200		
	375-450	1300 x 1225	1200		
	GREATER THAN 450	1800 x (200+775)	THE LARGER OF 1800 (mm) (200+775)		
MANHOLE SHIRT <sup>6</sup>	SHIRT <sup>6</sup>	1050 x 800	800	400 x 400	600
GREATER THAN 1.5m DEEP TO SCUFF	LOADING <sup>7</sup>	1200 x 800	1200		
	WHICH <sup>8</sup>	800 x 800	800	400 x 400	600

<sup>1</sup> LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BRIDS OR WHERE THERE ARE JUNCTIONS.  
<sup>2</sup> THE MINIMUM CLEAR OPENING SIZE IS THE MINIMUM CLEARING REQUIRED FOR THE LARGEST LOADING CONSIDERED. DO NOT RED TO A STATE SYSTEM OF WORK BEING SPECIFIED.  
<sup>3</sup> NOT APPLICABLE TO WORKING SIZES HELD.  
<sup>4</sup> MINIMUM CLEAR OPENING OF 1000mm SHALL BE MAINTAINED FROM 200mm BELOW BENCHING TO UNDERSIDE OF REINFORCING SLAB.  
<sup>5</sup> MANHOLE CLEAR SPACE BETWEEN LADDER OR STAIRS AND THE OPPOSITE FACE OF THE SHIRT SHOULD BE APPROXIMATELY 500mm.  
<sup>6</sup> WHICH CUFF, HOISTERS OR JACKS, PERMANENT OR REMOVABLE.  
<sup>7</sup> THE MINIMUM SIZE OF ANY MANHOLE SERVING AS A SHIRT OR AS A DRAIN SERVING MORE THAN ONE PROPERTY SHOULD BE 1200mmx250mm RECTANGULAR OR 1200mm DIAMETER.

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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.

**OTES**

ALL BUILDING DRAINAGE TO BE INSTALLED AND TESTED IN COMPLIANCE WITH THE BUILDING REGULATIONS, 2010, DRAINAGE AND WASTE DISPOSAL APPROVED DOCUMENT H, 2015 EDITION.

ALL COMPONENTS AND MATERIALS ARE TO BE MANUFACTURED AND SUPPLIED IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, AND LAID AND BACKFILLED IN ACCORDANCE WITH THOSE STANDARDS, AND THE MANUFACTURER'S INSTRUCTIONS.

THE CONTRACTOR SHALL, BEFORE COMMENCING THE WORKS, VERIFY ALL SITE AND SURROUNDING CONDITIONS. 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.

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

MANHOLES DEEPER THAN 1m TO HAVE GALVANISED STEEL STEP IRONS OR FIEDER LADDERS.

ALL ABOVE GROUND DRAINAGE TO INCORPORATE RODDING ACCESS FACILITIES.

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