H-3-264-643

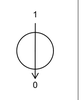
SURFACE WATER MANHOLE SCHEDULE

Sheet 1 of 2

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe: Code	Pipe: Inverts	Pipe: Dimensions (mm)	Manhole Size	Types: Manhole	Types: Cover
S1	117.100		1 Lateral	115.725	150	1200	C	D400
E. 414569.274	1.225		2 Lateral	115.725	150			
N. 415416.050			0	1.000	115.650	225		
S2	115.500		1	1.000	113.300	225	1200	B	D400
E. 414597.574	1.975		2 Lateral	1.001	113.375	150			
N. 415399.309			3 Lateral	1.001	113.375	150			
			0	1.001	113.300	225		
S3	111.601		1	1.001	110.075	225	1200	C	D400
E. 414639.284	1.301		2 Lateral	1.001	110.150	150			
N. 415374.636			0	1.002	110.000	300		
S4	109.600						1200	C	D400
E. 414668.040	1.200								
N. 415394.027			0	2.000	108.250	150			
S5	110.250		1	1.002	107.950	300	1500	B	D400
E. 414656.895	2.000		2	2.000	108.100	150			
N. 415386.511			0	1.003	107.875	375			
S9	111.137		1	1.006	106.675	225	1200	A	D400
E. 414645.565	4.237								
N. 415416.932			0	1.007	106.675	225			
S10	111.400		1	1.007	105.950	225	1200	A	D400
E. 414564.256	5.225								
N. 415464.958			0	1.008	105.950	225			
S11	106.900		1	1.008	105.475	225	1200	C	D400
E. 414584.313	1.200								
N. 415498.458									
S6_IN			1	1.003	107.825	375		JUNCTION	
E. 414651.115									
N. 415395.082			0	1.004	106.850	15539x2200			
S7_OUT			1	1.004	106.800	15539x2200		JUNCTION	
E. 414645.523									
N. 415401.467			0	1.005	106.800	300			

SURFACE WATER MANHOLE SCHEDULE

Sheet 2 of 2

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe: Code	Pipe: Inverts	Pipe: Dimensions (mm)	Manhole Size	Types: Manhole	Types: Cover
S8_FC	111.200		1	1.005	106.750	300	1200	A	D400
E. 414645.538	4.225								
N. 415407.108			0	1.006	106.750	225			
S9	111.137		1	1.006	106.675	225	1200	A	D400
E. 414645.565	4.462								
N. 415416.932			0	1.007	106.675	225			
S10	111.400		1	1.007	105.950	225	1200	A	D400
E. 414564.256	5.450								
N. 415464.958			0	1.008	105.950	225			
S11	106.900		1	1.008	105.475	225	1200	C	D400
E. 414584.313	1.425								
N. 415498.458			0	1.009	105.369	225			
C2	106.530		1	1.008	105.369	225	1200	C	D400
E. 414584.303	1.161								
N. 415501.392									

FOUL WATER MANHOLE SCHEDULE

Sheet 1 of 1

Manhole Number / Coordinates	Cover Level / Depth To Soffit	Connections	Pipe: Code	Pipe: Inverts	Pipe: Diams	Manhole Size	Types: Manhole	Types: Cover
F1	116.924		1 Lateral	114.900	150	1200	B	D400
E. 414573.098	1.874		2 Lateral	114.900	150			
N. 415412.626			0	1.000	114.900	150		
F2	112.572		1	1.000	110.500	150	1200	B	D400
E. 414627.743	1.922		2 Lateral	1.000	110.500	150			
N. 415380.302			0	1.001	110.500	150			
F3	111.200		1	1.001	109.850	150	1200	C	D400
E. 414643.420	1.200								
N. 415406.804			0	1.002	109.850	150			
F4	111.229		1	1.002	109.800	150	1200	C	D400
E. 414642.898	1.279								
N. 415414.181			0	1.003	109.800	150			
F5	111.850		1	1.003	109.000	150	1200	B	D400
E. 414558.162	2.700								
N. 415463.801			0	1.004	109.000	150			
F6	109.600		1	1.004	108.250	150	1200	C	D400
E. 414567.223	1.200								
N. 415478.185			0	1.005	108.250	150			
C1	109.550		1	1.005	108.200	150	1200	C	D400
E. 414570.209	1.200								
N. 415479.021									

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

N O T E S

ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN

Yorkshire Water 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. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off
5. Cover slabs must carry the BSI Kitemark or will be rejected by 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 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes
6. Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
7. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
8. Sewers must have 5 metres clearance from trees and hedges.
9. 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 provide above granular bed and surround.
10. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
11. 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.
12. Yorkshire Water policy is that Type "C" brick manholes and 1050mm dia manhole rings are not preferred. 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.
13. Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WIS 4-35-01 and BS/EN13476).Adoptable plastic sewer pipes to be laid in maximum 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 channel 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 benching.
14. The minimum crushing strength for clay pipes should be as follows : 100mm dia. 40KN/m, 150mm dia. 40KN/m, 225mm dia. 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 BS EN13476.
15. 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.

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

Rev	By	Date	Revision	Chk	Apvd
F	MD	29.05.24	MH details revised to new drainage layout	MI	MI
E	RJ	23.06.22	Manhole details updated	MI	MI
D	RJ	13.05.22	Amended to new site layout	MI	MI
C	RJ	14.03.22	Amended to suit section 104 comments	MI	MI
B	MB	04.11.21	Amended to suit section 104 comments	MI	MI
A	BHB	07.06.21	Amended to Yorkshire Water Comments	RJ	MI
/	JG	12.04.21	Preliminary	RJ	MI

ARP ASSOCIATES
Chartered Consulting Engineers
Northwest House ● 5 & 6 Northwest Business Park ● Servia Hill, Leeds ● LS6 2QH
☎ 0113 245 6498 ✉ 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
MANHOLE SCHEDULE

PROJECT
PLANE STREET,
HUDDERSFIELD

CLIENT
UNITY HOUSING ASSOCIATION

DRAWING STATUS
FOR APPROVAL

Scale	Date	Drawn
NTS	APR 21	RJ
		Chk. MI

Drg. No. 0257/05/11.00 Rev F