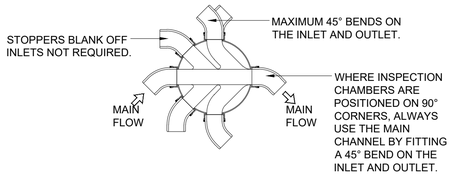
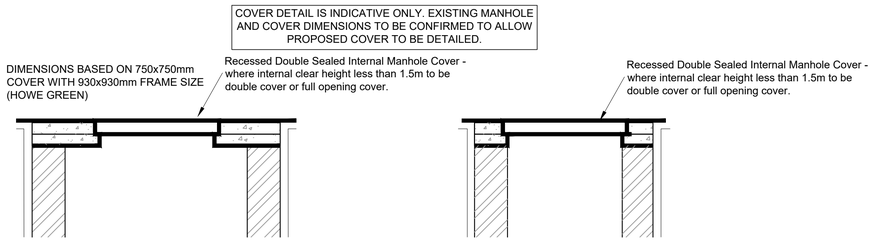


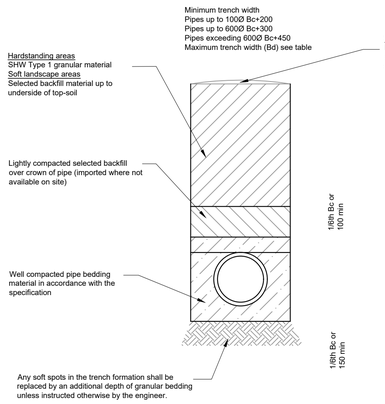
EXTERNAL INSPECTION CHAMBER SECTION SUBJECT TO OCCASIONAL LOW LOADING



INSPECTION CHAMBER PLAN

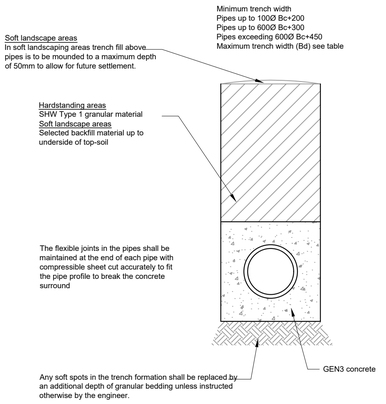


RECESSED DOUBLE SEALED INTERNAL MANHOLE COVER



CLASS S - 360° GRANULAR SURROUND PIPE BEDDING DETAIL

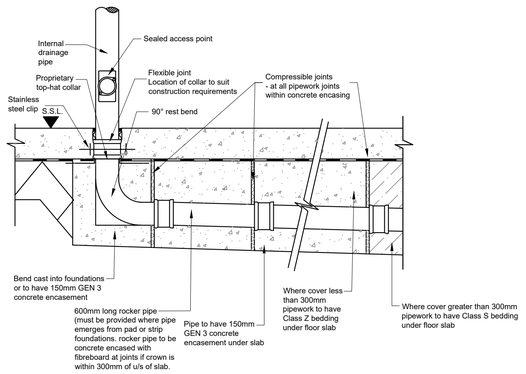
(SCALE 1:20)



CLASS Z - CONCRETE BED AND SURROUND PIPE BEDDING DETAIL

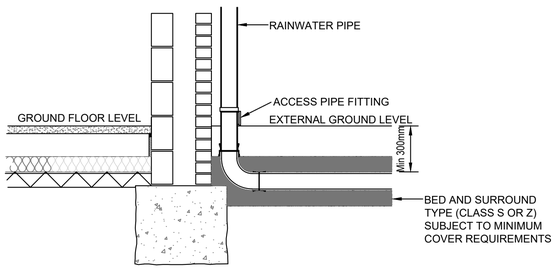
(COVER < 900mm IN VEHICULAR LOADING AND OPEN FIELD. COVER <600mm ELSEWHERE EXCEPT UNDER BUILDINGS.)

(SCALE 1:20)



DRAINAGE UNDER BUILDINGS

(SCALE 1:20)



TYPICAL RAINWATER PIPE CONNECTION

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (CESWI) AS INCLUDED IN SEWERS FOR ADOPTION 7th EDITION, THE REQUIREMENTS OF APPROVED DOCUMENT H (2002 EDITION) AND BUILDING REGULATIONS 2000.
4. DO NOT SCALE THIS DRAWING. ALL DETAILS AND DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
5. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
6. ALL SEWERS, UNLESS AGREED OTHERWISE STATED, SHALL BE:
   - 100mm DIA TO BE VITRIFIED CLAY
   - 150mm DIA TO BE VITRIFIED CLAY.
   - 225mm DIA TO BE VITRIFIED CLAY.
   - 300mm DIA TO BE VITRIFIED CLAY.
   - 375mm DIA AND GREATER TO BE CLASS 120 CONCRETE PIPES.
7. ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.
8. PIPE MATERIALS IN ACCORDANCE WITH THE FOLLOWING:
   - ALL VITRIFIED CLAY PIPES TO BS EN 295-1:
   - ALL CONCRETE PIPES TO BE TO BS EN 1916.
   - ALL CONCRETE MANHOLES TO BE TO BS EN1917.
9. AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU).
10. THE PIPE EMBEDMENT'S INDICATE THE MINIMUM TRENCH DIMENSIONSWHICH SHOULD BE ASSUMED FOR INITIAL DESIGN PURPOSES; THE MINIMUM TRENCH WIDTHS SHOWN WILL USUALLY BE SUFFICIENT TO ALLOW ADEQUATE COMPACTION OF THE EMBEDMENT MATERIAL.
11. FOR NARROW TRENCHING TECHNIQUES THE MINIMUM TRENCH WIDTH MAY BE REDUCED, PROVIDING THAT THE DESIGN INDICATES THAT THE REDUCED EMBEDMENT WIDTH IS SUFFICIENT TO SUPPORT THE PIPEWORK.
12. WHERE SELECTED EXCAVATED MATERIAL MAY MIGRATE INTO THE NATIVE SOIL OR VISA VERSA, GEOTEXTILE MEMBRANE SHALL BE PROVIDED AROUND THE EMBEDMENT MATERIAL.
13. WHERE SELECTED EXCAVATED MATERIAL IS USED AS EMBEDMENT MATERIAL, THE GROUND SHOULD BE CHECKED FOR AGGRESSIVENESS AND THE PIPEWORK PROTECTED IF NECESSARY.

CLASSIFICATION OF PIPES

14. PIPEWORK IS NORMALLY CLASSED AS FOLLOWS:-

RIGID: CLAY, CONCRETE & REINFORCED CONCRETE
SEMI-RIGID: DUCTILE IRON
FLEXIBLE: STEEL, PVC-U, MPVC(PVC-A), MOPVC, POLYETHYLENE, GRP.

FLEXIBLE PIPE EMBEDMENTS

16. FLEXIBLE PIPE EMBEDMENTS SHALL NORMALLY BE CLASS S1 OR S2, CLASS S3 MAY BE USED WHERE THE SELECTED EXCAVATED MATERIAL IS REASONABLY UNIFORM AND THE BACKFILLING CAN BE CLOSELY CONTROLLED

SEMI-RIGID PIPE EMBEDMENTS

17. SEMI-RIGID PIPE EMBEDMENTS SHALL NORMALLY BE CLASS S1, S2, S3, S4, S5 OR CLASS B1 AND B2. CLASS D EMBEDMENT'S SHOULD ONLY BE USED WHERE THE SELECTED EXCAVATED MATERIAL IS REASONABLY UNIFORM AND THE BACKFILL CAN BE CLOSELY CONTROLLED.

RIGID PIPE EMBEDMENTS

18. RIGID PIPE EMBEDMENTS SHALL BE CLASS D, F, B, S OR A.
19. BEDDING FACTORS ARE DERIVED FROM "A GUIDE TO DESIGN LOADINGS FOR BURIED RIGID PIPES" AND IGN 4-11-02 "REVISED BEDDING FACTOR FOR VITRIFIED CLAY DRAINS AND SEWERS".
20. EMBEDMENT DIMENSIONS SHALL BE IN ACCORDANCE WITH THE DETAILS AND TABLE.

Rev:	Description:	Date:	By:	Chkd:
C01	ISSUED FOR CONSTRUCTION	08/10/18	CG	CG

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Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status: CONSTRUCTION

Project: REDFERN BUILDING

Drg Title: PROPOSED DRAINAGE DETAILS 1

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	05.10.18	CG	CG	CG

Scale: 1:20

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
068952	CUR	00	XX	DR	C	92510	C01

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