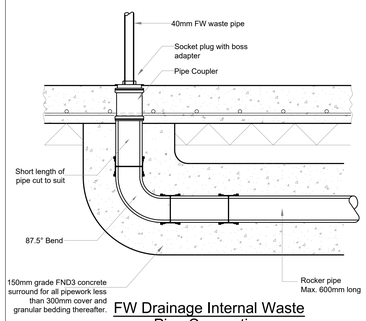
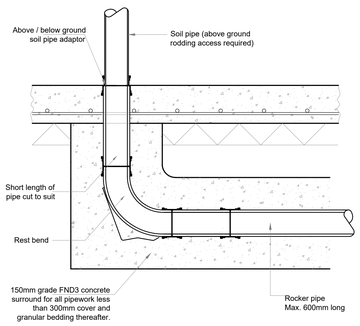


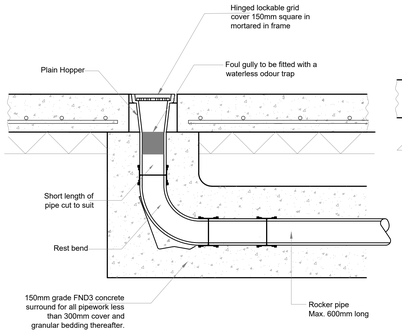
FW Drainage Internal Waste Pipe Connection Standard Detail

Scale 1:10



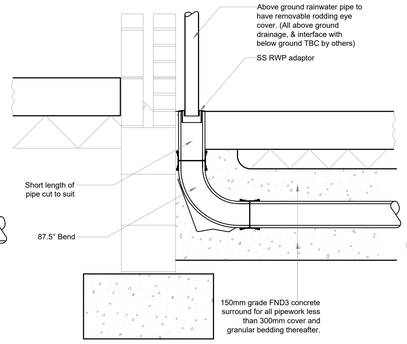
FW Drainage Soil Pipe Connection Standard Detail

Scale 1:10



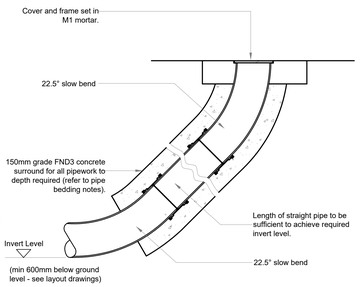
Foul Gully (Dry Odour Trap) Standard Detail

Scale 1:10



RW Pipe Connection Standard Detail

Scale 1:10



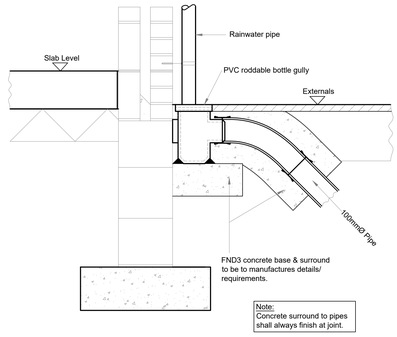
Cover and Frame Notes:

1. All covers to be Grade B125 in soft landscaping or D400 in trafficked areas to B.S.E.N. 124.
2. Cover slab to be 200mm thick Grade C28/35 concrete.

Rodding Eye Standard Detail

Scale 1:10

Refer also to the manufacturers details for any additional manufacturer specific installation requirements.



Note:
Concrete surround to pipes shall always finish at joint.

RWP to Roddable Bottle Gully Connection Standard Detail

Scale 1:10

Notes

1. All dimensions are in millimetres unless noted otherwise
2. All levels shown are in metres unless noted otherwise
3. This drawing is to be read in conjunction with all relevant Architectural & Service Engineer drawings
4. Do not scale from this drawing. Figured dimensions to be worked to in all cases. If in doubt, contact the Engineer
5. CDM (2015) - This drawing is to be read in conjunction with the Designers Risk Assessment produced for the project

General Drainage Notes:

1. All SW drainage pipes may be of rigid clayware, or alternatively PVCu (E.g. wavin twinwall or polysewer) up to 375mmØ and concrete from 450mmØ.
2. All pipes to generally run soffits level.
3. Installation of manholes, road gullies, pipes, channels, kerbdrain etc to be as per the manufacturer's instructions and recommendations.
4. For pipes with shallow cover, refer to the pipe bedding notes for concrete encasement requirements.
5. All work to be carried out in accordance with the following documents: (a) - Civil Engineering Specification for the Water Industry 7th Edition, 2011. (b) - MCHW Highway construction details F series. (c) - Specification for Highway Works.
6. A minimum pipe velocity of 1.0 m/s to be achieved to all SW pipes.
7. All SW sewers to be 150mm dia UNO.
8. All drainage is to comply with the requirements of BS EN 752.
9. All catchpits to have a min 350 / max 450mm deep sump below pipe invert levels.
10. All drains to be laid accurately to line and level in strict accordance with the manufacturers recommendations.

Pipe Bedding Notes:

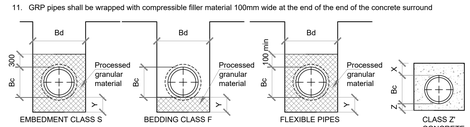
1. The pipe embedments indicate the minimum trench dimensions which should be assumed for initial design purposes; the minimum trench widths shown will usually be sufficient to allow adequate compaction of the embedment material
   All pipework should be designed in accordance with BS EN 1295-1.
2. For 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.
3. Where selected excavated material may migrate into the native soil or vice versa, geotextile membrane shall be provided around the embedment material.
4. 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".
5. Embedment dimensions shall be in accordance with the table below.

PROCESSED GRANULAR MATERIAL:

6. Processed granular material shall comply with SHW Clause 503.3(i). The grading of processed granular material shall be as specified.
7. Limestone material shall not be used where the native ground or ground water is acidic, ie pH of 6 or less

CONCRETE EMBEDMENT & SURROUND:

8. Concrete surround shall be FND3 to SHW Clause 503.3(iii), for use in aggressive ground. Elsewhere the cement type and mix design should be selected to suit the sulphate content and pH of the ground and groundwater.
9. Concrete surround details shall be adopted where cover to pipework is less than the following:
   Rigid pipes: 0.6m (fields / landscaping), 1.2m (roads / trafficked)
   Flexible pipes: 0.6m (fields / landscaping), 0.9m (roads / trafficked)
   Where cover is greater, typically Class S bedding and surround to be used
9. Pipes to be bedded/surrounded with concrete shall be supported on precast concrete setting blocks, the top face of of each block being covered with two layers of compressible packing.
10. PVC and PE pipes shall be wrapped with a layer of plastic sheeting.
11. GRP pipes shall be wrapped with compressible filler material 100mm wide at the end of the end of the concrete surround



Note:
Bc = Outside Diameter of pipe
Bd = Effective trench width measured 300mm above crown of pipe

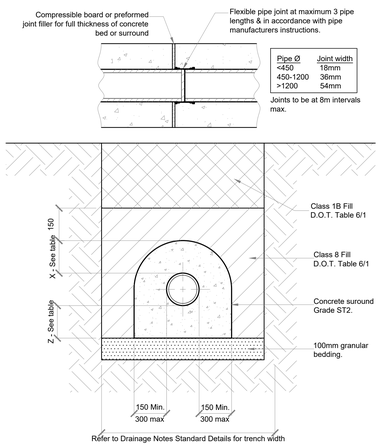
BEDDING FACTOR (See note 4)	
2.2	Narrow Trench
2.2 or 2.5	Wide Trench
2.2	Enbankment

Embedment Dimensions (all dimensions in mm)

NOMINAL INT PIPE DIA	DIMENSION Y1 EVEN TRENCH BOTTOM (MIN)	DIMENSION Y2 ROCK OR UNEVEN TRENCH BOTTOM (MIN)	PROCESSED GRANULAR MATERIAL	DIMENSION X (MIN)	DIMENSION Z (MIN)	MAX PERMITTED TRENCH WIDTH	MIN PERMITTED TRENCH WIDTH
100	100	200	10mm single sized	160	100	750	450
150	100	200	10mm single sized or 14mm to 5mm graded	160	100	750	550
225	100	200		160	100	825	525
300	100	200		160	100	925	625
375	100	200	14mm single sized or 14mm to 5mm graded	160	100	1050	750
450	150	200		200	150	1150	850
525	150	250		200	150	1200	900
600	150	250	20mm single sized or 20mm to 5mm graded	200	150	1350	1050
675	150	250		200	225	1450	1150
750	225	300		300	225	1500	1200
825	225	300		300	225	1600	1300
900	225	300		300	225	1900	1600

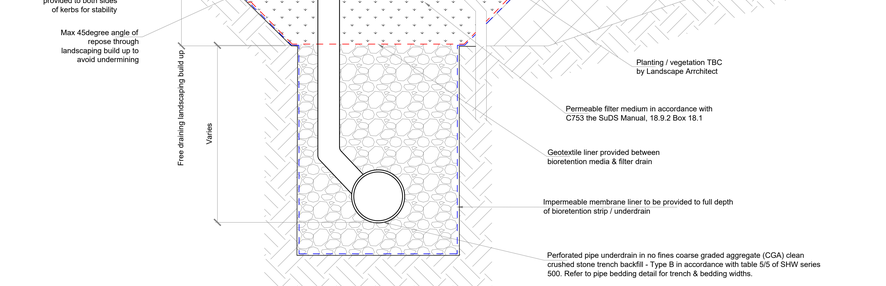
Bedding Class 'S' Standard Detail

Scale 1:10



Pipe Concrete Surround Class 'S' Standard Detail

Scale 1:10



SuDS - Private Road Filter Drain Detail

Scale 1:10

SuDS - Raingarden Detail

Scale 1:10

Rev	Date	Description	Drawn
P01	07/26	Issued as RIBA 3+	RH

Drawing Status
RIBA STAGE 3+/S2 - SUITABLE FOR COMMENT

Contract
PROJECT TAVERNA
MANCHESTER CITY FOOTBALL CLUB

Drawing Title
DRAINAGE DETAILS (2of2)

Scales	Date	Drawn	Checked
As Shown (A0)	07/2026	RH	SB

Project	Origin	Zone	Level	Type	Role	Number	Rev/n
MCFG	CAL	ZZ	XX	D	C	0055	P01

Calibre Consulting Engineers Ltd.
w: www.calibre-consulting.co.uk
e: info@calibre-consulting.co.uk