

DRAINAGE ANALYSIS SUMMARY

Pawnee - WASHINGTON TO HYDRAULIC
HYDROLOGIC SOIL GROUP B

Area Name	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)	Longitudinal Slope So (%)	Cross Slope Sx (%)	Inlet	STA	Inlet Type (1, 1A, 2)	Inlet Size 5-yr (ft.)	Q Intercept (cfs)	Q Bypass (cfs)	Spread (ft.)	Storm Sewer (5-yr)		Comments
																										Pipe Size (in.)	Min Slope (%)	
1	4.84	0.50	0.64	99.25	97.03	1452	76.96	59.00	76	59	1.85	3.77	4.48		4.48	11.68	0.00	1.69	1	59+82.36, Lt	1	5	4.48	0.00	15.00			North Greenwood East Side
2	4.21	0.50	0.64	98.93	96.85	1386	75.66	58.00	75	58	1.86	3.81	3.92		3.92	10.27	0.00	1.55	2	59+53.90, Lt	1	5	3.92	0.00	15.00			North Greenwood West Side
3A	4.50	0.50	0.64	99.27	97.09	1453	77.47	59.39	77	59	1.83	3.77	4.12		4.12	10.86	0.15	1.88	3A	56+89.79, Lt	1	5	2.07	2.04	18.18			North Victoria East Side
3B	4.07	0.50	0.64	99.23	97.09	1425	76.70	58.80	76	58	1.85	3.81	3.76		3.76	9.92	0.09	1.27	3B	56+59.87, Lt	1	5	1.87	1.90	24.72			North Victoria West Side
3C	5.01	0.50	0.64	99.51	97.33	1451	77.38	59.33	77	59	1.83	3.77	4.58		4.58	12.09	1.01	2.58	3C	53+77.10, Lt	1	10	2.59	1.99	10.86			North Ellis East Side
3D	4.86	0.50	0.64	99.41	97.25	1438	77.04	59.06	77	59	1.83	3.77	4.45		4.45	11.73	0.21	3.11	3D	53+46.76, Lt	1	5	2.38	2.06	12.83			North Ellis West Side
3E	1.32	0.75	0.83	97.83	96.77	400	19.62	15.13	19	15	4.10	7.37	4.06	8.00	12.06	8.07	0.00	3.13	3E	56+10.00, Lt	1	10	12.06	0.00	22.00			
4	1.08	0.75	0.83	97.83	96.77	400	19.62	15.13	19	15	4.10	7.37	3.32		3.32	6.61	0.00	3.13	4	56+13.64, Rt	1	5	3.32	0.00	22.00			
5A	4.68	0.50	0.64	99.90	97.70	1464	77.72	59.59	77	59	1.83	3.77	4.28		4.28	11.29	0.05	2.14	5A	50+53.11, Lt	1	5	3.13	1.15	12.83			North LuLu East Side
5B	4.17	0.50	0.64	99.89	97.69	1466	77.81	59.65	77	59	1.83	3.77	3.82		3.82	10.06	0.47	2.22	5B	50+22.97, Lt	1	10	2.35	1.47	12.85			North LuLu West Side
5C	5.37	0.50	0.64	100.25	98.03	1481	78.24	59.98	78	59	1.82	3.77	4.89		4.89	12.96	0.42	1.85	5C	47+27.11, Lt	1	10	2.80	2.09	16.14			North Pattie East Side
5D	4.21	0.50	0.64	100.12	97.93	1463	77.80	59.64	77	59	1.83	3.77	3.85		3.85	10.16	0.20	2.47	5D	46+97.15, Lt	1	5	2.02	1.83	14.17			North Pattie West Side
5E	5.29	0.50	0.64	100.12	98.07	1476	80.12	61.42	80	61	1.79	3.70	4.73		4.73	12.53	0.15	3.09	5E	44+01.02, Lt	1	5	2.60	2.13	14.04			North Laura East Side
5F	0.52	0.75	0.83	98.11	97.50	287	17.88	13.80	17	15	4.31	7.37	1.68	2.13	3.81	3.18	0.30	3.13	5F	46+06.98, Lt	1	10	2.66	1.15	11.29			
5G	1.04	0.75	0.83	97.50	96.44	380	18.79	14.50	18	15	4.20	7.37	3.28	7.69	10.97	6.36	0.00	3.13	5G	49+86.81, Lt	1	10	10.97	0.00	22.00			
6	1.20	0.75	0.83	98.99	96.44	621	21.12	16.29	21	16	3.90	7.18	3.51		3.51	7.15	0.00	3.13	6	49+85.00, Rt	1	5	3.51	0.00	22.00			
7A	4.35	0.50	0.64	100.27	98.17	1397	75.91	58.20	75	58	1.86	3.81	4.05		4.05	10.61	0.26	2.32	7A	43+71.13, Lt	1	5	2.01	2.03	14.25			North Laura West Side
7B	0.75	0.50	0.64	98.82	98.36	305	35.43	27.16	35	27	2.98	5.69	1.12		1.12	2.73			7B									Alley between Ida and Laura
7C	5.67	0.50	0.64	100.27	97.04	1567	72.37	55.48	72	55	1.92	3.92	5.44		5.44	14.22	0.06	3.13	7C	40+51.09, Lt	1	5	3.24	2.20	17.45			North Ida East Side
7D	4.20	0.50	0.64	99.23	97.05	1453	77.47	59.39	77	59	1.83	3.77	3.84		3.84	10.13	0.13	3.13	7D	40+18.38, Lt	1	5	2.23	1.61	13.25			North Ida West Side
7E	0.97	0.50	0.64	98.88	98.19	297	30.27	23.21	30	23	3.24	6.13	1.57		1.57	3.81			7E									
7F	1.01	0.75	0.83	98.99	97.08	374	15.24	11.76	15	15	4.56	7.37	3.45	8.53	11.99	6.18	0.00	3.13	7F	39+77.36, Lt	1	10	11.99	0.00	22.00			
8	0.82	0.75	0.83	98.99	97.08	377	15.34	11.84	15	15	4.56	7.37	2.80		2.80	5.02	0.00	3.13	8	39+80.00, Rt	1	5	2.80	0.00	22.00			
9	6.08	0.50	0.64	100.71	97.36	1676	75.62	57.97	75	57	1.86	3.84	5.65		5.65	14.94	0.00	3.13	9	36+77.17, Lt	1	5	5.65	0.00	10.50			North Washington East Side
10	4.01	0.50	0.64	99.51	97.36	1432	76.89	58.95	76	58	1.85	3.81	3.71		3.71	9.78	0.00	3.13	10	36+40.17, Lt	1	5	3.71	0.00	10.50			North Washington West Side
11A	2.09	0.50	0.64	99.46	97.77	539	36.91	28.29	36	28	2.93	5.59	3.06		3.06	7.48			11A									
11B	0.92	0.75	0.83	102.79	97.45	499	13.76	10.61	15	15	4.56	7.37	3.15	3.06	6.21	5.63	0.00	3.13	11B	33+45.05, Lt	1	10	6.21	0.00	22.00			
12	0.89	0.75	0.83	102.81	97.45	501	13.79	10.64	15	15	4.56	7.37	3.04		3.04	5.44	0.00	3.13	12	33+36.02, Rt	1	10	3.04	0.00	22.00			
13	1.33	0.75	0.83	97.65	96.42	588	25.73	19.85	25	19	3.57	6.68	3.56		3.56	7.37	0.00	2.85	13	33+08.18, Lt	1	5	3.56	0.00	15.00			North Mosley East Side
14	1.04	0.75	0.83	98.02	96.44	588	23.67	18.26	23	18	3.73	6.84	2.91		2.91	5.90	0.00	2.78	14	32+78.26, Lt	1	5	2.91	0.00	15.00			North Mosley West Side

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*** The design allowable width of spread on proposed Pawnee is 22'. This will provide two 8' lanes between the edges of water.

The design allowable width of spread on proposed Washington is 10.5'. This will provide two 8' lanes between the edges of water.

KANSAS DEPARTMENT OF TRANSPORTATION			
DRAINAGE SUMMARY SHEET			
PROJECT NO. 87 N-0235-01		SEDGWICK CO.	
M K E C ENGINEERING CONSULTANTS, INC.			
WICHITA, KANSAS			
DESIGNED BY: JRA	CHECKED BY: JRA	DATE: JULY 2004	SHEET 97 OF 120
DRAWN BY: WNJ			