



Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams		Manhole	Cover
S1	58.946 1.211	GULLY				1200	C	D400
E. 435904.147 N. 403697.472			0	1.000	57.510	225		
S2	58.440 1.205		1 2 3	DS1 1.000 DS2	57.085 57.010 57.085	150 225 150	C	D400
E. 435908.412 N. 403687.454			0	1.001	57.010	225		
S3	57.322 1.552	GULLY	1 2	DS3 1.001	55.620 55.545	150 225	B	D400
E. 435908.329 N. 403663.488			0	1.002	55.470	300		
S4	57.003 1.718		1 2	2.000 1.002	55.060 54.985	225 300	B	D400
E. 435929.701 N. 403661.312			0	1.003	54.985	300		
S5	54.071 1.669		1	1.003	52.105	300	B	D400
E. 435926.289 N. 403628.044			0	1.004	52.030	375		
S6	53.664 1.362	GULLY	1 2	1.004 DS4	51.930 52.155	375 150	B	D400
E. 435922.976 N. 403604.478			0	1.005	50.805	1500		

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams		Manhole	Cover
F1	58.572 1.822		1 2	DF1 DF2	56.600 56.600	150 150	B	D400
E. 435909.723 N. 403690.519			0	1.000	56.600	150		
F2	57.359 2.289		1 2	DF3 1.000	54.920 54.920	150 150	B	D400
E. 435911.059 N. 403666.017			0	1.001	54.920	150		
F3	56.639 1.889		1 2	DF5 DF6	54.600 54.600	150 150	B	D400
E. 435947.281 N. 403661.122			0	2.000	54.600	150		
F4	57.008 2.458		1 2	1.001 2.000	54.400 54.400	150 150	B	D400
E. 435931.358 N. 403662.744			0	1.002	54.400	150		
F5	54.083 1.268		1 2	1.002 DF7	52.665 52.665	150 150	C	D400
E. 435927.291 N. 403629.537			0	1.003	52.665	150		
F6	55.503 1.833		1	DF8	53.520	150	B	D400
E. 435839.737 N. 403635.398			0	3.000	53.520	150		

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams		Manhole	Cover
S7	56.842 1.327	GULLY	1 2	DS5 DS6	55.365 55.365	150 150	C	D400
E. 435835.710 N. 403666.848			0	3.000	55.290	225		
S8	56.200 1.225		1 2	3.000 DS7	54.750 54.825	225 150	C	D400
E. 435841.690 N. 403652.120			0	3.001	54.750	225		
S9	55.631 0.956		1 2	3.001 DS8	54.450 54.525	225 150	C	D400
E. 435841.388 N. 403638.941			0	3.002	54.375	300		
S10	54.534 2.154		1 2 3	4.001 DS9 3.002	50.880 52.230 52.080	1500 150 300	B	D400
E. 435840.781 N. 403612.533			0	3.003	50.880	1500		
S11 FLOW CONTROL	53.952 3.002		1 2 3	1.005 DS10 3.003	50.700 52.050 50.700	1500 150 1500	A	D400
E. 435893.113 N. 403607.206			0	1.006	50.650	300		
S12	54.180 3.305		1	1.006	50.575	300	A	D400
E. 435891.644 N. 403594.691								

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams		Manhole	Cover
S10A	54.662 2.472		1	TANK 4.000	51.845	300	B	D400
E. 435830.546 N. 403613.576			0	4.001	50.915	1500		
S4A	56.637 1.257	GULLY	1 2	DS11 DS12	55.230 55.230	150 150	C	D400
E. 435945.485 N. 403659.704			0	2.000	55.155	225		

Note  
Position and depth of existing surface water sewer to be confirmed. Outfall chamber / connection to be amended to suit.

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams		Manhole	Cover
F7	54.650 1.230		1 2	DF9 3.000	53.270 53.270	150 150	C	D400
E. 435839.542 N. 403615.662			0	3.001	53.270	150		
F8	53.991 1.271		1 2	3.001 DF10	52.570 52.570	150 150	C	D400
E. 435894.663 N. 403609.312			0	3.002	52.570	150		
F9	53.632 2.112		1 2 3	1.003 3.002 DF11	51.370 51.370 51.370	150 150 150	B	D400
E. 435925.562 N. 403605.752			0	1.004	51.370	150		
FOutfall	53.955 2.570		1	1.004	51.245	150	B	D400
E. 435924.389 N. 403593.597								

Note  
Position and depth of existing combined sewer to be confirmed. Outfall chamber to be amended to suit.

- To be read in conjunction with Eastwood and Partners drawings prefixed 48404.
- All pipes shall be either:  
A - Verified clay to BS EN 285 with a minimum crushing strength as follows:-  
150 dia - 40 kN/m  
225 dia - 45 kN/m  
300 dia - 72 kN/m  
B - PVC (certified to WIS 4-35-01 & BS EN 13475)  
C - Class 120 concrete to BS 6911-1:2002/EN 1916.
- All pipes should always connect soffit to soffit unless noted otherwise.
- All sewers to have BSI Kitemark status (certified to WIS 4-35-01 & BS EN 13475). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- 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 more vehicular access areas) then a concrete slab should be provided above granular bed and surround.
- Manhole covers shall have a clear opening of 600 and shall be class D400 to BS EN 124 with 150 deep frames in highways.
- Pipes entering manholes and road gullies shall have a flexible joint within 600 of the inside the manhole or gully joining with a short Rocker pipe.
- 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.
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Fill ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- All in situ concrete to be designated mix FND2 to BS 8500-1 unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood & Partners.
- 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.
- Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and proposed roads.
- 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.
- All foul lateral sewers and drains to be 1500 unless noted otherwise.
- 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.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- 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.
- 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.
- 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 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.
- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-68-02 (Table A2).
- Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WIS 4-35-01 and BS EN 13475). 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 bedding.
- The clearance of the crossover points (min 300mm) between the surface water, foul sewers, rising main and other services should be sufficient clearance to provide 150mm surround of a certain mm that exceeds this (200mm).
- All adoptable laterals to be 1500 and VC unless stated otherwise.

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HOOBER HOMES

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