

\\PHILPS-SERVER\Projects\A\171125\Eng\Permit Plans\Secondary Storm Plan.dwg Layout:Chart-1 Jan 27, 2020 - 2:51pm Kyle Delers

DESIGN CRITERIA: K ₂₅ = 1.1; K ₁₀₀ = 1.25; n = 0.013 (RCP); STORM FREQUENCY = 25 YEAR; A.I.= AREA INLET; J.B.= JUNCTION BOX; C.I. = CURB INLET; C.C. = CURB CUT; G.I. = GRATE INLET; HEIGHT OF STRUCTURE=RIM ELEV MINUS FLOWLINE OUT.																									
N U M B E R	S T R U C T U R E	I. RUNOFF										III. PIPE DESIGN													REMARKS
		INCREMENTAL			CUMULATIVE		SYSTEM TIME OF CONCENTRATION "T _c " AT STRUCTURE (MIN)	RAINFALL INTENSITY "I _p " / 1.00" (IN/HR)	ANTECEDENT PRECIPITATION FACTOR "K ₂₅ " / K ₁₀₀ "	RUNOFF "Q ₂₅ " / Q ₁₀₀ " (CFS)	STRUCTURE				PIPE									100-YEAR CHECK	
		RUNOFF COEFFICIENT "C"	AREA "A" (ACRES)	C x A	AREA "A" (ACRES)	C x A					Upstream Structure Number	Downstream Structure Number	Upstream Structure Rim Elevation	Height of Structure (FT)	Diameter "D" (IN)	Length "L" (FT)	Upstream Invert Elevation	Downstream Invert Elevation	Slope "S" (FT/FT)	Travel Time in Pipe "TT" (min)	Velocity Full V _f (FPS)	Runoff Q ₂₅ (CFS)	Runoff Q ₁₀₀ (CFS)		Full Flow Q _f (CFS)
1	1	0.90	0.000	0.000	0.149	0.135	5.00	8.53 10.32	1.10 1.25	1.3 1.7	1	2	1039.30	4.00	15	28.09	1035.30	1034.58	0.0256	0.06	8.5	1.3	1.7	10.3	OK
	2	0.90	0.016	0.014	0.165	0.149	5.00	8.53 10.32	1.10 1.25	1.4 1.9	2	3	-	-	15	30.29	1034.58	1033.82	0.0251	0.06	8.4	1.4	1.9	10.2	OK
	3	0.90	0.010	0.009	0.175	0.158	5.00	8.53 10.32	1.10 1.25	1.5 2.0	3	4	-	-	15	51.39	1033.82	1032.53	0.0251	0.10	8.4	1.5	2.0	10.2	OK
	4	0.90	0.000	0.000	0.447	0.403	5.00	8.53 10.32	1.10 1.25	3.8 5.2	4	5	-	-	15	29.79	1032.53	1031.78	0.0252	0.06	8.4	3.8	5.2	10.2	OK
	5	0.90	0.015	0.014	0.462	0.417	5.00	8.53 10.32	1.10 1.25	3.9 5.4	5	6	-	-	15	30.29	1031.78	1031.02	0.0251	0.06	8.4	3.9	5.4	10.2	OK
	6	0.90	0.015	0.014	0.477	0.431	5.00	8.53 10.32	1.10 1.25	4.0 5.6	6	7	-	-	15	30.83	1031.02	1030.24	0.0253	0.06	8.4	4.0	5.6	10.3	OK
	7	0.90	0.000	0.000	0.768	0.694	5.00	8.53 10.32	1.10 1.25	6.5 9.0	7	8	1034.81	5.07	15	52.85	1029.74	1028.47	0.0240	0.11	8.2	6.5	9.0	10.0	OK
	8	0.90	0.021	0.019	0.789	0.713	5.00	8.53 10.32	1.10 1.25	6.7 9.2	8	9	-	-	15	36.35	1028.47	1027.59	0.0242	0.07	8.3	6.7	9.2	10.0	OK
	9	0.9	0.046	0.041	0.835	0.754	5.00	8.53 10.32	1.10 1.25	7.1 9.7	9	10	-	-	18	43.31	1027.59	1026.54	0.0242	0.08	9.3	7.1	9.7	16.4	OK
	10	0.9	0.053	0.048	0.888	0.802	5.00	8.53 10.32	1.10 1.25	7.5 10.3	10	11	-	-	18	97.93	1026.54	1024.17	0.0242	0.18	9.3	7.5	10.3	16.3	OK
	11	0.90	0.000	0.000	0.888	0.802	5.00	8.53 10.32	1.10 1.25	7.5 10.3	11	12	1028.40	4.73	18	27.68	1023.67	1023.25	0.0152	0.06	7.4	7.5	10.3	12.9	OK
	12	0.9	0.000	0.000	0.888	0.802	5.00	8.53 10.32	1.10 1.25	7.5 10.3	12	20					-	-							
2	20	0.90	0.000	0.000	0.291	0.263	5.00	8.53 10.32	1.10 1.25	2.5 3.4	20	7	1040.00	8.50	15	53.26	1031.50	1030.00	0.0282	0.10	8.9	2.5	3.4	10.8	OK
	7	0.90	0.000	0.000	0.291	0.263	5.00	8.53 10.32	1.10 1.25	2.5 3.4	7	30	-	-			-	-							
3	30	0.90	0.020	0.018	0.559	0.504	5.00	8.53 10.32	1.10 1.25	4.7 6.5	30	31	1038.51	10.51	15	81.99	1028.00	1026.36	0.0200	0.18	7.5	4.7	6.5	9.1	OK
	31	0.90	0.000	0.000	0.707	0.638	5.00	8.53 10.32	1.10 1.25	6.0 8.2	31	32	-	-	15	22.69	1026.25	1025.80	0.0200	0.05	7.5	6.0	8.2	9.1	OK
	32	0.90	0.000	0.000	0.707	0.638	5.00	8.53 10.32	1.10 1.25	6.0 8.2	32	40	-	-			-	-							
4	40	0.90	0.017	0.015	0.142	0.128	5.00	8.53 10.32	1.10 1.25	1.2 1.7	40	41	1047.75	4.05	15	18.15	1043.70	1043.03	0.0369	0.03	10.2	1.2	1.7	12.4	OK
	41	0.90	0.016	0.014	0.158	0.142	5.00	8.53 10.32	1.10 1.25	1.3 1.8	41	42	-	-	15	45.58	1043.03	1041.35	0.0369	0.07	10.2	1.3	1.8	12.4	OK
	42	0.90	0.035	0.032	0.193	0.174	5.00	8.53 10.32	1.10 1.25	1.6 2.2	42	43	-	-	15	34.38	1041.35	1040.08	0.0369	0.06	10.2	1.6	2.2	12.4	OK
	43	0.90	0.042	0.038	0.235	0.212	5.00	8.53 10.32	1.10 1.25	2.0 2.7	43	44	-	-	15	60.21	1040.08	1037.86	0.0369	0.10	10.2	2.0	2.7	12.4	OK
	44	0.90	0.034	0.031	0.269	0.243	5.00	8.53 10.32	1.10 1.25	2.3 3.1	44	45	-	-	15	26.63	1037.86	1036.88	0.0368	0.04	10.2	2.3	3.1	12.4	OK
	45	0.90	0.031	0.028	0.300	0.271	5.00	8.53 10.32	1.10 1.25	2.5 3.5	45	46	-	-	15	10.00	1036.88	1036.51	0.0370	0.02	10.2	2.5	3.5	12.4	OK
	46	0.90	0.743	0.669	1.043	0.940	5.00	8.53 10.32	1.10 1.25	8.8 12.1	46	47	-	-	18	44.60	1036.51	1034.86	0.0370	0.06	11.5	8.8	12.1	20.2	OK
	47	0.90	0.081	0.073	1.124	1.013	5.00	8.53 10.32	1.10 1.25	9.5 13.1	47	48	-	-	18	36.62	1034.86	1033.51	0.0369	0.05	11.5	9.5	13.1	20.2	OK
	48	0.90	0.000	0.000	1.124	1.013	5.00	8.53 10.32	1.10 1.25	9.5 13.1	48	49	1041.74	8.73	18	33.16	1033.01	1032.14	0.0262	0.06	9.7	9.5	13.1	17.0	OK
	49	0.90	0.035	0.032	1.159	1.045	5.00	8.53 10.32	1.10 1.25	9.8 13.5	49	50	-	-	18	33.44	1032.14	1031.27	0.0260	0.06	9.7	9.8	13.5	16.9	OK
	50	0.90	0.029	0.026	1.188	1.071	5.00	8.53 10.32	1.10 1.25	10.0 13.8	50	51	-	-	18	29.01	1031.27	1030.51	0.0262	0.05	9.7	10.0	13.8	17.0	OK
	51	0.90	0.039	0.035	1.227	1.106	5.00	8.53 10.32	1.10 1.25	10.4 14.3	51	52	-	-	18	38.16	1030.51	1029.51	0.0262	0.07	9.7	10.4	14.3	17.0	OK
5	52	0.90	0.017	0.015	1.244	1.121	5.00	8.53 10.32	1.10 1.25	10.5 14.5	52	53	1033.43	4.42	18	44.09	1029.01	1027.19	0.0413	0.06	12.2	10.5	14.5	21.3	OK
	53	0.90	0.028	0.025	1.272	1.146	5.00	8.53 10.32	1.10 1.25	10.8 14.8	53	54	-	-	18	36.73	1027.19	1025.68	0.0411	0.05	12.1	10.8	14.8	21.3	OK
	54	0.90	0.000	0.000	1.272	1.146	5.00	8.53 10.32	1.10 1.25	10.8 14.8	54	55	1030.06	4.88	18	37.95	1025.18	1023.62	0.0411	0.05	12.1	10.8	14.8	21.3	OK
	55	0.90	0.000	0.000	1.272	1.146	5.00	8.53 10.32	1.10 1.25	10.8 14.8	55	60	-	-			-	-							
	60	0.90	0.013	0.012	0.013	0.012	5.00	8.53 10.32	1.10 1.25	0.1 0.2	60	61	-	-	8	45.08	-	-	0.0100	0.21	3.5	0.1	0.2	1.2	OK
	61	0.90	0.044	0.040	0.057	0.052	5.00	8.53 10.32	1.10 1.25	0.5 0.7	61	62	-	-	8	33.75	-	-	0.0100	0.16	3.5	0.5	0.7	1.2	OK
	62	0.90	0.028	0.025	0.085	0.077	5.00	8.53 10.32	1.10 1.25	0.7 1.0	62	63	-	-	8	31.42	-	-	0.0100	0.15	3.5	0.7	1.0	1.2	OK
	63	0.90	0.025	0.023	0.110	0.100	5.00	8.53 10.32	1.10 1.25	0.9 1.3	63	20	-	-	10	42.46	-	-	0.0100	0.17	4.1	0.9	1.3	2.2	OK
	64	0.90	0.039	0.035	0.149	0.135	5.00	8.53 10.32	1.10 1.25	1.3 1.7	64	20	-	-	10	48.90	-	-	0.0200	0.14	5.7	1.3	1.7	3.1	OK
	1	0.90	0.000	0.000	0.149	0.135	5.00	8.53 10.32	1.10 1.25	1.3 1.7															
6	70	0.90	0.048	0.043	0.048	0.043	5.00	8.53 10.32	1.10 1.25	0.4 0.6	70	71	-	-	8	21.38	-	-	0.0125	0.09	3.9	0.4	0.6	1.4	OK
	71	0.90	0.048	0.043	0.096	0.086	5.00	8.53 10.32																	