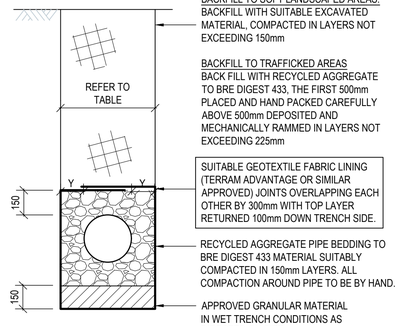
PIPE DIA.	GRANULAR BEDDING			CONCRETE BEDDING		
	Y MINIMUM			MIN. TRENCH WIDTH	MAX. TRENCH WIDTH	L
	Y1 MIN.	Y2 MIN.	Y3 MIN.			
100	100	200	150	450	750	18
150	100	200	150	500	800	
225	100	200	150	600	900	
300	100	200	150	700	1000	
375	100	200	150	805	1105	
450	150	200	150	890	1190	36
525	150	200	150	975	1275	
600	150	200	150	1075	1375	
675	150	200	225	1165	1465	
750	225	300	225	1260	1560	
825	225	300	225	1355	1655	
900	225	300	225	1460	1760	
975	225	300	300	1505	1805	
1050	225	300	300	1580	1880	
1125	225	350	300	1650	1950	
1200	375	400	300	1750	2050	
1350	375	400	375	1920	2220	54
1500	375	450	375	2040	2340	
1650	375	500	450	2210	2510	
1800	375	500	450	2390	2690	

DIMENSIONS FOR BEDDINGS AND TRENCH WIDTHS



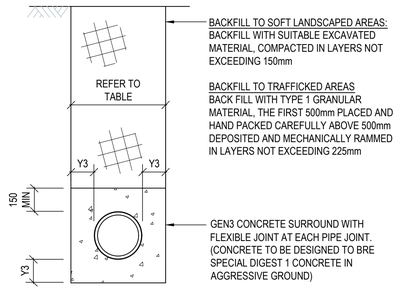
GRANULAR (CLASS S)

>1200mm DEPTH TO SOFFIT IN ROADS AND PAVEMENTS

DIMENSION 'Y' TO BE 100mm MIN. UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE ENGINEER

FOR ADOPTABLE SEWER, GRANULAR SURROUND MIN. THICKNESS OF 300 ABOVE CROWN OF PIPES.

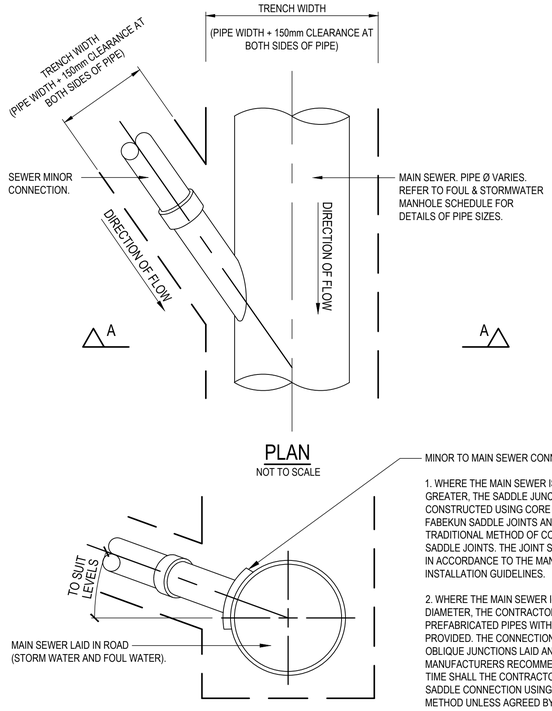
FOR BEDDING DETAILS AND SPECIFICATIONS FOR PLASTIC PIPES AND PRODUCTS REFER TO MANUFACTURER REQUIREMENTS MAKING CONSIDERING FOR:
- LOADING
- LOCATION
- GROUND CONDITIONS
- TYPES OF LIQUIDS BEING CONVEYED (CHEMICALS AND TEMPERATURE)
- ANY OTHER SITE SPECIFIC REQUIREMENTS



CONCRETE (CLASS Z)

<1200mm DEPTH TO SOFFIT IN ROADS AND PAVEMENTS

ALL JOINTS IN CLASS Z BEDDING SHOULD BE SURROUNDED BY COMPRESSIBLE FILLER BOARD (THICKNESS 18mm) TO ENSURE THE PIPE REMAINS FLEXIBLE.



PLAN
NOT TO SCALE

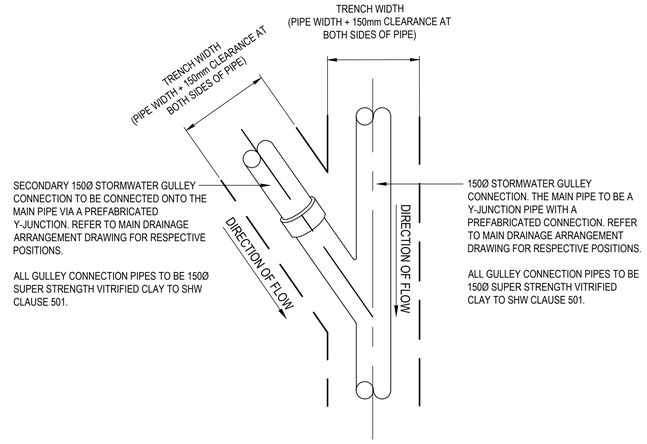
MINOR TO MAIN SEWER CONNECTIONS:

1. WHERE THE MAIN SEWER IS 600mm OR GREATER, THE SADDLE JUNCTION SHALL BE CONSTRUCTED USING CORE DRILLED EPOXY FABEKUN SADDLE JOINTS AND NOT THE TRADITIONAL METHOD OF CONSTRUCTING SADDLE JOINTS. THE JOINT SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S INSTALLATION GUIDELINES.

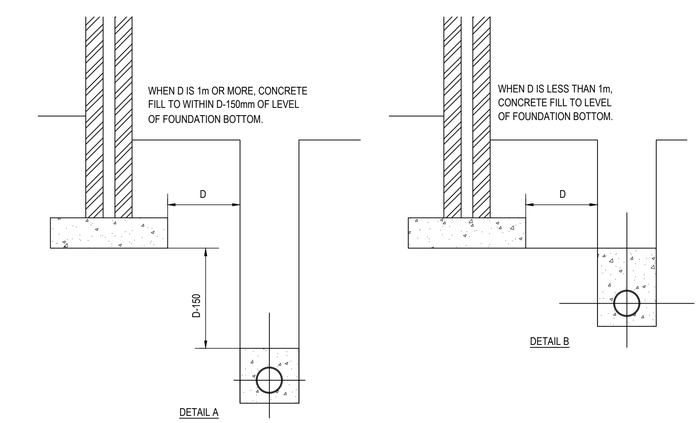
2. WHERE THE MAIN SEWER IS LESS THAN 600mm DIAMETER, THE CONTRACTOR SHALL USE PREFABRICATED PIPES WITH THE SADDLE JOINT PROVIDED. THE CONNECTIONS SHALL BE 45° OBLIQUE JUNCTIONS LAID AND JOINTED TO THE MANUFACTURERS RECOMMENDATIONS. AT NO TIME SHALL THE CONTRACTOR CONSTRUCT A SADDLE CONNECTION USING THE TRADITIONAL METHOD UNLESS AGREED BY THE ENGINEER.

SECTION A-A

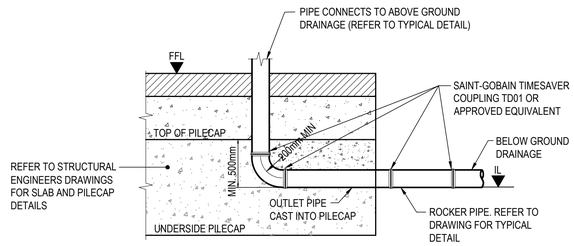
SEWER CONNECTION DETAIL FOR MINOR PIPES CONNECTING INTO MAIN SEWER
NOT TO SCALE



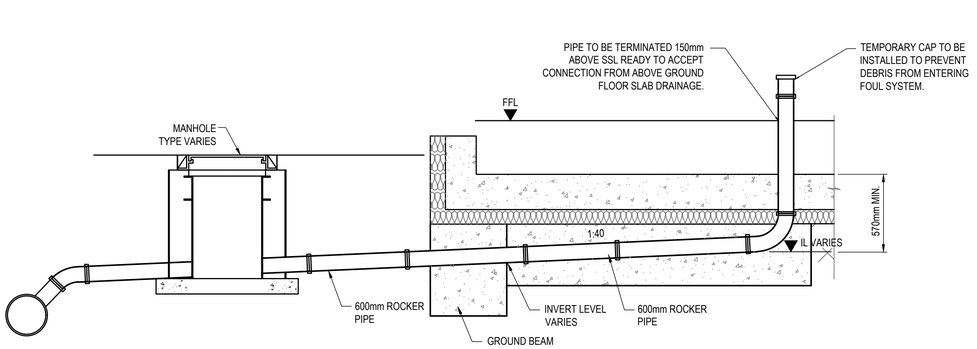
PLAN: Y-JUNCTION CONNECTION DETAIL (FOR 150Ø TO 150Ø GULLY CONNECTIONS)
NOT TO SCALE



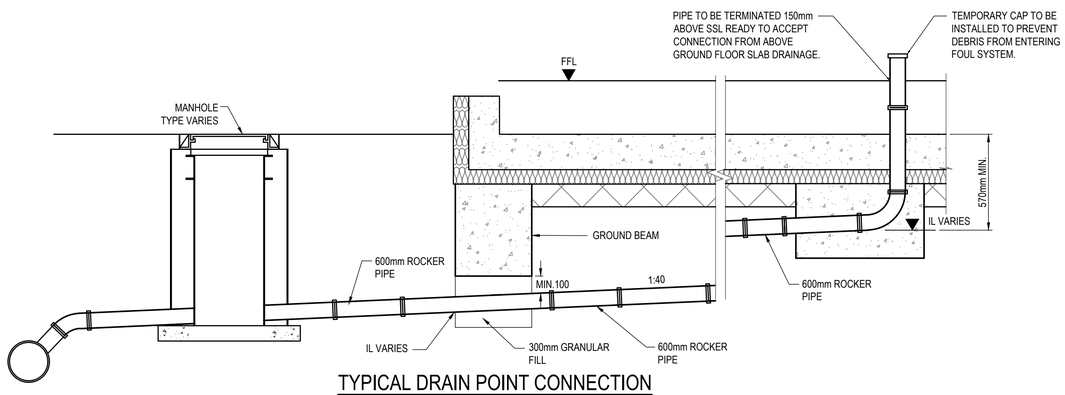
DRAINS ADJACENT TO STRUCTURAL FOUNDATIONS
NOT TO SCALE



DRAIN POINT THROUGH A PILE CAP
SCALE 1:20



TYPICAL DRAIN POINT CONNECTION (THROUGH GROUND BEAM)
NTS



TYPICAL DRAIN POINT CONNECTION (BENEATH GROUND BEAM)
NTS

© Buro Happold Limited or its group companies.
All Rights reserved. Buro Happold and its group companies assert (unless otherwise agreed in writing) their rights under s.77 to 89 of the Copyright, Designs and Patents Act 1988.

DO NOT SCALE THIS DRAWING.

HEALTH AND SAFETY INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION.
- WORKS WITHIN POTENTIAL CONFINED SPACE CONDITIONS
- WORKS IN PROXIMITY TO EXISTING / LIVE SERVICES
- WORKS WITHIN GRADE II LISTED BUILDING

MAINTENANCE/CLEANING/OPERATION.
- WORKS WITHIN POTENTIAL CONFINED SPACE CONDITIONS
- WORKS IN PROXIMITY TO EXISTING / LIVE SERVICES

DECOMMISSIONING/DEMOLITION.
- WORKS WITHIN POTENTIAL CONFINED SPACE CONDITIONS
- WORKS IN PROXIMITY TO EXISTING / LIVE SERVICES
- WORKS WITHIN GRADE II LISTED BUILDING

Notes

STANDARD DETAILS NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL DRAINAGE LAYOUTS, SCHEDULES AND DETAILS.
2. THE DEVELOPER SHALL REVIEW THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATION FOR THE PROPOSED ADOPTABLE SEWERS IN ACCORDANCE WITH SEWERS FOR ADOPTION AND THE REQUIREMENTS OF THE STATUTORY UNDERTAKER / BUILDING CONTROL AND THE SPECIFIC REQUIREMENTS OF THE CLIENT.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
4. ALL DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH BS EN 752 DRAINS AND SEWERS OUTSIDE BUILDINGS, THE CURRENT LOCAL BUILDING REGULATIONS AND TO THE SATISFACTION OF THE WATER AUTHORITY / BUILDING CONTROL OR SPECIFIC REQUIREMENTS OF THE CLIENT IF APPLICABLE.
5. BURIED CONCRETE, INCLUDING PRECAST CONCRETE TO BE DESIGNED TO BRE DIGEST 1, CONCRETE IN AGGRESSIVE GROUND. SULPHATE RESISTING CEMENT SHALL BE USED UNLESS AN ALTERNATIVE IS AGREED WITH THE SUPERVISING OFFICER/ENGINEER.
6. FOR DESIGNED, DESIGNATED OR STANDARDISED PRESCRIBED CONCRETE REFER TO BS EN 206-1 AND BS 8500. THEY SHALL HAVE A 20mm NOMINAL MAXIMUM SIZE OF AGGREGATE, AND A SLUMP CLASS S2 FOR TARGET 70mm AND NO ADMIXTURES.
7. ALL PIPES SHALL BE LAID SOFFIT TO SOFFIT UNLESS STATED OTHERWISE ON THE MANHOLE SCHEDULE.
8. MANHOLES & COVER SLABS TO BS EN 1917 AND BS 5911-3. PREFORMED SWEPT CHANNELS SHALL BE USED AT JUNCTIONS AND NO BRANCH SHALL ENTER AT LESS THAN 90 DEGREES FROM THE OUTGOING SEWER.
9. MANHOLE COVERS TO BE TO BS EN 124.
10. ALL PROPRIETARY PRODUCTS ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND SPECIFICATION.

SUBJECT TO DETAILED DESIGN AND APPROVAL BY BUILDING CONTROL, THE WATER AUTHORITY AND THE ENVIRONMENT AGENCY

Rev	Description	Date	Drn	Ch'd
00	STAGE 4 ISSUE	12.01.17	VW	PJL

STAGE 4

Status of drawing

BUROHAPPOLD ENGINEERING

2nd Floor, Eastgate
2 Castle Street
Manchester M3 4LZ
UK
Tel: +44 (0)161 233 9000
Fax: +44 (0)870 787 4143
Email: 035230@burohappold.com
Web: www.burohappold.com

Architect: *ARCHER HUMPHRYES ARCHITECTS*
Project: The Place
Drg Title: Civil Infrastructure Drainage Details Sheet 2

Job No.: 035230
Scales@A1: As shown
Drawing No.: C372
Revision: 00

Xrefs:Wall-300+mesh01grip.dwt,035230 The Place.dwg Date: Infrastructure\Sheets\035230_C371 to C373 Drainage Construction Details.dwg