

Foul Manhole Schedule								
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	IL (m)
F1	393177.525	416083.167	143.200	0.447	450	PPIC		0 142.753
F2	393171.652	416089.201	143.200	0.537	450	PPIC		0 142.663
F3	393177.142	416089.532	143.175	0.581	450	PPIC		1 142.594
F4	393180.527	416089.735	143.015	0.463	450	PPIC		0 142.594
F5	393179.941	416099.477	143.015	0.585	450	Existing Chamber		0 142.552
F6	393179.666	416104.441	143.015	0.720	450			0 142.430
F7	393159.325	416104.143	143.735	1.000	450	PPIC		0 142.735
F8	393159.944	416108.869	143.820	1.145	450	PPIC		1 142.675
F9	393162.574	416109.028	143.800	1.158	450	PPIC		0 142.642
F10	393165.924	416109.229	143.800	1.200	450	PPIC		0 142.600
F11	393169.260	416109.430	143.800	1.242	450	PPIC		0 142.558
F12	393171.656	416109.574	143.225	0.860	450	PPIC		0 142.365
F13	393179.357	416110.038	143.015	0.873	450	PPIC Built over existing pipe		1 142.142
F14	393184.593	416110.433	142.925	0.865	450	PPIC		0 142.060
F15	393189.513	416110.729	142.550	0.790	450	PPIC		1 141.760
F16	393192.122	416110.886	142.550	0.823	450	PPIC		0 141.727
F17	393195.907	416111.113	142.550	1.194	450	PPIC		1 141.356
F18	393201.233	416104.914	142.350	0.850	1200	PPIC		0 141.356
F19	393200.842	416111.410	142.025	1.163	450	PPIC		1 140.862
F20	393200.469	416115.692	141.925	1.117	450	PPIC		1 140.808
C1	393201.891	416115.816	141.700	0.910	450	PPIC		0 140.808
								0 140.790

Storm Manhole Schedule								
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	IL (m)
S1	393163.334	416088.560	143.175	0.700	150			0 142.475
S2	393163.921	416079.061	143.225	0.845	450	PPIC		1 142.380
S3	393178.704	416079.951	143.300	1.068	450	PPIC		0 142.380
S4	393178.469	416083.852	143.325	1.182	450	PPIC		0 142.232
S5	393193.414	416084.751	142.575	0.932	450	PPIC		1 142.193
S6	393192.980	416091.964	142.400	1.449	600	Wavin 600 series PPIC		0 142.143
S7	393162.003	416096.913	143.600	0.700				1 141.643
S8	393170.578	416097.429	143.600	1.300	450	PPIC		0 141.026
S9	393182.892	416098.170	142.850	1.200	450	PPIC		0 140.951
S10	393192.571	416098.752	142.350	1.429	600			1 142.900
S11	393202.760	416099.365	142.300	1.424	600			1 142.300
S12	393158.441	416103.269	143.750	0.750	450	PPIC		1 141.650
S13	393159.235	416110.402	143.875	0.947	450	PPIC		0 141.650
S14	393169.796	416111.321	143.700	0.878	450	PPIC		1 141.093
S15	393182.744	416112.449	142.885	0.750	450	PPIC		2 140.921
S16	393193.406	416113.378	142.462	0.750	450	PPIC		0 140.921
S17	393201.661	416114.097	141.840	1.030	1200	Flow Control Chamber		1 140.876
								2 140.876
								0 143.000
								1 142.928
								1 142.822
								0 142.822
								1 142.135
								1 141.712
								0 141.712
								2 140.810
								0 140.810

CELLULAR STORAGE NOTES

The structural design of the cellular storage tanks shall be in accordance with 'Structural design of buried pipelines under various conditions of loading' BSEN 1295, 'Highways Agency Specification for Highway Works', and Sewers for Adoption, 6th Edition. The design of the cellular storage shall be undertaken by the specialist supplier who will take design responsibility.

SEA Structural Engineers takes no responsibility for the design of the cellular storage, other than providing the required capacity. Full design responsibilities for all other aspects lies with the designer of the cellular storage. Prior to construction, SEA shall be provided with all construction drawings to allow the drawings to be co-ordinated. SEA will not approve the details.

The Cellular storage shall be designed to receive:
Distributed load = 10kN/m²
Concentrated load = 100kN
Dynamic factor = 2
Material factor = 1.5
unfactored
in addition to the dead load of the ground

The cellular storage shall be designed not to float. Groundwater levels are unknown.

The contractor shall provide to the designer of the cellular storage the type of construction plant likely to be used in the area of the cellular storage prior to construction.

For online storage it is essential that pipe work through the cellular storage is provided in order to allow the system to be maintained. Any proposals that do not show how the system can be rodded will not be adequate.

It is essential that construction sediments are not allowed to enter the cellular storage system and the contractor shall provide adequate protection to the drainage network to prevent this.

Maintenance Schedule	Required Action	Recommended Frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, and then six monthly
	Debris removal from catchment surface (where they cause risks to performance).	Monthly
	Where rainfall infiltrates into blocks from above, check surface of filter for blockages by silt, algae or other matte. Remove and replace surface infiltration medium as necessary. Remove sediment from pre-treatment structures.	Monthly (and after large storms)
Remedial actions	Repair/ rehabilitation of inlets, outlet, overflows and vents.	Annually, or as required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are all in good condition and operating as designed.	Annually and after large storms

The designer of the cellular storage shall provide full details of how the cellular storage shall be maintained during the life time of the system.

Installation of the cellular storage shall be carried out by competent personnel only and strictly in accordance with manufactures requirements.

Reference shall be made to CIRIA C698, site hand book for the construction of SUDS, prior to construction.

The design of the cellular storage shall demonstrate compliance with Ciria C680, structural design of modular geocell and drainage tanks

The main contractor and the supplier/installer of the cellular storage shall ensure that the design and installation are co-ordinated with other site works to include, but not limited to, understanding what construction plant may traffic close to or over the cellular storage.

