APPENDIX 5/1

DRAINAGE REQUIREMENTS

5/1.1 General

a) The location of surface water drainage systems shall be as shown on the drawings in the 500 Series.

b) For trench reinstatement in existing pavements see Appendix 7.

c) All drains, with the exception of those specifically designed and/or constructed of porous, perforated or filter pipes, shall have watertight joints and shall be tested in accordance with Clause 509.

5/1.2 Pipe and Bed Combinations (Carrier Pipes)

a) The pipe and bed combinations permitted in the Contract for non-perforated pipes, in accordance with HCD:SECTION 1 Series F are given in the table below.

Pipe Dia.	Pipe Group	Pipe Group	Vitrified Clay					Pre-cast Concrete			Ductile Iron	GRP	Thermoplastic	
(mm)	Ref.	No.	L	95	120	160	200	L	M	H			Structured Wall	SDR 41
150	1a	6				ASB FN	ASB F	ASBF	ASBFN				ST	ST
225	2a	7				ASB F	ASB FN	ASB	ASBF				ST	ST
225 Filter + Carrier	3a	6				ASB F	ASB FN	ASB	ASBF				ST	ST
300	4a	6				ASB FN	ASB FN	AS	ASB				ST	ST
300 Filter + Carrier	5a	7				ASB F	ABF N	AS	ASB				ST	ST
375	6a	6				ASB FN	ASB FN	A	ASB	ASBF			ST	ST
450	7a	6			ASB F	ASB FN			ASB	ASB			ST	ST
525	8a	6							ASB	ASBF			ST	ST
600	9a	8		ASB					ASB	ASB			S	S
900	10a	6						A	ASB	ASBF			S	S

Class Key for Vitrified Clay -

Shall be as shown in BS EN 295

NB for 150mm pipes, the crushing strength of the pipes shall be 28kN/m for class 160, and 34 kN/m for class 200.Vitrified clay pipes to BS 65 shall have a crushing strength at least equivalent to that specified in the appropriate class in BS EN 295.

Class Key for Pre-cast Concrete -

L = Low strength
M = Medium strength
H = Heavy strength

b) Concrete pipes shall be made with sulfate resisting cement.

5/1.3 Pipe and Bed Combinations (Filter Pipes)

a) The pipe and bed combinations permitted in the Contract for filter pipes, in accordance with HCD:SECTION 1 Series F are given in the table below.

Pipe Dia. (mm)	Pipe Group Ref.	Pipe Group No.	Vitrified Clay					Pre-cast Concrete			Thermoplastic	
			L	95	120	160	200	L	M	H	Structured Wall	SDR 41
150	1b	3				✓	✓	✓	✓		✓	✓
225	2b	3				✓	✓	✓	✓		✓	
300	3b	3				✓	✓	✓	✓		✓	✓
375	4b	3				✓	✓		✓	✓		✓
450	5b	3				✓	✓		✓	✓	✓	

Class Key for Vitrified Clay -

Shall be as shown in BS EN 295

NB for 150mm pipes, the crushing strength of the pipes shall be 28kN/m for class 160, and 34 kN/m for class 200.Vitrified clay pipes to BS 65 shall have a crushing strength at least equivalent to that specified in the appropriate class in BS EN 295.

Class Key for Pre-cast Concrete -

L = Low strength
M = Medium strength
H = Heavy strength

c) Concrete pipes shall be made with sulfate resisting cement.

5/1.4 Pipelines to be Constructed Other than in Trench

NONE

5/1.5 Hydraulic Design Requirements

The drainage system has been designed using the following criteria:

a)	Coefficient of Friction, *k*	=	0.6 mm
b)	Minimum system flow rate	=	0.75 l/s
c)	Maximum system flow rate	=	3.0 l/s
d)	Maximum discharge rate	=	4.45l/s/ha

5/1.6 Chamber Covers, Gratings and Frames

Chamber covers and frames shall be cast iron and Class D400 unless otherwise described with a clear opening of 600mm diameter and a minimum depth of frame of 150mm.

Gully gratings and frames shall be non rocking, cast iron and Class D400 unless otherwise described with a minimum waterway area of 900cm² and a minimum depth of frame of 150mm.

The inscription on the covers shall be as follows:

For foul sewer chambers	'FOUL SEWER'
For surface water drainage chambers	'SURFACE WATER'

5/1.7 Gullies

All gullies shall be trapped and are to be as shown on East Sussex Standard Drawing HWC/7.

5/1.8 Thermoplastic Pipes

Thermoplastic structured wall pipes for surface water drains shall have pipe stiffness, creep ratio and impact resistance as required by Clause 518.

5/1.9 Glass Reinforced Plastic

Glass reinforced plastics pipes are not required in the Contract.

5/1.10 Chambers

Manholes, catchpits, inspection chambers, draw pits, rodding points and walled soak-aways shall be as detailed on drawings B1297000/0500/0001 to 0010.

5/1.11 Rigid Joints for Jointing of Pipes

Rigid joints shall not be used.

5/1.12 Saddles

Saddles shall not be used to form junctions anywhere in the scheme

5/1.13 Cleaning Existing Drainage

The existing drainage is to be cleaned in accordance with Clause 520 shall be as shown on the drawings in the 500 Series. This cleaning is to be undertaken

5/1.14 Inspection of the condition of existing chambers

Within the first seven days of being given possession of the Site, or any Section thereof, the Contractor shall inspect all chambers where ironwork is being adjusted or replaced, and within two working days of this inspection submit to the Overseeing Organisation a written report on the condition of the chambers. Within 2 working days of receipt of the Contractor's written report the Overseeing Organisation may instruct additional works of repair.

5/1.15 Adjustment/replacement of ironwork

The 500 series drawings detail requirements for the adjustment and replacement of ironwork affected by the Works.

All frames shall be bedded using a proprietary quick setting high strength mortar and rapid setting concrete.

5/1.16 Flow Control Device

Flow control devices are to be used to restrict the discharge rate from chambers CP4.11 and CP9.08.

Simulation calculations have been undertaken modelling Hydro Brakes with the following criteria:

Aspect	Section 2	Section 3
Chamber	CP4.11	CP9.08
Maximum Discharge Rate (l/s)	3.9	5.3
Maximum Design Head (m)	2.141	1.1
Hydro Brake Type	Md4	Md4
Hydro Brake Diameter (mm)	59	81

Flow control devices are to be installed as per the manufacturer's instructions.

5/1.17 Bypass Interceptors

All bypass interceptors are to be in accordance with drawing B1297000/0500.01a/0021.

The alarm system will be via SMS messaging to the MAC as per their standard maintenance procedures (audible and visual alarms on site are not proposed). Silt alarms are not considered necessary due to the regular maintenance regime of the MAC and the relatively predictable rate of silt build-up.

The alarm systems for both interceptors are to be solar powered.

5/1.8 Underpass Drainage Pump

T.B.C.

5.1/19 Chamber Schedules

Summary Sheet (Overall)

Total Chamber Numbers

Chamber Type	No.
1	10
2a	154
2b	13
3	8
Bypass Interceptor	2

Chamber Schedule Notes

1 Refer to Drawings B1297000/0500.01a./0015, 0016, 0017 + 0018 for chamber details.
2 Offsets stated are from the main string line (main carriageway centre line) to the chamber centre unless stated otherwise. Co-ordinates are for the chamber centers.
3 Cover levels stated above are AOD and are approximate. They shall be set to the level of the final surface.
4 The invert levels for gully connections shall be derived from the minimum falls stated in the gully schedule.
5 Depths stated above are measured as follows:
a) Catchpits: From the cover level to the upper surface of the sump.
b) Manholes: From the cover level to the outgoing pipe invert.
6 References to 'FILTER' relate to the back of verge filter drains. Refer to Note 8 on drawings B1297000/0500.01a/0001 to 0010.

Summary Sheet (By Section)

Section 1	
Chamber Type	Total
2a	5

Section 2	
Chamber Type	Total
2a	12
2b	3
2d	1
3	4
Bypas Interceptor	1

Section 3	
Chamber Type	Total
2a	15
3	4
Bypass Interceptor	1

Section 4	
Chamber Type	Total
2a	26

Section 5	
Chamber Type	Total
2a	20

Section 6	
Chamber Type	Total
2a	19

Section 7	
Chamber Type	Total
2a	23

Section 8	
Chamber Type	Total
2a	20

Section 9	
Chamber Type	Total
2a	14
2b	9

Summary Sheet (By Section)

Egerton Stream Diversion	
Chamber Type	Total
1	10
2b	1

Chamber Schedule
Section 1

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP1.01	2a	125	4.600	11.097	1500	1.65	-	CP1.02	10.047	150	
CP1.02	2a	X = 573868.578 Y = 108115.716		10.147	1500	1.65	CP1.01	CP1.03	9.097 9.097	150 150	
CP1.03	2a	X = 573854.091 Y = 108073.480		8.660	1500	1.73	CP1.02	CP1.04	7.610 7.535	150 225	
CP1.04	2a	X = 573849.439 Y = 108052.808		8.560	1500	1.73	CP1.03	CP1.05	7.434 7.434	225 225	
MH1.05	2a	X = 573841.312 Y = 108044.550		8.363	1500	2.61	CP1.04	Existing	7.242 5.754	225 Existing	Constructed on existing pipe run

Chamber Schedule
Section 2

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP4.01	2a	670	4.650	15.064	1500	1.65	-	CP4.02	14.014	150	Head of Run
CP4.02	2a	600	4.650	13.233	1500	1.73	CP4.01	CP4.03	12.183 12.108	150 225	
CP4.03	2a	530	4.650	12.284	1500	1.73	CP4.02	FILTER CP4.04	11.159 11.234 11.159	225 150 225	
CP4.04	2a	X = 573930.840 Y = 108482.777		11.909	1500	1.80	CP4.03 FILTER	CP4.05	10.784 10.859 10.709	225 150 300	
CP4.05	2a	X = 573915.587 Y = 108424.880		11.537	1500	1.80	CP4.04	CP4.06	10.337 10.337	300 300	
CP4.06	2a	X = 573902.653 Y = 108366.881		11.165	1500	1.80	CP4.05	CP4.07	9.965 9.965	300 300	
CP4.07	2a	X = 573897.876 Y = 108328.101		10.915	1500	1.80	CP4.06	CP4.08	9.715 9.715	300 300	
CP4.08	2b	X = 573896.020 Y = 108298.704		10.740	1800	2.70	CP4.07	CP4.09	9.540 8.640	300 900	
CP4.09	2b	X = 573894.287 Y = 108258.861		10.613	1800	2.71	CP4.08 CP6.01	CP4.10	8.507 9.563 8.507	900 150 900	
CP4.10	3	X = 573875.85 Y = 108259.650		10.663	-	2.82	CP4.09 CP5.06	CP4.11	8.445 8.799 8.445	900 Twin 900 Twin 900	
CP4.11	3	X = 573875.160 Y = 108229.654		10.893	-	3.15	CP4.10	BP4	8.345 8.345	Twin 900 225	
BP4	Bypas Interceptor	X = 573875.265 Y = 108224.643		10.955	-	3.28	CP4.11	CP4.12	8.329 8.279	225 225	
CP4.12	2b	170	5.000	11.440	1800	3.88	BP4	CP4.13	8.164 8.164	225 225	
CP4.13	2d	X = 573870.679 Y = 108188.926		9.761	1800	2.80	CP4.12 EG2.05	EG1.05	8.114 7.560 7.560	225 600 600	Outfall to Egerton Stream Diversion
CP5.01	2a	600	4.650	13.228	1500	1.65	-		12.178	150	Head of Run
CP5.02	2a	530	4.650	12.284	1500	1.65	CP5.01	FILTER CP5.03	11.233 11.233 11.233	150 150 150	
CP5.03	2a	470	4.650	11.944	1500	1.73	CP5.02 FILTER	CP5.04	10.890 10.890 10.815	150 150 225	
CP5.04	2a	X = 573903.137 Y = 108428.398		11.590	1500	1.73	CP5.03	CP5.05	10.465 10.465	225 225	
CP5.05	3	X = 573886.817 Y = 108370.198		11.492	-	2.51	CP5.04	CP5.06	10.261 9.586	225 Twin 900	
CP5.06	3	X = 573879.808 Y = 108330.066		11.285	-	2.50	CP5.05	CP4.10	9.385 9.385	Twin 900 Twin 900	
CP6.01	2a	190	9.250	11.108	1500	1.65	-	CP4.09	10.058	150	Head of Run

Chamber Schedule
Section 3

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP7.01	2a	1485	4.600	22.079	1500	1.65	- FILTER	 FILTER CP7.02	21.029 21.029 21.029	150 150 150	Head of Run
CP7.02	2a	1420	4.600	21.675	1500	2.08	CP7.01 FILTER	 FILTER CP8.02	20.625 20.625 20.625 20.200	150 150 150 150	
CP8.01	2a	1485	4.600	22.018	1500	1.65	- FILTER	 FILTER CP8.02	20.968 20.968 20.968	150 150 150	Head of Run
CP8.02	2a	1420	4.600	21.570	1500	2.08	CP8.01 CP7.02 FILTER	 FILTER CP8.03	20.520 20.095 20.520 20.520 20.095	150 150 150 150 225	
CP8.03	2a	1360	4.600	20.782	1500	1.73	CP8.02 FILTER	 FILTER CP8.04	19.657 19.732 19.732 19.657	225 150 150 225	
CP8.04	2a	1300	4.600	19.692	1500	1.73	CP8.03 FILTER	 FILTER CP8.05	18.567 18.642 18.642 18.567	225 150 150 225	
CP8.05	2a	1250	4.600	18.496	1500	1.80	CP8.04 FILTER	 FILTER CP8.06	17.371 17.446 17.446 17.296	225 150 150 300	
CP8.06	2a	1180	4.600	17.539	1500	1.74	CP8.05 FILTER	 FILTER CP8.07	16.339 16.489 16.489 16.399	300 150 150 300	
CP8.07	2a	1100	4.600	17.333	1500	1.86	CP8.06 FILTER	 FILTER CP8.08	16.071 16.283 16.283 16.071	300 150 150 300	
CP8.08	2a	1010	4.600	17.163	1500	2.53	CP8.07 FILTER FILTER	 CP9.04	15.771 16.113 15.430 15.388	300 150 150 450	
CP9.01	2a	1235	4.600	18.320	1500	1.65	- FILTER	 FILTER CP9.02	17.270 17.270 17.270	150 150 150	Head of Run
CP9.02	2a	1180	4.600	17.548	1500	1.73	CP9.01 FILTER	 FILTER CP9.03	16.498 16.408 16.408 16.423	150 150 150 225	
CP9.03	2a	1100	4.600	17.336	1500	1.78	CP9.02 FILTER	 FILTER CP9.04	16.154 16.286 16.286 16.154	225 150 150 225	
CP9.04	2a	1010	4.600	17.201	1500	2.60	CP9.03 CP8.08 FILTER	 FILTER CP9.05	15.839 15.357 16.151 16.151 15.206	225 450 150 150 450	

Chamber Schedule
Section 3

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP9.05	3	940	4.900	17.045	-	3.12	CP9.04 FILTER	 FILTER CP9.06	14.974 15.995 15.995 14.524	450 150 150 Twin 900	'Large' Chamber
CP9.06	3	860	4.900	16.869	-	3.21	CP9.05 FILTER	 FILTER CP9.07	14.259 15.819 15.819 14.259	Twin 900 150 150 Twin 900	'Large' Chamber
CP9.07	3	780	4.900	16.672	-	3.28	CP9.06 FILTER	 FILTER CP9.08	13.994 15.622 15.622 13.994	Twin 900 150 150 Twin 900	'Large' Chamber
CP9.08	3	690	4.900	15.496	-	2.40	CP9.07 FILTER	 CP9.09	13.696 14.446 13.696	Twin 900 150 225	'Large' Chamber
CP9.09	2a	690	4.900	15.728	1500	2.66	CP9.08 FILTER	 BP9	13.664 14.678 13.664	225 150 225	
BP9	Bypass Interceptor	X = 573988.60 Y = 108674.091		15.296	-	-	CP9.09	 EG1.01	13.596 13.546	225 225	Outfall to Egerton Stream Diversion

Chamber Schedule
Section 4

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP10.01	2a	1545	4.600	22.057	1500	1.65	- FILTER	 FILTER CP10.02	21.007 21.007 21.007	150 150	Head of Run
CP10.02	2a	1600	4.600	21.784	1500	2.07	CP10.01 FILTER	 CP10.03	20.607 20.734 20.317	150 150 150	
CP10.03	2a	1650	5.900	21.288	1500	1.94	CP10.02	 CP10.04	19.948 19.948	150 150	
CP10.04	2a	1710	6.900	20.549	1500	2.02	CP10.03 CP11.04	 CP10.05	19.209 19.199 19.134	150 150 225	
CP10.05	2a	1760	6.900	19.776	1500	2.02	CP10.04	 CP10.06	18.361 18.361	225 225	
CP10.06	2a	1820	6.900	18.646	1500	2.02	CP10.05	 CP10.07	17.231 17.231	225 225	
CP10.07	2a	1880	6.900	17.305	1500	2.02	CP10.06	 CP10.08	15.890 15.890	225 225	
CP10.08	2a	1960	6.900	15.156	1500	2.29	CP10.07	 CP10.09	13.741 13.741	225 225	
CP10.09	2a	2050	6.900	12.256	1500	2.09	CP10.08	 CP10.10	10.841 10.766	225 300	
CP10.10	2a	2140	6.900	9.491	1500	2.09	CP10.09	 CP10.11	8.001 8.001	300 300	
CP10.11	2a	2220	6.900	8.022	1500	2.09	CP10.10	 CP10.12	6.532 6.532	300 300	
CP10.12	2a	2237.5	6.900	7.735	1500	3.06	CP10.11 CP12.06 CP14.01	 CP10.13	6.245 5.278 5.746 5.278	300 375 150 375	
CP10.13	2a	X = 574811.003 Y = 109973.902		6.408	1500	2.18	CP10.12	 CP10.14	4.833 4.828	375 375	
CP10.14	2a	X = 574796.409 Y = 109997.975		5.341	1500	1.88	CP10.13	 OUTF4	4.066 4.066	375 375	Outfall to Lagoon Headwall
CP11.01	2a	1545	4.600	22.061	1500	1.65	- FILTER	 FILTER CP11.02	21.011 21.011 21.011	150 150 150	Head of Run
CP11.02	2a	1600	5.000	21.792	1500	2.07	CP11.01 FILTER	 CP11.03	20.617 20.742 20.327	150 150 150	
CP11.03	2a	1650	5.850	21.313	1500	1.95	CP11.02	 CP11.04	19.968 19.968	150 150	
CP11.04	2a	1710	6.700	20.730	1500	1.95	CP11.03	 CP10.04	19.390 19.380	150 150	
CP12.01	2a	1820	6.900	18.967	1500	1.94	-	 CP12.02	17.627	150	Head of Run
CP12.02	2a	1880	7.600	17.281	1500	1.94	CP12.01	 CP12.03	15.941 15.941	150 150	
CP12.03	2a	1960	8.100	14.973	1500	1.83	CP12.02	 CP12.04	13.743 13.743	150 150	
CP12.04	2a	2050	8.100	12.075	1500	1.91	CP12.03	 CP12.05	10.485 10.770	150 225	
CP12.05	2a	2140	8.100	9.309	1500	1.91	CP12.04	 CP12.06	8.004 8.004	225 225	
CP12.06	2a	2237.5	8.100	7.602	1500	2.87	CP12.05 CP13.01	 CP10.12	6.297 5.673 5.328	225 150 375	
CP13.01	2a	2277.5	8.100	7.292	1500	1.83	-	 CP12.06	6.062	150	Head of Run

Chamber Schedule
Section 4

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP14.01	2a	2277.5	6.900	7.474	1500	1.94	-	CP10.12	6.134	150	Head of Run

Chamber Schedule
Section 5

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP15.01	2a	2720	6.900	13.214	1500	1.94	-	CP15.02 CP18.01	11.874 Section 6	150 Section 6	Head of Run (Head of two sections)
CP15.02	2a	2670	6.900	13.024	1500	2.12	CP15.01	 CP15.03	11.584 11.509	150 225	
CP15.03	2a	2625	6.900	12.598	1500	2.02	CP15.02	 CP15.04	11.183 11.183	225 225	
CP15.04	2a	2580	6.900	11.875	1500	2.02	CP15.03	 CP15.05	10.460 10.460	225 225	
CP15.05	2a	2540	6.900	11.023	1500	2.02	CP15.04	 CP15.06	9.608 9.608	225 225	
CP15.06	2a	2460	6.900	8.953	1500	2.09	CP15.05	 CP15.07	7.538 7.463	225 300	
CP15.07	2a	2370	6.900	7.631	1500	2.17	CP15.06	 CP15.08	6.141 6.066	300 375	
CP15.08	2a	2315	6.900	7.389	1500	2.18	CP15.07	 CP15.09	5.824 5.814	375 375	
CP15.09	2a	2315	8.100	7.209	1500	2.18	CP15.08	 CP15.10	5.634 5.634	375 375	
CP15.10	2a	2352.5	8.100	7.404	1500	2.57	CP15.09 CP16.06	 CP15.11	5.509 6.024 5.434	375 300 450	
CP15.11	2a	X = 574885.499 Y = 110055.679		6.876	1500	3.40	CP15.10	 CP15.12	5.364 4.074	450 450	
CP15.12	2a	X = 574901.488 Y = 110041.349		4.959	1500	1.97	CP15.11	 CP15.13	3.609 3.594	450 450	
CP15.13	2a	X = 574901.488 Y = 110041.349		4.549	1500	2.43	CP15.12	 CP15.14	3.199 2.719	450 450	
CP15.14	2a	X = 574936.449 Y = 110031.569		3.929	1500	1.90	CP15.13	 OUTF5	2.630 2.630	450 450	Outfall to Lagoon Headwall
CP16.01	2a	2720	8.100	12.431	1500	1.83	-	CP16.02 CP17.01	11.201 Section 6	150 Section 6	Head of Run (Head of two sections)
CP16.02	2a	2670	8.100	12.241	1500	1.92	CP16.01	 CP16.03	10.924 10.924	150 150	
CP16.03	2a	2625	8.100	11.815	1500	1.91	CP16.02	 CP16.04	10.585 10.510	150 225	
CP16.04	2a	2580	8.100	11.279	1500	1.91	CP16.03	 CP16.05	9.974 9.974	225 225	
CP16.05	2a	2540	8.100	10.607	1500	1.91	CP16.04	 CP16.06	9.302 9.302	225 225	
CP16.06	2a	2450	8.100	8.569	1500	1.98	CP16.05	 CP15.10	7.264 7.189	225 300	

Chamber Schedule
Section 6

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP16.01	2a	2720	8.100	12.431	1500	1.83	-	CP17.01 CP16.02	11.201 Section 5	150 Section 5	Head of Run (Head of two sections)
CP17.01	2a	2770	8.100	12.177	1500	1.85	CP16.01	 CP17.02	10.924 10.924	150 150	
CP17.02	2a	2825	8.100	11.374	1500	1.95	CP17.01 CP18.02	 CP17.03	10.144 10.024 10.024	150 150 225	
CP17.03	2a	2870	8.100	10.307	1500	1.95	CP17.02	 CP17.04	8.957 8.957	225 225	
CP17.04	2a	2915	8.100	8.979	1500	1.98	CP17.03	 CP17.05	7.674 7.599	225 300	
CP17.05	2a	2960	8.100	7.942	1500	1.98	CP17.04	 CP17.06	6.562 6.562	300 300	
CP17.06	2a	3005	8.100	7.272	1500	1.98	CP17.05	 CP17.07	5.892 5.892	300 300	
CP17.07	2a	3050	8.100	6.829	1500	2.06	CP17.06	 CP17.08	5.449 5.374	300 375	
CP17.08	2a	3080	8.100	6.557	1500	2.78	CP17.07 CP19.01	 CP17.09	5.102 4.727 4.382	375 225 450	
CP17.09	2a	X = 575261.759 Y = 110633.692		7.152	1500	3.44	CP17.08	 CP17.10	4.315 4.315	450 450	
CP17.10	2a	X = 575256.062 Y = 110646.885		6.405	1500	2.74	CP17.09	 CP17.11	4.267 4.267	450 450	
CP17.11	2a	X = 575243.845 Y = 110651.022		5.874	1500	2.79	CP17.10	 CP17.12	3.999 3.682	450 450	
CP17.12	2a	X = 575208.632 Y = 110642.110		4.244	1500	1.95	CP17.11	 CP17.13	2.894 2.894	450 450	
CP17.13	2a	X = 575182.724 Y = 110638.807		3.836	1500	1.95	CP17.12	 CP17.14	2.486 2.486	450 450	
CP17.14	2a	X = 575181.215 Y = 110651.971		3.801	1500	2.20	CP17.13	 OUTF6	2.199 2.199	450 450	Outfall to Lagoon Headwall
CP15.01	2a	2720	6.900	13.214	1500	1.94	-	CP18.01 CP15.02	11.874 Section 5	150 Section 5	Head of Run (Head of two sections)
CP18.01	2a	2770	6.900	12.959	1500	1.97	CP15.01	 CP18.02	11.588 11.588	150 150	
CP18.02	2a	2825	6.900	12.155	1500	1.95	CP18.01	 CP17.02	10.815 10.805	150 150	
CP19.01	2a	3125	8.100	6.180	1500	1.91	-	CP17.08	4.875	225	Head of Run

Chamber Schedule
Section 7

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP20.01	2a	3167.5	8.100	5.933	1500	1.83	-	CP20.02	4.703	150	Head of Run
CP20.02	2a	3230	8.100	5.249	1500	1.91	CP20.01	CP20.03	4.019 3.944	150 225	
CP20.03	2a	3290	8.100	4.594	1500	1.98	CP20.02	CP20.04	3.289 3.214	225 300	
CP20.04	2a	3340	8.100	4.424	1500	2.72	CP20.03 CP21.02 CP23.07	CP20.05	3.031 2.458 2.458 2.308	300 375 375 525	
CP20.05	2a	X = 575523.447 Y = 110618.850		4.445	1500	2.80	CP20.04	CP20.06	2.245 2.245	525 525	
CP20.06	2a	X = 575516.940 Y = 110593.472		4.121	1500	2.54	CP20.05	CP20.07	2.185 2.185	525 525	
CP20.07	2a	X = 575498.493 Y = 110574.868		3.525	1500	2.00	CP20.06	OUTF7	2.125 2.125	525 525	Outfall to Lagoon Headwall
CP21.01	2a	3290	6.900	4.835	1500	1.94	-	CP21.02	3.495	150	Head of Run
CP21.02	2a	3340	6.900	4.607	1500	2.70	CP21.01 CP22.07	CP20.04	3.186 2.518 2.508	150 375 375	
CP22.01	2a	3942.5	8.100	6.774	1500	1.94	-	CP22.02	5.434	150	Head of Run
CP22.02	2a	3850	8.100	6.048	1500	1.94	CP22.01	CP22.03	4.708 4.708	150 150	
CP22.03	2a	3760	8.100	5.534	1500	1.96	CP22.02	CP22.04	4.192 4.117	150 225	
CP22.04	2a	3670	8.100	5.182	1500	2.02	CP22.03	CP22.05	3.767 3.767	225 225	
CP22.05	2a	3580	8.100	4.992	1500	2.25	CP22.04	CP22.06	3.418 3.343	225 300	
CP22.06	2a	3490	8.100	4.937	1500	2.57	CP22.05	CP22.07	3.043 2.968	300 375	
CP22.07	2a	3400	8.100	4.764	1500	2.70	CP22.06	CP21.02	2.668 2.668	375 375	
CP23.01	2a	3950	6.900	6.746	1500	1.83	-	CP23.02	5.516	150	Head of Run
CP23.02	2a	3850	6.900	6.058	1500	1.79	CP23.01	CP23.03	4.828 4.828	150 150	
CP23.03	2a	3760	6.900	5.351	1500	1.91	CP23.02	CP23.04	4.121 4.046	150 225	
CP23.04	2a	3670	6.900	5	1500	1.91	CP23.03	CP23.05	3.695 3.695	225 225	
CP23.05	2a	3580	6.900	4.81	1500	2.14	CP23.04	CP23.06	3.344 3.269	225 300	
CP23.06	2a	3490	6.900	4.755	1500	2.39	CP23.05	CP23.07	2.969 2.969	300 300	
CP23.07	2a	3400	6.900	4.581	1500	2.59	CP23.06	CP20.04	2.669 2.594	300 375	

Chamber Schedule
Section 8

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP24.01	2a	4330	6.900	9.214	1500	2.03	-	CP24.02 CP30.01	7.784 Section 9	150 Section 9	Head of Run (Head of two sections)
CP24.02	2a	4240	6.900	9.209	1500	2.52	CP24.01	 CP24.03	7.364 7.289	150 225	
CP24.03	2a	4190	6.900	9.094	1500	2.65	CP24.02	 CP24.04	7.119 7.044	225 300	
CP24.04	2a	4150	6.900	8.842	1500	2.53	CP24.03	 CP24.05	6.909 6.909	300 300	
CP24.05	2a	4105	6.900	8.484	1500	2.33	CP24.04	 CP24.06	6.758 6.758	300 300	
CP24.06	2a	4060	6.900	8.124	1500	2.32	CP24.05	 CP24.07	6.403 6.403	300 300	
CP24.07	2a	4030	6.900	7.836	1500	2.33	CP24.06	 CP24.08	6.114 6.104	300 300	
CP24.08	2a	4030	8.100	7.113	1500	2.10	CP24.07 CP25.06	 CP24.09	5.612 5.658 5.612	300 375 375	Chamber feeds into siphon
CP24.09	2a	3982.5	8.100	6.875	1500	2.44	CP24.08	 CP24.10	5.112 5.037	375 450	Chamber feed from siphon
CP24.10	2a	3955	8.100	6.659	1500	2.44	CP24.09	 CP24.11	4.822 4.822	450 450	
CP24.11	2a	X = 576132.265 Y = 110675.599		6.776	1500	3.05	CP24.10	 CP24.12	4.504 4.324	450 450	
CP24.12	2a	X = 576134.364 Y = 110722.576		5.066	1500	2.35	CP24.11	 CP24.13	3.306 3.231	450 525	
CP24.13	2a	X = 576132.709 Y = 110772.280		4.396	1500	1.92	CP24.12	 CP24.14	3.081 3.081	525 525	
CP24.14	2a	X = 576145.983 Y = 110773.002		4.425	1500	1.99	CP24.13	 OUTF8	3.037 3.037	525 525	Outfall to Lagoon Headwall
CP25.01	2a	4330	8.100	9.032	1500	1.83	-	CP25.02 CP29.01	7.802 Section 9	150 Section 9	Head of Run (Head of two sections)
CP25.02	2a	4240	8.100	8.818	1500	2.58	CP25.01	 CP25.03	6.989 6.839	150 300	
CP25.03	2a	4190	8.100	8.432	1500	2.43	CP25.02	 CP25.04	6.673 6.598	300 375	
CP25.04	2a	4150	8.100	8.059	1500	2.19	CP25.03	 CP25.05	6.467 6.467	375 375	
CP25.05	2a	4105	8.100	7.701	1500	2.06	CP25.04	 CP25.06	6.246 6.246	375 375	
CP25.06	2a	4060	8.100	7.341	1500	2.06	CP25.05	 CP24.08	5.886 5.886	375 375	

Chamber Schedule
Section 9

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP26.01	2a	5510	11.200	45.394	1500	1.94	-	CP26.02	44.054	150	Head of Run
CP26.02	2a	5440	8.400	44.178	1500	2.02	CP26.01	CP26.03	42.837 42.762	150 225	
CP26.03	2a	5380	6.900	43.100	1500	2.10	CP26.02 CP27.04	CP26.04	41.685 41.685 41.601	225 225 300	
CP26.04	2a	5350	6.900	42.523	1500	2.32	CP26.03	CP26.05	41.033 40.8	300 300	
CP26.05	2a	5260	6.900	40.745	1500	1.80	CP26.04	CP26.06	39.550 39.550	300 300	
CP26.06	2a	5245	6.900	40.452	1500	1.11	CP26.05	CP26.07	39.354 39.943	300 375	
CP26.07	2a	5192.5	6.900	39.357	1500	2.17	CP26.06	CP26.08	38.749 37.792	375 375	
CP26.08	2a	5150	6.900	38.544	1500	2.17	CP26.07	CP26.09	36.979 36.979	375 375	
CP26.09	2a	5100	6.900	37.528	1500	2.17	CP26.08	CP26.10	35.963 35.963	375 375	
CP26.10	2a	5050	6.900	36.324	1500	2.31	CP26.09	CP26.11	34.759 34.612	375 375	
CP26.11	2a	5020	6.900	35.367	1500	2.48	CP26.10	CP26.12	33.802 33.483	375 375	
CP26.12	2b	4990	6.900	34.243	1800	3.51	CP26.11	CP26.13	32.678 31.333	375 375	
CP26.13	2b	4945	6.900	32.318	1800	3.88	CP26.12	CP26.14	30.153 29.038	375 375	
CP26.14	2b	4900	6.900	30.083	1800	3.54	CP26.13	CP26.15	27.918 27.143	375 375	
CP26.15	2b	4875	6.900	28.710	1800	3.76	CP26.14	CP26.16	26.545 25.549	375 375	
CP26.16	2b	4850	6.900	27.129	1800	4.01	CP26.15	CP26.17	24.964 23.716	375 375	
CP26.17	2b	4825	6.900	25.306	1800	4.06	CP26.16	CP26.18	23.141 21.844	375 375	
CP26.18	2b	4800	6.900	23.445	1800	4.53	CP26.17	CP26.19	21.28 19.515	375 375	
CP26.19	2b	4765	6.900	20.904	1800	4.55	CP26.18	CP26.20	18.739 16.955	375 375	
CP26.20	2b	4730	6.900	18.355	1800	4.57	CP26.19	CP26.21	16.190 14.386	375 375	
CP26.21	2a	4690	6.900	15.686	1500	3.08	CP26.20	CP26.22	13.521 13.208	375 375	
CP26.22	2a	4650	6.900	13.569	1500	1.82	CP26.21	CP26.23	12.350 12.350	375 375	
CP26.23	2a	4590	6.900	11.112	1500	2.47	CP26.22	CP26.24	10.200 9.245	375 375	
CP26.24	2a	4545	6.900	9.875	1500	4.23	CP26.23 CP30.02	CP26.25	8.310 6.622 6.247	375 225 600	
CP26.25	2a	4545	8.100	9.758	1500	4.17	CP26.24 CP28.07 CP29.02	CP26.26	6.197 8.333 6.762 6.187	600 225 225 600	
CP26.26	2b	X = 576693.408 Y = 110851.269		9.823	1800	4.27	CP26.25	CP26.27	6.158 6.158	600 600	
CP26.27	2b	X = 576684.385 Y = 110855.334		9.029	1800	3.73	CP26.26	CP26.28	6.110 5.901	600 600	
CP26.28	2a	X = 576651.261 Y = 110858.505		7.217	1500	2.25	CP26.27	CP26.29	5.566 5.566	600 600	

Chamber Schedule
Section 9

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections (See Note 6)				Comments
							From	To	Invert Level (m)	Dia (m)	
CP26.29	2a	X = 576600.717 Y = 110863.344		6.850	1500	2.25	CP26.28	 CP26.30	5.199 5.199	600 600	
CP26.30	2a	X = 576602.061 Y = 110876.598		6.805	1500	2.25	CP26.29	 OUTF9	5.154 5.154	600 600	
CP27.01	2a	X = 577606.176 Y = 111096.635		45.047	1500	1.94	-	 CP27.02	 43.707	 150	Head of Run
CP27.02	2a	X = 577565.308 Y = 111095.617		44.581	1500	2.02	CP27.01	 CP27.03	43.214 43.166	150 225	
CP27.03	2a	5440	9.750	44.236	1500	2.02	CP27.02	 CP27.04	42.821 42.821	225 225	
CP27.04	2a	5380	6.900	43.319	1500	2.02	CP27.03	 CP26.03	41.904 41.904	225 225	
CP28.01	2a	4990	6.900	34.231	1500	1.94	-	 CP28.02	 32.891	 150	Head of Run
CP28.02	2a	4900	6.900	29.750	1500	1.94	CP28.01	 CP28.03	28.410 28.41	150 150	
CP28.03	2a	4850	6.900	26.534	1500	1.94	CP28.02	 CP28.04	25.194 25.194	150 150	
CP28.04	2b	4800	6.900	23.160	1800	4.03	CP28.03	 CP28.05	21.820 19.726	150 225	
CP28.05	2b	4730	6.900	18.121	1800	3.27	CP28.04	 CP28.06	16.106 15.454	225 225	
CP28.06	2a	4670	6.900	14.499	1500	2.35	CP28.05	 CP28.07	12.750 12.75	225 225	
CP28.07	2a	4600	7.600	11.277	1500	2.03	CP28.06	 CP26.25	10.650 9.852	225 225	
CP25.01	2a	4330	8.100	9.032	1500	1.83	-	CP29.01 CP29.02	7.802 Section 8	150 Section 8	Head of Run (Head of two sections)
CP29.01	2a	4430	8.100	8.833	1500	2.22	CP25.01	 CP29.02	7.237 7.162	150 225	
CP29.02	2a	4525	8.100	9.263	1500	3.02	CP29.01	 CP26.25	6.844 6.834	225 225	
CP24.01	2a	4330	6.900	9.216	1500	1.94	-	CP30.01 CP24.02	7.876 Section 8	150 Section 8	Head of Run (Head of two sections)
CP30.01	2a	4420	6.900	9.017	1500	2.25	CP24.01	 CP30.02	7.364 7.364	150 150	
CP30.02	2a	4510	6.900	9.224	1500	3.08	CP30.01	 CP26.24	6.819 6.744	150 225	

Chamber Schedule
Egerton Stream Diversion

Chamber Ref.	Chamber Type See Note 1	Chainage	Offset (m) See Note 2	Cover Level (m) See note 3	Chamber Diameter (mm)	Chamber Depth (m) See note 5	Connections				Comments
							From	To	Invert Level (m)	Dia (m)	
EG1.01	2b	X = 573982.277 Y = 108662.289		14.915	1800	2.79	OUTS1 BP09	 OUTS2 OUTS6	12.723 13.503 13.023 12.723	900 225 600 300	Head of Diversion Run
EG1.02	1	X = 573900.061 Y = 108322.421		T.B.C	1500	T.B.C	OUTS7	 EG1.03	8.613 8.613	300 300	
EG1.03	1	X = 573895.580 Y = 108250.936		T.B.C	1500	T.B.C	EG1.02	 EG1.04	8.155 8.155	600 600	
EG1.04	1	X = 573891.161 Y = 108180.452		T.B.C	1500	T.B.C	EG1.03	 EG1.05	7.696 7.696	600 600	
EG1.05	1	X = 573864.455 Y = 108173.952		T.B.C	1500	T.B.C	EG1.04 EG2.06	 EG1.06	7.531 7.531 7.531	600 600 600	
EG1.06	1	X = 573863.831 Y = 108171.071		T.B.C	1500	T.B.C	EG1.05	 CULVERT	7.432 7.432	600 600	Tie Into Existing Culvert
EG2.01	1	X = 573949.851 Y = 108581.868		12.694	1500	1.26	OUTS3	 EG2.02	11.430 11.430	600 600	
EG2.02	1	X = 573920.947 Y = 108496.314		12.018	1500	1.41	EG2.01	 EG2.03	10.604 10.604	600 600	
EG2.03	1	X = 573901.906 Y = 108446.946		T.B.C	1500	T.B.C	EG2.02	 OUTS4	9.608 9.680	600 600	
EG2.04	1	X = 573871.491 Y = 108284.449		T.B.C	1500	T.B.C	OUTS5	 EG2.05	8.000 8.000	600 600	
EG2.05	1	X = 573871.065 Y = 108234.831		T.B.C	1500	T.B.C	EG2.04	 CP4.13	7.741 7.741	600 600	

5.1/20 Pipe Schedules

Summary Sheet (Overall)

Total Pipe Lengths

Pipe Diameter	Pipe Type	Length (m)
150	Carrier	658
150	Filter	2134
150	Filter (Back of Verge)	1763
225	Carrier	895
225	Filter	1919
225	Filter + Carrier	70
300	Carrier	581
300	Filter	1071
375	Carrier	223
375	Filter	766
375	Filter + Carrier	301
450	Carrier	377
450	Filter	27
525	Carrier	74
600	Carrier	747
900	Carrier	78
Twin 900	Carrier	390

Pipe Schedule Notes

1. For permitted carrier pipe / bedding type combinations refer to Appendix 5/1.2 and 5/1.3 (Pipe and Bed Combinations) and Drawings F1 and F2 of the Highway Construction Details.
2. For Filter (Back of Verge) pipe details refer to Note 8 on drawings B1297000/0500.01a/0001 to 0010.

Pipe Schedules

Summary Sheet (By Section)

Section 1		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Carrier	75
225	Carrier	33

Section 2		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Carrier	250
225	Carrier	295
300	Carrier	188
900	Carrier	58
Twin□900	Carrier	141

Section 3		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Carrier	194
225	Carrier	381
300	Carrier	240
450	Carrier	79
Twin 900	Carrier	248

Section 4		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Carrier	124
	Filter	531
225	Filter	536
300	Carrier	20
	Filter	167
375	Carrier	81
600	Carrier	8

Section 5		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Filter	144
225	Filter	385
300	Filter	188
375	Carrier	15
	Filter	92
450	Carrier	96
600	Carrier	8

Pipe Schedules

Summary Sheet (By Section)

Section 6		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Carrier	15
	Filter	210
225	Filter	133
300	Filter	133
375	Filter	30
450	Carrier	140
600	Carrier	8

Section 7		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Filter	489
225	Carrier	82
	Filter	420
300	Filter	325
375	Carrier	15
	Filter	200
600	Carrier	19

Section 8		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Filter	180
225	Filter	50
300	Carrier	15
	Filter	214
375	Filter	160
450	Carrier	62
	Filter	27
525	Carrier	74
600	Carrier	5

Section 9		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
150	Filter	580
225	Carrier	105
	Filter	396
	Filter + Carrier	70
300	Carrier	89
	Filter	45
375	Carrier	112
	Filter	284
	Filter + Carrier	301
600	Carrier	185

Pipe Schedules

Summary Sheet (By Section)

Egerton Stream Diversion		
Sum of Pipe Length (m)		
Pipe Diameter (mm)	Filter or Carrier Pipe	Total
300	Carrier	30
600	Carrier	513
900	Carrier	20

Pipe Schedule
Section 1

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P1 01-02	150	CP1.01	CP1.02	10.047	9.097	30.3	0.90	Carrier	1a	
P1 02-03	150	CP1.02	CP1.03	9.097	7.610	44.7	0.90	Carrier	1a	
P1 03-04	225	CP1.03	CP1.04	7.535	7.434	21.2	0.90	Carrier	2a	
P1 04-05	225	CP1.04	MH1.05	7.434	7.242	11.6	0.90	Carrier	2a	

Pipe Schedule
Section 2

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P4 01-02	150	CP4.01	CP4.02	14.014	12.183	69.6	0.90	Carrier	1a	
P4 02-03	225	CP4.02	CP4.03	12.108	11.159	69.9	0.90	Carrier	2a	
P4 03-04	225	CP4.03	CP4.04	11.159	10.784	59.9	0.90	Carrier	2a	
P4 04-05	300	CP4.04	CP4.05	10.709	10.337	59.9	0.90	Carrier	3a	
P4 05-06	300	CP4.05	CP4.06	10.337	9.965	59.4	0.90	Carrier	3a	
P4 06-07	300	CP4.06	CP4.07	9.965	9.715	39.1	0.90	Carrier	3a	
P4 07-08	300	CP4.07	CP4.08	9.715	9.540	29.5	0.90	Carrier	3a	
P4 08-09	900	CP4.08	CP4.09	8.640	8.507	39.9	1.20	Carrier	-	See B1297000-0500.01a-017 (Detail J1)
P4 09-10	900	CP4.09	CP4.10	8.507	8.445	18.5	1.26	Carrier	-	See B1297000-0500.01a-017 (Detail J1)
P4 10-11	Twin 900	CP4.10	CP4.11	8.445	8.345	30.0	1.48	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P4 11-BPI	225	CP4.11	BP4	8.345	8.329	4.5	2.36	Carrier	2a	Bypass Interceptor Inlet
P4 BPO-12	225	BP4	CP4.12	8.279	8.164	34.5	2.76	Carrier	2a	Bypass Interceptor Outlet
P4 12-06	225	CP4.12	CP4.13	8.164	8.114	5.4	2.24	Carrier	2a	
P5 01-02	150	CP5.01	CP5.02	12.178	11.233	70.1	0.90	Carrier	1a	
P5 02-03	150	CP5.02	CP5.03	11.233	10.890	60.1	0.90	Carrier	1a	
P5 03-04	225	CP5.03	CP5.04	10.815	10.465	60.1	0.90	Carrier	2a	
P5 04-05	225	CP5.04	CP5.05	10.465	10.261	60.4	0.95	Carrier	2a	
P5 05-06	Twin 900	CP5.05	CP5.06	9.586	9.385	40.7	1.04	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P5 06-10	Twin 900	CP5.06	CP4.10	9.385	8.799	70.5	0.98	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P6 01-09	150	CP6.01	CP4.09	10.058	9.563	50.0	0.90	Carrier	1a	

Pipe Schedule
Section 3

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P7 01-02	150	CP7.01	CP7.02	21.029	20.625	65.0	0.90	Carrier	1a	
P7 02-02	150	CP7.02	CP8.02	20.200	20.095	9.3	1.20	Carrier	1a	
P8 01-02	150	CP8.01	CP8.02	20.968	20.520	64.9	0.90	Carrier	1a	
P8 02-03	225	CP8.02	CP8.03	20.020	19.657	59.7	1.11	Carrier	2a	
P8 03-04	225	CP8.03	CP8.04	19.657	18.567	59.5	0.90	Carrier	2a	
P8 04-05	225	CP8.04	CP8.05	18.567	17.371	49.6	0.90	Carrier	2a	
P8 05-06	300	CP8.05	CP8.06	17.296	16.339	69.8	0.90	Carrier	3a	
P8 06-07	300	CP8.06	CP8.07	16.339	16.071	80.2	0.93	Carrier	3a	
P8 07-08	300	CP8.07	CP8.08	16.071	15.771	90.1	0.96	Carrier	3a	
P8 08-04	450	CP8.08	CP9.04	15.388	15.357	9.3	1.40	Carrier	3a	
P9 01-02	150	CP9.01	CP9.02	17.270	16.498	55.2	0.90	Carrier	1a	
P9 02-03	225	CP9.02	CP9.03	16.423	16.154	79.8	0.93	Carrier	2a	
P9 03-04	225	CP9.03	CP9.04	16.154	15.839	90.0	1.05	Carrier	2a	
P9 04-05	450	CP9.04	CP9.05	15.206	14.974	69.6	1.58	Carrier	6a	
P9 05-06	Twin 900	CP9.05	CP9.06	14.524	14.259	79.5	1.67	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P9 06-07	Twin 900	CP9.06	CP9.07	14.259	13.994	79.5	1.74	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P9 07-08	Twin 900	CP9.07	CP9.08	13.994	13.696	89.4	1.34	Carrier	-	See B1297000-0500.01a-017 (Detail J2)
P9 08-09	225	CP9.08	CP9.09	13.696	13.664	9.3	1.71	Carrier	2a	
P9 09-BPI	225	CP9.09	BP9	13.664	13.596	20.1	1.67	Carrier	2a	Bypass Interceptor Inlet
P9 BP0-01	225	BP9	EG1.01	13.546	13.503	12.8	1.16	Carrier	2a	Bypass Interceptor Outlet

Pipe Schedule
Section 4

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P10 01-02	150	CP10.01	CP10.02	21.007	20.607	55.0	0.96	Carrier	1a	
P10 02-03	150	CP10.02	CP10.03	20.317	19.948	50.0	1.25	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P10 03-04	150	CP10.03	CP10.04	19.948	19.209	59.8	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P10 04-05	225	CP10.04	CP10.05	19.134	18.361	59.5	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P10 05-06	225	CP10.05	CP10.06	18.361	17.231	59.2	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P10 06-07	225	CP10.06	CP10.07	17.231	15.890	59.5	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P10 07-08	225	CP10.07	CP10.08	15.890	13.741	79.8	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P10 08-09	225	CP10.08	CP10.09	13.741	10.841	90.0	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P10 09-10	300	CP10.09	CP10.10	10.766	8.001	90.0	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P10 10-11	300	CP10.10	CP10.11	8.001	6.532	77.5	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P10 11-12	300	CP10.11	CP10.12	6.532	6.245	20.0	1.19	Carrier	3a	
P10 12-13	375	CP10.12	CP10.13	5.278	4.833	17.5	1.64	Carrier	5a	
P10 13-14	375	CP10.13	CP10.14	4.828	4.066	28.1	1.05	Carrier	5a	
P10 14-OUTF4	375	CP10.14	OUTF4	4.066	3.750	20.3	0.79	Carrier	5a	
P11 01-02	150	CP11.01	CP11.02	21.011	20.619	55.0	0.96	Carrier	1a	
P11 02-03	150	CP11.02	CP11.03	20.327	19.968	50.0	1.26	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P11 03-04	150	CP11.03	CP11.04	19.968	19.390	60.2	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P11 04-04	150	CP11.04	CP10.04	19.380	19.199	13.7	1.20	Carrier	1a	
P12 01-02	150	CP12.01	CP12.02	17.627	15.941	60.5	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P12 02-03	150	CP12.02	CP12.03	15.941	13.743	80.2	1.14	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P12 03-04	150	CP12.03	CP12.04	13.743	10.845	90.0	1.08	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P12 04-05	225	CP12.04	CP12.05	10.770	8.004	90.0	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P12 05-06	225	CP12.05	CP12.06	8.004	6.297	97.5	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P12 06-12	375	CP12.06	CP10.12	5.328	5.278	15.0	1.99	Carrier	1a	
P13 01-06	150	CP13.01	CP12.06	6.062	5.673	40.0	1.43	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P14 01-12	150	CP14.01	CP10.12	6.134	5.746	40.0	1.51	Filter	1b	See B1297000-0500.01a-017 (Detail H)
OUTL4-OUTR4	600	OUTL4	OUTR4	3.750	3.450	8.1	1.20	Carrier	8a	

Pipe Schedule
Section 5

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P15 01-02	150	CP15.01	CP15.02	11.874	11.584	50.6	1.24	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P15 02-03	225	CP15.02	CP15.03	11.509	11.183	45.6	1.24	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P15 03-04	225	CP15.03	CP15.04	11.183	10.460	45.5	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P15 04-05	225	CP15.04	CP15.05	10.460	9.608	40.3	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P15 05-06	225	CP15.05	CP15.06	9.608	7.538	80.2	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P15 06-07	300	CP15.06	CP15.07	7.463	6.141	89.9	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P15 07-08	375	CP15.07	CP15.08	6.066	5.824	55.0	1.19	Filter	5b	See B1297000-0500.01a-017 (Detail H)
P15 08-09	375	CP15.08	CP15.09	5.814	5.634	14.9	1.20	Carrier	5a	
P15 09-10	375	CP15.09	CP15.10	5.634	5.509	37.5	1.36	Filter	5b	See B1297000-0500.01a-017 (Detail G)
P15 10-11	450	CP15.10	CP15.11	5.434	5.364	21.1	1.29	Carrier	6a	
P15 11-12	450	CP15.11	CP15.12	4.074	3.609	21.5	1.63	Carrier	6a	
P15 12-13	450	CP15.12	CP15.13	3.594	3.199	18.2	0.91	Carrier	6a	
P15 13-14	450	CP15.13	CP15.14	2.719	2.630	26.6	1.11	Carrier	6a	
P15 14-OUTF5	450	CP15.14	OUTL5	2.630	2.600	9.1	0.58	Carrier	6a	Concrete protection as per Appendix 5/1
P16 01-02	150	CP16.01	CP16.02	11.201	10.924	49.2	1.12	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P16 02-03	150	CP16.02	CP16.03	10.924	10.585	44.3	1.12	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P16 03-04	225	CP16.03	CP16.04	10.510	9.974	44.4	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P16 04-05	225	CP16.04	CP16.05	9.974	9.302	39.6	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P16 05-06	225	CP16.05	CP16.06	9.302	7.264	89.8	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P16 06-10	300	CP16.06	CP15.10	7.189	6.024	97.6	1.08	Filter	4b	See B1297000-0500.01a-017 (Detail G)
OUTL5-OUTR5	600	OUTL5	OUTR5	2.600	2.300	8.4	1.20	Carrier	8a	

Pipe Schedule
Section 6

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
CP17 01-01	150	CP16.01	CP17.01	11.201	10.924	49.2	1.09	Filter	1b	See B1297000-0500.01a-017 (Detail G)
CP17 01-02	150	CP17.01	CP17.02	10.924	10.144	54.1	1.09	Filter	1b	See B1297000-0500.01a-017 (Detail G)
CP17 02-03	225	CP17.02	CP17.03	10.024	8.957	44.3	1.13	Filter	2b	See B1297000-0500.01a-017 (Detail G)
CP17 03-04	225	CP17.03	CP17.04	8.957	7.674	44.3	1.10	Filter	2b	See B1297000-0500.01a-017 (Detail G)
CP17 04-05	300	CP17.04	CP17.05	7.599	6.562	44.3	1.08	Filter	4b	See B1297000-0500.01a-017 (Detail G)
CP17 05-06	300	CP17.05	CP17.06	6.562	5.892	44.3	1.08	Filter	4b	See B1297000-0500.01a-017 (Detail G)
CP17 06-07	300	CP17.06	CP17.07	5.892	5.449	44.3	1.08	Filter	4b	See B1297000-0500.01a-017 (Detail G)
CP17 07-08	375	CP17.07	CP17.08	5.374	5.102	29.5	1.08	Filter	4b	See B1297000-0500.01a-017 (Detail G)
CP17 08-09	450	CP17.08	CP17.09	4.382	4.315	20.1	2.06	Carrier	6a	
CP17 09-10	450	CP17.09	CP17.10	4.315	4.267	14.4	2.04	Carrier	6a	
CP17 10-11	450	CP17.10	CP17.11	4.267	3.999	12.9	1.56	Carrier	6a	
CP17 11-12	450	CP17.11	CP17.12	3.682	2.894	36.4	1.32	Carrier	6a	
CP17 12-13	450	CP17.12	CP17.13	2.894	2.486	26.1	0.90	Carrier	6a	
CP17 13-14	450	CP17.13	CP17.14	2.486	2.199	13.3	1.03	Carrier	6a	
CP17 14-OUTF6	450	CP17.14	OUTF6	2.199	1.850	16.7	0.74	Carrier	6a	
CP18 01-01	150	CP15.01	CP18.01	11.874	11.588	50.7	1.21	Filter	1b	See B1297000-0500.01a-017 (Detail H)
CP18 01-02	150	CP18.01	CP18.02	11.588	10.815	55.7	1.21	Filter	1b	See B1297000-0500.01a-017 (Detail H)
CP18 02-02	150	CP18.02	CP17.02	10.805	10.024	15.0	1.20	Carrier	1a	
CP19 01-08	225	CP19.01	CP17.08	4.875	4.727	44.3	1.34	Filter	2b	See B1297000-0500.01a-017 (Detail G)
OUTL6-OUTR6	600	OUTL6	OUTR6	1.850	1.550	8.3	1.20	Carrier	8a	

Pipe Schedule
Section 7

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P20 01-02	150	CP20.01	CP20.02	4.703	4.019	61.9	1.08	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P20 02-03	225	CP20.02	CP20.03	3.944	3.289	59.8	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P20 03-04	300	CP20.03	CP20.04	3.214	3.031	55.0	1.09	Filter	4b	See B1297000-0500.01a-017 (Detail G)
P20 04-05	225	CP20.04	CP20.05	2.308	2.245	18.9	1.63	Carrier	2a	
P20 05-06	225	CP20.05	CP20.06	2.245	2.185	26.2	1.54	Carrier	2a	
P20 06-07	225	CP20.06	CP20.07	2.185	2.125	26.2	1.14	Carrier	2a	
P20 07 - OUTF7	225	CP20.07	OUTF7	2.125	2.100	10.5	0.53	Carrier	2a	
P21 01-02	150	CP21.01	CP21.02	3.495	3.186	55.0	1.23	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P21 02-04	375	CP21.02	CP20.04	2.508	2.458	15.0	1.66	Carrier	5a	
P22 01-02	150	CP22.01	CP22.02	5.434	4.708	92.4	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P22 02-03	150	CP22.02	CP22.03	4.708	4.192	90.0	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P22 03-04	225	CP22.03	CP22.04	4.117	3.767	90.0	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P22 04-05	225	CP22.04	CP22.05	3.767	3.418	90.0	1.27	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P22 05-06	300	CP22.05	CP22.06	3.343	3.043	89.9	1.47	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P22 06-07	375	CP22.06	CP22.07	2.968	2.668	90.0	1.66	Filter	5b	See B1297000-0500.01a-017 (Detail H)
P22 07-02	375	CP22.07	CP21.02	2.668	2.518	55.0	1.72	Filter	5b	See B1297000-0500.01a-017 (Detail H)
P23 01-02	150	CP23.01	CP23.02	5.516	4.828	100.0	1.08	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P23 02-03	150	CP23.02	CP23.03	4.828	4.121	90.0	1.08	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P23 03-04	225	CP23.03	CP23.04	4.046	3.695	89.9	1.08	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P23 04-05	225	CP23.04	CP23.05	3.695	3.344	90.0	1.16	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P23 05-06	300	CP23.05	CP23.06	3.269	2.969	90.0	1.36	Filter	4b	See B1297000-0500.01a-017 (Detail G)
P23 06-07	300	CP23.06	CP23.07	2.969	2.669	90.0	1.55	Filter	4b	See B1297000-0500.01a-017 (Detail G)
P23 07-04	375	CP23.07	CP20.04	2.594	2.458	55.0	1.60	Filter	5b	See B1297000-0500.01a-017 (Detail G)
OUTL7-OUTR7	600	OUTL7	OUTR7	2.100	1.800	18.6	1.20	Carrier	8a	

Pipe Schedule
Section 8

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P24 01-02	150	CP24.01	CP24.02	7.874	7.364	90.0	1.44	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P24 02-03	225	CP24.02	CP24.03	7.289	7.119	50.3	1.72	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P24 03-04	300	CP24.03	CP24.04	7.044	6.909	40.4	1.69	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P24 04-05	300	CP24.04	CP24.05	6.909	6.758	45.5	1.53	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P24 05-06	300	CP24.05	CP24.06	6.758	6.403	45.5	1.42	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P24 06-07	300	CP24.06	CP24.07	6.403	6.114	32.9	1.42	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P24 07-08	300	CP24.07	CP24.08	6.104	5.612	15.0	1.32	Carrier	3a	
P24 08-09	-	CP24.08	CP24.09	5.612	5.112	Refer to siphon detail drawings		Carrier	Siphon under Powdermill Stream See B1297000-0500.01a-021	
P24 09-10	450	CP24.09	CP24.10	5.037	4.822	27.4	1.39	Filter	6b	See B1297000-0500.01a-017 (Detail G)
P24 10-11	450	CP24.10	CP24.11	4.822	4.504	14.7	1.60	Carrier	5a	
P24 11-12	450	CP24.11	CP24.12	4.324	3.306	47.0	1.66	Carrier	5a	
P24 12-13	525	CP24.12	CP24.13	3.231	3.081	49.7	1.05	Carrier	6a	
P24 13-14	525	CP24.13	CP24.14	3.081	3.037	13.3	0.83	Carrier	6a	Concrete protection as per Appendix 5/1
P24 14-OUTF8	525	CP24.14	OUTF8	3.037	3.000	10.9	0.54	Carrier	6a	Concrete protection as per Appendix 5/1
P25 01-02	150	CP25.01	CP25.02	7.802	6.989	89.9	1.38	Filter	1b	See B1297000-0500.01a-017 (Detail G)
P25 02-03	300	CP25.02	CP25.03	6.839	6.673	49.6	1.57	Filter	4b	See B1297000-0500.01a-017 (Detail G)
P25 03-04	375	CP25.03	CP25.04	6.598	6.467	39.5	1.34	Filter	5b	See B1297000-0500.01a-017 (Detail G)
P25 04-05	375	CP25.04	CP25.05	6.467	6.246	44.4	1.15	Filter	5b	See B1297000-0500.01a-017 (Detail G)
P25 05-06	375	CP25.05	CP25.06	6.246	5.886	44.4	1.08	Filter	5b	See B1297000-0500.01a-017 (Detail G)
P25 06-08	375	CP25.06	CP24.08	5.866	5.658	32.0	1.08	Filter	5b	See B1297000-0500.01a-017 (Detail G)
OUTL8-OUTR8	600	OUTL8	OUTR8	3.000	2.700	5.3	1.20	Carrier	8a	

Pipe Schedule
Section 9

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P26 01-02	150	CP26.01	CP26.02	44.054	42.837	70.0	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P26 02-03	225	CP26.02	CP26.03	42.762	41.685	59.6	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P26 03-04	300	CP26.03	CP26.04	41.610	41.033	29.7	1.19	Filter	3b	See B1297000-0500.01a-017 (Detail H)
P26 04-05	300	CP26.04	CP26.05	40.800	39.500	88.7	1.16	Carrier Bridge	Bridge Crossing Refer to Structures Drawings	
P26 05-06	300	CP26.05	CP26.06	39.550	39.354	14.8	0.85	Filter	3b	See B1297000-0500.01a-017 (Detail H)
P26 06-07	375	CP26.06	CP26.07	38.943	38.749	51.8	0.68	Carrier Bridge	Bridge Crossing Refer to Structures Drawings	
P26 07-08	375	CP26.07	CP26.08	37.792	36.979	41.9	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 08-09	375	CP26.08	CP26.09	36.979	35.963	49.3	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 09-10	375	CP26.09	CP26.10	35.963	34.759	49.5	1.19	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 10-11	375	CP26.10	CP26.11	34.612	33.802	29.8	1.26	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 11-12	375	CP26.11	CP26.12	33.483	32.678	29.9	1.35	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 12-13	375	CP26.12	CP26.13	31.333	30.153	45.0	2.16	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 13-14	375	CP26.13	CP26.14	29.038	27.918	45.2	2.35	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 14-15	375	CP26.14	CP26.15	27.143	26.545	25.2	2.18	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 15-16	375	CP26.15	CP26.16	25.549	24.964	25.2	2.29	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 16-17	375	CP26.16	CP26.17	23.716	23.141	25.2	2.41	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 17-18	375	CP26.17	CP26.18	21.844	21.280	25.1	2.44	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 18-19	375	CP26.18	CP26.19	19.515	18.739	35.1	2.67	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 19-20	375	CP26.19	CP26.20	16.955	16.190	35.2	2.68	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 20-21	375	CP26.20	CP26.21	14.386	13.521	40.1	2.69	Filter + Carrier	4a + 2b	See B1297000-0500.01a-017 (Detail I)
P26 21-22	375	CP26.21	CP26.22	13.208	12.350	40.0	1.47	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 22-23	375	CP26.22	CP26.23	12.350	10.200	59.9	0.69	Carrier Bridge	Bridge Crossing Refer to Structures Drawings	
P26 23-24	375	CP26.23	CP26.24	9.245	8.310	43.7	1.34	Filter	4b	See B1297000-0500.01a-017 (Detail H)
P26 24-25	600	CP26.24	CP26.25	6.247	6.197	14.9	3.00	Carrier	8a	
P26 25-26	600	CP26.25	CP26.26	6.187	6.158	8.7	3.02	Carrier	8a	
P26 26-27	600	CP26.26	CP26.27	6.158	6.110	14.2	2.69	Carrier	8a	
P26 27-28	600	CP26.27	CP26.28	5.901	5.566	25.7	1.79	Carrier	8a	
P26 28-29	600	CP26.28	CP26.29	5.566	5.199	25.6	1.05	Carrier	8a	
P26 29-30	600	CP26.29	CP26.30	5.199	5.154	13.3	1.05	Carrier	8a	
P26 30-OUTF9	600	CP26.30	OUTF9	5.154	5.000	17.9	0.60	Carrier	8a	

Pipe Schedule
Section 9

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P27 01-02	150	CP27.01	CP27.02	43.707	43.241	41.1	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P27 02-03	225	CP27.02	CP27.03	43.166	42.821	30.3	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P27 03-04	225	CP27.03	CP27.04	42.821	41.904	60.4	1.19	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P27 04-03	225	CP27.04	CP26.03	41.904	41.685	13.9	1.20	Carrier	2b	See B1297000-0500.01a-017 (Detail H)
P28 01-02	150	CP28.01	CP28.02	32.891	28.410	89.8	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P28 02-03	150	CP28.02	CP28.03	28.410	25.194	49.6	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P28 03-04	150	CP28.03	CP28.04	25.194	21.820	49.7	1.19	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P28 04-05	225	CP28.04	CP28.05	19.726	16.106	69.7	2.50	Filter + Carrier	3a + 2b	See B1297000-0500.01a-017 (Detail I)
P28 05-06	225	CP28.05	CP28.06	15.454	12.750	59.9	1.98	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P28 06-07	225	CP28.06	CP28.07	12.750	10.650	70.2	0.96	Carrier Bridge	Bridge Crossing Refer to Structures Drawings	
P28 07-25	225	CP28.07	CP26.25	9.852	8.333	53.9	1.20	Filter	2b	See B1297000-0500.01a-017 (Detail H)
P25 01-01	150	CP25.01	CP29.01	7.802	7.237	100.2	1.24	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P29 01-02	225	CP29.01	CP29.02	7.162	6.844	95.2	1.80	Filter	2b	See B1297000-0500.01a-017 (Detail G)
P29 02-25	225	CP29.02	CP26.25	6.834	6.762	21.2	2.49	Carrier	2b	See B1297000-0500.01a-017 (Detail G)
P24 01-01	150	CP24.01	CP30.01	7.876	7.364	89.8	1.35	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P30 01-02	150	CP30.01	CP30.02	7.364	6.819	89.9	1.88	Filter	1b	See B1297000-0500.01a-017 (Detail H)
P30 02-24	225	CP30.02	CP26.24	6.744	6.622	36.2	2.64	Filter	2b	See B1297000-0500.01a-017 (Detail H)
OUTL9-OUTR9	600	OUTL9	OUTR9	5.000	4.400	64.2	1.20	Carrier	8a	Lagoon outfall to watercourse

Pipe Schedule
Egerton Stream Diversion

Pipe Ref.	Pipe Diameter (mm)	U/S Chamber	D/S Chamber	U/S Invert Level (m AOD)	D/S Invert Level (m AOD)	Pipe Length (m)	Average Depth of Cover (m)	Filter or Carrier Pipe	Pipe Group Reference (See Note 1)	Comments
P EG1 S1-01	900	OUTS1	EG1.01	12.930	12.723	20.0	0.90	Carrier	10a	
P EG1 01-S6	300	EG1.01	OUTS6	12.723	12.107	29.9	0.90	Carrier	4a	
P EG1 S7-02	600	OUTS7	EG1.02	8.826	8.613	31.9	0.90	Carrier	9a	
P EG1 02-03	600	EG1.02	EG1.03	8.613	8.155	71.6	0.90	Carrier	9a	
P EG1 03-04	600	EG1.03	EG1.04	8.155	7.696	70.6	1.20	Carrier	9a	
P EG1 04-05	600	EG1.04	EG1.05	7.696	7.531	20.6	1.20	Carrier	9a	
P EG1 05-06	600	EG1.05	EG1.06	7.531	7.432	12.5	1.20	Carrier	9a	
P EG2 01-S2	600	EG1.01	OUTS2	13.023	12.926	8.7	0.90	Carrier	9a	
P EG2 S3-01	600	OUTS3	EG2.01	11.988	11.430	30.9	0.90	Carrier	9a	
P EG2 01-02	600	EG2.01	EG2.02	11.430	10.604	90.0	0.90	Carrier	9a	
P EG2 02-03	600	EG2.02	EG2.03	10.604	9.680	53.0	0.90	Carrier	9a	
P EG 03-S4	600	EG2.03	OUTS4	9.680	9.644	6.8	0.90	Carrier	9a	
P EG2 S5-04	600	OUTS5	EG2.04	8.050	8.000	8.8	0.90	Carrier	9a	
P EG2 04-05	600	EG2.04	EG2.05	8.000	7.741	49.6	1.20	Carrier	9a	
P EG2 05-13	600	EG2.05	CP4.13	7.741	7.560	45.9	1.20	Carrier	9a	
P EG2 06-05	600	CP4.13	EG1.05	7.560	7.531	12.5	1.20	Carrier	9a	

Summary Sheet (Overall)

Total Gully Numbers

Gully Type	No.
Precast	72

Chamber Schedule Notes

1 Chainages relate to the main centre line strings or from string label specified in brackets as appropriate.
2 Precast Concret gullys shall be in accordance with drawing HWC/7.
3 Gully leads shall be laid at levels so that there is a minimum fall of 1 in 150 and minimum cover required of 750mm under carriageway and 600mm elsewhere.

Summary Sheet (By Section)

Section 1	
Gully Type	Total
Precast Concrete Gully	14

Section 2	
Gully Type	Total
Precast Concrete Gully	26

Section 3	
Gully Type	Total
Precast Concrete Gully	30

Section 9	
Type See Note 2	Total
Precast Concrete Gully	2

Gully Schedule
Section 1

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G1.01	140	Precast Concrete Gully	CP1.01	150	12.5	Z	
G1.02	105	Precast Concrete Gully	CP1.02	150	7.9	Z	
G1.03	80	Precast Concrete Gully	P1 02-03	150	1.8	Z	
G1.04	60	Precast Concrete Gully	CP1.03	150	8.4	Z	
G1.05	41	Precast Concrete Gully	CP1.04	150	11.1	Z	
G1.06	39	Precast Concrete Gully	CP1.04	150	8.5	Z	
G1.07	12.5	Precast Concrete Gully	MH1.05	150	4.9	Z	
G2.01	68	Precast Concrete Gully	Existing Chamber	150	8.7	z	
G3.01	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	
G3.02	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	
G3.03	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	
G3.04	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	
G3.05	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	
G3.06	T.B.C.	Precast Concrete Gully	T.B.C.	T.B.C.	T.B.C.	T.B.C.	

Gully Schedule
Section 2

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G4.01	680	Precast Concrete Gully	CP4.01	150	8.4	Z	
G4.02	610	Precast Concrete Gully	CP4.02	150	8.4	Z	
G4.03	540	Precast Concrete Gully	CP4.03	150	8.4	Z	
G4.04	502.5	Precast Concrete Gully	P4 03-04	150	1.8	Z	
G4.05	465	Precast Concrete Gully	P4 04-05	150	1.6	Z	
G4.06	427.5	Precast Concrete Gully	P4 04-05	150	1.7	Z	
G4.07	375	Precast Concrete Gully	P4 05-06	150	2.1	Z	
G4.08	335	Precast Concrete Gully	P4 06-07	150	2.2	Z	
G4.09	300	Precast Concrete Gully	P4 07-08	150	1.7	Z	
G4.10	285	Precast Concrete Gully	CP4.08	150	3.6	Z	
G4.11	265	Precast Concrete Gully	P4 08-09	150	13.6	Z	
G4.12	252.5	Precast Concrete Gully	P4 08-09	150	13.8	Z	
G4.13	242.5	Precast Concrete Gully	CP4.09	150	1.2	Z	
G4.14	215	Precast Concrete Gully	CP4.11	150	3.4	Z	
G5.01	610	Precast Concrete Gully	CP5.01	150	8.4	Z	
G5.02	540	Precast Concrete Gully	CP5.02	150	8.4	Z	
G5.03	490	Precast Concrete Gully	P4 02-03	150	1.1	Z	
G5.04	440	Precast Concrete Gully	P5 03-04	150	1.6	Z	
G5.05	370	Precast Concrete Gully	P5 04-05	150	0.7	Z	
G5.06	300	Precast Concrete Gully	P5 06-10	150	0.6	Z	
G5.07	275	Precast Concrete Gully	P5 06-10	150	0.6	Z	
G5.08	251	Precast Concrete Gully	P5 06-10	150	5.2	Z	
G5.09	549	Precast Concrete Gully	P5 06-10	150	3.5	Z	
G6.01	180	Precast Concrete Gully	CP6.01	150	8.4	Z	
G6.02	205	Precast Concrete Gully	P6 01-09	150	1.5	Z	
G6.03	230	Precast Concrete Gully	P6 01-09	150	1.5	Z	

Gully Schedule
Section 3

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G7.01	1500	Precast Concrete Gully	CP7.01	150	13.3	Z	
G7.02	1425	Precast Concrete Gully	CP7.02	150	13.3	Z	
G8.01	1500	Precast Concrete Gully	CP8.01	150	3.6	Z	
G8.02	1425	Precast Concrete Gully	CP8.02	150	3.6	Z	
G8.03	1365	Precast Concrete Gully	CP8.03	150	3.6	Z	
G8.04	1305	Precast Concrete Gully	CP8.04	150	3.6	Z	
G8.05	1190	Precast Concrete Gully	CP8.06	150	8.4	Z	
G8.06	1150	Precast Concrete Gully	P8 06-07	150	1.1	Z	
G8.07	1110	Precast Concrete Gully	CP8.07	150	8.5	Z	
G8.08	1060	Precast Concrete Gully	P8 07-08	150	0.9	Z	
G8.09	1015	Precast Concrete Gully	CP8.08	150	3.6	Z	
G9.01	1250	Precast Concrete Gully	CP9.01	150	13.4	Z	
G9.02	1180	Precast Concrete Gully	CP9.02	150	8.4	Z	
G9.03	1150	Precast Concrete Gully	P9 02-03	150	1.8	Z	
G9.04	1110	Precast Concrete Gully	CP9.03	150	8.3	Z	
G9.05	1060	Precast Concrete Gully	P9 03-04	150	2.0	Z	
G9.06	1015	Precast Concrete Gully	CP9.04	150	3.7	Z	
G9.07	1000	Precast Concrete Gully	P9 04-05	150	1.9	Z	
G9.08	980	Precast Concrete Gully	P9 04-05	150	2.5	Z	
G9.09	960	Precast Concrete Gully	P9 04-05	150	2.2	Z	
G9.10	940	Precast Concrete Gully	CP9.05	150	0.5	Z	
G9.11	920	Precast Concrete Gully	P9 05-06	150	1.1	Z	
G9.12	900	Precast Concrete Gully	P9 05-06	150	1.1	Z	
G9.13	880	Precast Concrete Gully	P9 05-06	150	1.0	Z	
G9.14	860	Precast Concrete Gully	CP9.06	150	0.5	Z	
G9.15	840	Precast Concrete Gully	P9 06-07	150	1.1	Z	
G9.16	820	Precast Concrete Gully	P9 06-07	150	1.1	Z	
G9.17	790	Precast Concrete Gully	CP9.07	150	7.9	Z	

Gully Schedule
Section 3

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G9.18	742.5	Precast Concrete Gully	P9 07-08	150	1.1	Z	
G9.19	705	Precast Concrete Gully	P9 07-08	150	1.0	Z	

Gully Schedule
Section 4

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G10.01	1530	Precast Concrete Gully	CP10.01	150	13.3	Z	
G10.02	1595	Precast Concrete Gully	CP10.02	150	3.7	Z	
G11.01	1530	Precast Concrete Gully	CP11.01	150	13.3	Z	
G11.02	1595	Precast Concrete Gully	CP11.02	150	3.7	Z	

Gully Schedule
Section 9

Gully Ref.	Chainage See Note 1	Type See Note 2	Connection	Connections See note 3			Comments
				Dia (mm)	Length (m)	Pipe Group / Bed Type	
G26.01	5525	Precast Concrete Gully	CP26.01	150	12.2	Z	
G27.01	5525	Precast Concrete Gully	CP27.01	150	12.0	Z	

APPENDIX 5/2

SERVICE DUCT REQUIREMENTS

5/2.1 General

(a) Locations of duct installations shall be as shown on the drawings in the 500 series.

(b) For trench reinstatement in existing pavements see Appendix 7/2.

5/2.2 Duct Construction

a) Ducts shall be constructed in accordance with East Sussex Standard Drawing HWC/14.

b) Ducts for traffic signal installations and street lighting installations shall be orange PVC-U to BS EN 50086-2-4. The ducts shall be high or medium density and have a wall thickness of not less than 5mm.

c) Ducts shall have 'STREET LIGHTING' or 'TRAFFIC SIGNALS' (as appropriate) printed in 9mm white lettering at intervals of not more than 1000mm. When laid, the wording shall be uppermost.

d) Under kerb ducts for traffic signal installations shall be twin 25mm diameter orange PVC-U to BS EN 50086-2-4. The ducts shall be of normal duty and pliable. They shall be bedded and surrounded with 100mm of ST1 concrete. The exact line of the ducts shall be marked on the kerb in order to locate them when slot cutting for the loop detectors.

5/2.3 Duct Markers

Unless otherwise agreed by the Overseeing Organisation each duct, or group of ducts, shall be marked with a permanent marker block as shown in HCD:SECTION 1 Drawing I1.

5/2.4 Junction Pit/Box Covers

The inscription on the covers shall be as follows:

For street lighting chambers:	'STREET LIGHTING'
For traffic systems chambers:	'TRAFFIC SIGNALS'

BT will provide and install their own covers. The Contractor shall arrange the installation with BT when required during the works. Contact details and reference number to follow.

5/2.5 Junction Pit /Box

The type of chamber to be used for the termination of pipes for service ducts shall be as shown in East Sussex Standard Drawings HWC/12 and HWC/13.