



CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL	VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	LEFT HAND CHANNEL	RIGHT HAND CHANNEL	STORMWATER COVER LEVEL	STORMWATER INVERT	STORMWATER DETAILS	STORMWATER LENGTHS	FOULWATER COVER LEVEL	FOULWATER INVERT	FOULWATER DETAILS	FOULWATER LENGTHS
-2.900	245.487	245.505	G= 5.000%	10.000	245.436	245.574			Pipe 1.005 Dia 150 Circular CLAY 1 in 57 S BED	7.121	244.600	244.600	Pipe 1.005 Dia 150 Circular CLAY 1 in 57 S BED	7.121
0.000	245.533	245.505	G= 5.424%	10.000	245.686	245.824			Pipe 1.004 Dia 150 Circular CLAY 1 in 29 S BED	13.299	244.600	244.600	Pipe 1.004 Dia 150 Circular CLAY 1 in 29 S BED	13.299
3.794	246.275	246.275	G= 17.40410	10.000	246.014	246.151	246.063	244.300	Pipe 1.003 Dia 150 Circular CLAY 1 in 12 S BED	25.351	245.000	245.000	Pipe 1.003 Dia 150 Circular CLAY 1 in 12 S BED	25.351
7.188	247.589	247.589	G= 5.573%	10.000	246.285	246.423	246.519	245.000	Pipe 1.000 Dia 150 Circular CLAY 1 in 17 S BED	15.741	246.000	246.000	Pipe 1.000 Dia 150 Circular CLAY 1 in 17 S BED	15.741
10.292	248.592	248.592	L= 20.000	10.000	246.556	246.694	246.519	246.500		10.414	246.200	246.200		10.414
17.185	249.033	249.033	KF= -1.94597	10.000	246.828	246.966	246.807	247.000		36.040	246.330	246.330		36.040
20.000	249.166	249.166		10.000	247.099	247.236	246.925	247.000			246.330	246.330		
30.000	249.300	249.300		10.000	247.376	247.514	249.025	247.000			246.330	246.330		
40.000	249.433	249.433		10.000	247.655	247.793	249.025	247.000			246.330	246.330		
44.938	249.566	249.566		10.000	247.934	248.072	249.025	247.000			246.330	246.330		
50.000	249.700	249.700		10.000	248.213	248.351	249.025	247.000			246.330	246.330		
55.000	249.833	249.833		10.000	248.492	248.630	249.025	247.000			246.330	246.330		
57.886	249.966	249.966		10.000	248.771	248.909	249.025	247.000			246.330	246.330		
60.000	250.100	250.100		10.000	249.050	249.188	249.025	247.000			246.330	246.330		
65.000	250.233	250.233		10.000	249.329	249.467	249.025	247.000			246.330	246.330		
67.700	250.366	250.366		10.000	249.608	249.746	249.025	247.000			246.330	246.330		
69.130	250.500	250.500		10.000	249.887	250.025	249.025	247.000			246.330	246.330		
74.069	250.633	250.633		10.000	250.166	250.304	249.025	247.000			246.330	246.330		
80.000	250.766	250.766		10.000	250.445	250.583	249.025	247.000			246.330	246.330		
90.000	250.900	250.900		10.000	250.724	250.862	249.025	247.000			246.330	246.330		
92.415	251.033	251.033		10.000	251.003	251.141	249.025	247.000			246.330	246.330		
100.000	251.166	251.166		10.000	251.282	251.420	249.025	247.000			246.330	246.330		
106.879	251.300	251.300		10.000	251.561	251.699	249.025	247.000			246.330	246.330		

PIPE STRENGTHS 100mm Clay = 40KN/m; 150mm Clay = 40KN/m.

SECTION 104 FOUL CHAMBER SCHEDULE

Manhole Number	Cover Level	Coordinates	Connections	Pipe			Manhole Size	Types	
				Code	Inverts	Diams		Manhole	Cover
F1	247.920	E. 416520.191 N. 412713.734	1 0	Lateral	246.830	100	1200	C	D400 600x600
F2	249.142	E. 416486.094 N. 412700.449	1 0	Lateral	246.780	150	1200	B	D400 600x600
F3	248.903	E. 416477.309 N. 412704.964	1 0	Lateral	246.200	150	1200	B	D400 600x600
F4	247.930	E. 416471.134 N. 412719.443	1 2	Lateral	246.050	100	1200	B	D400 600x600
F5	246.484	E. 416465.149 N. 412744.078	1 0	Lateral	245.060	150	1200	C	D400 600x600
F6	245.712	E. 416457.432 N. 412754.909	1 0	Lateral	244.600	150	1200	C	D400 600x600

DEMARICATION CHAMBER SCHEDULES

CHAMBER MAKE	COVER SIZE	COVER LEVEL	INVERT LEVEL	DEPTH	COVER SIZE	COVER GRADE	LOCATION
DCF1	HEPWORTH PPC 450mm dia	247.80	246.87	0.93m	450 x 450mm	B125	416524.851E 412715.484N
DCF2	HEPWORTH PPC 450mm dia	248.68	247.00	1.68m	450 x 450mm (with 300mm reduced access)	B125	416505.964E 412703.350N
DCF3	TYPE B Concrete	249.20	246.69	2.51m	600 x 600mm	B125	416480.456E 412699.119N
DCF4	HEPWORTH PPC 450mm dia	248.19	246.62	1.57m	450 x 450mm (with 300mm reduced access)	B125	416477.855E 412716.919N
DCF5	HEPWORTH PPC 450mm dia	248.13	246.50	1.63m	450 x 450mm (with 300mm reduced access)	B125	416468.010E 412718.779N
DCF6	HEPWORTH PPC 450mm dia	246.25	245.20	1.05m	450 x 450mm	B125	416467.775E 412750.719N

- YORKSHIRE WATER SEWER NOTES
- All adoptable sewer works and materials to be in accordance with 'Code for Adoption', The relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and kitemarked.
  - Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BSEN124 with 150mm deep frames in highways.
  - Filled ground must be filled and consolidated under the supervision of and to the satisfaction of Yorkshire Water before any sewer works are carried out.
  - Yorkshire Water is **not** obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage run-off with therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with the regard to the disposal of the filter drain/land drain run-off.
  - The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
  - Sewers must have 5m clearance from trees and hedges or the width of the canopy at mature height.
  - Sewers to be laid with Class 'S' Bedding (150mm granular bed and surround). Where depth of cover to top of sewer is less than 1.2m in highways and verges (or less than 900mm in non-vehicular areas), then a concrete slab should be provided above the granular bed and surround.
  - Bedding and backfill material to conform to the requirements of the Water Industry Specification 4-08-02 (Table A2).
  - Yorkshire water policy is not to accept Type 'c' brick manholes and 1050mm diameter rings. Instead it is preferred that you use a type B manhole with 1200mm dia or 1500mm dia rings with the opening sited over the channel where depth of cover to pipe soffit is 1-1.5m.
  - Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WIS 4-3-01 and BSEN13476). Adoptable plastic sewer pipes to be laid in 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channels in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the bedding.
  - The minimum crushing strength for clay pipes should be as follows:- 100mm dia 40KN/m, 150mm dia 40KN/m, 225mm 45KN/m and 300mm dia 72KN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS5911-1 2002). Plastic pipes should conform to WIS 4-35-01 and BSEN13476.
  - Where a B125 cover and frame has been approved, this MUST NOT be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
  - There must be enough clearance at crossovers to accommodate bedding for both pipes, approx. 300mm if crossover is near the rocker then the clearance needed may need to be increased.

Checked	Rev #	Description	Date
	2	YW reference number added. Location of F1 & DCF1 amended. Gradients F1-F3 amended. Restricted access note added to demarcation chambers over 1.2m deep.	12/01/24
	1	First issue for approvals	17/11/23

Client

**Radcliffe Developments  
(Farnley) Ltd**

Job Title

**YEW TREE FARM  
FARNLEY TYAS**

The Media Centre, 7 Northumberland Street, Huddersfield, HD1 1RL

**BRIGHT** Email: info@brightyoung.co.uk  
**YOUNG** Web: www.brightyoung.co.uk

Consulting Limited Tel: 01484 487950  
Fax: 01484 603519

Drawing Title

**HIGHWAYS AND DRAINAGE**

**SECTION 104  
SECTIONS AND SCHEDULES**

Scale 1:500h/1:50v @ A1	Date NOV 2023	Drawn HM	Checked JB
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Drg No. **4011/113** Rev **2**