

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0190-01	2005	74	96

DRAINAGE ANALYSIS SUMMARY

Drainage Area ID.	Area (ac.)	C 5-yr	C 100-yr	Elev Max (ft.)	Elev Min (ft.)	Flow Length (ft.)	Tc (5-yr) Calc (min.)	Tc (100-yr) Calc (min.)	Tc (5-yr) min (min.)	Tc (100-yr) min (min.)	Intensity (5-yr) (in./hr.)	Intensity (100-yr) (in./hr.)	Q 5-yr (cfs)	Upstream Spill-over (cfs)	Q 5-yr Total (cfs)	Q 100-yr (cfs)	Inlet ID.	STA	Inlet Type (1, 1A, 2)	Inlet Size 5-yr (ft.)	Longitudinal Slope So (%)	Cross Slope Sx (%)	Q Intercept (cfs)	Q Bypass (cfs)	Q Efficiency (%)	Spread (ft.)	Comments	
1	13.19	0.45	0.60	222.60	210.64	1325	44.07	33.90	44	33	2.61	5.14	15.49		15.49	40.68	1	35+28.20, Rt. On-grade	2	6'-2 1/2"	-1.92	2.60	4.11	11.38	27%	15.13		
2	2.29	0.44	0.59	214.60	205.76	650	27.34	21.12	27	21	3.43	6.39	3.46	11.38	14.84	8.63	2	37+71.48, Rt. On-grade	2	6'-2 1/2"	-1.92	3.13	4.35	10.49	29%	13.27		
Ex 1	0.15	0.53	0.66	210.60	206.54	156	9.32	7.19	15	15	4.56	7.37	0.36		0.36	0.73	Ex 1	38+02.9, Rt. On-grade	1	4.5	-0.79	7.29	0.30	83%	2.29	Existing inlet (Larkspur W.)		
Ex 2	0.11	0.57	0.69	210.60	205.88	120	6.62	5.12	15	15	4.56	7.37	0.29		0.29	0.56	Ex 2	38+33.3, Rt. On-grade	1	4.5	-1.06	2.22	0.10	64%	4.18	Existing inlet (Larkspur E.)		
3	0.13	0.72	0.80	206.96	204.08	128	5.91	4.66	15	15	4.56	7.37	0.43		10.65	0.77	3	38+63.07, Rt. On-grade	2	6'-2 1/2"	-1.92	3.13	3.72	34%	11.89			
4	0.62	0.46	0.61	205.29	200.00	242	13.81	10.57	15	15	4.56	7.37	1.30		8.66	2.79	4	40+71.66, Rt. On-grade	2	6'-2 1/2"	-1.92	3.13	3.23	37%	10.84			
Ex 3	6.91	0.47	0.62	227.60	213.60	1,595	47.30	36.04	47	36	2.50	4.93	8.12		8.12	21.12	Ex 3	Sumpp										
Ex 4	7.23	0.46	0.61	217.60	213.60	854	43.35	33.19	43	33	2.64	5.14	8.78		8.78	22.67	Ex 3	Sumpp	1	4.5	-1.92	3.13	1.73	6.97	20%	10.86	Exist (SE, 19th & Edgemoor)	
Ex 5	8.79	0.43	0.58	222.60	213.60	1,485	54.92	42.62	54	42	2.30	4.54	8.69		8.69	23.15	Ex 3	On-Grade	1	4.5	-0.63	3.13	2.11	4.99	30%	12.41	Exist (WNW, 19th & Edgemoor)	
Ex 6	0.08	0.39	0.54	214.60	213.60	133	16.21	12.78	16	15	4.43	7.37	0.14		6.97	0.32	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.99	2.26	31%	7.51	Exist (ENE, 19th & Edgemoor)	
Ex 7	2.37	0.46	0.61	218.60	213.60	730	35.31	27.03	35	27	2.98	5.69	3.25		3.25	8.23	Ex 3	On-Grade	1	4.5	-1.92	3.13	2.07	4.78	30%	12.23	Exist (ESE, 20th & Edgemoor)	
Ex 8	0.03	0.66	0.76	215.10	213.60	63	4.71	3.64	15	15	4.56	7.37	0.09		2.35	0.17	Ex 3	On-Grade	1	4.5	-0.63	3.13	1.13	1.21	48%	8.19	Exist (NNE, 19th & Edgemoor)	
Ex 9	0.49	0.48	0.62	213.60	212.00	283	22.71	17.58	22	17	3.81	7.00	0.90		2.11	2.13	Ex 3	On-Grade	1	4.5	-0.63	3.13	1.07	1.04	51%	7.87	Exist (SSE, 20th & Edgemoor)	
Ex 10	3.57	0.50	0.64	218.60	212.50	1,265	48.98	37.55	48	37	2.47	4.86	4.41		4.41	11.10	Ex 3	On-Grade	1	4.5	-1.92	3.13	1.18	3.23	27%	8.42	Exist (ENE, 20th & Edgemoor)	
Ex 11	2.11	0.48	0.63	215.60	212.50	719	39.61	30.03	39	30	2.80	5.40	2.84		2.84	7.18	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.92	1.92	32%	7.13	Exist (ESE, 20th & Edgemoor)	
Ex 12	2.28	0.29	0.47	215.00	210.63	589	39.09	30.40	39	30	2.80	5.40	1.85		6.84	5.79	Ex 3	On-Grade	1	4.5	-0.63	3.13	2.07	4.78	30%	12.23	Exist (SSW, Larkspur & Edgem.)	
Ex 13	1.73	0.40	0.49	213.10	211.13	672	48.17	42.85	49	42	2.44	4.54	1.69		1.69	3.85	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.69	1.00	41%	5.87	Exist (WSW, Larkspur & Edgem.)	
Ex 14	1.51	0.29	0.47	213.10	211.13	672	55.89	44.25	56	44	2.25	4.43	0.99		0.99	3.14	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.51	0.48	52%	4.80	Exist (WNW, Larkspur & Edgem.)	
Ex 15	0.59	0.55	0.67	212.00	209.82	366	22.51	17.60	22	17	3.81	7.00	1.24		6.19	2.77	Ex 3	On-Grade	1	4.5	-0.63	3.13	2.16	5.26	29%	12.61	Exist (SSE, Shadybrooke & Edgem.)	
Ex 16	1.08	0.51	0.65	211.60	210.32	437	33.43	25.50	33	25	3.05	5.90	1.88		1.88	4.14	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.69	0.99	41%	5.86	Exist (SSW, Larkspur & Edgem.)	
Ex 17	0.79	0.46	0.61	211.60	210.32	390	32.98	25.25	32	25	3.10	5.90	1.13		1.13	2.84	Ex 3	On-Grade	1	4.5	-1.92	3.13	0.55	0.58	49%	5.05	Exist (ENE, Shadybrooke & Edgem.)	
Ex 18	0.80	0.46	0.61	210.63	208.41	375	26.59	20.35	26	20	3.50	6.53	1.29		6.26	3.19	Ex 3	On-Grade	1	4.5	-0.63	3.13	2.18	5.36	29%	12.69	South Edgemoor Lt.	
Ex 19	0.42	0.46	0.61	209.82	208.46	253	22.51	17.24	22	17	3.81	7.00	0.74		6.83	1.79	Ex 3	On-Grade	1	4.5	-0.63	3.13	1.70	5.38	29%	12.71	South of Edgemoor Rt.	
5A	0.79	0.46	0.61	200.23	199.69	45	7.27	5.57	15	15	4.56	7.37	1.66		7.02	3.55	5A	41+01.26, Rt. On-Grade	1	5	-1.04	1.80	1.70	5.32	24%	17.09	South of Edgemoor & 21st Lt.	
5B	0.99	0.46	0.61	200.23	199.26	45	5.98	4.58	15	15	4.56	7.37	2.08		7.46	4.45	5B	41+34.09, Rt. On-Grade	1	5	-1.21	2.83	1.95	5.50	26%	11.89	South of Edgemoor & 21st Rt.	
5C	0.02	0.46	0.61	210.41	200.08	228	10.51	8.05	15	15	4.56	7.37	0.04		5.32	0.09	5C	41+01.35, Rt. On-Grade	1	5	-0.71	0.66	1.29	4.07	24%	15.00		
5D	0.02	0.46	0.61	210.46	199.26	391	16.04	12.28	16	15	4.43	7.37	0.04		5.50	0.09	5D	41+34.02, Rt. On-Grade	1	5	-0.81	3.15	1.90	3.84	34%	10.73		
5	0.12	0.72	0.80	201.18	198.27	117	5.46	4.31	15	15	4.56	7.37	0.39		13.14	0.71	5	41+66.83, Rt. On-Grade	2	12'-5"	-2.23	3.13	5.57	7.96	41%	13.31		
Ex 20	1.93	0.50	0.64	214.60	202.99	800	26.98	20.69	26	20	3.50	6.53	3.38		3.38	8.07	Ex 4	50+86.23, Rt. On-Grade	1a	10	-2.23	4.44	2.14	1.23	64%	5.95	Exist (SSE, Farmstead & 21st St.)	
Ex 21	1.31	0.45	0.60	212.60	202.91	635	25.61	19.70	25	19	3.57	6.68	2.10		2.10	5.25	Ex 5	50+56.44, Rt. On-Grade	1a	10	-2.23	1.96	1.20	0.91	57%	8.31	Exist (SSW, Farmstead & 21st St.)	
6	2.19	0.54	0.67	214.60	200.51	1,401	37.66	28.92	37	28	2.88	5.59	3.41		5.55	8.20	6	47+63.02, Rt. On-Grade	2	12'-5"	0.60	2.08	1.61	3.94	29%	14.70	Exist Area Inlet behind fence?	
Ex 22	1.48	0.22	0.41	211.60	202.82	632	35.82	28.09	35	28	2.98	5.59	0.97		0.97	3.39	Ex 6	48+84.29, Rt. Area Inlet										
Ex 23	1.15	0.51	0.65	212.60	201.28	650	22.50	17.16	22	17	3.81	7.00	2.23		2.23	5.23	Ex 7	47+32.44, Rt. On-Grade	1	10	-2.25	1.32	1.13	1.11	50%	10.85	Exist (SSE, Homestead & 21st St.)	
Ex 24	2.28	0.51	0.65	218.60	200.57	1,116	30.24	23.06	30	23	3.24	6.13	3.77		3.77	9.08	Ex 8	47+02.03, Rt. On-Grade	1	10	-2.64	0.90	1.56	2.21	41%	16.24	Exist (SSW, Homestead & 21st St.)	
7	0.35	0.67	0.76	201.29	197.54	328	13.40	10.60	15	15	4.56	7.37	1.07		7.26	1.96	7	44+62.99, Rt. On-Grade	2	6'-2 1/2"	0.86	2.08	2.24	6.09	27%	16.01		
8	2.41	0.55	0.68	218.60	197.55	1,095	26.35	20.12	26	20	3.50	6.53	4.64		4.64	10.70	8	44+34.09, Rt. On-Grade	1	10	-2.38	0.54	1.60	3.04	35%	24.69	(SSE, Malcolm & 21st St.)	
9	2.90	0.51	0.65	215.60	197.55	869	24.54	18.71	24	18	3.65	6.84	5.40		5.40	12.89	9	44+03.15, Rt. On-Grade	1	10	-1.87	0.34	1.66	3.74	31%	36.37	(SSW, Malcolm & 21st St.)	
10	0.22	0.69	0.83	198.10	197.00	120	8.31	5.47	15	15	4.56	7.37	0.69		20.83	1.35	10	43+60.05, Rt. Sumpp	2	18'-7 1/2"	0.00	2.08	21.52	0.00	100%	22.00	Triple Type 2, L=20'/inlet	
11	0.97	0.72	0.80	226.81	210.56	779	14.94	11.80	15	15	4.56	7.37	3.18		3.18	5.72	11	35+25.06, Lt. On-Grade	2	3'-8"	-1.92	2.50	1.20	1.99	38%	8.57		
12	0.69	0.72	0.80	205.16	199.82	717	20.20	15.95	20	15	4.00	7.37	1.99		1.99	4.07	12	47+08.84, Lt. On-Grade	1a	5	1.02	3.13	1.05	0.93	53%	8.57		
13	1.37	0.72	0.80	210.56	196.93	880	17.54	13.85	17	15	4.31	7.37	4.25		7.17	8.08	13	43+62.10, Lt. Sumpp	1a	10	0.00	3.13	7.17	0.00	100%	22.00	Single Type 1A, L=10'/inlet	

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