

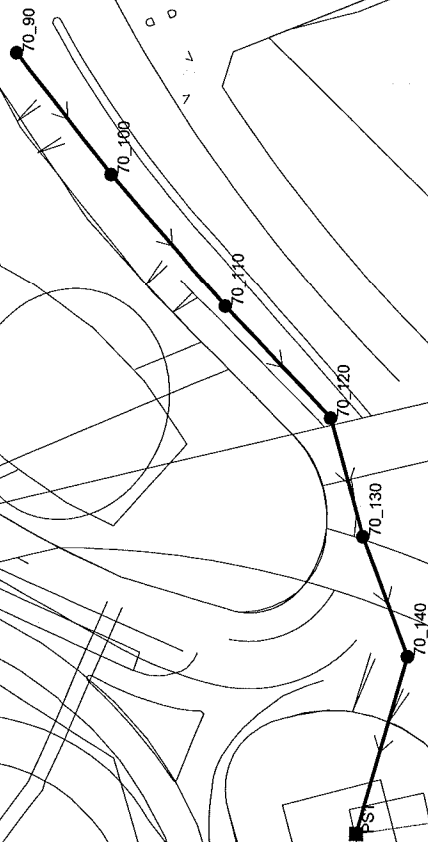
Appendix 16.4

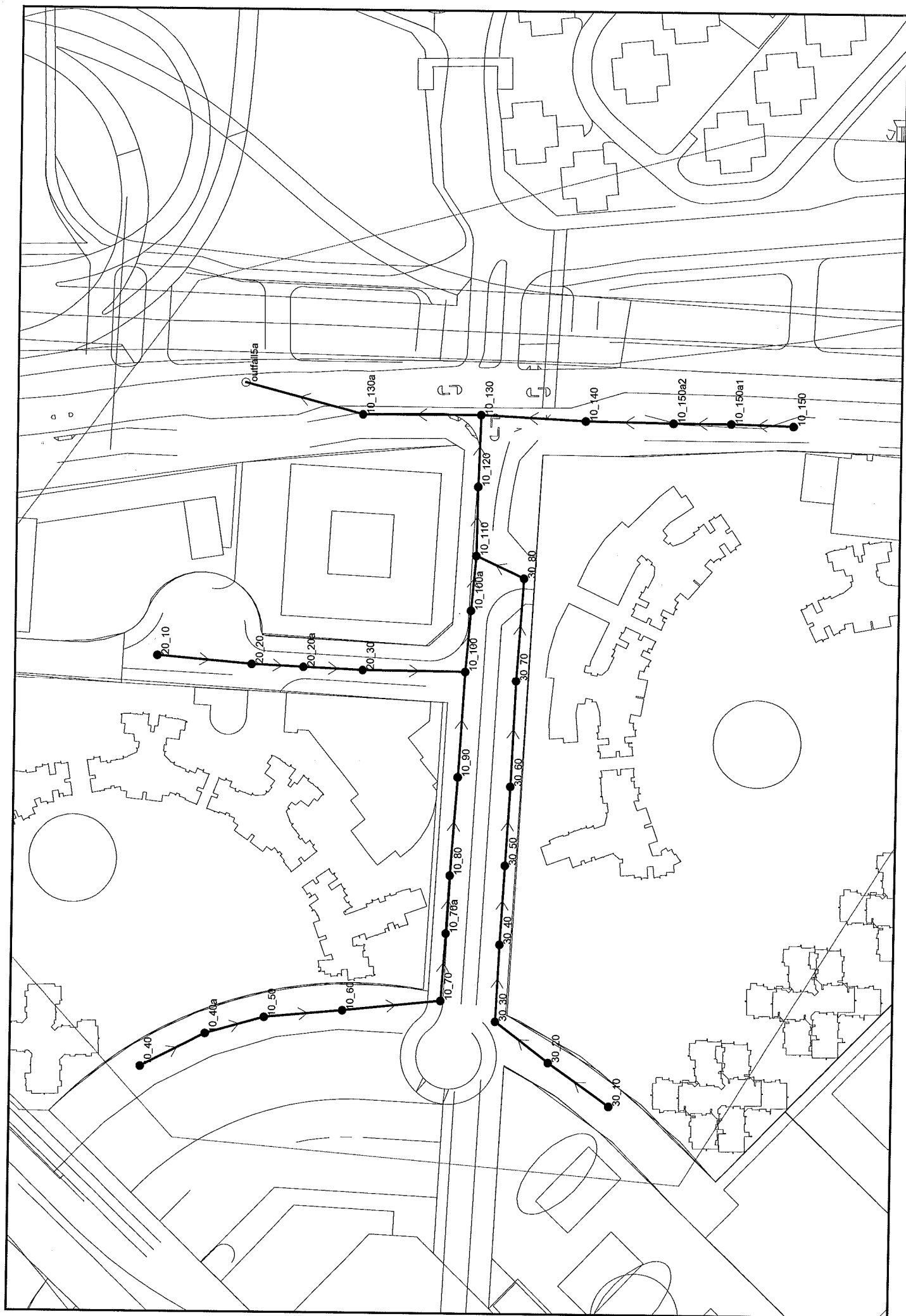
Modelling Results of Hydraulic Assessment of New Sewers in Kai Tak Development

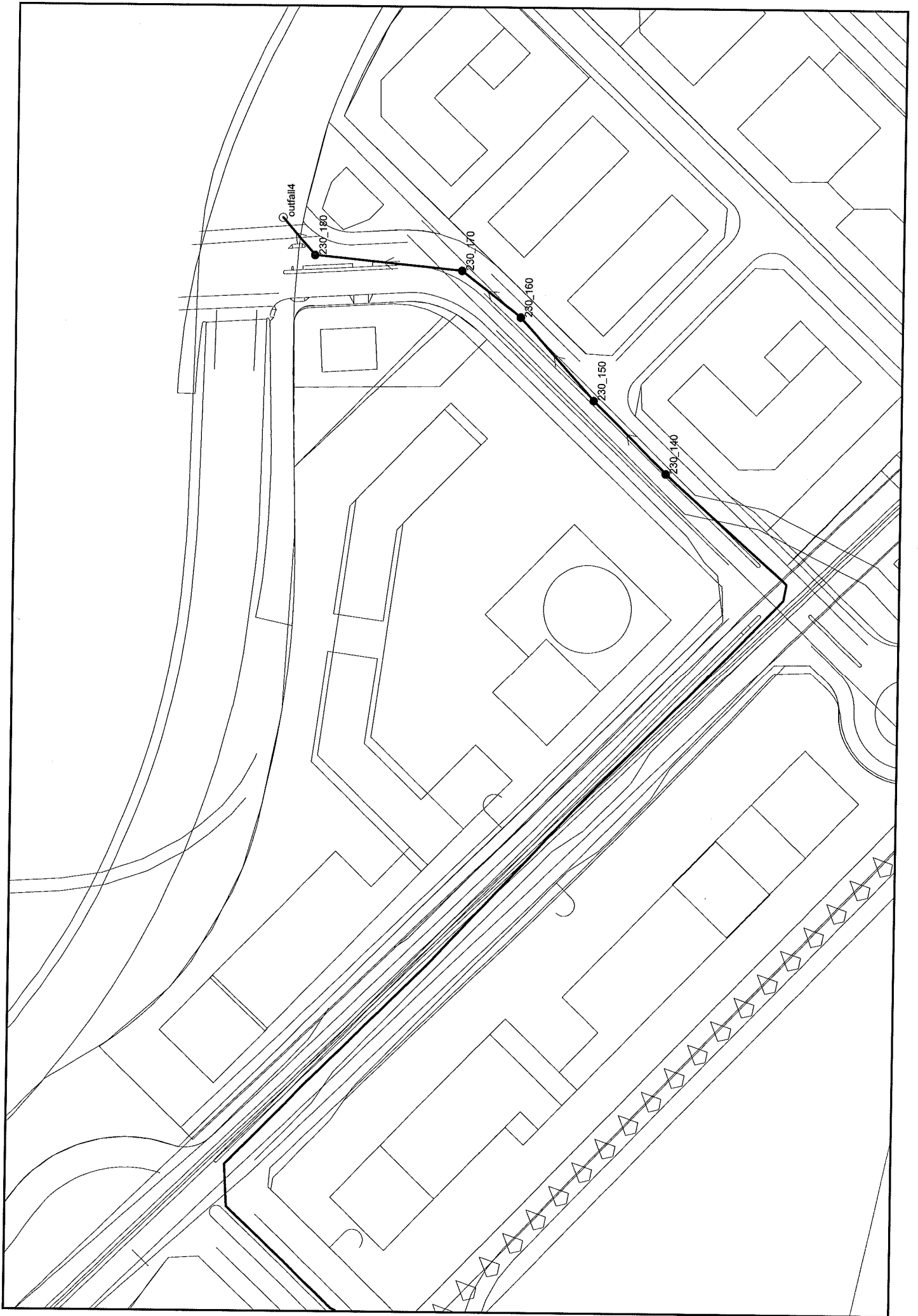
Appendix 16.4A

Modelling Results of Hydraulic Assessment of New Sewers in Kai Tak Development - Model Network of Interim Scenario

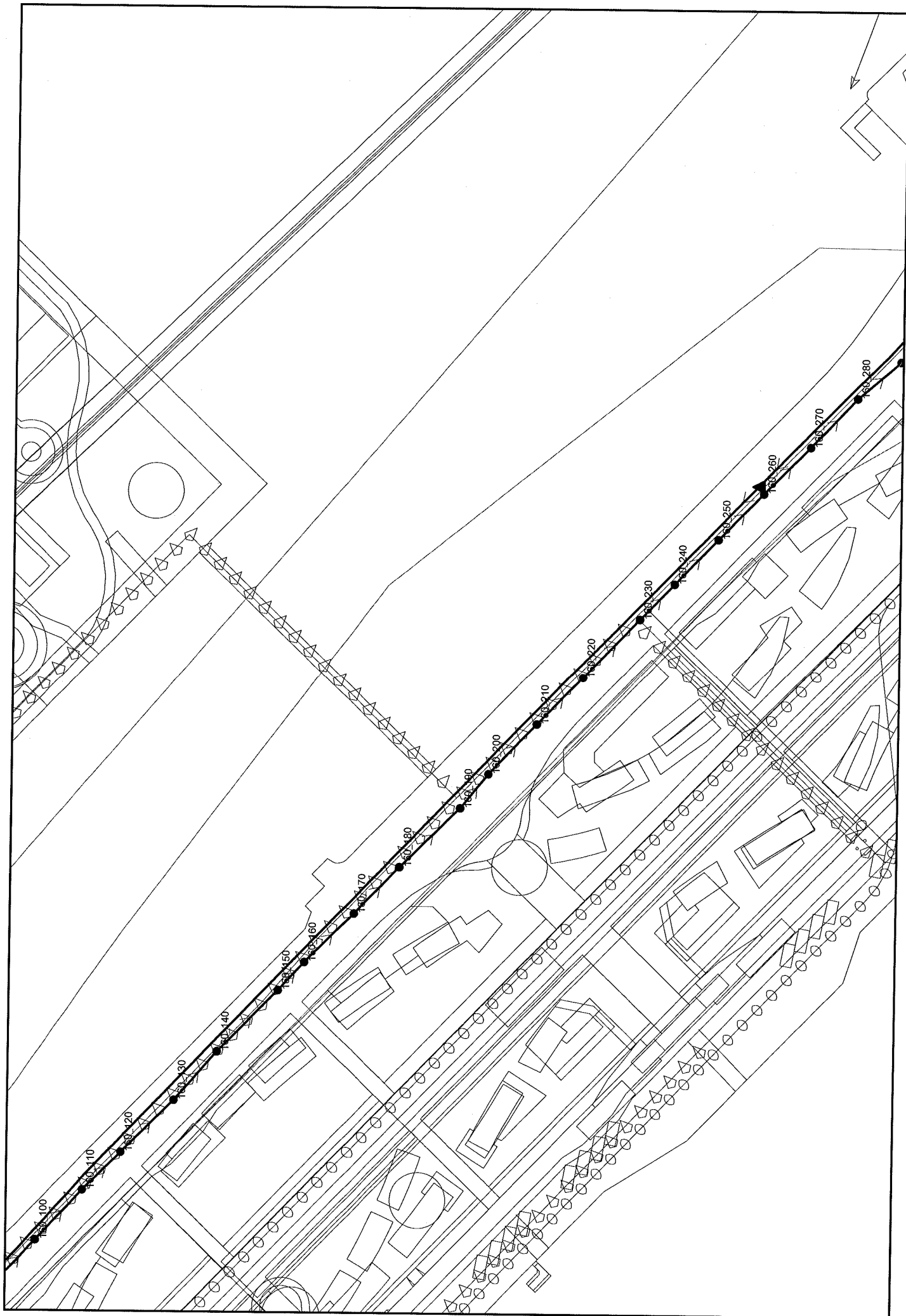
KTD INTERIM
SCENARIO

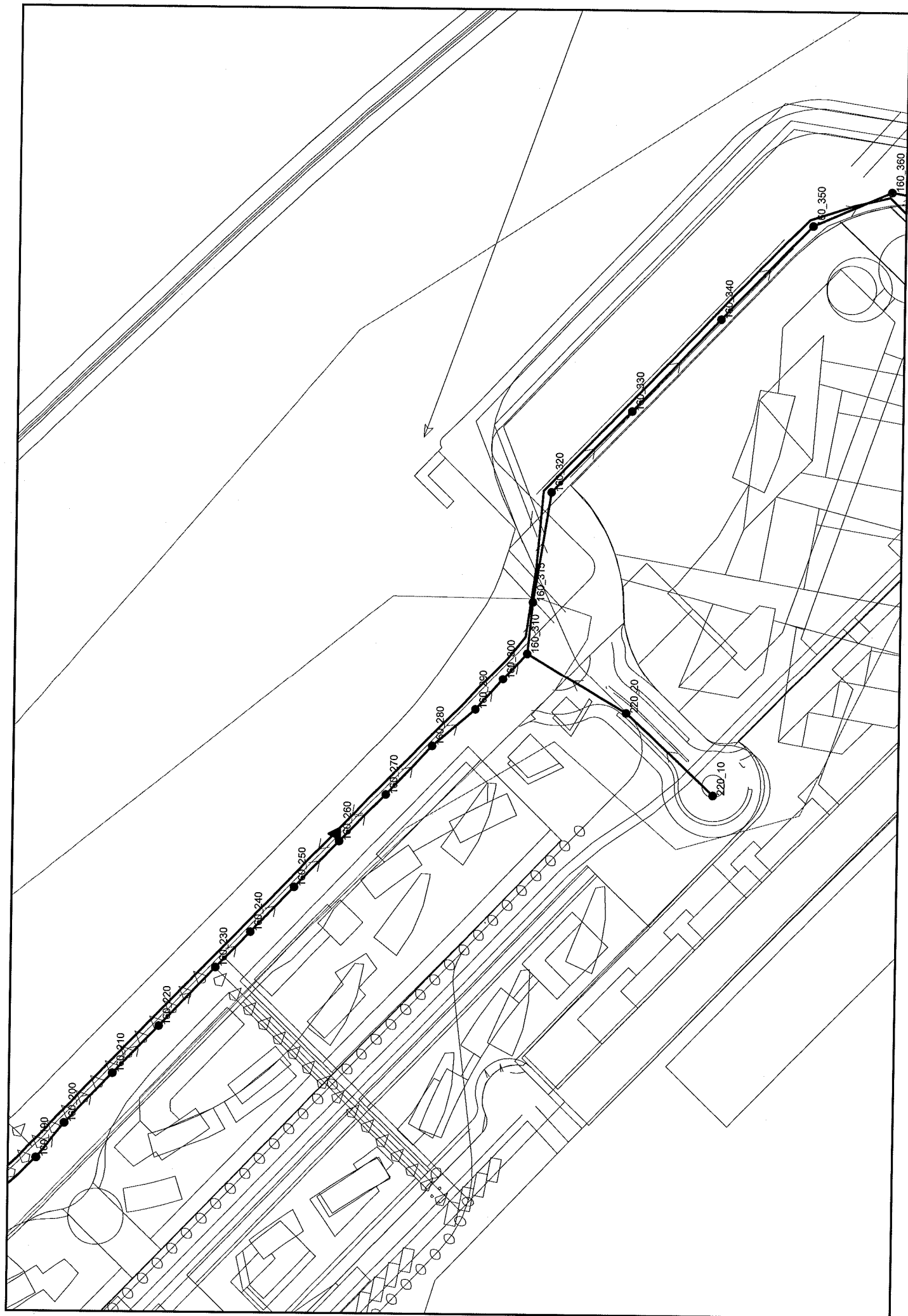


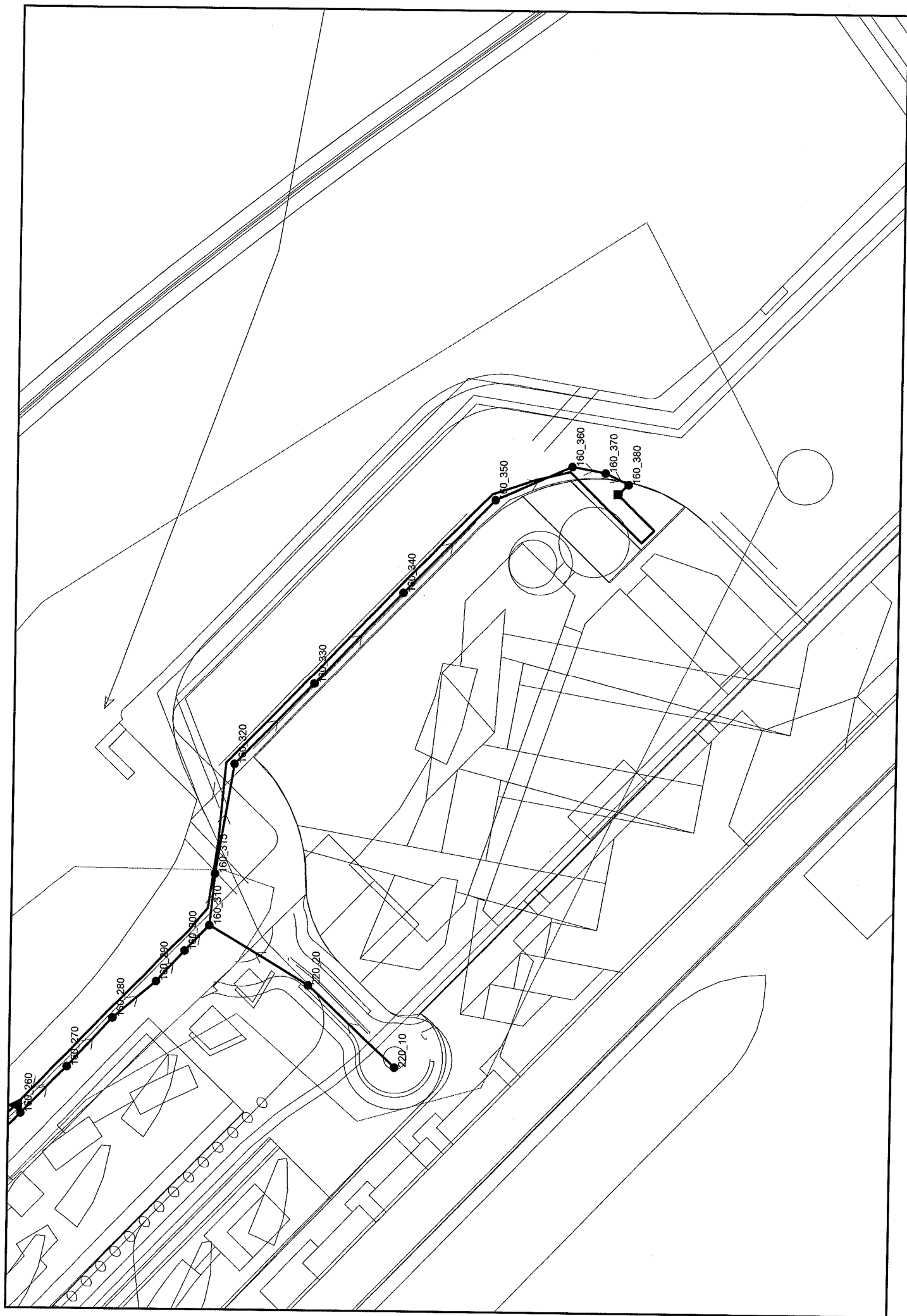












Appendix 16.4B

Modelling Results of Hydraulic Assessment of New Sewers in Kai Tak Development - Results of Interim Scenario

Start of run

configured for MS Windows

Produced on 26/05/2008 at 11:08

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - INTERIM
SCENARIO - IDWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET30#1.spb sewerage_Interim (Revision 1)
 State:
 Runoff: ...\\NET30#1.rpf sewerage_Interim (Revision 1) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM180event.wwg User defined WWG item
 Inflows: ...\\SIM180event.qin 1
 Levels: ...\\SIM180event.lev 1
 RTC:
 Results: ...\\SIM180.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 13054.8 m3
 Total outflow = 12975.2 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
10_100	4.846	1.447	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_100A	4.723	1.374	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_110	4.599	1.257	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_120	4.326	1.136	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_130	5.101	1.035	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_130A	5.000	0.992	0.0	0.000	0.0	0.8	0.0	0.000	0.000
10_140	5.533	1.177	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_150	5.253	1.672	0.0	0.000	0.0	0.1	1327.2	0.000	0.000
10_150A1	5.327	1.555	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_150A2	5.400	1.432	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_40	5.324	2.795	0.0	0.000	0.0	0.1	1670.6	0.000	0.000
10_40A	5.239	2.676	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_50	5.154	2.550	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_60	4.898	2.290	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_70	4.643	2.013	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_70A	4.758	1.837	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_80	4.873	1.699	0.0	0.000	0.0	0.2	981.4	0.000	0.000
10_90	5.091	1.572	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_100	5.094	1.610	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_110	5.300	1.460	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_120	5.500	1.242	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_130	5.599	1.122	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_140	5.300	1.003	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_150	5.000	0.873	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_160	4.900	0.752	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_170	5.000	0.632	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_180	5.110	0.512	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_190	5.400	0.393	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_200	5.000	0.130	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_210	4.700	0.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_220	4.800	-0.100	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_230	5.118	-0.220	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_240	5.141	-0.330	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_250	5.220	-0.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_260	5.300	-0.560	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_270	5.555	-0.670	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_280	5.294	-0.790	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_290	5.147	-0.900	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_300	5.000	-1.020	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_310	5.000	-1.147	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_315	5.500	-1.253	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_320	5.458	-1.450	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_330	4.789	-1.709	0.0	0.000	0.0	0.3	0.0	0.000	0.000

160_340	4.582	-1.936	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_350	4.586	-2.164	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_360	5.000	-2.338	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_370	5.000	-2.411	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_380	5.000	-2.465	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_50	4.688	2.620	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A1	4.710	2.550	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A2	4.731	2.480	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A3	4.731	2.410	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_60	4.753	2.341	0.0	0.000	0.0	0.0	0.0	0.000	0.000

sewerage_Interim (Revision 1)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_60A	4.888	2.206	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_70	5.000	2.070	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_80	5.000	1.920	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_90	5.000	1.770	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_10	4.884	2.027	0.0	0.000	0.0	0.0	54.5	0.000	0.000
20_20	5.116	1.762	0.0	0.000	0.0	0.0	59.5	0.000	0.000
20_20A	5.085	1.648	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_30	5.054	1.537	0.0	0.000	0.0	0.0	59.5	0.000	0.000
220_10	5.000	-0.326	0.0	0.000	0.0	0.3	5659.8	0.000	0.000
220_20	5.000	-0.528	0.0	0.000	0.0	0.3	0.0	0.000	0.000
230_140	4.500	0.838	0.0	0.000	0.0	1.1	0.0	0.000	0.000
230_150	4.500	0.733	0.0	0.000	0.0	1.3	0.0	0.000	0.000
230_160	4.500	0.623	0.0	0.000	0.0	1.7	0.0	0.000	0.000
230_170	4.500	0.531	0.0	0.000	0.0	1.9	24.5	0.000	0.000
230_180	4.500	0.347	0.0	0.000	0.0	2.2	0.0	0.000	0.000
30_10	5.045	2.375	0.0	0.000	0.0	0.1	993.0	0.000	0.000
30_20	4.843	2.253	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_30	4.640	2.133	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_40	4.803	1.993	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_50	5.041	1.856	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_60	5.088	1.736	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_70	4.866	1.575	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_80	4.649	1.381	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_100	5.996	2.019	0.0	0.000	0.0	0.1	1350.0	0.000	0.000
70_110	5.835	1.867	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_120	5.614	1.714	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_130	5.500	1.567	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_140	5.630	1.501	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	2.213	0.0	0.000	0.0	0.1	875.0	0.000	0.000
PS1	5.834	1.499	0.0	0.000	0.0	1124.7	0.0	0.000	0.000
PS6	5.000	-2.771	0.0	0.000	0.0	142.9	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >				Total Flow (m3)	< Downstream >				Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
10_100.1	10_100A	24	525	0	0.258	1.320	0.127	0.033	0.810	2825.4	1.250	0.124	0.033	0.842	2825.4
10_100A.1	10_110	22	525	0	0.273	1.250	0.123	0.033	0.842	2825.4	1.180	0.120	0.033	0.875	2825.4
10_110.1	10_120	27	600	0	0.405	1.100	0.157	0.060	1.012	5168.3	0.980	0.156	0.060	1.023	5168.3
10_120.1	10_130	28	600	0	0.445	0.980	0.156	0.060	1.024	5168.3	0.830	0.205	0.060	0.703	5168.3
10_130.1	10_130A	47	675	0	0.703	0.830	0.205	0.075	0.821	6495.5	0.500	0.493	0.075	0.269	6495.5
10_130A.1	UTFALL5A	49	675	0	0.536	0.500	0.492	0.075	0.269	6495.5	0.300	0.688	0.075	0.207	6495.5x
10_140.1	10_130	42	375	0	0.140	1.090	0.087	0.015	0.795	1327.2	0.830	0.205	0.015	0.249	1327.2
10_150.1	10_150A1	25	375	0	0.120	1.580	0.092	0.015	0.730	1327.2	1.465	0.090	0.015	0.754	1327.2
10_150A1.1	10_150A2	22	375	0	0.127	1.465	0.090	0.015	0.754	1327.2	1.350	0.090	0.015	0.756	1327.2
10_150A2.1	10_140	35	375	0	0.153	1.350	0.082	0.015	0.859	1327.2	1.090	0.087	0.015	0.791	1327.2
10_40.1	10_40A	29	450	0	0.204	2.700	0.095	0.019	0.788	1670.6	2.585	0.095	0.019	0.788	1670.6
10_40A.1	10_50	24	450	0	0.222	2.585	0.091	0.019	0.836	1670.6	2.470	0.091	0.019	0.836	1670.6
10_50.1	10_60	31	450	0	0.300	2.470	0.079	0.019	1.022	1670.6	2.200	0.090	0.019	0.854	1670.6
10_60.1	10_70	39	450	0	0.230	2.200	0.090	0.019	0.855	1670.5	2.000	0.090	0.019	0.855	1670.5
10_70.1	10_70A	27	525	0	0.389	1.930	0.082	0.019	0.891	1670.5	1.757	0.080	0.019	0.929	1670.5
10_70A.1	10_80	23	525	0	0.425	1.757	0.080	0.019	0.934	1670.5	1.580	0.119	0.019	0.522	1670.5
10_80.1	10_90	39	525	0	0.278	1.580	0.119	0.031	0.829	2651.9	1.450	0.122	0.031	0.807	2651.9
10_90.1	10_100	42	525	0	0.268	1.450	0.122	0.031	0.807	2651.9	1.320	0.127	0.031	0.759	2651.9
160_100.1	160_110	43	375	0	0.118	1.590	0.020	0.000	0.000	0.0	1.440	0.020	0.000	0.000	0.0
160_110.1	160_120	33	375	0	0.134	1.440	0.020	0.000	0.000	0.0	1.290	0.020	0.000	0.000	0.0
160_120.1	160_130	46	450	0	0.163	1.220	0.023	0.000	0.000	0.0	1.100	0.023	0.000	0.000	0.0
160_130.1	160_140	40	450	0	0.175	1.100	0.023	0.000	0.000	0.0	0.980	0.023	0.000	0.000	0.0
160_140.1	160_150	54	450	0	0.158	0.980	0.023	0.000	0.000	0.0	0.850	0.023	0.000	0.000	0.0
160_150.1	160_160	24	450	0	0.228	0.850	0.023	0.000	0.000	0.0	0.730	0.023	0.000	0.000	0.0
160_160.1	160_170	43	450	0	0.170	0.730	0.023	0.000	0.000	0.0	0.610	0.023	0.000	0.000	0.0
160_170.1	160_180	41	450	0	0.174	0.610	0.023	0.000	0.000	0.0	0.490	0.023	0.000	0.000	0.0
160_180.1	160_190	53	450	0	0.153	0.490	0.023	0.000	0.000	0.0	0.370	0.023	0.000	0.000	0.0
160_190.1	160_200	28	450	0	0.212	0.370	0.023	0.000	0.000	0.0	0.250	0.023	0.000	0.000	0.0
160_200.1	160_210	43	600	0	0.323	0.100	0.030	0.000	0.000	0.0	-0.020	0.030	0.000	0.000	0.0
160_210.1	160_220	41	600	0	0.317	-0.020	0.030	0.000	0.000	0.0	-0.130	0.030	0.000	0.000	0.0
160_220.1	160_230	51	600	0	0.297	-0.130	0.030	0.000	0.000	0.0	-0.250	0.030	0.000	0.000	0.0
160_230.1	160_240	31	600	0	0.365	-0.250	0.030	0.000	0.000	0.0	-0.360	0.030	0.000	0.000	0.0
160_240.1	160_250	39	600	0	0.325	-0.360	0.030	0.000	0.000	0.0	-0.470	0.030	0.000	0.000	0.0
160_250.1	160_260	40	600	0	0.335	-0.470	0.030	0.000	0.000	0.0	-0.590	0.030	0.000	0.000	0.0
160_260.1	160_270	41	600	0	0.317	-0.590	0.030	0.000	0.000	0.0	-0.700	0.030	0.000	0.000	0.0
160_270.1	160_280	42	600	0	0.328	-0.700	0.030	0.000	0.000	0.0	-0.820	0.030	0.000	0.000	0.0
160_280.1	160_290	35	600	0	0.341	-0.820	0.030	0.000	0.000	0.0	-0.930	0.030	0.000	0.000	0.0
160_290.1	160_300	26	600	0	0.416	-0.930	0.030	0.000	0.000	0.0	-1.050	0.030	0.000	0.000	0.0
160_300.1	160_310	22	600	0	0.433	-1.050	0.030	0.000	0.000	0.0	-1.160	0.030	0.000	0.000	0.0
160_310.1	160_315	32	750	0	0.665	-1.310	0.163	0.066	0.926	5659.8	-1.428	0.175	0.066	0.839	5659.8
160_315.1	160_320	70	750	0	0.564	-1.428	0.175	0.066	0.839	5659.8	-1.610	0.160	0.066	0.948	5659.8
160_320.1	160_330	71	750	0	0.680	-1.610	0.160	0.066	0.950	5659.8	-1.880	0.171	0.066	0.865	5659.8
160_330.1	160_340	80	750	0	0.593	-1.880	0.171	0.066	0.865	5659.8	-2.110	0.174	0.066	0.846	5659.8
160_340.1	160_350	81	750	0	0.573	-2.110	0.174	0.066	0.846	5659.8	-2.330	0.166	0.066	0.901	5659.8
160_350.1	160_360	52	750	0	0.628	-2.330	0.166	0.066	0.902	5659.8	-2.500	0.162	0.066	0.931	5659.8
160_360.1	160_370	21	750	0	0.674	-2.500	0.162	0.066	0.933	5659.8	-2.580	0.169	0.066	0.875	5659.8
160_370.1	160_380	16	750	0	0.550	-2.580	0.169	0.066	0.876	5659.8	-2.620	0.155	0.066	0.993	5659.8
160_380.1	PS6	9	750	0	0.730	-2.620	0.155	0.066	0.997	5659.8	-2.660	0.155	0.066	0.997	5659.8
160_50.1	160_50A1	25	375	0	0.104	2.600	0.020	0.000	0.000	0.0	2.530	0.020	0.000	0.000	0.0
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.020	0.000	0.000	0.0	2.460	0.020	0.000	0.000	0.0
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.020	0.000	0.000	0.0	2.390	0.020	0.000	0.000	0.0
160_50A3.1	160_60	21	375	0	0.113	2.390	0.020	0.000	0.000	0.0	2.321	0.020	0.000	0.000	0.0
160_60.1	160_60A	32	375	0	0.130	2.321	0.020	0.000	0.000	0.0	2.186	0.020	0.000	0.000	0.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream					> Downstream					Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		
160_60A.1	160_70	41	375	0	0.114	2.186	0.020	0.000	0.000	0.0	2.050	0.020	0.000	0.000	0.0	
160_70.1	160_80	44	375	0	0.117	2.050	0.020	0.000	0.000	0.0	1.900	0.020	0.000	0.000	0.0	
160_80.1	160_90	35	375	0	0.130	1.900	0.020	0.000	0.000	0.0	1.750	0.020	0.000	0.000	0.0	
160_90.1	160_100	35	375	0	0.134	1.750	0.020	0.000	0.000	0.0	1.590	0.020	0.000	0.000	0.0	
20_10.1	20_20	37	450	0	0.274	2.000	0.027	0.001	0.164	54.5	1.730	0.032	0.001	0.126	54.5	
20_20.1	20_20A	21	450	0	0.240	1.730	0.032	0.001	0.263	114.0	1.615	0.033	0.001	0.256	114.0	
20_20A.1	20_30	24	450	0	0.224	1.615	0.033	0.001	0.256	114.0	1.500	0.037	0.001	0.209	114.0	
20_30.1	10_100	41	450	0	0.214	1.500	0.037	0.002	0.318	173.5	1.320	0.127	0.002	0.054	173.5	
220_10.1	220_20	75	750	0	0.570	-0.500	0.174	0.066	0.843	5659.8	-0.700	0.172	0.066	0.853	5659.8	
220_20.1	160_310	73	750	0	0.579	-0.700	0.172	0.066	0.854	5659.8	-0.900	0.155	0.066	0.990	5659.8	
230_140.1	230_150	41	750	0	0.897	0.250	0.580	0.529	2.130	5579.6	-0.018	0.752	0.536	1.399	5584.4x	
230_150.1	230_160	44	750	0	0.899	-0.018	0.742	0.533	1.403	5584.4	-0.309	0.934	0.515	1.119	5586.3x	
230_160.1	230_170	29	750	0	0.899	-0.309	0.909	0.513	1.117	5586.3x	-0.503	1.039	0.510	1.105	5587.3x	
230_170.1	230_180	59	750	0	0.897	-0.503	0.983	0.509	1.106	5611.8x	-0.890	1.243	0.509	1.096	5612.1x	
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	1.170	0.509	1.098	5612.1x	-1.020	1.257	0.509	1.095	5612.1x	
30_10.1	30_20	30	450	0	0.205	2.300	0.075	0.011	0.665	993.0	2.180	0.073	0.011	0.687	993.0	
30_20.1	30_30	27	450	0	0.216	2.180	0.073	0.011	0.687	992.9	2.060	0.073	0.011	0.690	992.9	
30_30.1	30_40	30	450	0	0.218	2.060	0.073	0.011	0.692	992.9	1.920	0.073	0.011	0.685	992.9	
30_40.1	30_50	31	450	0	0.215	1.920	0.073	0.011	0.686	992.9	1.780	0.076	0.011	0.652	992.9	
30_50.1	30_60	31	450	0	0.199	1.780	0.076	0.011	0.652	992.9	1.660	0.076	0.011	0.651	992.9	
30_60.1	30_70	42	450	0	0.199	1.660	0.076	0.011	0.651	992.9	1.500	0.075	0.011	0.656	992.9	
30_70.1	30_80	41	450	0	0.201	1.500	0.075	0.011	0.656	992.9	1.340	0.075	0.011	0.658	992.9	
30_80.1	10_110	21	450	0	0.211	1.270	0.110	0.027	0.897	2342.9	1.180	0.110	0.027	0.897	2342.9	
70_100.1	70_110	37	525	0	0.308	1.950	0.069	0.010	0.604	875.0	1.800	0.067	0.010	0.628	875.0	
70_110.1	70_120	32	525	0	0.328	1.800	0.067	0.010	0.629	875.0	1.650	0.064	0.010	0.671	875.0	
70_120.1	70_130	26	525	0	0.367	1.650	0.064	0.010	0.672	875.0	1.500	0.067	0.010	0.661	875.0	
70_130.1	70_140	27	525	0	0.360	1.500	0.067	0.010	0.661	875.0	1.350	0.151	0.013	0.429	875.0	
70_140.1	PS1	39	525	0	0.172	1.350	0.151	0.013	0.432	875.0	1.300	0.199	0.033	0.810	875.0	
70_90.1	70_100	33	525	0	0.378	2.150	0.063	0.010	0.684	875.0	1.950	0.069	0.010	0.603	875.0	
PS1.1	PS3					1.497	0.002	0.320		867.6	1.497	0.000	0.320		867.6	
PS6.1	230_140					-2.810	0.039	0.530		5579.4	-2.810	3.648	0.530		5579.4	

+ after total flow indicates a conduit surcharged by flow and depth at that end.
x after total flow indicates a conduit surcharged by depth only at that end.

- NOTE :
- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
 - (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
 - (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

Start of run

configured for MS Windows

Produced on 26/05/2008 at 11:08

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - INTERIM
SCENARIO - 2DWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET30#1.spb sewerage_Interim (Revision 1)
 State:
 Runoff: ...\\NET30#1.rpf sewerage_Interim (Revision 1) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM181event.wwg User defined WWG item
 Inflows: ...\\SIM181event.qin 1
 Levels: ...\\SIM181event.lev 1
 RTC:
 Results: ...\\SIM181.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 26009.7 m3
 Total outflow = 26010.6 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
10_100	4.846	1.829	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_100A	4.723	1.824	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_110	4.599	1.819	0.0	0.000	0.0	1.0	0.0	0.000	0.000
10_120	4.326	1.806	0.0	0.000	0.0	1.2	0.0	0.000	0.000
10_130	5.101	1.792	0.0	0.000	0.0	1.6	0.0	0.000	0.000
10_130A	5.000	1.772	0.0	0.000	0.0	2.1	0.0	0.000	0.000
10_140	5.533	1.811	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_150	5.253	1.839	0.0	0.000	0.0	0.3	2654.4	0.000	0.000
10_150A1	5.327	1.831	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_150A2	5.400	1.823	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_40	5.324	2.834	0.0	0.000	0.0	0.2	3341.1	0.000	0.000
10_40A	5.239	2.713	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_50	5.154	2.581	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_60	4.898	2.326	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_70	4.643	2.044	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_70A	4.758	1.889	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_80	4.873	1.848	0.0	0.000	0.0	0.3	1962.8	0.000	0.000
10_90	5.091	1.836	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_100	5.094	1.610	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_110	5.300	1.460	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_120	5.500	1.242	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_130	5.599	1.122	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_140	5.300	1.003	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_150	5.000	0.873	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_160	4.900	0.752	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_170	5.000	0.632	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_180	5.110	0.512	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_190	5.400	0.393	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_200	5.000	0.130	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_210	4.700	0.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_220	4.800	-0.100	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_230	5.118	-0.220	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_240	5.141	-0.330	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_250	5.220	-0.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_260	5.300	-0.560	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_270	5.555	-0.670	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_280	5.294	-0.790	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_290	5.147	-0.900	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_300	5.000	-1.020	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_310	5.000	-1.079	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_315	5.500	-1.181	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_320	5.458	-1.384	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_330	4.789	-1.639	0.0	0.000	0.0	0.4	0.0	0.000	0.000

160_340	4.582	-1.865	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_350	4.586	-2.096	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_360	5.000	-2.271	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_370	5.000	-2.345	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_380	5.000	-2.402	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_50	4.688	2.620	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A1	4.710	2.550	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A2	4.731	2.480	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A3	4.731	2.410	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_60	4.753	2.341	0.0	0.000	0.0	0.0	0.0	0.000	0.000

sewerage_Interim (Revision 1)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_60A	4.888	2.206	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_70	5.000	2.070	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_80	5.000	1.920	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_90	5.000	1.770	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_10	4.884	2.029	0.0	0.000	0.0	0.0	79.0	0.000	0.000
20_20	5.116	1.830	0.0	0.000	0.0	0.1	84.0	0.000	0.000
20_20A	5.085	1.830	0.0	0.000	0.0	0.2	0.0	0.000	0.000
20_30	5.054	1.829	0.0	0.000	0.0	0.4	84.0	0.000	0.000
220_10	5.000	-0.254	0.0	0.000	0.0	0.4	11319.6	0.000	0.000
220_20	5.000	-0.457	0.0	0.000	0.0	0.4	0.0	0.000	0.000
230_140	4.500	1.581	0.0	0.000	0.0	2.4	0.0	0.000	0.000
230_150	4.500	1.461	0.0	0.000	0.0	2.7	0.0	0.000	0.000
230_160	4.500	1.338	0.0	0.000	0.0	3.0	0.0	0.000	0.000
230_170	4.500	1.248	0.0	0.000	0.0	3.1	49.0	0.000	0.000
230_180	4.500	1.071	0.0	0.000	0.0	3.5	0.0	0.000	0.000
30_10	5.045	2.403	0.0	0.000	0.0	0.1	1985.9	0.000	0.000
30_20	4.843	2.281	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_30	4.640	2.160	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_40	4.803	2.021	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_50	5.041	1.893	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_60	5.088	1.844	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_70	4.866	1.836	0.0	0.000	0.0	0.4	0.0	0.000	0.000
30_80	4.649	1.834	0.0	0.000	0.0	0.7	2699.9	0.000	0.000
70_100	5.996	2.044	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_110	5.835	1.891	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_120	5.614	1.736	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_130	5.500	1.590	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_140	5.630	1.509	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	2.235	0.0	0.000	0.0	0.1	1750.0	0.000	0.000
PS1	5.834	1.501	0.0	0.000	0.0	1125.2	0.0	0.000	0.000
PS6	5.000	-2.732	0.0	0.000	0.0	146.8	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >					Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	
10_100.1	10_100A	24	525	0	0.258	1.320	0.509	0.064	0.299	5550.9	1.250	0.574	0.064	0.287	5550.9x	
10_100A.1	10_110	22	525	0	0.273	1.250	0.574	0.064	0.287	5550.9x	1.180	0.639	0.064	0.285	5550.9x	
10_110.1	10_120	27	600	0	0.405	1.100	0.717	0.118	0.403	10236.7x	0.980	0.827	0.118	0.401	10236.7x	
10_120.1	10_130	28	600	0	0.445	0.980	0.824	0.118	0.401	10236.7x	0.830	0.963	0.118	0.399	10236.7x	
10_130.1	10_130A	47	675	0	0.703	0.830	0.959	0.149	0.399	12891.1x	0.500	1.274	0.149	0.394	12891.1x	
10_130A.1	UTFALL5A	49	675	0	0.536	0.500	1.270	0.149	0.394	12891.1x	0.300	1.454	0.149	0.392	12891.1x	
10_140.1	10_130	42	375	0	0.140	1.090	0.715	0.031	0.263	2654.4x	0.830	0.962	0.031	0.259	2654.4x	
10_150.1	10_150A1	25	375	0	0.120	1.580	0.259	0.031	0.378	2654.4	1.465	0.366	0.031	0.279	2654.4	
10_150A1.1	10_150A2	22	375	0	0.127	1.465	0.366	0.031	0.279	2654.4	1.350	0.473	0.031	0.267	2654.4x	
10_150A2.1	10_140	35	375	0	0.153	1.350	0.473	0.031	0.267	2654.4x	1.090	0.721	0.031	0.263	2654.4x	
10_40.1	10_40A	29	450	0	0.204	2.700	0.134	0.039	0.975	3341.1	2.585	0.134	0.039	0.975	3341.1	
10_40A.1	10_50	24	450	0	0.222	2.585	0.128	0.039	1.038	3341.1	2.470	0.128	0.039	1.038	3341.1	
10_50.1	10_60	31	450	0	0.300	2.470	0.110	0.039	1.277	3341.1	2.200	0.126	0.039	1.060	3341.1	
10_60.1	10_70	39	450	0	0.230	2.200	0.126	0.039	1.061	3341.1	2.000	0.126	0.039	1.061	3341.1	
10_70.1	10_70A	27	525	0	0.389	1.930	0.114	0.039	1.117	3341.1	1.757	0.132	0.039	0.910	3341.1	
10_70A.1	10_80	23	525	0	0.425	1.757	0.131	0.039	0.913	3341.1	1.580	0.268	0.039	0.348	3341.1	
10_80.1	10_90	39	525	0	0.278	1.580	0.268	0.061	0.552	5303.9	1.450	0.386	0.061	0.360	5303.9	
10_90.1	10_100	42	525	0	0.268	1.450	0.386	0.061	0.360	5303.9	1.320	0.509	0.061	0.285	5303.9	
160_100.1	160_110	43	375	0	0.118	1.590	0.020	0.000	0.000	0.0	1.440	0.020	0.000	0.000	0.0	
160_110.1	160_120	33	375	0	0.134	1.440	0.020	0.000	0.000	0.0	1.290	0.020	0.000	0.000	0.0	
160_120.1	160_130	46	450	0	0.163	1.220	0.023	0.000	0.000	0.0	1.100	0.023	0.000	0.000	0.0	
160_130.1	160_140	40	450	0	0.175	1.100	0.023	0.000	0.000	0.0	0.980	0.023	0.000	0.000	0.0	
160_140.1	160_150	54	450	0	0.158	0.980	0.023	0.000	0.000	0.0	0.850	0.023	0.000	0.000	0.0	
160_150.1	160_160	24	450	0	0.228	0.850	0.023	0.000	0.000	0.0	0.730	0.023	0.000	0.000	0.0	
160_160.1	160_170	43	450	0	0.170	0.730	0.023	0.000	0.000	0.0	0.610	0.023	0.000	0.000	0.0	
160_170.1	160_180	41	450	0	0.174	0.610	0.023	0.000	0.000	0.0	0.490	0.023	0.000	0.000	0.0	
160_180.1	160_190	53	450	0	0.153	0.490	0.023	0.000	0.000	0.0	0.370	0.023	0.000	0.000	0.0	
160_190.1	160_200	28	450	0	0.212	0.370	0.023	0.000	0.000	0.0	0.250	0.023	0.000	0.000	0.0	
160_200.1	160_210	43	600	0	0.323	0.100	0.030	0.000	0.000	0.0	-0.020	0.030	0.000	0.000	0.0	
160_210.1	160_220	41	600	0	0.317	-0.020	0.030	0.000	0.000	0.0	-0.130	0.030	0.000	0.000	0.0	
160_220.1	160_230	51	600	0	0.297	-0.130	0.030	0.000	0.000	0.0	-0.250	0.030	0.000	0.000	0.0	
160_230.1	160_240	31	600	0	0.365	-0.250	0.030	0.000	0.000	0.0	-0.360	0.030	0.000	0.000	0.0	
160_240.1	160_250	39	600	0	0.325	-0.360	0.030	0.000	0.000	0.0	-0.470	0.030	0.000	0.000	0.0	
160_250.1	160_260	40	600	0	0.335	-0.470	0.030	0.000	0.000	0.0	-0.590	0.030	0.000	0.000	0.0	
160_260.1	160_270	41	600	0	0.317	-0.590	0.030	0.000	0.000	0.0	-0.700	0.030	0.000	0.000	0.0	
160_270.1	160_280	42	600	0	0.328	-0.700	0.030	0.000	0.000	0.0	-0.820	0.030	0.000	0.000	0.0	
160_280.1	160_290	35	600	0	0.341	-0.820	0.030	0.000	0.000	0.0	-0.930	0.030	0.000	0.000	0.0	
160_290.1	160_300	26	600	0	0.416	-0.930	0.030	0.000	0.000	0.0	-1.050	0.030	0.000	0.000	0.0	
160_300.1	160_310	22	600	0	0.433	-1.050	0.030	0.000	0.000	0.0	-1.160	0.081	0.000	0.000	0.0	
160_310.1	160_315	32	750	0	0.665	-1.310	0.231	0.131	1.135	11319.6	-1.428	0.246	0.131	1.038	11319.6	
160_315.1	160_320	70	750	0	0.564	-1.428	0.246	0.131	1.038	11319.6	-1.610	0.226	0.131	1.171	11319.6	
160_320.1	160_330	71	750	0	0.680	-1.610	0.225	0.131	1.173	11319.6	-1.880	0.241	0.131	1.066	11319.6	
160_330.1	160_340	80	750	0	0.593	-1.880	0.241	0.131	1.066	11319.6	-2.110	0.245	0.131	1.044	11319.6	
160_340.1	160_350	81	750	0	0.573	-2.110	0.245	0.131	1.045	11319.6	-2.330	0.234	0.131	1.114	11319.6	
160_350.1	160_360	52	750	0	0.628	-2.330	0.234	0.131	1.116	11319.6	-2.500	0.229	0.131	1.149	11319.6	
160_360.1	160_370	21	750	0	0.674	-2.500	0.228	0.131	1.151	11319.6	-2.580	0.235	0.131	1.105	11319.6	
160_370.1	160_380	16	750	0	0.550	-2.580	0.235	0.131	1.106	11319.6	-2.620	0.218	0.131	1.231	11319.6	
160_380.1	PS6	9	750	0	0.730	-2.620	0.217	0.131	1.236	11319.6	-2.660	0.217	0.131	1.236	11319.6	
160_50.1	160_50A1	25	375	0	0.104	2.600	0.020	0.000	0.000	0.0	2.530	0.020	0.000	0.000	0.0	
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.020	0.000	0.000	0.0	2.460	0.020	0.000	0.000	0.0	
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.020	0.000	0.000	0.0	2.390	0.020	0.000	0.000	0.0	
160_50A3.1	160_60	21	375	0	0.113	2.390	0.020	0.000	0.000	0.0	2.321	0.020	0.000	0.000	0.0	
160_60.1	160_60A	32	375	0	0.130	2.321	0.020	0.000	0.000	0.0	2.186	0.020	0.000	0.000	0.0	

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level		Upstream Max Flow		Total Flow (m3)	> Invert Level		Downstream Max Flow		Total Flow (m3)
						Depth (m)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Depth (m)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
160_60A.1	160_70	41	375	0	0.114	2.186	0.020	0.000	0.000	0.0	2.050	0.020	0.000	0.000	0.0
160_70.1	160_80	44	375	0	0.117	2.050	0.020	0.000	0.000	0.0	1.900	0.020	0.000	0.000	0.0
160_80.1	160_90	35	375	0	0.130	1.900	0.020	0.000	0.000	0.0	1.750	0.020	0.000	0.000	0.0
160_90.1	160_100	35	375	0	0.134	1.750	0.020	0.000	0.000	0.0	1.590	0.020	0.000	0.000	0.0
20_10.1	20_20	37	450	0	0.274	2.000	0.029	0.001	0.215	79.0	1.730	0.100	0.001	0.035	79.0
20_20.1	20_20A	21	450	0	0.240	1.730	0.100	0.002	0.072	163.0	1.615	0.215	0.002	0.025	163.0
20_20A.1	20_30	24	450	0	0.224	1.615	0.215	0.002	0.025	163.0	1.500	0.329	0.002	0.015	163.0
20_30.1	10_100	41	450	0	0.214	1.500	0.329	0.003	0.023	247.0	1.320	0.509	0.003	0.017	247.0x
220_10.1	220_20	75	750	0	0.570	-0.500	0.246	0.131	1.039	11319.6	-0.700	0.243	0.131	1.057	11319.6
220_20.1	160_310	73	750	0	0.579	-0.700	0.243	0.131	1.057	11319.6	-0.900	0.219	0.131	1.217	11319.6
230_140.1	230_150	41	750	0	0.897	0.250	1.310	0.530	1.139	11332.6x	-0.018	1.481	0.534	1.141	11332.1x
230_150.1	230_160	44	750	0	0.899	-0.018	1.462	0.533	1.139	11331.3x	-0.309	1.649	0.535	1.137	11331.0x
230_160.1	230_170	29	750	0	0.899	-0.309	1.629	0.534	1.135	11330.4x	-0.503	1.754	0.535	1.133	11330.3x
230_170.1	230_180	59	750	0	0.897	-0.503	1.717	0.534	1.133	11378.8x	-0.890	1.966	0.536	1.127	11378.7x
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	1.918	0.535	1.127	11378.5x	-1.020	2.002	0.535	1.124	11378.5x
30_10.1	30_20	30	450	0	0.205	2.300	0.103	0.023	0.836	1985.9	2.180	0.103	0.023	0.836	1985.9
30_20.1	30_30	27	450	0	0.216	2.180	0.101	0.023	0.866	1985.9	2.060	0.100	0.023	0.870	1985.9
30_30.1	30_40	30	450	0	0.218	2.060	0.100	0.023	0.872	1985.9	1.920	0.101	0.023	0.859	1985.9
30_40.1	30_50	31	450	0	0.215	1.920	0.101	0.023	0.859	1985.9	1.780	0.113	0.023	0.735	1985.9
30_50.1	30_60	31	450	0	0.199	1.780	0.113	0.023	0.735	1985.9	1.660	0.184	0.023	0.376	1985.9
30_60.1	30_70	42	450	0	0.199	1.660	0.184	0.023	0.376	1985.9	1.500	0.336	0.023	0.180	1985.9
30_70.1	30_80	41	450	0	0.201	1.500	0.336	0.023	0.180	1985.9	1.340	0.494	0.023	0.140	1985.9x
30_80.1	10_110	21	450	0	0.211	1.270	0.557	0.054	0.328	4685.8x	1.180	0.640	0.054	0.326	4685.8x
70_100.1	70_110	37	525	0	0.308	1.950	0.093	0.020	0.777	1750.0	1.800	0.091	0.020	0.810	1750.0
70_110.1	70_120	32	525	0	0.328	1.800	0.091	0.020	0.810	1750.0	1.650	0.091	0.020	0.810	1750.0
70_120.1	70_130	26	525	0	0.367	1.650	0.086	0.020	0.872	1750.0	1.500	0.090	0.020	0.849	1750.0
70_130.1	70_140	27	525	0	0.360	1.500	0.090	0.020	0.849	1750.0	1.350	0.159	0.022	0.549	1750.0
70_140.1	PS1	39	525	0	0.172	1.350	0.159	0.022	0.551	1750.0	1.300	0.201	0.041	0.952	1750.0
70_90.1	70_100	33	525	0	0.378	2.150	0.085	0.020	0.888	1750.0	1.950	0.094	0.020	0.774	1750.0
PS1.1	PS3					1.497	0.004	0.320		1741.0	1.497	0.000	0.320		1741.0
PS6.1	230_140					-2.810	0.078	0.530		11333.6	-2.810	4.391	0.530		11333.6

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 26/05/2008 Last page

Start of run

configured for MS Windows

Produced on 26/05/2008 at 11:09

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - INTERIM
SCENARIO - 3DWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET30#1.spb sewerage_Interim (Revision 1)
 State:
 Runoff: ...\\NET30#1.rpf sewerage_Interim (Revision 1) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM182event.wwg User defined WWG item
 Inflows: ...\\SIM182event.qin 1
 Levels: ...\\SIM182event.lev 1
 RTC:
 Results: ...\\SIM182.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 38964.6 m3
 Total outflow = 38898.3 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
10_100	4.846	3.348	0.0	0.000	0.0	2.6	0.0	0.000	0.000
10_100A	4.723	3.337	0.0	0.000	0.0	2.7	0.0	0.000	0.000
10_110	4.599	3.326	0.0	0.000	0.0	3.2	0.0	0.000	0.000
10_120	4.326	3.299	0.0	0.000	0.0	3.4	0.0	0.000	0.000
10_130	5.101	3.270	0.0	0.000	0.0	4.0	0.0	0.000	0.000
10_130A	5.000	3.230	0.0	0.000	0.0	4.4	0.0	0.000	0.000
10_140	5.533	3.307	0.0	0.000	0.0	2.3	0.0	0.000	0.000
10_150	5.253	3.369	0.0	0.000	0.0	1.8	3981.6	0.000	0.000
10_150A1	5.327	3.351	0.0	0.000	0.0	1.9	0.0	0.000	0.000
10_150A2	5.400	3.333	0.0	0.000	0.0	2.0	0.0	0.000	0.000
10_40	5.324	3.449	0.0	0.000	0.0	0.9	5011.6	0.000	0.000
10_40A	5.239	3.437	0.0	0.000	0.0	1.0	0.0	0.000	0.000
10_50	5.154	3.425	0.0	0.000	0.0	1.1	0.0	0.000	0.000
10_60	4.898	3.412	0.0	0.000	0.0	1.4	0.0	0.000	0.000
10_70	4.643	3.397	0.0	0.000	0.0	1.9	0.0	0.000	0.000
10_70A	4.758	3.389	0.0	0.000	0.0	2.1	0.0	0.000	0.000
10_80	4.873	3.383	0.0	0.000	0.0	2.3	2944.2	0.000	0.000
10_90	5.091	3.366	0.0	0.000	0.0	2.5	0.0	0.000	0.000
160_100	5.094	1.610	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_110	5.300	1.460	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_120	5.500	1.242	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_130	5.599	1.122	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_140	5.300	1.003	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_150	5.000	0.873	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_160	4.900	0.752	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_170	5.000	0.632	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_180	5.110	0.512	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_190	5.400	0.393	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_200	5.000	0.130	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_210	4.700	0.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_220	4.800	-0.100	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_230	5.118	-0.220	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_240	5.141	-0.330	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_250	5.220	-0.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_260	5.300	-0.560	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_270	5.555	-0.670	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_280	5.294	-0.790	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_290	5.147	-0.900	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_300	5.000	-1.011	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_310	5.000	-1.023	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_315	5.500	-1.123	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_320	5.458	-1.331	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_330	4.789	-1.581	0.0	0.000	0.0	0.5	0.0	0.000	0.000

160_340	4.582	-1.806	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_350	4.586	-2.041	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_360	5.000	-2.218	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_370	5.000	-2.292	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_380	5.000	-2.352	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_50	4.688	2.620	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A1	4.710	2.550	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A2	4.731	2.480	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A3	4.731	2.410	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_60	4.753	2.341	0.0	0.000	0.0	0.0	0.0	0.000	0.000

sewerage_Interim (Revision 1)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_60A	4.888	2.206	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_70	5.000	2.070	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_80	5.000	1.920	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_90	5.000	1.770	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_10	4.884	3.349	0.0	0.000	0.0	1.6	103.5	0.000	0.000
20_20	5.116	3.349	0.0	0.000	0.0	1.9	108.5	0.000	0.000
20_20A	5.085	3.349	0.0	0.000	0.0	2.0	0.0	0.000	0.000
20_30	5.054	3.348	0.0	0.000	0.0	2.1	108.5	0.000	0.000
220_10	5.000	-0.195	0.0	0.000	0.0	0.5	16979.4	0.000	0.000
220_20	5.000	-0.400	0.0	0.000	0.0	0.5	0.0	0.000	0.000
230_140	4.500	2.367	0.0	0.000	0.0	3.8	0.0	0.000	0.000
230_150	4.500	2.254	0.0	0.000	0.0	4.1	0.0	0.000	0.000
230_160	4.500	2.136	0.0	0.000	0.0	4.4	0.0	0.000	0.000
230_170	4.500	2.047	0.0	0.000	0.0	4.6	73.5	0.000	0.000
230_180	4.500	1.872	0.0	0.000	0.0	5.0	0.0	0.000	0.000
30_10	5.045	3.386	0.0	0.000	0.0	1.3	2978.8	0.000	0.000
30_20	4.843	3.381	0.0	0.000	0.0	1.4	0.0	0.000	0.000
30_30	4.640	3.377	0.0	0.000	0.0	1.5	0.0	0.000	0.000
30_40	4.803	3.372	0.0	0.000	0.0	1.7	0.0	0.000	0.000
30_50	5.041	3.367	0.0	0.000	0.0	1.8	0.0	0.000	0.000
30_60	5.088	3.363	0.0	0.000	0.0	2.0	0.0	0.000	0.000
30_70	4.866	3.357	0.0	0.000	0.0	2.1	0.0	0.000	0.000
30_80	4.649	3.351	0.0	0.000	0.0	2.4	4049.9	0.000	0.000
70_100	5.996	2.063	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_110	5.835	1.910	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_120	5.614	1.754	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_130	5.500	1.609	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_140	5.630	1.520	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	2.253	0.0	0.000	0.0	0.1	2625.0	0.000	0.000
PS1	5.834	1.502	0.0	0.000	0.0	1125.5	0.0	0.000	0.000
PS6	5.000	-2.715	0.0	0.000	0.0	148.5	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
10_100.1	10_100A	24	525	0	0.258	1.320	2.027	0.096	0.399	8276.4x	1.250	2.087	0.096	0.398	8276.4x
10_100A.1	10_110	22	525	0	0.273	1.250	2.085	0.096	0.398	8276.4x	1.180	2.146	0.096	0.397	8276.4x
10_110.1	10_120	27	600	0	0.405	1.100	2.223	0.177	0.568	15305.1x	0.980	2.319	0.177	0.566	15305.1x
10_120.1	10_130	28	600	0	0.445	0.980	2.316	0.177	0.566	15305.1x	0.830	2.442	0.177	0.563	15305.1x
10_130.1	10_130A	47	675	0	0.703	0.830	2.437	0.223	0.566	19286.7x	0.500	2.732	0.223	0.561	19286.7x
10_130A.1	UTFALL5A	49	675	0	0.536	0.500	2.728	0.223	0.561	19286.7x	0.300	2.892	0.223	0.558	19286.7x
10_140.1	10_130	42	375	0	0.140	1.090	2.210	0.046	0.360	3981.6x	0.830	2.440	0.046	0.355	3981.6x
10_150.1	10_150A1	25	375	0	0.120	1.580	1.788	0.046	0.369	3981.6x	1.465	1.886	0.046	0.367	3981.6x
10_150A1.1	10_150A2	22	375	0	0.127	1.465	1.885	0.046	0.367	3981.6x	1.350	1.984	0.046	0.365	3981.6x
10_150A2.1	10_140	35	375	0	0.153	1.350	1.982	0.046	0.365	3981.6x	1.090	2.218	0.046	0.360	3981.6x
10_40.1	10_40A	29	450	0	0.204	2.700	0.747	0.058	0.347	5011.7x	2.585	0.852	0.058	0.345	5011.7x
10_40A.1	10_50	24	450	0	0.222	2.585	0.849	0.058	0.345	5011.7x	2.470	0.956	0.058	0.343	5011.7x
10_50.1	10_60	31	450	0	0.300	2.470	0.954	0.058	0.343	5011.7x	2.200	1.212	0.058	0.338	5011.7x
10_60.1	10_70	39	450	0	0.230	2.200	1.211	0.058	0.338	5011.7x	2.000	1.397	0.058	0.335	5011.7x
10_70.1	10_70A	27	525	0	0.389	1.930	1.464	0.058	0.248	5011.7x	1.757	1.632	0.058	0.246	5011.7x
10_70A.1	10_80	23	525	0	0.425	1.757	1.629	0.058	0.246	5011.7x	1.580	1.803	0.058	0.244	5011.7x
10_80.1	10_90	39	525	0	0.278	1.580	1.801	0.092	0.388	7955.9x	1.450	1.916	0.092	0.386	7955.9x
10_90.1	10_100	42	525	0	0.268	1.450	1.915	0.092	0.386	7955.9x	1.320	2.028	0.092	0.384	7955.9x
160_100.1	160_110	43	375	0	0.118	1.590	0.020	0.000	0.000	0.0	1.440	0.020	0.000	0.000	0.0
160_110.1	160_120	33	375	0	0.134	1.440	0.020	0.000	0.000	0.0	1.290	0.020	0.000	0.000	0.0
160_120.1	160_130	46	450	0	0.163	1.220	0.023	0.000	0.000	0.0	1.100	0.023	0.000	0.000	0.0
160_130.1	160_140	40	450	0	0.175	1.100	0.023	0.000	0.000	0.0	0.980	0.023	0.000	0.000	0.0
160_140.1	160_150	54	450	0	0.158	0.980	0.023	0.000	0.000	0.0	0.850	0.023	0.000	0.000	0.0
160_150.1	160_160	24	450	0	0.228	0.850	0.023	0.000	0.000	0.0	0.730	0.023	0.000	0.000	0.0
160_160.1	160_170	43	450	0	0.170	0.730	0.023	0.000	0.000	0.0	0.610	0.023	0.000	0.000	0.0
160_170.1	160_180	41	450	0	0.174	0.610	0.023	0.000	0.000	0.0	0.490	0.023	0.000	0.000	0.0
160_180.1	160_190	53	450	0	0.153	0.490	0.023	0.000	0.000	0.0	0.370	0.023	0.000	0.000	0.0
160_190.1	160_200	28	450	0	0.212	0.370	0.023	0.000	0.000	0.0	0.250	0.023	0.000	0.000	0.0
160_200.1	160_210	43	600	0	0.323	0.100	0.030	0.000	0.000	0.0	-0.020	0.030	0.000	0.000	0.0
160_210.1	160_220	41	600	0	0.317	-0.020	0.030	0.000	0.000	0.0	-0.130	0.030	0.000	0.000	0.0
160_220.1	160_230	51	600	0	0.297	-0.130	0.030	0.000	0.000	0.0	-0.250	0.030	0.000	0.000	0.0
160_230.1	160_240	31	600	0	0.365	-0.250	0.030	0.000	0.000	0.0	-0.360	0.030	0.000	0.000	0.0
160_240.1	160_250	39	600	0	0.325	-0.360	0.030	0.000	0.000	0.0	-0.470	0.030	0.000	0.000	0.0
160_250.1	160_260	40	600	0	0.335	-0.470	0.030	0.000	0.000	0.0	-0.590	0.030	0.000	0.000	0.0
160_260.1	160_270	41	600	0	0.317	-0.590	0.030	0.000	0.000	0.0	-0.700	0.030	0.000	0.000	0.0
160_270.1	160_280	42	600	0	0.328	-0.700	0.030	0.000	0.000	0.0	-0.820	0.030	0.000	0.000	0.0
160_280.1	160_290	35	600	0	0.341	-0.820	0.030	0.000	0.000	0.0	-0.930	0.030	0.000	0.000	0.0
160_290.1	160_300	26	600	0	0.416	-0.930	0.030	0.000	0.000	0.0	-1.050	0.039	0.000	0.000	0.0
160_300.1	160_310	22	600	0	0.433	-1.050	0.039	0.000	0.000	0.0	-1.160	0.137	0.000	0.000	0.0
160_310.1	160_315	32	750	0	0.665	-1.310	0.287	0.197	1.266	16979.4	-1.428	0.304	0.197	1.168	16979.4
160_315.1	160_320	70	750	0	0.564	-1.428	0.304	0.197	1.168	16979.4	-1.610	0.279	0.197	1.311	16979.4
160_320.1	160_330	71	750	0	0.680	-1.610	0.279	0.197	1.314	16979.4	-1.880	0.299	0.197	1.194	16979.4
160_330.1	160_340	80	750	0	0.593	-1.880	0.299	0.197	1.194	16979.4	-2.110	0.304	0.197	1.172	16979.4
160_340.1	160_350	81	750	0	0.573	-2.110	0.304	0.197	1.173	16979.4	-2.330	0.289	0.197	1.252	16979.4
160_350.1	160_360	52	750	0	0.628	-2.330	0.289	0.197	1.253	16979.4	-2.500	0.282	0.197	1.291	16979.4
160_360.1	160_370	21	750	0	0.674	-2.500	0.282	0.197	1.293	16979.4	-2.580	0.288	0.197	1.258	16979.4
160_370.1	160_380	16	750	0	0.550	-2.580	0.288	0.197	1.259	16979.4	-2.620	0.268	0.197	1.384	16979.4
160_380.1	PS6	9	750	0	0.730	-2.620	0.267	0.197	1.390	16979.4	-2.660	0.267	0.197	1.390	16979.4
160_50.1	160_50A1	25	375	0	0.104	2.600	0.020	0.000	0.000	0.0	2.530	0.020	0.000	0.000	0.0
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.020	0.000	0.000	0.0	2.460	0.020	0.000	0.000	0.0
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.020	0.000	0.000	0.0	2.390	0.020	0.000	0.000	0.0
160_50A3.1	160_60	21	375	0	0.113	2.390	0.020	0.000	0.000	0.0	2.321	0.020	0.000	0.000	0.0
160_60.1	160_60A	32	375	0	0.130	2.321	0.020	0.000	0.000	0.0	2.186	0.020	0.000	0.000	0.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	<		Upstream		>		<		Downstream		>	
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)		
160_60A.1	160_70	41	375	0	0.114	2.186	0.020	0.000	0.000	0.0	2.050	0.020	0.000	0.000	0.0		
160_70.1	160_80	44	375	0	0.117	2.050	0.020	0.000	0.000	0.0	1.900	0.020	0.000	0.000	0.0		
160_80.1	160_90	35	375	0	0.130	1.900	0.020	0.000	0.000	0.0	1.750	0.020	0.000	0.000	0.0		
160_90.1	160_100	35	375	0	0.134	1.750	0.020	0.000	0.000	0.0	1.590	0.020	0.000	0.000	0.0		
20_10.1	20_20	37	450	0	0.274	2.000	1.349	0.001	0.007	103.5x	1.730	1.619	0.001	0.007	103.5x		
20_20.1	20_20A	21	450	0	0.240	1.730	1.619	0.002	0.014	212.0x	1.615	1.734	0.002	0.014	212.0x		
20_20A.1	20_30	24	450	0	0.224	1.615	1.734	0.002	0.014	212.0x	1.500	1.848	0.002	0.014	212.0x		
20_30.1	10_100	41	450	0	0.214	1.500	1.848	0.004	0.021	320.5x	1.320	2.028	0.004	0.021	320.5x		
220_10.1	220_20	75	750	0	0.570	-0.500	0.305	0.197	1.165	16979.4	-0.700	0.300	0.197	1.191	16979.4		
220_20.1	160_310	73	750	0	0.579	-0.700	0.300	0.197	1.191	16979.4	-0.900	0.270	0.197	1.375	16979.4		
230_140.1	230_150	41	750	0	0.897	0.250	2.103	0.530	1.111	17025.1x	-0.018	2.273	0.533	1.110	17024.8x		
230_150.1	230_160	44	750	0	0.899	-0.018	2.260	0.532	1.109	17024.1x	-0.309	2.446	0.534	1.107	17023.8x		
230_160.1	230_170	29	750	0	0.899	-0.309	2.428	0.533	1.106	17023.3x	-0.503	2.553	0.534	1.104	17023.2x		
230_170.1	230_180	59	750	0	0.897	-0.503	2.517	0.534	1.105	17096.3x	-0.890	2.766	0.535	1.098	17096.2x		
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	2.721	0.535	1.099	17096.0x	-1.020	2.805	0.535	1.096	17096.0x		
30_10.1	30_20	30	450	0	0.205	2.300	1.085	0.034	0.202	2978.9x	2.180	1.202	0.034	0.201	2978.9x		
30_20.1	30_30	27	450	0	0.216	2.180	1.201	0.034	0.201	2978.9x	2.060	1.318	0.034	0.200	2978.9x		
30_30.1	30_40	30	450	0	0.218	2.060	1.316	0.034	0.200	2978.9x	1.920	1.452	0.034	0.199	2978.9x		
30_40.1	30_50	31	450	0	0.215	1.920	1.451	0.034	0.199	2978.9x	1.780	1.587	0.034	0.197	2978.9x		
30_50.1	30_60	31	450	0	0.199	1.780	1.587	0.034	0.197	2978.9x	1.660	1.703	0.034	0.196	2978.9x		
30_60.1	30_70	42	450	0	0.199	1.660	1.702	0.034	0.196	2978.9x	1.500	1.857	0.034	0.195	2978.9x		
30_70.1	30_80	41	450	0	0.201	1.500	1.856	0.034	0.195	2978.9x	1.340	2.011	0.034	0.193	2978.9x		
30_80.1	10_110	21	450	0	0.211	1.270	2.071	0.081	0.454	7028.7x	1.180	2.147	0.081	0.452	7028.7x		
70_100.1	70_110	37	525	0	0.308	1.950	0.113	0.030	0.887	2625.0	1.800	0.113	0.030	0.887	2625.0		
70_110.1	70_120	32	525	0	0.328	1.800	0.110	0.030	0.927	2625.0	1.650	0.110	0.030	0.927	2625.0		
70_120.1	70_130	26	525	0	0.367	1.650	0.104	0.030	0.999	2625.0	1.500	0.109	0.030	0.964	2625.0		
70_130.1	70_140	27	525	0	0.360	1.500	0.109	0.030	0.965	2625.0	1.350	0.170	0.032	0.632	2625.0		
70_140.1	PS1	39	525	0	0.172	1.350	0.170	0.032	0.633	2625.0	1.300	0.202	0.047	0.982	2625.0		
70_90.1	70_100	33	525	0	0.378	2.150	0.103	0.030	1.018	2625.0	1.950	0.113	0.030	0.884	2625.0		
PS1.1	PS3					1.497	0.005	0.320		2515.7	1.497	0.000	0.320		2515.7		
PS6.1	230_140					-2.810	0.095	0.530		17026.0	-2.810	5.177	0.530		17026.0		

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

Start of run

configured for MS Windows

Produced on 26/05/2008 at 11:10

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTO - INTERIM
SCENARIO - 4DWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET30#1.spb sewerage_Interim (Revision 1)
 State:
 Runoff: ...\\NET30#1.rpf sewerage_Interim (Revision 1) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM183event.wwg User defined WWG item
 Inflows: ...\\SIM183event.qin 1
 Levels: ...\\SIM183event.lev 1
 RTC:
 Results: ...\\SIM183.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 51919.4 m3
 Total outflow = 51807.9 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
10_100	4.846	3.468	0.0	0.000	0.0	2.8	0.0	0.000	0.000
10_100A	4.723	3.447	0.0	0.000	0.0	2.9	0.0	0.000	0.000
10_110	4.599	3.429	0.0	0.000	0.0	3.4	0.0	0.000	0.000
10_120	4.326	3.381	0.0	0.000	0.0	3.5	0.0	0.000	0.000
10_130	5.101	3.330	0.0	0.000	0.0	4.1	0.0	0.000	0.000
10_130A	5.000	3.261	0.0	0.000	0.0	4.5	0.0	0.000	0.000
10_140	5.533	3.396	0.0	0.000	0.0	2.3	0.0	0.000	0.000
10_150	5.253	3.505	0.0	0.000	0.0	2.0	5308.8	0.000	0.000
10_150A1	5.327	3.472	0.0	0.000	0.0	2.0	0.0	0.000	0.000
10_150A2	5.400	3.442	0.0	0.000	0.0	2.1	0.0	0.000	0.000
10_40	5.324	3.640	0.0	0.000	0.0	1.1	6682.2	0.000	0.000
10_40A	5.239	3.619	0.0	0.000	0.0	1.2	0.0	0.000	0.000
10_50	5.154	3.601	0.0	0.000	0.0	1.3	0.0	0.000	0.000
10_60	4.898	3.579	0.0	0.000	0.0	1.6	0.0	0.000	0.000
10_70	4.643	3.552	0.0	0.000	0.0	2.1	0.0	0.000	0.000
10_70A	4.758	3.539	0.0	0.000	0.0	2.3	0.0	0.000	0.000
10_80	4.873	3.527	0.0	0.000	0.0	2.5	3925.6	0.000	0.000
10_90	5.091	3.498	0.0	0.000	0.0	2.7	0.0	0.000	0.000
160_100	5.094	1.610	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_110	5.300	1.460	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_120	5.500	1.242	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_130	5.599	1.122	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_140	5.300	1.003	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_150	5.000	0.873	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_160	4.900	0.752	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_170	5.000	0.632	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_180	5.110	0.512	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_190	5.400	0.393	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_200	5.000	0.130	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_210	4.700	0.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_220	4.800	-0.100	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_230	5.118	-0.220	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_240	5.141	-0.330	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_250	5.220	-0.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_260	5.300	-0.560	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_270	5.555	-0.670	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_280	5.294	-0.790	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_290	5.147	-0.900	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_300	5.000	-0.972	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_310	5.000	-0.972	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_315	5.500	-1.071	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_320	5.458	-1.283	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_330	4.789	-1.528	0.0	0.000	0.0	0.6	0.0	0.000	0.000

160_340	4.582	-1.754	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_350	4.586	-1.992	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_360	5.000	-2.170	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_370	5.000	-2.245	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_380	5.000	-2.307	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_50	4.688	2.620	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A1	4.710	2.550	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A2	4.731	2.480	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_50A3	4.731	2.410	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_60	4.753	2.341	0.0	0.000	0.0	0.0	0.0	0.000	0.000

sewerage_Interim (Revision 1)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_60A	4.888	2.206	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_70	5.000	2.070	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_80	5.000	1.920	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_90	5.000	1.770	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_10	4.884	3.468	0.0	0.000	0.0	1.7	128.0	0.000	0.000
20_20	5.116	3.468	0.0	0.000	0.0	2.0	133.0	0.000	0.000
20_20A	5.085	3.468	0.0	0.000	0.0	2.1	0.0	0.000	0.000
20_30	5.054	3.468	0.0	0.000	0.0	2.3	133.0	0.000	0.000
220_10	5.000	-0.142	0.0	0.000	0.0	0.6	22639.2	0.000	0.000
220_20	5.000	-0.349	0.0	0.000	0.0	0.6	0.0	0.000	0.000
230_140	4.500	2.367	0.0	0.000	0.0	3.8	0.0	0.000	0.000
230_150	4.500	2.254	0.0	0.000	0.0	4.1	0.0	0.000	0.000
230_160	4.500	2.136	0.0	0.000	0.0	4.4	0.0	0.000	0.000
230_170	4.500	2.047	0.0	0.000	0.0	4.6	98.0	0.000	0.000
230_180	4.500	1.872	0.0	0.000	0.0	5.0	0.0	0.000	0.000
30_10	5.045	3.532	0.0	0.000	0.0	1.4	3971.8	0.000	0.000
30_20	4.843	3.525	0.0	0.000	0.0	1.6	0.0	0.000	0.000
30_30	4.640	3.518	0.0	0.000	0.0	1.7	0.0	0.000	0.000
30_40	4.803	3.508	0.0	0.000	0.0	1.8	0.0	0.000	0.000
30_50	5.041	3.500	0.0	0.000	0.0	2.0	0.0	0.000	0.000
30_60	5.088	3.493	0.0	0.000	0.0	2.1	0.0	0.000	0.000
30_70	4.866	3.482	0.0	0.000	0.0	2.3	0.0	0.000	0.000
30_80	4.649	3.472	0.0	0.000	0.0	2.5	5399.8	0.000	0.000
70_100	5.996	2.080	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_110	5.835	1.926	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_120	5.614	1.770	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_130	5.500	1.625	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_140	5.630	1.533	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	2.268	0.0	0.000	0.0	0.2	3500.0	0.000	0.000
PS1	5.834	1.504	0.0	0.000	0.0	1126.1	0.0	0.000	0.000
PS6	5.000	-2.660	0.0	0.000	0.0	154.0	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >				Total Flow (m3)	< Downstream >				Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
10_100.1	10_100A	24	525	0	0.258	1.320	2.145	0.127	0.528	11001.8x	1.250	2.197	0.127	0.527	11001.8x
10_100A.1	10_110	22	525	0	0.273	1.250	2.195	0.127	0.527	11001.8x	1.180	2.249	0.127	0.526	11001.8x
10_110.1	10_120	27	600	0	0.405	1.100	2.323	0.236	0.753	20373.4x	0.980	2.401	0.236	0.750	20373.4x
10_120.1	10_130	28	600	0	0.445	0.980	2.396	0.236	0.751	20373.4x	0.830	2.503	0.236	0.748	20373.4x
10_130.1	10_130A	47	675	0	0.703	0.830	2.495	0.297	0.753	25682.2x	0.500	2.764	0.297	0.746	25682.2x
10_130A.1	UTFALL5A	49	675	0	0.536	0.500	2.756	0.297	0.746	25682.2x	0.300	2.893	0.297	0.743	25682.2x
10_140.1	10_130	42	375	0	0.140	1.090	2.292	0.061	0.478	5308.8x	0.830	2.500	0.061	0.472	5308.8x
10_150.1	10_150A1	25	375	0	0.120	1.580	1.923	0.061	0.488	5308.8x	1.465	2.007	0.061	0.486	5308.8x
10_150A1.1	10_150A2	22	375	0	0.127	1.465	2.005	0.061	0.486	5308.8x	1.350	2.092	0.061	0.483	5308.8x
10_150A2.1	10_140	35	375	0	0.153	1.350	2.090	0.061	0.483	5308.8x	1.090	2.306	0.061	0.477	5308.8x
10_40.1	10_40A	29	450	0	0.204	2.700	0.937	0.077	0.458	6682.2x	2.585	1.034	0.077	0.455	6682.2x
10_40A.1	10_50	24	450	0	0.222	2.585	1.031	0.077	0.455	6682.2x	2.470	1.131	0.077	0.453	6682.2x
10_50.1	10_60	31	450	0	0.300	2.470	1.128	0.077	0.453	6682.2x	2.200	1.379	0.077	0.447	6682.2x
10_60.1	10_70	39	450	0	0.230	2.200	1.377	0.077	0.447	6682.2x	2.000	1.553	0.077	0.443	6682.2x
10_70.1	10_70A	27	525	0	0.389	1.930	1.617	0.077	0.328	6682.2x	1.757	1.782	0.077	0.326	6682.2x
10_70A.1	10_80	23	525	0	0.425	1.757	1.777	0.077	0.326	6682.2x	1.580	1.947	0.077	0.324	6682.2x
10_80.1	10_90	39	525	0	0.278	1.580	1.945	0.123	0.514	10607.8x	1.450	2.049	0.123	0.512	10607.8x
10_90.1	10_100	42	525	0	0.268	1.450	2.046	0.123	0.512	10607.8x	1.320	2.148	0.123	0.509	10607.8x
160_100.1	160_110	43	375	0	0.118	1.590	0.020	0.000	0.000	0.0	1.440	0.020	0.000	0.000	0.0
160_110.1	160_120	33	375	0	0.134	1.440	0.020	0.000	0.000	0.0	1.290	0.020	0.000	0.000	0.0
160_120.1	160_130	46	450	0	0.163	1.220	0.023	0.000	0.000	0.0	1.100	0.023	0.000	0.000	0.0
160_130.1	160_140	40	450	0	0.175	1.100	0.023	0.000	0.000	0.0	0.980	0.023	0.000	0.000	0.0
160_140.1	160_150	54	450	0	0.158	0.980	0.023	0.000	0.000	0.0	0.850	0.023	0.000	0.000	0.0
160_150.1	160_160	24	450	0	0.228	0.850	0.023	0.000	0.000	0.0	0.730	0.023	0.000	0.000	0.0
160_160.1	160_170	43	450	0	0.170	0.730	0.023	0.000	0.000	0.0	0.610	0.023	0.000	0.000	0.0
160_170.1	160_180	41	450	0	0.174	0.610	0.023	0.000	0.000	0.0	0.490	0.023	0.000	0.000	0.0
160_180.1	160_190	53	450	0	0.153	0.490	0.023	0.000	0.000	0.0	0.370	0.023	0.000	0.000	0.0
160_190.1	160_200	28	450	0	0.212	0.370	0.023	0.000	0.000	0.0	0.250	0.023	0.000	0.000	0.0
160_200.1	160_210	43	600	0	0.323	0.100	0.030	0.000	0.000	0.0	-0.020	0.030	0.000	0.000	0.0
160_210.1	160_220	41	600	0	0.317	-0.020	0.030	0.000	0.000	0.0	-0.130	0.030	0.000	0.000	0.0
160_220.1	160_230	51	600	0	0.297	-0.130	0.030	0.000	0.000	0.0	-0.250	0.030	0.000	0.000	0.0
160_230.1	160_240	31	600	0	0.365	-0.250	0.030	0.000	0.000	0.0	-0.360	0.030	0.000	0.000	0.0
160_240.1	160_250	39	600	0	0.325	-0.360	0.030	0.000	0.000	0.0	-0.470	0.030	0.000	0.000	0.0
160_250.1	160_260	40	600	0	0.335	-0.470	0.030	0.000	0.000	0.0	-0.590	0.030	0.000	0.000	0.0
160_260.1	160_270	41	600	0	0.317	-0.590	0.030	0.000	0.000	0.0	-0.700	0.030	0.000	0.000	0.0
160_270.1	160_280	42	600	0	0.328	-0.700	0.030	0.000	0.000	0.0	-0.820	0.030	0.000	0.000	0.0
160_280.1	160_290	35	600	0	0.341	-0.820	0.030	0.000	0.000	0.0	-0.930	0.030	0.000	0.000	0.0
160_290.1	160_300	26	600	0	0.416	-0.930	0.030	0.000	0.000	0.0	-1.050	0.078	0.000	0.000	0.0
160_300.1	160_310	22	600	0	0.433	-1.050	0.078	0.000	0.000	0.0	-1.160	0.188	0.000	0.000	0.0
160_310.1	160_315	32	750	0	0.665	-1.310	0.337	0.262	1.361	22639.2	-1.428	0.357	0.262	1.265	22639.2
160_315.1	160_320	70	750	0	0.564	-1.428	0.356	0.262	1.266	22639.2	-1.610	0.327	0.262	1.414	22639.2
160_320.1	160_330	71	750	0	0.680	-1.610	0.327	0.262	1.416	22639.2	-1.880	0.352	0.262	1.288	22639.2
160_330.1	160_340	80	750	0	0.593	-1.880	0.352	0.262	1.288	22639.2	-2.110	0.356	0.262	1.268	22639.2
160_340.1	160_350	81	750	0	0.573	-2.110	0.356	0.262	1.268	22639.2	-2.330	0.338	0.262	1.355	22639.2
160_350.1	160_360	52	750	0	0.628	-2.330	0.338	0.262	1.356	22639.2	-2.500	0.330	0.262	1.398	22639.2
160_360.1	160_370	21	750	0	0.674	-2.500	0.330	0.262	1.401	22639.2	-2.580	0.335	0.262	1.374	22639.2
160_370.1	160_380	16	750	0	0.550	-2.580	0.335	0.262	1.375	22639.2	-2.620	0.313	0.262	1.498	22639.2
160_380.1	PS6	9	750	0	0.730	-2.620	0.312	0.262	1.504	22639.2	-2.660	0.312	0.262	1.504	22639.2
160_50.1	160_50A1	25	375	0	0.104	2.600	0.020	0.000	0.000	0.0	2.530	0.020	0.000	0.000	0.0
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.020	0.000	0.000	0.0	2.460	0.020	0.000	0.000	0.0
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.020	0.000	0.000	0.0	2.390	0.020	0.000	0.000	0.0
160_50A3.1	160_60	21	375	0	0.113	2.390	0.020	0.000	0.000	0.0	2.321	0.020	0.000	0.000	0.0
160_60.1	160_60A	32	375	0	0.130	2.321	0.020	0.000	0.000	0.0	2.186	0.020	0.000	0.000	0.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)		Upstream Max Flow (m3/s)		> Max Vel (m/s)		Total Flow (m3)	< Invert Level (m AD)		Downstream Max Flow (m3/s)		> Max Vel (m/s)		Total Flow (m3)
						Invert	Max Depth	Max Flow	Max Vel	Max Vel	Max Vel		Invert	Max Depth	Max Flow	Max Vel	Max Vel	Max Vel	
160_60A.1	160_70	41	375	0	0.114	2.186	0.020	0.000	0.000	0.000	0.000	0.0	2.050	0.020	0.000	0.000	0.000	0.000	0.0
160_70.1	160_80	44	375	0	0.117	2.050	0.020	0.000	0.000	0.000	0.000	0.0	1.900	0.020	0.000	0.000	0.000	0.000	0.0
160_80.1	160_90	35	375	0	0.130	1.900	0.020	0.000	0.000	0.000	0.000	0.0	1.750	0.020	0.000	0.000	0.000	0.000	0.0
160_90.1	160_100	35	375	0	0.134	1.750	0.020	0.000	0.000	0.000	0.000	0.0	1.590	0.020	0.000	0.000	0.000	0.000	0.0
20_10.1	20_20	37	450	0	0.274	2.000	1.468	0.001	0.009	0.001	0.009	128.0x	1.730	1.738	0.001	0.008	0.001	0.008	128.0x
20_20.1	20_20A	21	450	0	0.240	1.730	1.738	0.003	0.017	0.003	0.017	261.0x	1.615	1.853	0.003	0.017	0.003	0.017	261.0x
20_20A.1	20_30	24	450	0	0.224	1.615	1.853	0.003	0.017	0.003	0.017	261.0x	1.500	1.968	0.003	0.017	0.003	0.017	261.0x
20_30.1	10_100	41	450	0	0.214	1.500	1.968	0.005	0.026	0.005	0.026	394.0x	1.320	2.148	0.005	0.025	0.005	0.025	394.0x
220_10.1	220_20	75	750	0	0.570	-0.500	0.358	0.262	1.259	0.262	1.259	22639.2	-0.700	0.351	0.262	1.293	0.262	1.293	22639.2
220_20.1	160_310	73	750	0	0.579	-0.700	0.350	0.262	1.294	0.262	1.294	22639.2	-0.900	0.313	0.262	1.504	0.262	1.504	22639.2
230_140.1	230_150	41	750	0	0.897	0.250	2.103	0.530	1.111	0.530	1.111	22556.3x	-0.018	2.273	0.533	1.110	0.533	1.110	22556.3x
230_150.1	230_160	44	750	0	0.899	-0.018	2.260	0.532	1.108	0.532	1.108	22556.6x	-0.309	2.446	0.534	1.107	0.534	1.107	22556.6x
230_160.1	230_170	29	750	0	0.899	-0.309	2.428	0.533	1.105	0.533	1.105	22556.8x	-0.503	2.554	0.534	1.103	0.534	1.103	22556.8x
230_170.1	230_180	59	750	0	0.897	-0.503	2.518	0.534	1.105	0.534	1.105	22654.9x	-0.890	2.766	0.536	1.099	0.536	1.099	22655.0x
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	2.721	0.535	1.099	0.535	1.099	22655.0x	-1.020	2.805	0.535	1.097	0.535	1.097	22655.0x
30_10.1	30_20	30	450	0	0.205	2.300	1.232	0.046	0.268	0.046	0.268	3971.8x	2.180	1.345	0.046	0.266	0.046	0.266	3971.8x
30_20.1	30_30	27	450	0	0.216	2.180	1.344	0.046	0.266	0.046	0.266	3971.8x	2.060	1.458	0.046	0.265	0.046	0.265	3971.8x
30_30.1	30_40	30	450	0	0.218	2.060	1.455	0.046	0.265	0.046	0.265	3971.8x	1.920	1.588	0.046	0.263	0.046	0.263	3971.8x
30_40.1	30_50	31	450	0	0.215	1.920	1.587	0.046	0.263	0.046	0.263	3971.8x	1.780	1.720	0.046	0.261	0.046	0.261	3971.8x
30_50.1	30_60	31	450	0	0.199	1.780	1.720	0.046	0.261	0.046	0.261	3971.8x	1.660	1.833	0.046	0.260	0.046	0.260	3971.8x
30_60.1	30_70	42	450	0	0.199	1.660	1.832	0.046	0.260	0.046	0.260	3971.8x	1.500	1.982	0.046	0.258	0.046	0.258	3971.8x
30_70.1	30_80	41	450	0	0.201	1.500	1.982	0.046	0.258	0.046	0.258	3971.8x	1.340	2.133	0.046	0.256	0.046	0.256	3971.8x
30_80.1	10_110	21	450	0	0.211	1.270	2.185	0.108	0.602	0.108	0.602	9371.6x	1.180	2.250	0.108	0.600	0.108	0.600	9371.6x
70_100.1	70_110	37	525	0	0.308	1.950	0.130	0.041	0.971	0.041	0.971	3500.0	1.800	0.130	0.041	0.971	0.041	0.971	3500.0
70_110.1	70_120	32	525	0	0.328	1.800	0.126	0.041	1.015	0.041	1.015	3500.0	1.650	0.126	0.041	1.015	0.041	1.015	3500.0
70_120.1	70_130	26	525	0	0.367	1.650	0.119	0.041	1.094	0.041	1.094	3500.0	1.500	0.125	0.041	1.046	0.041	1.046	3500.0
70_130.1	70_140	27	525	0	0.360	1.500	0.125	0.041	1.047	0.041	1.047	3500.0	1.350	0.183	0.042	0.697	0.042	0.697	3500.0
70_140.1	PS1	39	525	0	0.172	1.350	0.183	0.042	0.698	0.042	0.698	3500.0	1.300	0.204	0.054	1.022	0.054	1.022	3500.0
70_90.1	70_100	33	525	0	0.378	2.150	0.118	0.041	1.115	0.041	1.115	3500.0	1.950	0.130	0.041	0.967	0.041	0.967	3500.0
PS1.1	PS3					1.497	0.007	0.320		0.320		3470.6	1.497	0.000	0.320		0.320		3470.6
PS6.1	230_140					-2.810	0.150	0.530				22556.0	-2.810	5.177	0.530				22556.0

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

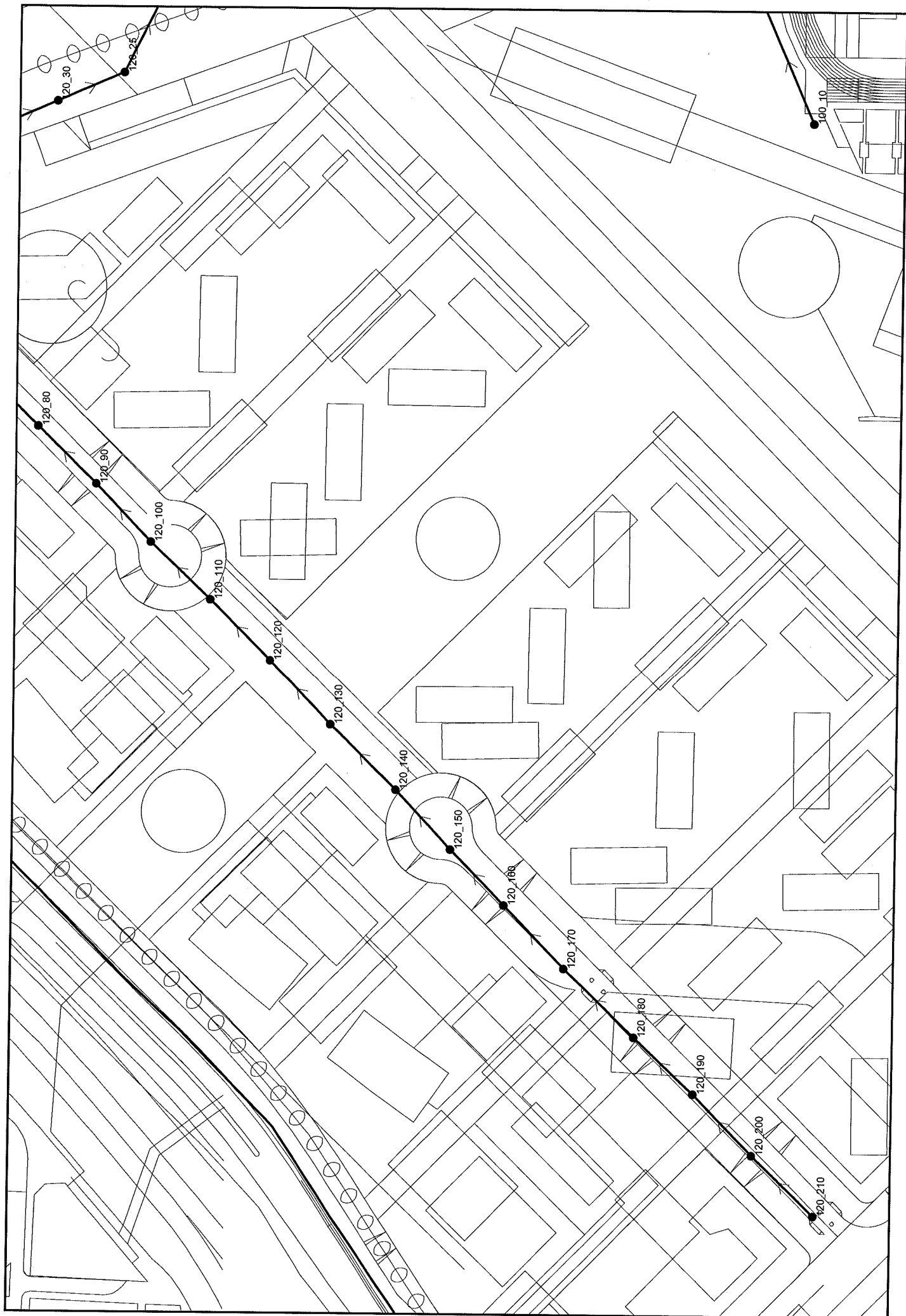
Produced on 26/05/2008 Last page

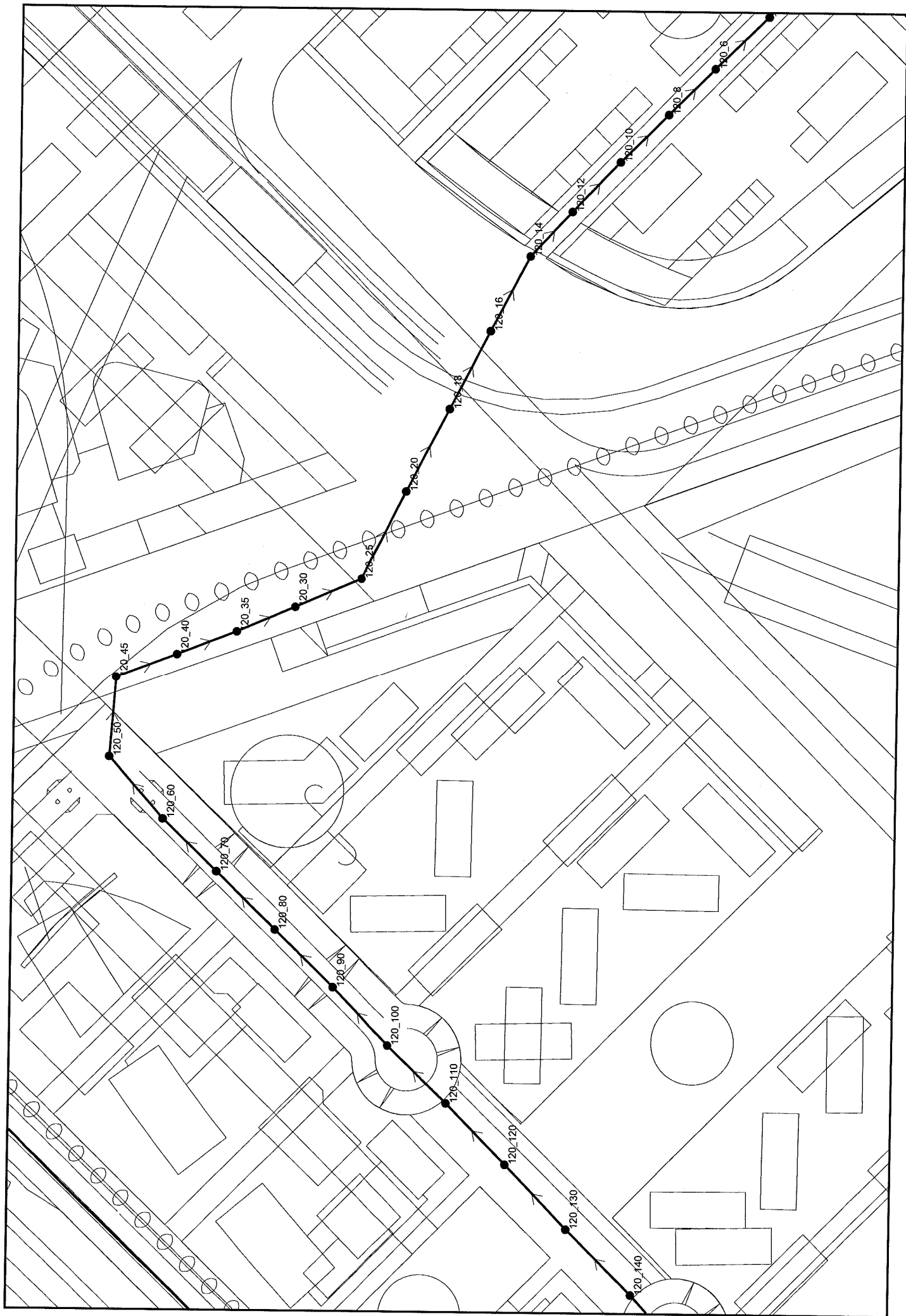
Appendix 16.4C

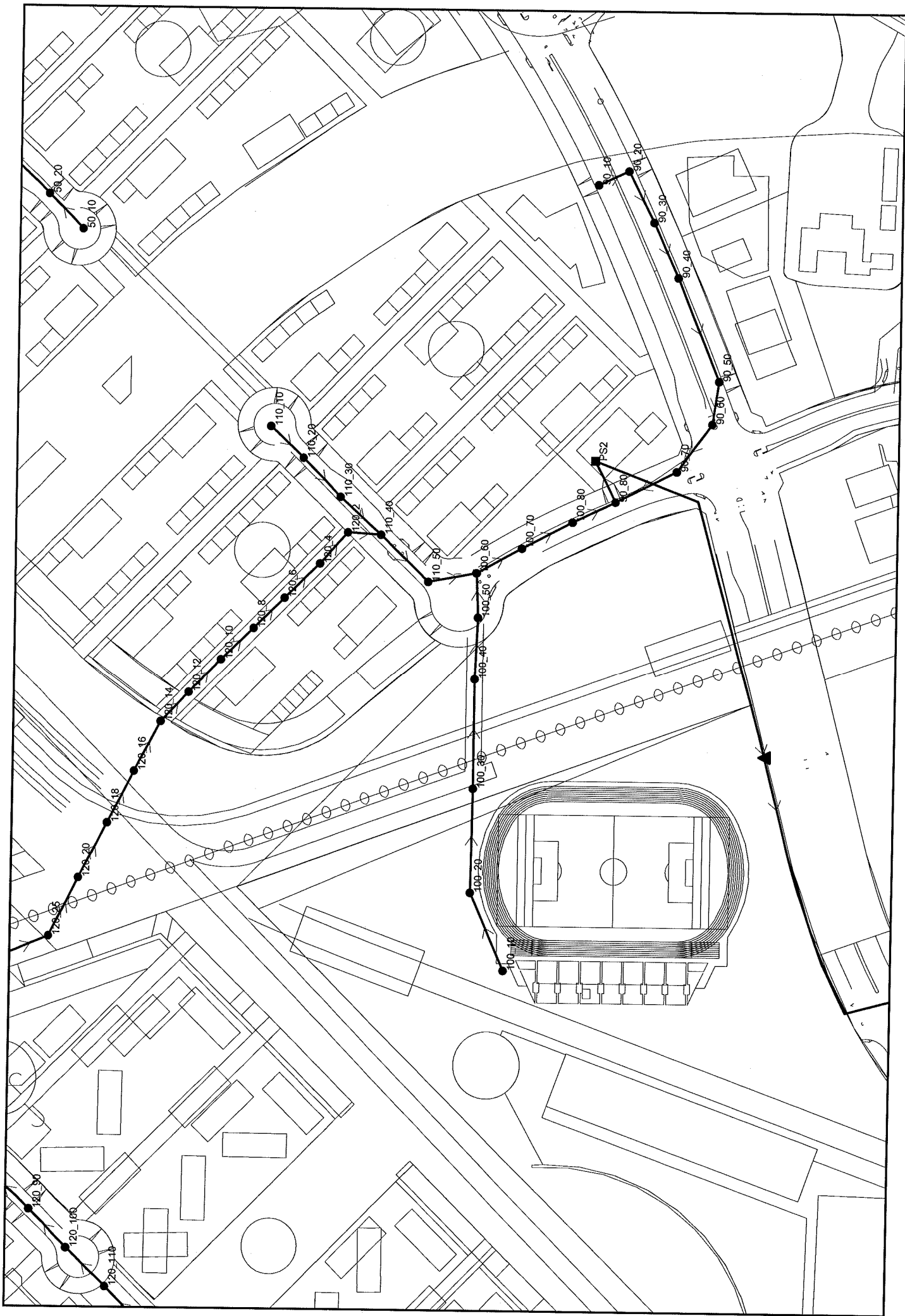
***Modelling Results of Hydraulic Assessment
of New Sewers in Kai Tak Development
- Model Network of Ultimate Scenario***

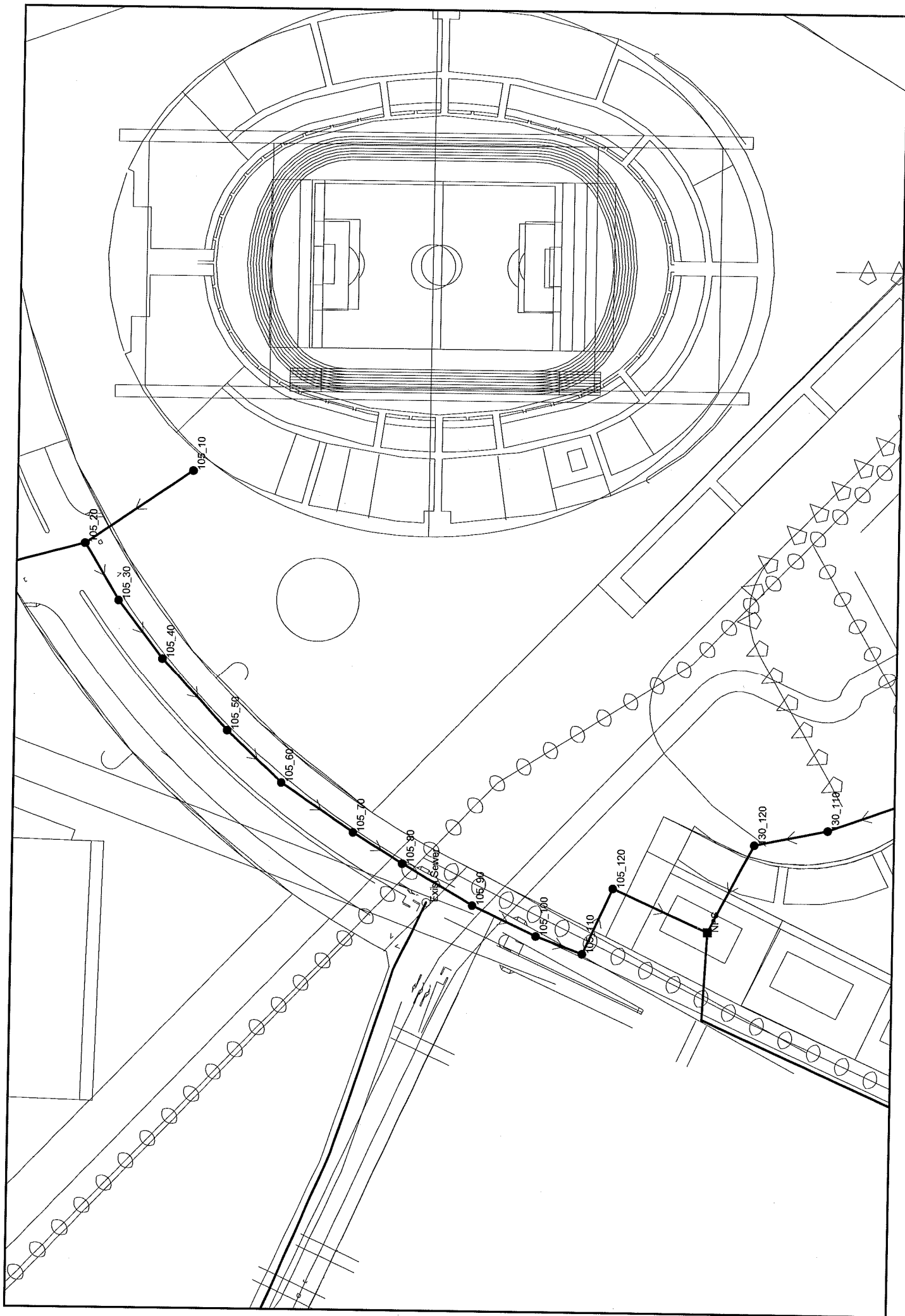
KTD ULTIMATE
SCENARIO

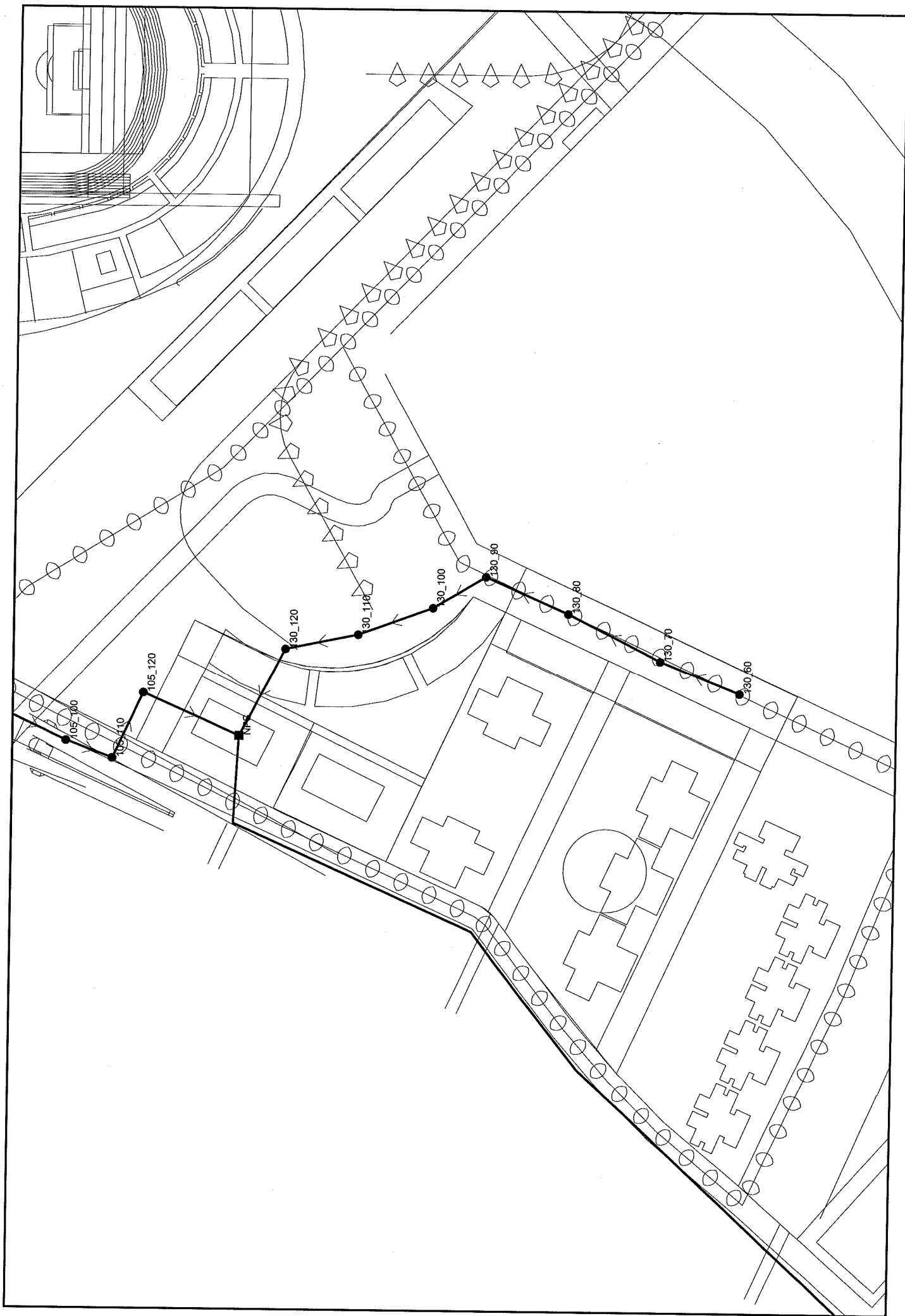


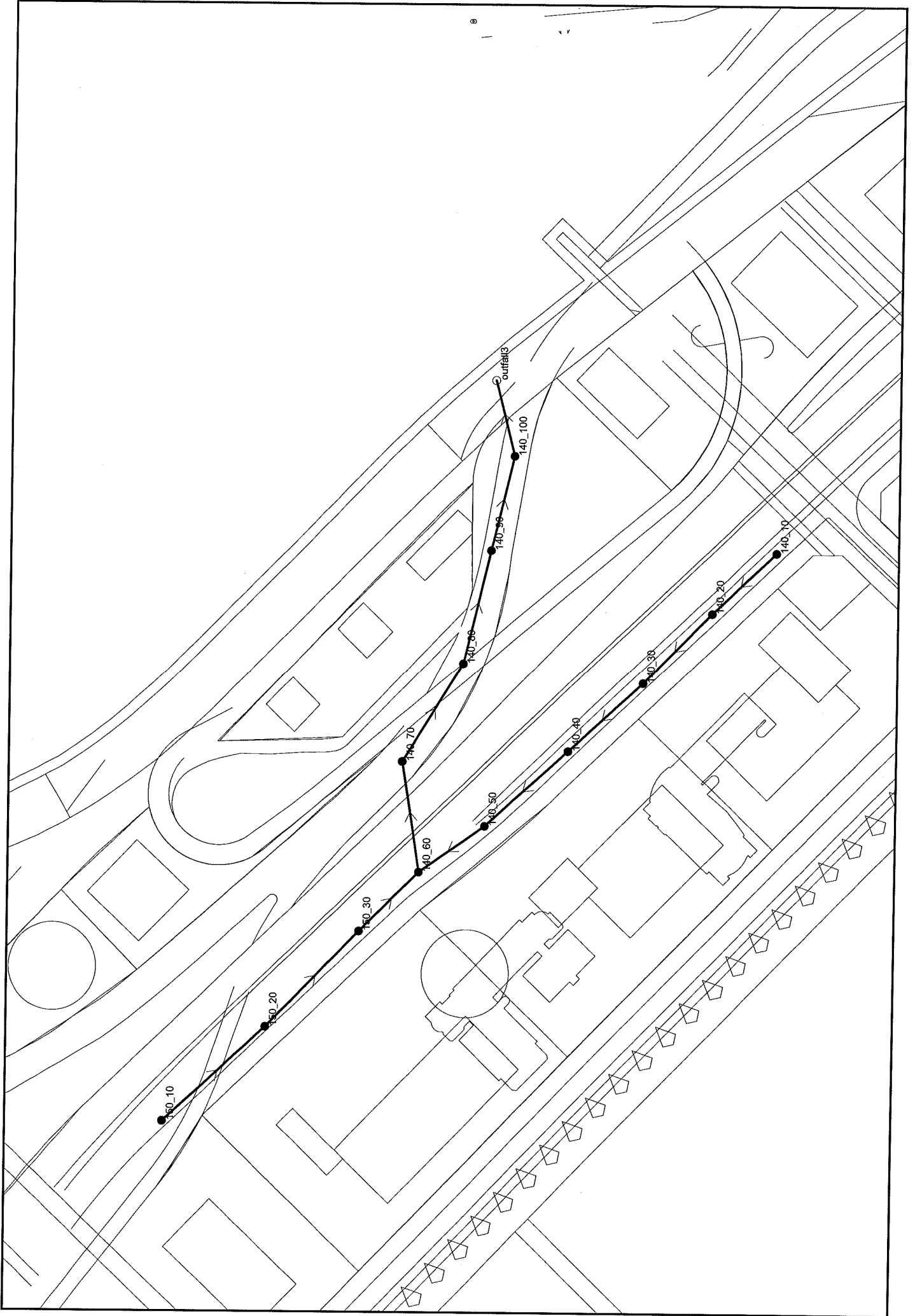


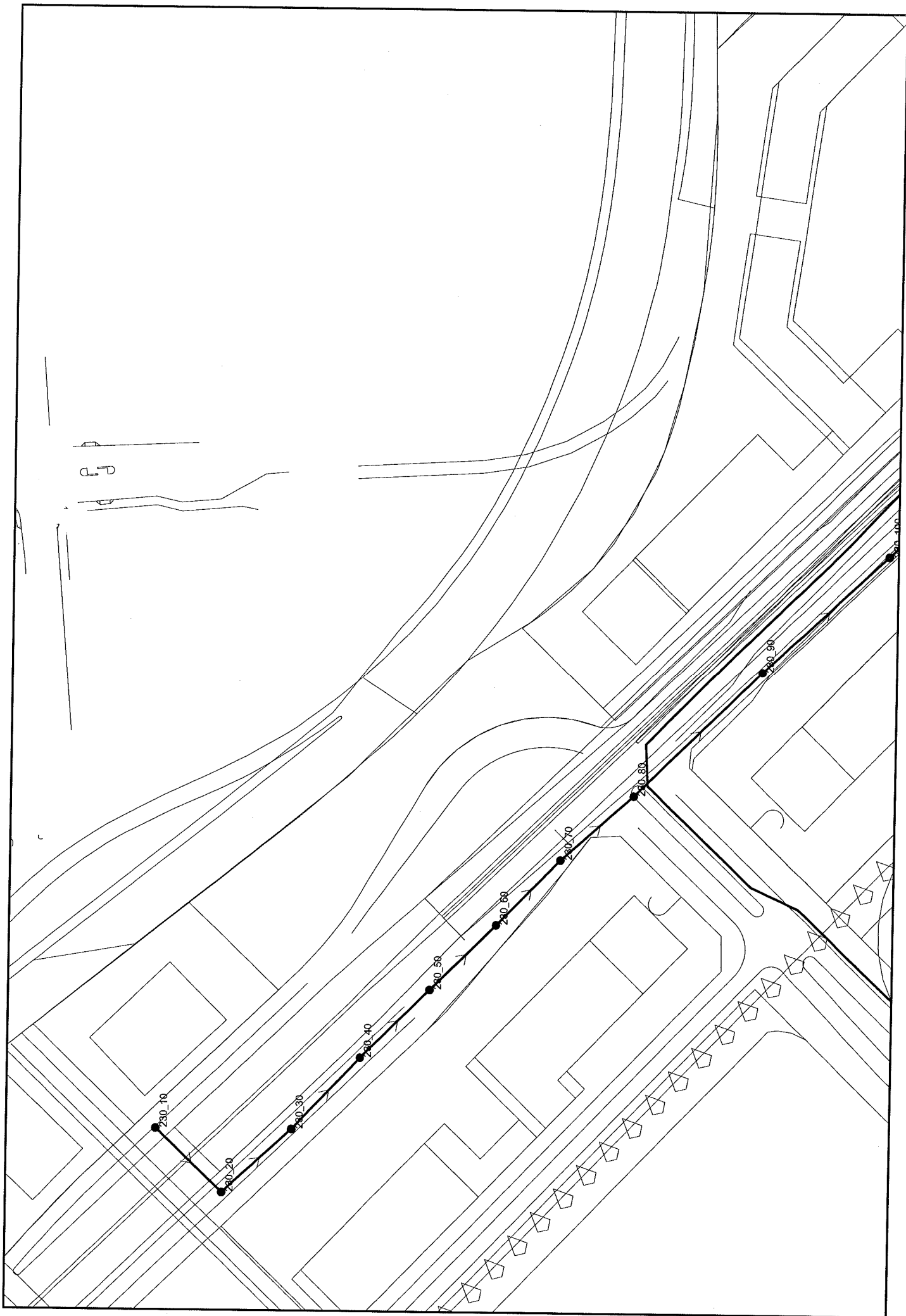




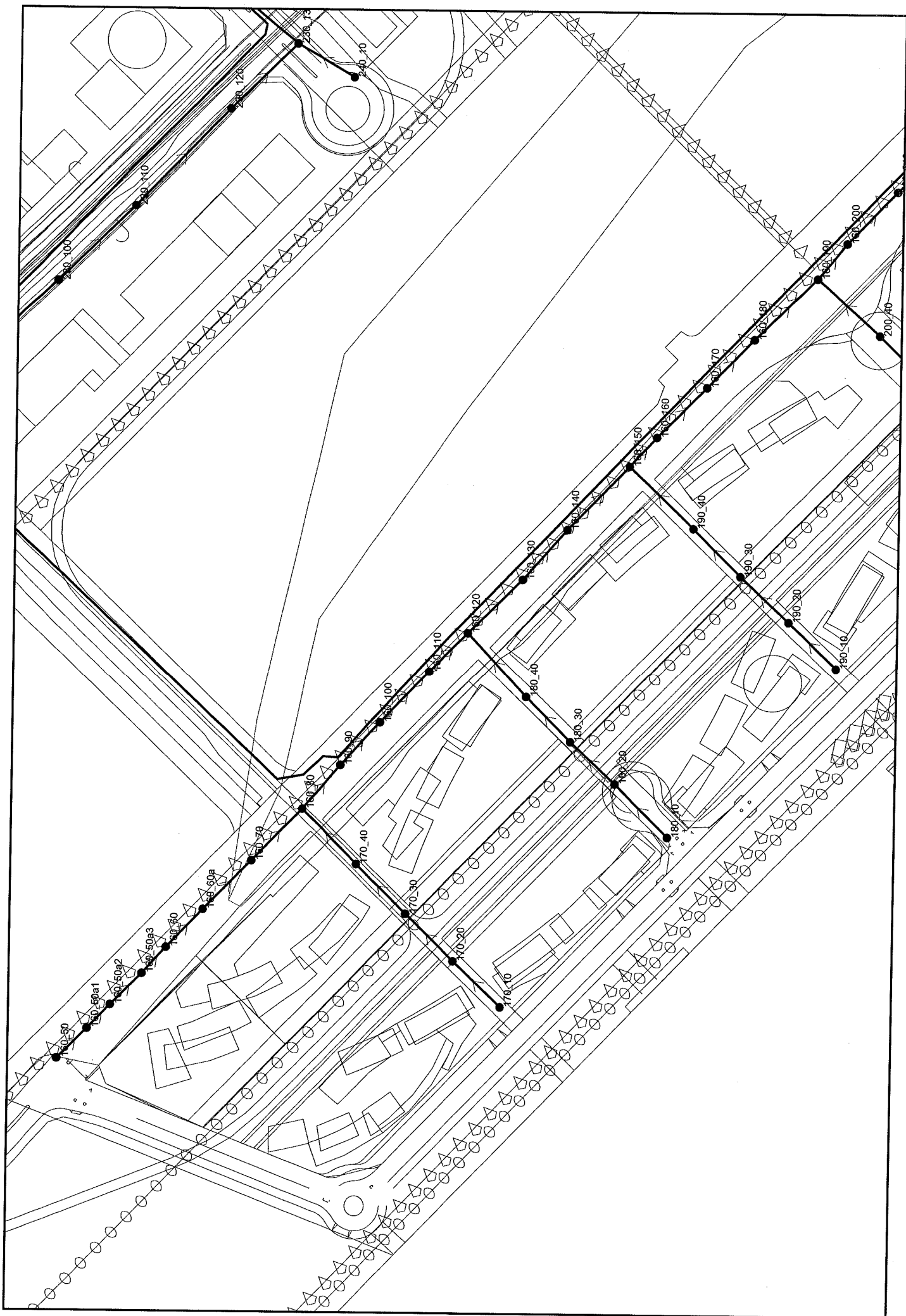


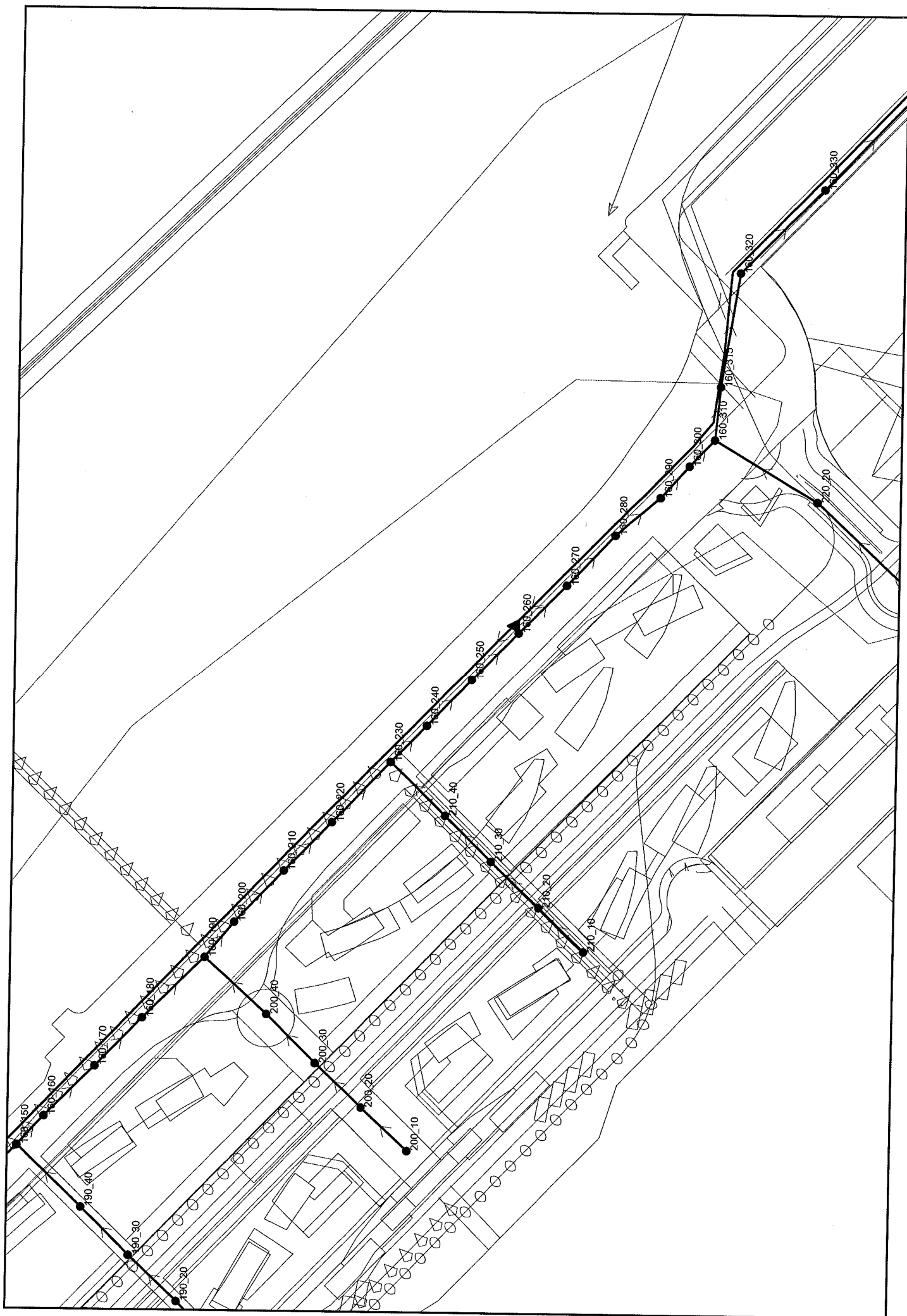


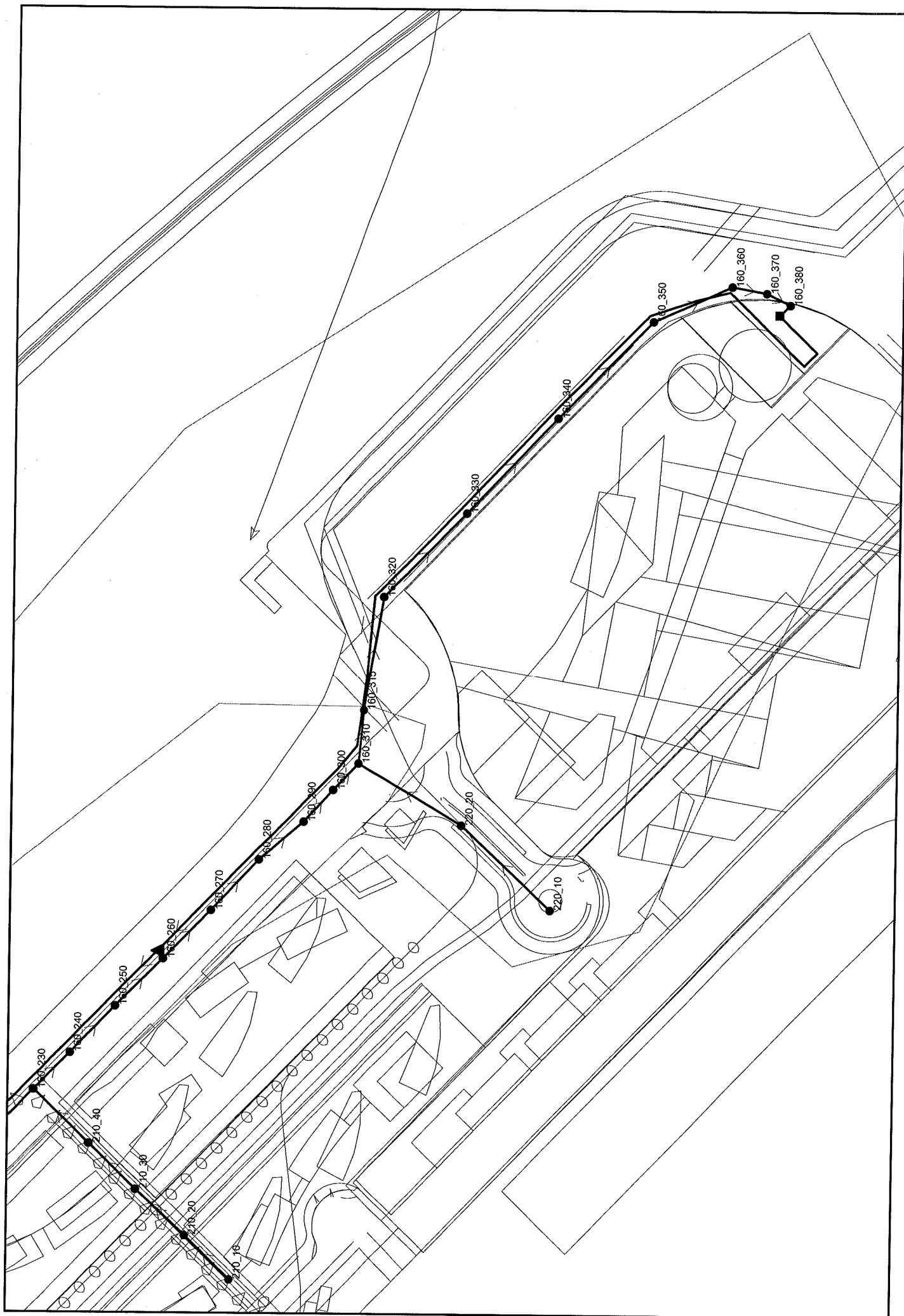


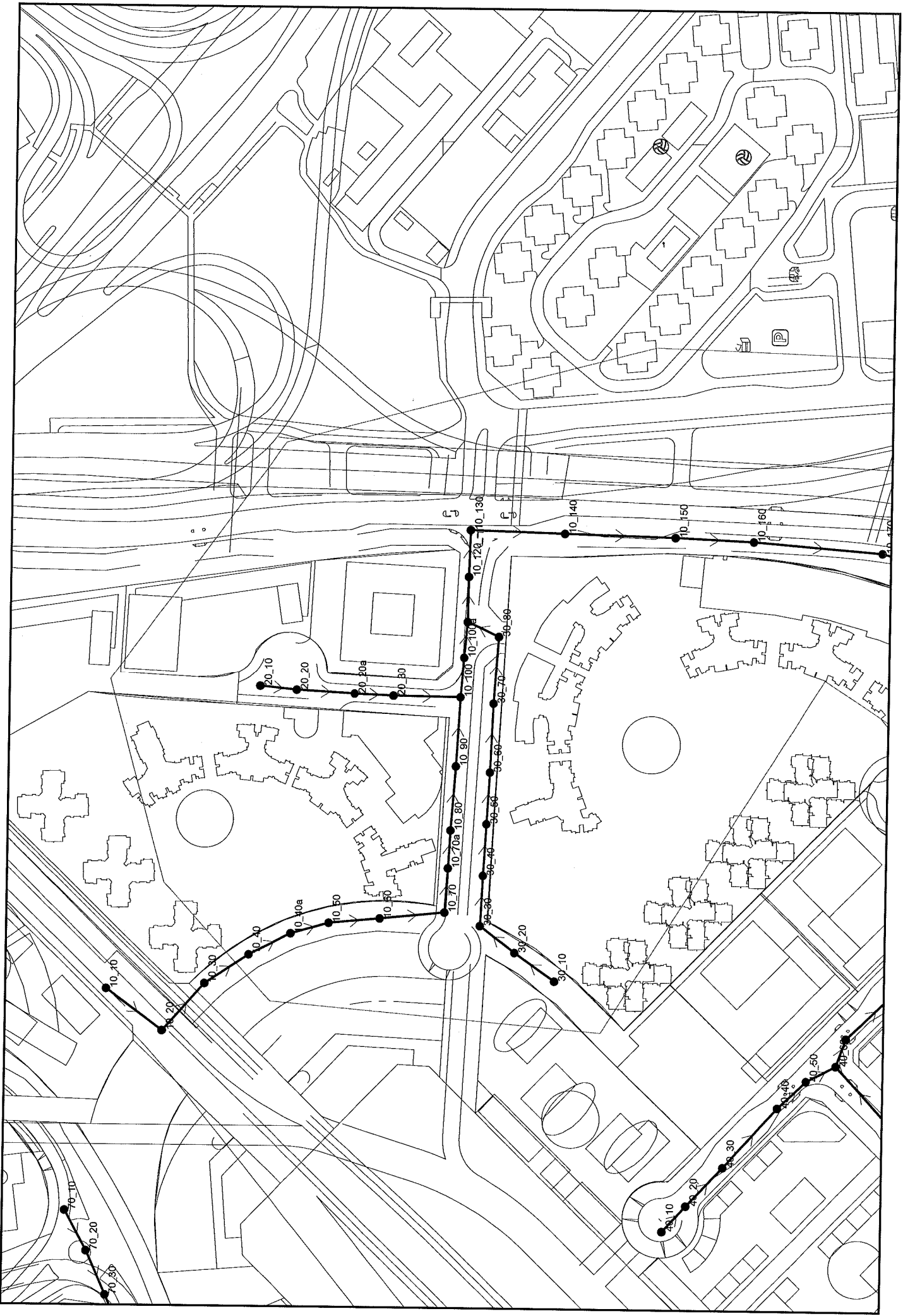


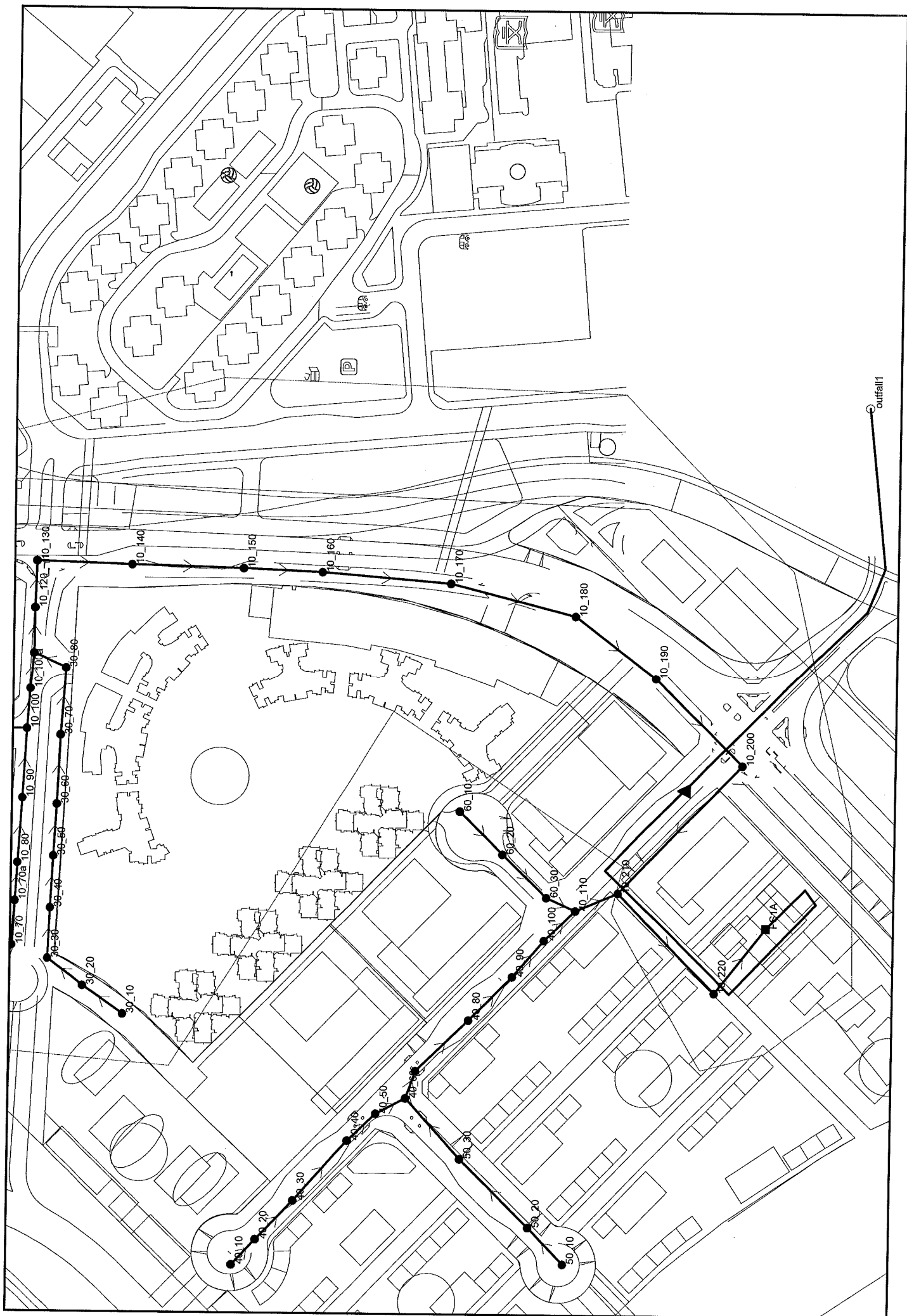












Appendix 16.4D

***Modelling Results of Hydraulic Assessment
of New Sewer in Kai Tak Development
- Results of Ultimate Scenario***

Start of run

configured for MS Windows

Produced on 26/05/2008 at 10:50

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - ULTIMATE
SCENARIO - IDWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET21#15.spb sewerage_ultimate0801010_2_1_1 (Revision 15)
 State:
 Runoff: ...\\NET21#15.rpf sewerage_ultimate0801010_2_1_1 (Revision 15) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM175event.wwg User defined WWG item
 Inflows: ...\\SIM175event.qin 1
 Levels: ...\\SIM175event.lev 1
 RTC:
 Results: ...\\SIM175.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 59001.8 m3
 Total outflow = 58740.4 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
100_10	5.821	3.262	0.0	0.000	0.0	0.1	540.4	0.000	0.000
100_20	5.752	3.020	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_30	5.683	2.725	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_40	5.614	2.411	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_50	5.545	2.235	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_60	5.611	-1.535	0.0	0.000	0.0	0.5	0.0	0.000	0.000
100_70	5.504	-1.612	0.0	0.000	0.0	0.5	327.6	0.000	0.000
100_80	5.263	-1.703	0.0	0.000	0.0	0.5	0.0	0.000	0.000
105_10	5.000	3.469	0.0	0.000	0.0	0.4	5886.3	0.000	0.000
105_100	5.420	-0.164	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_110	5.750	-0.297	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_120	6.000	-0.464	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_20	4.790	3.439	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_30	4.957	3.216	0.0	0.000	0.0	0.7	0.0	0.000	0.000
105_40	5.225	2.988	0.0	0.000	0.0	0.7	0.0	0.000	0.000
105_50	5.480	2.700	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_60	5.306	2.479	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_70	5.005	2.224	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_80	4.971	0.272	0.0	0.000	0.0	0.6	0.0	0.000	0.000
105_90	5.150	0.039	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_10	5.664	4.521	0.0	0.000	0.0	0.1	1870.0	0.000	0.000
10_100	4.846	1.483	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_100A	4.723	1.409	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_110	4.599	1.285	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_120	4.326	1.157	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_130	5.101	1.004	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_140	5.533	0.742	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_150	5.253	0.536	0.0	0.000	0.0	0.3	1223.3	0.000	0.000
10_160	5.720	0.434	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_170	6.210	0.297	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_180	5.895	-0.164	0.0	0.000	0.0	0.3	3.5	0.000	0.000
10_190	6.086	-0.371	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_20	5.574	3.855	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_200	5.592	-0.609	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_210	5.358	-1.000	0.0	0.000	0.0	0.4	24.5	0.000	0.000
10_220	5.147	-1.259	0.0	0.000	0.0	0.5	19.3	0.000	0.000
10_30	5.494	3.390	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_40	5.324	2.840	0.0	0.000	0.0	0.2	1767.9	0.000	0.000
10_40A	5.239	2.719	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_50	5.154	2.585	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_60	4.898	2.332	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_70	4.643	2.048	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_70A	4.758	1.869	0.0	0.000	0.0	0.1	0.0	0.000	0.000

10_80	4.873	1.721	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_90	5.091	1.609	0.0	0.000	0.0	0.2	883.9	0.000	0.000
110_10	5.200	1.557	0.0	0.000	0.0	0.1	478.0	0.000	0.000
110_20	5.012	1.427	0.0	0.000	0.0	0.1	349.5	0.000	0.000
110_30	4.882	1.252	0.0	0.000	0.0	0.1	478.0	0.000	0.000
110_40	5.122	-1.390	0.0	0.000	0.0	0.5	454.8	0.000	0.000
110_50	5.377	-1.470	0.0	0.000	0.0	0.5	572.4	0.000	0.000
120_10	5.500	-1.124	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_100	5.547	2.532	0.0	0.000	0.0	0.2	0.0	0.000	0.000
120_110	5.598	2.647	0.0	0.000	0.0	0.2	496.7	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
120_12	5.500	-1.076	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_120	5.648	2.757	0.0	0.000	0.0	0.2	611.5	0.000	0.000
120_130	5.699	2.924	0.0	0.000	0.0	0.2	37.1	0.000	0.000
120_14	5.500	-0.954	0.0	0.000	0.0	0.3	0.0	0.000	0.000
120_140	5.749	3.053	0.0	0.000	0.0	0.2	496.7	0.000	0.000
120_150	5.800	3.156	0.0	0.000	0.0	0.2	611.5	0.000	0.000
120_16	5.500	-0.848	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_160	5.996	3.251	0.0	0.000	0.0	0.1	534.5	0.000	0.000
120_170	6.237	3.357	0.0	0.000	0.0	0.1	655.2	0.000	0.000
120_18	5.500	-0.748	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_180	6.494	3.473	0.0	0.000	0.0	0.1	24.5	0.000	0.000
120_190	6.486	3.590	0.0	0.000	0.0	0.1	923.7	0.000	0.000
120_2	5.500	-1.335	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_20	5.500	1.398	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_200	6.218	3.879	0.0	0.000	0.0	0.1	0.0	0.000	0.000
120_210	6.040	4.063	0.0	0.000	0.0	0.1	600.7	0.000	0.000
120_25	5.500	1.505	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_30	5.500	1.581	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_35	5.500	1.646	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_4	5.500	-1.276	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_40	5.500	1.713	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_45	5.500	1.780	0.0	0.000	0.0	0.4	1034.2	0.000	0.000
120_50	5.840	1.852	0.0	0.000	0.0	0.4	693.0	0.000	0.000
120_6	5.500	-1.218	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_60	6.019	2.020	0.0	0.000	0.0	0.3	526.8	0.000	0.000
120_70	5.815	2.119	0.0	0.000	0.0	0.3	0.0	0.000	0.000
120_8	5.500	-1.172	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_80	5.602	2.233	0.0	0.000	0.0	0.3	511.7	0.000	0.000
120_90	5.353	2.341	0.0	0.000	0.0	0.3	1184.9	0.000	0.000
130_100	3.780	0.010	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_110	3.760	-0.115	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_120	3.760	-0.231	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_60	3.520	0.620	0.0	0.000	0.0	0.1	1015.3	0.000	0.000
130_70	3.600	0.392	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_80	3.680	0.238	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_90	3.780	0.105	0.0	0.000	0.0	0.1	38.2	0.000	0.000
135_20	3.740	2.091	0.0	0.000	0.0	0.0	54.5	0.000	0.000
140_10	4.421	3.216	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_100	5.200	0.648	0.0	0.000	0.0	0.5	0.0	0.000	0.000
140_20	5.089	3.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_30	5.452	2.782	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_40	5.325	2.547	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_50	5.063	2.285	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_60	5.051	1.947	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_70	5.024	1.506	0.0	0.000	0.0	0.0	0.0	0.000	0.000

140_80	5.274	1.104	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_90	5.439	0.651	0.0	0.000	0.0	0.1	0.0	0.000	0.000
150_10	5.873	4.536	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_20	5.497	3.986	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_30	5.149	3.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_100	5.094	1.695	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_110	5.300	1.539	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_120	5.500	1.345	0.0	0.000	0.0	0.1	0.0	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 4

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_130	5.599	1.221	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_140	5.300	1.107	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_150	5.000	0.973	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_160	4.900	0.871	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_170	5.000	0.749	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_180	5.110	0.638	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_190	5.400	0.510	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_200	5.000	0.252	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_210	4.700	0.133	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_220	4.800	0.028	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_230	5.118	-0.090	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_240	5.141	-0.192	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_250	5.220	-0.304	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_260	5.300	-0.420	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_270	5.555	-0.533	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_280	5.294	-0.657	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_290	5.147	-0.781	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_300	5.000	-0.904	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_310	5.000	-1.061	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_315	5.500	-1.163	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_320	5.458	-1.367	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_330	4.789	-1.620	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_340	4.582	-1.846	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_350	4.586	-2.077	0.0	0.000	0.0	0.5	118.5	0.000	0.000
160_360	5.000	-2.253	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_370	5.000	-2.327	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_380	5.000	-2.385	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_50	4.688	2.657	0.0	0.000	0.0	0.1	406.8	0.000	0.000
160_50A1	4.710	2.584	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A2	4.731	2.518	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A3	4.731	2.445	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60	4.753	2.373	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60A	4.888	2.241	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_70	5.000	2.115	0.0	0.000	0.0	0.1	209.8	0.000	0.000
160_80	5.000	2.000	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_90	5.000	1.849	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_10	4.950	3.473	0.0	0.000	0.0	0.0	384.7	0.000	0.000
170_20	4.950	3.104	0.0	0.000	0.0	0.1	432.6	0.000	0.000
170_30	4.950	2.856	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_40	4.950	2.608	0.0	0.000	0.0	0.1	280.5	0.000	0.000
180_10	5.429	3.837	0.0	0.000	0.0	0.1	355.7	0.000	0.000
180_20	5.429	3.642	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_30	5.429	3.487	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_40	5.429	3.344	0.0	0.000	0.0	0.1	274.5	0.000	0.000
190_10	4.896	3.833	0.0	0.000	0.0	0.1	428.3	0.000	0.000

190_20	4.896	3.671	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_30	4.896	3.505	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_40	4.896	3.357	0.0	0.000	0.0	0.1	301.2	0.000	0.000
200_10	5.042	4.015	0.0	0.000	0.0	0.1	423.0	0.000	0.000
200_20	5.042	3.858	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_30	5.042	3.696	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_40	5.042	3.547	0.0	0.000	0.0	0.1	298.2	0.000	0.000
20_10	4.884	2.047	0.0	0.000	0.0	0.1	54.5	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 5

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
20_20	5.116	1.764	0.0	0.000	0.0	0.0	59.5	0.000	0.000
20_20A	5.085	1.648	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_30	5.054	1.539	0.0	0.000	0.0	0.0	59.5	0.000	0.000
210_10	5.238	3.992	0.0	0.000	0.0	0.1	514.3	0.000	0.000
210_20	5.238	3.855	0.0	0.000	0.0	0.1	0.0	0.000	0.000
210_30	5.238	3.843	0.0	0.000	0.0	0.2	0.0	0.000	0.000
210_40	5.238	3.841	0.0	0.000	0.0	0.4	428.1	0.000	0.000
220_10	5.000	-0.290	0.0	0.000	0.0	0.4	8183.1	0.000	0.000
220_20	5.000	-0.492	0.0	0.000	0.0	0.4	0.0	0.000	0.000
230_10	4.950	3.595	0.0	0.000	0.0	0.0	0.0	0.000	0.000
230_100	5.501	1.907	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_110	5.453	1.624	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_120	4.875	1.269	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_130	4.500	1.131	0.0	0.000	0.0	0.3	0.0	0.000	0.000
230_140	4.500	1.129	0.0	0.000	0.0	1.6	1151.5	0.000	0.000
230_150	4.500	1.010	0.0	0.000	0.0	1.8	0.0	0.000	0.000
230_160	4.500	0.858	0.0	0.000	0.0	2.1	24.5	0.000	0.000
230_170	4.500	0.732	0.0	0.000	0.0	2.2	914.6	0.000	0.000
230_180	4.500	0.481	0.0	0.000	0.0	2.5	0.0	0.000	0.000
230_20	4.730	3.500	0.0	0.000	0.0	0.1	1171.0	0.000	0.000
230_30	4.950	3.338	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_40	5.191	3.167	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_50	5.430	2.999	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_60	5.716	2.839	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_70	5.871	2.681	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_80	6.230	2.513	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_90	5.065	2.204	0.0	0.000	0.0	0.1	0.0	0.000	0.000
240_10	4.500	3.373	0.0	0.000	0.0	0.0	10.5	0.000	0.000
250_10	4.500	2.289	0.0	0.000	0.0	0.1	3206.3	0.000	0.000
250_20	4.500	1.825	0.0	0.000	0.0	0.1	0.0	0.000	0.000
250_30	4.500	1.319	0.0	0.000	0.0	0.1	0.0	0.000	0.000
250_40	4.500	1.023	0.0	0.000	0.0	0.3	1069.3	0.000	0.000
30_10	5.045	2.386	0.0	0.000	0.0	0.1	1223.3	0.000	0.000
30_20	4.843	2.264	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_30	4.640	2.144	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_40	4.803	2.004	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_50	5.041	1.867	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_60	5.088	1.747	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_70	4.866	1.587	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_80	4.649	1.383	0.0	0.000	0.0	0.1	1223.3	0.000	0.000
40_10	5.850	2.691	0.0	0.000	0.0	0.1	622.7	0.000	0.000
40_100	5.747	-0.299	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_110	5.566	-0.507	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_20	5.737	2.556	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_30	5.523	2.270	0.0	0.000	0.0	0.1	425.8	0.000	0.000

40_40	5.195	2.058	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_50	5.139	1.960	0.0	0.000	0.0	0.1	59.5	0.000	0.000
40_60	5.461	0.713	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_70	5.367	0.578	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_80	5.660	0.231	0.0	0.000	0.0	0.1	54.5	0.000	0.000
40_90	5.927	-0.066	0.0	0.000	0.0	0.1	421.2	0.000	0.000
50_10	5.070	1.451	0.0	0.000	0.0	0.1	908.8	0.000	0.000
50_20	4.733	1.310	0.0	0.000	0.0	0.1	445.2	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event --

1 WS01550002PM Produced 26/05/2008 Pg 6

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
50_30	5.132	0.945	0.0	0.000	0.0	0.1	469.4	0.000	0.000
60_10	5.462	1.939	0.0	0.000	0.0	0.0	59.5	0.000	0.000
60_20	5.497	1.584	0.0	0.000	0.0	0.0	0.0	0.000	0.000
60_30	5.532	1.209	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_10	5.645	4.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_100	5.996	3.267	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_110	5.835	2.987	0.0	0.000	0.0	0.2	875.0	0.000	0.000
70_120	5.614	2.659	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_130	5.500	2.396	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_140	5.630	2.123	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_20	5.600	4.276	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_30	5.737	4.026	0.0	0.000	0.0	0.1	1242.5	0.000	0.000
70_40	5.924	3.944	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_50	5.980	3.770	0.0	0.000	0.0	0.1	677.6	0.000	0.000
70_60	5.721	3.673	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_70	5.427	3.568	0.0	0.000	0.0	0.1	66.5	0.000	0.000
70_80	5.560	3.470	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_90	5.781	3.387	0.0	0.000	0.0	0.1	0.0	0.000	0.000
80_10	5.636	3.996	0.0	0.000	0.0	0.1	2839.9	0.000	0.000
80_20	5.400	3.795	0.0	0.000	0.0	0.1	0.0	0.000	0.000
80_30	5.172	3.544	0.0	0.000	0.0	0.2	1682.8	0.000	0.000
80_40	5.235	3.362	0.0	0.000	0.0	0.2	0.0	0.000	0.000
90_10	4.642	1.421	0.0	0.000	0.0	0.0	3.5	0.000	0.000
90_20	4.642	1.206	0.0	0.000	0.0	0.0	3.5	0.000	0.000
90_30	4.592	1.044	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_40	4.847	0.873	0.0	0.000	0.0	0.0	3.5	0.000	0.000
90_50	5.309	0.557	0.0	0.000	0.0	0.0	3.5	0.000	0.000
90_60	5.470	0.434	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_70	4.794	0.267	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_80	5.075	-1.783	0.0	0.000	0.0	0.5	0.0	0.000	0.000
NPS	3.760	-0.554	0.0	0.000	0.0	444.6	0.0	0.000	0.000
PS1	5.834	1.519	0.0	0.000	0.0	451.9	0.0	0.000	0.000
PS1A	5.223	-1.699	0.0	0.000	0.0	130.1	0.0	0.000	0.000
PS2	4.921	-2.099	0.0	0.000	0.0	72.5	0.0	0.000	0.000
PS3	5.882	1.390	0.0	0.000	0.0	439.0	0.0	0.000	0.000
PS6	5.000	-2.765	0.0	0.000	0.0	143.5	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert		Upstream		Total Flow (m3)	> Invert		Downstream		Total Flow (m3)
						Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)		Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)	
100_10.1	100_20	53	300	0	0.075	2.200	0.062	0.006	0.605	540.4	2.958	0.062	0.006	0.603	540.1
100_20.1	100_30	65	300	0	0.074	2.958	0.062	0.006	0.604	540.1	2.663	0.062	0.006	0.605	539.7
100_30.1	100_40	69	300	0	0.075	2.663	0.062	0.006	0.605	539.7	2.349	0.062	0.006	0.604	539.3
100_40.1	100_50	39	300	0	0.074	2.349	0.062	0.006	0.604	539.3	2.173	0.062	0.006	0.605	539.1
100_50.1	100_60	28	300	0	0.075	2.173	0.062	0.006	0.606	539.1	2.046	0.062	0.006	0.606	538.9
100_60.1	100_70	32	750	0	0.535	-1.795	0.260	0.137	1.006	11814.2	-1.871	0.259	0.137	1.010	11814.1
100_70.1	100_80	36	750	0	0.552	-1.871	0.259	0.141	1.038	12141.7	-1.960	0.257	0.141	1.049	12141.6
100_80.1	90_80	30	750	0	0.551	-1.960	0.257	0.141	1.049	12141.6	-2.034	0.251	0.141	1.087	12141.5
105_10.1	105_20	54	750	0	0.734	3.250	0.219	0.072	1.021	5886.1	3.010	0.429	0.238	1.308	5888.7
105_100.1	105_110	21	750	0	0.902	-0.474	0.310	0.320	1.905	18026.9	-0.611	0.314	0.320	1.860	18026.9
105_110.1	105_120	30	750	0	0.902	-0.611	0.313	0.319	1.883	18026.9	-0.812	0.348	0.320	1.862	18027.0
105_120.1	NPS	43	750	0	0.902	-0.812	0.347	0.320	1.881	18027.0	-1.102	0.548	0.474	2.051	18027.1
105_20.1	105_30	28	750	0	0.902	3.010	0.407	0.514	2.869	18036.8	2.825	0.415	0.527	2.104	18036.6
105_30.1	105_40	31	750	0	0.902	2.825	0.389	0.521	2.259	18036.5	2.620	0.373	0.441	2.015	18035.7
105_40.1	105_50	41	750	0	0.902	2.620	0.367	0.435	2.222	18035.6	2.349	0.366	0.428	2.000	18033.5
105_50.1	105_60	31	750	0	0.902	2.349	0.351	0.424	2.092	18033.3	2.139	0.340	0.378	1.943	18031.2
105_60.1	105_70	37	750	0	0.900	2.139	0.340	0.377	2.053	18031.1	1.895	0.338	0.372	1.927	18029.0
105_70.1	105_80	25	750	0	0.903	1.895	0.329	0.369	1.981	18028.9	1.730	0.324	0.346	1.895	18027.9
105_80.1	105_90	34	750	0	0.902	-0.050	0.321	0.343	1.974	18027.8	-0.278	0.321	0.341	1.885	18027.1
105_90.1	105_100	29	750	0	0.900	-0.278	0.316	0.339	1.915	18027.1	-0.474	0.312	0.322	1.855	18026.9
10_10.1	10_20	42	375	0	0.252	4.439	0.082	0.022	1.207	1870.0	3.768	0.087	0.022	1.105	1870.0
10_100.1	10_100A	24	525	0	0.258	1.320	0.163	0.054	0.946	4695.3	1.250	0.159	0.054	0.984	4695.3
10_100A.1	10_110	22	525	0	0.273	1.250	0.159	0.054	0.985	4695.3	1.180	0.155	0.054	1.020	4695.3
10_110.1	10_120	27	600	0	0.405	1.100	0.185	0.083	1.114	7141.8	0.980	0.185	0.083	1.118	7141.8
10_120.1	10_130	28	600	0	0.445	0.980	0.176	0.083	1.191	7141.8	0.830	0.174	0.083	1.211	7141.8
10_130.1	10_140	57	675	0	0.585	0.830	0.174	0.083	1.133	7141.8	0.550	0.192	0.083	0.988	7141.8
10_140.1	10_150	67	675	0	0.480	0.550	0.192	0.083	0.989	7141.8	0.330	0.206	0.083	0.894	7141.8
10_150.1	10_160	48	675	0	0.542	0.330	0.206	0.097	1.048	8365.1	0.130	0.304	0.097	0.619	8365.1
10_160.1	10_170	78	675	0	0.093	0.130	0.304	0.097	0.619	8365.1	0.120	0.192	0.097	1.156	8365.1
10_170.1	10_180	78	675	0	0.661	0.120	0.176	0.097	1.300	8365.1	-0.370	0.206	0.097	1.045	8365.1
10_180.1	10_190	62	675	0	0.485	-0.370	0.206	0.097	1.046	8368.6	-0.580	0.209	0.097	1.029	8368.6
10_190.1	10_200	74	675	0	0.474	-0.580	0.209	0.097	1.030	8368.6	-0.820	0.212	0.097	1.010	8368.6
10_20.1	10_30	38	375	0	0.219	3.768	0.087	0.022	1.113	1870.0	3.308	0.081	0.022	1.223	1870.0
10_200.1	10_210	108	675	0	0.463	-0.820	0.211	0.097	1.013	8368.6	-1.150	0.194	0.097	1.141	8368.6
10_210.1	10_220	84	750	0	0.691	-1.230	0.230	0.137	1.196	11859.6	-1.560	0.301	0.137	0.828	11859.6
10_220.1	FS1A	50	750	0	0.269	-1.560	0.301	0.137	0.830	11878.8	-1.590	0.224	0.137	1.245	11878.8
10_30.1	10_40	32	375	0	0.259	3.308	0.081	0.022	1.225	1870.0	2.775	0.081	0.022	1.225	1870.0
10_40.1	10_40A	29	450	0	0.204	2.700	0.140	0.042	1.000	3637.9	2.585	0.140	0.042	1.000	3637.9
10_40A.1	10_50	24	450	0	0.222	2.585	0.134	0.042	1.064	3637.9	2.470	0.134	0.042	1.064	3637.9
10_50.1	10_60	31	450	0	0.300	2.470	0.115	0.042	1.311	3637.9	2.200	0.132	0.042	1.088	3637.9
10_60.1	10_70	39	450	0	0.230	2.200	0.131	0.042	1.088	3637.9	2.000	0.131	0.042	1.088	3637.9
10_70.1	10_70A	27	525	0	0.391	1.930	0.118	0.042	1.160	3637.9	1.755	0.118	0.042	1.160	3637.9
10_70A.1	10_80	23	525	0	0.423	1.755	0.114	0.042	1.209	3637.9	1.580	0.141	0.042	0.903	3637.9
10_80.1	10_90	39	525	0	0.278	1.580	0.141	0.042	0.904	3637.9	1.450	0.159	0.042	0.762	3637.9
10_90.1	10_100	42	525	0	0.268	1.450	0.159	0.052	0.948	4521.8	1.320	0.163	0.052	0.911	4521.8
110_10.1	110_20	29	300	0	0.079	1.500	0.057	0.006	0.594	478.0	1.355	0.072	0.006	0.423	478.0
110_20.1	110_30	34	300	0	0.080	1.355	0.072	0.010	0.732	827.5	1.175	0.077	0.010	0.667	827.5
110_30.1	110_40	35	375	0	0.208	1.175	0.077	0.015	0.925	1305.6	0.797	0.077	0.015	0.925	1305.6
110_40.1	110_50	42	750	0	0.490	-1.650	0.260	0.124	0.913	10703.0	-1.733	0.263	0.124	0.903	10703.0
110_50.1	100_60	31	750	0	0.495	-1.733	0.263	0.131	0.952	11275.4	-1.795	0.260	0.131	0.982	11275.3
120_10.1	120_8	28	750	0	0.454	-1.369	0.245	0.104	0.826	8942.6	-1.417	0.245	0.104	0.826	8942.6
120_100.1	120_90	33	500	0	0.244	2.366	0.166	0.058	1.016	4992.0	2.255	0.162	0.058	1.051	4992.0
120_110.1	120_100	34	500	0	0.245	2.481	0.166	0.058	1.013	4992.0	2.366	0.166	0.058	1.015	4992.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		> Total Flow (m3)	< Invert Level (m AD)	Downstream			> Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)			Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
120_12.1	120_10	29	750	0	0.420	-1.327	0.251	0.104	0.800	8942.6	-1.369	0.245	0.104	0.825	8942.6
120_120.1	120_110	35	500	0	0.245	2.599	0.158	0.052	0.974	4495.4	2.481	0.166	0.052	0.911	4495.4
120_130.1	120_120	37	450	0	0.186	2.773	0.151	0.045	0.958	3883.9	2.649	0.146	0.045	1.001	3883.8
120_14.1	120_12	25	675	0	0.491	-1.164	0.209	0.104	1.095	8942.6	-1.252	0.200	0.104	1.163	8942.6
120_120.1	120_130	39	450	0	0.186	2.902	0.151	0.045	0.951	3846.8	2.773	0.151	0.045	0.948	3846.8
120_150.1	120_140	34	450	0	0.186	3.015	0.141	0.039	0.907	3350.1	2.902	0.151	0.039	0.828	3350.1
120_16.1	120_14	35	675	0	0.427	-1.072	0.224	0.104	0.995	8942.6	-1.164	0.210	0.104	1.093	8942.6
120_160.1	120_150	32	450	0	0.186	3.123	0.128	0.032	0.853	2738.6	3.015	0.141	0.032	0.741	2738.6
120_170.1	120_160	36	450	0	0.181	3.241	0.116	0.026	0.787	2204.1	3.126	0.125	0.026	0.709	2204.1
120_18.1	120_16	37	675	0	0.430	-0.975	0.227	0.104	0.982	8942.6	-1.072	0.224	0.104	0.995	8942.6
120_180.1	120_170	41	450	0	0.185	3.377	0.096	0.018	0.717	1548.9	3.241	0.116	0.018	0.553	1548.9
120_190.1	120_180	34	450	0	0.189	3.495	0.095	0.018	0.726	1524.4	3.377	0.096	0.018	0.706	1524.4
120_2.1	110_40	21	750	0	0.502	-1.561	0.226	0.104	0.925	8942.6	-1.605	0.215	0.104	0.991	8942.6
120_20.1	120_18	39	675	0	0.417	1.173	0.225	0.104	0.992	8942.6	1.076	0.200	0.104	1.166	8942.6
120_200.1	120_190	35	300	0	0.077	3.816	0.063	0.007	0.638	600.7	3.645	0.063	0.007	0.638	600.7
120_210.1	120_200	36	300	0	0.079	4.000	0.063	0.007	0.648	600.7	3.816	0.063	0.007	0.638	600.7
120_25.1	120_20	41	675	0	0.417	1.275	0.230	0.104	0.964	8942.6	1.173	0.225	0.104	0.991	8942.6
120_30.1	120_25	30	675	0	0.416	1.350	0.231	0.104	0.958	8942.6	1.275	0.230	0.104	0.962	8942.6
120_35.1	120_30	26	675	0	0.419	1.416	0.230	0.104	0.960	8942.6	1.350	0.231	0.104	0.958	8942.6
120_4.1	120_2	26	750	0	0.489	-1.509	0.232	0.104	0.888	8942.6	-1.561	0.226	0.104	0.923	8942.6
120_40.1	120_35	27	675	0	0.416	1.482	0.231	0.104	0.958	8942.6	1.416	0.230	0.104	0.960	8942.6
120_45.1	120_40	27	675	0	0.417	1.549	0.231	0.104	0.958	8942.6	1.482	0.231	0.104	0.958	8942.6
120_50.1	120_45	33	675	0	0.419	1.633	0.219	0.092	0.908	7908.3	1.549	0.231	0.092	0.845	7908.3
120_6.1	120_4	31	750	0	0.419	-1.464	0.246	0.104	0.821	8942.6	-1.509	0.233	0.104	0.887	8942.6
120_60.1	120_50	34	600	0	0.353	1.822	0.198	0.084	1.026	7215.3	1.708	0.185	0.084	1.123	7215.3
120_70.1	120_60	31	600	0	0.353	1.926	0.193	0.077	0.984	6688.6	1.822	0.198	0.077	0.951	6688.6
120_8.1	120_6	27	750	0	0.459	-1.417	0.245	0.104	0.827	8942.6	-1.464	0.246	0.104	0.820	8942.6
120_80.1	120_70	34	600	0	0.355	2.041	0.192	0.077	0.992	6688.6	1.926	0.193	0.077	0.983	6688.6
120_90.1	120_80	34	600	0	0.353	2.155	0.185	0.071	0.961	6176.9	2.041	0.192	0.071	0.916	6176.9
130_100.1	130_110	33	375	0	0.122	-0.072	0.082	0.012	0.687	1053.5	-0.197	0.082	0.012	0.686	1053.5
130_110.1	130_120	31	375	0	0.122	-0.197	0.082	0.012	0.687	1053.5	-0.313	0.082	0.012	0.685	1053.4
130_120.1	NPS	41	375	0	0.122	-0.313	0.082	0.012	0.687	1053.4	-0.469	0.080	0.012	0.704	1053.4
130_60.1	130_70	36	300	0	0.071	0.536	0.084	0.012	0.723	1015.3	0.385	0.084	0.012	0.728	1015.3
130_70.1	130_80	43	375	0	0.118	0.310	0.081	0.012	0.665	1015.3	0.157	0.081	0.012	0.664	1015.3
130_80.1	130_90	38	375	0	0.118	0.157	0.081	0.012	0.664	1015.3	0.023	0.082	0.012	0.655	1015.3
130_90.1	130_100	26	375	0	0.121	0.023	0.082	0.012	0.681	1053.5	-0.072	0.082	0.012	0.686	1053.5
135_20.1	OUTFALL2	25	300	0	0.109	2.066	0.025	0.001	0.221	54.5	1.826	0.025	0.001	0.221	54.5
140_10.1	140_20	35	225	0	0.040	3.196	0.020	0.000	0.000	0.0	2.990	0.020	0.000	0.000	0.0
140_100.1	OUTFALL3	31	375	0	0.191	0.137	0.511	0.000	0.000	0.0x	-0.145	0.793	0.000	0.000	0.0x
140_20.1	140_30	38	225	0	0.040	2.990	0.020	0.000	0.000	0.0	2.762	0.020	0.000	0.000	0.0
140_30.1	140_40	40	225	0	0.040	2.762	0.020	0.000	0.000	0.0	2.527	0.020	0.000	0.000	0.0
140_40.1	140_50	44	225	0	0.040	2.527	0.020	0.000	0.000	0.0	2.265	0.020	0.000	0.000	0.0
140_50.1	140_60	32	225	0	0.040	2.265	0.020	0.000	0.000	0.0	2.077	0.020	0.000	0.000	0.0
140_60.1	140_70	44	375	0	0.200	1.927	0.020	0.000	0.000	0.0	1.486	0.020	0.000	0.000	0.0
140_70.1	140_80	45	375	0	0.188	1.486	0.020	0.000	0.000	0.0	1.084	0.020	0.000	0.000	0.0
140_80.1	140_90	46	375	0	0.212	1.084	0.038	0.000	0.000	0.0	0.567	0.084	0.000	0.000	0.0
140_90.1	140_100	38	375	0	0.212	0.567	0.084	0.000	0.000	0.0	0.137	0.511	0.000	0.000	0.0x
150_10.1	150_20	55	375	0	0.200	4.498	0.038	0.000	0.000	0.0	3.948	0.038	0.000	0.000	0.0
150_20.1	150_30	53	375	0	0.200	3.948	0.038	0.000	0.000	0.0	3.420	0.038	0.000	0.000	0.0
150_30.1	140_60	33	375	0	0.200	3.420	0.020	0.000	0.000	0.0	3.090	0.020	0.000	0.000	0.0
160_100.1	160_110	43	375	0	0.118	1.590	0.105	0.020	0.781	1713.8	1.440	0.102	0.020	0.818	1713.8
160_110.1	160_120	33	375	0	0.134	1.440	0.099	0.020	0.854	1713.8	1.290	0.099	0.020	0.854	1713.7
160_120.1	160_130	46	450	0	0.163	1.220	0.125	0.027	0.753	2343.9	1.100	0.121	0.027	0.786	2343.9

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)		Upstream Max Flow (m3/s)		> Total Flow (m3)		< Invert Level (m AD)		Downstream Max Flow (m3/s)		> Total Flow (m3)	
						Invert	Max Depth	Max Flow	Max Vel	Total Flow		Invert	Max Depth	Max Flow	Max Vel	Total Flow	
160_130.1	160_140	40	450	0	0.175	1.100	0.121	0.027	0.787	2343.9		0.980	0.127	0.027	0.734	2343.8	
160_140.1	160_150	54	450	0	0.158	0.980	0.127	0.027	0.734	2343.8		0.850	0.123	0.027	0.772	2343.8	
160_150.1	160_160	24	450	0	0.228	0.850	0.123	0.036	1.012	3073.2		0.730	0.141	0.036	0.838	3073.2	
160_160.1	160_170	43	450	0	0.170	0.730	0.141	0.036	0.838	3073.2		0.610	0.139	0.036	0.848	3073.1	
160_170.1	160_180	41	450	0	0.174	0.610	0.139	0.036	0.848	3073.1		0.490	0.148	0.036	0.780	3073.1	
160_180.1	160_190	53	450	0	0.153	0.490	0.148	0.036	0.780	3073.1		0.370	0.140	0.036	0.843	3073.0	
160_190.1	160_200	28	450	0	0.212	0.370	0.140	0.044	1.042	3794.3		0.250	0.140	0.044	1.042	3794.3	
160_200.1	160_210	43	600	0	0.323	0.100	0.152	0.044	0.784	3794.3		-0.020	0.153	0.044	0.772	3794.2	
160_210.1	160_220	41	600	0	0.317	-0.020	0.153	0.044	0.772	3794.2		-0.130	0.158	0.044	0.740	3794.2	
160_220.1	160_230	51	600	0	0.297	-0.130	0.158	0.044	0.741	3794.2		-0.250	0.160	0.044	0.727	3794.1	
160_230.1	160_240	31	600	0	0.365	-0.250	0.160	0.055	0.908	4736.5		-0.360	0.168	0.055	0.845	4736.5	
160_240.1	160_250	39	600	0	0.325	-0.360	0.168	0.055	0.845	4736.5		-0.470	0.166	0.055	0.858	4736.4	
160_250.1	160_260	40	600	0	0.335	-0.470	0.166	0.055	0.859	4736.4		-0.590	0.170	0.055	0.831	4736.4	
160_260.1	160_270	41	600	0	0.317	-0.590	0.170	0.055	0.831	4736.4		-0.700	0.167	0.055	0.851	4736.3	
160_270.1	160_280	42	600	0	0.328	-0.700	0.167	0.055	0.851	4736.3		-0.820	0.163	0.055	0.884	4736.3	
160_280.1	160_290	35	600	0	0.341	-0.820	0.163	0.055	0.884	4736.3		-0.930	0.149	0.055	1.004	4736.2	
160_290.1	160_300	26	600	0	0.416	-0.930	0.149	0.055	1.005	4736.2		-1.050	0.146	0.055	1.029	4736.2	
160_300.1	160_310	22	600	0	0.433	-1.050	0.146	0.055	1.029	4736.2		-1.160	0.146	0.055	1.029	4736.2	
160_310.1	160_315	32	750	0	0.665	-1.310	0.248	0.151	1.180	12912.3		-1.428	0.265	0.151	1.082	12911.1	
160_315.1	160_320	70	750	0	0.564	-1.428	0.265	0.151	1.082	12911.0		-1.610	0.243	0.151	1.219	12908.3	
160_320.1	160_330	71	750	0	0.680	-1.610	0.242	0.151	1.221	12908.2		-1.880	0.260	0.151	1.109	12905.5	
160_330.1	160_340	80	750	0	0.593	-1.880	0.260	0.151	1.110	12905.4		-2.110	0.264	0.151	1.087	12902.2	
160_340.1	160_350	81	750	0	0.573	-2.110	0.264	0.151	1.088	12902.1		-2.330	0.253	0.151	1.153	12898.9	
160_350.1	160_360	52	750	0	0.628	-2.330	0.252	0.152	1.165	13017.2		-2.500	0.247	0.152	1.200	13015.2	
160_360.1	160_370	21	750	0	0.674	-2.500	0.247	0.152	1.202	13015.1		-2.580	0.253	0.152	1.160	13014.3	
160_370.1	160_380	16	750	0	0.550	-2.580	0.253	0.152	1.161	13014.2		-2.620	0.235	0.152	1.286	13013.6	
160_380.1	PS6	9	750	0	0.730	-2.620	0.234	0.152	1.292	13013.5		-2.660	0.234	0.152	1.292	13013.2	
160_50.1	160_50A1	25	375	0	0.104	2.600	0.057	0.005	0.446	406.8		2.530	0.054	0.005	0.480	406.7	
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.054	0.005	0.480	406.7		2.460	0.058	0.005	0.439	406.7	
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.058	0.005	0.439	406.7		2.390	0.055	0.005	0.469	406.6	
160_50A3.1	160_60	21	375	0	0.113	2.390	0.055	0.005	0.469	406.6		2.321	0.052	0.005	0.510	406.6	
160_60.1	160_60A	32	375	0	0.130	2.321	0.052	0.005	0.510	406.5		2.186	0.055	0.005	0.471	406.5	
160_60A.1	160_70	41	375	0	0.114	2.186	0.055	0.005	0.471	406.5		2.050	0.065	0.005	0.367	406.4	
160_70.1	160_80	44	375	0	0.117	2.050	0.065	0.007	0.555	616.2		1.900	0.100	0.007	0.302	616.1	
160_80.1	160_90	35	375	0	0.130	1.900	0.100	0.020	0.838	1713.9		1.750	0.099	0.020	0.853	1713.9	
160_90.1	160_100	35	375	0	0.134	1.750	0.099	0.020	0.854	1713.9		1.590	0.105	0.020	0.780	1713.8	
170_10.1	170_20	40	225	0	0.052	3.425	0.048	0.004	0.710	384.7		3.027	0.077	0.004	0.372	384.7	
170_20.1	170_30	41	225	0	0.040	3.027	0.077	0.009	0.791	817.3		2.779	0.077	0.009	0.790	817.3	
170_30.1	170_40	43	225	0	0.040	2.779	0.077	0.009	0.791	817.3		2.521	0.087	0.009	0.668	817.3	
170_40.1	160_80	47	225	0	0.042	2.521	0.087	0.013	0.898	1097.8		2.208	0.087	0.013	0.898	1097.8	
180_10.1	180_20	45	300	0	0.072	3.785	0.052	0.004	0.505	355.7		3.590	0.052	0.004	0.500	355.7	
180_20.1	180_30	37	300	0	0.071	3.590	0.052	0.004	0.500	355.7		3.435	0.052	0.004	0.502	355.7	
180_30.1	180_40	38	300	0	0.072	3.435	0.052	0.004	0.502	355.7		3.273	0.071	0.004	0.322	355.7	
180_40.1	160_120	53	300	0	0.063	3.273	0.071	0.007	0.570	630.2		3.100	0.066	0.007	0.628	630.2	
190_10.1	190_20	40	300	0	0.071	3.776	0.057	0.005	0.533	428.3		3.614	0.057	0.005	0.535	428.3	
190_20.1	190_30	40	300	0	0.071	3.614	0.057	0.005	0.535	428.3		3.448	0.057	0.005	0.534	428.3	
190_30.1	190_40	41	300	0	0.071	3.448	0.057	0.005	0.534	428.3		3.281	0.076	0.005	0.354	428.3	
190_40.1	160_150	54	300	0	0.064	3.281	0.076	0.008	0.602	729.5		3.100	0.071	0.008	0.658	729.5	
200_10.1	200_20	38	300	0	0.071	3.959	0.056	0.005	0.532	423.0		3.802	0.056	0.005	0.537	423.0	
200_20.1	200_30	39	300	0	0.072	3.802	0.056	0.005	0.537	423.0		3.639	0.057	0.005	0.527	423.0	
200_30.1	200_40	42	300	0	0.070	3.639	0.057	0.005	0.527	423.0		3.472	0.075	0.005	0.353	423.0	
200_40.1	160_190	51	300	0	0.064	3.472	0.075	0.008	0.602	721.3		3.300	0.071	0.008	0.656	721.3	
20_10.1	20_20	22	450	0	0.355	2.000	0.047	0.001	0.072	54.5		1.730	0.047	0.001	0.072	54.5	

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		> Total Flow (m3)	< Invert Level (m AD)	Downstream			> Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)			Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
20_20.1	20_20A	36	450	0	0.183	1.730	0.034	0.001	0.236	114.0	1.615	0.033	0.001	0.256	114.0
20_20A.1	20_30	24	450	0	0.224	1.615	0.033	0.001	0.256	114.0	1.500	0.039	0.001	0.200	114.0
20_30.1	10_100	41	450	0	0.214	1.500	0.039	0.002	0.305	173.5	1.320	0.163	0.002	0.039	173.5
210_10.1	210_20	38	300	0	0.071	3.931	0.061	0.006	0.574	514.3	3.773	0.082	0.006	0.378	514.3
210_20.1	210_30	40	300	0	0.071	3.773	0.082	0.006	0.378	514.3	3.606	0.237	0.006	0.099	514.3
210_30.1	210_40	39	300	0	0.071	3.606	0.237	0.006	0.099	514.3	3.442	0.399	0.006	0.081	514.3x
210_40.1	160_230	47	300	0	0.112	3.772	0.069	0.011	0.882	942.4	3.300	0.069	0.011	0.882	942.4
220_10.1	220_20	75	750	0	0.570	-0.500	0.210	0.096	0.950	8183.0	-0.700	0.208	0.096	0.962	8179.5
220_20.1	160_310	73	750	0	0.579	-0.700	0.208	0.096	0.963	8179.4	-0.900	0.188	0.096	1.109	8176.2
230_10.1	230_20	36	375	0	0.132	3.575	0.020	0.000	0.000	0.0	3.417	0.083	0.000	0.000	0.0
230_100.1	230_110	65	375	0	0.132	1.824	0.083	0.014	0.748	1171.0	1.541	0.083	0.014	0.747	1171.0
230_110.1	230_120	82	375	0	0.132	1.541	0.083	0.014	0.748	1171.0	1.185	0.083	0.014	0.747	1171.0
230_120.1	230_130	56	375	0	0.132	1.185	0.083	0.014	0.748	1171.0	0.941	0.189	0.024	0.872	1171.1
230_130.1	230_140	87	450	0	0.194	0.866	0.265	0.026	0.681	1181.6	0.550	0.579	0.167	1.549	1180.1x
230_140.1	230_150	41	750	0	0.897	0.250	0.862	0.541	2.184	15264.2x	-0.018	1.030	0.541	1.253	15254.2x
230_150.1	230_160	44	750	0	0.899	-0.018	1.005	0.583	1.265	19526.0x	-0.309	1.171	0.583	1.257	19520.9x
230_160.1	230_170	29	750	0	0.899	-0.309	1.131	0.582	1.258	19544.9x	-0.503	1.242	0.582	1.253	19544.5x
230_170.1	230_180	59	750	0	0.897	-0.503	1.164	0.592	1.278	20458.7x	-0.890	1.379	0.592	1.269	20458.6x
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	1.289	0.592	1.273	20458.5x	-1.020	1.362	0.592	1.270	20458.5x
230_20.1	230_30	37	375	0	0.132	3.417	0.083	0.014	0.748	1171.0	3.255	0.083	0.014	0.747	1171.0
230_30.1	230_40	39	375	0	0.132	3.255	0.083	0.014	0.748	1171.0	3.084	0.083	0.014	0.747	1171.0
230_40.1	230_50	38	375	0	0.132	3.084	0.083	0.014	0.748	1171.0	2.916	0.083	0.014	0.747	1171.0
230_50.1	230_60	37	375	0	0.132	2.916	0.083	0.014	0.748	1171.0	2.756	0.083	0.014	0.747	1171.0
230_60.1	230_70	36	375	0	0.132	2.756	0.083	0.014	0.748	1171.0	2.598	0.083	0.014	0.748	1171.0
230_70.1	230_80	38	375	0	0.132	2.598	0.083	0.014	0.748	1171.0	2.430	0.083	0.014	0.747	1171.0
230_80.1	230_90	71	375	0	0.132	2.430	0.083	0.014	0.748	1171.0	2.121	0.083	0.014	0.747	1171.0
230_90.1	230_100	68	375	0	0.132	2.121	0.083	0.014	0.748	1171.0	1.824	0.083	0.014	0.747	1171.0
240_10.1	230_130	40	225	0	0.061	3.350	0.023	0.000	0.055	10.5	2.800	0.023	0.000	0.055	10.5
250_10.1	250_20	46	450	0	0.323	2.178	0.111	0.037	1.212	3206.3	1.717	0.108	0.037	1.257	3206.3
250_20.1	250_30	59	450	0	0.298	1.717	0.108	0.037	1.258	3206.3	1.210	0.109	0.037	1.254	3206.3
250_30.1	250_40	42	450	0	0.346	1.210	0.108	0.037	1.263	3206.3	0.723	0.300	0.066	1.103	3206.3
250_40.1	230_150	54	450	0	0.311	0.723	0.300	0.082	1.445	4275.6	0.225	0.786	0.148	1.285	4272.4x
30_10.1	30_20	30	375	0	0.127	2.300	0.086	0.014	0.740	1223.3	2.180	0.084	0.014	0.765	1223.3
30_20.1	30_30	27	375	0	0.133	2.180	0.084	0.014	0.765	1223.3	2.060	0.084	0.014	0.769	1223.3
30_30.1	30_40	30	375	0	0.135	2.060	0.084	0.014	0.772	1223.3	1.920	0.084	0.014	0.763	1223.3
30_40.1	30_50	31	375	0	0.133	1.920	0.084	0.014	0.764	1223.3	1.780	0.087	0.014	0.724	1223.3
30_50.1	30_60	31	375	0	0.123	1.780	0.087	0.014	0.725	1223.3	1.660	0.087	0.014	0.724	1223.3
30_60.1	30_70	42	375	0	0.123	1.660	0.087	0.014	0.724	1223.3	1.500	0.087	0.014	0.729	1223.3
30_70.1	30_80	41	375	0	0.124	1.500	0.087	0.014	0.730	1223.3	1.340	0.086	0.014	0.737	1223.2
30_80.1	10_110	21	450	0	0.210	1.270	0.113	0.028	0.908	2446.5	1.180	0.113	0.028	0.908	2446.5
40_10.1	40_20	21	225	0	0.041	2.625	0.066	0.007	0.737	622.7	2.491	0.064	0.007	0.770	622.7
40_100.1	40_110	26	375	0	0.179	-0.420	0.121	0.039	1.283	3407.0	-0.629	0.122	0.039	1.265	3407.0
40_110.1	10_210	28	375	0	0.179	-0.629	0.122	0.040	1.290	3466.5	-0.855	0.122	0.040	1.290	3466.5
40_20.1	40_30	32	225	0	0.044	2.491	0.065	0.007	0.764	622.7	2.260	0.065	0.007	0.764	622.7
40_30.1	40_40	49	300	0	0.073	2.185	0.085	0.012	0.741	1048.4	1.973	0.085	0.012	0.737	1048.4
40_40.1	40_50	24	300	0	0.073	1.973	0.085	0.012	0.738	1048.4	1.869	0.091	0.012	0.674	1048.4
40_50.1	40_60	20	300	0	0.067	1.869	0.090	0.013	0.717	1107.9	1.794	0.087	0.013	0.750	1107.9
40_60.1	40_70	17	375	0	0.175	0.600	0.113	0.034	1.210	2931.3	0.466	0.112	0.034	1.222	2931.3
40_70.1	40_80	44	375	0	0.177	0.466	0.112	0.034	1.220	2931.3	0.119	0.112	0.034	1.223	2931.3
40_80.1	40_90	37	375	0	0.181	0.119	0.112	0.035	1.247	2985.8	-0.187	0.121	0.035	1.123	2985.8
40_90.1	40_100	29	375	0	0.179	-0.187	0.121	0.039	1.283	3407.0	-0.420	0.121	0.039	1.281	3407.0
50_10.1	50_20	31	300	0	0.079	1.375	0.076	0.011	0.748	908.8	1.217	0.092	0.011	0.568	908.8
50_20.1	50_30	58	300	0	0.079	1.217	0.092	0.016	0.847	1354.0	0.920	0.092	0.016	0.847	1354.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert			Upstream			Total Flow (m3)	> Invert			Downstream			Total Flow (m3)
						Level (m AD)	Max Depth (m)	Max Vel (m/s)	Flow (m3/s)	Vel (m/s)	Flow (m3)		Level (m AD)	Max Depth (m)	Max Vel (m/s)	Flow (m3/s)	Vel (m/s)	Flow (m3)	
50_30.1	40_60	49	375	0	0.141	0.845	0.099	0.021	0.900	1823.4	0.600	0.113	0.021	0.748	1823.4	0.600	0.113	0.021	0.748
60_10.1	60_20	37	225	0	0.051	1.912	0.027	0.001	0.261	59.5	1.556	0.028	0.001	0.237	59.5	1.556	0.028	0.001	0.237
60_20.1	60_30	37	225	0	0.052	1.556	0.028	0.001	0.237	59.5	1.181	0.028	0.001	0.237	59.5	1.181	0.028	0.001	0.237
60_30.1	40_110	19	225	0	0.052	1.181	0.028	0.001	0.237	59.5	0.987	0.028	0.001	0.237	59.5	0.987	0.028	0.001	0.237
70_10.1	70_20	28	225	0	0.040	4.420	0.020	0.000	0.000	0.0	4.256	0.020	0.000	0.000	0.0	4.256	0.020	0.000	0.000
70_100.1	70_110	37	525	0	0.426	3.116	0.151	0.075	1.468	6509.3	2.830	0.157	0.075	1.385	6509.3	2.830	0.157	0.075	1.385
70_110.1	70_120	32	525	0	0.487	2.830	0.157	0.085	1.573	7384.3	2.502	0.157	0.085	1.566	7384.3	2.502	0.157	0.085	1.566
70_120.1	70_130	26	525	0	0.487	2.502	0.157	0.085	1.572	7384.3	2.239	0.157	0.085	1.569	7384.3	2.239	0.157	0.085	1.569
70_130.1	70_140	27	525	0	0.487	2.239	0.157	0.085	1.572	7384.3	1.966	0.157	0.085	1.568	7384.3	1.966	0.157	0.085	1.568
70_140.1	PS1	39	525	0	0.487	1.966	0.157	0.085	1.572	7384.3	1.572	0.157	0.085	1.572	7384.3	1.572	0.157	0.085	1.572
70_20.1	70_30	29	225	0	0.040	4.256	0.020	0.000	0.000	0.0	4.083	0.020	0.000	0.000	0.0	4.083	0.020	0.000	0.000
70_30.1	70_40	27	375	0	0.110	3.933	0.093	0.014	0.676	1242.5	3.851	0.093	0.014	0.678	1242.5	3.851	0.093	0.014	0.678
70_40.1	70_50	39	375	0	0.111	3.851	0.093	0.014	0.678	1242.5	3.730	0.087	0.014	0.743	1242.5	3.730	0.087	0.014	0.743
70_50.1	70_60	39	450	0	0.159	3.655	0.115	0.022	0.695	1920.1	3.558	0.115	0.022	0.694	1920.1	3.558	0.115	0.022	0.694
70_60.1	70_70	43	450	0	0.159	3.558	0.115	0.022	0.694	1920.1	3.451	0.117	0.022	0.679	1920.1	3.451	0.117	0.022	0.679
70_70.1	70_80	40	450	0	0.159	3.451	0.117	0.023	0.702	1986.6	3.353	0.117	0.023	0.702	1986.6	3.353	0.117	0.023	0.702
70_80.1	70_90	33	450	0	0.159	3.353	0.117	0.023	0.703	1986.6	3.271	0.116	0.023	0.710	1986.6	3.271	0.116	0.023	0.710
70_90.1	70_100	33	450	0	0.159	3.271	0.116	0.023	0.711	1986.6	3.191	0.104	0.023	0.822	1986.6	3.191	0.104	0.023	0.822
80_10.1	80_20	36	375	0	0.149	3.875	0.121	0.033	1.070	2839.9	3.675	0.120	0.033	1.080	2839.9	3.675	0.120	0.033	1.080
80_20.1	80_30	35	375	0	0.151	3.675	0.120	0.033	1.081	2839.9	3.475	0.120	0.033	1.081	2839.9	3.475	0.120	0.033	1.081
80_30.1	80_40	35	450	0	0.242	3.400	0.144	0.052	1.195	4522.7	3.200	0.162	0.052	1.013	4522.7	3.200	0.162	0.052	1.013
80_40.1	70_100	36	450	0	0.212	3.200	0.162	0.052	1.015	4522.7	3.043	0.224	0.052	0.661	4522.7	3.043	0.224	0.052	0.661
90_10.1	90_20	21	225	0	0.042	1.400	0.021	0.000	0.022	3.5	1.260	0.021	0.000	0.022	3.5	1.260	0.021	0.000	0.022
90_20.1	90_30	36	225	0	0.035	1.185	0.021	0.000	0.042	7.0	1.023	0.021	0.000	0.042	7.0	1.023	0.021	0.000	0.042
90_30.1	90_40	38	225	0	0.035	1.023	0.021	0.000	0.042	7.0	0.851	0.022	0.000	0.041	7.0	0.851	0.022	0.000	0.041
90_40.1	90_50	70	225	0	0.035	0.851	0.022	0.000	0.061	10.5	0.534	0.023	0.000	0.059	10.5	0.534	0.023	0.000	0.059
90_50.1	90_60	27	225	0	0.035	0.534	0.023	0.000	0.078	14.0	0.411	0.023	0.000	0.078	14.0	0.411	0.023	0.000	0.078
90_60.1	90_70	37	225	0	0.035	0.411	0.023	0.000	0.078	14.0	0.244	0.023	0.000	0.078	14.0	0.244	0.023	0.000	0.078
90_70.1	90_80	43	225	0	0.035	0.244	0.023	0.000	0.078	14.0	0.050	0.022	0.000	0.079	14.0	0.050	0.022	0.000	0.079
90_80.1	PS2	29	750	0	0.551	-2.034	0.250	0.141	1.091	12155.5	-2.106	0.227	0.141	1.245	12155.5	-2.106	0.227	0.141	1.245
NPS.1	OUTFALL2					-0.619	0.065	1.224		19102.7	-0.619	0.000	1.224		19102.7	-0.619	0.000	1.224	
PS1.1	PS3					1.497	0.022	1.800		7336.8	1.497	0.000	1.800		7336.8	1.497	0.000	1.800	
PS1A.1	OUTFALL1					-1.740	0.041	0.591		11786.8	-1.740	0.000	0.591		11786.8	-1.740	0.000	0.591	
PS2.1	105_20					-2.256	0.157	0.570		12148.1	-2.256	5.695	0.570		12148.1	-2.256	5.695	0.570	
PS3.2	ST SEWER					0.850	0.540	1.850		7338.0	0.850	0.000	1.850		7338.0	0.850	0.000	1.850	
PS6.1	230_140					-2.810	0.045	0.530		12933.2	-2.810	3.939	0.530		12933.2	-2.810	3.939	0.530	

+ after total flow indicates a conduit surcharged by flow and depth at that end.
x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 26/05/2008 Last page

Start of run

configured for MS Windows

Produced on 26/05/2008 at 10:50

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - ULTIMATE
SCENARIO - JDWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET21#15.spb sewerage_ultimate0801010_2_1_1 (Revision 15)
 State:
 Runoff: ...\\NET21#15.rpf sewerage_ultimate0801010_2_1_1 (Revision 15) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM176event.wwg User defined WWG item
 Inflows: ...\\SIM176event.qin 1
 Levels: ...\\SIM176event.lev 1
 RTC:
 Results: ...\\SIM176.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 114842.2 m3
 Total outflow = 114625.0 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
100_10	5.821	3.286	0.0	0.000	0.0	0.1	1080.9	0.000	0.000
100_20	5.752	3.044	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_30	5.683	2.749	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_40	5.614	2.435	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_50	5.545	2.259	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_60	5.611	-1.414	0.0	0.000	0.0	0.7	0.0	0.000	0.000
100_70	5.504	-1.493	0.0	0.000	0.0	0.7	655.2	0.000	0.000
100_80	5.263	-1.589	0.0	0.000	0.0	0.7	0.0	0.000	0.000
105_10	5.000	3.586	0.0	0.000	0.0	0.6	11772.6	0.000	0.000
105_100	5.420	-0.057	0.0	0.000	0.0	0.7	0.0	0.000	0.000
105_110	5.750	-0.180	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_120	6.000	-0.362	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_20	4.790	3.563	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_30	4.957	3.295	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_40	5.225	3.071	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_50	5.480	2.794	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_60	5.306	2.574	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_70	5.005	2.319	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_80	4.971	0.369	0.0	0.000	0.0	0.8	0.0	0.000	0.000
105_90	5.150	0.132	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_10	5.664	4.550	0.0	0.000	0.0	0.1	3740.1	0.000	0.000
10_100	4.846	1.554	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_100A	4.723	1.476	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_110	4.599	1.366	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_120	4.326	1.234	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_130	5.101	1.079	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_140	5.533	0.827	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_150	5.253	0.641	0.0	0.000	0.0	0.5	2446.5	0.000	0.000
10_160	5.720	0.552	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_170	6.210	0.372	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_180	5.895	-0.072	0.0	0.000	0.0	0.5	7.0	0.000	0.000
10_190	6.086	-0.279	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_20	5.574	3.887	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_200	5.592	-0.515	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_210	5.358	-0.895	0.0	0.000	0.0	0.6	49.0	0.000	0.000
10_220	5.147	-1.134	0.0	0.000	0.0	0.8	38.5	0.000	0.000
10_30	5.494	3.418	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_40	5.324	2.903	0.0	0.000	0.0	0.2	3535.7	0.000	0.000
10_40A	5.239	2.778	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_50	5.154	2.635	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_60	4.898	2.390	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_70	4.643	2.097	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_70A	4.758	1.919	0.0	0.000	0.0	0.2	0.0	0.000	0.000

10_80	4.873	1.783	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_90	5.091	1.680	0.0	0.000	0.0	0.3	1767.9	0.000	0.000
110_10	5.200	1.578	0.0	0.000	0.0	0.1	956.1	0.000	0.000
110_20	5.012	1.456	0.0	0.000	0.0	0.1	699.0	0.000	0.000
110_30	4.882	1.278	0.0	0.000	0.0	0.1	956.1	0.000	0.000
110_40	5.122	-1.266	0.0	0.000	0.0	0.7	909.6	0.000	0.000
110_50	5.377	-1.347	0.0	0.000	0.0	0.7	1144.8	0.000	0.000
120_10	5.500	-1.013	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_100	5.547	2.606	0.0	0.000	0.0	0.3	0.0	0.000	0.000
120_110	5.598	2.724	0.0	0.000	0.0	0.3	993.3	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
120_12	5.500	-0.964	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_120	5.648	2.831	0.0	0.000	0.0	0.3	1223.1	0.000	0.000
120_130	5.699	2.993	0.0	0.000	0.0	0.3	74.2	0.000	0.000
120_14	5.500	-0.863	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_140	5.749	3.123	0.0	0.000	0.0	0.3	993.3	0.000	0.000
120_150	5.800	3.222	0.0	0.000	0.0	0.2	1223.1	0.000	0.000
120_16	5.500	-0.749	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_160	5.996	3.309	0.0	0.000	0.0	0.2	1068.9	0.000	0.000
120_170	6.237	3.408	0.0	0.000	0.0	0.2	1310.4	0.000	0.000
120_18	5.500	-0.646	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_180	6.494	3.514	0.0	0.000	0.0	0.2	49.0	0.000	0.000
120_190	6.486	3.628	0.0	0.000	0.0	0.2	1847.4	0.000	0.000
120_2	5.500	-1.223	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_20	5.500	1.495	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_200	6.218	3.904	0.0	0.000	0.0	0.1	0.0	0.000	0.000
120_210	6.040	4.087	0.0	0.000	0.0	0.1	1201.4	0.000	0.000
120_25	5.500	1.608	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_30	5.500	1.687	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_35	5.500	1.753	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_4	5.500	-1.168	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_40	5.500	1.820	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_45	5.500	1.888	0.0	0.000	0.0	0.5	2068.5	0.000	0.000
120_50	5.840	1.956	0.0	0.000	0.0	0.5	1386.0	0.000	0.000
120_6	5.500	-1.109	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_60	6.019	2.107	0.0	0.000	0.0	0.4	1053.5	0.000	0.000
120_70	5.815	2.207	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_8	5.500	-1.062	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_80	5.602	2.320	0.0	0.000	0.0	0.4	1023.4	0.000	0.000
120_90	5.353	2.425	0.0	0.000	0.0	0.4	2369.7	0.000	0.000
130_100	3.780	0.043	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_110	3.760	-0.082	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_120	3.760	-0.198	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_60	3.520	0.656	0.0	0.000	0.0	0.1	2030.6	0.000	0.000
130_70	3.600	0.425	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_80	3.680	0.271	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_90	3.780	0.138	0.0	0.000	0.0	0.1	76.3	0.000	0.000
135_20	3.740	2.093	0.0	0.000	0.0	0.0	79.0	0.000	0.000
140_10	4.421	3.216	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_100	5.200	1.603	0.0	0.000	0.0	1.5	0.0	0.000	0.000
140_20	5.089	3.010	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_30	5.452	2.782	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_40	5.325	2.547	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_50	5.063	2.285	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_60	5.051	1.947	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_70	5.024	1.604	0.0	0.000	0.0	0.1	0.0	0.000	0.000

140_80	5.274	1.604	0.0	0.000	0.0	0.5	0.0	0.000	0.000
140_90	5.439	1.603	0.0	0.000	0.0	1.1	0.0	0.000	0.000
150_10	5.873	4.536	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_20	5.497	3.986	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_30	5.149	3.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_100	5.094	1.727	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_110	5.300	1.568	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_120	5.500	1.383	0.0	0.000	0.0	0.2	0.0	0.000	0.000

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Event -

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Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_130	5.599	1.258	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_140	5.300	1.146	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_150	5.000	1.012	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_160	4.900	0.915	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_170	5.000	0.794	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_180	5.110	0.685	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_190	5.400	0.554	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_200	5.000	0.297	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_210	4.700	0.179	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_220	4.800	0.076	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_230	5.118	-0.041	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_240	5.141	-0.140	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_250	5.220	-0.252	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_260	5.300	-0.367	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_270	5.555	-0.481	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_280	5.294	-0.608	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_290	5.147	-0.736	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_300	5.000	-0.859	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_310	5.000	-0.962	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_315	5.500	-1.061	0.0	0.000	0.0	0.7	0.0	0.000	0.000
160_320	5.458	-1.273	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_330	4.789	-1.518	0.0	0.000	0.0	0.7	0.0	0.000	0.000
160_340	4.582	-1.743	0.0	0.000	0.0	0.7	0.0	0.000	0.000
160_350	4.586	-1.980	0.0	0.000	0.0	0.6	236.9	0.000	0.000
160_360	5.000	-2.159	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_370	5.000	-2.234	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_380	5.000	-2.296	0.0	0.000	0.0	0.6	0.0	0.000	0.000
160_50	4.688	2.671	0.0	0.000	0.0	0.1	661.4	0.000	0.000
160_50A1	4.710	2.597	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A2	4.731	2.532	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A3	4.731	2.458	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60	4.753	2.385	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60A	4.888	2.254	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_70	5.000	2.135	0.0	0.000	0.0	0.1	419.6	0.000	0.000
160_80	5.000	2.030	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_90	5.000	1.878	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_10	4.950	3.482	0.0	0.000	0.0	0.1	566.3	0.000	0.000
170_20	4.950	3.121	0.0	0.000	0.0	0.1	637.0	0.000	0.000
170_30	4.950	2.873	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_40	4.950	2.633	0.0	0.000	0.0	0.1	560.9	0.000	0.000
180_10	5.429	3.846	0.0	0.000	0.0	0.1	523.7	0.000	0.000
180_20	5.429	3.652	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_30	5.429	3.497	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_40	5.429	3.365	0.0	0.000	0.0	0.1	549.1	0.000	0.000
190_10	4.896	3.844	0.0	0.000	0.0	0.1	633.4	0.000	0.000

190_20	4.896	3.682	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_30	4.896	3.516	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_40	4.896	3.379	0.0	0.000	0.0	0.1	602.4	0.000	0.000
200_10	5.042	4.026	0.0	0.000	0.0	0.1	622.9	0.000	0.000
200_20	5.042	3.869	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_30	5.042	3.707	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_40	5.042	3.569	0.0	0.000	0.0	0.1	596.4	0.000	0.000
20_10	4.884	2.048	0.0	0.000	0.0	0.1	79.0	0.000	0.000

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Event -

1 WS01550002PM Produced 26/05/2008 Pg 5

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
20_20	5.116	1.768	0.0	0.000	0.0	0.0	84.0	0.000	0.000
20_20A	5.085	1.651	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_30	5.054	1.563	0.0	0.000	0.0	0.1	84.0	0.000	0.000
210_10	5.238	4.004	0.0	0.000	0.0	0.1	757.2	0.000	0.000
210_20	5.238	3.875	0.0	0.000	0.0	0.1	0.0	0.000	0.000
210_30	5.238	3.863	0.0	0.000	0.0	0.3	0.0	0.000	0.000
210_40	5.238	3.860	0.0	0.000	0.0	0.4	856.2	0.000	0.000
220_10	5.000	-0.207	0.0	0.000	0.0	0.5	15603.5	0.000	0.000
220_20	5.000	-0.411	0.0	0.000	0.0	0.5	0.0	0.000	0.000
230_10	4.950	3.595	0.0	0.000	0.0	0.0	0.0	0.000	0.000
230_100	5.501	2.218	0.0	0.000	0.0	0.4	0.0	0.000	0.000
230_110	5.453	2.208	0.0	0.000	0.0	0.7	0.0	0.000	0.000
230_120	4.875	2.196	0.0	0.000	0.0	1.0	0.0	0.000	0.000
230_130	4.500	2.188	0.0	0.000	0.0	1.5	0.0	0.000	0.000
230_140	4.500	2.181	0.0	0.000	0.0	3.5	2303.0	0.000	0.000
230_150	4.500	2.051	0.0	0.000	0.0	3.7	0.0	0.000	0.000
230_160	4.500	1.862	0.0	0.000	0.0	3.9	49.0	0.000	0.000
230_170	4.500	1.719	0.0	0.000	0.0	4.0	1829.1	0.000	0.000
230_180	4.500	1.419	0.0	0.000	0.0	4.1	0.0	0.000	0.000
230_20	4.730	3.534	0.0	0.000	0.0	0.1	2342.0	0.000	0.000
230_30	4.950	3.372	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_40	5.191	3.200	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_50	5.430	3.033	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_60	5.716	2.873	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_70	5.871	2.715	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_80	6.230	2.547	0.0	0.000	0.0	0.1	0.0	0.000	0.000
230_90	5.065	2.260	0.0	0.000	0.0	0.1	0.0	0.000	0.000
240_10	4.500	3.374	0.0	0.000	0.0	0.0	21.0	0.000	0.000
250_10	4.500	2.340	0.0	0.000	0.0	0.2	6412.7	0.000	0.000
250_20	4.500	2.178	0.0	0.000	0.0	0.5	0.0	0.000	0.000
250_30	4.500	2.144	0.0	0.000	0.0	1.1	0.0	0.000	0.000
250_40	4.500	2.106	0.0	0.000	0.0	1.6	2138.5	0.000	0.000
30_10	5.045	2.422	0.0	0.000	0.0	0.1	2446.5	0.000	0.000
30_20	4.843	2.298	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_30	4.640	2.178	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_40	4.803	2.039	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_50	5.041	1.903	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_60	5.088	1.783	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_70	4.866	1.623	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_80	4.649	1.437	0.0	0.000	0.0	0.2	2446.5	0.000	0.000
40_10	5.850	2.719	0.0	0.000	0.0	0.1	1245.4	0.000	0.000
40_100	5.747	-0.245	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_110	5.566	-0.452	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_20	5.737	2.582	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_30	5.523	2.306	0.0	0.000	0.0	0.1	851.5	0.000	0.000

40_40	5.195	2.094	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_50	5.139	1.997	0.0	0.000	0.0	0.1	84.0	0.000	0.000
40_60	5.461	0.763	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_70	5.367	0.628	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_80	5.660	0.280	0.0	0.000	0.0	0.2	79.0	0.000	0.000
40_90	5.927	-0.012	0.0	0.000	0.0	0.2	842.4	0.000	0.000
50_10	5.070	1.483	0.0	0.000	0.0	0.1	1817.5	0.000	0.000
50_20	4.733	1.351	0.0	0.000	0.0	0.1	890.4	0.000	0.000

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Event -

1 WS01550002PM Produced 26/05/2008 Pg 6

Node	Ground Level	Max Level	Flood Volume	Flood Depth	Flood Area	Max Stored	Inflow	Vol Balance	Vol Balance
Reference	(m AD)	(m AD)	(m3)	(m)	(m2)	(m3)	(m3)	(m3)	(%)
50_30	5.132	0.988	0.0	0.000	0.0	0.1	938.8	0.000	0.000
60_10	5.462	1.941	0.0	0.000	0.0	0.0	84.0	0.000	0.000
60_20	5.497	1.586	0.0	0.000	0.0	0.0	0.0	0.000	0.000
60_30	5.532	1.211	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_10	5.645	4.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_100	5.996	3.328	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_110	5.835	3.046	0.0	0.000	0.0	0.3	1750.0	0.000	0.000
70_120	5.614	2.718	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_130	5.500	2.455	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_140	5.630	2.183	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_20	5.600	4.276	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_30	5.737	4.065	0.0	0.000	0.0	0.1	2485.0	0.000	0.000
70_40	5.924	3.982	0.0	0.000	0.0	0.1	0.0	0.000	0.000
70_50	5.980	3.819	0.0	0.000	0.0	0.2	1355.2	0.000	0.000
70_60	5.721	3.722	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_70	5.427	3.618	0.0	0.000	0.0	0.2	133.0	0.000	0.000
70_80	5.560	3.519	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	3.435	0.0	0.000	0.0	0.2	0.0	0.000	0.000
80_10	5.636	4.038	0.0	0.000	0.0	0.2	5000.1	0.000	0.000
80_20	5.400	3.837	0.0	0.000	0.0	0.2	0.0	0.000	0.000
80_30	5.172	3.602	0.0	0.000	0.0	0.2	3365.7	0.000	0.000
80_40	5.235	3.431	0.0	0.000	0.0	0.3	0.0	0.000	0.000
90_10	4.642	1.421	0.0	0.000	0.0	0.0	7.0	0.000	0.000
90_20	4.642	1.208	0.0	0.000	0.0	0.0	7.0	0.000	0.000
90_30	4.592	1.046	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_40	4.847	0.875	0.0	0.000	0.0	0.0	7.0	0.000	0.000
90_50	5.309	0.559	0.0	0.000	0.0	0.0	7.0	0.000	0.000
90_60	5.470	0.436	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_70	4.794	0.269	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_80	5.075	-1.677	0.0	0.000	0.0	0.6	0.0	0.000	0.000
NPS	3.760	-0.503	0.0	0.000	0.0	449.7	0.0	0.000	0.000
PS1	5.834	1.542	0.0	0.000	0.0	454.2	0.0	0.000	0.000
PS1A	5.223	-1.663	0.0	0.000	0.0	133.7	0.0	0.000	0.000
PS2	4.921	-1.954	0.0	0.000	0.0	76.2	0.0	0.000	0.000
PS3	5.882	1.381	0.0	0.000	0.0	438.1	0.0	0.000	0.000
PS6	5.000	-2.728	0.0	0.000	0.0	147.2	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert		Upstream		Total Flow (m3)	> Invert		Downstream		Total Flow (m3)
						Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
100_10.1	100_20	53	300	0	0.075	3.200	0.086	0.013	0.764	1080.8	2.958	0.086	0.013	0.761	1080.3
100_20.1	100_30	65	300	0	0.074	2.958	0.086	0.013	0.762	1080.3	2.663	0.086	0.013	0.763	1079.7
100_30.1	100_40	69	300	0	0.075	2.663	0.086	0.013	0.764	1079.6	2.349	0.086	0.013	0.762	1079.0
100_40.1	100_50	39	300	0	0.074	2.349	0.086	0.013	0.762	1079.0	2.173	0.086	0.013	0.764	1078.6
100_50.1	100_60	28	300	0	0.075	2.173	0.086	0.013	0.764	1078.5	2.046	0.086	0.013	0.764	1078.3
100_60.1	100_70	32	750	0	0.535	-1.795	0.380	0.274	1.217	23628.8	-1.871	0.378	0.274	1.228	23628.6
100_70.1	100_80	36	750	0	0.552	-1.871	0.378	0.281	1.262	24283.8	-1.960	0.371	0.281	1.290	24283.6
100_80.1	90_80	30	750	0	0.551	-1.960	0.371	0.281	1.291	24283.6	-2.034	0.357	0.281	1.355	24283.5
105_10.1	105_20	54	750	0	0.734	3.250	0.336	0.142	1.256	11772.2	3.010	0.553	0.319	1.505	11765.9
105_100.1	105_110	21	750	0	0.902	-0.474	0.413	0.508	2.113	36063.0	-0.611	0.433	0.504	2.083	36062.2
105_110.1	105_120	30	750	0	0.902	-0.611	0.410	0.502	2.106	36062.1	-0.812	0.452	0.500	2.063	36060.8
105_120.1	NPS	43	750	0	0.902	-0.812	0.429	0.500	2.111	36060.7	-1.102	0.599	0.627	2.186	36058.6
105_20.1	105_30	28	750	0	0.902	3.010	0.474	0.656	2.397	36079.4	2.825	0.471	0.628	2.166	36076.4
105_30.1	105_40	31	750	0	0.902	2.825	0.460	0.626	2.291	36076.1	2.620	0.458	0.616	2.178	36072.6
105_40.1	105_50	41	750	0	0.902	2.620	0.444	0.613	2.257	36072.4	2.349	0.445	0.583	2.138	36069.0
105_50.1	105_60	31	750	0	0.902	2.349	0.439	0.581	2.237	36068.9	2.139	0.437	0.573	2.150	36067.3
105_60.1	105_70	37	750	0	0.900	2.139	0.428	0.570	2.197	36067.2	1.895	0.424	0.540	2.113	36066.0
105_70.1	105_80	25	750	0	0.903	1.895	0.420	0.538	2.177	36065.9	1.730	0.420	0.538	2.116	36065.3
105_80.1	105_90	34	750	0	0.902	-0.050	0.416	0.536	2.155	36065.2	-0.278	0.413	0.523	2.100	36064.2
105_90.1	105_100	29	750	0	0.900	-0.278	0.407	0.522	2.141	36064.1	-0.474	0.417	0.509	2.078	36063.1
10_10.1	10_20	42	375	0	0.252	4.439	0.111	0.043	1.581	3740.1	3.768	0.119	0.043	1.432	3740.1
10_100.1	10_100A	24	525	0	0.258	1.320	0.234	0.108	1.154	9290.6	1.250	0.226	0.108	1.205	9290.6
10_100A.1	10_110	22	525	0	0.273	1.250	0.226	0.108	1.205	9290.6	1.180	0.219	0.108	1.257	9290.6
10_110.1	10_120	27	600	0	0.405	1.100	0.266	0.164	1.357	14183.6	0.980	0.262	0.164	1.382	14183.6
10_120.1	10_130	28	600	0	0.445	0.980	0.254	0.164	1.444	14183.6	0.830	0.254	0.164	1.444	14183.6
10_130.1	10_140	57	675	0	0.585	0.830	0.248	0.164	1.376	14183.6	0.550	0.277	0.164	1.190	14183.6
10_140.1	10_150	67	675	0	0.480	0.550	0.276	0.164	1.190	14183.6	0.330	0.311	0.164	1.020	14183.6
10_150.1	10_160	48	675	0	0.542	0.330	0.311	0.192	1.196	16630.1	0.130	0.422	0.192	0.818	16630.1
10_160.1	10_170	78	675	0	0.093	0.130	0.421	0.192	0.821	16630.1	0.120	0.274	0.192	1.415	16630.1
10_170.1	10_180	78	675	0	0.661	0.120	0.251	0.192	1.585	16630.1	-0.370	0.298	0.192	1.264	16630.1
10_180.1	10_190	62	675	0	0.485	-0.370	0.298	0.193	1.266	16637.1	-0.580	0.301	0.193	1.245	16637.1
10_190.1	10_200	74	675	0	0.474	-0.580	0.301	0.193	1.246	16637.1	-0.820	0.305	0.193	1.225	16637.1
10_20.1	10_30	38	375	0	0.219	3.768	0.119	0.043	1.445	3740.1	3.308	0.119	0.043	1.445	3740.1
10_200.1	10_210	108	675	0	0.463	-0.820	0.305	0.193	1.228	16637.1	-1.150	0.275	0.193	1.406	16637.1
10_210.1	10_220	84	750	0	0.691	-1.230	0.335	0.272	1.427	23519.1	-1.560	0.426	0.272	1.050	23519.1
10_220.1	PS1A	50	750	0	0.269	-1.560	0.419	0.273	1.075	23557.6	-1.590	0.318	0.273	1.529	23557.6
10_30.1	10_40	32	375	0	0.259	3.308	0.110	0.043	1.608	3740.1	2.775	0.128	0.043	1.304	3740.1
10_40.1	10_40A	29	450	0	0.204	2.700	0.203	0.084	1.212	7275.8	2.585	0.202	0.084	1.217	7275.8
10_40A.1	10_50	24	450	0	0.222	2.585	0.193	0.084	1.292	7275.8	2.470	0.193	0.084	1.292	7275.8
10_50.1	10_60	31	450	0	0.300	2.470	0.165	0.084	1.597	7275.8	2.200	0.190	0.084	1.322	7275.8
10_60.1	10_70	39	450	0	0.230	2.200	0.190	0.084	1.323	7275.8	2.000	0.190	0.084	1.323	7275.8
10_70.1	10_70A	27	525	0	0.391	1.930	0.166	0.084	1.429	7275.8	1.755	0.166	0.084	1.429	7275.8
10_70A.1	10_80	23	525	0	0.423	1.755	0.163	0.084	1.465	7275.8	1.580	0.203	0.084	1.087	7275.8
10_80.1	10_90	39	525	0	0.278	1.580	0.203	0.084	1.087	7275.8	1.450	0.230	0.084	0.924	7275.8
10_90.1	10_100	42	525	0	0.268	1.450	0.230	0.105	1.149	9043.6	1.320	0.234	0.105	1.123	9043.6
110_10.1	110_20	29	300	0	0.079	1.500	0.078	0.011	0.752	956.1	1.355	0.101	0.011	0.526	956.1
110_20.1	110_30	34	300	0	0.080	1.355	0.101	0.019	0.912	1655.1	1.175	0.103	0.019	0.891	1655.1
110_30.1	110_40	35	375	0	0.208	1.175	0.103	0.030	1.227	2611.2	0.797	0.103	0.030	1.227	2611.2
110_40.1	110_50	42	750	0	0.490	-1.650	0.383	0.248	1.100	21405.9	-1.733	0.387	0.248	1.094	21405.8
110_50.1	100_60	31	750	0	0.495	-1.733	0.385	0.261	1.157	22550.6	-1.795	0.381	0.261	1.189	22550.5
120_10.1	120_8	28	750	0	0.454	-1.369	0.356	0.207	1.001	17885.2	-1.417	0.355	0.207	1.004	17885.2
120_100.1	120_90	33	500	0	0.244	2.366	0.240	0.116	1.238	9984.1	2.255	0.231	0.116	1.306	9984.1
120_110.1	120_100	34	500	0	0.245	2.481	0.242	0.116	1.224	9984.1	2.366	0.240	0.116	1.237	9984.1

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		Total Flow (m3)	< Invert Level (m AD)	Downstream		Max Depth (m)	Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)			Max Flow (m3/s)	Max Vel (m/s)		
120_12.1	120_10	29	750	0	0.420	-1.327	0.363	0.207	0.976	17885.2	-1.369	0.356	0.207	1.001	17885.2
120_120.1	120_110	35	500	0	0.245	2.599	0.232	0.104	1.170	8990.8	2.481	0.243	0.104	1.102	8990.8
120_130.1	120_120	37	450	0	0.186	2.773	0.220	0.090	1.165	7767.7	2.649	0.209	0.090	1.244	7767.7
120_14.1	120_12	25	675	0	0.491	-1.164	0.301	0.207	1.342	17885.2	-1.252	0.288	0.207	1.419	17885.2
120_120.1	120_130	39	450	0	0.186	2.902	0.221	0.089	1.148	7693.5	2.773	0.220	0.089	1.154	7693.5
120_150.1	120_140	34	450	0	0.186	3.015	0.207	0.078	1.088	6700.2	2.902	0.221	0.078	1.000	6700.2
120_16.1	120_14	35	675	0	0.427	-1.072	0.323	0.207	1.224	17885.2	-1.164	0.301	0.207	1.341	17885.2
120_160.1	120_150	32	450	0	0.186	3.123	0.186	0.063	1.022	5477.1	3.015	0.207	0.063	0.889	5477.1
120_170.1	120_160	36	450	0	0.181	3.241	0.167	0.051	0.954	4408.2	3.126	0.183	0.051	0.841	4408.2
120_18.1	120_16	37	675	0	0.430	-0.975	0.329	0.207	1.194	17885.2	-1.072	0.323	0.207	1.223	17885.2
120_180.1	120_170	41	450	0	0.185	3.377	0.137	0.036	0.878	3097.8	3.241	0.167	0.036	0.670	3097.8
120_190.1	120_180	34	450	0	0.189	3.495	0.133	0.035	0.898	3048.8	3.377	0.137	0.035	0.864	3048.8
120_2.1	110_40	21	750	0	0.502	-1.561	0.338	0.207	1.076	17885.2	-1.605	0.339	0.207	1.077	17885.1
120_20.1	120_18	39	675	0	0.417	1.173	0.322	0.207	1.231	17885.2	1.076	0.285	0.207	1.440	17885.2
120_200.1	120_190	35	300	0	0.077	3.816	0.088	0.014	0.803	1201.4	3.645	0.088	0.014	0.803	1201.4
120_210.1	120_200	36	300	0	0.079	4.000	0.087	0.014	0.817	1201.4	3.816	0.088	0.014	0.803	1201.4
120_25.1	120_20	41	675	0	0.417	1.275	0.333	0.207	1.176	17885.2	1.173	0.322	0.207	1.230	17885.2
120_30.1	120_25	30	675	0	0.416	1.350	0.336	0.207	1.162	17885.2	1.275	0.333	0.207	1.175	17885.2
120_35.1	120_30	26	675	0	0.419	1.416	0.337	0.207	1.160	17885.2	1.350	0.337	0.207	1.161	17885.2
120_4.1	120_2	26	750	0	0.489	-1.509	0.341	0.207	1.064	17885.2	-1.561	0.338	0.207	1.074	17885.2
120_40.1	120_35	27	675	0	0.416	1.482	0.338	0.207	1.156	17885.2	1.416	0.337	0.207	1.160	17885.2
120_45.1	120_40	27	675	0	0.417	1.549	0.338	0.207	1.155	17885.2	1.482	0.338	0.207	1.156	17885.2
120_50.1	120_45	33	675	0	0.419	1.633	0.323	0.183	1.081	15816.7	1.549	0.339	0.183	1.019	15816.7
120_6.1	120_4	31	750	0	0.419	-1.464	0.355	0.207	1.005	17885.2	-1.509	0.341	0.207	1.063	17885.2
120_60.1	120_50	34	600	0	0.353	1.822	0.285	0.167	1.260	14430.7	1.708	0.264	0.167	1.391	14430.7
120_70.1	120_60	31	600	0	0.353	1.926	0.281	0.155	1.190	13377.2	1.822	0.285	0.155	1.168	13377.2
120_8.1	120_6	27	750	0	0.459	-1.417	0.355	0.207	1.005	17885.2	-1.464	0.355	0.207	1.005	17885.2
120_80.1	120_70	34	600	0	0.355	2.041	0.279	0.155	1.200	13377.2	1.926	0.281	0.155	1.189	13377.2
120_90.1	120_80	34	600	0	0.353	2.155	0.270	0.143	1.159	12353.8	2.041	0.279	0.143	1.108	12353.8
130_100.1	130_110	33	375	0	0.122	-0.072	0.115	0.024	0.852	2106.9	-0.197	0.115	0.024	0.851	2106.9
130_110.1	130_120	31	375	0	0.122	-0.197	0.115	0.024	0.851	2106.9	-0.313	0.115	0.024	0.849	2106.9
130_120.1	NPS	41	375	0	0.122	-0.313	0.115	0.024	0.853	2106.9	-0.469	0.113	0.024	0.870	2106.9
130_60.1	130_70	36	300	0	0.071	0.536	0.120	0.024	0.891	2030.6	0.385	0.118	0.024	0.907	2030.6
130_70.1	130_80	43	375	0	0.118	0.310	0.114	0.024	0.824	2030.6	0.157	0.114	0.024	0.823	2030.6
130_80.1	130_90	38	375	0	0.118	0.157	0.114	0.024	0.824	2030.6	0.023	0.116	0.024	0.812	2030.6
130_90.1	130_100	26	375	0	0.121	0.023	0.115	0.024	0.844	2106.9	-0.072	0.115	0.024	0.851	2106.9
135_20.1	OUTFALL2	25	300	0	0.109	2.066	0.027	0.001	0.286	79.0	1.826	0.027	0.001	0.286	79.0
140_10.1	140_20	35	225	0	0.040	3.196	0.020	0.000	0.000	0.0	2.990	0.020	0.000	0.000	0.0
140_100.1	OUTFALL3	31	375	0	0.191	0.137	1.466	0.000	0.000	0.0x	-0.145	1.748	0.000	0.000	0.0x
140_20.1	140_30	38	225	0	0.040	2.990	0.020	0.000	0.000	0.0	2.762	0.020	0.000	0.000	0.0
140_30.1	140_40	40	225	0	0.040	2.762	0.020	0.000	0.000	0.0	2.527	0.020	0.000	0.000	0.0
140_40.1	140_50	44	225	0	0.040	2.527	0.020	0.000	0.000	0.0	2.265	0.020	0.000	0.000	0.0
140_50.1	140_60	32	225	0	0.040	2.265	0.020	0.000	0.000	0.0	2.077	0.020	0.000	0.000	0.0
140_60.1	140_70	44	375	0	0.200	1.927	0.020	0.000	0.000	0.0	1.486	0.118	0.000	0.000	0.0
140_70.1	140_80	45	375	0	0.188	1.486	0.118	0.000	0.000	0.0	1.084	0.520	0.000	0.000	0.0x
140_80.1	140_90	46	375	0	0.212	1.084	0.520	0.000	0.000	0.0x	0.567	1.036	0.000	0.000	0.0x
140_90.1	140_100	38	375	0	0.212	0.567	1.036	0.000	0.000	0.0x	0.137	1.466	0.000	0.000	0.0x
150_10.1	150_20	55	375	0	0.200	4.498	0.038	0.000	0.000	0.0	3.948	0.038	0.000	0.000	0.0
150_20.1	150_30	53	375	0	0.200	3.948	0.038	0.000	0.000	0.0	3.420	0.038	0.000	0.000	0.0
150_30.1	140_60	33	375	0	0.200	3.420	0.020	0.000	0.000	0.0	3.090	0.020	0.000	0.000	0.0
160_100.1	160_110	43	375	0	0.118	1.590	0.137	0.033	0.906	2844.3	1.440	0.132	0.033	0.954	2844.2
160_110.1	160_120	33	375	0	0.134	1.440	0.128	0.033	0.992	2844.2	1.290	0.128	0.033	0.992	2844.1
160_120.1	160_130	46	450	0	0.163	1.220	0.163	0.045	0.875	3916.9	1.100	0.158	0.045	0.911	3916.8

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		> Total Flow (m3)	< Invert Level (m AD)	Downstream			> Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)			Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
160_130.1	160_140	40	450	0	0.175	1.100	0.158	0.045	0.911	3916.8	0.980	0.166	0.045	0.851	3916.7
160_140.1	160_150	54	450	0	0.158	0.980	0.166	0.045	0.852	3916.7	0.850	0.162	0.045	0.880	3916.6
160_150.1	160_160	24	450	0	0.228	0.850	0.162	0.060	1.158	5152.3	0.730	0.185	0.060	0.969	5152.3
160_160.1	160_170	43	450	0	0.170	0.730	0.185	0.060	0.969	5152.3	0.610	0.184	0.060	0.976	5152.2
160_170.1	160_180	41	450	0	0.174	0.610	0.184	0.060	0.977	5152.2	0.490	0.195	0.060	0.903	5152.1
160_180.1	160_190	53	450	0	0.153	0.490	0.195	0.060	0.903	5152.1	0.370	0.184	0.060	0.974	5152.0
160_190.1	160_200	28	450	0	0.212	0.370	0.184	0.074	1.205	6371.3	0.250	0.184	0.074	1.205	6371.3
160_200.1	160_210	43	600	0	0.323	0.100	0.197	0.074	0.914	6371.3	-0.020	0.199	0.074	0.898	6371.2
160_210.1	160_220	41	600	0	0.317	-0.020	0.199	0.074	0.899	6371.2	-0.130	0.206	0.074	0.861	6371.1
160_220.1	160_230	51	600	0	0.297	-0.130	0.206	0.074	0.862	6371.1	-0.250	0.209	0.074	0.840	6370.9
160_230.1	160_240	31	600	0	0.365	-0.250	0.209	0.092	1.053	7984.4	-0.360	0.220	0.092	0.984	7984.3
160_240.1	160_250	39	600	0	0.325	-0.360	0.220	0.092	0.984	7984.3	-0.470	0.218	0.092	0.998	7984.2
160_250.1	160_260	40	600	0	0.335	-0.470	0.218	0.092	0.998	7984.2	-0.590	0.223	0.092	0.968	7984.1
160_260.1	160_270	41	600	0	0.317	-0.590	0.223	0.092	0.969	7984.1	-0.700	0.219	0.092	0.994	7984.0
160_270.1	160_280	42	600	0	0.328	-0.700	0.218	0.092	0.994	7984.0	-0.820	0.212	0.092	1.038	7983.9
160_280.1	160_290	35	600	0	0.341	-0.820	0.211	0.092	1.039	7983.9	-0.930	0.194	0.092	1.171	7983.9
160_290.1	160_300	26	600	0	0.416	-0.930	0.194	0.092	1.172	7983.9	-1.050	0.194	0.092	1.172	7983.8
160_300.1	160_310	22	600	0	0.433	-1.050	0.191	0.092	1.203	7983.8	-1.160	0.198	0.092	1.218	7983.7
160_310.1	160_315	32	750	0	0.665	-1.310	0.347	0.275	1.377	23575.5	-1.428	0.367	0.275	1.283	23573.2
160_315.1	160_320	70	750	0	0.564	-1.428	0.367	0.275	1.283	23573.1	-1.610	0.337	0.275	1.432	23568.4
160_320.1	160_330	71	750	0	0.680	-1.610	0.336	0.275	1.434	23568.2	-1.880	0.362	0.275	1.304	23563.5
160_330.1	160_340	80	750	0	0.593	-1.880	0.362	0.275	1.305	23563.3	-2.110	0.367	0.275	1.283	23557.7
160_340.1	160_350	81	750	0	0.573	-2.110	0.367	0.275	1.284	23557.5	-2.330	0.350	0.275	1.363	23551.9
160_350.1	160_360	52	750	0	0.628	-2.330	0.350	0.278	1.378	23788.6	-2.500	0.341	0.278	1.421	23785.2
160_360.1	160_370	21	750	0	0.674	-2.500	0.341	0.278	1.424	23785.0	-2.580	0.346	0.278	1.399	23783.6
160_370.1	160_380	16	750	0	0.550	-2.580	0.345	0.278	1.400	23783.5	-2.620	0.324	0.278	1.523	23782.5
160_380.1	PS6	9	750	0	0.730	-2.620	0.323	0.278	1.529	23782.3	-2.660	0.323	0.278	1.530	23781.8
160_50.1	160_50A1	25	375	0	0.104	2.600	0.071	0.008	0.532	661.4	2.530	0.067	0.008	0.573	661.3
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.067	0.008	0.573	661.3	2.460	0.072	0.008	0.522	661.2
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.072	0.008	0.522	661.2	2.390	0.068	0.008	0.560	661.1
160_50A3.1	160_60	21	375	0	0.113	2.390	0.068	0.008	0.560	661.1	2.321	0.064	0.008	0.611	661.0
160_60.1	160_60A	32	375	0	0.130	2.321	0.064	0.008	0.611	661.0	2.186	0.068	0.008	0.561	660.9
160_60A.1	160_70	41	375	0	0.114	2.186	0.068	0.008	0.562	660.9	2.050	0.085	0.008	0.409	660.7
160_70.1	160_80	44	375	0	0.117	2.050	0.085	0.013	0.667	1080.3	1.900	0.130	0.013	0.371	1080.2
160_80.1	160_90	35	375	0	0.130	1.900	0.130	0.033	0.973	2844.5	1.750	0.130	0.033	0.973	2844.4
160_90.1	160_100	35	375	0	0.134	1.750	0.128	0.033	0.991	2844.4	1.590	0.137	0.033	0.906	2844.3
170_10.1	170_20	40	225	0	0.052	3.425	0.057	0.007	0.824	566.3	3.027	0.094	0.007	0.419	566.3
170_20.1	170_30	41	225	0	0.040	3.027	0.093	0.014	0.892	1203.4	2.779	0.094	0.014	0.890	1203.4
170_30.1	170_40	43	225	0	0.040	2.779	0.094	0.014	0.891	1203.4	2.521	0.112	0.014	0.702	1203.4
170_40.1	160_80	47	225	0	0.042	2.521	0.112	0.020	1.029	1764.3	2.208	0.112	0.020	1.029	1764.3
180_10.1	180_20	45	300	0	0.072	3.785	0.061	0.006	0.584	523.7	3.590	0.062	0.006	0.577	523.7
180_20.1	180_30	37	300	0	0.071	3.590	0.062	0.006	0.578	523.7	3.435	0.062	0.006	0.579	523.7
180_30.1	180_40	38	300	0	0.072	3.435	0.062	0.006	0.579	523.7	3.273	0.092	0.006	0.330	523.7
180_40.1	160_120	53	300	0	0.063	3.273	0.092	0.012	0.677	1072.8	3.100	0.086	0.012	0.744	1072.8
190_10.1	190_20	40	300	0	0.071	3.776	0.068	0.007	0.614	633.4	3.614	0.068	0.007	0.616	633.4
190_20.1	190_30	40	300	0	0.071	3.614	0.067	0.007	0.616	633.4	3.448	0.068	0.007	0.613	633.4
190_30.1	190_40	41	300	0	0.071	3.448	0.068	0.007	0.613	633.4	3.281	0.098	0.007	0.365	633.4
190_40.1	160_150	54	300	0	0.064	3.281	0.098	0.014	0.712	1235.8	3.100	0.092	0.014	0.777	1235.8
200_10.1	200_20	38	300	0	0.071	3.959	0.067	0.007	0.612	622.9	3.802	0.067	0.007	0.617	622.9
200_20.1	200_30	39	300	0	0.072	3.802	0.067	0.007	0.617	622.9	3.639	0.068	0.007	0.605	622.9
200_30.1	200_40	42	300	0	0.070	3.639	0.068	0.007	0.605	622.9	3.472	0.097	0.007	0.363	622.9
200_40.1	160_190	51	300	0	0.064	3.472	0.097	0.014	0.711	1219.3	3.300	0.091	0.014	0.774	1219.3
20_10.1	20_20	22	450	0	0.355	2.000	0.048	0.001	0.102	79.0	1.730	0.048	0.001	0.102	79.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)			Upstream			Total Flow (m3)	> Invert Level (m AD)			Downstream			Total Flow (m3)
						Invert	Max Depth	Max Vel	Max Flow (m3/s)	Max Vel (m/s)	Max Vel		Invert	Max Depth	Max Vel	Max Flow (m3/s)	Max Vel (m/s)	Max Vel	
20_20.1	20_20A	36	450	0	0.183	1.730	0.038	0.002	0.288			163.0	1.615	0.036	0.002	0.315			163.0
20_20A.1	20_30	24	450	0	0.224	1.615	0.036	0.002	0.315			163.0	1.500	0.063	0.002	0.141			163.0
20_30.1	10_100	41	450	0	0.214	1.500	0.063	0.003	0.214			247.0	1.320	0.234	0.003	0.034			247.0
210_10.1	210_20	38	300	0	0.071	3.931	0.073	0.009	0.655			757.2	3.773	0.102	0.009	0.411			757.2
210_20.1	210_30	40	300	0	0.071	3.773	0.102	0.009	0.411			757.2	3.606	0.257	0.009	0.136			757.2
210_30.1	210_40	39	300	0	0.071	3.606	0.257	0.009	0.136			757.2	3.442	0.418	0.009	0.119			757.2x
210_40.1	160_230	47	300	0	0.112	3.772	0.088	0.019	1.085			1613.4	3.300	0.088	0.019	1.085			1613.4
220_10.1	220_20	75	750	0	0.570	-0.500	0.293	0.183	1.146			15603.3	-0.700	0.289	0.183	1.167			15597.4
220_20.1	160_310	73	750	0	0.579	-0.700	0.289	0.183	1.168			15597.2	-0.900	0.260	0.183	1.346			15591.9
230_10.1	230_20	36	375	0	0.132	3.575	0.020	0.000	0.000			0.0	3.417	0.117	0.000	0.000			0.0
230_100.1	230_110	65	375	0	0.132	1.824	0.394	0.068	0.926			2341.7x	1.541	0.667	0.090	0.925			2335.7x
230_110.1	230_120	82	375	0	0.132	1.541	0.667	0.093	0.926			2335.3x	1.185	1.011	0.095	0.819			2328.8x
230_120.1	230_130	56	375	0	0.132	1.185	1.010	0.102	0.877			2328.3x	0.941	1.247	0.103	0.887			2327.7x
230_130.1	230_140	87	450	0	0.194	0.866	1.321	0.113	0.679			2348.1x	0.550	1.631	0.114	0.672			2347.7x
230_140.1	230_150	41	750	0	0.897	0.250	1.915	0.578	1.218			28378.4x	-0.018	2.070	0.578	1.212			28378.1x
230_150.1	230_160	44	750	0	0.899	-0.018	2.049	0.674	1.414			36919.8x	-0.309	2.174	0.674	1.409			36919.6x
230_160.1	230_170	29	750	0	0.899	-0.309	2.144	0.674	1.411			36968.0x	-0.503	2.227	0.674	1.407			36967.8x
230_170.1	230_180	59	750	0	0.897	-0.503	2.165	0.696	1.454			38796.5x	-0.890	2.316	0.695	1.447			38796.3x
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	2.237	0.695	1.450			38796.2x	-1.020	2.288	0.695	1.448			38796.2x
230_20.1	230_30	37	375	0	0.132	3.417	0.117	0.027	0.926			2342.0	3.255	0.117	0.027	0.925			2342.0
230_30.1	230_40	39	375	0	0.132	3.255	0.117	0.027	0.926			2342.0	3.084	0.117	0.027	0.926			2342.0
230_40.1	230_50	38	375	0	0.132	3.084	0.117	0.027	0.926			2342.0	2.916	0.117	0.027	0.925			2342.0
230_50.1	230_60	37	375	0	0.132	2.916	0.117	0.027	0.926			2342.0	2.756	0.117	0.027	0.926			2342.0
230_60.1	230_70	36	375	0	0.132	2.756	0.117	0.027	0.926			2342.0	2.598	0.117	0.027	0.926			2342.0
230_70.1	230_80	38	375	0	0.132	2.598	0.117	0.027	0.927			2342.0	2.430	0.117	0.027	0.925			2342.0
230_80.1	230_90	71	375	0	0.132	2.430	0.117	0.027	0.926			2342.0	2.121	0.139	0.028	0.926			2342.0
230_90.1	230_100	68	375	0	0.132	2.121	0.139	0.029	0.926			2342.0	1.824	0.394	0.065	0.926			2341.7x
240_10.1	230_130	40	225	0	0.061	3.350	0.024	0.000	0.104			21.0	2.800	0.024	0.000	0.104			21.0
250_10.1	250_20	46	450	0	0.323	2.178	0.162	0.074	1.557			6412.7	1.717	0.461	0.116	1.542			6412.3x
250_20.1	250_30	59	450	0	0.298	1.717	0.460	0.120	1.544			6412.2x	1.210	0.935	0.144	0.973			6405.9x
250_30.1	250_40	42	450	0	0.346	1.210	0.923	0.150	0.975			6405.4x	0.723	1.383	0.150	0.888			6404.7x
250_40.1	230_150	54	450	0	0.311	0.723	1.380	0.181	1.072			8542.7x	0.225	1.827	0.186	1.071			8542.5x
30_10.1	30_20	30	375	0	0.127	2.300	0.122	0.028	0.914			2446.5	2.180	0.122	0.028	0.914			2446.5
30_20.1	30_30	27	375	0	0.133	2.180	0.118	0.028	0.947			2446.5	2.060	0.118	0.028	0.951			2446.5
30_30.1	30_40	30	375	0	0.135	2.060	0.118	0.028	0.955			2446.5	1.920	0.119	0.028	0.942			2446.5
30_40.1	30_50	31	375	0	0.133	1.920	0.119	0.028	0.943			2446.5	1.780	0.123	0.028	0.894			2446.5
30_50.1	30_60	31	375	0	0.123	1.780	0.123	0.028	0.895			2446.5	1.660	0.123	0.028	0.894			2446.5
30_60.1	30_70	42	375	0	0.123	1.660	0.123	0.028	0.894			2446.5	1.500	0.123	0.028	0.901			2446.5
30_70.1	30_80	41	375	0	0.124	1.500	0.123	0.028	0.902			2446.5	1.340	0.122	0.028	0.910			2446.5
30_80.1	10_110	21	450	0	0.210	1.270	0.166	0.057	1.060			4893.0	1.180	0.186	0.057	0.912			4893.0
40_10.1	40_20	21	225	0	0.041	2.625	0.094	0.014	0.918			1245.4	2.491	0.094	0.014	0.918			1245.4
40_100.1	40_110	26	375	0	0.179	-0.420	0.175	0.078	1.549			6749.0	-0.629	0.176	0.078	1.532			6749.0
40_110.1	10_210	28	375	0	0.179	-0.629	0.176	0.079	1.555			6833.0	-0.855	0.176	0.079	1.555			6833.0
40_20.1	40_30	32	225	0	0.044	2.491	0.091	0.014	0.954			1245.4	2.260	0.091	0.014	0.954			1245.4
40_30.1	40_40	49	300	0	0.073	2.185	0.121	0.024	0.912			2096.9	1.973	0.121	0.024	0.904			2096.9
40_40.1	40_50	24	300	0	0.073	1.973	0.121	0.024	0.905			2096.9	1.869	0.128	0.024	0.842			2096.9
40_50.1	40_60	20	300	0	0.067	1.869	0.128	0.025	0.880			2180.9	1.794	0.123	0.025	0.929			2180.9
40_60.1	40_70	17	375	0	0.175	0.600	0.163	0.067	1.469			5827.6	0.466	0.162	0.067	1.481			5827.6
40_70.1	40_80	44	375	0	0.177	0.466	0.162	0.067	1.481			5827.6	0.119	0.161	0.067	1.489			5827.6
40_80.1	40_90	37	375	0	0.181	0.119	0.161	0.068	1.510			5906.6	-0.187	0.175	0.068	1.354			5906.6
40_90.1	40_100	29	375	0	0.179	-0.187	0.175	0.078	1.549			6749.0	-0.420	0.175	0.078	1.547			6749.0
50_10.1	50_20	31	300	0	0.079	1.375	0.108	0.021	0.920			1817.5	1.217	0.133	0.021	0.695			1817.5
50_20.1	50_30	58	300	0	0.079	1.217	0.133	0.031	1.036			2707.9	0.920	0.133	0.031	1.036			2707.9

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)		Upstream Max Flow (m3/s)		> Total Flow (m3)		< Invert Level (m AD)		Downstream Max Flow (m3/s)		> Total Flow (m3)	
						Invert	Max Depth	Max Flow	Max Vel	Total Flow	Total Flow	Invert	Max Depth	Max Flow	Max Vel	Total Flow	Total Flow
50_30.1	40_60	49	375	0	0.141	0.845	0.142	0.042	1.101	3646.7	3646.7	0.600	0.163	0.042	0.914	3646.7	3646.7
60_10.1	60_20	37	225	0	0.051	1.912	0.029	0.001	0.327	84.0	84.0	1.556	0.030	0.001	0.301	84.0	84.0
60_20.1	60_30	37	225	0	0.052	1.556	0.030	0.001	0.301	84.0	84.0	1.181	0.030	0.001	0.301	84.0	84.0
60_30.1	40_110	19	225	0	0.052	1.181	0.030	0.001	0.301	84.0	84.0	0.987	0.030	0.001	0.301	84.0	84.0
70_10.1	70_20	28	225	0	0.040	4.420	0.020	0.000	0.000	0.0	0.0	4.256	0.020	0.000	0.000	0.0	0.0
70_100.1	70_110	37	525	0	0.426	3.116	0.211	0.143	1.758	12339.0	12339.0	2.830	0.216	0.143	1.699	12339.0	12339.0
70_110.1	70_120	32	525	0	0.487	2.830	0.216	0.163	1.943	14089.0	14089.0	2.502	0.217	0.163	1.934	14089.0	14089.0
70_120.1	70_130	26	525	0	0.487	2.502	0.216	0.163	1.942	14089.0	14089.0	2.239	0.216	0.163	1.938	14089.0	14089.0
70_130.1	70_140	27	525	0	0.487	2.239	0.216	0.163	1.941	14089.0	14089.0	1.966	0.217	0.163	1.935	14089.0	14089.0
70_140.1	PS1	39	525	0	0.487	1.966	0.216	0.163	1.942	14089.0	14089.0	1.572	0.216	0.163	1.942	14089.0	14089.0
70_20.1	70_30	29	225	0	0.040	4.256	0.020	0.000	0.000	0.0	0.0	4.083	0.020	0.000	0.000	0.0	0.0
70_30.1	70_40	27	375	0	0.110	3.933	0.132	0.029	0.832	2485.0	2485.0	3.851	0.131	0.029	0.836	2485.0	2485.0
70_40.1	70_50	39	375	0	0.111	3.851	0.131	0.029	0.837	2485.0	2485.0	3.730	0.123	0.029	0.916	2485.0	2485.0
70_50.1	70_60	39	450	0	0.159	3.655	0.164	0.044	0.851	3840.2	3840.2	3.558	0.164	0.044	0.849	3840.2	3840.2
70_60.1	70_70	43	450	0	0.159	3.558	0.164	0.044	0.850	3840.2	3840.2	3.451	0.166	0.044	0.831	3840.2	3840.2
70_70.1	70_80	40	450	0	0.159	3.451	0.166	0.046	0.860	3973.2	3973.2	3.353	0.166	0.046	0.862	3973.2	3973.2
70_80.1	70_90	33	450	0	0.159	3.353	0.166	0.046	0.863	3973.2	3973.2	3.271	0.164	0.046	0.881	3973.2	3973.2
70_90.1	70_100	33	450	0	0.159	3.271	0.163	0.046	0.881	3973.2	3973.2	3.191	0.148	0.046	1.010	3973.2	3973.2
80_10.1	80_20	36	375	0	0.149	3.875	0.163	0.058	1.253	5000.1	5000.1	3.675	0.162	0.058	1.265	5000.1	5000.1
80_20.1	80_30	35	375	0	0.151	3.675	0.162	0.058	1.266	5000.1	5000.1	3.475	0.162	0.058	1.266	5000.1	5000.1
80_30.1	80_40	35	450	0	0.242	3.400	0.202	0.097	1.398	8365.8	8365.8	3.200	0.231	0.097	1.176	8365.8	8365.8
80_40.1	70_100	36	450	0	0.212	3.200	0.230	0.097	1.183	8365.8	8365.8	3.043	0.285	0.097	0.911	8365.8	8365.8
90_10.1	90_20	21	225	0	0.042	1.400	0.021	0.000	0.043	7.0	7.0	1.260	0.021	0.000	0.043	7.0	7.0
90_20.1	90_30	36	225	0	0.035	1.185	0.023	0.000	0.078	14.0	14.0	1.023	0.023	0.000	0.078	14.0	14.0
90_30.1	90_40	38	225	0	0.035	1.023	0.023	0.000	0.078	14.0	14.0	0.851	0.024	0.000	0.073	14.0	14.0
90_40.1	90_50	70	225	0	0.035	0.851	0.024	0.000	0.109	21.0	21.0	0.534	0.025	0.000	0.102	21.0	21.0
90_50.1	90_60	27	225	0	0.035	0.534	0.025	0.000	0.136	28.0	28.0	0.411	0.025	0.000	0.136	28.0	28.0
90_60.1	90_70	37	225	0	0.035	0.411	0.025	0.000	0.136	28.0	28.0	0.244	0.025	0.000	0.136	28.0	28.0
90_70.1	90_80	43	225	0	0.035	0.244	0.025	0.000	0.136	28.0	28.0	0.050	0.025	0.000	0.138	28.0	28.0
90_80.1	PS2	29	750	0	0.551	-2.034	0.356	0.282	1.360	24311.4	24311.4	-2.106	0.324	0.282	1.539	24311.3	24311.3
NPS.1	OUTFALL2					-0.619	0.116	1.224		38144.5	38144.5	-0.619	0.000	1.224		38144.5	38144.5
PS1.1	PS3					1.497	0.045	1.800		14066.1	14066.1	1.497	0.000	1.800		14066.1	14066.1
PS1A.1	OUTFALL1					-1.740	0.077	0.591		23547.8	23547.8	-1.740	0.000	0.591		23547.8	23547.8
PS2.1	105_20					-2.256	0.302	0.570		24313.9	24313.9	-2.256	5.819	0.570		24313.9	24313.9
PS3.2	ST SEWER					0.850	0.531	1.850		14057.5	14057.5	0.850	0.000	1.850		14057.5	14057.5
PS6.1	230_140					-2.810	0.082	0.530		23728.7	23728.7	-2.810	4.991	0.530		23728.7	23728.7

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 26/05/2008 Last page

Start of run

configured for MS Windows

Produced on 26/05/2008 at 10:50

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD-ULTIMATE
SCENARIO - 3DWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET21#15.spb sewerage_ultimate0801010_2_1_1 (Revision 15)
 State:
 Runoff: ...\\NET21#15.rpf sewerage_ultimate0801010_2_1_1 (Revision 15) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM177event.wwg User defined WWG item
 Inflows: ...\\SIM177event.qin 1
 Levels: ...\\SIM177event.lev 1
 RTC:
 Results: ...\\SIM177.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 170682.6 m3
 Total outflow = 170403.5 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
100_10	5.821	3.305	0.0	0.000	0.0	0.1	1621.3	0.000	0.000
100_20	5.752	3.063	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_30	5.683	2.768	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_40	5.614	2.454	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_50	5.545	2.278	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_60	5.611	-1.293	0.0	0.000	0.0	0.9	0.0	0.000	0.000
100_70	5.504	-1.378	0.0	0.000	0.0	0.9	982.8	0.000	0.000
100_80	5.263	-1.475	0.0	0.000	0.0	0.9	0.0	0.000	0.000
105_10	5.000	3.726	0.0	0.000	0.0	0.9	17658.8	0.000	0.000
105_100	5.420	0.157	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_110	5.750	0.044	0.0	0.000	0.0	1.2	0.0	0.000	0.000
105_120	6.000	-0.194	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_20	4.790	3.699	0.0	0.000	0.0	1.2	0.0	0.000	0.000
105_30	4.957	3.392	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_40	5.225	3.179	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_50	5.480	2.904	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_60	5.306	2.689	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_70	5.005	2.431	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_80	4.971	0.507	0.0	0.000	0.0	1.0	0.0	0.000	0.000
105_90	5.150	0.311	0.0	0.000	0.0	1.1	0.0	0.000	0.000
10_10	5.664	4.574	0.0	0.000	0.0	0.1	5610.1	0.000	0.000
10_100	4.846	1.615	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_100A	4.723	1.533	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_110	4.599	1.436	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_120	4.326	1.301	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_130	5.101	1.143	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_140	5.533	0.905	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_150	5.253	0.742	0.0	0.000	0.0	0.7	3669.7	0.000	0.000
10_160	5.720	0.651	0.0	0.000	0.0	0.8	0.0	0.000	0.000
10_170	6.210	0.436	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_180	5.895	0.012	0.0	0.000	0.0	0.6	10.5	0.000	0.000
10_190	6.086	-0.193	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_20	5.574	3.914	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_200	5.592	-0.421	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_210	5.358	-0.779	0.0	0.000	0.0	0.8	73.5	0.000	0.000
10_220	5.147	-1.014	0.0	0.000	0.0	1.0	57.7	0.000	0.000
10_30	5.494	3.442	0.0	0.000	0.0	0.1	0.0	0.000	0.000
10_40	5.324	2.958	0.0	0.000	0.0	0.3	5303.6	0.000	0.000
10_40A	5.239	2.831	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_50	5.154	2.677	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_60	4.898	2.441	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_70	4.643	2.137	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_70A	4.758	1.961	0.0	0.000	0.0	0.3	0.0	0.000	0.000

10_80	4.873	1.839	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_90	5.091	1.743	0.0	0.000	0.0	0.4	2651.8	0.000	0.000
110_10	5.200	1.596	0.0	0.000	0.0	0.1	1434.1	0.000	0.000
110_20	5.012	1.481	0.0	0.000	0.0	0.1	1048.5	0.000	0.000
110_30	4.882	1.300	0.0	0.000	0.0	0.1	1434.1	0.000	0.000
110_40	5.122	-1.127	0.0	0.000	0.0	0.9	1364.4	0.000	0.000
110_50	5.377	-1.211	0.0	0.000	0.0	0.9	1717.2	0.000	0.000
120_10	5.500	-0.902	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_100	5.547	2.673	0.0	0.000	0.0	0.4	0.0	0.000	0.000
120_110	5.598	2.795	0.0	0.000	0.0	0.4	1490.0	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
120_12	5.500	-0.853	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_120	5.648	2.899	0.0	0.000	0.0	0.4	1834.7	0.000	0.000
120_130	5.699	3.054	0.0	0.000	0.0	0.3	111.3	0.000	0.000
120_14	5.500	-0.765	0.0	0.000	0.0	0.6	0.0	0.000	0.000
120_140	5.749	3.189	0.0	0.000	0.0	0.3	1490.0	0.000	0.000
120_150	5.800	3.283	0.0	0.000	0.0	0.3	1834.7	0.000	0.000
120_16	5.500	-0.653	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_160	5.996	3.362	0.0	0.000	0.0	0.3	1603.4	0.000	0.000
120_170	6.237	3.452	0.0	0.000	0.0	0.2	1965.6	0.000	0.000
120_18	5.500	-0.548	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_180	6.494	3.548	0.0	0.000	0.0	0.2	73.5	0.000	0.000
120_190	6.486	3.660	0.0	0.000	0.0	0.2	2771.1	0.000	0.000
120_2	5.500	-1.088	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_20	5.500	1.577	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_200	6.218	3.924	0.0	0.000	0.0	0.1	0.0	0.000	0.000
120_210	6.040	4.107	0.0	0.000	0.0	0.1	1802.1	0.000	0.000
120_25	5.500	1.709	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_30	5.500	1.789	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_35	5.500	1.857	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_4	5.500	-1.045	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_40	5.500	1.924	0.0	0.000	0.0	0.7	0.0	0.000	0.000
120_45	5.500	2.007	0.0	0.000	0.0	0.7	3102.8	0.000	0.000
120_50	5.840	2.076	0.0	0.000	0.0	0.7	2079.0	0.000	0.000
120_6	5.500	-0.992	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_60	6.019	2.199	0.0	0.000	0.0	0.5	1580.3	0.000	0.000
120_70	5.815	2.293	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_8	5.500	-0.948	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_80	5.602	2.403	0.0	0.000	0.0	0.5	1535.1	0.000	0.000
120_90	5.353	2.504	0.0	0.000	0.0	0.5	3554.5	0.000	0.000
130_100	3.780	0.070	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_110	3.760	-0.055	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_120	3.760	-0.171	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_60	3.520	0.686	0.0	0.000	0.0	0.2	3045.9	0.000	0.000
130_70	3.600	0.451	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_80	3.680	0.298	0.0	0.000	0.0	0.1	0.0	0.000	0.000
130_90	3.780	0.165	0.0	0.000	0.0	0.1	114.4	0.000	0.000
135_20	3.740	2.095	0.0	0.000	0.0	0.0	103.5	0.000	0.000
140_10	4.421	3.216	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_100	5.200	3.096	0.0	0.000	0.0	3.0	0.0	0.000	0.000
140_20	5.089	3.097	0.0	0.000	0.0	0.1	0.0	0.000	0.000
140_30	5.452	3.097	0.0	0.000	0.0	0.3	0.0	0.000	0.000
140_40	5.325	3.097	0.0	0.000	0.0	0.6	0.0	0.000	0.000
140_50	5.063	3.097	0.0	0.000	0.0	0.8	0.0	0.000	0.000
140_60	5.051	3.097	0.0	0.000	0.0	1.2	0.0	0.000	0.000
140_70	5.024	3.097	0.0	0.000	0.0	1.6	0.0	0.000	0.000

140_80	5.274	3.097	0.0	0.000	0.0	2.0	0.0	0.000	0.000
140_90	5.439	3.096	0.0	0.000	0.0	2.6	0.0	0.000	0.000
150_10	5.873	4.536	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_20	5.497	3.986	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_30	5.149	3.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_100	5.094	1.754	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_110	5.300	1.593	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_120	5.500	1.415	0.0	0.000	0.0	0.2	0.0	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 4

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_130	5.599	1.290	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_140	5.300	1.180	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_150	5.000	1.047	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_160	4.900	0.954	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_170	5.000	0.834	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_180	5.110	0.727	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_190	5.400	0.594	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_200	5.000	0.336	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_210	4.700	0.219	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_220	4.800	0.117	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_230	5.118	0.002	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_240	5.141	-0.095	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_250	5.220	-0.207	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_260	5.300	-0.322	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_270	5.555	-0.437	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_280	5.294	-0.566	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_290	5.147	-0.693	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_300	5.000	-0.796	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_310	5.000	-0.856	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_315	5.500	-0.964	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_320	5.458	-1.180	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_330	4.789	-1.421	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_340	4.582	-1.646	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_350	4.586	-1.884	0.0	0.000	0.0	0.8	355.4	0.000	0.000
160_360	5.000	-2.064	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_370	5.000	-2.146	0.0	0.000	0.0	0.8	0.0	0.000	0.000
160_380	5.000	-2.215	0.0	0.000	0.0	0.7	0.0	0.000	0.000
160_50	4.688	2.683	0.0	0.000	0.0	0.1	916.0	0.000	0.000
160_50A1	4.710	2.608	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A2	4.731	2.544	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A3	4.731	2.469	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60	4.753	2.396	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60A	4.888	2.265	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_70	5.000	2.152	0.0	0.000	0.0	0.1	629.4	0.000	0.000
160_80	5.000	2.055	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_90	5.000	1.903	0.0	0.000	0.0	0.2	0.0	0.000	0.000
170_10	4.950	3.490	0.0	0.000	0.0	0.1	748.0	0.000	0.000
170_20	4.950	3.136	0.0	0.000	0.0	0.1	841.4	0.000	0.000
170_30	4.950	2.888	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_40	4.950	2.659	0.0	0.000	0.0	0.1	841.4	0.000	0.000
180_10	5.429	3.855	0.0	0.000	0.0	0.1	691.7	0.000	0.000
180_20	5.429	3.660	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_30	5.429	3.505	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_40	5.429	3.383	0.0	0.000	0.0	0.1	823.6	0.000	0.000
190_10	4.896	3.853	0.0	0.000	0.0	0.1	838.5	0.000	0.000

190_20	4.896	3.691	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_30	4.896	3.525	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_40	4.896	3.398	0.0	0.000	0.0	0.1	903.5	0.000	0.000
200_10	5.042	4.035	0.0	0.000	0.0	0.1	822.7	0.000	0.000
200_20	5.042	3.878	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_30	5.042	3.716	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_40	5.042	3.588	0.0	0.000	0.0	0.1	894.7	0.000	0.000
20_10	4.884	2.048	0.0	0.000	0.0	0.1	103.5	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 5

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
20_20	5.116	1.772	0.0	0.000	0.0	0.0	108.5	0.000	0.000
20_20A	5.085	1.656	0.0	0.000	0.0	0.0	0.0	0.000	0.000
20_30	5.054	1.616	0.0	0.000	0.0	0.1	108.5	0.000	0.000
210_10	5.238	4.015	0.0	0.000	0.0	0.1	1000.1	0.000	0.000
210_20	5.238	3.894	0.0	0.000	0.0	0.1	0.0	0.000	0.000
210_30	5.238	3.881	0.0	0.000	0.0	0.3	0.0	0.000	0.000
210_40	5.238	3.876	0.0	0.000	0.0	0.4	1284.3	0.000	0.000
220_10	5.000	-0.136	0.0	0.000	0.0	0.7	23023.9	0.000	0.000
220_20	5.000	-0.344	0.0	0.000	0.0	0.6	0.0	0.000	0.000
230_10	4.950	3.817	0.0	0.000	0.0	0.2	0.0	0.000	0.000
230_100	5.501	3.651	0.0	0.000	0.0	1.9	0.0	0.000	0.000
230_110	5.453	3.624	0.0	0.000	0.0	2.1	0.0	0.000	0.000
230_120	4.875	3.590	0.0	0.000	0.0	2.4	0.0	0.000	0.000
230_130	4.500	3.566	0.0	0.000	0.0	3.1	0.0	1.507	0.042
230_140	4.500	3.549	0.0	0.000	0.0	5.9	3454.5	0.000	0.000
230_150	4.500	3.406	0.0	0.000	0.0	6.1	0.0	0.000	0.000
230_160	4.500	3.171	0.0	0.000	0.0	6.2	73.5	0.000	0.000
230_170	4.500	2.994	0.0	0.000	0.0	6.3	2743.7	0.000	0.000
230_180	4.500	2.614	0.0	0.000	0.0	6.3	0.0	0.000	0.000
230_20	4.730	3.817	0.0	0.000	0.0	0.4	3513.0	0.000	0.000
230_30	4.950	3.796	0.0	0.000	0.0	0.5	0.0	0.000	0.000
230_40	5.191	3.777	0.0	0.000	0.0	0.7	0.0	0.000	0.000
230_50	5.430	3.759	0.0	0.000	0.0	0.9	0.0	0.000	0.000
230_60	5.716	3.743	0.0	0.000	0.0	1.0	0.0	0.000	0.000
230_70	5.871	3.727	0.0	0.000	0.0	1.1	0.0	0.000	0.000
230_80	6.230	3.710	0.0	0.000	0.0	1.3	0.0	0.000	0.000
230_90	5.065	3.680	0.0	0.000	0.0	1.6	0.0	0.000	0.000
240_10	4.500	3.566	0.0	0.000	0.0	0.2	31.5	-6.236	19.798
250_10	4.500	3.756	0.0	0.000	0.0	1.8	9619.0	0.000	0.000
250_20	4.500	3.690	0.0	0.000	0.0	2.3	0.0	0.000	0.000
250_30	4.500	3.610	0.0	0.000	0.0	2.8	0.0	0.000	0.000
250_40	4.500	3.533	0.0	0.000	0.0	3.2	3207.7	0.000	0.000
30_10	5.045	2.451	0.0	0.000	0.0	0.2	3669.7	0.000	0.000
30_20	4.843	2.327	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_30	4.640	2.206	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_40	4.803	2.067	0.0	0.000	0.0	0.1	0.0	0.000	0.000
30_50	5.041	1.933	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_60	5.088	1.813	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_70	4.866	1.652	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_80	4.649	1.491	0.0	0.000	0.0	0.3	3669.7	0.000	0.000
40_10	5.850	2.743	0.0	0.000	0.0	0.1	1868.1	0.000	0.000
40_100	5.747	-0.191	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_110	5.566	-0.394	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_20	5.737	2.605	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_30	5.523	2.337	0.0	0.000	0.0	0.2	1277.2	0.000	0.000

40_40	5.195	2.126	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_50	5.139	2.030	0.0	0.000	0.0	0.2	108.5	0.000	0.000
40_60	5.461	0.822	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_70	5.367	0.675	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_80	5.660	0.325	0.0	0.000	0.0	0.2	103.5	0.000	0.000
40_90	5.927	0.041	0.0	0.000	0.0	0.2	1263.6	0.000	0.000
50_10	5.070	1.511	0.0	0.000	0.0	0.1	2726.3	0.000	0.000
50_20	4.733	1.387	0.0	0.000	0.0	0.2	1335.6	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event -

1 WS01550002PM Produced 26/05/2008 Pg 6

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
50_30	5.132	1.025	0.0	0.000	0.0	0.2	1408.2	0.000	0.000
60_10	5.462	1.943	0.0	0.000	0.0	0.0	108.5	0.000	0.000
60_20	5.497	1.588	0.0	0.000	0.0	0.0	0.0	0.000	0.000
60_30	5.532	1.213	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_10	5.645	4.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_100	5.996	3.381	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_110	5.835	3.098	0.0	0.000	0.0	0.3	2625.0	0.000	0.000
70_120	5.614	2.772	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_130	5.500	2.508	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_140	5.630	2.238	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_20	5.600	4.276	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_30	5.737	4.097	0.0	0.000	0.0	0.2	3727.5	0.000	0.000
70_40	5.924	4.014	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_50	5.980	3.859	0.0	0.000	0.0	0.2	2032.8	0.000	0.000
70_60	5.721	3.763	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_70	5.427	3.659	0.0	0.000	0.0	0.2	199.5	0.000	0.000
70_80	5.560	3.560	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_90	5.781	3.476	0.0	0.000	0.0	0.2	0.0	0.000	0.000
80_10	5.636	4.077	0.0	0.000	0.0	0.2	7160.3	0.000	0.000
80_20	5.400	3.876	0.0	0.000	0.0	0.2	0.0	0.000	0.000
80_30	5.172	3.662	0.0	0.000	0.0	0.3	5048.5	0.000	0.000
80_40	5.235	3.503	0.0	0.000	0.0	0.3	0.0	0.000	0.000
90_10	4.642	1.422	0.0	0.000	0.0	0.0	10.5	0.000	0.000
90_20	4.642	1.209	0.0	0.000	0.0	0.0	10.5	0.000	0.000
90_30	4.592	1.047	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_40	4.847	0.876	0.0	0.000	0.0	0.0	10.5	0.000	0.000
90_50	5.309	0.561	0.0	0.000	0.0	0.0	10.5	0.000	0.000
90_60	5.470	0.438	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_70	4.794	0.271	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_80	5.075	-1.565	0.0	0.000	0.0	0.8	0.0	0.000	0.000
NPS	3.760	-0.452	0.0	0.000	0.0	454.8	0.0	0.000	0.000
PS1	5.834	1.561	0.0	0.000	0.0	456.1	0.0	0.000	0.000
PS1A	5.223	-1.618	0.0	0.000	0.0	138.2	0.0	0.000	0.000
PS2	4.921	-1.785	0.0	0.000	0.0	80.4	0.0	0.000	0.000
PS3	5.882	1.390	0.0	0.000	0.0	439.0	0.0	0.000	0.000
PS6	5.000	-2.689	0.0	0.000	0.0	151.1	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert		Upstream		Total Flow (m3)	> Invert		Downstream		Total Flow (m3)
						Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)		Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)	
100_10.1	100_20	53	300	0	0.075	3.200	0.105	0.019	0.865	1621.2	2.958	0.105	0.019	0.862	1620.6
100_20.1	100_30	65	300	0	0.074	2.958	0.105	0.019	0.863	1620.5	2.663	0.105	0.019	0.864	1619.7
100_30.1	100_40	69	300	0	0.075	2.663	0.105	0.019	0.865	1619.6	2.349	0.105	0.019	0.862	1618.8
100_40.1	100_50	39	300	0	0.074	2.349	0.105	0.019	0.863	1618.7	2.173	0.105	0.019	0.864	1618.2
100_50.1	100_60	28	300	0	0.075	2.173	0.105	0.019	0.865	1618.2	2.046	0.105	0.019	0.865	1617.8
100_60.1	100_70	32	750	0	0.535	-1.795	0.495	0.411	1.328	35443.2	-1.871	0.494	0.411	1.331	35442.9
100_70.1	100_80	36	750	0	0.552	-1.871	0.490	0.422	1.380	36425.7	-1.960	0.485	0.422	1.395	36425.4
100_80.1	90_80	30	750	0	0.551	-1.960	0.481	0.422	1.408	36425.4	-2.034	0.471	0.422	1.445	36425.1
105_10.1	105_20	54	750	0	0.734	3.250	0.475	0.214	1.360	17658.3	3.010	0.690	0.430	1.724	17647.8
105_100.1	105_110	21	750	0	0.902	-0.474	0.616	0.710	2.160	54110.4	-0.611	0.663	0.706	2.107	54109.2
105_110.1	105_120	30	750	0	0.902	-0.611	0.558	0.705	2.151	54109.0	-0.812	0.625	0.701	2.088	54107.3
105_120.1	NPS	43	750	0	0.902	-0.812	0.525	0.701	2.246	54107.1	-1.102	0.651	0.797	2.281	54105.3
105_20.1	105_30	28	750	0	0.902	3.010	0.553	0.772	2.438	54113.8	2.825	0.569	0.769	2.215	54113.5
105_30.1	105_40	31	750	0	0.902	2.825	0.547	0.769	2.315	54113.2	2.620	0.560	0.765	2.231	54112.0
105_40.1	105_50	41	750	0	0.902	2.620	0.541	0.764	2.290	54111.8	2.349	0.556	0.758	2.213	54111.8
105_50.1	105_60	31	750	0	0.902	2.349	0.539	0.757	2.263	54111.6	2.139	0.552	0.751	2.199	54112.1
105_60.1	105_70	37	750	0	0.900	2.139	0.529	0.750	2.263	54111.8	1.895	0.537	0.742	2.206	54112.2
105_70.1	105_80	25	750	0	0.903	1.895	0.522	0.742	2.269	54112.1	1.730	0.522	0.742	2.260	54112.1
105_80.1	105_90	34	750	0	0.902	-0.050	0.545	0.741	2.241	54111.9	-0.278	0.591	0.729	2.151	54111.6
105_90.1	105_100	29	750	0	0.900	-0.278	0.574	0.728	2.191	54111.5	-0.474	0.633	0.712	2.122	54110.6
10_10.1	10_20	42	375	0	0.252	4.439	0.135	0.065	1.814	5610.1	3.768	0.146	0.065	1.636	5610.1
10_100.1	10_100A	24	525	0	0.258	1.320	0.294	0.161	1.289	13885.9	1.250	0.283	0.161	1.352	13885.9
10_100A.1	10_110	22	525	0	0.273	1.250	0.282	0.161	1.357	13885.9	1.180	0.270	0.161	1.435	13885.9
10_110.1	10_120	27	600	0	0.405	1.100	0.334	0.246	1.520	21225.4	0.980	0.323	0.246	1.583	21225.4
10_120.1	10_130	28	600	0	0.445	0.980	0.320	0.246	1.601	21225.4	0.830	0.320	0.246	1.601	21225.4
10_130.1	10_140	57	675	0	0.585	0.830	0.313	0.246	1.516	21225.4	0.550	0.355	0.246	1.290	21225.4
10_140.1	10_150	67	675	0	0.480	0.550	0.354	0.246	1.292	21225.4	0.330	0.412	0.246	1.072	21225.4
10_150.1	10_160	48	675	0	0.542	0.330	0.410	0.288	1.266	24895.2	0.130	0.522	0.288	0.971	24895.2
10_160.1	10_170	78	675	0	0.093	0.130	0.518	0.288	0.977	24895.2	0.120	0.338	0.288	1.610	24895.2
10_170.1	10_180	78	675	0	0.661	0.120	0.315	0.288	1.757	24895.2	-0.370	0.383	0.288	1.376	24895.2
10_180.1	10_190	62	675	0	0.485	-0.370	0.379	0.288	1.396	24905.7	-0.580	0.387	0.288	1.358	24905.7
10_190.1	10_200	74	675	0	0.474	-0.580	0.385	0.288	1.369	24905.7	-0.820	0.400	0.288	1.304	24905.7
10_20.1	10_30	38	375	0	0.219	3.768	0.145	0.065	1.651	5610.1	3.308	0.145	0.065	1.651	5610.1
10_200.1	10_210	108	675	0	0.463	-0.820	0.388	0.288	1.356	24905.7	-1.150	0.371	0.288	1.429	24905.7
10_210.1	10_220	84	750	0	0.691	-1.230	0.434	0.407	1.536	35178.7	-1.560	0.548	0.407	1.177	35178.7
10_220.1	PS1A	50	750	0	0.269	-1.560	0.516	0.408	1.258	35236.4	-1.590	0.392	0.408	1.744	35236.4
10_30.1	10_40	32	375	0	0.259	3.308	0.133	0.065	1.845	5610.1	2.775	0.183	0.065	1.214	5610.1
10_40.1	10_40A	29	450	0	0.204	2.700	0.256	0.126	1.354	10913.6	2.585	0.249	0.126	1.397	10913.6
10_40A.1	10_50	24	450	0	0.222	2.585	0.244	0.126	1.431	10913.6	2.470	0.244	0.126	1.431	10913.6
10_50.1	10_60	31	450	0	0.300	2.470	0.207	0.126	1.769	10913.6	2.200	0.241	0.126	1.459	10913.6
10_60.1	10_70	39	450	0	0.230	2.200	0.240	0.126	1.466	10913.6	2.000	0.240	0.126	1.466	10913.6
10_70.1	10_70A	27	525	0	0.391	1.930	0.206	0.126	1.601	10913.6	1.755	0.206	0.126	1.598	10913.6
10_70A.1	10_80	23	525	0	0.423	1.755	0.206	0.126	1.600	10913.6	1.580	0.259	0.126	1.189	10913.6
10_80.1	10_90	39	525	0	0.278	1.580	0.259	0.126	1.189	10913.6	1.450	0.293	0.126	1.017	10913.6
10_90.1	10_100	42	525	0	0.268	1.450	0.292	0.157	1.271	13565.4	1.320	0.295	0.157	1.253	13565.4
110_10.1	110_20	29	300	0	0.079	1.500	0.096	0.017	0.849	1434.1	1.355	0.126	0.017	0.592	1434.1
110_20.1	110_30	34	300	0	0.080	1.355	0.125	0.029	1.026	2482.7	1.175	0.125	0.029	1.036	2482.7
110_30.1	110_40	35	375	0	0.208	1.175	0.124	0.045	1.416	3916.8	0.797	0.124	0.045	1.416	3916.8
110_40.1	110_50	42	750	0	0.490	-1.650	0.511	0.372	1.173	32108.6	-1.733	0.523	0.372	1.150	32108.4
110_50.1	100_60	31	750	0	0.495	-1.733	0.505	0.392	1.261	33825.6	-1.795	0.503	0.392	1.279	33825.4
120_10.1	120_8	28	750	0	0.454	-1.369	0.466	0.311	1.081	26827.8	-1.417	0.469	0.311	1.073	26827.7
120_100.1	120_90	33	500	0	0.244	2.366	0.304	0.173	1.388	14976.1	2.255	0.285	0.173	1.502	14976.1
120_110.1	120_100	34	500	0	0.245	2.481	0.311	0.173	1.350	14976.1	2.366	0.307	0.173	1.372	14976.1

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		Total Flow (m3)	> <		Downstream		Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
120_12.1	120_10	29	750	0	0.420	-1.327	0.472	0.311	1.063	26827.8	-1.369	0.467	0.311	1.076	26827.8
120_120.1	120_110	35	500	0	0.245	2.599	0.298	0.156	1.277	13486.2	2.481	0.314	0.156	1.202	13486.2
120_130.1	120_120	37	450	0	0.186	2.773	0.279	0.135	1.302	11651.6	2.649	0.258	0.135	1.431	11651.5
120_14.1	120_12	25	675	0	0.491	-1.164	0.395	0.311	1.428	26827.8	-1.252	0.399	0.311	1.415	26827.8
120_140.1	120_130	39	450	0	0.186	2.902	0.284	0.134	1.263	11540.3	2.773	0.282	0.134	1.275	11540.3
120_150.1	120_140	34	450	0	0.186	3.015	0.267	0.116	1.184	10050.3	2.902	0.287	0.116	1.087	10050.3
120_16.1	120_14	35	675	0	0.427	-1.072	0.417	0.311	1.339	26827.8	-1.164	0.400	0.311	1.408	26827.8
120_160.1	120_150	32	450	0	0.186	3.123	0.239	0.095	1.109	8215.7	3.015	0.269	0.095	0.960	8215.7
120_170.1	120_160	36	450	0	0.181	3.241	0.211	0.077	1.046	6612.3	3.126	0.236	0.077	0.905	6612.3
120_18.1	120_16	37	675	0	0.430	-0.975	0.424	0.311	1.311	26827.8	-1.072	0.419	0.311	1.330	26827.8
120_180.1	120_170	41	450	0	0.185	3.377	0.171	0.054	0.971	4646.7	3.241	0.211	0.054	0.735	4646.7
120_190.1	120_180	34	450	0	0.189	3.495	0.165	0.053	1.005	4573.2	3.377	0.171	0.053	0.955	4573.2
120_2.1	110_40	21	750	0	0.502	-1.561	0.465	0.311	1.091	26827.5	-1.605	0.478	0.311	1.059	26827.5
120_20.1	120_18	39	675	0	0.417	1.173	0.402	0.311	1.398	26827.8	1.076	0.352	0.311	1.646	26827.8
120_200.1	120_190	35	300	0	0.077	3.816	0.108	0.021	0.908	1802.1	3.645	0.108	0.021	0.908	1802.1
120_210.1	120_200	36	300	0	0.079	4.000	0.107	0.021	0.924	1802.1	3.816	0.108	0.021	0.908	1802.1
120_25.1	120_20	41	675	0	0.417	1.275	0.424	0.311	1.314	26827.8	1.173	0.404	0.311	1.388	26827.8
120_30.1	120_25	30	675	0	0.416	1.350	0.437	0.311	1.268	26827.8	1.275	0.435	0.311	1.272	26827.8
120_35.1	120_30	26	675	0	0.419	1.416	0.438	0.311	1.264	26827.8	1.350	0.439	0.311	1.259	26827.8
120_4.1	120_2	26	750	0	0.489	-1.509	0.462	0.311	1.095	26827.6	-1.561	0.474	0.311	1.067	26827.5
120_40.1	120_35	27	675	0	0.416	1.482	0.440	0.311	1.258	26827.8	1.416	0.441	0.311	1.254	26827.8
120_45.1	120_40	27	675	0	0.417	1.549	0.440	0.311	1.255	26827.8	1.482	0.443	0.311	1.249	26827.8
120_50.1	120_45	33	675	0	0.419	1.633	0.433	0.275	1.132	23725.0	1.549	0.459	0.275	1.059	23725.0
120_6.1	120_4	31	750	0	0.419	-1.464	0.470	0.311	1.071	26827.7	-1.509	0.465	0.311	1.090	26827.6
120_60.1	120_50	34	600	0	0.353	1.822	0.374	0.251	1.354	21646.0	1.708	0.369	0.251	1.374	21646.0
120_70.1	120_60	31	600	0	0.353	1.926	0.365	0.232	1.289	20065.8	1.822	0.377	0.232	1.241	20065.8
120_8.1	120_6	27	750	0	0.459	-1.417	0.467	0.311	1.078	26827.7	-1.464	0.472	0.311	1.066	26827.7
120_80.1	120_70	34	600	0	0.355	2.041	0.360	0.232	1.311	20065.8	1.926	0.367	0.232	1.280	20065.8
120_90.1	120_80	34	600	0	0.353	2.155	0.347	0.214	1.265	18530.7	2.041	0.362	0.214	1.202	18530.7
130_100.1	130_110	33	375	0	0.122	-0.072	0.142	0.037	0.957	3160.4	-0.197	0.142	0.037	0.956	3160.4
130_110.1	130_120	31	375	0	0.122	-0.197	0.142	0.037	0.957	3160.4	-0.313	0.142	0.037	0.955	3160.3
130_120.1	NPS	41	375	0	0.122	-0.313	0.142	0.037	0.959	3160.3	-0.469	0.139	0.037	0.985	3160.3
130_60.1	130_70	36	300	0	0.071	0.536	0.150	0.035	0.996	3045.9	0.385	0.146	0.035	1.036	3045.9
130_70.1	130_80	43	375	0	0.118	0.310	0.141	0.035	0.926	3045.9	0.157	0.141	0.035	0.925	3045.9
130_80.1	130_90	38	375	0	0.118	0.157	0.141	0.035	0.925	3045.9	0.023	0.143	0.035	0.912	3045.9
130_90.1	130_100	26	375	0	0.121	0.023	0.143	0.037	0.949	3160.4	-0.072	0.142	0.037	0.956	3160.4
135_20.1	OUTFALL2	25	300	0	0.109	2.066	0.029	0.001	0.340	103.5	1.826	0.029	0.001	0.340	103.5
140_10.1	140_20	35	225	0	0.040	3.196	0.020	0.000	0.000	0.0	2.990	0.107	0.000	0.000	0.0
140_100.1	OUTFALL3	31	375	0	0.191	0.137	2.959	0.000	0.000	0.0x	-0.145	3.241	0.000	0.000	0.0x
140_20.1	140_30	38	225	0	0.040	2.990	0.107	0.000	0.000	0.0	2.762	0.335	0.000	0.000	0.0x
140_30.1	140_40	40	225	0	0.040	2.762	0.335	0.000	0.000	0.0x	2.527	0.570	0.000	0.000	0.0x
140_40.1	140_50	44	225	0	0.040	2.527	0.570	0.000	0.000	0.0x	2.265	0.832	0.000	0.000	0.0x
140_50.1	140_60	32	225	0	0.040	2.265	0.832	0.000	0.000	0.0x	2.077	1.020	0.000	0.000	0.0x
140_60.1	140_70	44	375	0	0.200	1.927	1.170	0.000	0.000	0.0x	1.486	1.611	0.000	0.000	0.0x
140_70.1	140_80	45	375	0	0.188	1.486	1.611	0.000	0.000	0.0x	1.084	2.013	0.000	0.000	0.0x
140_80.1	140_90	46	375	0	0.212	1.084	2.013	0.000	0.000	0.0x	0.567	2.529	0.000	0.000	0.0x
140_90.1	140_100	38	375	0	0.212	0.567	2.529	0.000	0.000	0.0x	0.137	2.959	0.000	0.000	0.0x
150_10.1	150_20	55	375	0	0.200	4.498	0.038	0.000	0.000	0.0	3.948	0.038	0.000	0.000	0.0
150_20.1	150_30	53	375	0	0.200	3.948	0.038	0.000	0.000	0.0	3.420	0.038	0.000	0.000	0.0
150_30.1	140_60	33	375	0	0.200	3.420	0.020	0.000	0.000	0.0	3.090	0.020	0.000	0.000	0.0
160_100.1	160_110	43	375	0	0.118	1.590	0.164	0.046	0.995	3974.9	1.440	0.156	0.046	1.059	3974.7
160_110.1	160_120	33	375	0	0.134	1.440	0.153	0.046	1.090	3974.7	1.290	0.153	0.046	1.090	3974.6
160_120.1	160_130	46	450	0	0.163	1.220	0.195	0.064	0.961	5489.9	1.100	0.190	0.064	0.997	5489.8

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)		Upstream Max Flow (m3/s)		Total Flow (m3)	> Invert Level (m AD)		Downstream Max Flow (m3/s)		Total Flow (m3)
160_130.1	160_140	40	450	0	0.175	1.100	0.190	0.064	0.997	5489.8	0.980	0.200	0.064	0.933	5489.6
160_140.1	160_150	54	450	0	0.158	0.980	0.200	0.064	0.933	5489.6	0.850	0.197	0.064	0.949	5489.5
160_150.1	160_160	24	450	0	0.228	0.850	0.197	0.084	1.251	7231.5	0.730	0.224	0.084	1.058	7231.4
160_160.1	160_170	43	450	0	0.170	0.730	0.224	0.084	1.058	7231.4	0.610	0.224	0.084	1.062	7231.3
160_170.1	160_180	41	450	0	0.174	0.610	0.224	0.084	1.062	7231.3	0.490	0.237	0.084	0.987	7231.2
160_180.1	160_190	53	450	0	0.153	0.490	0.237	0.084	0.989	7231.2	0.370	0.224	0.084	1.063	7231.0
160_190.1	160_200	28	450	0	0.212	0.370	0.223	0.104	1.316	8948.4	0.250	0.223	0.104	1.316	8948.3
160_200.1	160_210	43	600	0	0.323	0.100	0.236	0.104	1.005	8948.3	-0.020	0.239	0.104	0.985	8948.2
160_210.1	160_220	41	600	0	0.317	-0.020	0.239	0.104	0.986	8948.2	-0.130	0.247	0.104	0.945	8948.1
160_220.1	160_230	51	600	0	0.297	-0.130	0.247	0.104	0.945	8948.1	-0.250	0.253	0.104	0.918	8947.9
160_230.1	160_240	31	600	0	0.365	-0.250	0.252	0.130	1.152	11232.3	-0.360	0.265	0.130	1.080	11232.2
160_240.1	160_250	39	600	0	0.325	-0.360	0.265	0.130	1.081	11232.2	-0.470	0.263	0.130	1.094	11232.1
160_250.1	160_260	40	600	0	0.335	-0.470	0.263	0.130	1.094	11232.1	-0.590	0.268	0.130	1.065	11232.0
160_260.1	160_270	41	600	0	0.317	-0.590	0.268	0.130	1.065	11232.0	-0.700	0.263	0.130	1.094	11231.9
160_270.1	160_280	42	600	0	0.328	-0.700	0.262	0.130	1.094	11231.8	-0.820	0.254	0.130	1.143	11231.7
160_280.1	160_290	35	600	0	0.341	-0.820	0.254	0.130	1.144	11231.7	-0.930	0.237	0.130	1.286	11231.6
160_290.1	160_300	26	600	0	0.416	-0.930	0.237	0.130	1.287	11231.6	-1.050	0.254	0.130	1.301	11231.3
160_300.1	160_310	22	600	0	0.433	-1.050	0.254	0.130	1.321	11231.3	-1.160	0.304	0.130	1.336	11230.6
160_310.1	160_315	32	750	0	0.665	-1.310	0.439	0.400	1.490	34238.5	-1.428	0.464	0.400	1.396	34235.3
160_315.1	160_320	70	750	0	0.564	-1.428	0.460	0.400	1.408	34235.0	-1.610	0.430	0.400	1.529	34228.2
160_320.1	160_330	71	750	0	0.680	-1.610	0.422	0.400	1.561	34228.0	-1.880	0.459	0.400	1.413	34221.2
160_330.1	160_340	80	750	0	0.593	-1.880	0.457	0.400	1.422	34220.9	-2.110	0.464	0.400	1.394	34212.9
160_340.1	160_350	81	750	0	0.573	-2.110	0.461	0.400	1.404	34212.7	-2.330	0.446	0.400	1.462	34204.5
160_350.1	160_360	52	750	0	0.628	-2.330	0.440	0.404	1.503	34559.6	-2.500	0.436	0.404	1.519	34554.6
160_360.1	160_370	21	750	0	0.674	-2.500	0.428	0.404	1.552	34554.3	-2.580	0.434	0.404	1.525	34552.3
160_370.1	160_380	16	750	0	0.550	-2.580	0.430	0.404	1.545	34552.1	-2.620	0.406	0.404	1.658	34550.7
160_380.1	PS6	9	750	0	0.730	-2.620	0.394	0.404	1.718	34550.5	-2.660	0.392	0.404	1.732	34549.7
160_50.1	160_50A1	25	375	0	0.104	2.600	0.083	0.011	0.593	916.0	2.530	0.078	0.011	0.638	915.8
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.078	0.011	0.639	915.8	2.460	0.084	0.011	0.583	915.7
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.084	0.011	0.583	915.7	2.390	0.079	0.011	0.626	915.6
160_50A3.1	160_60	21	375	0	0.113	2.390	0.079	0.011	0.626	915.6	2.321	0.075	0.011	0.683	915.5
160_60.1	160_60A	32	375	0	0.130	2.321	0.075	0.011	0.684	915.5	2.186	0.079	0.011	0.626	915.3
160_60A.1	160_70	41	375	0	0.114	2.186	0.079	0.011	0.626	915.3	2.050	0.102	0.011	0.440	915.1
160_70.1	160_80	44	375	0	0.117	2.050	0.102	0.018	0.741	1544.5	1.900	0.155	0.018	0.416	1544.3
160_80.1	160_90	35	375	0	0.130	1.900	0.155	0.046	1.069	3975.1	1.750	0.155	0.046	1.069	3975.0
160_90.1	160_100	35	375	0	0.134	1.750	0.153	0.046	1.085	3975.0	1.590	0.164	0.046	0.995	3974.9
170_10.1	170_20	40	225	0	0.052	3.425	0.065	0.009	0.910	748.0	3.027	0.109	0.009	0.454	748.0
170_20.1	170_30	41	225	0	0.040	3.027	0.109	0.018	0.965	1589.4	2.779	0.109	0.018	0.963	1589.4
170_30.1	170_40	43	225	0	0.040	2.779	0.109	0.018	0.963	1589.4	2.521	0.138	0.018	0.719	1589.4
170_40.1	160_80	47	225	0	0.042	2.521	0.136	0.028	1.116	2430.8	2.208	0.136	0.028	1.116	2430.8
180_10.1	180_20	45	300	0	0.072	3.785	0.070	0.008	0.643	691.7	3.590	0.070	0.008	0.636	691.7
180_20.1	180_30	37	300	0	0.071	3.590	0.070	0.008	0.636	691.7	3.435	0.070	0.008	0.636	691.7
180_30.1	180_40	38	300	0	0.072	3.435	0.070	0.008	0.637	691.7	3.273	0.110	0.008	0.343	691.7
180_40.1	160_120	53	300	0	0.063	3.273	0.110	0.018	0.751	1515.3	3.100	0.102	0.018	0.828	1515.3
190_10.1	190_20	40	300	0	0.071	3.776	0.077	0.010	0.674	838.5	3.614	0.077	0.010	0.676	838.5
190_20.1	190_30	40	300	0	0.071	3.614	0.077	0.010	0.677	838.5	3.448	0.077	0.010	0.672	838.5
190_30.1	190_40	41	300	0	0.071	3.448	0.077	0.010	0.673	838.5	3.281	0.117	0.010	0.379	838.5
190_40.1	160_150	54	300	0	0.064	3.281	0.117	0.020	0.788	1742.0	3.100	0.109	0.020	0.865	1742.0
200_10.1	200_20	38	300	0	0.071	3.959	0.076	0.010	0.672	822.7	3.802	0.076	0.010	0.677	822.7
200_20.1	200_30	39	300	0	0.072	3.802	0.076	0.010	0.678	822.7	3.639	0.077	0.010	0.663	822.7
200_30.1	200_40	42	300	0	0.070	3.639	0.077	0.010	0.663	822.7	3.472	0.116	0.010	0.377	822.7
200_40.1	160_190	51	300	0	0.064	3.472	0.116	0.020	0.787	1717.4	3.300	0.109	0.020	0.861	1717.4
20_10.1	20_20	22	450	0	0.355	2.000	0.048	0.001	0.131	103.5	1.730	0.048	0.001	0.131	103.5

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	<		Upstream		>		<		Downstream		Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)			
20_20.1	20_20A	36	450	0	0.183	1.730	0.042	0.002	0.330	212.0	1.615	0.041	0.002	0.336	212.0	
20_20A.1	20_30	24	450	0	0.224	1.615	0.041	0.002	0.336	212.0	1.500	0.116	0.002	0.075	212.0	
20_30.1	10_100	41	450	0	0.214	1.500	0.116	0.004	0.114	320.5	1.320	0.295	0.004	0.034	320.5	
210_10.1	210_20	38	300	0	0.071	3.931	0.084	0.012	0.715	1000.1	3.773	0.121	0.012	0.434	1000.1	
210_20.1	210_30	40	300	0	0.071	3.773	0.121	0.012	0.434	1000.1	3.606	0.275	0.012	0.171	1000.1	
210_30.1	210_40	39	300	0	0.071	3.606	0.275	0.012	0.171	1000.1	3.442	0.434	0.012	0.157	1000.1x	
210_40.1	160_230	47	300	0	0.112	3.772	0.104	0.026	1.223	2284.4	3.300	0.104	0.026	1.223	2284.4	
220_10.1	220_20	75	750	0	0.570	-0.500	0.364	0.270	1.273	23023.6	-0.700	0.356	0.270	1.306	23015.6	
220_20.1	160_310	73	750	0	0.579	-0.700	0.356	0.270	1.306	23015.3	-0.900	0.317	0.270	1.518	23008.2	
230_10.1	230_20	36	375	0	0.132	3.575	0.242	0.001	0.079	0.0	3.417	0.400	0.016	0.184	-1.0x	
230_100.1	230_110	65	375	0	0.132	1.824	1.827	0.087	0.716	3500.7x	1.541	2.083	0.089	0.723	3500.5x	
230_110.1	230_120	82	375	0	0.132	1.541	2.082	0.094	0.762	3500.0x	1.185	2.405	0.097	0.778	3499.9x	
230_120.1	230_130	56	375	0	0.132	1.185	2.404	0.103	0.826	3499.4x	0.941	2.625	0.106	0.845	3499.3x	
230_130.1	230_140	87	450	0	0.194	0.866	2.697	0.151	0.838	3554.2x	0.550	2.999	0.156	0.856	3553.7x	
230_140.1	230_150	41	750	0	0.897	0.250	3.283	0.609	1.229	41497.9x	-0.018	3.425	0.609	1.224	41497.3x	
230_150.1	230_160	44	750	0	0.899	-0.018	3.401	0.757	1.523	54320.8x	-0.309	3.483	0.757	1.519	54320.4x	
230_160.1	230_170	29	750	0	0.899	-0.309	3.449	0.758	1.522	54393.3x	-0.503	3.503	0.758	1.520	54393.1x	
230_170.1	230_180	59	750	0	0.897	-0.503	3.429	0.789	1.587	57136.3x	-0.890	3.512	0.789	1.583	57136.1x	
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	3.417	0.789	1.588	57135.9x	-1.020	3.446	0.789	1.586	57135.9x	
230_20.1	230_30	37	375	0	0.132	3.417	0.394	0.058	1.040	3512.0x	3.255	0.541	0.067	1.039	3510.7x	
230_30.1	230_40	39	375	0	0.132	3.255	0.539	0.069	1.040	3510.6x	3.084	0.694	0.072	1.039	3508.6x	
230_40.1	230_50	38	375	0	0.132	3.084	0.692	0.073	1.040	3508.4x	2.916	0.844	0.073	1.031	3505.7x	
230_50.1	230_60	37	375	0	0.132	2.916	0.843	0.074	1.031	3505.3x	2.756	0.987	0.075	0.924	3503.6x	
230_60.1	230_70	36	375	0	0.132	2.756	0.986	0.076	0.927	3503.2x	2.598	1.129	0.076	0.650	3502.9x	
230_70.1	230_80	38	375	0	0.132	2.598	1.128	0.077	0.661	3502.5x	2.430	1.280	0.078	0.659	3502.4x	
230_80.1	230_90	71	375	0	0.132	2.430	1.279	0.079	0.672	3502.0x	2.121	1.559	0.080	0.670	3501.8x	
230_90.1	230_100	68	375	0	0.132	2.121	1.558	0.082	0.688	3501.3x	1.824	1.827	0.083	0.688	3501.1x	
240_10.1	230_130	40	225	0	0.061	3.350	0.216	0.013	2.334	37.7	2.800	0.766	0.037	1.857	57.0x	
250_10.1	250_20	46	450	0	0.323	2.178	1.575	0.123	0.712	9618.5x	1.717	1.973	0.127	0.722	9618.5x	
250_20.1	250_30	59	450	0	0.298	1.717	1.969	0.139	0.789	9618.0x	1.210	2.402	0.144	0.802	9618.0x	
250_30.1	250_40	42	450	0	0.346	1.210	2.382	0.156	0.874	9617.4x	0.723	2.810	0.159	0.874	9617.4x	
250_40.1	230_150	54	450	0	0.311	0.723	2.804	0.210	1.153	12824.6x	0.225	3.184	0.222	1.196	12824.3x	
30_10.1	30_20	30	375	0	0.127	2.300	0.150	0.042	1.025	3669.7	2.180	0.150	0.042	1.031	3669.7	
30_20.1	30_30	27	375	0	0.133	2.180	0.146	0.042	1.063	3669.7	2.060	0.146	0.042	1.067	3669.7	
30_30.1	30_40	30	375	0	0.135	2.060	0.146	0.042	1.071	3669.7	1.920	0.147	0.042	1.056	3669.7	
30_40.1	30_50	31	375	0	0.133	1.920	0.147	0.042	1.056	3669.7	1.780	0.153	0.042	1.002	3669.7	
30_50.1	30_60	31	375	0	0.123	1.780	0.153	0.042	1.003	3669.7	1.660	0.153	0.042	1.002	3669.7	
30_60.1	30_70	42	375	0	0.123	1.660	0.153	0.042	1.002	3669.7	1.500	0.152	0.042	1.010	3669.7	
30_70.1	30_80	41	375	0	0.124	1.500	0.152	0.042	1.011	3669.7	1.340	0.151	0.042	1.017	3669.7	
30_80.1	10_110	21	450	0	0.210	1.270	0.221	0.085	1.093	7339.5	1.180	0.256	0.085	0.909	7339.5	
40_10.1	40_20	21	225	0	0.041	2.625	0.118	0.022	1.028	1868.1	2.491	0.118	0.022	1.028	1868.1	
40_100.1	40_110	26	375	0	0.179	-0.420	0.224	0.117	1.694	10091.0	-0.629	0.235	0.117	1.603	10091.0	
40_110.1	10_210	28	375	0	0.179	-0.629	0.224	0.118	1.713	10199.5	-0.855	0.224	0.118	1.713	10199.5	
40_20.1	40_30	32	225	0	0.044	2.491	0.114	0.022	1.071	1868.1	2.260	0.114	0.022	1.071	1868.1	
40_30.1	40_40	49	300	0	0.073	2.185	0.152	0.036	1.017	3145.4	1.973	0.153	0.036	1.004	3145.4	
40_40.1	40_50	24	300	0	0.073	1.973	0.153	0.036	1.006	3145.4	1.869	0.161	0.036	0.945	3145.4	
40_50.1	40_60	20	300	0	0.067	1.869	0.159	0.038	0.987	3253.9	1.794	0.151	0.038	1.061	3253.9	
40_60.1	40_70	17	375	0	0.175	0.600	0.207	0.101	1.618	8723.9	0.466	0.210	0.101	1.588	8723.9	
40_70.1	40_80	44	375	0	0.177	0.466	0.204	0.101	1.640	8723.9	0.119	0.206	0.101	1.629	8723.9	
40_80.1	40_90	37	375	0	0.181	0.119	0.204	0.102	1.666	8827.4	-0.187	0.228	0.102	1.453	8827.4	
40_90.1	40_100	29	375	0	0.179	-0.187	0.224	0.117	1.701	10091.0	-0.420	0.230	0.117	1.648	10091.0	
50_10.1	50_20	31	300	0	0.079	1.375	0.136	0.032	1.018	2726.3	1.217	0.170	0.032	0.765	2726.3	
50_20.1	50_30	58	300	0	0.079	1.217	0.169	0.047	1.149	4061.9	0.920	0.169	0.047	1.149	4061.9	

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	<		Upstream		Total Flow (m3)	>		Downstream				Total Flow (m3)
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)			
50_30.1	40_60	49	375	0	0.141	0.845	0.179	0.063	1.215	5470.0	0.600	0.223	0.063	0.927		5470.0	
60_10.1	60_20	37	225	0	0.051	1.912	0.031	0.001	0.381	108.5	1.556	0.032	0.001	0.356		108.5	
60_20.1	60_30	37	225	0	0.052	1.556	0.032	0.001	0.356	108.5	1.181	0.032	0.001	0.356		108.5	
60_30.1	40_110	19	225	0	0.052	1.181	0.032	0.001	0.356	108.5	0.987	0.032	0.001	0.356		108.5	
70_10.1	70_20	28	225	0	0.040	4.420	0.020	0.000	0.000	0.0	4.256	0.020	0.000	0.000		0.0	
70_100.1	70_110	37	525	0	0.426	3.116	0.263	0.210	1.942	18168.6	2.830	0.269	0.210	1.887		18168.6	
70_110.1	70_120	32	525	0	0.487	2.830	0.268	0.241	2.170	20793.6	2.502	0.271	0.241	2.135		20793.6	
70_120.1	70_130	26	525	0	0.487	2.502	0.268	0.241	2.169	20793.6	2.239	0.269	0.241	2.153		20793.6	
70_130.1	70_140	27	525	0	0.487	2.239	0.268	0.241	2.166	20793.6	1.966	0.272	0.241	2.127		20793.6	
70_140.1	PS1	39	525	0	0.487	1.966	0.267	0.241	2.171	20793.6	1.572	0.267	0.241	2.171		20793.6	
70_20.1	70_30	29	225	0	0.040	4.256	0.020	0.000	0.000	0.0	4.083	0.020	0.000	0.000		0.0	
70_30.1	70_40	27	375	0	0.110	3.933	0.164	0.043	0.932	3727.5	3.851	0.163	0.043	0.939		3727.5	
70_40.1	70_50	39	375	0	0.111	3.851	0.163	0.043	0.940	3727.5	3.730	0.151	0.043	1.038		3727.5	
70_50.1	70_60	39	450	0	0.159	3.655	0.204	0.067	0.949	5760.3	3.558	0.205	0.067	0.946		5760.3	
70_60.1	70_70	43	450	0	0.159	3.558	0.205	0.067	0.947	5760.3	3.451	0.208	0.067	0.927		5760.3	
70_70.1	70_80	40	450	0	0.159	3.451	0.208	0.069	0.960	5959.8	3.353	0.207	0.069	0.963		5959.8	
70_80.1	70_90	33	450	0	0.159	3.353	0.207	0.069	0.964	5959.8	3.271	0.204	0.069	0.983		5959.8	
70_90.1	70_100	33	450	0	0.159	3.271	0.204	0.069	0.984	5959.8	3.191	0.190	0.069	1.082		5959.8	
80_10.1	80_20	36	375	0	0.149	3.875	0.201	0.083	1.372	7160.3	3.675	0.201	0.083	1.377		7160.3	
80_20.1	80_30	35	375	0	0.151	3.675	0.200	0.083	1.387	7160.3	3.475	0.200	0.083	1.387		7160.3	
80_30.1	80_40	35	450	0	0.242	3.400	0.259	0.141	1.492	12208.8	3.200	0.304	0.141	1.235		12208.8	
80_40.1	70_100	36	450	0	0.212	3.200	0.293	0.141	1.290	12208.8	3.043	0.340	0.141	1.098		12208.8	
90_10.1	90_20	21	225	0	0.042	1.400	0.022	0.000	0.062	10.5	1.260	0.022	0.000	0.062		10.5	
90_20.1	90_30	36	225	0	0.035	1.185	0.024	0.000	0.109	21.0	1.023	0.024	0.000	0.109		21.0	
90_30.1	90_40	38	225	0	0.035	1.023	0.024	0.000	0.109	21.0	0.851	0.025	0.000	0.099		21.0	
90_40.1	90_50	70	225	0	0.035	0.851	0.025	0.000	0.149	31.5	0.534	0.027	0.000	0.136		31.5	
90_50.1	90_60	27	225	0	0.035	0.534	0.027	0.000	0.182	42.0	0.411	0.027	0.000	0.182		42.0	
90_60.1	90_70	37	225	0	0.035	0.411	0.027	0.000	0.182	42.0	0.244	0.027	0.000	0.182		42.0	
90_70.1	90_80	43	225	0	0.035	0.244	0.027	0.000	0.182	42.0	0.050	0.026	0.000	0.185		42.0	
90_80.1	PS2	29	750	0	0.551	-2.034	0.444	0.422	1.552	36467.1	-2.106	0.400	0.422	1.761		36466.9	
NPS.1	OUTFALL2					-0.619	0.167	1.224		57150.2	-0.619	0.000	1.224			57150.2	
PS1.1	PS3					1.497	0.064	1.800		20782.9	1.497	0.000	1.800			20782.9	
PS1A.1	OUTFALL1					-1.740	0.122	0.591		35280.6	-1.740	0.000	0.591			35280.6	
PS2.1	105_20					-2.256	0.471	0.570		36466.5	-2.256	0.570	0.570			36466.5	
PS3.2	ST SEWER					0.850	0.540	1.850		20733.4	0.850	0.000	1.850			20733.4	
PS6.1	230_140					-2.810	0.121	0.530		34490.7	-2.810	0.530	0.530			34490.7	

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 26/05/2008 Last page

Start of run

configured for MS Windows

Produced on 26/05/2008 at 10:51

HydroWorks(tm) SIM

Summary results from Simulation

Version 6.1.807 dated June 2006

Licence Number - WS01550002PM

KTD - ULTIMATE

SCENARIO - ZCDWF

Message 253: Run finished for event 1.

Summary results for event 1 - DWF
 Started at 00000000000000. Run for 1440.00 min. (Requested simulation time 1440.00 min)

Files used:

Network: ...\\NET21#15.spb sewerage_ultimate0801010_2_1_1 (Revision 15)
 State:
 Runoff: ...\\NET21#15.rpf sewerage_ultimate0801010_2_1_1 (Revision 15) (InfoWorks 7.51.13014)
 Rainfall:
 DWF: ...\\SIM178event.wwg User defined WWG item
 Inflows: ...\\SIM178event.qin 1
 Levels: ...\\SIM178event.lev 1
 RTC:
 Results: ...\\SIM178.iwr

Total rainfall = 0.0 m3
 Total runoff = 0.0 m3
 Total inflow = 225605.5 m3
 Total outflow = 225379.6 m3
 Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
100_10	5.821	3.322	0.0	0.000	0.0	0.1	2161.7	0.000	0.000
100_20	5.752	3.080	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_30	5.683	2.785	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_40	5.614	2.471	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_50	5.545	2.295	0.0	0.000	0.0	0.1	0.0	0.000	0.000
100_60	5.611	-1.124	0.0	0.000	0.0	1.2	0.0	0.000	0.000
100_70	5.504	-1.230	0.0	0.000	0.0	1.2	1283.1	0.000	0.000
100_80	5.263	-1.341	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_10	5.000	3.997	0.0	0.000	0.0	1.3	23545.1	0.000	0.000
105_100	5.420	0.814	0.0	0.000	0.0	2.3	0.0	0.000	0.000
105_110	5.750	0.611	0.0	0.000	0.0	2.2	0.0	0.000	0.000
105_120	6.000	0.134	0.0	0.000	0.0	1.7	0.0	0.000	0.000
105_20	4.790	3.957	0.0	0.000	0.0	1.7	0.0	0.000	0.000
105_30	4.957	3.496	0.0	0.000	0.0	1.2	0.0	0.000	0.000
105_40	5.225	3.272	0.0	0.000	0.0	1.2	0.0	0.000	0.000
105_50	5.480	2.987	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_60	5.306	2.761	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_70	5.005	2.492	0.0	0.000	0.0	1.1	0.0	0.000	0.000
105_80	4.971	1.298	0.0	0.000	0.0	2.4	0.0	0.000	0.000
105_90	5.150	1.048	0.0	0.000	0.0	2.4	0.0	0.000	0.000
10_10	5.664	4.596	0.0	0.000	0.0	0.2	7480.1	0.000	0.000
10_100	4.846	1.681	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_100A	4.723	1.596	0.0	0.000	0.0	0.5	0.0	0.000	0.000
10_110	4.599	1.513	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_120	4.326	1.377	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_130	5.101	1.230	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_140	5.533	1.001	0.0	0.000	0.0	0.7	0.0	0.000	0.000
10_150	5.253	0.870	0.0	0.000	0.0	0.9	4893.0	0.000	0.000
10_160	5.720	0.761	0.0	0.000	0.0	1.0	0.0	0.000	0.000
10_170	6.210	0.502	0.0	0.000	0.0	0.6	0.0	0.000	0.000
10_180	5.895	0.107	0.0	0.000	0.0	0.8	14.0	0.000	0.000
10_190	6.086	-0.094	0.0	0.000	0.0	0.8	0.0	0.000	0.000
10_20	5.574	3.938	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_200	5.592	-0.301	0.0	0.000	0.0	0.8	0.0	0.000	0.000
10_210	5.358	-0.618	0.0	0.000	0.0	1.1	98.0	0.000	0.000
10_220	5.147	-0.887	0.0	0.000	0.0	1.2	77.0	0.000	0.000
10_30	5.494	3.463	0.0	0.000	0.0	0.2	0.0	0.000	0.000
10_40	5.324	3.016	0.0	0.000	0.0	0.4	7071.4	0.000	0.000
10_40A	5.239	2.886	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_50	5.154	2.722	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_60	4.898	2.493	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_70	4.643	2.174	0.0	0.000	0.0	0.3	0.0	0.000	0.000
10_70A	4.758	2.005	0.0	0.000	0.0	0.3	0.0	0.000	0.000

10_80	4.873	1.897	0.0	0.000	0.0	0.4	0.0	0.000	0.000
10_90	5.091	1.809	0.0	0.000	0.0	0.5	3535.7	0.000	0.000
110_10	5.200	1.612	0.0	0.000	0.0	0.1	1873.5	0.000	0.000
110_20	5.012	1.503	0.0	0.000	0.0	0.1	1368.9	0.000	0.000
110_30	4.882	1.319	0.0	0.000	0.0	0.1	1873.5	0.000	0.000
110_40	5.122	-0.889	0.0	0.000	0.0	1.4	1781.3	0.000	0.000
110_50	5.377	-1.008	0.0	0.000	0.0	1.3	2244.5	0.000	0.000
120_10	5.500	-0.650	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_100	5.547	2.766	0.0	0.000	0.0	0.5	0.0	0.000	0.000
120_110	5.598	2.885	0.0	0.000	0.0	0.5	1986.6	0.000	0.000

sewerage_ultimate0801010_2_1_1 (Revision 15)

Event --

1 WS01550002PM Produced 26/05/2008 Pg 3

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
120_12	5.500	-0.603	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_120	5.648	2.983	0.0	0.000	0.0	0.5	2396.5	0.000	0.000
120_130	5.699	3.129	0.0	0.000	0.0	0.4	148.4	0.000	0.000
120_14	5.500	-0.526	0.0	0.000	0.0	1.0	0.0	0.000	0.000
120_140	5.749	3.267	0.0	0.000	0.0	0.4	1986.6	0.000	0.000
120_150	5.800	3.357	0.0	0.000	0.0	0.4	2396.5	0.000	0.000
120_16	5.500	-0.429	0.0	0.000	0.0	1.0	0.0	0.000	0.000
120_160	5.996	3.426	0.0	0.000	0.0	0.3	2137.8	0.000	0.000
120_170	6.237	3.501	0.0	0.000	0.0	0.3	2567.6	0.000	0.000
120_18	5.500	-0.329	0.0	0.000	0.0	1.0	0.0	0.000	0.000
120_180	6.494	3.582	0.0	0.000	0.0	0.2	98.0	0.000	0.000
120_190	6.486	3.689	0.0	0.000	0.0	0.2	3644.2	0.000	0.000
120_2	5.500	-0.834	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_20	5.500	1.655	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_200	6.218	3.942	0.0	0.000	0.0	0.1	0.0	0.000	0.000
120_210	6.040	4.125	0.0	0.000	0.0	0.1	2354.0	0.000	0.000
120_25	5.500	1.814	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_30	5.500	1.904	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_35	5.500	1.982	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_4	5.500	-0.789	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_40	5.500	2.061	0.0	0.000	0.0	0.9	0.0	0.000	0.000
120_45	5.500	2.175	0.0	0.000	0.0	1.0	4137.0	0.000	0.000
120_50	5.840	2.268	0.0	0.000	0.0	1.0	2772.0	0.000	0.000
120_6	5.500	-0.739	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_60	6.019	2.385	0.0	0.000	0.0	0.8	2107.0	0.000	0.000
120_70	5.815	2.473	0.0	0.000	0.0	0.8	0.0	0.000	0.000
120_8	5.500	-0.696	0.0	0.000	0.0	1.3	0.0	0.000	0.000
120_80	5.602	2.568	0.0	0.000	0.0	0.8	2046.8	0.000	0.000
120_90	5.353	2.648	0.0	0.000	0.0	0.7	4643.2	0.000	0.000
130_100	3.780	0.094	0.0	0.000	0.0	0.2	0.0	0.000	0.000
130_110	3.760	-0.031	0.0	0.000	0.0	0.2	0.0	0.000	0.000
130_120	3.760	-0.147	0.0	0.000	0.0	0.2	0.0	0.000	0.000
130_60	3.520	0.715	0.0	0.000	0.0	0.2	3978.8	0.000	0.000
130_70	3.600	0.475	0.0	0.000	0.0	0.2	0.0	0.000	0.000
130_80	3.680	0.322	0.0	0.000	0.0	0.2	0.0	0.000	0.000
130_90	3.780	0.190	0.0	0.000	0.0	0.2	152.6	0.000	0.000
135_20	3.740	2.097	0.0	0.000	0.0	0.0	128.0	0.000	0.000
140_10	4.421	3.216	0.0	0.000	0.0	0.0	0.0	0.000	0.000
140_100	5.200	3.096	0.0	0.000	0.0	3.0	0.0	0.000	0.000
140_20	5.089	3.097	0.0	0.000	0.0	0.1	0.0	0.000	0.000
140_30	5.452	3.097	0.0	0.000	0.0	0.3	0.0	0.000	0.000
140_40	5.325	3.097	0.0	0.000	0.0	0.6	0.0	0.000	0.000
140_50	5.063	3.097	0.0	0.000	0.0	0.8	0.0	0.000	0.000
140_60	5.051	3.097	0.0	0.000	0.0	1.2	0.0	0.000	0.000
140_70	5.024	3.097	0.0	0.000	0.0	1.6	0.0	0.000	0.000

140_80	5.274	3.097	0.0	0.000	0.0	2.0	0.0	0.000	0.000
140_90	5.439	3.096	0.0	0.000	0.0	2.6	0.0	0.000	0.000
150_10	5.873	4.536	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_20	5.497	3.986	0.0	0.000	0.0	0.0	0.0	0.000	0.000
150_30	5.149	3.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
160_100	5.094	1.779	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_110	5.300	1.616	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_120	5.500	1.446	0.0	0.000	0.0	0.3	0.0	0.000	0.000

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Event -

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Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
160_130	5.599	1.320	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_140	5.300	1.212	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_150	5.000	1.082	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_160	4.900	0.994	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_170	5.000	0.874	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_180	5.110	0.768	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_190	5.400	0.632	0.0	0.000	0.0	0.3	0.0	0.000	0.000
160_200	5.000	0.372	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_210	4.700	0.256	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_220	4.800	0.155	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_230	5.118	0.043	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_240	5.141	-0.053	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_250	5.220	-0.166	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_260	5.300	-0.280	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_270	5.555	-0.395	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_280	5.294	-0.521	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_290	5.147	-0.631	0.0	0.000	0.0	0.4	0.0	0.000	0.000
160_300	5.000	-0.694	0.0	0.000	0.0	0.5	0.0	0.000	0.000
160_310	5.000	-0.728	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_315	5.500	-0.857	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_320	5.458	-1.073	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_330	4.789	-1.313	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_340	4.582	-1.537	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_350	4.586	-1.772	0.0	0.000	0.0	1.0	473.8	0.000	0.000
160_360	5.000	-1.947	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_370	5.000	-2.035	0.0	0.000	0.0	1.0	0.0	0.000	0.000
160_380	5.000	-2.111	0.0	0.000	0.0	0.9	0.0	0.000	0.000
160_50	4.688	2.693	0.0	0.000	0.0	0.1	1170.6	0.000	0.000
160_50A1	4.710	2.618	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A2	4.731	2.554	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_50A3	4.731	2.479	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60	4.753	2.405	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_60A	4.888	2.276	0.0	0.000	0.0	0.1	0.0	0.000	0.000
160_70	5.000	2.167	0.0	0.000	0.0	0.1	839.2	0.000	0.000
160_80	5.000	2.079	0.0	0.000	0.0	0.2	0.0	0.000	0.000
160_90	5.000	1.927	0.0	0.000	0.0	0.2	0.0	0.000	0.000
170_10	4.950	3.497	0.0	0.000	0.0	0.1	929.6	0.000	0.000
170_20	4.950	3.151	0.0	0.000	0.0	0.1	1045.8	0.000	0.000
170_30	4.950	2.904	0.0	0.000	0.0	0.1	0.0	0.000	0.000
170_40	4.950	2.686	0.0	0.000	0.0	0.2	1121.8	0.000	0.000
180_10	5.429	3.862	0.0	0.000	0.0	0.1	859.7	0.000	0.000
180_20	5.429	3.668	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_30	5.429	3.513	0.0	0.000	0.0	0.1	0.0	0.000	0.000
180_40	5.429	3.399	0.0	0.000	0.0	0.1	1098.2	0.000	0.000
190_10	4.896	3.862	0.0	0.000	0.0	0.1	1043.6	0.000	0.000

190_20	4.896	3.700	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_30	4.896	3.534	0.0	0.000	0.0	0.1	0.0	0.000	0.000
190_40	4.896	3.416	0.0	0.000	0.0	0.1	1204.7	0.000	0.000
200_10	5.042	4.044	0.0	0.000	0.0	0.1	1022.6	0.000	0.000
200_20	5.042	3.886	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_30	5.042	3.725	0.0	0.000	0.0	0.1	0.0	0.000	0.000
200_40	5.042	3.605	0.0	0.000	0.0	0.1	1192.9	0.000	0.000
20_10	4.884	2.049	0.0	0.000	0.0	0.1	128.0	0.000	0.000

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Event -

1 WS01550002PM Produced 26/05/2008 Pg 5

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
20_20	5.116	1.775	0.0	0.000	0.0	0.1	133.0	0.000	0.000
20_20A	5.085	1.686	0.0	0.000	0.0	0.1	0.0	0.000	0.000
20_30	5.054	1.681	0.0	0.000	0.0	0.2	133.0	0.000	0.000
210_10	5.238	4.025	0.0	0.000	0.0	0.1	1243.0	0.000	0.000
210_20	5.238	3.912	0.0	0.000	0.0	0.1	0.0	0.000	0.000
210_30	5.238	3.898	0.0	0.000	0.0	0.3	0.0	0.000	0.000
210_40	5.238	3.890	0.0	0.000	0.0	0.4	1712.4	0.000	0.000
220_10	5.000	-0.068	0.0	0.000	0.0	0.8	30444.3	0.000	0.000
220_20	5.000	-0.280	0.0	0.000	0.0	0.8	0.0	0.000	0.000
230_10	4.950	4.295	0.0	0.000	0.0	0.7	0.0	0.000	0.000
230_100	5.501	3.985	0.0	0.000	0.0	2.2	0.0	0.000	0.000
230_110	5.453	3.932	0.0	0.000	0.0	2.4	0.0	0.000	0.000
230_120	4.875	3.867	0.0	0.000	0.0	2.7	0.0	0.000	0.000
230_130	4.500	3.820	0.0	0.000	0.0	3.4	0.0	0.085	0.002
230_140	4.500	3.788	0.0	0.000	0.0	6.4	4606.0	0.000	0.000
230_150	4.500	3.631	0.0	0.000	0.0	6.6	0.0	0.000	0.000
230_160	4.500	3.346	0.0	0.000	0.0	6.6	98.0	0.000	0.000
230_170	4.500	3.130	0.0	0.000	0.0	6.5	3658.2	0.000	0.000
230_180	4.500	2.659	0.0	0.000	0.0	6.4	0.0	0.000	0.000
230_20	4.730	4.295	0.0	0.000	0.0	0.9	4684.0	0.000	0.000
230_30	4.950	4.255	0.0	0.000	0.0	1.0	0.0	0.000	0.000
230_40	5.191	4.222	0.0	0.000	0.0	1.2	0.0	0.000	0.000
230_50	5.430	4.190	0.0	0.000	0.0	1.3	0.0	0.000	0.000
230_60	5.716	4.160	0.0	0.000	0.0	1.4	0.0	0.000	0.000
230_70	5.871	4.130	0.0	0.000	0.0	1.6	0.0	0.000	0.000
230_80	6.230	4.097	0.0	0.000	0.0	1.7	0.0	0.000	0.000
230_90	5.065	4.040	0.0	0.000	0.0	1.9	0.0	0.000	0.000
240_10	4.500	3.821	0.0	0.000	0.0	0.5	42.0	-0.298	0.709
250_10	4.500	4.240	0.0	0.000	0.0	2.4	12825.4	0.000	0.000
250_20	4.500	4.126	0.0	0.000	0.0	2.8	0.0	0.000	0.000
250_30	4.500	3.987	0.0	0.000	0.0	3.2	0.0	0.000	0.000
250_40	4.500	3.854	0.0	0.000	0.0	3.6	4277.0	0.000	0.000
30_10	5.045	2.476	0.0	0.000	0.0	0.2	4893.0	0.000	0.000
30_20	4.843	2.352	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_30	4.640	2.231	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_40	4.803	2.093	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_50	5.041	1.960	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_60	5.088	1.840	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_70	4.866	1.684	0.0	0.000	0.0	0.2	0.0	0.000	0.000
30_80	4.649	1.569	0.0	0.000	0.0	0.3	4893.0	0.000	0.000
40_10	5.850	2.767	0.0	0.000	0.0	0.1	2440.3	0.000	0.000
40_100	5.747	-0.126	0.0	0.000	0.0	0.3	0.0	0.000	0.000
40_110	5.566	-0.327	0.0	0.000	0.0	0.3	0.0	0.000	0.000
40_20	5.737	2.628	0.0	0.000	0.0	0.1	0.0	0.000	0.000
40_30	5.523	2.368	0.0	0.000	0.0	0.2	1668.4	0.000	0.000

40_40	5.195	2.158	0.0	0.000	0.0	0.2	0.0	0.000	0.000
40_50	5.139	2.062	0.0	0.000	0.0	0.2	133.0	0.000	0.000
40_60	5.461	0.913	0.0	0.000	0.0	0.3	0.0	0.000	0.000
40_70	5.367	0.733	0.0	0.000	0.0	0.3	0.0	0.000	0.000
40_80	5.660	0.374	0.0	0.000	0.0	0.3	128.0	0.000	0.000
40_90	5.927	0.102	0.0	0.000	0.0	0.3	1649.7	0.000	0.000
50_10	5.070	1.539	0.0	0.000	0.0	0.2	3560.2	0.000	0.000
50_20	4.733	1.425	0.0	0.000	0.0	0.2	1743.7	0.000	0.000

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Event -

1 WS01550002PM Produced 26/05/2008 Pg 6

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
50_30	5.132	1.070	0.0	0.000	0.0	0.2	1839.5	0.000	0.000
60_10	5.462	1.945	0.0	0.000	0.0	0.0	133.0	0.000	0.000
60_20	5.497	1.590	0.0	0.000	0.0	0.0	0.0	0.000	0.000
60_30	5.532	1.215	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_10	5.645	4.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_100	5.996	3.483	0.0	0.000	0.0	0.6	0.0	0.000	0.000
70_110	5.835	3.159	0.0	0.000	0.0	0.4	3500.0	0.000	0.000
70_120	5.614	2.849	0.0	0.000	0.0	0.5	0.0	0.000	0.000
70_130	5.500	2.573	0.0	0.000	0.0	0.4	0.0	0.000	0.000
70_140	5.630	2.322	0.0	0.000	0.0	0.5	0.0	0.000	0.000
70_20	5.600	4.276	0.0	0.000	0.0	0.0	0.0	0.000	0.000
70_30	5.737	4.126	0.0	0.000	0.0	0.2	4970.0	0.000	0.000
70_40	5.924	4.042	0.0	0.000	0.0	0.2	0.0	0.000	0.000
70_50	5.980	3.898	0.0	0.000	0.0	0.3	2710.4	0.000	0.000
70_60	5.721	3.802	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_70	5.427	3.701	0.0	0.000	0.0	0.3	266.0	0.000	0.000
70_80	5.560	3.607	0.0	0.000	0.0	0.3	0.0	0.000	0.000
70_90	5.781	3.538	0.0	0.000	0.0	0.3	0.0	0.000	0.000
80_10	5.636	4.119	0.0	0.000	0.0	0.2	9320.5	0.000	0.000
80_20	5.400	3.929	0.0	0.000	0.0	0.3	0.0	0.000	0.000
80_30	5.172	3.775	0.0	0.000	0.0	0.4	6731.4	0.000	0.000
80_40	5.235	3.638	0.0	0.000	0.0	0.5	0.0	0.000	0.000
90_10	4.642	1.422	0.0	0.000	0.0	0.0	14.0	0.000	0.000
90_20	4.642	1.210	0.0	0.000	0.0	0.0	14.0	0.000	0.000
90_30	4.592	1.048	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_40	4.847	0.878	0.0	0.000	0.0	0.0	14.0	0.000	0.000
90_50	5.309	0.563	0.0	0.000	0.0	0.0	14.0	0.000	0.000
90_60	5.470	0.440	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_70	4.794	0.273	0.0	0.000	0.0	0.0	0.0	0.000	0.000
90_80	5.075	-1.442	0.0	0.000	0.0	1.1	0.0	0.000	0.000
NPS	3.760	-0.409	0.0	0.000	0.0	459.1	0.0	0.000	0.000
PS1	5.834	1.590	0.0	0.000	0.0	459.0	0.0	0.000	0.000
PS1A	5.223	-1.652	0.0	0.000	0.0	134.8	0.0	0.000	0.000
PS2	4.921	-1.739	0.0	0.000	0.0	81.5	0.0	0.000	0.000
PS3	5.882	1.264	0.0	0.000	0.0	426.4	0.0	0.000	0.000
PS6	5.000	-2.751	0.0	0.000	0.0	144.9	0.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert		Upstream		Total Flow (m3)	> Invert		Downstream		Total Flow (m3)
						Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)		Level (m AD)	Max Depth (m)	Flow (m3/s)	Max Vel (m/s)	
100_10.1	100_20	53	300	0	0.075	3.200	0.122	0.025	0.940	2161.7	2.958	0.122	0.025	0.936	2160.8
100_20.1	100_30	65	300	0	0.074	2.958	0.122	0.025	0.938	2160.8	2.663	0.122	0.025	0.939	2159.7
100_30.1	100_40	69	300	0	0.075	2.663	0.122	0.025	0.939	2159.7	2.349	0.122	0.025	0.937	2158.6
100_40.1	100_50	39	300	0	0.074	2.349	0.122	0.025	0.938	2158.5	2.173	0.122	0.025	0.939	2157.9
100_50.1	100_60	28	300	0	0.075	2.173	0.122	0.025	0.940	2157.8	2.046	0.122	0.025	0.940	2157.4
100_60.1	100_70	32	750	0	0.535	-1.795	0.653	0.547	1.372	46713.3	-1.871	0.642	0.547	1.375	46712.5
100_70.1	100_80	36	750	0	0.552	-1.871	0.633	0.563	1.431	47995.5	-1.960	0.620	0.563	1.444	47994.7
100_80.1	90_80	30	750	0	0.551	-1.960	0.610	0.563	1.464	47994.6	-2.034	0.597	0.563	1.491	47993.8
105_10.1	105_20	54	750	0	0.734	3.250	0.745	0.290	1.442	23544.3	3.010	0.950	0.498	1.648	23527.9x
105_100.1	105_110	21	750	0	0.902	-0.474	1.234	0.848	2.162	71536.8x	-0.611	1.249	0.848	2.110	71532.2x
105_110.1	105_120	30	750	0	0.902	-0.611	0.947	0.848	2.155	71531.7x	-0.812	0.969	0.848	2.078	71526.4x
105_120.1	NPS	43	750	0	0.902	-0.812	0.622	0.848	2.315	71525.9	-1.102	0.694	0.921	2.398	71521.0
105_20.1	105_30	28	750	0	0.902	3.010	0.662	0.848	2.371	71584.6	2.825	0.674	0.848	2.244	71579.8
105_30.1	105_40	31	750	0	0.902	2.825	0.644	0.848	2.333	71579.4	2.620	0.655	0.848	2.246	71574.3
105_40.1	105_50	41	750	0	0.902	2.620	0.628	0.848	2.317	71573.8	2.349	0.641	0.848	2.228	71567.3
105_50.1	105_60	31	750	0	0.902	2.349	0.616	0.848	2.284	71566.9	2.139	0.625	0.848	2.200	71561.9
105_60.1	105_70	37	750	0	0.900	2.139	0.593	0.848	2.288	71561.5	1.895	0.599	0.848	2.242	71556.0
105_70.1	105_80	25	750	0	0.903	1.895	0.577	0.848	2.324	71555.7	1.730	0.572	0.848	2.345	71552.2
105_80.1	105_90	34	750	0	0.902	-0.050	1.306	0.848	2.224	71551.8x	-0.278	1.331	0.848	2.151	71544.3x
105_90.1	105_100	29	750	0	0.900	-0.278	1.273	0.848	2.190	71543.9x	-0.474	1.293	0.848	2.125	71537.3x
10_10.1	10_20	42	375	0	0.252	4.439	0.156	0.087	1.985	7480.1	3.768	0.170	0.087	1.784	7480.1
10_100.1	10_100A	24	525	0	0.258	1.320	0.357	0.214	1.366	18481.2	1.250	0.347	0.214	1.411	18481.2
10_100A.1	10_110	22	525	0	0.273	1.250	0.343	0.214	1.429	18481.2	1.180	0.333	0.214	1.477	18481.2
10_110.1	10_120	27	600	0	0.405	1.100	0.406	0.327	1.606	28267.2	0.980	0.398	0.327	1.644	28267.2
10_120.1	10_130	28	600	0	0.445	0.980	0.392	0.327	1.670	28267.2	0.830	0.403	0.327	1.618	28267.2
10_130.1	10_140	57	675	0	0.585	0.830	0.381	0.327	1.574	28267.2	0.550	0.451	0.327	1.287	28267.2
10_140.1	10_150	67	675	0	0.480	0.550	0.448	0.327	1.298	28267.2	0.330	0.540	0.327	1.066	28267.2
10_150.1	10_160	48	675	0	0.542	0.330	0.534	0.384	1.263	33160.2	0.130	0.632	0.384	1.102	33160.2
10_160.1	10_170	78	675	0	0.093	0.130	0.625	0.384	1.110	33160.2	0.120	0.392	0.384	1.780	33160.2
10_170.1	10_180	78	675	0	0.661	0.120	0.378	0.384	1.861	33160.2	-0.370	0.478	0.384	1.420	33160.2
10_180.1	10_190	62	675	0	0.485	-0.370	0.465	0.384	1.466	33174.2	-0.580	0.487	0.384	1.403	33174.2
10_190.1	10_200	74	675	0	0.474	-0.580	0.479	0.384	1.429	33174.2	-0.820	0.522	0.384	1.332	33174.2
10_20.1	10_30	38	375	0	0.219	3.768	0.168	0.087	1.800	7480.1	3.308	0.168	0.087	1.800	7480.1
10_200.1	10_210	108	675	0	0.463	-0.820	0.483	0.384	1.446	33174.2	-1.150	0.535	0.385	1.574	33174.0
10_210.1	10_220	84	750	0	0.691	-1.230	0.563	0.542	1.557	46567.4	-1.560	0.679	0.542	1.290	46567.1
10_220.1	FS1A	50	750	0	0.269	-1.560	0.608	0.543	1.415	46644.1	-1.590	0.455	0.543	1.934	46644.0
10_30.1	10_40	32	375	0	0.259	3.308	0.155	0.087	2.015	7480.1	2.775	0.242	0.087	1.150	7480.1
10_40.1	10_40A	29	450	0	0.204	2.700	0.310	0.168	1.442	14551.5	2.585	0.301	0.168	1.488	14551.5
10_40A.1	10_50	24	450	0	0.222	2.585	0.293	0.168	1.536	14551.5	2.470	0.289	0.168	1.558	14551.5
10_50.1	10_60	31	450	0	0.300	2.470	0.248	0.168	1.877	14551.5	2.200	0.293	0.168	1.536	14551.5
10_60.1	10_70	39	450	0	0.230	2.200	0.289	0.168	1.563	14551.5	2.000	0.289	0.168	1.563	14551.5
10_70.1	10_70A	27	525	0	0.391	1.930	0.243	0.168	1.716	14551.5	1.755	0.250	0.168	1.655	14551.5
10_70A.1	10_80	23	525	0	0.423	1.755	0.250	0.168	1.657	14551.5	1.580	0.317	0.168	1.231	14551.5
10_80.1	10_90	39	525	0	0.278	1.580	0.316	0.168	1.240	14551.5	1.450	0.359	0.168	1.068	14551.5
10_90.1	10_100	42	525	0	0.268	1.450	0.355	0.209	1.343	18087.2	1.320	0.361	0.209	1.319	18087.2
110_10.1	110_20	29	300	0	0.079	1.500	0.112	0.022	0.916	1873.5	1.355	0.148	0.022	0.640	1873.5
110_20.1	110_30	34	300	0	0.080	1.355	0.147	0.038	1.108	3242.4	1.175	0.147	0.038	1.108	3242.4
110_30.1	110_40	35	375	0	0.208	1.175	0.144	0.060	1.555	5115.9	0.797	0.144	0.060	1.555	5115.9
110_40.1	110_50	42	750	0	0.490	-1.650	0.732	0.496	1.184	42313.1	-1.733	0.728	0.496	1.160	42312.2
110_50.1	100_60	31	750	0	0.495	-1.733	0.685	0.522	1.277	44556.7	-1.795	0.672	0.522	1.279	44556.0
120_10.1	120_8	28	750	0	0.454	-1.369	0.714	0.415	1.105	35418.6	-1.417	0.722	0.415	1.098	35418.2
120_100.1	120_90	33	500	0	0.244	2.366	0.393	0.231	1.485	19716.0	2.255	0.393	0.231	1.641	19715.9
120_110.1	120_100	34	500	0	0.245	2.481	0.397	0.231	1.424	19716.0	2.366	0.400	0.231	1.457	19716.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		> Total Flow (m3)	< Invert Level (m AD)	Downstream			> Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)			Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
120_12.1	120_10	29	750	0	0.420	-1.327	0.719	0.414	1.089	35419.0	-1.369	0.719	0.414	1.099	35418.6
120_120.1	120_110	35	500	0	0.245	2.599	0.380	0.208	1.328	17729.5	2.481	0.405	0.208	1.257	17729.4
120_130.1	120_120	37	450	0	0.186	2.773	0.350	0.180	1.365	15333.0	2.649	0.335	0.180	1.489	15333.0
120_14.1	120_12	25	675	0	0.491	-1.164	0.624	0.414	1.449	35419.3	-1.252	0.650	0.414	1.431	35419.0
120_140.1	120_130	39	450	0	0.186	2.902	0.359	0.178	1.322	15184.7	2.773	0.357	0.178	1.327	15184.6
120_150.1	120_140	34	450	0	0.186	3.015	0.338	0.155	1.220	13198.1	2.902	0.366	0.155	1.129	13198.1
120_16.1	120_14	35	675	0	0.427	-1.072	0.637	0.414	1.373	35419.6	-1.164	0.640	0.414	1.422	35419.3
120_160.1	120_150	32	450	0	0.186	3.123	0.300	0.127	1.137	10801.6	3.015	0.343	0.127	0.983	10801.6
120_170.1	120_160	36	450	0	0.181	3.241	0.259	0.102	1.085	8663.8	3.126	0.300	0.102	0.913	8663.8
120_18.1	120_16	37	675	0	0.430	-0.975	0.639	0.414	1.354	35419.9	-1.072	0.644	0.414	1.359	35419.6
120_180.1	120_170	41	450	0	0.185	3.377	0.205	0.072	1.023	6096.3	3.241	0.260	0.072	0.757	6096.2
120_190.1	120_180	34	450	0	0.189	3.495	0.193	0.071	1.081	5998.3	3.377	0.205	0.071	1.006	5998.3
120_2.1	110_40	21	750	0	0.502	-1.561	0.704	0.416	1.151	35416.5	-1.605	0.718	0.416	1.134	35416.0
120_20.1	120_18	39	675	0	0.417	1.173	0.476	0.414	1.535	35420.1	1.076	0.409	0.414	1.827	35419.9
120_200.1	120_190	35	300	0	0.077	3.816	0.126	0.028	0.986	2354.0	3.645	0.126	0.028	0.986	2354.0
120_210.1	120_200	36	300	0	0.079	4.000	0.124	0.028	1.004	2354.0	3.816	0.126	0.028	0.986	2354.0
120_25.1	120_20	41	675	0	0.417	1.275	0.513	0.414	1.419	35420.3	1.173	0.482	0.414	1.514	35420.1
120_30.1	120_25	30	675	0	0.416	1.350	0.549	0.414	1.331	35420.5	1.275	0.541	0.414	1.346	35420.4
120_35.1	120_30	26	675	0	0.419	1.416	0.560	0.414	1.317	35420.7	1.350	0.555	0.414	1.317	35420.6
120_4.1	120_2	26	750	0	0.489	-1.509	0.714	0.415	1.139	35417.0	-1.561	0.729	0.416	1.125	35416.5
120_40.1	120_35	27	675	0	0.416	1.482	0.572	0.414	1.304	35420.9	1.416	0.567	0.414	1.301	35420.7
120_45.1	120_40	27	675	0	0.417	1.549	0.584	0.414	1.297	35421.1	1.482	0.579	0.414	1.291	35420.9
120_50.1	120_45	33	675	0	0.419	1.633	0.610	0.366	1.124	31284.3	1.549	0.629	0.366	1.069	31284.1
120_6.1	120_4	31	750	0	0.419	-1.464	0.720	0.415	1.100	35417.6	-1.509	0.721	0.415	1.133	35417.1
120_60.1	120_50	34	600	0	0.353	1.822	0.554	0.334	1.336	28512.5	1.708	0.563	0.334	1.295	28512.3
120_70.1	120_60	31	600	0	0.353	1.926	0.541	0.310	1.284	26405.6	1.822	0.564	0.310	1.207	26405.5
120_8.1	120_6	27	750	0	0.459	-1.417	0.717	0.415	1.103	35418.1	-1.464	0.725	0.415	1.095	35417.7
120_80.1	120_70	34	600	0	0.355	2.041	0.521	0.310	1.331	26405.8	1.926	0.547	0.310	1.271	26405.7
120_90.1	120_80	34	600	0	0.353	2.155	0.488	0.286	1.291	24359.1	2.041	0.528	0.286	1.207	24359.0
130_100.1	130_110	33	375	0	0.122	-0.072	0.166	0.049	1.035	4131.3	-0.197	0.166	0.049	1.034	4131.3
130_110.1	130_120	31	375	0	0.122	-0.197	0.166	0.049	1.035	4131.3	-0.313	0.166	0.049	1.034	4131.2
130_120.1	NPS	41	375	0	0.122	-0.313	0.165	0.049	1.038	4131.2	-0.469	0.161	0.049	1.078	4131.2
130_60.1	130_70	36	300	0	0.071	0.536	0.179	0.047	1.073	3978.7	0.385	0.169	0.047	1.147	3978.7
130_70.1	130_80	43	375	0	0.118	0.310	0.165	0.047	1.002	3978.7	0.157	0.166	0.047	1.000	3978.7
130_80.1	130_90	38	375	0	0.118	0.157	0.166	0.047	1.000	3978.7	0.023	0.167	0.047	0.987	3978.7
130_90.1	130_100	26	375	0	0.121	0.023	0.167	0.049	1.026	4131.3	-0.072	0.166	0.049	1.034	4131.3
135_20.1	OUTFALL2	25	300	0	0.109	2.066	0.031	0.001	0.386	128.0	1.826	0.031	0.001	0.386	128.0
140_10.1	140_20	35	225	0	0.040	3.196	0.020	0.000	0.000	0.0	2.990	0.107	0.000	0.000	0.0
140_100.1	OUTFALL3	31	375	0	0.191	0.137	2.959	0.000	0.000	0.0x	-0.145	3.241	0.000	0.000	0.0x
140_20.1	140_30	38	225	0	0.040	2.990	0.107	0.000	0.000	0.0	2.762	0.335	0.000	0.000	0.0x
140_30.1	140_40	40	225	0	0.040	2.762	0.335	0.000	0.000	0.0x	2.527	0.570	0.000	0.000	0.0x
140_40.1	140_50	44	225	0	0.040	2.527	0.570	0.000	0.000	0.0x	2.265	0.832	0.000	0.000	0.0x
140_50.1	140_60	32	225	0	0.040	2.265	0.832	0.000	0.000	0.0x	2.077	1.020	0.000	0.000	0.0x
140_60.1	140_70	44	375	0	0.200	1.927	1.170	0.000	0.000	0.0x	1.486	1.611	0.000	0.000	0.0x
140_70.1	140_80	45	375	0	0.188	1.486	1.611	0.000	0.000	0.0x	1.084	2.013	0.000	0.000	0.0x
140_80.1	140_90	46	375	0	0.212	1.084	2.013	0.000	0.000	0.0x	0.567	2.529	0.000	0.000	0.0x
140_90.1	140_100	38	375	0	0.212	0.567	2.529	0.000	0.000	0.0x	0.137	2.959	0.000	0.000	0.0x
150_10.1	150_20	55	375	0	0.200	4.498	0.038	0.000	0.000	0.0	3.948	0.038	0.000	0.000	0.0
150_20.1	150_30	53	375	0	0.200	3.948	0.038	0.000	0.000	0.0	3.420	0.038	0.000	0.000	0.0
150_30.1	140_60	33	375	0	0.200	3.420	0.020	0.000	0.000	0.0	3.090	0.020	0.000	0.000	0.0
160_100.1	160_110	43	375	0	0.118	1.590	0.189	0.059	1.065	5105.5	1.440	0.178	0.059	1.149	5105.3
160_110.1	160_120	33	375	0	0.134	1.440	0.176	0.059	1.165	5105.3	1.290	0.176	0.059	1.165	5105.2
160_120.1	160_130	46	450	0	0.163	1.220	0.226	0.082	1.026	7063.0	1.100	0.220	0.082	1.060	7062.8

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Invert Level (m AD)	Max Depth (m)	Upstream		Total Flow (m3)	>		Downstream				Total Flow (m3)
								Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Max Flow (m3/s)	Max Vel (m/s)	
160_130.1	160_140	40	450	0	0.175	1.100	0.220	0.082	1.060	7062.8	0.980	0.232	0.082	0.991	7062.6		7062.6
160_140.1	160_150	54	450	0	0.158	0.980	0.232	0.082	0.993	7062.6	0.850	0.232	0.082	0.990	7062.4		7062.4
160_150.1	160_160	24	450	0	0.228	0.850	0.232	0.108	1.307	9310.7	0.730	0.264	0.108	1.113	9310.6		9310.6
160_160.1	160_170	43	450	0	0.170	0.730	0.262	0.108	1.121	9310.6	0.610	0.264	0.108	1.114	9310.4		9310.4
160_170.1	160_180	41	450	0	0.174	0.610	0.262	0.108	1.121	9310.4	0.490	0.278	0.108	1.044	9310.3		9310.3
160_180.1	160_190	53	450	0	0.153	0.490	0.277	0.108	1.051	9310.2	0.370	0.262	0.108	1.121	9310.1		9310.1
160_190.1	160_200	28	450	0	0.212	0.370	0.260	0.134	1.405	11525.5	0.250	0.257	0.134	1.425	11525.5		11525.5
160_200.1	160_210	43	600	0	0.323	0.100	0.272	0.134	1.073	11525.4	-0.020	0.276	0.134	1.051	11525.3		11525.3
160_210.1	160_220	41	600	0	0.317	-0.020	0.276	0.134	1.051	11525.3	-0.130	0.285	0.134	1.007	11525.1		11525.1
160_220.1	160_230	51	600	0	0.297	-0.130	0.285	0.134	1.007	11525.1	-0.250	0.293	0.134	0.975	11524.9		11524.9
160_230.1	160_240	31	600	0	0.365	-0.250	0.293	0.168	1.225	14480.3	-0.360	0.307	0.168	1.153	14480.2		14480.2
160_240.1	160_250	39	600	0	0.325	-0.360	0.307	0.168	1.154	14480.2	-0.470	0.304	0.168	1.165	14480.0		14480.0
160_250.1	160_260	40	600	0	0.335	-0.470	0.304	0.168	1.166	14480.0	-0.590	0.310	0.168	1.136	14479.8		14479.8
160_260.1	160_270	41	600	0	0.317	-0.590	0.310	0.168	1.138	14479.8	-0.700	0.305	0.168	1.166	14479.7		14479.7
160_270.1	160_280	42	600	0	0.328	-0.700	0.304	0.168	1.167	14479.7	-0.820	0.299	0.168	1.226	14479.4		14479.4
160_280.1	160_290	35	600	0	0.341	-0.820	0.299	0.168	1.227	14479.4	-0.930	0.299	0.168	1.375	14478.9		14478.9
160_290.1	160_300	26	600	0	0.416	-0.930	0.299	0.168	1.376	14478.8	-1.050	0.356	0.168	1.391	14477.8		14477.8
160_300.1	160_310	22	600	0	0.433	-1.050	0.355	0.168	1.411	14477.7	-1.160	0.432	0.168	1.417	14475.9		14475.9
160_310.1	160_315	32	750	0	0.665	-1.310	0.541	0.525	1.546	44900.3	-1.428	0.571	0.525	1.460	44895.9		44895.9
160_315.1	160_320	70	750	0	0.564	-1.428	0.563	0.525	1.481	44895.6	-1.610	0.539	0.525	1.554	44886.2		44886.2
160_320.1	160_330	71	750	0	0.680	-1.610	0.515	0.525	1.631	44885.9	-1.880	0.567	0.525	1.471	44876.6		44876.6
160_330.1	160_340	80	750	0	0.593	-1.880	0.561	0.525	1.488	44876.2	-2.110	0.574	0.525	1.453	44865.4		44865.4
160_340.1	160_350	81	750	0	0.573	-2.110	0.567	0.525	1.470	44865.0	-2.330	0.560	0.525	1.490	44853.8		44853.8
160_350.1	160_360	52	750	0	0.628	-2.330	0.542	0.530	1.556	45327.3	-2.500	0.555	0.530	1.522	45320.0		45320.0
160_360.1	160_370	21	750	0	0.674	-2.500	0.531	0.530	1.589	45319.6	-2.580	0.546	0.530	1.541	45316.7		45316.7
160_370.1	160_380	16	750	0	0.550	-2.580	0.532	0.530	1.583	45316.4	-2.620	0.513	0.530	1.659	45314.2		45314.2
160_380.1	PS6	9	750	0	0.730	-2.620	0.457	0.530	1.880	45313.9	-2.660	0.451	0.530	1.912	45313.1		45313.1
160_50.1	160_50A1	25	375	0	0.104	2.600	0.093	0.014	0.642	1170.6	2.530	0.088	0.014	0.690	1170.4		1170.4
160_50A1.1	160_50A2	20	375	0	0.118	2.530	0.088	0.014	0.690	1170.4	2.460	0.094	0.014	0.631	1170.3		1170.3
160_50A2.1	160_50A3	27	375	0	0.102	2.460	0.094	0.014	0.631	1170.3	2.390	0.089	0.014	0.679	1170.1		1170.1
160_50A3.1	160_60	21	375	0	0.113	2.390	0.089	0.014	0.679	1170.1	2.321	0.084	0.014	0.740	1170.0		1170.0
160_60.1	160_60A	32	375	0	0.130	2.321	0.084	0.014	0.740	1169.9	2.186	0.090	0.014	0.676	1169.8		1169.8
160_60A.1	160_70	41	375	0	0.114	2.186	0.089	0.014	0.676	1169.7	2.050	0.117	0.014	0.464	1169.5		1169.5
160_70.1	160_80	44	375	0	0.117	2.050	0.117	0.023	0.793	2008.6	1.900	0.179	0.023	0.451	2008.4		2008.4
160_80.1	160_90	35	375	0	0.130	1.900	0.178	0.059	1.143	5105.7	1.750	0.177	0.059	1.156	5105.6		5105.6
160_90.1	160_100	35	375	0	0.134	1.750	0.177	0.059	1.156	5105.6	1.590	0.189	0.059	1.064	5105.5		5105.5
170_10.1	170_20	40	225	0	0.052	3.425	0.072	0.011	0.979	929.6	3.027	0.124	0.011	0.478	929.6		929.6
170_20.1	170_30	41	225	0	0.040	3.027	0.124	0.023	1.022	1975.5	2.779	0.125	0.023	1.010	1975.5		1975.5
170_30.1	170_40	43	225	0	0.040	2.779	0.124	0.023	1.017	1975.5	2.521	0.165	0.023	0.730	1975.5		1975.5
170_40.1	160_80	47	225	0	0.042	2.521	0.162	0.036	1.172	3097.3	2.208	0.160	0.036	1.184	3097.3		3097.3
180_10.1	180_20	45	300	0	0.072	3.785	0.077	0.010	0.692	859.7	3.590	0.078	0.010	0.684	859.7		859.7
180_20.1	180_30	37	300	0	0.071	3.590	0.078	0.010	0.684	859.7	3.435	0.078	0.010	0.682	859.7		859.7
180_30.1	180_40	38	300	0	0.072	3.435	0.078	0.010	0.682	859.7	3.273	0.126	0.010	0.355	859.7		859.7
180_40.1	160_120	53	300	0	0.063	3.273	0.125	0.023	0.809	1957.8	3.100	0.116	0.023	0.898	1957.8		1957.8
190_10.1	190_20	40	300	0	0.071	3.776	0.086	0.012	0.723	1043.6	3.614	0.086	0.012	0.726	1043.6		1043.6
190_20.1	190_30	40	300	0	0.071	3.614	0.086	0.012	0.726	1043.6	3.448	0.086	0.012	0.719	1043.6		1043.6
190_30.1	190_40	41	300	0	0.071	3.448	0.086	0.012	0.719	1043.6	3.281	0.135	0.012	0.393	1043.6		1043.6
190_40.1	160_150	54	300	0	0.064	3.281	0.135	0.026	0.846	2248.3	3.100	0.124	0.026	0.939	2248.3		2248.3
200_10.1	200_20	38	300	0	0.071	3.959	0.085	0.012	0.721	1022.6	3.802	0.084	0.012	0.727	1022.6		1022.6
200_20.1	200_30	39	300	0	0.072	3.802	0.084	0.012	0.727	1022.6	3.639	0.086	0.012	0.709	1022.6		1022.6
200_30.1	200_40	42	300	0	0.070	3.639	0.086	0.012	0.709	1022.6	3.472	0.133	0.012	0.390	1022.6		1022.6
200_40.1	160_190	51	300	0	0.064	3.472	0.133	0.026	0.846	2215.5	3.300	0.124	0.026	0.934	2215.5		2215.5
20_10.1	20_20	22	450	0	0.355	2.000	0.049	0.001	0.158	128.0	1.730	0.045	0.001	0.178	128.0		128.0

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	<		Upstream		Total Flow (m3)	>		Downstream				Total Flow (m3)			
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)						
20_20.1	20_20A	36	450	0	0.183	1.730	0.045	0.003	0.363	261.0	1.615	0.071	0.003	0.188	261.0	1.500	0.181	0.003	0.050	261.0
20_20A.1	20_30	24	450	0	0.224	1.615	0.071	0.003	0.188	261.0	1.500	0.181	0.003	0.050	261.0	1.500	0.181	0.003	0.050	261.0
20_30.1	10_100	41	450	0	0.214	1.500	0.181	0.005	0.076	394.0	1.320	0.361	0.005	0.033	394.0	1.320	0.361	0.005	0.033	394.0
210_10.1	210_20	38	300	0	0.071	3.931	0.094	0.014	0.762	1243.0	3.773	0.139	0.014	0.449	1243.0	3.773	0.139	0.014	0.449	1243.0
210_20.1	210_30	40	300	0	0.071	3.773	0.139	0.014	0.449	1243.0	3.606	0.292	0.014	0.205	1243.0	3.606	0.292	0.014	0.205	1243.0
210_30.1	210_40	39	300	0	0.071	3.606	0.292	0.014	0.205	1243.0	3.442	0.448	0.014	0.194	1243.0x	3.442	0.448	0.014	0.194	1243.0x
210_40.1	160_230	47	300	0	0.112	3.772	0.118	0.034	1.328	2955.4	3.300	0.118	0.034	1.328	2955.4	3.300	0.118	0.034	1.328	2955.4
220_10.1	220_20	75	750	0	0.570	-0.500	0.431	0.357	1.366	30444.0	-0.700	0.420	0.357	1.403	30433.9	-0.700	0.420	0.357	1.403	30433.9
220_20.1	160_310	73	750	0	0.579	-0.700	0.417	0.357	1.414	30433.6	-0.900	0.367	0.357	1.663	30424.8	-0.900	0.367	0.357	1.663	30424.8
230_10.1	230_20	36	375	0	0.132	3.575	0.720	0.003	-0.070	-0.7x	3.417	0.878	-0.018	-0.203	-3.5x	3.417	0.878	-0.018	-0.203	-3.5x
230_100.1	230_110	65	375	0	0.132	1.824	2.159	0.095	0.767	4671.5x	1.541	2.391	0.096	0.773	4671.2x	1.541	2.391	0.096	0.773	4671.2x
230_110.1	230_120	82	375	0	0.132	1.541	2.389	0.101	0.805	4670.5x	1.185	2.681	0.103	0.817	4670.1x	1.185	2.681	0.103	0.817	4670.1x
230_120.1	230_130	56	375	0	0.132	1.185	2.680	0.111	0.872	4669.5x	0.941	2.880	0.114	0.890	4669.2x	0.941	2.880	0.114	0.890	4669.2x
230_130.1	230_140	87	450	0	0.194	0.866	2.949	0.158	0.874	4709.4x	0.550	3.238	0.160	0.878	4708.9x	0.550	3.238	0.160	0.878	4708.9x
230_140.1	230_150	41	750	0	0.897	0.250	3.520	0.638	1.279	54599.5x	-0.018	3.650	0.638	1.274	54599.1x	-0.018	3.650	0.638	1.274	54599.1x
230_150.1	230_160	44	750	0	0.899	-0.018	3.622	0.836	1.671	71696.8x	-0.309	3.658	0.836	1.669	71696.5x	-0.309	3.658	0.836	1.669	71696.5x
230_160.1	230_170	29	750	0	0.899	-0.309	3.616	0.837	1.674	71793.7x	-0.503	3.640	0.837	1.672	71793.6x	-0.503	3.640	0.837	1.672	71793.6x
230_170.1	230_180	59	750	0	0.897	-0.503	3.549	0.879	1.762	75451.2x	-0.890	3.560	0.879	1.761	75451.0x	-0.890	3.560	0.879	1.761	75451.0x
230_180.1	OUTFALL4	20	750	0	0.899	-0.890	3.442	0.879	1.767	75450.8x	-1.020	3.446	0.879	1.767	75450.8x	-1.020	3.446	0.879	1.767	75450.8x
230_20.1	230_30	37	375	0	0.132	3.417	0.867	0.069	1.064	4679.9x	3.255	1.000	0.073	0.822	4678.6x	3.255	1.000	0.073	0.822	4678.6x
230_30.1	230_40	39	375	0	0.132	3.255	0.998	0.074	0.833	4678.0x	3.084	1.139	0.074	0.645	4677.7x	3.084	1.139	0.074	0.645	4677.7x
230_40.1	230_50	38	375	0	0.132	3.084	1.137	0.075	0.652	4677.0x	2.916	1.274	0.075	0.649	4676.8x	2.916	1.274	0.075	0.649	4676.8x
230_50.1	230_60	37	375	0	0.132	2.916	1.273	0.076	0.657	4676.2x	2.756	1.404	0.077	0.655	4676.0x	2.756	1.404	0.077	0.655	4676.0x
230_60.1	230_70	36	375	0	0.132	2.756	1.402	0.078	0.664	4675.3x	2.598	1.532	0.078	0.662	4675.1x	2.598	1.532	0.078	0.662	4675.1x
230_70.1	230_80	38	375	0	0.132	2.598	1.530	0.080	0.675	4674.4x	2.430	1.668	0.081	0.674	4674.3x	2.430	1.668	0.081	0.674	4674.3x
230_80.1	230_90	71	375	0	0.132	2.430	1.666	0.084	0.700	4673.6x	2.121	1.919	0.086	0.706	4673.2x	2.121	1.919	0.086	0.706	4673.2x
230_90.1	230_100	68	375	0	0.132	2.121	1.917	0.089	0.733	4672.5x	1.824	2.161	0.091	0.740	4672.2x	1.824	2.161	0.091	0.740	4672.2x
240_10.1	230_130	40	225	0	0.061	3.350	0.471	0.011	0.452	41.9x	2.800	1.020	0.035	0.841	41.1x	2.800	1.020	0.035	0.841	41.1x
250_10.1	250_20	46	450	0	0.323	2.178	2.056	0.158	0.906	12824.7x	1.717	2.409	0.162	0.909	12824.5x	1.717	2.409	0.162	0.909	12824.5x
250_20.1	250_30	59	450	0	0.298	1.717	2.403	0.172	0.967	12823.9x	1.210	2.780	0.176	0.973	12823.6x	1.210	2.780	0.176	0.973	12823.6x
250_30.1	250_40	42	450	0	0.346	1.210	2.745	0.186	1.033	12822.9x	0.723	3.132	0.190	1.028	12822.7x	0.723	3.132	0.190	1.028	12822.7x
250_40.1	230_150	54	450	0	0.311	0.723	3.121	0.252	1.361	17099.0x	0.225	3.412	0.262	1.406	17098.7x	0.225	3.412	0.262	1.406	17098.7x
30_10.1	30_20	30	375	0	0.127	2.300	0.176	0.057	1.110	4893.0	2.180	0.174	0.057	1.131	4893.0	2.180	0.174	0.057	1.131	4893.0
30_20.1	30_30	27	375	0	0.133	2.180	0.172	0.057	1.149	4893.0	2.060	0.171	0.057	1.152	4893.0	2.060	0.171	0.057	1.152	4893.0
30_30.1	30_40	30	375	0	0.135	2.060	0.171	0.057	1.156	4893.0	1.920	0.173	0.057	1.138	4893.0	1.920	0.173	0.057	1.138	4893.0
30_40.1	30_50	31	375	0	0.133	1.920	0.173	0.057	1.138	4893.0	1.780	0.180	0.057	1.081	4893.0	1.780	0.180	0.057	1.081	4893.0
30_50.1	30_60	31	375	0	0.123	1.780	0.180	0.057	1.082	4893.0	1.660	0.180	0.057	1.078	4893.0	1.660	0.180	0.057	1.078	4893.0
30_60.1	30_70	42	375	0	0.123	1.660	0.180	0.057	1.079	4893.0	1.500	0.184	0.057	1.054	4893.0	1.500	0.184	0.057	1.054	4893.0
30_70.1	30_80	41	375	0	0.124	1.500	0.184	0.057	1.054	4893.0	1.340	0.229	0.057	0.802	4893.0	1.340	0.229	0.057	0.802	4893.0
30_80.1	10_110	21	450	0	0.210	1.270	0.287	0.113	1.058	9786.0	1.180	0.334	0.113	0.895	9786.0	1.180	0.334	0.113	0.895	9786.0
40_10.1	40_20	21	225	0	0.041	2.625	0.141	0.029	1.103	2440.2	2.491	0.141	0.029	1.103	2440.2	2.491	0.141	0.029	1.103	2440.2
40_100.1	40_110	26	375	0	0.179	-0.420	0.281	0.155	1.752	13162.5	-0.629	0.304	0.155	1.621	13162.5	-0.629	0.304	0.155	1.621	13162.5
40_110.1	10_210	28	375	0	0.179	-0.629	0.276	0.157	1.805	13295.4	-0.855	0.276	0.157	1.805	13295.4	-0.855	0.276	0.157	1.805	13295.4
40_20.1	40_30	32	225	0	0.044	2.491	0.136	0.029	1.151	2440.2	2.260	0.136	0.029	1.151	2440.2	2.260	0.136	0.029	1.151	2440.2
40_30.1	40_40	49	300	0	0.073	2.185	0.181	0.049	1.089	4108.7	1.973	0.186	0.049	1.058	4108.7	1.973	0.186	0.049	1.058	4108.7
40_40.1	40_50	24	300	0	0.073	1.973	0.183	0.049	1.072	4108.7	1.869	0.193	0.049	1.010	4108.6	1.869	0.193	0.049	1.010	4108.6
40_50.1	40_60	20	300	0	0.067	1.869	0.189	0.050	1.071	4241.6	1.794	0.174	0.050	1.175	4241.6	1.794	0.174	0.050	1.175	4241.6
40_60.1	40_70	17	375	0	0.175	0.600	0.255	0.134	1.682	11384.9	0.466	0.269	0.134	1.591	11384.9	0.466	0.269	0.134	1.591	11384.9
40_70.1	40_80	44	375	0	0.177	0.466	0.247	0.134	1.742	11384.9	0.119	0.255	0.134	1.681	11384.9	0.119	0.255	0.134	1.681	11384.9
40_80.1	40_90	37	375	0	0.181	0.119	0.249	0.136	1.751	11512.9	-0.187	0.290	0.136	1.485	11512.8	-0.187	0.290	0.136	1.485	

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
50_30.1	40_60	49	375	0	0.141	0.845	0.223	0.084	1.247	7143.3	0.600	0.315	0.084	0.968	7143.3
60_10.1	60_20	37	225	0	0.051	1.912	0.033	0.002	0.428	133.0	1.556	0.034	0.002	0.402	133.0
60_20.1	60_30	37	225	0	0.052	1.556	0.034	0.002	0.403	133.0	1.181	0.034	0.002	0.402	133.0
60_30.1	40_110	19	225	0	0.052	1.181	0.034	0.002	0.403	133.0	0.987	0.034	0.002	0.403	133.0
70_10.1	70_20	28	225	0	0.040	4.420	0.020	0.000	0.000	0.0	4.256	0.020	0.000	0.000	0.0
70_100.1	70_110	37	525	0	0.426	3.116	0.314	0.278	2.059	23998.2	2.830	0.330	0.278	1.942	23998.2
70_110.1	70_120	32	525	0	0.487	2.830	0.321	0.318	2.298	27498.2	2.502	0.350	0.318	2.077	27498.2
70_120.1	70_130	26	525	0	0.487	2.502	0.320	0.318	2.305	27498.2	2.239	0.335	0.318	2.184	27498.2
70_130.1	70_140	27	525	0	0.487	2.239	0.324	0.318	2.272	27498.2	1.966	0.358	0.318	2.022	27498.2
70_140.1	PS1	39	525	0	0.487	1.966	0.317	0.318	2.330	27498.2	1.572	0.317	0.318	2.330	27498.2
70_20.1	70_30	29	225	0	0.040	4.256	0.020	0.000	0.000	0.0	4.083	0.043	0.000	0.000	0.0
70_30.1	70_40	27	375	0	0.110	3.933	0.193	0.058	1.005	4970.0	3.851	0.191	0.058	1.017	4970.0
70_40.1	70_50	39	375	0	0.111	3.851	0.191	0.058	1.018	4970.0	3.730	0.175	0.058	1.139	4970.0
70_50.1	70_60	39	450	0	0.159	3.655	0.242	0.089	1.018	7680.4	3.558	0.244	0.089	1.010	7680.4
70_60.1	70_70	43	450	0	0.159	3.558	0.243	0.089	1.012	7680.4	3.451	0.250	0.089	0.982	7680.4
70_70.1	70_80	40	450	0	0.159	3.451	0.249	0.092	1.019	7946.4	3.353	0.255	0.092	0.991	7946.4
70_80.1	70_90	33	450	0	0.159	3.353	0.254	0.092	0.996	7946.4	3.271	0.267	0.092	0.937	7946.4
70_90.1	70_100	33	450	0	0.159	3.271	0.265	0.092	0.945	7946.4	3.191	0.293	0.092	0.840	7946.4
80_10.1	80_20	36	375	0	0.149	3.875	0.241	0.108	1.438	9320.5	3.675	0.255	0.108	1.352	9320.5
80_20.1	80_30	35	375	0	0.151	3.675	0.249	0.108	1.384	9320.5	3.475	0.301	0.108	1.135	9320.5
80_30.1	80_40	35	450	0	0.242	3.400	0.366	0.186	1.341	16051.8	3.200	0.440	0.186	1.171	16051.8
80_40.1	70_100	36	450	0	0.212	3.200	0.413	0.186	1.217	16051.8	3.043	0.445	0.186	1.166	16051.8
90_10.1	90_20	21	225	0	0.042	1.400	0.022	0.000	0.080	14.0	1.260	0.022	0.000	0.080	14.0
90_20.1	90_30	36	225	0	0.035	1.185	0.025	0.000	0.136	28.0	1.023	0.025	0.000	0.136	28.0
90_30.1	90_40	38	225	0	0.035	1.023	0.025	0.000	0.136	28.0	0.851	0.027	0.000	0.121	28.0
90_40.1	90_50	70	225	0	0.035	0.851	0.027	0.000	0.182	42.0	0.534	0.029	0.000	0.165	42.0
90_50.1	90_60	27	225	0	0.035	0.534	0.029	0.001	0.219	56.0	0.411	0.029	0.001	0.219	56.0
90_60.1	90_70	37	225	0	0.035	0.411	0.029	0.001	0.219	56.0	0.244	0.029	0.001	0.219	56.0
90_70.1	90_80	43	225	0	0.035	0.244	0.029	0.001	0.219	56.0	0.050	0.028	0.001	0.224	56.0
90_80.1	PS2	29	750	0	0.551	-2.034	0.523	0.563	1.713	48049.8	-2.106	0.465	0.563	1.959	48049.3
NPS.1	OUTFALL2					-0.619	0.210	1.224		75700.0	-0.619	0.000	1.224		75700.0
PS1.1	PS3					1.497	0.093	1.800		27476.9	1.497	0.000	1.800		27476.9
PS1A.1	OUTFALL1					-1.740	0.088	0.591		46660.5	-1.740	0.000	0.591		46660.5
PS2.1	105_20					-2.256	0.517	0.570		48057.5	-2.256	6.213	0.570		48057.5
PS3.2	ST SEWER					0.850	0.414	1.850		27440.3	0.850	0.000	1.850		27440.3
PS6.1	230_140					-2.810	0.059	0.530		45285.8	-2.810	6.598	0.530		45285.8

+ after total flow indicates a conduit surcharged by flow and depth at that end.
 x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes <= 0.01, 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 26/05/2008 Last page

