

HYDROLOGICAL DESIGN SHEET

SLOPE				"n"	TIME	TIME	INTENSITY	CODE	COEFF	AREA	CA	SUM AREA	Q	BY PASS	TOTAL FLOW	GUTTER SLOPE	FLOW WIDTH	PIT TYPE	INLET	INFLOW	BY FLOW	BY PIT	KINEMATIC MIN TIME 5 MAX TIME 20 HAWKS NEST	REMARKS
%					min	min	mm/h			ha	ha	ha	L/s	L/s	L/s	%	m		m	L/s	L/s			
240	2	30	1	0.170	13.011			-0.5	0.652	0.123	0.080													
	4	35	0.5	0.010		13	103	-0.9	0.814	0.015	0.012	0.092	27		27	0.5	1.815	1	2.4	27		241		
243	2	6	3	0.010	0.681			-0.2	0.530	0.005	0.003													
	4	6	0.5	0.010		5	150	-0.9	0.814	0.005	0.004	0.007	3		3	0.5	0.406	1	1.8	3		245		
245	2	30	1	0.170	12.292			-0.5	0.652	0.095	0.062													
	4	30	0.5	0.010		12.3	106	-0.9	0.814	0.015	0.012	0.074	22		22	0.5	1.666	1	1.8	22		247		
247	2	30	1	0.170	12.292			-0.5	0.652	0.118	0.077													
	4	20	0.5	0.010		12.3	106	-0.9	0.814	0.021	0.017	0.094	28		28	0.5	1.766	1	1.8	28		247		
248	2	40	1	0.170	13.458			-0.5	0.652	0.205	0.134													
	4	5	0.5	0.010		13.5	102	-0.9	0.814	0.034	0.028	0.161	46		46	0.5	1.965	1	1.8	46		248		
250	2	30	1	0.170	13.237			-0.5	0.652	0.195	0.127													
	4	40	0.5	0.010		13.2	103	-0.9	0.814	0.028	0.023	0.15	43		43	0.5	2.219	1	2.4	43		251		
251	2	30	1	0.170	12.779			-0.5	0.652	0.171	0.111													
	4	30	0.5	0.010		12.8	104	-0.9	0.814	0.025	0.020	0.132	38		38	0.5	2.118	1	1.8	38		252		
252	2	30	1	0.170	13.011			-0.5	0.652	0.171	0.111													
	4	35	0.5	0.010		13	103	-0.9	0.814	0.028	0.023	0.134	39		39	0.5	1.829	1	1.8	39		252		
255	1	35	0.5	0.053	6.970			-0.1	0.490	0.180	0.088													
						7	133					0.088	33		33	0.5	1.327	4		33		255		
254	2	35	1	0.170	14.736			-0.5	0.652	0.211	0.138													
	4	45	0.5	0.010		14.7	98	-0.9	0.814	0.040	0.033	0.17	46		46	0.5	2.291	1	2.4	46		256		
256	2	30	1	0.170	12.779			-0.5	0.652	0.118	0.077													
	4	30	0.5	0.010		12.8	104	-0.9	0.814	0.025	0.020	0.097	28		28	0.5	1.78	1	1.8	28		256		
257	2	30	1	0.170	12.779			-0.5	0.652	0.130	0.085													
	4	30	0.5	0.010		12.8	104	-0.9	0.814	0.025	0.020	0.105	30		30	0.5	1.84	1	1.8	30		257		
260	2	20	1	0.170	9.801			-0.5	0.652	0.081	0.053													
	4	25	0.5	0.010		9.8	116	-0.9	0.814	0.019	0.015	0.068	22		22	0.5	1.674	1	1.8	22		261		
261	2	25	1	0.170	11.202			-0.5	0.652	0.103	0.067													
	4	25	0.5	0.010		11.2	110	-0.9	0.814	0.021	0.017	0.084	26		26	0.5	1.711	1	1.8	26		261		
262	2	20	1	0.170	9.801			-0.5	0.652	0.063	0.041													
	4	25	0.5	0.010		9.8	116	-0.9	0.814	0.015	0.012	0.053	17		17	0.5	1.426	1	1.8	17		262		
263	3	6	3	0.010	0.681			-0.2	0.530	0.005	0.003													
	4	6	0.5	0.010		5	150	-0.9	0.814	0.005	0.004	0.007	3		3	0.5	0.406	1	1.8	3		262		
264	2	35	1	0.170	13.826			-0.5	0.652	0.148	0.096													
	4	25	0.5	0.010		13.8	101	-0.9	0.814	0.022	0.018	0.114	32		32	0.5	1.879	1	1.8	32		264		
265	2	30	1	0.170	12.539			-0.5	0.652	0.078	0.051													
	4	25	0.5	0.010		12.5	105	-0.9	0.814	0.015	0.012	0.063	18		18	0.5	1.471	1	1.8	18		265		
269	2	30	1	0.170	13.673			-0.5	0.652	0.275	0.179													
	4	50	0.5	0.010		13.7	101	-0.9	0.814	0.036	0.029	0.209	59		59	0.5	2.045	1	1.8	59		269		
309	2	35	1	0.170	13.331			-0.5	0.652	0.163	0.106													
	4	15	0.5	0.010		13.3	102	-0.9	0.814	0.017	0.014	0.12	34		34	0.5	1.62	1	1.8	34		309		
266	2	15	1	0.170	7.776			-0.5	0.652	0.036	0.023													
	4	15	0.5	0.010		7.8	127	-0.9	0.814	0.010	0.008	0.032	11		11	0.5	1.217	1	1.8	11		267		
267	2	30	1	0.170	13.458			-0.5	0.652	0.118	0.077													
	4	45	0.5	0.010		13.5	102	-0.9	0.814	0.025	0.020	0.097	28		28	0.5	1.762	1	1.8	28		267		
271	2	35	1	0.170	13.826			-0.5	0.652	0.160	0.104													
	4	25	0.5	0.010		13.8	101	-0.9	0.814	0.015	0.012	0.117	33		33	0.5	1.981	1	1.8	33		272		
272	2	35	1	0.170	14.517			-0.5	0.652	0.295	0.192													
	4	40	0.5	0.010		14.5	99	-0.9	0.814	0.040	0.033	0.225	62		62	0.012	4.659	1	2.4	62		272		
289	2	35	1	0.170	14.736			-0.5	0.652	0.235	0.153													
	4	45	0.5	0.010		14.7	98	-0.9	0.814	0.022	0.018	0.171	47		47	0.5	2.297	1	2.4	47		290		
290	2	35	1	0.170	14.062			-0.5	0.652	0.160	0.104													
	4	30	0.5	0.010		14.1	100	-0.9	0.814	0.015	0.012	0.117	32		32	0.5	1.975	1	1.8	32		291		
291	2	35	1	0.170	13.582			-0.5	0.652	0.154	0.1													
	4	20	0.5	0.010		13.6	101	-0.9	0.814	0.015	0.012	0.113	32		32	0.5	1.68	1	2.4	32		291		
279	2	35	1	0.170	14.517			-0.5	0.652	0.275	0.179													
	4	40	0.5	0.010		14.5	99	-0.9	0.814	0.028	0.023	0.202	55		55	0.5	2.129	1	2.4	55		279		
280	2	10	1	0.170	5.578			-0.5	0.652	0.015	0.010													
	4	6	0.5	0.010		5.6	144	-0.9	0.814	0.005	0.004	0.014	6		6	0.5	0.809	1	1.8	6		281		

LAND USE CODES

1. PARKS/RESERVES
2. ALLOTMENTS
3. ROADS
4. KERB & GUTTER
5. TABLE/CATCH DRAINS
6. PIPES

PIT TYPE CODES

1. G.G.P. GRATED GULLY PIT
2. L.S.I.P. LETTER BOX GULLY PIT
3. S.I.P. SURFACE INLET PIT
4. G.S.I.P. GRATED SURFACE INLET PIT
5. J.P. JUNCTION PIT
6. H.W. HEADWALL
7. D.C. DIRECT CONNECTION
8. S.P. SUMP PIT
9. BEND BEND IN PIPE
10. I.P. INSPECTION PIT
11. S.J. SLOPE JUNCTION

HYDRAULIC DESIGN SHEET

PIT	TIME	INTENSITY	AREAS	FLOW	LENGTH	DIAMETER	GRADE	H.G.L.GRADE	VEL. O/A	K	HEAD LOSS	VEL CAP	PIPE VEL	PIPE CAP	PIPE TIME	C=C.W., N=MANNINGS
																MAX TIME 20 HAWKS NEST BY PASS=AREA AREA=ADP Q
	min	mm/hr	ha	L/s	m	mm	%	%	m/s		m	m/s	m/s	L/s	min	REMARKS
LINE 51																
250-251	13.2	102 5Yr	0.15	43	43.4 C0.0006	375	0.472	0.049	0.387	3.5	0.027	1.254	0.96	138	0.75	
251-252	14	100 5Yr	0.282	78	21.17 C0.0006	375	0.307	0.158	0.71	1.6	0.041	1.011	1	112	0.35	
252-253	14.3	99 5Yr	0.416	114	32.43 C0.0006	375	0.308	0.333	1.036	1.3	0.071	1.013	1.09	112	0.5	
LINE 50																
255-256	7	132 5Yr	0.088	33	23.206 C0.0006	375	0.517	0.029	0.295	3.5	0.015	1.312	0.91	145	0.43	
LINE 49																
254-256	14.7	97 5Yr	0.17	46	36.439 C0.0006	375	0.521	0.057	0.419	3.5	0.031	1.317	1.02	145	0.6	
256-257	15.3	96 5Yr	0.356	95	12.717 C0.0006	375	0.55	0.23	0.86	1.9	0.072	1.353	1.29	149	0.16	
257-258	15.5	95 5Yr	0.461	122	21.844 C0.0006	375	0.412	0.379	1.109	1.3	0.082	1.171	1.25	129	0.29	
LINE 79																
260-261	9.8	116 5Yr	0.068	22	12.688 C0.0006	375	0.631	0.014	0.2	3.5	0.007	1.449	0.87	160	0.24	
261-262	11.2	110 5Yr	0.153	47	8.313 C0.0006	375	0.361	0.058	0.422	1.7	0.015	1.096	0.9	121	0.15	
262-263	11.4	109 5Yr	0.206	63	11.263 C0.0006	375	0.355	0.102	0.567	1.2	0.02	1.087	0.98	120	0.19	
263-264	11.5	108 5Yr	0.213	64	14.873 C0.0006	375	0.33	0.106	0.581	0.7	0.012	1.048	0.96	116	0.84	
264-265	13.8	100 5Yr	0.327	91	12.412 C0.0006	375	0.322	0.214	0.828	1.3	0.045	1.036	1.06	114	0.2	
265-274	14	100 5Yr	0.39	108	14.217 C0.0006	451	0.352	0.115	0.678	0.4	0.009	1.215	1.12	194	0.21	
LINE 80																
269-270	13.7	101 5Yr	0.209	59	11.84 C0.0006	375	0.507	0.09	0.531	3.5	0.05	1.299	1.08	143	0.18	
LINE 81																
309-266	13.3	102 5Yr	0.12	34	41.56 C0.0006	375	0.481	0.032	0.309	3.5	0.017	1.266	0.9	140	0.77	
266-267	14.1	99 5Yr	0.152	42	13.51 C0.0006	375	0.441	0.048	0.381	1.4	0.01	1.211	0.93	134	0.24	
267-268	14.3	99 5Yr	0.249	69	11.88 C0.0006	375	0.337	0.122	0.62	1.3	0.026	1.059	0.99	117	0.2	
LINE 82																
271-272	13.8	100 5Yr	0.117	33	24.68 C0.0006	375	0.365	0.029	0.295	3.5	0.016	1.102	0.8	122	0.51	
272-273	14.5	98 5Yr	0.341	93	15.32 C0.0006	375	0.587	0.223	0.846	1.3	0.047	1.398	1.32	154	0.19	
LINE 89																
289-290	14.7	97 5Yr	0.171	47	37.943 C0.0006	375	0.395	0.057	0.421	3.5	0.032	1.147	0.93	127	0.68	
290-291	15.4	95 5Yr	0.288	77	11.669 C0.0006	375	0.343	0.151	0.694	1	0.025	1.068	1.03	118	0.19	
291-292	15.6	95 5Yr	0.4	106	12.908 C0.0006	375	0.465	0.286	0.96	1.6	0.075	1.244	1.26	137	0.17	
LINE 85																
279-280	14.5	98 5Yr	0.202	55	35.184 C0.0006	375	0.313	0.08	0.501	3.5	0.045	1.02	0.9	113	0.65	
280-281	15.2	96 5Yr	0.216	58	13.597 C0.0006	375	0.438	0.088	0.525	1.1	0.015	1.207	1.03	133	0.22	
LINE 86																
275-277	11.7	108 5Yr	0.143	43	20.8 C0.0006	375	0.337	0.049	0.388	3.5	0.027	1.058	0.85	117	0.41	
LINE 83																
278-276	12.8	104 5Yr	0.101	29	48.478 C0.0006	375	0.33	0.024	0.263	3.5	0.012	1.048	0.75	116	1.08	
276-277	14.1	99 5Yr	0.223	62	13.844 C0.0006	375	0.361	0.099	0.559	1.6	0.026	1.096	0.98	121	0.24	
277-281	14.3	99 5Yr	0.413	114	69.165 C0.0006	451	0.304	0.126	0.712	1.7	0.044	1.129	1.08	180	1.07	
281-282	15.4	95 5Yr	0.741	197	9.066 C0.0006	522	0.331	0.175	0.922	1.7	0.074	1.291	1.28	276	0.12	
282-283	15.5	95 5Yr	0.899	239	11.601 C0.0006	522	0.302	0.254	1.115	1.2	0.076	1.233	1.3	264	0.15	
283-284	15.7	95 5Yr	0.984	260	19.366 C0.0006	522	0.336	0.302	1.216	0.7	0.053	1.3	1.39	278	0.23	
LINE 88																
286-287	13.8	100 5Yr	0.118	33	15.533 C0.0006	375	0.386	0.03	0.3	3.5	0.016	1.134	0.83	125	0.31	
LINE 87																
285-287	10	115 5Yr	0.111	36	24.915 C0.0006	375	0.321	0.034	0.321	3.5	0.018	1.034	0.79	114	0.53	
287-288	14.1	99 5Yr	0.431	119	18.74 C0.0006	375	0.32	0.36	1.08	2.2	0.131	1.032	1.11	114	0.28	