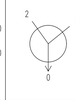
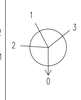
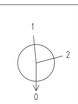
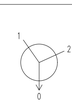
H-?-???-???

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe:	Code	Inverts	Diams	Manhole Size	Types: Manhole	Cover
S1	72.624		1	Gully	71.199	150	1200	C	D400
	1.275		2	Lateral	71.199	150			
E. 440023.833									
N. 402329.084			0	1.000	71.199	150			
S2	71.673		1	1.000	70.248	150	1200	C	D400
	1.275		2	Lateral	71.199	150			
E. 440052.894									
N. 402349.067			0	1.001	70.248	150			
S3	71.276		1	1.001	69.425	150	1200	B	D400
	1.701		2	Lateral	69.425	150			
E. 440066.213									
N. 402352.285			0	1.002	69.350	225			
S4	70.948		1	1.002	69.029	225	1200	B	D400
	1.694		2	Lateral	66.104	150			
E. 440078.098									
N. 402350.414			0	1.003	68.954	300			
S5	70.561		1	1.003	68.628	300	1200	B	D400
	1.633		2	Lateral	68.778	150			
E. 440101.260									
N. 402339.062			0	1.004	68.628	300			
S6	70.674		1	Gully	69.249	150	1200	C	D400
	1.275		2	Lateral	69.249	150			
E. 440105.201									
N. 402313.428			0	2.000	69.249	150			
S7	70.300		1	1.004	68.100	300	1500	B	D400
	1.900		2	2.000	68.250	150			
E. 440115.690									
N. 402320.699			0	1.005	68.100	300			
S8	69.777		1	1.005	67.835	300	1500	B	D400
	1.642								
E. 440131.586									
N. 402320.432			0	1.006	67.760	375			
S9	68.852		1	1.006	66.756	375	1800	B	D400
	1.721		2	Lateral	69.981	150			
E. 440158.942			3	Lateral	69.981	150			
N. 402307.790			0	1.007	66.681	450			
S10	68.357		1	1.007	66.206	450	1500	B	D400
	1.701		2	Lateral	66.506	150			
E. 440177.040									
N. 402283.934			0	1.008	66.131	525			
S11	68.513		1	1.008	65.909	525	1500	B	D400
	2.079		2	Lateral	66.284	150			
E. 440178.691									
N. 402272.296			0	1.009	65.909	525			
S12	72.068		1	Gully	70.718	150	1200	C	D400
	1.200		2	Lateral	70.718	150			
E. 440049.649									
N. 402301.308			0	3.000	70.643	225			

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe:	Code	Inverts	Diams	Manhole Size	Types: Manhole	Cover
S13	71.520		1	Gully	70.170	150	1500	C	D400
	1.200		2	Gully	70.170	150			
E. 440056.696			3	Lateral	70.170	150			
N. 402271.216			0	4.000	70.095	225			
S14	71.747		1	3.000	69.871	225	1500	B	D400
	1.726		2	4.000	69.871	225			
E. 440063.637									
N. 402285.583			0	3.001	69.796	225			
S15	71.761		1	3.001	69.730	225	1500	B	D400
	1.806								
E. 440073.114									
N. 402291.533			0	3.002	69.730	225			
S16	71.352		1	3.002	69.574	225	1500	B	D400
	1.553		2	Lateral	69.649	150			
E. 440094.302									
N. 402275.840			0	3.003	69.574	300			
S17	70.338		1	3.003	68.423	300	1500	B	D400
	1.615		2	Lateral	68.573	150			
E. 440137.740									
N. 402256.962			0	3.004	68.423	300			
S18	69.030		1	1.009	65.528	525	1800	B	D400
	2.977		2	3.004	65.753	300			
E. 440163.780			3	Lateral	65.903	150			
N. 402242.450			0	1.010	65.528	525			
S19	67.977		1	1.010	65.195	525	1500	B	D400
	2.257		2	Lateral	65.570	150			
E. 440213.011									
N. 402217.559			0	1.011	65.195	525			
S20	67.712		1	1.011	65.108	525	1800	B	D400
	2.079		2	Lateral	65.483	150			
E. 440225.163									
N. 402222.225			0	1.012	65.108	525			
S21	67.390		1	1.012	65.003	525	1500	B	D400
	1.862		2	Lateral	65.378	150			
E. 440232.345									
N. 402236.234			0	1.013	65.003	525			
S22	66.826		1	1.013	64.799	525	1500	B	D400
	1.502		2	Lateral	65.174	150			
E. 440253.186									
N. 402258.707			0	1.014	64.799	525			
S23	64.068		1	1.014	62.343	525	1500	C	D400
	1.200		2	Lateral	62.718	150			
E. 440286.596									
N. 402294.734			0	1.015	62.343	525			
S24	62.218		1	1.015	60.493	525	1500	C	D400
	1.200		2	Lateral	61.138	150			
E. 440312.777									
N. 402322.965			0	1.016	60.493	525			

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe:	Code	Inverts	Diams	Manhole Size	Types: Manhole	Cover
S25	61.516		1	Gully	60.166	150	1200	C	D400
	1.200								
E. 440307.341									
N. 402354.755			0	5.000	60.166	150			
S26	61.650		1	5.000	59.906	150	1500	B	D400
	1.594		2	1.016	59.531	525			
E. 440323.200									
N. 402334.204			0	1.017	59.456	600			
S27	61.500		1	1.017	58.369	600	1200	See PolyStorm Manufacturers DWG & ARP DWG 425/87/07.01 & 07.02	D400
	2.531								
			0	Polystorm Tank	58.369	TANK			
S28	60.576		1	Lateral	59.226	150	1500	C	D400
	1.200		2	Gully	59.226	150			
E. 440306.897			3	Gully	59.226	150			
N. 402419.937			4	Lateral	59.226	150			
			0	6.000	59.076	300			
S29	60.820		1	6.000	58.952	300	1500	B	D400
	1.568		2	Lateral	59.102	150			
E. 440318.976			3	Gully	59.102	150			
N. 402403.257			0	6.001	58.952	300			
S30	61.236		1	Gully	59.886	150	1500	C	D400
	1.200		2	Lateral	59.886	150			
E. 440303.360									
N. 402377.547			0	7.000	59.736	300			
S31	60.997		1	6.001	58.863	300	1500	B	D400
	1.834		2	7.000	58.863	300			
E. 440318.431			3	Lateral	59.013	150			
N. 402388.461			0	6.002	58.863	300			
S32	61.000		1	6.002	58.782	300	1200	See PolyStorm Manufacturers DWG & ARP DWG 425/87/07.01 & 07.02	D400
	1.918								
			0	Polystorm Tank	58.782	TANK			
S33	60.500		1	1.018	58.341	600	1200	See PolyStorm Manufacturers DWG & ARP DWG 425/87/07.01 & 07.02	D400
	1.559								
			0	Polystorm Tank	58.041	TANK			
S34	60.500		1	1.019	58.029	900	1800	B	D400
	1.571								
E. 440355.478									
N. 402336.592			0	1.020	58.029	900			
S35	60.988		1	1.020	57.980	900	1800	B	D400
	2.108								
E. 440360.438									
N. 402313.705			0	1.021	57.980	900			
S36 FLOW CONTROL	60.552		1	1.021	57.907	900	1800	See ARP dwg 425/87/12.01	D400
	2.545								
E. 440383.633									
N. 402290.313			0	1.022	57.857	150			
S37 Outfall	60.155		1	1.022	57.750	150	1200	Existing	Existing
	2.255								
E. 440394.314									
N. 402289.243				Existing	Existing	300			

N O T E S

1. This drawing is to be read in conjunction with all relevant ARP and Architects drawings and project specifications.
2. Survey related to topographical survey supplied by Miller Homes (Yorkshire) Ltd.
3. Co-ordinates to be checked prior to works commencing. Any discrepancies to be brought to the immediate attention of ARP.

Yorkshire Water General Notes

1. All adoptable sewer works and material 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.
2. Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
3. Filled ground must be filled and consolidated under the supervision, and to the satisfaction, of Yorkshire Water before any sewer works are carried out.
4. Cover slabs must carry the BSI Kitemark or will be rejected by the Yorkshire Water inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600x600mm for the Yorkshire Water specified cover size. Please refer to the Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued autumn 2004 for kitemarked cover slab opening sizes.
5. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
6. Sewers must have 5 metres clearance from trees and hedges, (please also refer to Figure 2.3 on page 33 in "Sewers for Adoption" 6th Edition for restrictions on tree planting adjacent to Sewers).
7. Sewers to be laid in Class "S" bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in none vehicular access areas) then a concrete slab should be provided above the granular bed and surround.
8. Adoptable plastic sewer pipes to be BSI Kitemarked (Certified to WIS 4-35-01 and BS/EN13476). Adoptable sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer.
9. Plastic channel sections in manholes are not acceptable and slaware is preferable. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the benching.
10. The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
11. Yorkshire Water policy is not to accept type "C" brick manhole and 1050mm dia manhole 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.
12. Surface water and foul rising mains to be provided with marker tape above the rising mains.
13. If plastic pipes are to be used then the following should apply:-
    a. All adoptable sewers to be BSI Kitemark (Certified to WIS 4-35-01 and BS/EN13476).
    b. Bedding and backfill material to conform to the requirements of Water industry Specification 4-08-02 (Table A2)
14. Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
15. Where plastic pipes are installed into the ground prior to getting full technical approval, the developer must provide a CCTV survey of the prospectively adoptable sewers and a deformation test (Light-Line test) of the plastic pipes.
16. Demarcation chambers to be a min. 450mm# chamber for 100mm# foul & 150mm# surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 350mm is required for safety reasons.
17. Maximum depth of demarcation chamber to be 2m, where depth exceeds 2m, manhole to be constructed as type B manhole.
18. Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Land Drainage Authority/Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff is required.
19. Sulphate resisting cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
20. Strength of vitrified clay pipes (if used) to be 40KN/m for 100#, 40KN/m for 150#, 45KN/m for 225# and 72KN/m for 300#. All concrete pipes to be Class 120 concrete to EN 1916/BS 5911-1:2002.
21. All levels of existing drainage to be confirmed prior to work commencing on site.
22. The contractor must allow for any fee's required for road and sewer opening permits, sewer connections and make the appropriate applications.
24. All excavations in areas of high water tables and granular materials with high sand/silt contents shall be wrapped with a suitable geotextile filter membrane to prevent migration of sands/silts. Full height clay stanks across trenches and/or at manhole locations at 25m intervals to restrict water movement along the excavation shall be provided.
25. Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will be required and liaison with the Land Drainage Authority with regard to the disposal of the filter drain/land drainage runoff if necessary.
26. Do not scale from this drawing.

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

Rev	By	Date	Revision	Chk	Apvd
/	JMG	27.05.22	Issued for approval	DJG	MI

ARP ASSOCIATES
Chartered Consulting Engineers

Northwest House ● 5 & 6 Northwest Business Park ● Servia Hill, Leeds ● LS6 2QH
☎ 0113 245 8498 🖷 0113 244 3864 ✉ leeds@arpassociates.co.uk 🌐 www.arpassociates.co.uk

ARP Associates is a trading division of ARP Geotechnical Ltd, a company registered in England and Wales with company number 3771811, whose registered office is at 5/6 Northwest Business Park, Servia Hill, Leeds LS6 2QH

TITLE
SURFACE WATER MANHOLE SCHEDULE NETWORK 1

PROJECT
GYPSY LANE, WOMBWELL

CLIENT
MILLER HOMES (YORKSHIRE) LTD

DRAWING STATUS
PRELIMINARY

Scale	Date	Drawn	Chk.
N/A	MAY 22	JMG	DJG

Drg. No. 425/61/11.03 Rev /