

DRAINAGE DESIGN COMPUTATION

DRAIN A

CROSSING

DRAIN B

OUTFALL

DRAIN D

CROSSING

DRAIN C

DRAIN F

DRAIN E

NO. MH.	FROM MH.	TO MH.	LENGTH	TRIBUTARY AREAS		TIME OF FLOW		RUNOFF COEFFICIENT C	INTENSITY 2 1/2 YR. CURVE I	TOTAL RUNOFF Q=CIA		SLOPE	VELOCITY FT./SEC.	DIAM.	THEORETICAL CAPACITY cfs	ELEVATIONS		NOTES
				INC. ACRES	TOTAL ACRES	TO UPPER END	IN SECTION (MIN.)			INC.	TOTAL					UPPER END INVERT	LOWER END INVERT	
8	8	7	290	1.39	1.39	20.0	2.7	0.29	2.80	1.14	1.14	.0025	1.9	12"	1.5	13.61	12.88	C(Turf)=0.05 C(Pavement)=0.90
7	7	6	290	2.78	4.17	22.7	2.2	0.20	2.58	1.44	2.58	.0025	2.2	18"	3.6	12.88	12.16	n=.019 - Corrugated Pipe
6	6	5	250	1.40	5.57	24.9	1.9	0.35	2.43	1.18	3.76	.0025	2.2	18"	3.6	12.16	11.53	
5	5	4	250	1.62	7.19	26.8	1.7	0.30	2.30	1.12	4.88	.0025	2.5	21"	5.5	11.53	10.91	
4	4	3	250	1.73	8.92	28.5	1.7	0.26	2.22	1.00	5.88	.0025	2.5	24"	7.9	10.91	10.28	
3	3	2	240	2.60	11.52	30.2	1.4	0.19	2.13	1.05	6.93	.0025	2.8	24"	7.9	10.28	9.68	
2				3.55	15.07	31.6		0.17	2.07	1.26	8.19					9.68		Junction with Crossing
																		Under Runway
	2	1B	170								8.19	.0020		27"	11.5	9.68	9.28	
7	7	6	280	0.28	0.28	20.0	3.3	0.90	2.80	0.70	0.70	.0025	1.4	10"	0.75	13.16	12.46	
6	6	5	280	0.48	0.76	23.3	2.8	0.90	2.53	1.07	1.77	.0025	1.7	15"	2.1	12.46	11.76	
5	5	4	250	0.46	1.12	26.1	2.1	0.90	2.36	0.98	2.75	.0025	2.0	18"	3.6	11.76	11.13	
4	4	3	250	0.43	1.65	28.2	2.1	0.90	2.23	0.86	3.61	.0025	2.0	18"	3.6	11.13	10.51	
3	3	2	250	0.42	2.07	30.3	1.7	0.90	2.12	0.80	4.41	.0025	2.4	21"	5.7	10.51	9.88	
2	2	1	240	0.41	2.48	32.0	1.7	0.90	2.05	0.76	5.17	.0025	2.4	21"	5.7	9.88	9.28	
1				0.46	2.94	33.7		0.90	1.98	0.84	6.01					9.28		Junction with Crossing & Outfall
	1	A	370								14.20	.0032		30"	16.0	9.28	8.10	
6	6	5	295	2.35	2.35	20.0	4.1	0.10	2.80	0.66	0.66	.0020	1.2	10"	0.67	14.07	13.48	
5	5	4	295	1.75	4.10	24.1	3.3	0.30	2.48	1.30	1.96	.0020	1.5	15"	1.9	13.48	12.89	
4	4	3	250	3.64	7.74	27.4	2.1	0.18	2.28	1.50	3.46	.0020	2.0	21"	4.9	12.89	12.39	
3	3	2	250	3.80	11.54	29.5	2.1	0.15	2.17	1.24	4.70	.0020	2.0	21"	4.9	12.39	11.89	
2	2	1	250	1.72	13.26	31.6	1.9	0.26	2.07	0.93	5.63	.0020	2.2	24"	7.0	11.89	11.39	
1				1.97	15.23	33.5		0.26	1.98	1.02	6.68					11.39		Junction with Crossing
	1	1A	185								6.68	.0023		24"	7.7	11.39	10.96	Under Runway
7	7	6	250	0.26	0.26	20.0	3.5	0.90	2.80	0.66	0.66	.0020	1.2	10"	0.67	13.63	13.13	
6	6	5	250	0.42	0.68	23.5	2.8	0.90	2.52	0.96	1.62	.0020	1.5	15"	1.9	13.13	12.63	
5	5	4	250	0.42	1.10	26.3	2.2	0.90	2.35	0.89	2.51	.0020	1.9	18"	3.3	12.63	12.13	
4	4	3	250	0.33	1.43	28.5	2.2	0.90	2.22	0.66	3.17	.0020	1.9	18"	3.3	12.13	11.63	
3	3	2	220	0.41	1.84	30.7	1.8	0.90	2.12	0.79	3.96	.0020	2.0	21"	4.9	11.63	11.19	
2	2	1A	117	0.38	2.22	32.5	1.0	0.90	2.03	0.69	4.65	.0020	2.0	21"	4.9	11.19	10.96	Junction with Crossing & Drain F
1A	1A	1	105	0.00	2.22	33.5	0.6	0.90			11.33	.0025	2.8	30"	14.0	10.96	10.70	From Drains C & D
1	1	2	230	0.44	2.66	34.1	1.4	0.90	1.97	0.78	12.11	.0025	2.8	30"	14.0	10.70	10.13	
2	2	3	130	0.34	3.00	35.5	0.8	0.90	1.93	0.59	12.70	.0025	2.8	30"	14.0	10.13	9.80	
3	3	Outfall	240	0.22	3.22	36.3		0.90	1.90	0.38	13.08	.0025		30"	14.0	9.80	9.20	Junction with N-S Outfall
								0.90										
3	3	2	307	0.15	0.15	20.0	4.3	0.90	2.80	0.39	0.39	.0025	1.2	8"	0.42	10.48	9.71	
2	2	Outfall	107	0.51	0.66	24.3		0.90	2.48	1.14	1.53	.0047		12"	1.7	9.71	9.20	To Ditch

CITY OF HARTFORD, CONN. HARTFORD MUNICIPAL AIRPORT	
DRAINAGE DESIGN COMPUTATIONS CORRUGATED PIPE	
City of Hartford	Department of Engineering
APPROVED DATE	City Engineer
APPROVED DATE	
DRAWN	CHECKED
DATE	SHEET 10 OF 18 CONN. PROJECT NO.
DAYBOOK NO. 08984	