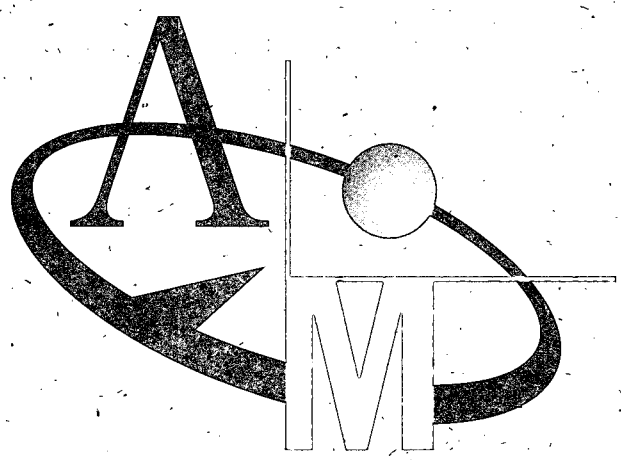
AUSTIN MILLER P.A.

ENGINEERING SERVICES



Hoskinson 2nd Addition
Drainage Report
Wichita, Sedgwick County, Kansas
December, 1999

Hoskinson 2nd Addition Drainage Report

The Hoskinson 2nd Addition is a commercial development covering 17.22 Acres in northwest Wichita. The land is pasture surrounding a large lake that was at one time used as a sandpit. The Big Slough runs through this lake. This property is located in the lower 1/3 of to Big Slough drainage basin. The depth of the lake is controlled by a small weir at the south end of the subject property. Typically, the water level in the lake is at or near the top of the weir. Including the flow of the Big Slough, the weir will provide no detention capabilities for increased runoff during a 100-year storm event.

This report will show that detention for the increased runoff due to development should not be required for this site, and would actually make conditions worse during the 100-year storm event.

The existing land is relatively flat, with runoff either ponding in the pasture areas or draining to the lake. (Under existing conditions, the runoff from the property is 57.1 cfs for a 100-year storm. Under the proposed developed conditions, the runoff will be approx. 108.1 cfs according to the rational method.) The attached drainage plan for this site shows the lots draining into the existing lake.

A hydrograph for the Big Slough was created based on the SCS method for a 100-year storm with a 24-hour duration. The peak outflow for these conditions at the site is 2403 cfs. The peak flow used by Sedgwick County for the Flood Insurance Study was 2375 cfs. The time to reach this peak for the Big Slough drainage basin is 26.60 hours (1596 min.).

Several hydrographs for Hoskinson 2nd Addition were created for undeveloped and developed conditions. Hydrographs for the on-site drainage were created using the rational method with a 100-year storm for both undeveloped and developed conditions. Hydrographs were also created using the SCS method with a 24-hour, 100-year storm for both undeveloped and developed conditions. The SCS method shows slightly higher runoff values than that of the rational method. Both results will be considered in this report. The hydrographs were than combined to determine the effect of the 17.22 Ac. development on the Big Slough basin.

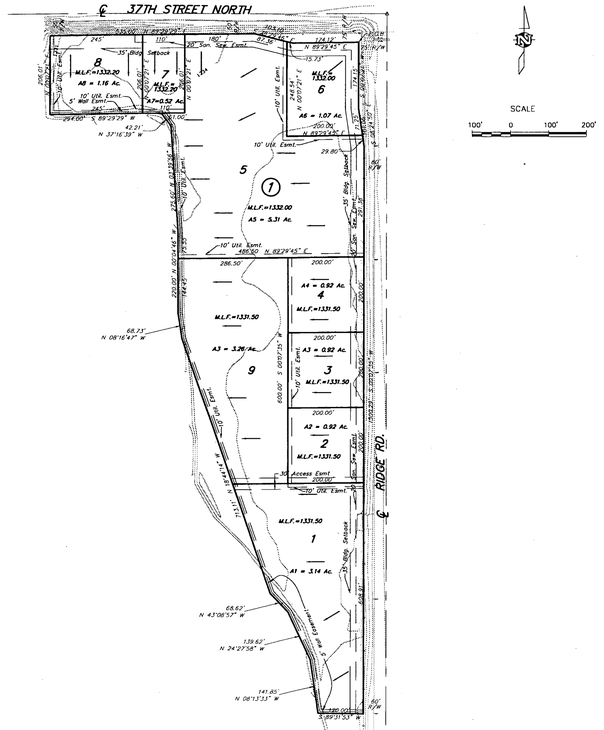
The hydrograph calculations are included as part of this report. The hydrographs show that runoff from the proposed development peaks at 12.00 hours, well before the Big Slough peaks at 26.60 hours. Not only does the runoff from the development peak well before the Big Slough, but all the runoff is already downstream, and no runoff is added to the Big Slough peak. (See Graphs 1&2)

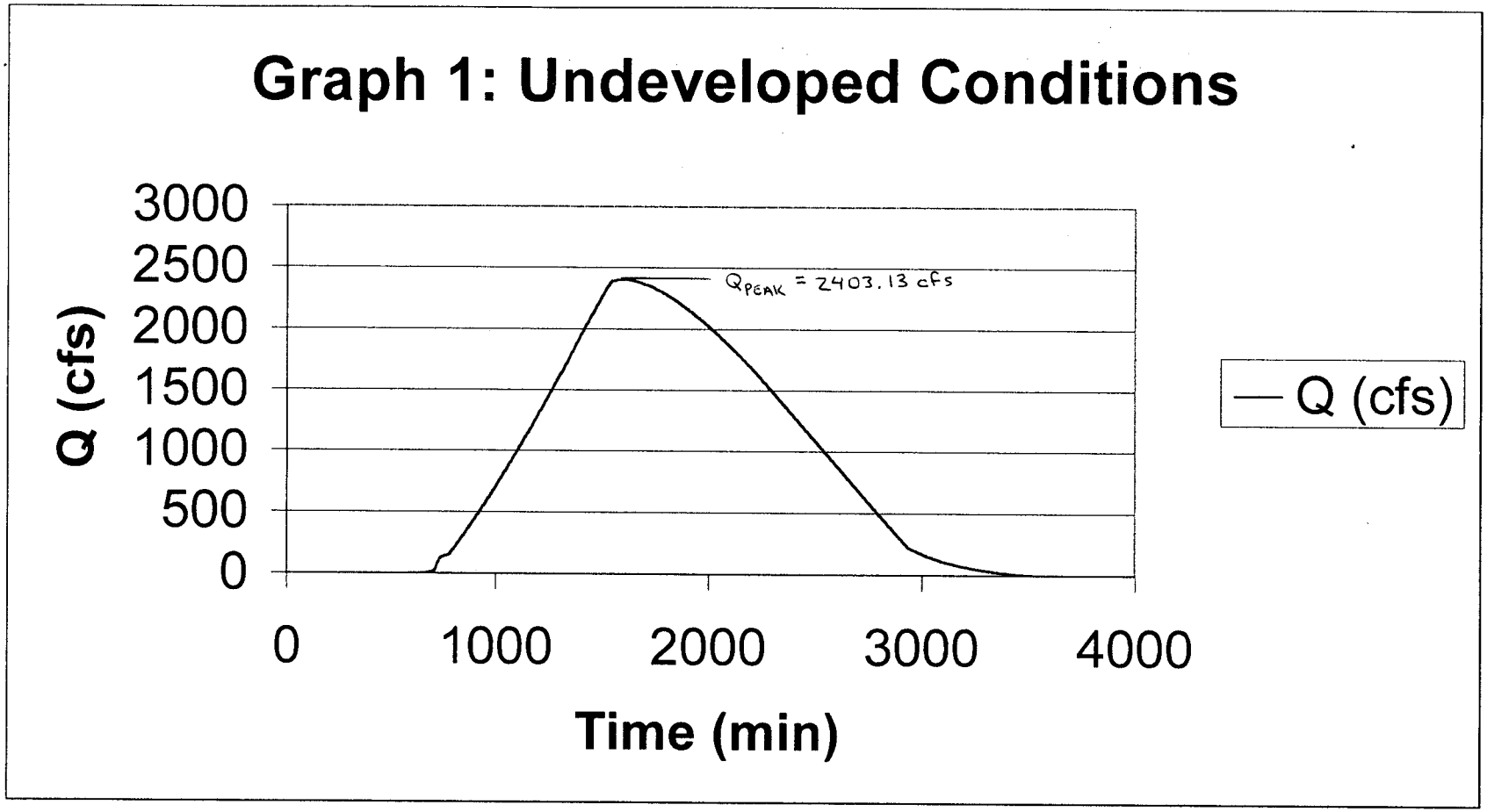
If detention is required with the development of Hoskinson 2nd, the peak runoff from the site will be later than the 12.00 hours calculated. This means that some flow will be added

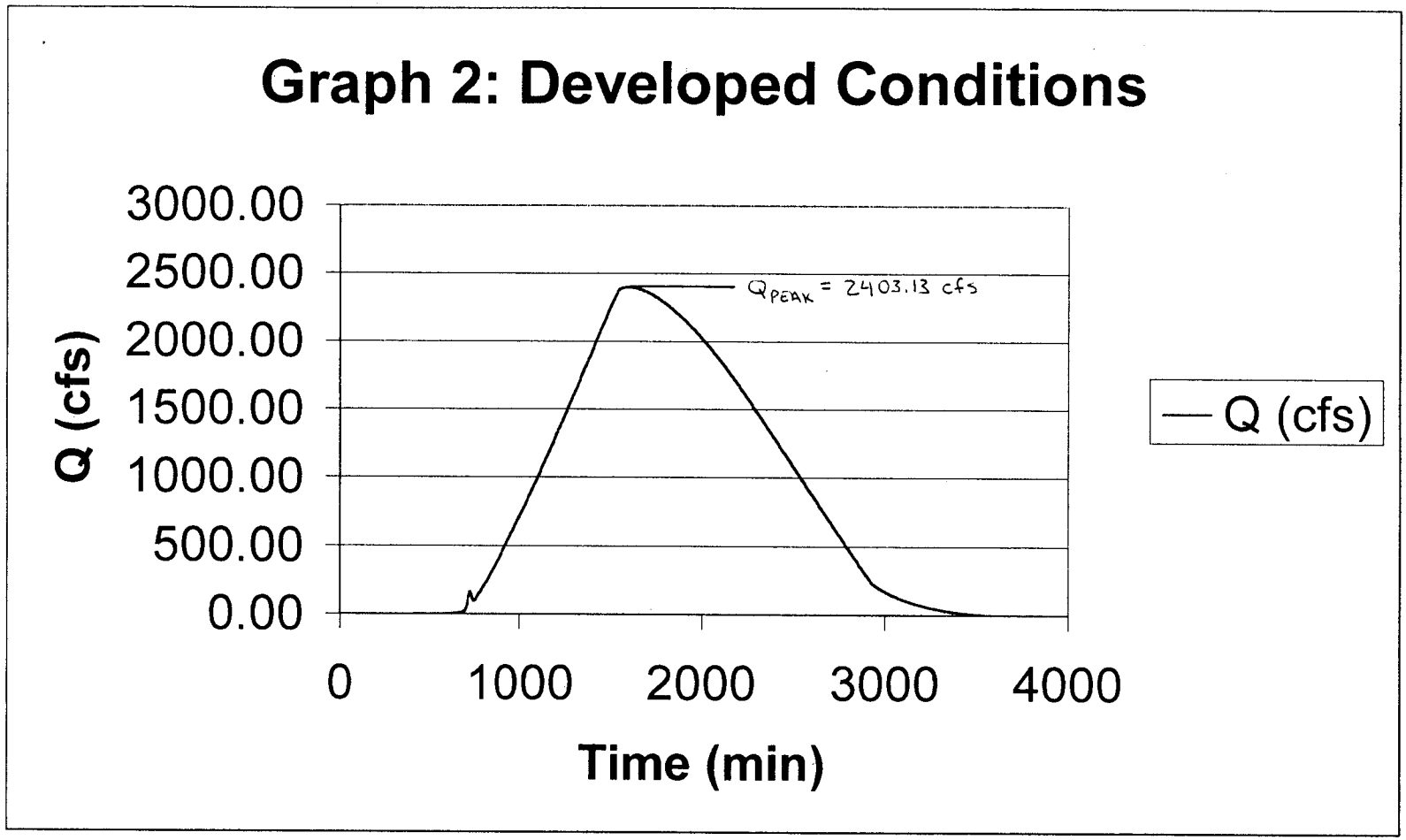
to the Big Slough peak flow at 26.60 hours, and the water surface elevation may increase. However, by not detaining runoff from the site, the development of this property actually decreases the time to peak (12.40 hours to 12.00 hours). This will allow more of the site runoff to be downstream well before the Big Slough peaks as it passes through this site, reducing the effect of the increased runoff from the site on the overall drainage basin.

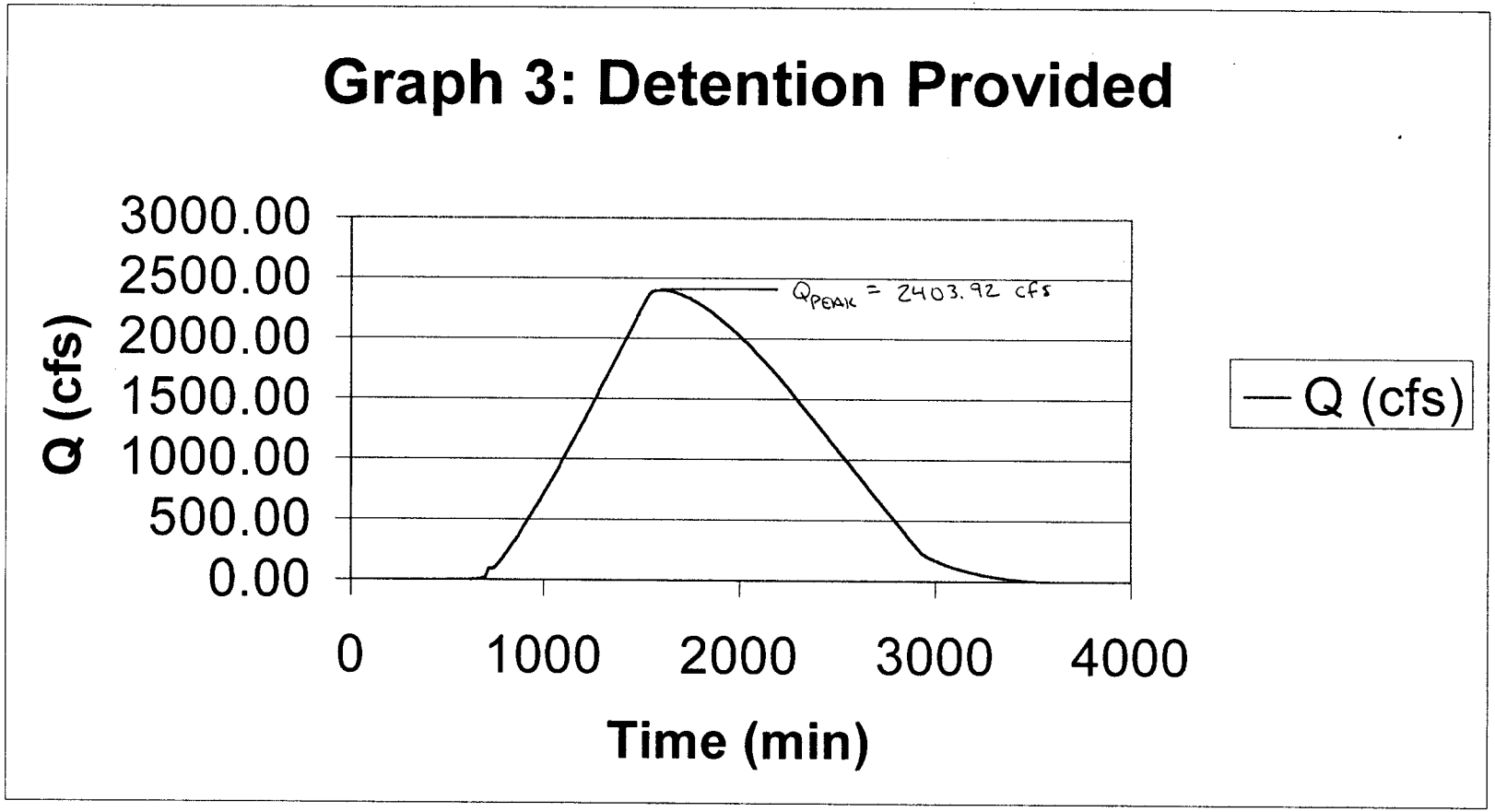
In summary, detention should not be required on this site because it is in the lower 1/3 of the drainage basin, and without detention, the peak runoff is downstream well before the Big Slough reaches peak flow at this location. Detaining runoff from the development could have a negative effect on the overall drainage basin and the subject property by adding to the Big Slough peak flow as it passes through the site.

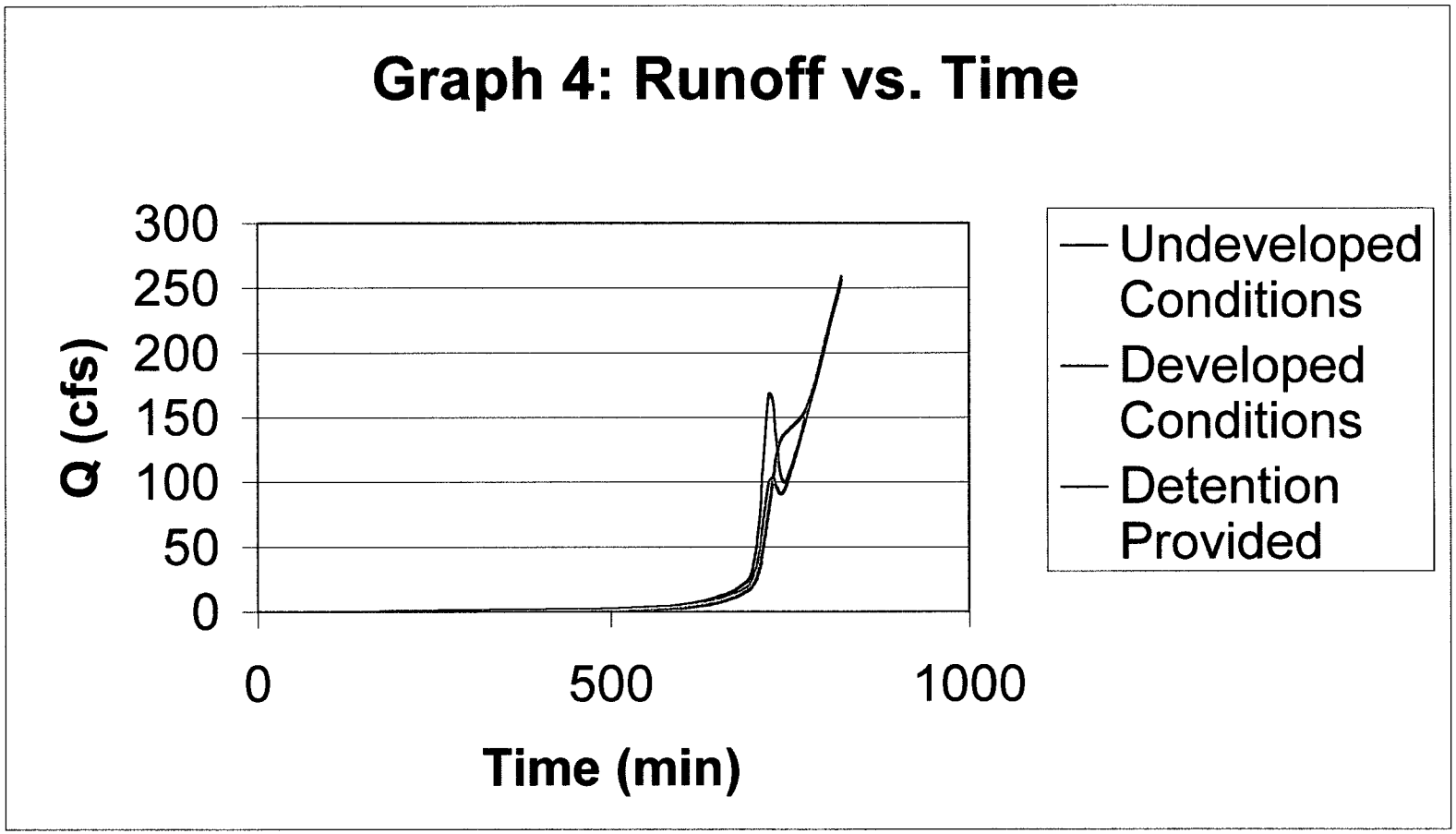
HOSKINSON 2ND ADDITION DRAINAGE PLAN


℄ 371H STREET NORTH
8
M.L.F.=1332.20
A8 = 1.16 Ac.
7
M.L.F.=1330.50
A7=0.52 Ac.
6
M.L.F.=1330.00
A6 = 1.07 Ac.
5
1
M.L.F.=1332.00
A5 = 5.31 Ac.
4
M.L.F.=1331.50
A4 = 0.92 Ac.
9
M.L.F.=1331.50
A9 = 3.26 Ac.
3
M.L.F.=1331.50
A3 = 0.92 Ac.
2
M.L.F.=1331.50
A2 = 0.92 Ac.
1
M.L.F.=1331.50
A1 = 3.14 Ac.
35' Bldg. Setback
20' San. Sew. Esmt.
10' Util. Esmt.
5' Water Esmt.
30' Access Esmt.
30' Dra. Esmt.
RIDGE RD.
℄
N 89°29'29" E
294.00'
N 37°16'39" W
42.21'
N 89°29'29" W
N 89°29'45" E
486.50'
N 08°16'47" W
68.73'
N 43°08'57" W
68.62'
N 24°27'39" W
139.62'
N 08°13'33" W
141.65'
S 89°31'53" W
S 89°31'53" W
N 89°29'45" E
15.73'
N 89°29'45" E
29.80'
N 89°29'45" E
286.50'
200.00'
S 00°02'25" W
656.00'
N 00°02'25" E
1104.00'
S 00°02'25" W
1104


Graph 1: Undeveloped Conditions
Q (cfs)
3000
2500
2000
1500
1000
500
0
Q_{PEAK} = 2403.13 cfs
0
1000
2000
3000
4000
Time (min)
Q (cfs)


Graph 2: Developed Conditions
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Q (cfs)
Q_{PEAK} = 2403.13 cfs
0
1000
2000
3000
4000
Time (min)
Q (cfs)


Graph 3: Detention Provided
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
Q (cfs)
Q_{PEAK} = 2403.92 cfs
0
1000
2000
3000
4000
Time (min)
Q (cfs)


Graph 4: Runoff vs. Time
300
250
200
150
100
50
0
Q (cfs)
0
500
1000
Time (min)
Undeveloped Conditions
Developed Conditions
Detention Provided

Appendix 1:

SCS Hydrograph Calculations

Big Slough

Hydrograph Report

Hyd. No. 1

SCS - 1 - BIG SLOUGH

Hydrograph type	= SCS Runoff	Peak discharge	= 2403.13 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Drainage area	= 12000 ac	Curve number	= 67
Basin Slope	= .5 %	Hydraulic length	= 46800 ft
Tc method	= LAG	Time of conc. (Tc)	= 1411.6 min
Total precip.	= 8.16 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Total Volume = 185,488,400 cuft, 4258.227 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
8.90	0.11	12.20	57.33	15.50	520.69	18.80	1080.94
9.00	0.15	12.30	68.57	15.60	536.60	18.90	1098.90
9.10	0.20	12.40	80.16	15.70	552.59	19.00	1116.91
9.20	0.26	12.50	92.04	15.80	568.66	19.10	1134.97
9.30	0.34	12.60	104.16	15.90	584.80	19.20	1153.07
9.40	0.43	12.70	116.51	16.00	601.01	19.30	1171.22
9.50	0.54	12.80	129.08	16.10	617.30	19.40	1189.42
9.60	0.66	12.90	141.84	16.20	633.65	19.50	1207.67
9.70	0.80	13.00	154.80	16.30	650.07	19.60	1225.95
9.80	0.96	13.10	167.93	16.40	666.56	19.70	1244.28
9.90	1.15	13.20	181.23	16.50	683.12	19.80	1262.66
10.00	1.36	13.30	194.69	16.60	699.75	19.90	1281.08
10.10	1.60	13.40	208.30	16.70	716.44	20.00	1299.53
10.20	1.87	13.50	222.05	16.80	733.19	20.10	1318.03
10.30	2.17	13.60	235.95	16.90	750.02	20.20	1336.57
10.40	2.51	13.70	249.97	17.00	766.90	20.30	1355.15
10.50	2.90	13.80	264.12	17.10	783.85	20.40	1373.78
10.60	3.34	13.90	278.39	17.20	800.86	20.50	1392.44
10.70	3.83	14.00	292.78	17.30	817.93	20.60	1411.14
10.80	4.38	14.10	307.27	17.40	835.07	20.70	1429.88
10.90	5.00	14.20	321.88	17.50	852.26	20.80	1448.66
11.00	5.70	14.30	336.59	17.60	869.52	20.90	1467.48
11.10	6.47	14.40	351.40	17.70	886.83	21.00	1486.34
11.20	7.35	14.50	366.32	17.80	904.20	21.10	1505.24
11.30	8.35	14.60	381.34	17.90	921.63	21.20	1524.18
11.40	9.49	14.70	396.45	18.00	939.11	21.30	1543.16
11.50	10.79	14.80	411.67	18.10	956.65	21.40	1562.18
11.60	12.47	14.90	426.97	18.20	974.25	21.50	1581.24
11.70	14.97	15.00	442.37	18.30	991.90	21.60	1600.33
11.80	19.00	15.10	457.86	18.40	1009.60	21.70	1619.47
11.90	26.29	15.20	473.44	18.50	1027.36	21.80	1638.64
12.00	36.13	15.30	489.11	18.60	1045.17	21.90	1657.85
12.10	46.50	15.40	504.86	18.70	1063.03	22.00	1677.10

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Hydrograph Discharge Table

Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)
22.10	1696.39	27.10	2399.55	32.10	2130.53	37.10	1631.64
22.20	1715.71	27.20	2398.01	32.20	2122.29	37.20	1620.07
22.30	1735.07	27.30	2396.22	32.30	2113.96	37.30	1608.44
22.40	1754.45	27.40	2394.21	32.40	2105.55	37.40	1596.75
22.50	1773.87	27.50	2391.97	32.50	2097.06	37.50	1585.00
22.60	1793.32	27.60	2389.53	32.60	2088.48	37.60	1573.20
22.70	1812.79	27.70	2386.88	32.70	2079.82	37.70	1561.34
22.80	1832.29	27.80	2384.05	32.80	2071.08	37.80	1549.43
22.90	1851.81	27.90	2381.02	32.90	2062.26	37.90	1537.45
23.00	1871.35	28.00	2377.83	33.00	2053.37	38.00	1525.48
23.10	1890.91	28.10	2374.46	33.10	2044.40	38.10	1513.51
23.20	1910.48	28.20	2370.92	33.20	2035.35	38.20	1501.54
23.30	1930.07	28.30	2367.21	33.30	2026.24	38.30	1489.56
23.40	1949.67	28.40	2363.34	33.40	2017.05	38.40	1477.59
23.50	1969.27	28.50	2359.30	33.50	2007.78	38.50	1465.62
23.60	1988.89	28.60	2355.11	33.60	1998.45	38.60	1453.65
23.70	2008.51	28.70	2350.77	33.70	1989.05	38.70	1441.67
23.80	2028.12	28.80	2346.27	33.80	1979.58	38.80	1429.70
23.90	2047.74	28.90	2341.63	33.90	1970.05	38.90	1417.73
24.00	2067.34	29.00	2336.84	34.00	1960.45	39.00	1405.76
24.10	2086.89	29.10	2331.91	34.10	1950.78	39.10	1393.78
24.20	2106.39	29.20	2326.84	34.20	1941.05	39.20	1381.81
24.30	2125.82	29.30	2321.64	34.30	1931.26	39.30	1369.84
24.40	2145.18	29.40	2316.30	34.40	1921.40	39.40	1357.87
24.50	2164.47	29.50	2310.84	34.50	1911.48	39.50	1345.90
24.60	2183.67	29.60	2305.25	34.60	1901.49	39.60	1333.92
24.70	2202.77	29.70	2299.54	34.70	1891.44	39.70	1321.95
24.80	2221.76	29.80	2293.71	34.80	1881.32	39.80	1309.98
24.90	2240.63	29.90	2287.77	34.90	1871.14	39.90	1298.01
25.00	2259.37	30.00	2281.71	35.00	1860.90	40.00	1286.03
25.10	2277.95	30.10	2275.54	35.10	1850.60	40.10	1274.06
25.20	2296.33	30.20	2269.26	35.20	1840.23	40.20	1262.09
25.30	2314.49	30.30	2262.88	35.30	1829.80	40.30	1250.12
25.40	2332.39	30.40	2256.38	35.40	1819.31	40.40	1238.14
25.50	2349.69	30.50	2249.78	35.50	1808.75	40.50	1226.17
25.60	2365.67	30.60	2243.07	35.60	1798.14	40.60	1214.20
25.70	2379.21	30.70	2236.25	35.70	1787.46	40.70	1202.23
25.80	2387.53	30.80	2229.34	35.80	1776.72	40.80	1190.25
25.90	2391.79	30.90	2222.32	35.90	1765.92	40.90	1178.28
26.00	2395.20	31.00	2215.20	36.00	1755.06	41.00	1166.31
26.10	2397.85	31.10	2207.98	36.10	1744.14	41.10	1154.34
26.20	2399.85	31.20	2200.66	36.20	1733.16	41.20	1142.36
26.30	2401.30	31.30	2193.24	36.30	1722.11	41.30	1130.39
26.40	2402.29	31.40	2185.73	36.40	1711.01	41.40	1118.42
26.50	2402.89	31.50	2178.12	36.50	1699.85	41.50	1106.45
26.60	2403.13 <<	31.60	2170.42	36.60	1688.63	41.60	1094.47
26.70	2403.02	31.70	2162.62	36.70	1677.35	41.70	1082.50
26.80	2402.58	31.80	2154.74	36.80	1666.01	41.80	1070.53
26.90	2401.85	31.90	2146.76	36.90	1654.61	41.90	1058.56
27.00	2400.83	32.00	2138.69	37.00	1643.16	42.00	1046.58

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Hydrograph Discharge Table

Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)
42.10	1034.61	47.10	436.80	52.10	102.41	57.10	17.35
42.20	1022.64	47.20	424.97	52.20	99.72	57.20	16.46
42.30	1010.67	47.30	413.16	52.30	97.08	57.30	15.59
42.40	998.69	47.40	401.37	52.40	94.50	57.40	14.75
42.50	986.72	47.50	389.61	52.50	91.96	57.50	13.94
42.60	974.75	47.60	377.87	52.60	89.47	57.60	13.15
42.70	962.78	47.70	366.15	52.70	87.03	57.70	12.38
42.80	950.80	47.80	354.48	52.80	84.64	57.80	11.63
42.90	938.83	47.90	342.83	52.90	82.30	57.90	10.92
43.00	926.86	48.00	331.23	53.00	79.99	58.00	10.22
43.10	914.89	48.10	319.68	53.10	77.74	58.10	9.55
43.20	902.91	48.20	308.17	53.20	75.52	58.20	8.90
43.30	890.94	48.30	296.72	53.30	73.34	58.30	8.27
43.40	878.97	48.40	285.35	53.40	71.21	58.40	7.67
43.50	867.00	48.50	274.06	53.50	69.12	58.50	7.09
43.60	855.03	48.60	262.87	53.60	67.07	58.60	6.54
43.70	843.05	48.70	251.90	53.70	65.05	58.70	6.01
43.80	831.08	48.80	241.43	53.80	63.08	58.80	5.50
43.90	819.11	48.90	231.87	53.90	61.15	58.90	5.02
44.00	807.14	49.00	224.27	54.00	59.26	59.00	4.55
44.10	795.16	49.10	218.19	54.10	57.40	59.10	4.11
44.20	783.19	49.20	212.43	54.20	55.58	59.20	3.70
44.30	771.22	49.30	206.95	54.30	53.80	59.30	3.30
44.40	759.25	49.40	201.71	54.40	52.06	59.40	2.93
44.50	747.27	49.50	196.68	54.50	50.35	59.50	2.58
44.60	735.30	49.60	191.82	54.60	48.68	59.60	2.26
44.70	723.33	49.70	187.11	54.70	47.05	59.70	1.95
44.80	711.36	49.80	182.54	54.80	45.45	59.80	1.67
44.90	699.38	49.90	178.10	54.90	43.88	59.90	1.41
45.00	687.41	50.00	173.77	55.00	42.35	60.00	1.18
45.10	675.44	50.10	169.56	55.10	40.85	60.10	0.96
45.20	663.47	50.20	165.46	55.20	39.39	60.20	0.77
45.30	651.49	50.30	161.45	55.30	37.96	60.30	0.60
45.40	639.52	50.40	157.54	55.40	36.56	60.40	0.45
45.50	627.55	50.50	153.73	55.50	35.20	60.50	0.32
45.60	615.59	50.60	150.00	55.60	33.86	60.60	0.21
45.70	603.62	50.70	146.35	55.70	32.56	60.70	0.13
45.80	591.66	50.80	142.78	55.80	31.29		
45.90	579.70	50.90	139.28	55.90	30.05		
46.00	567.75	51.00	135.86	56.00	28.84	*...End*	
46.10	555.80	51.10	132.51	56.10	27.65		
46.20	543.86	51.20	129.22	56.20	26.50		
46.30	531.93	51.30	126.00	56.30	25.38		
46.40	520.00	51.40	122.84	56.40	24.28		
46.50	508.08	51.50	119.74	56.50	23.21		
46.60	496.17	51.60	116.71	56.60	22.17		
46.70	484.28	51.70	113.73	56.70	21.15		
46.80	472.39	51.80	110.82	56.80	20.16		
46.90	460.51	51.90	107.96	56.90	19.20		
47.00	448.65	52.00	105.16	57.00	18.26		

Appendix 2:

SCS Hydrograph Calculations

Hoskinson 2nd Addition – Existing Conditions

Hydrograph Report

Hyd. No. 4

EXIST. CONDITIONS

Hydrograph type	= SCS Runoff	Peak discharge	= 65.09 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Drainage area	= 17.22 ac	Curve number	= 74
Basin Slope	= .5 %	Hydraulic length	= 500 ft
Tc method	= LAG	Time of conc. (Tc)	= 30.9 min
Total precip.	= 8.16 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Total Volume = 326,759 cuft, 7.501 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
7.20	0.10	10.50	2.06	13.80	6.45	17.10	2.75
7.30	0.13	10.60	2.23	13.90	6.13	17.20	2.71
7.40	0.16	10.70	2.43	14.00	5.84	17.30	2.68
7.50	0.18	10.80	2.65	14.10	5.57	17.40	2.65
7.60	0.21	10.90	2.90	14.20	5.32	17.50	2.62
7.70	0.24	11.00	3.18	14.30	5.09	17.60	2.59
7.80	0.26	11.10	3.46	14.40	4.90	17.70	2.56
7.90	0.29	11.20	3.80	14.50	4.74	17.80	2.53
8.00	0.32	11.30	4.21	14.60	4.60	17.90	2.50
8.10	0.35	11.40	4.71	14.70	4.49	18.00	2.47
8.20	0.38	11.50	5.36	14.80	4.38	18.10	2.44
8.30	0.41	11.60	6.55	14.90	4.29	18.20	2.40
8.40	0.45	11.70	9.22	15.00	4.20	18.30	2.37
8.50	0.49	11.80	14.75	15.10	4.12	18.40	2.34
8.60	0.54	11.90	26.48	15.20	4.03	18.50	2.31
8.70	0.59	12.00	41.95	15.30	3.95	18.60	2.28
8.80	0.64	12.10	55.62	15.40	3.86	18.70	2.25
8.90	0.70	12.20	65.09 <<	15.50	3.77	18.80	2.22
9.00	0.77	12.30	64.95	15.60	3.69	18.90	2.18
9.10	0.83	12.40	57.73	15.70	3.60	19.00	2.15
9.20	0.90	12.50	49.63	15.80	3.51	19.10	2.12
9.30	0.97	12.60	40.80	15.90	3.43	19.20	2.09
9.40	1.03	12.70	31.67	16.00	3.34	19.30	2.06
9.50	1.09	12.80	22.97	16.10	3.25	19.40	2.03
9.60	1.14	12.90	15.70	16.20	3.17	19.50	1.99
9.70	1.20	13.00	11.89	16.30	3.09	19.60	1.96
9.80	1.26	13.10	10.60	16.40	3.03	19.70	1.93
9.90	1.34	13.20	9.56	16.50	2.97	19.80	1.90
10.00	1.42	13.30	8.75	16.60	2.92	19.90	1.87
10.10	1.52	13.40	8.12	16.70	2.88	20.00	1.83
10.20	1.63	13.50	7.63	16.80	2.84	20.10	1.80
10.30	1.75	13.60	7.20	16.90	2.81	20.20	1.77
10.40	1.90	13.70	6.81	17.00	2.78	20.30	1.75

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Hydrograph Discharge Table

Time -- Outflow (hrs cfs)	
20.40	1.72
20.50	1.71
20.60	1.69
20.70	1.68
20.80	1.67
20.90	1.66
21.00	1.66
21.10	1.65
21.20	1.64
21.30	1.64
21.40	1.63
21.50	1.63
21.60	1.62
21.70	1.61
21.80	1.61
21.90	1.60
22.00	1.60
22.10	1.59
22.20	1.58
22.30	1.58
22.40	1.57
22.50	1.56
22.60	1.56
22.70	1.55
22.80	1.55
22.90	1.54
23.00	1.53
23.10	1.53
23.20	1.52
23.30	1.51
23.40	1.51
23.50	1.50
23.60	1.50
23.70	1.49
23.80	1.48
23.90	1.48
24.00	1.47
24.10	1.40
24.20	1.26
24.30	1.06
24.40	0.79
24.50	0.57
24.60	0.38
24.70	0.23
24.80	0.11

...End

Appendix 3:

SCS Hydrograph Calculations

Hoskinson 2nd Addition – Developed Conditions

Hydrograph Report

Hyd. No. 2

SCS-HOSK2

Hydrograph type	= SCS Runoff	Peak discharge	= 131.52 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Drainage area	= 17.22 ac	Curve number	= 95
Basin Slope	= 1 %	Hydraulic length	= 500 ft
Tc method	= LAG	Time of conc. (Tc)	= 10.2 min
Total precip.	= 8.16 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Total Volume = 443,071 cuft, 10.172 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
1.60	0.10	4.90	1.35	8.20	2.56	11.50	13.03
1.70	0.15	5.00	1.38	8.30	2.66	11.60	17.46
1.80	0.20	5.10	1.42	8.40	2.78	11.70	30.72
1.90	0.24	5.20	1.46	8.50	2.91	11.80	54.84
2.00	0.29	5.30	1.50	8.60	3.04	11.90	96.22
2.10	0.33	5.40	1.53	8.70	3.17	12.00	131.52 <<
2.20	0.38	5.50	1.57	8.80	3.30	12.10	116.22
2.30	0.42	5.60	1.61	8.90	3.43	12.20	71.74
2.40	0.46	5.70	1.64	9.00	3.56	12.30	35.96
2.50	0.50	5.80	1.68	9.10	3.68	12.40	19.99
2.60	0.54	5.90	1.71	9.20	3.76	12.50	16.99
2.70	0.58	6.00	1.75	9.30	3.81	12.60	14.21
2.80	0.62	6.10	1.79	9.40	3.83	12.70	12.14
2.90	0.66	6.20	1.82	9.50	3.84	12.80	10.83
3.00	0.69	6.30	1.86	9.60	3.88	12.90	9.99
3.10	0.73	6.40	1.89	9.70	3.97	13.00	9.31
3.20	0.76	6.50	1.93	9.80	4.12	13.10	8.66
3.30	0.80	6.60	1.97	9.90	4.31	13.20	8.10
3.40	0.83	6.70	2.00	10.00	4.52	13.30	7.64
3.50	0.87	6.80	2.04	10.10	4.74	13.40	7.25
3.60	0.90	6.90	2.07	10.20	4.99	13.50	6.88
3.70	0.93	7.00	2.11	10.30	5.27	13.60	6.53
3.80	0.96	7.10	2.14	10.40	5.58	13.70	6.20
3.90	0.99	7.20	2.18	10.50	5.89	13.80	5.91
4.00	1.02	7.30	2.21	10.60	6.22	13.90	5.64
4.10	1.06	7.40	2.24	10.70	6.62	14.00	5.37
4.20	1.09	7.50	2.28	10.80	7.09	14.10	5.12
4.30	1.12	7.60	2.31	10.90	7.59	14.20	4.93
4.40	1.16	7.70	2.35	11.00	8.12	14.30	4.79
4.50	1.20	7.80	2.38	11.10	8.46	14.40	4.69
4.60	1.24	7.90	2.41	11.20	9.02	14.50	4.60
4.70	1.27	8.00	2.45	11.30	10.24	14.60	4.50
4.80	1.31	8.10	2.49	11.40	11.61	14.70	4.41

Continues on next page...

Hydrograph Discharge Table

Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)
14.80	4.32	19.80	1.85
14.90	4.23	19.90	1.81
15.00	4.13	20.00	1.78
15.10	4.04	20.10	1.75
15.20	3.95	20.20	1.73
15.30	3.86	20.30	1.71
15.40	3.76	20.40	1.71
15.50	3.67	20.50	1.70
15.60	3.58	20.60	1.69
15.70	3.49	20.70	1.69
15.80	3.39	20.80	1.68
15.90	3.30	20.90	1.67
16.00	3.21	21.00	1.67
16.10	3.12	21.10	1.66
16.20	3.05	21.20	1.65
16.30	3.01	21.30	1.65
16.40	2.97	21.40	1.64
16.50	2.94	21.50	1.63
16.60	2.90	21.60	1.63
16.70	2.87	21.70	1.62
16.80	2.84	21.80	1.61
16.90	2.80	21.90	1.61
17.00	2.77	22.00	1.60
17.10	2.74	22.10	1.59
17.20	2.71	22.20	1.59
17.30	2.67	22.30	1.58
17.40	2.64	22.40	1.57
17.50	2.61	22.50	1.57
17.60	2.57	22.60	1.56
17.70	2.54	22.70	1.55
17.80	2.51	22.80	1.55
17.90	2.47	22.90	1.54
18.00	2.44	23.00	1.53
18.10	2.41	23.10	1.53
18.20	2.37	23.20	1.52
18.30	2.34	23.30	1.51
18.40	2.31	23.40	1.51
18.50	2.28	23.50	1.50
18.60	2.24	23.60	1.49
18.70	2.21	23.70	1.49
18.80	2.18	23.80	1.48
18.90	2.14	23.90	1.47
19.00	2.11	24.00	1.47
19.10	2.08	24.10	1.17
19.20	2.04	24.20	0.58
19.30	2.01	24.30	0.19
19.40	1.98		
19.50	1.95		
19.60	1.91	*...End*	
19.70	1.88		

Appendix 4:

Combined SCS Hydrograph Calculations

Big Slough
&
Hoskinson 2nd Addition – Existing Conditions

Hydrograph Report

Hyd. No. 3

COMBINED - Exist. Conditions

Hydrograph type = Combine
Storm frequency = 100 yrs
1st inflow hyd. No. = 1

Peak discharge = 2403.13 cfs
Time interval = 6 min
2nd inflow hyd. No. = 2

Total Volume = 185,815,100 cuft, 4265.728 acft

Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
7.20	0.00		0.10		0.10
7.30	0.00		0.13		0.13
7.40	0.00		0.16		0.16
7.50	0.00		0.18		0.18
7.60	0.00		0.21		0.21
7.70	0.00		0.24		0.24
7.80	0.00		0.26		0.26
7.90	0.00		0.29		0.29
8.00	0.00		0.32		0.32
8.10	0.00		0.35		0.35
8.20	0.00		0.38		0.38
8.30	0.00		0.41		0.42
8.40	0.01		0.45		0.46
8.50	0.02		0.49		0.51
8.60	0.03		0.54		0.57
8.70	0.05		0.59		0.64
8.80	0.07		0.64		0.72
8.90	0.11		0.70		0.81
9.00	0.15		0.77		0.91
9.10	0.20		0.83		1.03
9.20	0.26		0.90		1.16
9.30	0.34		0.97		1.31
9.40	0.43		1.03		1.46
9.50	0.54		1.09		1.63
9.60	0.66		1.14		1.80
9.70	0.80		1.20		2.00
9.80	0.96		1.26		2.23
9.90	1.15		1.34		2.48
10.00	1.36		1.42		2.78
10.10	1.60		1.52		3.11
10.20	1.87		1.63		3.49
10.30	2.17		1.75		3.92
10.40	2.51		1.90		4.41
10.50	2.90		2.06		4.96
10.60	3.34		2.23		5.57
10.70	3.83		2.43		6.26
10.80	4.38		2.65		7.03

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
10.90	5.00		2.90		7.90
11.00	5.70		3.18		8.87
11.10	6.47		3.46		9.93
11.20	7.35		3.80		11.15
11.30	8.35		4.21		12.56
11.40	9.49		4.71		14.20
11.50	10.79		5.36		16.15
11.60	12.47		6.55		19.03
11.70	14.97		9.22		24.19
11.80	19.00		14.75		33.76
11.90	26.29		26.48		52.77
12.00	36.13		41.95		78.08
12.10	46.50		55.62		102.12
12.20	57.33		65.09 <<		122.42
12.30	68.57		64.95		133.53
12.40	80.16		57.73		137.90
12.50	92.04		49.63		141.67
12.60	104.16		40.80		144.96
12.70	116.51		31.67		148.18
12.80	129.08		22.97		152.04
12.90	141.84		15.70		157.54
13.00	154.80		11.89		166.68
13.10	167.93		10.60		178.53
13.20	181.23		9.56		190.79
13.30	194.69		8.75		203.44
13.40	208.30		8.12		216.42
13.50	222.05		7.63		229.68
13.60	235.95		7.20		243.14
13.70	249.97		6.81		256.78
13.80	264.12		6.45		270.58
13.90	278.39		6.13		284.53
14.00	292.78		5.84		298.62
14.10	307.27		5.57		312.84
14.20	321.88		5.32		327.19
14.30	336.59		5.09		341.68
14.40	351.40		4.90		356.30
14.50	366.32		4.74		371.06
14.60	381.34		4.60		385.94
14.70	396.45		4.49		400.94
14.80	411.67		4.38		416.05
14.90	426.97		4.29		431.26
15.00	442.37		4.20		446.58
15.10	457.86		4.12		461.98
15.20	473.44		4.03		477.48
15.30	489.11		3.95		493.06
15.40	504.86		3.86		508.72
15.50	520.69		3.77		524.47
15.60	536.60		3.69		540.29
15.70	552.59		3.60		556.20
15.80	568.66		3.51		572.18

Continues on next page...

Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
15.90	584.80		3.43		588.23
16.00	601.02		3.34		604.35
16.10	617.30		3.25		620.55
16.20	633.65		3.17		636.82
16.30	650.07		3.09		653.17
16.40	666.56		3.03		669.59
16.50	683.12		2.97		686.09
16.60	699.75		2.92		702.67
16.70	716.44		2.88		719.32
16.80	733.19		2.84		736.04
16.90	750.02		2.81		752.82
17.00	766.90		2.78		769.68
17.10	783.85		2.75		786.59
17.20	800.86		2.71		803.58
17.30	817.93		2.68		820.62
17.40	835.07		2.65		837.72
17.50	852.26		2.62		854.88
17.60	869.52		2.59		872.11
17.70	886.83		2.56		889.39
17.80	904.20		2.53		906.73
17.90	921.63		2.50		924.12
18.00	939.11		2.47		941.58
18.10	956.65		2.44		959.09
18.20	974.25		2.40		976.65
18.30	991.90		2.37		994.27
18.40	1009.60		2.34		1011.94
18.50	1027.36		2.31		1029.67
18.60	1045.17		2.28		1047.45
18.70	1063.03		2.25		1065.27
18.80	1080.94		2.22		1083.15
18.90	1098.90		2.18		1101.08
19.00	1116.91		2.15		1119.06
19.10	1134.97		2.12		1137.09
19.20	1153.07		2.09		1155.16
19.30	1171.22		2.06		1173.28
19.40	1189.42		2.03		1191.45
19.50	1207.67		1.99		1209.66
19.60	1225.95		1.96		1227.92
19.70	1244.29		1.93		1246.21
19.80	1262.66		1.90		1264.56
19.90	1281.07		1.87		1282.94
20.00	1299.53		1.83		1301.37
20.10	1318.03		1.80		1319.84
20.20	1336.57		1.77		1338.35
20.30	1355.15		1.75		1356.90
20.40	1373.78		1.72		1375.50
20.50	1392.44		1.71		1394.14
20.60	1411.14		1.69		1412.83
20.70	1429.88		1.68		1431.56
20.80	1448.66		1.67		1450.33

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
20.90	1467.48		1.66		1469.14
21.00	1486.34		1.66		1488.00
21.10	1505.24		1.65		1506.89
21.20	1524.18		1.64		1525.83
21.30	1543.16		1.64		1544.80
21.40	1562.18		1.63		1563.81
21.50	1581.24		1.63		1582.86
21.60	1600.33		1.62		1601.95
21.70	1619.47		1.61		1621.08
21.80	1638.64		1.61		1640.25
21.90	1657.85		1.60		1659.45
22.00	1677.10		1.60		1678.70
22.10	1696.39		1.59		1697.98
22.20	1715.71		1.58		1717.29
22.30	1735.07		1.58		1736.64
22.40	1754.45		1.57		1756.02
22.50	1773.87		1.56		1775.44
22.60	1793.32		1.56		1794.88
22.70	1812.79		1.55		1814.34
22.80	1832.29		1.55		1833.83
22.90	1851.81		1.54		1853.35
23.00	1871.35		1.53		1872.88
23.10	1890.91		1.53		1892.43
23.20	1910.48		1.52		1912.00
23.30	1930.07		1.51		1931.58
23.40	1949.67		1.51		1951.17
23.50	1969.27		1.50		1970.78
23.60	1988.89		1.50		1990.38
23.70	2008.51		1.49		2010.00
23.80	2028.13		1.48		2029.61
23.90	2047.74		1.48		2049.21
24.00	2067.34		1.47		2068.81
24.10	2086.89		1.40		2088.29
24.20	2106.39		1.26		2107.65
24.30	2125.82		1.06		2126.88
24.40	2145.18		0.79		2145.98
24.50	2164.47		0.57		2165.04
24.60	2183.67		0.38		2184.05
24.70	2202.77		0.23		2203.00
24.80	2221.76		0.11		2221.87
24.90	2240.63		0.04		2240.67
25.00	2259.37		0.00		2259.37
25.10	2277.95		0.00		2277.95
25.20	2296.33		0.00		2296.33
25.30	2314.49		0.00		2314.49
25.40	2332.39		0.00		2332.39
25.50	2349.69		0.00		2349.69
25.60	2365.67		0.00		2365.67
25.70	2379.21		0.00		2379.21
25.80	2387.53		0.00		2387.53

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
25.90	2391.78		0.00		2391.78
26.00	2395.20		0.00		2395.20
26.10	2397.85		0.00		2397.85
26.20	2399.85		0.00		2399.85
26.30	2401.30		0.00		2401.30
26.40	2402.29		0.00		2402.29
26.50	2402.89		0.00		2402.89
26.60	2403.13 <<		0.00		2403.13 <<
26.70	2403.02		0.00		2403.02
26.80	2402.58		0.00		2402.58
26.90	2401.85		0.00		2401.85
27.00	2400.83		0.00		2400.83
27.10	2399.55		0.00		2399.55
27.20	2398.00		0.00		2398.00
27.30	2396.22		0.00		2396.22
27.40	2394.21		0.00		2394.21
27.50	2391.97		0.00		2391.97
27.60	2389.53		0.00		2389.53
27.70	2386.89		0.00		2386.89
27.80	2384.05		0.00		2384.05
27.90	2381.02		0.00		2381.02
28.00	2377.83		0.00		2377.83
28.10	2374.46		0.00		2374.46
28.20	2370.92		0.00		2370.92
28.30	2367.21		0.00		2367.21
28.40	2363.34		0.00		2363.34
28.50	2359.30		0.00		2359.30
28.60	2355.11		0.00		2355.11
28.70	2350.77		0.00		2350.77
28.80	2346.27		0.00		2346.27
28.90	2341.63		0.00		2341.63
29.00	2336.84		0.00		2336.84
29.10	2331.91		0.00		2331.91
29.20	2326.84		0.00		2326.84
29.30	2321.64		0.00		2321.64
29.40	2316.30		0.00		2316.30
29.50	2310.84		0.00		2310.84
29.60	2305.25		0.00		2305.25
29.70	2299.54		0.00		2299.54
29.80	2293.71		0.00		2293.71
29.90	2287.77		0.00		2287.77
30.00	2281.71		0.00		2281.71
30.10	2275.54		0.00		2275.54
30.20	2269.26		0.00		2269.26
30.30	2262.88		0.00		2262.88
30.40	2256.38		0.00		2256.38
30.50	2249.78		0.00		2249.78
30.60	2243.07		0.00		2243.07
30.70	2236.25		0.00		2236.25
30.80	2229.34		0.00		2229.34

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
30.90	2222.32		0.00		2222.32
31.00	2215.20		0.00		2215.20
31.10	2207.98		0.00		2207.98
31.20	2200.66		0.00		2200.66
31.30	2193.24		0.00		2193.24
31.40	2185.73		0.00		2185.73
31.50	2178.12		0.00		2178.12
31.60	2170.42		0.00		2170.42
31.70	2162.62		0.00		2162.62
31.80	2154.74		0.00		2154.74
31.90	2146.76		0.00		2146.76
32.00	2138.69		0.00		2138.69
32.10	2130.53		0.00		2130.53
32.20	2122.29		0.00		2122.29
32.30	2113.96		0.00		2113.96
32.40	2105.55		0.00		2105.55
32.50	2097.06		0.00		2097.06
32.60	2088.48		0.00		2088.48
32.70	2079.82		0.00		2079.82
32.80	2071.08		0.00		2071.08
32.90	2062.26		0.00		2062.26
33.00	2053.37		0.00		2053.37
33.10	2044.40		0.00		2044.40
33.20	2035.35		0.00		2035.35
33.30	2026.24		0.00		2026.24
33.40	2017.05		0.00		2017.05
33.50	2007.78		0.00		2007.78
33.60	1998.45		0.00		1998.45
33.70	1989.05		0.00		1989.05
33.80	1979.58		0.00		1979.58
33.90	1970.05		0.00		1970.05
34.00	1960.45		0.00		1960.45
34.10	1950.78		0.00		1950.78
34.20	1941.05		0.00		1941.05
34.30	1931.26		0.00		1931.26
34.40	1921.40		0.00		1921.40
34.50	1911.48		0.00		1911.48
34.60	1901.49		0.00		1901.49
34.70	1891.44		0.00		1891.44
34.80	1881.32		0.00		1881.32
34.90	1871.14		0.00		1871.14
35.00	1860.90		0.00		1860.90
35.10	1850.60		0.00		1850.60
35.20	1840.23		0.00		1840.23
35.30	1829.80		0.00		1829.80
35.40	1819.31		0.00		1819.31
35.50	1808.75		0.00		1808.75
35.60	1798.14		0.00		1798.14
35.70	1787.46		0.00		1787.46
35.80	1776.72		0.00		1776.72

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
35.90	1765.92		0.00		1765.92
36.00	1755.06		0.00		1755.06
36.10	1744.14		0.00		1744.14
36.20	1733.16		0.00		1733.16
36.30	1722.11		0.00		1722.11
36.40	1711.01		0.00		1711.01
36.50	1699.85		0.00		1699.85
36.60	1688.63		0.00		1688.63
36.70	1677.35		0.00		1677.35
36.80	1666.01		0.00		1666.01
36.90	1654.61		0.00		1654.61
37.00	1643.16		0.00		1643.16
37.10	1631.64		0.00		1631.64
37.20	1620.07		0.00		1620.07
37.30	1608.44		0.00		1608.44
37.40	1596.75		0.00		1596.75
37.50	1585.00		0.00		1585.00
37.60	1573.20		0.00		1573.20
37.70	1561.34		0.00		1561.34
37.80	1549.43		0.00		1549.43
37.90	1537.45		0.00		1537.45
38.00	1525.48		0.00		1525.48
38.10	1513.51		0.00		1513.51
38.20	1501.54		0.00		1501.54
38.30	1489.56		0.00		1489.56
38.40	1477.59		0.00		1477.59
38.50	1465.62		0.00		1465.62
38.60	1453.65		0.00		1453.65
38.70	1441.67		0.00		1441.67
38.80	1429.70		0.00		1429.70
38.90	1417.73		0.00		1417.73
39.00	1405.76		0.00		1405.76
39.10	1393.79		0.00		1393.79
39.20	1381.81		0.00		1381.81
39.30	1369.84		0.00		1369.84
39.40	1357.87		0.00		1357.87
39.50	1345.90		0.00		1345.90
39.60	1333.92		0.00		1333.92
39.70	1321.95		0.00		1321.95
39.80	1309.98		0.00		1309.98
39.90	1298.01		0.00		1298.01
40.00	1286.03		0.00		1286.03
40.10	1274.06		0.00		1274.06
40.20	1262.09		0.00		1262.09
40.30	1250.12		0.00		1250.12
40.40	1238.14		0.00		1238.14
40.50	1226.17		0.00		1226.17
40.60	1214.20		0.00		1214.20
40.70	1202.23		0.00		1202.23
40.80	1190.25		0.00		1190.25

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
40.90	1178.28		0.00		1178.28
41.00	1166.31		0.00		1166.31
41.10	1154.34		0.00		1154.34
41.20	1142.36		0.00		1142.36
41.30	1130.39		0.00		1130.39
41.40	1118.42		0.00		1118.42
41.50	1106.45		0.00		1106.45
41.60	1094.47		0.00		1094.47
41.70	1082.50		0.00		1082.50
41.80	1070.53		0.00		1070.53
41.90	1058.56		0.00		1058.56
42.00	1046.58		0.00		1046.58
42.10	1034.61		0.00		1034.61
42.20	1022.64		0.00		1022.64
42.30	1010.67		0.00		1010.67
42.40	998.69		0.00		998.69
42.50	986.72		0.00		986.72
42.60	974.75		0.00		974.75
42.70	962.78		0.00		962.78
42.80	950.80		0.00		950.80
42.90	938.83		0.00		938.83
43.00	926.86		0.00		926.86
43.10	914.89		0.00		914.89
43.20	902.91		0.00		902.91
43.30	890.94		0.00		890.94
43.40	878.97		0.00		878.97
43.50	867.00		0.00		867.00
43.60	855.03		0.00		855.03
43.70	843.05		0.00		843.05
43.80	831.08		0.00		831.08
43.90	819.11		0.00		819.11
44.00	807.14		0.00		807.14
44.10	795.16		0.00		795.16
44.20	783.19		0.00		783.19
44.30	771.22		0.00		771.22
44.40	759.25		0.00		759.25
44.50	747.27		0.00		747.27
44.60	735.30		0.00		735.30
44.70	723.33		0.00		723.33
44.80	711.36		0.00		711.36
44.90	699.38		0.00		699.38
45.00	687.41		0.00		687.41
45.10	675.44		0.00		675.44
45.20	663.47		0.00		663.47
45.30	651.49		0.00		651.49
45.40	639.52		0.00		639.52
45.50	627.55		0.00		627.55
45.60	615.59		0.00		615.59
45.70	603.62		0.00		603.62
45.80	591.66		0.00		591.66

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
45.90	579.70		0.00		579.70
46.00	567.75		0.00		567.75
46.10	555.80		0.00		555.80
46.20	543.86		0.00		543.86
46.30	531.93		0.00		531.93
46.40	520.00		0.00		520.00
46.50	508.08		0.00		508.08
46.60	496.17		0.00		496.17
46.70	484.28		0.00		484.28
46.80	472.39		0.00		472.39
46.90	460.51		0.00		460.51
47.00	448.65		0.00		448.65
47.10	436.80		0.00		436.80
47.20	424.97		0.00		424.97
47.30	413.16		0.00		413.16
47.40	401.37		0.00		401.37
47.50	389.61		0.00		389.61
47.60	377.87		0.00		377.87
47.70	366.15		0.00		366.15
47.80	354.48		0.00		354.48
47.90	342.83		0.00		342.83
48.00	331.23		0.00		331.23
48.10	319.68		0.00		319.68
48.20	308.17		0.00		308.17
48.30	296.72		0.00		296.72
48.40	285.35		0.00		285.35
48.50	274.06		0.00		274.06
48.60	262.87		0.00		262.87
48.70	251.90		0.00		251.90
48.80	241.43		0.00		241.43
48.90	231.87		0.00		231.87
49.00	224.27		0.00		224.27
49.10	218.19		0.00		218.19
49.20	212.43		0.00		212.43
49.30	206.95		0.00		206.95
49.40	201.71		0.00		201.71
49.50	196.68		0.00		196.68
49.60	191.82		0.00		191.82
49.70	187.11		0.00		187.11
49.80	182.54		0.00		182.54
49.90	178.10		0.00		178.10
50.00	173.77		0.00		173.77
50.10	169.56		0.00		169.56
50.20	165.46		0.00		165.46
50.30	161.45		0.00		161.45
50.40	157.54		0.00		157.54
50.50	153.73		0.00		153.73
50.60	150.00		0.00		150.00
50.70	146.35		0.00		146.35
50.80	142.78		0.00		142.78

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
50.90	139.28		0.00		139.28
51.00	135.86		0.00		135.86
51.10	132.51		0.00		132.51
51.20	129.22		0.00		129.22
51.30	126.00		0.00		126.00
51.40	122.84		0.00		122.84
51.50	119.74		0.00		119.74
51.60	116.71		0.00		116.71
51.70	113.73		0.00		113.73
51.80	110.82		0.00		110.82
51.90	107.96		0.00		107.96
52.00	105.16		0.00		105.16
52.10	102.41		0.00		102.41
52.20	99.72		0.00		99.72
52.30	97.08		0.00		97.08
52.40	94.50		0.00		94.50
52.50	91.96		0.00		91.96
52.60	89.47		0.00		89.47
52.70	87.03		0.00		87.03
52.80	84.64		0.00		84.64
52.90	82.30		0.00		82.30
53.00	79.99		0.00		79.99
53.10	77.74		0.00		77.74
53.20	75.52		0.00		75.52
53.30	73.34		0.00		73.34
53.40	71.21		0.00		71.21
53.50	69.12		0.00		69.12
53.60	67.07		0.00		67.07
53.70	65.05		0.00		65.05
53.80	63.08		0.00		63.08
53.90	61.15		0.00		61.15
54.00	59.26		0.00		59.26
54.10	57.40		0.00		57.40
54.20	55.58		0.00		55.58
54.30	53.80		0.00		53.80
54.40	52.06		0.00		52.06
54.50	50.35		0.00		50.35
54.60	48.68		0.00		48.68
54.70	47.05		0.00		47.05
54.80	45.45		0.00		45.45
54.90	43.88		0.00		43.88
55.00	42.35		0.00		42.35
55.10	40.85		0.00		40.85
55.20	39.39		0.00		39.39
55.30	37.96		0.00		37.96
55.40	36.56		0.00		36.56
55.50	35.20		0.00		35.20
55.60	33.86		0.00		33.86
55.70	32.56		0.00		32.56
55.80	31.29		0.00		31.29

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
55.90	30.05		0.00		30.05
56.00	28.84		0.00		28.84
56.10	27.65		0.00		27.65
56.20	26.50		0.00		26.50
56.30	25.38		0.00		25.38
56.40	24.28		0.00		24.28
56.50	23.21		0.00		23.21
56.60	22.17		0.00		22.17
56.70	21.15		0.00		21.15
56.80	20.16		0.00		20.16
56.90	19.20		0.00		19.20
57.00	18.26		0.00		18.26
57.10	17.35		0.00		17.35
57.20	16.46		0.00		16.46
57.30	15.59		0.00		15.59
57.40	14.75		0.00		14.75
57.50	13.94		0.00		13.94
57.60	13.15		0.00		13.15
57.70	12.38		0.00		12.38
57.80	11.63		0.00		11.63
57.90	10.92		0.00		10.92
58.00	10.22		0.00		10.22
58.10	9.55		0.00		9.55
58.20	8.90		0.00		8.90
58.30	8.27		0.00		8.27
58.40	7.67		0.00		7.67
58.50	7.09		0.00		7.09
58.60	6.54		0.00		6.54
58.70	6.01		0.00		6.01
58.80	5.50		0.00		5.50
58.90	5.02		0.00		5.02
59.00	4.55		0.00		4.55
59.10	4.11		0.00		4.11
59.20	3.70		0.00		3.70
59.30	3.30		0.00		3.30
59.40	2.93		0.00		2.93
59.50	2.58		0.00		2.58
59.60	2.26		0.00		2.26
59.70	1.95		0.00		1.95
59.80	1.67		0.00		1.67
59.90	1.41		0.00		1.41
60.00	1.18		0.00		1.18
60.10	0.96		0.00		0.96
60.20	0.77		0.00		0.77
60.30	0.60		0.00		0.60
60.40	0.45		0.00		0.45
60.50	0.32		0.00		0.32
60.60	0.21		0.00		0.21
60.70	0.13		0.00		0.13

...End

Appendix 5:

Combined SCS Hydrograph Calculations

Big Slough
&
Hoskinson 2nd Addition – Proposed Conditions

Hydrograph Report

Hyd. No. 3

COMBINED

Hydrograph type = Combine
Storm frequency = 100 yrs
1st inflow hyd. No. = 1

Peak discharge = 2403.13 cfs
Time interval = 6 min
2nd inflow hyd. No. = 2

Total Volume = 185,931,400 cuft, 4268.398 acft

Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
1.60	0.00		0.10		0.10
1.70	0.00		0.15		0.15
1.80	0.00		0.20		0.20
1.90	0.00		0.24		0.24
2.00	0.00		0.29		0.29
2.10	0.00		0.33		0.33
2.20	0.00		0.38		0.38
2.30	0.00		0.42		0.42
2.40	0.00		0.46		0.46
2.50	0.00		0.50		0.50
2.60	0.00		0.54		0.54
2.70	0.00		0.58		0.58
2.80	0.00		0.62		0.62
2.90	0.00		0.66		0.66
3.00	0.00		0.69		0.69
3.10	0.00		0.73		0.73
3.20	0.00		0.76		0.76
3.30	0.00		0.80		0.80
3.40	0.00		0.83		0.83
3.50	0.00		0.87		0.87
3.60	0.00		0.90		0.90
3.70	0.00		0.93		0.93
3.80	0.00		0.96		0.96
3.90	0.00		0.99		0.99
4.00	0.00		1.02		1.02
4.10	0.00		1.06		1.06
4.20	0.00		1.09		1.09
4.30	0.00		1.12		1.12
4.40	0.00		1.16		1.16
4.50	0.00		1.20		1.20
4.60	0.00		1.24		1.24
4.70	0.00		1.27		1.27
4.80	0.00		1.31		1.31
4.90	0.00		1.35		1.35
5.00	0.00		1.38		1.38
5.10	0.00		1.42		1.42
5.20	0.00		1.46		1.46

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
5.30	0.00		1.50		1.50
5.40	0.00		1.53		1.53
5.50	0.00		1.57		1.57
5.60	0.00		1.61		1.61
5.70	0.00		1.64		1.64
5.80	0.00		1.68		1.68
5.90	0.00		1.71		1.71
6.00	0.00		1.75		1.75
6.10	0.00		1.79		1.79
6.20	0.00		1.82		1.82
6.30	0.00		1.86		1.86
6.40	0.00		1.89		1.89
6.50	0.00		1.93		1.93
6.60	0.00		1.97		1.97
6.70	0.00		2.00		2.00
6.80	0.00		2.04		2.04
6.90	0.00		2.07		2.07
7.00	0.00		2.11		2.11
7.10	0.00		2.14		2.14
7.20	0.00		2.18		2.18
7.30	0.00		2.21		2.21
7.40	0.00		2.24		2.24
7.50	0.00		2.28		2.28
7.60	0.00		2.31		2.31
7.70	0.00		2.35		2.35
7.80	0.00		2.38		2.38
7.90	0.00		2.41		2.41
8.00	0.00		2.45		2.45
8.10	0.00		2.49		2.49
8.20	0.00		2.56		2.56
8.30	0.00		2.66		2.67
8.40	0.01		2.78		2.79
8.50	0.02		2.91		2.93
8.60	0.03		3.04		3.07
8.70	0.05		3.17		3.21
8.80	0.07		3.30		3.37
8.90	0.11		3.43		3.53
9.00	0.15		3.56		3.71
9.10	0.20		3.68		3.88
9.20	0.26		3.76		4.03
9.30	0.34		3.81		4.15
9.40	0.43		3.83		4.26
9.50	0.54		3.84		4.38
9.60	0.66		3.88		4.54
9.70	0.80		3.97		4.77
9.80	0.96		4.12		5.08
9.90	1.15		4.31		5.46
10.00	1.36		4.52		5.88
10.10	1.60		4.74		6.34
10.20	1.87		4.99		6.85

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
10.30	2.17		5.27		7.44
10.40	2.51		5.58		8.09
10.50	2.90		5.89		8.79
10.60	3.34		6.22		9.56
10.70	3.83		6.62		10.45
10.80	4.38		7.09		11.46
10.90	5.00		7.59		12.59
11.00	5.70		8.12		13.81
11.10	6.47		8.46		14.93
11.20	7.35		9.02		16.36
11.30	8.35		10.24		18.58
11.40	9.49		11.61		21.09
11.50	10.79		13.03		23.82
11.60	12.47		17.46		29.94
11.70	14.97		30.72		45.69
11.80	19.00		54.84		73.84
11.90	26.29		96.22		122.51
12.00	36.13		131.52 <<		167.65
12.10	46.50		116.22		162.71
12.20	57.33		71.74		129.07
12.30	68.57		35.96		104.53
12.40	80.16		19.99		100.15
12.50	92.04		16.99		109.03
12.60	104.16		14.21		118.37
12.70	116.51		12.14		128.65
12.80	129.08		10.83		139.91
12.90	141.84		9.99		151.84
13.00	154.80		9.31		164.11
13.10	167.93		8.66		176.59
13.20	181.23		8.10		189.33
13.30	194.69		7.64		202.33
13.40	208.30		7.25		215.55
13.50	222.05		6.88		228.94
13.60	235.95		6.53		242.47
13.70	249.97		6.20		256.17
13.80	264.12		5.91		270.03
13.90	278.39		5.64		284.03
14.00	292.78		5.37		298.15
14.10	307.27		5.12		312.40
14.20	321.88		4.93		326.81
14.30	336.59		4.79		341.38
14.40	351.40		4.69		356.09
14.50	366.32		4.60		370.91
14.60	381.34		4.50		385.84
14.70	396.45		4.41		400.86
14.80	411.67		4.32		415.99
14.90	426.97		4.23		431.20
15.00	442.37		4.13		446.51
15.10	457.86		4.04		461.91
15.20	473.44		3.95		477.39

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
15.30	489.11		3.86		492.97
15.40	504.86		3.76		508.62
15.50	520.69		3.67		524.36
15.60	536.60		3.58		540.18
15.70	552.59		3.49		556.08
15.80	568.66		3.39		572.06
15.90	584.80		3.30		588.10
16.00	601.01		3.21		604.22
16.10	617.30		3.12		620.42
16.20	633.65		3.05		636.71
16.30	650.07		3.01		653.08
16.40	666.56		2.97		669.53
16.50	683.12		2.94		686.06
16.60	699.75		2.90		702.65
16.70	716.44		2.87		719.31
16.80	733.19		2.84		736.03
16.90	750.02		2.80		752.82
17.00	766.90		2.77		769.67
17.10	783.85		2.74		786.59
17.20	800.86		2.71		803.57
17.30	817.93		2.67		820.61
17.40	835.07		2.64		837.71
17.50	852.26		2.61		854.87
17.60	869.52		2.57		872.09
17.70	886.83		2.54		889.37
17.80	904.20		2.51		906.71
17.90	921.63		2.47		924.10
18.00	939.11		2.44		941.55
18.10	956.65		2.41		959.06
18.20	974.25		2.37		976.62
18.30	991.90		2.34		994.24
18.40	1009.60		2.31		1011.91
18.50	1027.36		2.28		1029.64
18.60	1045.17		2.24		1047.41
18.70	1063.03		2.21		1065.24
18.80	1080.94		2.18		1083.12
18.90	1098.90		2.14		1101.04
19.00	1116.91		2.11		1119.02
19.10	1134.97		2.08		1137.04
19.20	1153.07		2.04		1155.12
19.30	1171.22		2.01		1173.24
19.40	1189.42		1.98		1191.40
19.50	1207.67		1.95		1209.61
19.60	1225.95		1.91		1227.87
19.70	1244.28		1.88		1246.16
19.80	1262.66		1.85		1264.51
19.90	1281.08		1.81		1282.89
20.00	1299.53		1.78		1301.31
20.10	1318.03		1.75		1319.78
20.20	1336.57		1.73		1338.30

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
20.30	1355.15		1.71		1356.87
20.40	1373.78		1.71		1375.48
20.50	1392.44		1.70		1394.14
20.60	1411.14		1.69		1412.83
20.70	1429.88		1.69		1431.56
20.80	1448.66		1.68		1450.34
20.90	1467.48		1.67		1469.15
21.00	1486.34		1.67		1488.01
21.10	1505.24		1.66		1506.90
21.20	1524.18		1.65		1525.84
21.30	1543.16		1.65		1544.81
21.40	1562.18		1.64		1563.82
21.50	1581.24		1.63		1582.87
21.60	1600.33		1.63		1601.96
21.70	1619.47		1.62		1621.09
21.80	1638.64		1.61		1640.25
21.90	1657.85		1.61		1659.46
22.00	1677.10		1.60		1678.70
22.10	1696.39		1.59		1697.98
22.20	1715.71		1.59		1717.30
22.30	1735.07		1.58		1736.65
22.40	1754.45		1.57		1756.03
22.50	1773.87		1.57		1775.44
22.60	1793.32		1.56		1794.88
22.70	1812.79		1.55		1814.35
22.80	1832.29		1.55		1833.84
22.90	1851.81		1.54		1853.35
23.00	1871.35		1.53		1872.88
23.10	1890.91		1.53		1892.43
23.20	1910.48		1.52		1912.00
23.30	1930.07		1.51		1931.58
23.40	1949.67		1.51		1951.17
23.50	1969.27		1.50		1970.77
23.60	1988.89		1.49		1990.38
23.70	2008.51		1.49		2010.00
23.80	2028.12		1.48		2029.61
23.90	2047.74		1.47		2049.21
24.00	2067.34		1.47		2068.81
24.10	2086.89		1.17		2088.06
24.20	2106.39		0.58		2106.97
24.30	2125.82		0.19		2126.01
24.40	2145.18		0.00		2145.18
24.50	2164.47		0.00		2164.47
24.60	2183.67		0.00		2183.67
24.70	2202.77		0.00		2202.77
24.80	2221.76		0.00		2221.76
24.90	2240.63		0.00		2240.63
25.00	2259.37		0.00		2259.37
25.10	2277.95		0.00		2277.95
25.20	2296.33		0.00		2296.33

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)	
25.30	2314.49		0.00		2314.49	
25.40	2332.39		0.00		2332.39	
25.50	2349.69		0.00		2349.69	
25.60	2365.67		0.00		2365.67	
25.70	2379.21		0.00		2379.21	
25.80	2387.53		0.00		2387.53	
25.90	2391.79		0.00		2391.79	
26.00	2395.20		0.00		2395.20	
26.10	2397.85		0.00		2397.85	
26.20	2399.85		0.00		2399.85	
26.30	2401.30		0.00		2401.30	
26.40	2402.29		0.00		2402.29	
26.50	2402.89		0.00		2402.89	
26.60	2403.13	<<	0.00		2403.13	<<
26.70	2403.02		0.00		2403.02	
26.80	2402.58		0.00		2402.58	
26.90	2401.85		0.00		2401.85	
27.00	2400.83		0.00		2400.83	
27.10	2399.55		0.00		2399.55	
27.20	2398.01		0.00		2398.01	
27.30	2396.22		0.00		2396.22	
27.40	2394.21		0.00		2394.21	
27.50	2391.97		0.00		2391.97	
27.60	2389.53		0.00		2389.53	
27.70	2386.88		0.00		2386.88	
27.80	2384.05		0.00		2384.05	
27.90	2381.02		0.00		2381.02	
28.00	2377.83		0.00		2377.83	
28.10	2374.46		0.00		2374.46	
28.20	2370.92		0.00		2370.92	
28.30	2367.21		0.00		2367.21	
28.40	2363.34		0.00		2363.34	
28.50	2359.30		0.00		2359.30	
28.60	2355.11		0.00		2355.11	
28.70	2350.77		0.00		2350.77	
28.80	2346.27		0.00		2346.27	
28.90	2341.63		0.00		2341.63	
29.00	2336.84		0.00		2336.84	
29.10	2331.91		0.00		2331.91	
29.20	2326.84		0.00		2326.84	
29.30	2321.64		0.00		2321.64	
29.40	2316.30		0.00		2316.30	
29.50	2310.84		0.00		2310.84	
29.60	2305.25		0.00		2305.25	
29.70	2299.54		0.00		2299.54	
29.80	2293.71		0.00		2293.71	
29.90	2287.77		0.00		2287.77	
30.00	2281.71		0.00		2281.71	
30.10	2275.54		0.00		2275.54	
30.20	2269.26		0.00		2269.26	

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
30.30	2262.88		0.00		2262.88
30.40	2256.38		0.00		2256.38
30.50	2249.78		0.00		2249.78
30.60	2243.07		0.00		2243.07
30.70	2236.25		0.00		2236.25
30.80	2229.34		0.00		2229.34
30.90	2222.32		0.00		2222.32
31.00	2215.20		0.00		2215.20
31.10	2207.98		0.00		2207.98
31.20	2200.66		0.00		2200.66
31.30	2193.24		0.00		2193.24
31.40	2185.73		0.00		2185.73
31.50	2178.12		0.00		2178.12
31.60	2170.42		0.00		2170.42
31.70	2162.62		0.00		2162.62
31.80	2154.74		0.00		2154.74
31.90	2146.76		0.00		2146.76
32.00	2138.69		0.00		2138.69
32.10	2130.53		0.00		2130.53
32.20	2122.29		0.00		2122.29
32.30	2113.96		0.00		2113.96
32.40	2105.55		0.00		2105.55
32.50	2097.06		0.00		2097.06
32.60	2088.48		0.00		2088.48
32.70	2079.82		0.00		2079.82
32.80	2071.08		0.00		2071.08
32.90	2062.26		0.00		2062.26
33.00	2053.37		0.00		2053.37
33.10	2044.40		0.00		2044.40
33.20	2035.35		0.00		2035.35
33.30	2026.24		0.00		2026.24
33.40	2017.05		0.00		2017.05
33.50	2007.78		0.00		2007.78
33.60	1998.45		0.00		1998.45
33.70	1989.05		0.00		1989.05
33.80	1979.58		0.00		1979.58
33.90	1970.05		0.00		1970.05
34.00	1960.45		0.00		1960.45
34.10	1950.78		0.00		1950.78
34.20	1941.05		0.00		1941.05
34.30	1931.26		0.00		1931.26
34.40	1921.40		0.00		1921.40
34.50	1911.48		0.00		1911.48
34.60	1901.49		0.00		1901.49
34.70	1891.44		0.00		1891.44
34.80	1881.32		0.00		1881.32
34.90	1871.14		0.00		1871.14
35.00	1860.90		0.00		1860.90
35.10	1850.60		0.00		1850.60
35.20	1840.23		0.00		1840.23

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
35.30	1829.80		0.00		1829.80
35.40	1819.31		0.00		1819.31
35.50	1808.75		0.00		1808.75
35.60	1798.14		0.00		1798.14
35.70	1787.46		0.00		1787.46
35.80	1776.72		0.00		1776.72
35.90	1765.92		0.00		1765.92
36.00	1755.06		0.00		1755.06
36.10	1744.14		0.00		1744.14
36.20	1733.16		0.00		1733.16
36.30	1722.11		0.00		1722.11
36.40	1711.01		0.00		1711.01
36.50	1699.85		0.00		1699.85
36.60	1688.63		0.00		1688.63
36.70	1677.35		0.00		1677.35
36.80	1666.01		0.00		1666.01
36.90	1654.61		0.00		1654.61
37.00	1643.16		0.00		1643.16
37.10	1631.64		0.00		1631.64
37.20	1620.07		0.00		1620.07
37.30	1608.44		0.00		1608.44
37.40	1596.75		0.00		1596.75
37.50	1585.00		0.00		1585.00
37.60	1573.20		0.00		1573.20
37.70	1561.34		0.00		1561.34
37.80	1549.43		0.00		1549.43
37.90	1537.45		0.00		1537.45
38.00	1525.48		0.00		1525.48
38.10	1513.51		0.00		1513.51
38.20	1501.54		0.00		1501.54
38.30	1489.56		0.00		1489.56
38.40	1477.59		0.00		1477.59
38.50	1465.62		0.00		1465.62
38.60	1453.65		0.00		1453.65
38.70	1441.67		0.00		1441.67
38.80	1429.70		0.00		1429.70
38.90	1417.73		0.00		1417.73
39.00	1405.76		0.00		1405.76
39.10	1393.78		0.00		1393.78
39.20	1381.81		0.00		1381.81
39.30	1369.84		0.00		1369.84
39.40	1357.87		0.00		1357.87
39.50	1345.90		0.00		1345.90
39.60	1333.92		0.00		1333.92
39.70	1321.95		0.00		1321.95
39.80	1309.98		0.00		1309.98
39.90	1298.01		0.00		1298.01
40.00	1286.03		0.00		1286.03
40.10	1274.06		0.00		1274.06
40.20	1262.09		0.00		1262.09

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
40.30	1250.12		0.00		1250.12
40.40	1238.14		0.00		1238.14
40.50	1226.17		0.00		1226.17
40.60	1214.20		0.00		1214.20
40.70	1202.23		0.00		1202.23
40.80	1190.25		0.00		1190.25
40.90	1178.28		0.00		1178.28
41.00	1166.31		0.00		1166.31
41.10	1154.34		0.00		1154.34
41.20	1142.36		0.00		1142.36
41.30	1130.39		0.00		1130.39
41.40	1118.42		0.00		1118.42
41.50	1106.45		0.00		1106.45
41.60	1094.47		0.00		1094.47
41.70	1082.50		0.00		1082.50
41.80	1070.53		0.00		1070.53
41.90	1058.56		0.00		1058.56
42.00	1046.58		0.00		1046.58
42.10	1034.61		0.00		1034.61
42.20	1022.64		0.00		1022.64
42.30	1010.67		0.00		1010.67
42.40	998.69		0.00		998.69
42.50	986.72		0.00		986.72
42.60	974.75		0.00		974.75
42.70	962.78		0.00		962.78
42.80	950.80		0.00		950.80
42.90	938.83		0.00		938.83
43.00	926.86		0.00		926.86
43.10	914.89		0.00		914.89
43.20	902.91		0.00		902.91
43.30	890.94		0.00		890.94
43.40	878.97		0.00		878.97
43.50	867.00		0.00		867.00
43.60	855.03		0.00		855.03
43.70	843.05		0.00		843.05
43.80	831.08		0.00		831.08
43.90	819.11		0.00		819.11
44.00	807.14		0.00		807.14
44.10	795.16		0.00		795.16
44.20	783.19		0.00		783.19
44.30	771.22		0.00		771.22
44.40	759.25		0.00		759.25
44.50	747.27		0.00		747.27
44.60	735.30		0.00		735.30
44.70	723.33		0.00		723.33
44.80	711.36		0.00		711.36
44.90	699.38		0.00		699.38
45.00	687.41		0.00		687.41
45.10	675.44		0.00		675.44
45.20	663.47		0.00		663.47

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
45.30	651.49		0.00		651.49
45.40	639.52		0.00		639.52
45.50	627.55		0.00		627.55
45.60	615.59		0.00		615.59
45.70	603.62		0.00		603.62
45.80	591.66		0.00		591.66
45.90	579.70		0.00		579.70
46.00	567.75		0.00		567.75
46.10	555.80		0.00		555.80
46.20	543.86		0.00		543.86
46.30	531.93		0.00		531.93
46.40	520.00		0.00		520.00
46.50	508.08		0.00		508.08
46.60	496.17		0.00		496.17
46.70	484.28		0.00		484.28
46.80	472.39		0.00		472.39
46.90	460.51		0.00		460.51
47.00	448.65		0.00		448.65
47.10	436.80		0.00		436.80
47.20	424.97		0.00		424.97
47.30	413.16		0.00		413.16
47.40	401.37		0.00		401.37
47.50	389.61		0.00		389.61
47.60	377.87		0.00		377.87
47.70	366.15		0.00		366.15
47.80	354.48		0.00		354.48
47.90	342.83		0.00		342.83
48.00	331.23		0.00		331.23
48.10	319.68		0.00		319.68
48.20	308.17		0.00		308.17
48.30	296.72		0.00		296.72
48.40	285.35		0.00		285.35
48.50	274.06		0.00		274.06
48.60	262.87		0.00		262.87
48.70	251.90		0.00		251.90
48.80	241.43		0.00		241.43
48.90	231.87		0.00		231.87
49.00	224.27		0.00		224.27
49.10	218.19		0.00		218.19
49.20	212.43		0.00		212.43
49.30	206.95		0.00		206.95
49.40	201.71		0.00		201.71
49.50	196.68		0.00		196.68
49.60	191.82		0.00		191.82
49.70	187.11		0.00		187.11
49.80	182.54		0.00		182.54
49.90	178.10		0.00		178.10
50.00	173.77		0.00		173.77
50.10	169.56		0.00		169.56
50.20	165.46		0.00		165.46

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
50.30	161.45		0.00		161.45
50.40	157.54		0.00		157.54
50.50	153.73		0.00		153.73
50.60	150.00		0.00		150.00
50.70	146.35		0.00		146.35
50.80	142.78		0.00		142.78
50.90	139.28		0.00		139.28
51.00	135.86		0.00		135.86
51.10	132.51		0.00		132.51
51.20	129.22		0.00		129.22
51.30	126.00		0.00		126.00
51.40	122.84		0.00		122.84
51.50	119.74		0.00		119.74
51.60	116.71		0.00		116.71
51.70	113.73		0.00		113.73
51.80	110.82		0.00		110.82
51.90	107.96		0.00		107.96
52.00	105.16		0.00		105.16
52.10	102.41		0.00		102.41
52.20	99.72		0.00		99.72
52.30	97.08		0.00		97.08
52.40	94.50		0.00		94.50
52.50	91.96		0.00		91.96
52.60	89.47		0.00		89.47
52.70	87.03		0.00		87.03
52.80	84.64		0.00		84.64
52.90	82.30		0.00		82.30
53.00	79.99		0.00		79.99
53.10	77.74		0.00		77.74
53.20	75.52		0.00		75.52
53.30	73.34		0.00		73.34
53.40	71.21		0.00		71.21
53.50	69.12		0.00		69.12
53.60	67.07		0.00		67.07
53.70	65.05		0.00		65.05
53.80	63.08		0.00		63.08
53.90	61.15		0.00		61.15
54.00	59.26		0.00		59.26
54.10	57.40		0.00		57.40
54.20	55.58		0.00		55.58
54.30	53.80		0.00		53.80
54.40	52.06		0.00		52.06
54.50	50.35		0.00		50.35
54.60	48.68		0.00		48.68
54.70	47.05		0.00		47.05
54.80	45.45		0.00		45.45
54.90	43.88		0.00		43.88
55.00	42.35		0.00		42.35
55.10	40.85		0.00		40.85
55.20	39.39		0.00		39.39

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
55.30	37.96		0.00		37.96
55.40	36.56		0.00		36.56
55.50	35.20		0.00		35.20
55.60	33.86		0.00		33.86
55.70	32.56		0.00		32.56
55.80	31.29		0.00		31.29
55.90	30.05		0.00		30.05
56.00	28.84		0.00		28.84
56.10	27.65		0.00		27.65
56.20	26.50		0.00		26.50
56.30	25.38		0.00		25.38
56.40	24.28		0.00		24.28
56.50	23.21		0.00		23.21
56.60	22.17		0.00		22.17
56.70	21.15		0.00		21.15
56.80	20.16		0.00		20.16
56.90	19.20		0.00		19.20
57.00	18.26		0.00		18.26
57.10	17.35		0.00		17.35
57.20	16.46		0.00		16.46
57.30	15.59		0.00		15.59
57.40	14.75		0.00		14.75
57.50	13.94		0.00		13.94
57.60	13.15		0.00		13.15
57.70	12.38		0.00		12.38
57.80	11.63		0.00		11.63
57.90	10.92		0.00		10.92
58.00	10.22		0.00		10.22
58.10	9.55		0.00		9.55
58.20	8.90		0.00		8.90
58.30	8.27		0.00		8.27
58.40	7.67		0.00		7.67
58.50	7.09		0.00		7.09
58.60	6.54		0.00		6.54
58.70	6.01		0.00		6.01
58.80	5.50		0.00		5.50
58.90	5.02		0.00		5.02
59.00	4.55		0.00		4.55
59.10	4.11		0.00		4.11
59.20	3.70		0.00		3.70
59.30	3.30		0.00		3.30
59.40	2.93		0.00		2.93
59.50	2.58		0.00		2.58
59.60	2.26		0.00		2.26
59.70	1.95		0.00		1.95
59.80	1.67		0.00		1.67
59.90	1.41		0.00		1.41
60.00	1.18		0.00		1.18
60.10	0.96		0.00		0.96
60.20	0.77		0.00		0.77

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Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
60.30	0.60		0.00		0.60
60.40	0.45		0.00		0.45
60.50	0.32		0.00		0.32
60.60	0.21		0.00		0.21
60.70	0.13		0.00		0.13

...End

Appendix 6:

SCS Hydrograph Calculations

Hoskinson 2nd Addition – Inflow for Detention Pond

Hydrograph Report

Hyd. No. 1

Exist. Conditions

Hydrograph type	= SCS Runoff	Peak discharge	= 72.71 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Drainage area	= 9.52 ac	Curve number	= 95
Basin Slope	= .5 %	Hydraulic length	= 500 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.4 min
Total precip.	= 8.16 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Total Volume = 244,950 cuft, 5.623 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
1.80	0.11	5.10	0.79	8.40	1.54	11.70	16.98
1.90	0.13	5.20	0.81	8.50	1.61	11.80	30.32
2.00	0.16	5.30	0.83	8.60	1.68	11.90	53.19
2.10	0.18	5.40	0.85	8.70	1.75	12.00	72.71 <<
2.20	0.21	5.50	0.87	8.80	1.82	12.10	64.25
2.30	0.23	5.60	0.89	8.90	1.90	12.20	39.66
2.40	0.25	5.70	0.91	9.00	1.97	12.30	19.88
2.50	0.28	5.80	0.93	9.10	2.03	12.40	11.05
2.60	0.30	5.90	0.95	9.20	2.08	12.50	9.39
2.70	0.32	6.00	0.97	9.30	2.11	12.60	7.86
2.80	0.34	6.10	0.99	9.40	2.12	12.70	6.71
2.90	0.36	6.20	1.01	9.50	2.13	12.80	5.99
3.00	0.38	6.30	1.03	9.60	2.14	12.90	5.53
3.10	0.40	6.40	1.05	9.70	2.19	13.00	5.15
3.20	0.42	6.50	1.07	9.80	2.28	13.10	4.79
3.30	0.44	6.60	1.09	9.90	2.38	13.20	4.48
3.40	0.46	6.70	1.11	10.00	2.50	13.30	4.23
3.50	0.48	6.80	1.13	10.10	2.62	13.40	4.01
3.60	0.50	6.90	1.14	10.20	2.76	13.50	3.81
3.70	0.51	7.00	1.16	10.30	2.92	13.60	3.61
3.80	0.53	7.10	1.18	10.40	3.08	13.70	3.43
3.90	0.55	7.20	1.20	10.50	3.26	13.80	3.27
4.00	0.57	7.30	1.22	10.60	3.44	13.90	3.12
4.10	0.58	7.40	1.24	10.70	3.66	14.00	2.97
4.20	0.60	7.50	1.26	10.80	3.92	14.10	2.83
4.30	0.62	7.60	1.28	10.90	4.20	14.20	2.73
4.40	0.64	7.70	1.30	11.00	4.49	14.30	2.65
4.50	0.66	7.80	1.32	11.10	4.68	14.40	2.59
4.60	0.68	7.90	1.33	11.20	4.99	14.50	2.54
4.70	0.70	8.00	1.35	11.30	5.66	14.60	2.49
4.80	0.72	8.10	1.38	11.40	6.42	14.70	2.44
4.90	0.74	8.20	1.42	11.50	7.20	14.80	2.39
5.00	0.77	8.30	1.47	11.60	9.65	14.90	2.34

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Hydrograph Discharge Table

Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)
15.00	2.29	20.00	0.98
15.10	2.23	20.10	0.97
15.20	2.18	20.20	0.95
15.30	2.13	20.30	0.95
15.40	2.08	20.40	0.94
15.50	2.03	20.50	0.94
15.60	1.98	20.60	0.94
15.70	1.93	20.70	0.93
15.80	1.88	20.80	0.93
15.90	1.83	20.90	0.92
16.00	1.77	21.00	0.92
16.10	1.73	21.10	0.92
16.20	1.69	21.20	0.91
16.30	1.66	21.30	0.91
16.40	1.64	21.40	0.91
16.50	1.62	21.50	0.90
16.60	1.60	21.60	0.90
16.70	1.59	21.70	0.90
16.80	1.57	21.80	0.89
16.90	1.55	21.90	0.89
17.00	1.53	22.00	0.88
17.10	1.51	22.10	0.88
17.20	1.50	22.20	0.88
17.30	1.48	22.30	0.87
17.40	1.46	22.40	0.87
17.50	1.44	22.50	0.87
17.60	1.42	22.60	0.86
17.70	1.40	22.70	0.86
17.80	1.39	22.80	0.86
17.90	1.37	22.90	0.85
18.00	1.35	23.00	0.85
18.10	1.33	23.10	0.84
18.20	1.31	23.20	0.84
18.30	1.29	23.30	0.84
18.40	1.28	23.40	0.83
18.50	1.26	23.50	0.83
18.60	1.24	23.60	0.83
18.70	1.22	23.70	0.82
18.80	1.20	23.80	0.82
18.90	1.19	23.90	0.82
19.00	1.17	24.00	0.81
19.10	1.15	24.10	0.65
19.20	1.13	24.20	0.32
19.30	1.11	24.30	0.11
19.40	1.09		
19.50	1.08		
19.60	1.06	*...End*	
19.70	1.04		
19.80	1.02		
19.90	1.00		

Appendix 7:

SCS Hydrograph Calculations

Hoskinson 2nd Addition – Runoff Not Detained

Hydrograph Report

Hyd. No. 3

Runoff not detained

Hydrograph type	= SCS Runoff	Peak discharge	= 58.81 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Drainage area	= 7.7 ac	Curve number	= 95
Basin Slope	= .5 %	Hydraulic length	= 500 ft
Tc method	= LAG	Time of conc. (Tc)	= 14.4 min
Total precip.	= 8.16 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

Total Volume = 198,121 cuft, 4.548 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)	Time (hrs)	Outflow (cfs)
1.90	0.11	5.20	0.65	8.50	1.30	11.80	24.52
2.00	0.13	5.30	0.67	8.60	1.36	11.90	43.02
2.10	0.15	5.40	0.68	8.70	1.42	12.00	58.81 <<
2.20	0.17	5.50	0.70	8.80	1.47	12.10	51.97
2.30	0.19	5.60	0.72	8.90	1.53	12.20	32.08
2.40	0.21	5.70	0.73	9.00	1.59	12.30	16.08
2.50	0.22	5.80	0.75	9.10	1.65	12.40	8.94
2.60	0.24	5.90	0.77	9.20	1.68	12.50	7.60
2.70	0.26	6.00	0.78	9.30	1.70	12.60	6.36
2.80	0.28	6.10	0.80	9.40	1.71	12.70	5.43
2.90	0.29	6.20	0.81	9.50	1.72	12.80	4.84
3.00	0.31	6.30	0.83	9.60	1.73	12.90	4.47
3.10	0.33	6.40	0.85	9.70	1.77	13.00	4.16
3.20	0.34	6.50	0.86	9.80	1.84	13.10	3.87
3.30	0.36	6.60	0.88	9.90	1.93	13.20	3.62
3.40	0.37	6.70	0.89	10.00	2.02	13.30	3.42
3.50	0.39	6.80	0.91	10.10	2.12	13.40	3.24
3.60	0.40	6.90	0.93	10.20	2.23	13.50	3.08
3.70	0.42	7.00	0.94	10.30	2.36	13.60	2.92
3.80	0.43	7.10	0.96	10.40	2.49	13.70	2.77
3.90	0.44	7.20	0.97	10.50	2.63	13.80	2.64
4.00	0.46	7.30	0.99	10.60	2.78	13.90	2.52
4.10	0.47	7.40	1.00	10.70	2.96	14.00	2.40
4.20	0.49	7.50	1.02	10.80	3.17	14.10	2.29
4.30	0.50	7.60	1.03	10.90	3.39	14.20	2.20
4.40	0.52	7.70	1.05	11.00	3.63	14.30	2.14
4.50	0.54	7.80	1.06	11.10	3.78	14.40	2.10
4.60	0.55	7.90	1.08	11.20	4.03	14.50	2.05
4.70	0.57	8.00	1.09	11.30	4.58	14.60	2.01
4.80	0.59	8.10	1.11	11.40	5.19	14.70	1.97
4.90	0.60	8.20	1.15	11.50	5.83	14.80	1.93
5.00	0.62	8.30	1.19	11.60	7.81	14.90	1.89
5.10	0.64	8.40	1.24	11.70	13.74	15.00	1.85

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Hydrograph Discharge Table

Time (hrs)	Outflow cfs)	Time (hrs)	Outflow cfs)
15.10	1.81	20.10	0.78
15.20	1.77	20.20	0.77
15.30	1.72	20.30	0.77
15.40	1.68	20.40	0.76
15.50	1.64	20.50	0.76
15.60	1.60	20.60	0.76
15.70	1.56	20.70	0.75
15.80	1.52	20.80	0.75
15.90	1.48	20.90	0.75
16.00	1.44	21.00	0.74
16.10	1.40	21.10	0.74
16.20	1.37	21.20	0.74
16.30	1.34	21.30	0.74
16.40	1.33	21.40	0.73
16.50	1.31	21.50	0.73
16.60	1.30	21.60	0.73
16.70	1.28	21.70	0.72
16.80	1.27	21.80	0.72
16.90	1.25	21.90	0.72
17.00	1.24	22.00	0.72
17.10	1.22	22.10	0.71
17.20	1.21	22.20	0.71
17.30	1.19	22.30	0.71
17.40	1.18	22.40	0.70
17.50	1.17	22.50	0.70
17.60	1.15	22.60	0.70
17.70	1.14	22.70	0.69
17.80	1.12	22.80	0.69
17.90	1.11	22.90	0.69
18.00	1.09	23.00	0.69
18.10	1.08	23.10	0.68
18.20	1.06	23.20	0.68
18.30	1.05	23.30	0.68
18.40	1.03	23.40	0.67
18.50	1.02	23.50	0.67
18.60	1.00	23.60	0.67
18.70	0.99	23.70	0.67
18.80	0.97	23.80	0.66
18.90	0.96	23.90	0.66
19.00	0.94	24.00	0.66
19.10	0.93	24.10	0.52
19.20	0.91	24.20	0.26
19.30	0.90		
19.40	0.88		
19.50	0.87	*...End*	
19.60	0.86		
19.70	0.84		
19.80	0.83		
19.90	0.81		
20.00	0.80		

Appendix 8:

SCS Hydrograph Calculations

Hoskinson 2nd Addition - Detention Pond Discharge

Hydrograph Report

Hyd. No. 2

Hydrograph type	= Reservoir	Peak discharge	= 6.68 cfs
Storm frequency	= 100 yrs	Time interval	= 6 min
Inflow hyd. No.	= 1	Reservoir name	= det 2 hosk
Max. Elevation	= 1333.32 ft	Max. Storage	= 124,733 cuft

Storage Indication method used.

Total Volume = 244,950 cuft, 5.623 acft

Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
2.80	0.34	1331.31	0.10	-----	-----	-----	-----	-----	0.10
2.90	0.36	1331.31	0.12	-----	-----	-----	-----	-----	0.12
3.00	0.38	1331.32	0.13	-----	-----	-----	-----	-----	0.13
3.10	0.40	1331.32	0.14	-----	-----	-----	-----	-----	0.14
3.20	0.42	1331.32	0.16	-----	-----	-----	-----	-----	0.16
3.30	0.44	1331.32	0.17	-----	-----	-----	-----	-----	0.17
3.40	0.46	1331.32	0.18	-----	-----	-----	-----	-----	0.18
3.50	0.48	1331.32	0.20	-----	-----	-----	-----	-----	0.20
3.60	0.50	1331.33	0.21	-----	-----	-----	-----	-----	0.21
3.70	0.51	1331.33	0.23	-----	-----	-----	-----	-----	0.23
3.80	0.53	1331.33	0.24	-----	-----	-----	-----	-----	0.24
3.90	0.55	1331.33	0.26	-----	-----	-----	-----	-----	0.26
4.00	0.57	1331.33	0.27	-----	-----	-----	-----	-----	0.27
4.10	0.58	1331.33	0.29	-----	-----	-----	-----	-----	0.29
4.20	0.60	1331.34	0.30	-----	-----	-----	-----	-----	0.30
4.30	0.62	1331.34	0.32	-----	-----	-----	-----	-----	0.32
4.40	0.64	1331.34	0.33	-----	-----	-----	-----	-----	0.33
4.50	0.66	1331.34	0.35	-----	-----	-----	-----	-----	0.35
4.60	0.68	1331.34	0.37	-----	-----	-----	-----	-----	0.37
4.70	0.70	1331.35	0.38	-----	-----	-----	-----	-----	0.38
4.80	0.72	1331.35	0.40	-----	-----	-----	-----	-----	0.40
4.90	0.74	1331.35	0.42	-----	-----	-----	-----	-----	0.42
5.00	0.77	1331.35	0.43	-----	-----	-----	-----	-----	0.43
5.10	0.79	1331.35	0.45	-----	-----	-----	-----	-----	0.45
5.20	0.81	1331.36	0.47	-----	-----	-----	-----	-----	0.47
5.30	0.83	1331.36	0.48	-----	-----	-----	-----	-----	0.49
5.40	0.85	1331.36	0.50	-----	-----	-----	-----	-----	0.50
5.50	0.87	1331.36	0.52	-----	-----	-----	-----	-----	0.52
5.60	0.89	1331.36	0.54	-----	-----	-----	-----	-----	0.54
5.70	0.91	1331.37	0.56	-----	-----	-----	-----	-----	0.56
5.80	0.93	1331.37	0.57	-----	-----	-----	-----	-----	0.57
5.90	0.95	1331.37	0.59	-----	-----	-----	-----	-----	0.59
6.00	0.97	1331.37	0.61	-----	-----	-----	-----	-----	0.61
6.10	0.99	1331.37	0.63	-----	-----	-----	-----	-----	0.63
6.20	1.01	1331.38	0.65	-----	-----	-----	-----	-----	0.65
6.30	1.03	1331.38	0.68	-----	-----	-----	-----	-----	0.68
6.40	1.05	1331.38	0.70	-----	-----	-----	-----	-----	0.70

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Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
6.50	1.07	1331.38	0.72	-----	-----	-----	-----	-----	0.72
6.60	1.09	1331.39	0.74	-----	-----	-----	-----	-----	0.74
6.70	1.11	1331.39	0.76	-----	-----	-----	-----	-----	0.76
6.80	1.13	1331.39	0.78	-----	-----	-----	-----	-----	0.78
6.90	1.14	1331.39	0.80	-----	-----	-----	-----	-----	0.80
7.00	1.16	1331.39	0.82	-----	-----	-----	-----	-----	0.82
7.10	1.18	1331.40	0.84	-----	-----	-----	-----	-----	0.84
7.20	1.20	1331.40	0.86	-----	-----	-----	-----	-----	0.86
7.30	1.22	1331.40	0.88	-----	-----	-----	-----	-----	0.88
7.40	1.24	1331.40	0.90	-----	-----	-----	-----	-----	0.90
7.50	1.26	1331.40	0.92	-----	-----	-----	-----	-----	0.92
7.60	1.28	1331.41	0.94	-----	-----	-----	-----	-----	0.94
7.70	1.30	1331.41	0.96	-----	-----	-----	-----	-----	0.96
7.80	1.32	1331.41	0.98	-----	-----	-----	-----	-----	0.98
7.90	1.33	1331.41	1.00	-----	-----	-----	-----	-----	1.00
8.00	1.35	1331.41	1.02	-----	-----	-----	-----	-----	1.01
8.10	1.38	1331.42	1.03	-----	-----	-----	-----	-----	1.03
8.20	1.42	1331.42	1.05	-----	-----	-----	-----	-----	1.05
8.30	1.47	1331.42	1.08	-----	-----	-----	-----	-----	1.08
8.40	1.54	1331.42	1.10	-----	-----	-----	-----	-----	1.10
8.50	1.61	1331.43	1.13	-----	-----	-----	-----	-----	1.13
8.60	1.68	1331.43	1.16	-----	-----	-----	-----	-----	1.16
8.70	1.75	1331.43	1.19	-----	-----	-----	-----	-----	1.19
8.80	1.82	1331.44	1.22	-----	-----	-----	-----	-----	1.22
8.90	1.90	1331.44	1.26	-----	-----	-----	-----	-----	1.26
9.00	1.97	1331.44	1.28	-----	-----	-----	-----	-----	1.28
9.10	2.03	1331.45	1.31	-----	-----	-----	-----	-----	1.31
9.20	2.08	1331.45	1.33	-----	-----	-----	-----	-----	1.33
9.30	2.11	1331.46	1.36	-----	-----	-----	-----	-----	1.36
9.40	2.12	1331.46	1.39	-----	-----	-----	-----	-----	1.39
9.50	2.13	1331.47	1.41	-----	-----	-----	-----	-----	1.41
9.60	2.14	1331.47	1.44	-----	-----	-----	-----	-----	1.44
9.70	2.19	1331.48	1.47	-----	-----	-----	-----	-----	1.46
9.80	2.28	1331.48	1.49	-----	-----	-----	-----	-----	1.49
9.90	2.38	1331.49	1.52	-----	-----	-----	-----	-----	1.52
10.00	2.50	1331.49	1.56	-----	-----	-----	-----	-----	1.56
10.10	2.62	1331.50	1.59	-----	-----	-----	-----	-----	1.59
10.20	2.76	1331.50	1.63	-----	-----	-----	-----	-----	1.63
10.30	2.92	1331.51	1.67	-----	-----	-----	-----	-----	1.67
10.40	3.08	1331.52	1.71	-----	-----	-----	-----	-----	1.71
10.50	3.26	1331.53	1.75	-----	-----	-----	-----	-----	1.75
10.60	3.44	1331.54	1.80	-----	-----	-----	-----	-----	1.80
10.70	3.66	1331.55	1.85	-----	-----	-----	-----	-----	1.85
10.80	3.92	1331.56	1.90	-----	-----	-----	-----	-----	1.90
10.90	4.20	1331.57	1.97	-----	-----	-----	-----	-----	1.97
11.00	4.49	1331.59	2.03	-----	-----	-----	-----	-----	2.03
11.10	4.68	1331.60	2.09	-----	-----	-----	-----	-----	2.09
11.20	4.99	1331.62	2.16	-----	-----	-----	-----	-----	2.16
11.30	5.66	1331.64	2.24	-----	-----	-----	-----	-----	2.24
11.40	6.42	1331.66	2.33	-----	-----	-----	-----	-----	2.33

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Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
11.50	7.20	1331.69	2.42	-----	-----	-----	-----	-----	2.42
11.60	9.65	1331.72	2.55	-----	-----	-----	-----	-----	2.55
11.70	16.98	1331.79	2.77	-----	-----	-----	-----	-----	2.77
11.80	30.32	1331.91	3.14	-----	-----	-----	-----	-----	3.14
11.90	53.19	1332.14	3.72	-----	-----	-----	-----	-----	3.72
12.00	72.71 <<	1332.48	4.44	-----	-----	-----	-----	-----	4.44
12.10	64.25	1332.85	5.24	-----	-----	-----	-----	-----	5.24
12.20	39.66	1333.11	6.08	-----	-----	-----	-----	-----	6.08
12.30	19.88	1333.24	6.45	-----	-----	-----	-----	-----	6.45
12.40	11.05	1333.29	6.59	-----	-----	-----	-----	-----	6.59
12.50	9.39	1333.31	6.65	-----	-----	-----	-----	-----	6.65
12.60	7.86	1333.32	6.67	-----	-----	-----	-----	-----	6.67
12.70	6.71	1333.32 <<	6.68	-----	-----	-----	-----	-----	6.68 <<
12.80	5.99	1333.32	6.68	-----	-----	-----	-----	-----	6.68
12.90	5.53	1333.31	6.67	-----	-----	-----	-----	-----	6.67
13.00	5.15	1333.31	6.65	-----	-----	-----	-----	-----	6.65
13.10	4.79	1333.30	6.62	-----	-----	-----	-----	-----	6.62
13.20	4.48	1333.29	6.59	-----	-----	-----	-----	-----	6.59
13.30	4.23	1333.28	6.56	-----	-----	-----	-----	-----	6.56
13.40	4.01	1333.26	6.52	-----	-----	-----	-----	-----	6.52
13.50	3.81	1333.25	6.48	-----	-----	-----	-----	-----	6.48
13.60	3.61	1333.23	6.44	-----	-----	-----	-----	-----	6.44
13.70	3.43	1333.22	6.39	-----	-----	-----	-----	-----	6.39
13.80	3.27	1333.20	6.35	-----	-----	-----	-----	-----	6.35
13.90	3.12	1333.18	6.30	-----	-----	-----	-----	-----	6.30
14.00	2.97	1333.17	6.24	-----	-----	-----	-----	-----	6.24
14.10	2.83	1333.15	6.19	-----	-----	-----	-----	-----	6.19
14.20	2.73	1333.13	6.14	-----	-----	-----	-----	-----	6.14
14.30	2.65	1333.11	6.08	-----	-----	-----	-----	-----	6.08
14.40	2.59	1333.09	6.03	-----	-----	-----	-----	-----	6.03
14.50	2.54	1333.07	5.97	-----	-----	-----	-----	-----	5.97
14.60	2.49	1333.06	5.91	-----	-----	-----	-----	-----	5.91
14.70	2.44	1333.04	5.85	-----	-----	-----	-----	-----	5.85
14.80	2.39	1333.02	5.79	-----	-----	-----	-----	-----	5.79
14.90	2.34	1333.00	5.74	-----	-----	-----	-----	-----	5.74
15.00	2.29	1332.98	5.67	-----	-----	-----	-----	-----	5.67
15.10	2.23	1332.96	5.61	-----	-----	-----	-----	-----	5.61
15.20	2.18	1332.94	5.54	-----	-----	-----	-----	-----	5.54
15.30	2.13	1332.92	5.48	-----	-----	-----	-----	-----	5.48
15.40	2.08	1332.90	5.42	-----	-----	-----	-----	-----	5.42
15.50	2.03	1332.88	5.35	-----	-----	-----	-----	-----	5.35
15.60	1.98	1332.86	5.28	-----	-----	-----	-----	-----	5.28
15.70	1.93	1332.84	5.22	-----	-----	-----	-----	-----	5.22
15.80	1.88	1332.83	5.15	-----	-----	-----	-----	-----	5.15
15.90	1.83	1332.81	5.08	-----	-----	-----	-----	-----	5.08
16.00	1.77	1332.79	5.01	-----	-----	-----	-----	-----	5.01
16.10	1.73	1332.77	4.94	-----	-----	-----	-----	-----	4.94
16.20	1.69	1332.75	4.88	-----	-----	-----	-----	-----	4.88
16.30	1.66	1332.73	4.81	-----	-----	-----	-----	-----	4.81
16.40	1.64	1332.71	4.74	-----	-----	-----	-----	-----	4.74

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Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
16.50	1.62	1332.70	4.68	-----	-----	-----	-----	-----	4.68
16.60	1.60	1332.68	4.68	-----	-----	-----	-----	-----	4.68
16.70	1.59	1332.66	4.68	-----	-----	-----	-----	-----	4.68
16.80	1.57	1332.64	4.68	-----	-----	-----	-----	-----	4.68
16.90	1.55	1332.62	4.67	-----	-----	-----	-----	-----	4.67
17.00	1.53	1332.61	4.67	-----	-----	-----	-----	-----	4.67
17.10	1.51	1332.59	4.65	-----	-----	-----	-----	-----	4.65
17.20	1.50	1332.57	4.62	-----	-----	-----	-----	-----	4.62
17.30	1.48	1332.55	4.58	-----	-----	-----	-----	-----	4.58
17.40	1.46	1332.53	4.55	-----	-----	-----	-----	-----	4.55
17.50	1.44	1332.52	4.51	-----	-----	-----	-----	-----	4.51
17.60	1.42	1332.50	4.48	-----	-----	-----	-----	-----	4.48
17.70	1.40	1332.48	4.44	-----	-----	-----	-----	-----	4.44
17.80	1.39	1332.46	4.41	-----	-----	-----	-----	-----	4.41
17.90	1.37	1332.45	4.37	-----	-----	-----	-----	-----	4.37
18.00	1.35	1332.43	4.34	-----	-----	-----	-----	-----	4.34
18.10	1.33	1332.41	4.30	-----	-----	-----	-----	-----	4.30
18.20	1.31	1332.39	4.27	-----	-----	-----	-----	-----	4.27
18.30	1.29	1332.38	4.23	-----	-----	-----	-----	-----	4.23
18.40	1.28	1332.36	4.20	-----	-----	-----	-----	-----	4.20
18.50	1.26	1332.34	4.16	-----	-----	-----	-----	-----	4.16
18.60	1.24	1332.33	4.13	-----	-----	-----	-----	-----	4.13
18.70	1.22	1332.31	4.09	-----	-----	-----	-----	-----	4.09
18.80	1.20	1332.29	4.06	-----	-----	-----	-----	-----	4.06
18.90	1.19	1332.28	4.02	-----	-----	-----	-----	-----	4.02
19.00	1.17	1332.26	3.99	-----	-----	-----	-----	-----	3.99
19.10	1.15	1332.24	3.95	-----	-----	-----	-----	-----	3.95
19.20	1.13	1332.23	3.92	-----	-----	-----	-----	-----	3.92
19.30	1.11	1332.21	3.88	-----	-----	-----	-----	-----	3.88
19.40	1.09	1332.20	3.84	-----	-----	-----	-----	-----	3.84
19.50	1.08	1332.18	3.81	-----	-----	-----	-----	-----	3.81
19.60	1.06	1332.17	3.77	-----	-----	-----	-----	-----	3.77
19.70	1.04	1332.15	3.73	-----	-----	-----	-----	-----	3.73
19.80	1.02	1332.13	3.70	-----	-----	-----	-----	-----	3.70
19.90	1.00	1332.12	3.66	-----	-----	-----	-----	-----	3.66
20.00	0.98	1332.10	3.63	-----	-----	-----	-----	-----	3.63
20.10	0.97	1332.09	3.59	-----	-----	-----	-----	-----	3.59
20.20	0.95	1332.07	3.55	-----	-----	-----	-----	-----	3.55
20.30	0.95	1332.06	3.51	-----	-----	-----	-----	-----	3.51
20.40	0.94	1332.04	3.48	-----	-----	-----	-----	-----	3.48
20.50	0.94	1332.03	3.44	-----	-----	-----	-----	-----	3.44
20.60	0.94	1332.01	3.40	-----	-----	-----	-----	-----	3.40
20.70	0.93	1332.00	3.37	-----	-----	-----	-----	-----	3.37
20.80	0.93	1331.99	3.33	-----	-----	-----	-----	-----	3.33
20.90	0.92	1331.97	3.29	-----	-----	-----	-----	-----	3.29
21.00	0.92	1331.96	3.25	-----	-----	-----	-----	-----	3.25
21.10	0.92	1331.94	3.21	-----	-----	-----	-----	-----	3.21
21.20	0.91	1331.93	3.18	-----	-----	-----	-----	-----	3.18
21.30	0.91	1331.91	3.14	-----	-----	-----	-----	-----	3.14
21.40	0.91	1331.90	3.10	-----	-----	-----	-----	-----	3.10

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Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
21.50	0.90	1331.89	3.06	-----	-----	-----	-----	-----	3.06
21.60	0.90	1331.87	3.02	-----	-----	-----	-----	-----	3.02
21.70	0.90	1331.86	2.99	-----	-----	-----	-----	-----	2.99
21.80	0.89	1331.85	2.95	-----	-----	-----	-----	-----	2.95
21.90	0.89	1331.84	2.91	-----	-----	-----	-----	-----	2.91
22.00	0.88	1331.82	2.88	-----	-----	-----	-----	-----	2.88
22.10	0.88	1331.81	2.84	-----	-----	-----	-----	-----	2.84
22.20	0.88	1331.80	2.80	-----	-----	-----	-----	-----	2.80
22.30	0.87	1331.79	2.77	-----	-----	-----	-----	-----	2.77
22.40	0.87	1331.78	2.73	-----	-----	-----	-----	-----	2.73
22.50	0.87	1331.77	2.69	-----	-----	-----	-----	-----	2.69
22.60	0.86	1331.75	2.66	-----	-----	-----	-----	-----	2.66
22.70	0.86	1331.74	2.62	-----	-----	-----	-----	-----	2.62
22.80	0.86	1331.73	2.59	-----	-----	-----	-----	-----	2.59
22.90	0.85	1331.72	2.55	-----	-----	-----	-----	-----	2.55
23.00	0.85	1331.71	2.51	-----	-----	-----	-----	-----	2.51
23.10	0.84	1331.70	2.48	-----	-----	-----	-----	-----	2.48
23.20	0.84	1331.69	2.44	-----	-----	-----	-----	-----	2.44
23.30	0.84	1331.68	2.41	-----	-----	-----	-----	-----	2.41
23.40	0.83	1331.67	2.37	-----	-----	-----	-----	-----	2.37
23.50	0.83	1331.66	2.34	-----	-----	-----	-----	-----	2.34
23.60	0.83	1331.66	2.31	-----	-----	-----	-----	-----	2.31
23.70	0.82	1331.65	2.27	-----	-----	-----	-----	-----	2.27
23.80	0.82	1331.64	2.24	-----	-----	-----	-----	-----	2.24
23.90	0.82	1331.63	2.20	-----	-----	-----	-----	-----	2.20
24.00	0.81	1331.62	2.17	-----	-----	-----	-----	-----	2.17
24.10	0.65	1331.61	2.13	-----	-----	-----	-----	-----	2.13
24.20	0.32	1331.60	2.09	-----	-----	-----	-----	-----	2.09
24.30	0.11	1331.59	2.05	-----	-----	-----	-----	-----	2.05
24.40	0.00	1331.58	2.00	-----	-----	-----	-----	-----	2.00
24.50	0.00	1331.57	1.94	-----	-----	-----	-----	-----	1.94
24.60	0.00	1331.55	1.88	-----	-----	-----	-----	-----	1.88
24.70	0.00	1331.54	1.83	-----	-----	-----	-----	-----	1.83
24.80	0.00	1331.53	1.78	-----	-----	-----	-----	-----	1.78
24.90	0.00	1331.52	1.73	-----	-----	-----	-----	-----	1.73
25.00	0.00	1331.51	1.68	-----	-----	-----	-----	-----	1.68
25.10	0.00	1331.50	1.62	-----	-----	-----	-----	-----	1.62
25.20	0.00	1331.49	1.56	-----	-----	-----	-----	-----	1.56
25.30	0.00	1331.48	1.51	-----	-----	-----	-----	-----	1.51
25.40	0.00	1331.47	1.45	-----	-----	-----	-----	-----	1.45
25.50	0.00	1331.46	1.40	-----	-----	-----	-----	-----	1.40
25.60	0.00	1331.46	1.35	-----	-----	-----	-----	-----	1.35
25.70	0.00	1331.45	1.30	-----	-----	-----	-----	-----	1.30
25.80	0.00	1331.44	1.25	-----	-----	-----	-----	-----	1.25
25.90	0.00	1331.43	1.19	-----	-----	-----	-----	-----	1.19
26.00	0.00	1331.43	1.12	-----	-----	-----	-----	-----	1.12
26.10	0.00	1331.42	1.06	-----	-----	-----	-----	-----	1.06
26.20	0.00	1331.41	1.00	-----	-----	-----	-----	-----	1.00
26.30	0.00	1331.41	0.94	-----	-----	-----	-----	-----	0.94
26.40	0.00	1331.40	0.89	-----	-----	-----	-----	-----	0.89

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Hydrograph Discharge Table

Time (hrs)	Inflow (cfs)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Outflow (cfs)
26.50	0.00	1331.40	0.84	-----	-----	-----	-----	-----	0.84
26.60	0.00	1331.39	0.79	-----	-----	-----	-----	-----	0.79
26.70	0.00	1331.39	0.75	-----	-----	-----	-----	-----	0.75
26.80	0.00	1331.38	0.70	-----	-----	-----	-----	-----	0.70
26.90	0.00	1331.38	0.67	-----	-----	-----	-----	-----	0.67
27.00	0.00	1331.37	0.63	-----	-----	-----	-----	-----	0.63
27.10	0.00	1331.37	0.59	-----	-----	-----	-----	-----	0.59
27.20	0.00	1331.37	0.56	-----	-----	-----	-----	-----	0.56
27.30	0.00	1331.36	0.53	-----	-----	-----	-----	-----	0.53
27.40	0.00	1331.36	0.51	-----	-----	-----	-----	-----	0.51
27.50	0.00	1331.36	0.48	-----	-----	-----	-----	-----	0.48
27.60	0.00	1331.35	0.46	-----	-----	-----	-----	-----	0.46
27.70	0.00	1331.35	0.43	-----	-----	-----	-----	-----	0.43
27.80	0.00	1331.35	0.41	-----	-----	-----	-----	-----	0.41
27.90	0.00	1331.35	0.39	-----	-----	-----	-----	-----	0.39
28.00	0.00	1331.34	0.37	-----	-----	-----	-----	-----	0.37
28.10	0.00	1331.34	0.35	-----	-----	-----	-----	-----	0.35
28.20	0.00	1331.34	0.34	-----	-----	-----	-----	-----	0.34
28.30	0.00	1331.34	0.32	-----	-----	-----	-----	-----	0.32
28.40	0.00	1331.34	0.30	-----	-----	-----	-----	-----	0.30
28.50	0.00	1331.33	0.29	-----	-----	-----	-----	-----	0.29
28.60	0.00	1331.33	0.27	-----	-----	-----	-----	-----	0.27
28.70	0.00	1331.33	0.26	-----	-----	-----	-----	-----	0.26
28.80	0.00	1331.33	0.25	-----	-----	-----	-----	-----	0.25
28.90	0.00	1331.33	0.23	-----	-----	-----	-----	-----	0.23
29.00	0.00	1331.33	0.22	-----	-----	-----	-----	-----	0.22
29.10	0.00	1331.33	0.21	-----	-----	-----	-----	-----	0.21
29.20	0.00	1331.32	0.20	-----	-----	-----	-----	-----	0.20
29.30	0.00	1331.32	0.19	-----	-----	-----	-----	-----	0.19
29.40	0.00	1331.32	0.18	-----	-----	-----	-----	-----	0.18
29.50	0.00	1331.32	0.17	-----	-----	-----	-----	-----	0.17
29.60	0.00	1331.32	0.16	-----	-----	-----	-----	-----	0.16
29.70	0.00	1331.32	0.15	-----	-----	-----	-----	-----	0.15
29.80	0.00	1331.32	0.15	-----	-----	-----	-----	-----	0.15
29.90	0.00	1331.32	0.14	-----	-----	-----	-----	-----	0.14
30.00	0.00	1331.32	0.13	-----	-----	-----	-----	-----	0.13
30.10	0.00	1331.31	0.13	-----	-----	-----	-----	-----	0.13
30.20	0.00	1331.31	0.12	-----	-----	-----	-----	-----	0.12
30.30	0.00	1331.31	0.11	-----	-----	-----	-----	-----	0.11
30.40	0.00	1331.31	0.11	-----	-----	-----	-----	-----	0.11
30.50	0.00	1331.31	0.10	-----	-----	-----	-----	-----	0.10

...End

Appendix 9:

Combined SCS Hydrograph Calculations

Hoskinson 2nd Addition – with Detention Pond

Hydrograph Report
Hoskinson 2nd - Detention Calculations

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
1.40	0.01	1.40	0.00	1.40	0.00	0.01
1.50	0.02	1.50	0.00	1.50	0.00	0.03
1.60	0.05	1.60	0.00	1.60	0.00	0.05
1.70	0.07	1.70	0.01	1.70	0.00	0.07
1.80	0.09	1.80	0.01	1.80	0.00	0.10
1.90	0.11	1.90	0.02	1.90	0.00	0.13
2.00	0.13	2.00	0.02	2.00	0.00	0.15
2.10	0.15	2.10	0.03	2.10	0.00	0.18
2.20	0.17	2.20	0.04	2.20	0.00	0.21
2.30	0.19	2.30	0.05	2.30	0.00	0.24
2.40	0.21	2.40	0.06	2.40	0.00	0.26
2.50	0.22	2.50	0.07	2.50	0.00	0.29
2.60	0.24	2.60	0.08	2.60	0.00	0.32
2.70	0.26	2.70	0.09	2.70	0.00	0.35
2.80	0.28	2.80	0.10	2.80	0.00	0.38
2.90	0.29	2.90	0.12	2.90	0.00	0.41
3.00	0.31	3.00	0.13	3.00	0.00	0.44
3.10	0.33	3.10	0.14	3.10	0.00	0.47
3.20	0.34	3.20	0.16	3.20	0.00	0.50
3.30	0.36	3.30	0.17	3.30	0.00	0.53
3.40	0.37	3.40	0.18	3.40	0.00	0.56
3.50	0.39	3.50	0.20	3.50	0.00	0.58
3.60	0.40	3.60	0.21	3.60	0.00	0.61
3.70	0.42	3.70	0.23	3.70	0.00	0.64
3.80	0.43	3.80	0.24	3.80	0.00	0.67
3.90	0.44	3.90	0.26	3.90	0.00	0.70
4.00	0.46	4.00	0.27	4.00	0.00	0.73
4.10	0.47	4.10	0.29	4.10	0.00	0.76
4.20	0.49	4.20	0.30	4.20	0.00	0.79
4.30	0.50	4.30	0.32	4.30	0.00	0.82
4.40	0.52	4.40	0.33	4.40	0.00	0.85
4.50	0.54	4.50	0.35	4.50	0.00	0.89
4.60	0.55	4.60	0.37	4.60	0.00	0.92
4.70	0.57	4.70	0.38	4.70	0.00	0.95
4.80	0.59	4.80	0.40	4.80	0.00	0.99
4.90	0.60	4.90	0.42	4.90	0.00	1.02
5.00	0.62	5.00	0.43	5.00	0.00	1.05
5.10	0.64	5.10	0.45	5.10	0.00	1.09
5.20	0.65	5.20	0.47	5.20	0.00	1.12
5.30	0.67	5.30	0.49	5.30	0.00	1.15
5.40	0.68	5.40	0.50	5.40	0.00	1.19
5.50	0.70	5.50	0.52	5.50	0.00	1.22
5.60	0.72	5.60	0.54	5.60	0.00	1.26
5.70	0.73	5.70	0.56	5.70	0.00	1.29
5.80	0.75	5.80	0.57	5.80	0.00	1.33
5.90	0.77	5.90	0.59	5.90	0.00	1.36

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
6.00	0.78	6.00	0.61	6.00	0.00	1.40
6.10	0.80	6.10	0.63	6.10	0.00	1.43
6.20	0.81	6.20	0.65	6.20	0.00	1.47
6.30	0.83	6.30	0.68	6.30	0.00	1.51
6.40	0.85	6.40	0.70	6.40	0.00	1.54
6.50	0.86	6.50	0.72	6.50	0.00	1.58
6.60	0.88	6.60	0.74	6.60	0.00	1.61
6.70	0.89	6.70	0.76	6.70	0.00	1.65
6.80	0.91	6.80	0.78	6.80	0.00	1.69
6.90	0.93	6.90	0.80	6.90	0.00	1.72
7.00	0.94	7.00	0.82	7.00	0.00	1.76
7.10	0.96	7.10	0.84	7.10	0.00	1.79
7.20	0.97	7.20	0.86	7.20	0.00	1.83
7.30	0.99	7.30	0.88	7.30	0.00	1.86
7.40	1.00	7.40	0.90	7.40	0.00	1.90
7.50	1.02	7.50	0.92	7.50	0.00	1.94
7.60	1.03	7.60	0.94	7.60	0.00	1.97
7.70	1.05	7.70	0.96	7.70	0.00	2.01
7.80	1.06	7.80	0.98	7.80	0.00	2.04
7.90	1.08	7.90	1.00	7.90	0.00	2.07
8.00	1.09	8.00	1.01	8.00	0.00	2.11
8.10	1.11	8.10	1.03	8.10	0.00	2.15
8.20	1.15	8.20	1.05	8.20	0.00	2.20
8.30	1.19	8.30	1.08	8.30	0.00	2.27
8.40	1.24	8.40	1.10	8.40	0.01	2.35
8.50	1.30	8.50	1.13	8.50	0.02	2.45
8.60	1.36	8.60	1.16	8.60	0.03	2.54
8.70	1.42	8.70	1.19	8.70	0.05	2.65
8.80	1.47	8.80	1.22	8.80	0.07	2.77
8.90	1.53	8.90	1.26	8.90	0.11	2.90
9.00	1.59	9.00	1.28	9.00	0.15	3.02
9.10	1.65	9.10	1.31	9.10	0.20	3.15
9.20	1.68	9.20	1.33	9.20	0.26	3.28
9.30	1.70	9.30	1.36	9.30	0.34	3.40
9.40	1.71	9.40	1.39	9.40	0.43	3.53
9.50	1.72	9.50	1.41	9.50	0.54	3.67
9.60	1.73	9.60	1.44	9.60	0.66	3.83
9.70	1.77	9.70	1.46	9.70	0.80	4.04
9.80	1.84	9.80	1.49	9.80	0.96	4.29
9.90	1.93	9.90	1.52	9.90	1.15	4.60
10.00	2.02	10.00	1.56	10.00	1.36	4.94
10.10	2.12	10.10	1.59	10.10	1.60	5.31
10.20	2.23	10.20	1.63	10.20	1.87	5.73
10.30	2.36	10.30	1.67	10.30	2.17	6.20
10.40	2.49	10.40	1.71	10.40	2.51	6.72
10.50	2.63	10.50	1.75	10.50	2.90	7.29
10.60	2.78	10.60	1.80	10.60	3.34	7.92
10.70	2.96	10.70	1.85	10.70	3.83	8.64
10.80	3.17	10.80	1.90	10.80	4.38	9.45

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
10.90	3.39	10.90	1.97	10.90	5.00	10.36
11.00	3.63	11.00	2.03	11.00	5.70	11.36
11.10	3.78	11.10	2.09	11.10	6.47	12.34
11.20	4.03	11.20	2.16	11.20	7.35	13.54
11.30	4.58	11.30	2.24	11.30	8.35	15.16
11.40	5.19	11.40	2.33	11.40	9.49	17.00
11.50	5.83	11.50	2.42	11.50	10.79	19.04
11.60	7.81	11.60	2.55	11.60	12.47	22.83
11.70	13.74	11.70	2.77	11.70	14.97	31.47
11.80	24.52	11.80	3.14	11.80	19.00	46.66
11.90	43.02	11.90	3.72	11.90	26.29	73.03
12.00	58.81	12.00	4.44	12.00	36.13	99.38
12.10	51.97	12.10	5.24	12.10	46.50	103.70
12.20	32.08	12.20	6.08	12.20	57.33	95.49
12.30	16.08	12.30	6.45	12.30	68.57	91.10
12.40	8.94	12.40	6.59	12.40	80.16	95.69
12.50	7.60	12.50	6.65	12.50	92.04	106.28
12.60	6.36	12.60	6.67	12.60	104.16	117.19
12.70	5.43	12.70	6.68	12.70	116.51	128.62
12.80	4.84	12.80	6.68	12.80	129.08	140.60
12.90	4.47	12.90	6.67	12.90	141.84	152.97
13.00	4.16	13.00	6.65	13.00	154.80	165.61
13.10	3.87	13.10	6.62	13.10	167.93	178.42
13.20	3.62	13.20	6.59	13.20	181.23	191.44
13.30	3.42	13.30	6.56	13.30	194.69	204.66
13.40	3.24	13.40	6.52	13.40	208.30	218.06
13.50	3.08	13.50	6.48	13.50	222.05	231.61
13.60	2.92	13.60	6.44	13.60	235.95	245.31
13.70	2.77	13.70	6.39	13.70	249.97	259.13
13.80	2.64	13.80	6.35	13.80	264.12	273.11
13.90	2.52	13.90	6.30	13.90	278.39	287.21
14.00	2.40	14.00	6.24	14.00	292.78	301.43
14.10	2.29	14.10	6.19	14.10	307.27	315.75
14.20	2.20	14.20	6.14	14.20	321.88	330.22
14.30	2.14	14.30	6.08	14.30	336.59	344.81
14.40	2.10	14.40	6.03	14.40	351.40	359.52
14.50	2.05	14.50	5.97	14.50	366.32	374.34
14.60	2.01	14.60	5.91	14.60	381.34	389.26
14.70	1.97	14.70	5.85	14.70	396.45	404.27
14.80	1.93	14.80	5.79	14.80	411.67	419.40
14.90	1.89	14.90	5.74	14.90	426.97	434.60
15.00	1.85	15.00	5.67	15.00	442.37	449.89
15.10	1.81	15.10	5.61	15.10	457.87	465.29
15.20	1.77	15.20	5.54	15.20	473.44	480.75
15.30	1.72	15.30	5.48	15.30	489.11	496.31
15.40	1.68	15.40	5.42	15.40	504.86	511.96
15.50	1.64	15.50	5.35	15.50	520.69	527.68
15.60	1.60	15.60	5.28	15.60	536.60	543.48
15.70	1.56	15.70	5.22	15.70	552.59	559.37

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
15.80	1.52	15.80	5.15	15.80	568.66	575.33
15.90	1.48	15.90	5.08	15.90	584.80	591.36
16.00	1.44	16.00	5.01	16.00	601.02	607.47
16.10	1.40	16.10	4.94	16.10	617.30	623.64
16.20	1.37	16.20	4.88	16.20	633.65	639.89
16.30	1.34	16.30	4.81	16.30	650.07	656.22
16.40	1.33	16.40	4.74	16.40	666.56	672.63
16.50	1.31	16.50	4.68	16.50	683.12	689.12
16.60	1.30	16.60	4.68	16.60	699.75	705.73
16.70	1.28	16.70	4.68	16.70	716.44	722.40
16.80	1.27	16.80	4.68	16.80	733.19	739.14
16.90	1.25	16.90	4.67	16.90	750.02	755.95
17.00	1.24	17.00	4.67	17.00	766.90	772.81
17.10	1.22	17.10	4.65	17.10	783.85	789.72
17.20	1.21	17.20	4.62	17.20	800.86	806.68
17.30	1.19	17.30	4.58	17.30	817.93	823.71
17.40	1.18	17.40	4.55	17.40	835.07	840.80
17.50	1.17	17.50	4.51	17.50	852.26	857.94
17.60	1.15	17.60	4.48	17.60	869.52	875.15
17.70	1.14	17.70	4.44	17.70	886.83	892.41
17.80	1.12	17.80	4.41	17.80	904.20	909.73
17.90	1.11	17.90	4.37	17.90	921.63	927.11
18.00	1.09	18.00	4.34	18.00	939.11	944.54
18.10	1.08	18.10	4.30	18.10	956.65	962.03
18.20	1.06	18.20	4.27	18.20	974.25	979.58
18.30	1.05	18.30	4.23	18.30	991.90	997.18
18.40	1.03	18.40	4.20	18.40	1009.60	1014.83
18.50	1.02	18.50	4.16	18.50	1027.36	1032.54
18.60	1.00	18.60	4.13	18.60	1045.17	1050.30
18.70	0.99	18.70	4.09	18.70	1063.03	1068.11
18.80	0.97	18.80	4.06	18.80	1080.94	1085.97
18.90	0.96	18.90	4.02	18.90	1098.90	1103.88
19.00	0.94	19.00	3.99	19.00	1116.91	1121.84
19.10	0.93	19.10	3.95	19.10	1134.97	1139.85
19.20	0.91	19.20	3.92	19.20	1153.07	1157.90
19.30	0.90	19.30	3.88	19.30	1171.22	1176.00
19.40	0.88	19.40	3.84	19.40	1189.42	1194.15
19.50	0.87	19.50	3.81	19.50	1207.67	1212.35
19.60	0.86	19.60	3.77	19.60	1225.95	1230.58
19.70	0.84	19.70	3.73	19.70	1244.29	1248.86
19.80	0.83	19.80	3.70	19.80	1262.66	1267.18
19.90	0.81	19.90	3.66	19.90	1281.08	1285.55
20.00	0.80	20.00	3.63	20.00	1299.53	1303.95
20.10	0.78	20.10	3.59	20.10	1318.03	1322.40
20.20	0.77	20.20	3.55	20.20	1336.57	1340.89
20.30	0.77	20.30	3.51	20.30	1355.15	1359.43
20.40	0.76	20.40	3.48	20.40	1373.78	1378.02
20.50	0.76	20.50	3.44	20.50	1392.44	1396.64
20.60	0.76	20.60	3.40	20.60	1411.14	1415.30

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
20.70	0.75	20.70	3.37	20.70	1429.88	1434.00
20.80	0.75	20.80	3.33	20.80	1448.66	1452.74
20.90	0.75	20.90	3.29	20.90	1467.48	1471.52
21.00	0.74	21.00	3.25	21.00	1486.34	1490.34
21.10	0.74	21.10	3.21	21.10	1505.24	1509.20
21.20	0.74	21.20	3.18	21.20	1524.18	1528.10
21.30	0.74	21.30	3.14	21.30	1543.16	1547.03
21.40	0.73	21.40	3.10	21.40	1562.18	1566.01
21.50	0.73	21.50	3.06	21.50	1581.24	1585.03
21.60	0.73	21.60	3.02	21.60	1600.33	1604.08
21.70	0.72	21.70	2.99	21.70	1619.47	1623.18
21.80	0.72	21.80	2.95	21.80	1638.64	1642.31
21.90	0.72	21.90	2.91	21.90	1657.85	1661.48
22.00	0.72	22.00	2.88	22.00	1677.10	1680.69
22.10	0.71	22.10	2.84	22.10	1696.39	1699.94
22.20	0.71	22.20	2.80	22.20	1715.71	1719.22
22.30	0.71	22.30	2.77	22.30	1735.07	1738.54
22.40	0.70	22.40	2.73	22.40	1754.45	1757.88
22.50	0.70	22.50	2.69	22.50	1773.87	1777.26
22.60	0.70	22.60	2.66	22.60	1793.32	1796.67
22.70	0.69	22.70	2.62	22.70	1812.79	1816.11
22.80	0.69	22.80	2.59	22.80	1832.29	1835.57
22.90	0.69	22.90	2.55	22.90	1851.81	1855.05
23.00	0.69	23.00	2.51	23.00	1871.35	1874.55
23.10	0.68	23.10	2.48	23.10	1890.91	1894.07
23.20	0.68	23.20	2.44	23.20	1910.48	1913.60
23.30	0.68	23.30	2.41	23.30	1930.07	1933.15
23.40	0.67	23.40	2.37	23.40	1949.67	1952.72
23.50	0.67	23.50	2.34	23.50	1969.27	1972.28
23.60	0.67	23.60	2.31	23.60	1988.89	1991.86
23.70	0.67	23.70	2.27	23.70	2008.51	2011.45
23.80	0.66	23.80	2.24	23.80	2028.13	2031.03
23.90	0.66	23.90	2.20	23.90	2047.74	2050.60
24.00	0.66	24.00	2.17	24.00	2067.34	2070.16
24.10	0.52	24.10	2.13	24.10	2086.89	2089.55
24.20	0.26	24.20	2.09	24.20	2106.39	2108.74
24.30	0.09	24.30	2.05	24.30	2125.82	2127.95
24.40		24.40	2.00	24.40	2145.18	2147.18
24.50		24.50	1.94	24.50	2164.47	2166.41
24.60		24.60	1.88	24.60	2183.67	2185.55
24.70		24.70	1.83	24.70	2202.77	2204.60
24.80		24.80	1.78	24.80	2221.76	2223.54
24.90		24.90	1.73	24.90	2240.63	2242.36
25.00		25.00	1.68	25.00	2259.37	2261.05
25.10		25.10	1.62	25.10	2277.95	2279.57
25.20		25.20	1.56	25.20	2296.34	2297.90
25.30		25.30	1.51	25.30	2314.49	2316.00
25.40		25.40	1.45	25.40	2332.39	2333.84
25.50		25.50	1.40	25.50	2349.69	2351.09

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
25.60		25.60	1.35	25.60	2365.67	2367.02
25.70		25.70	1.30	25.70	2379.21	2380.51
25.80		25.80	1.25	25.80	2387.53	2388.78
25.90		25.90	1.19	25.90	2391.79	2392.98
26.00		26.00	1.12	26.00	2395.20	2396.32
26.10		26.10	1.06	26.10	2397.85	2398.91
26.20		26.20	1.00	26.20	2399.86	2400.86
26.30		26.30	0.94	26.30	2401.30	2402.24
26.40		26.40	0.89	26.40	2402.29	2403.18
26.50		26.50	0.84	26.50	2402.89	2403.73
26.60		26.60	0.79	26.60	2403.13	2403.92
26.70		26.70	0.75	26.70	2403.02	2403.77
26.80		26.80	0.70	26.80	2402.58	2403.28
26.90		26.90	0.67	26.90	2401.85	2402.52
27.00		27.00	0.63	27.00	2400.83	2401.46
27.10		27.10	0.59	27.10	2399.55	2400.14
27.20		27.20	0.56	27.20	2398.01	2398.57
27.30		27.30	0.53	27.30	2396.22	2396.75
27.40		27.40	0.51	27.40	2394.21	2394.72
27.50		27.50	0.48	27.50	2391.97	2392.45
27.60		27.60	0.46	27.60	2389.53	2389.99
27.70		27.70	0.43	27.70	2386.89	2387.32
27.80		27.80	0.41	27.80	2384.05	2384.46
27.90		27.90	0.39	27.90	2381.03	2381.42
28.00		28.00	0.37	28.00	2377.83	2378.20
28.10		28.10	0.35	28.10	2374.46	2374.81
28.20		28.20	0.34	28.20	2370.92	2371.26
28.30		28.30	0.32	28.30	2367.21	2367.53
28.40		28.40	0.30	28.40	2363.34	2363.64
28.50		28.50	0.29	28.50	2359.30	2359.59
28.60		28.60	0.27	28.60	2355.11	2355.38
28.70		28.70	0.26	28.70	2350.77	2351.03
28.80		28.80	0.25	28.80	2346.27	2346.52
28.90		28.90	0.23	28.90	2341.63	2341.86
29.00		29.00	0.22	29.00	2336.84	2337.06
29.10		29.10	0.21	29.10	2331.91	2332.12
29.20		29.20	0.20	29.20	2326.84	2327.04
29.30		29.30	0.19	29.30	2321.64	2321.83
29.40		29.40	0.18	29.40	2316.30	2316.48
29.50		29.50	0.17	29.50	2310.84	2311.01
29.60		29.60	0.16	29.60	2305.25	2305.41
29.70		29.70	0.15	29.70	2299.54	2299.69
29.80		29.80	0.15	29.80	2293.71	2293.86
29.90		29.90	0.14	29.90	2287.77	2287.91
30.00		30.00	0.13	30.00	2281.71	2281.84
30.10		30.10	0.13	30.10	2275.54	2275.67
30.20		30.20	0.12	30.20	2269.27	2269.39
30.30		30.30	0.11	30.30	2262.88	2262.99
30.40		30.40	0.11	30.40	2256.38	2256.49

Flow Not Detained		Flow Detained		Big Slough		Combined
Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Time (hrs)	Q (cfs)	Q (cfs)
30.50		30.50	0.10	30.50	2249.78	2249.88
30.60		30.60	0.10	30.60	2243.07	2243.17
30.70		30.70	0.09	30.70	2236.26	2236.35
30.80		30.80	0.09	30.80	2229.34	2229.43
30.90		30.90	0.08	30.90	2222.32	2222.40
31.00		31.00	0.08	31.00	2215.20	2215.28
31.10		31.10	0.08	31.10	2207.98	2208.06
31.20		31.20	0.07	31.20	2200.66	2200.73
31.30		31.30	0.07	31.30	2193.24	2193.31
31.40		31.40	0.06	31.40	2185.73	2185.79
31.50		31.50	0.06	31.50	2178.12	2178.18
31.60		31.60	0.06	31.60	2170.42	2170.48
31.70		31.70	0.06	31.70	2162.62	2162.68
31.80		31.80	0.05	31.80	2154.74	2154.79
31.90		31.90	0.05	31.90	2146.76	2146.81
32.00		32.00	0.05	32.00	2138.69	2138.74
32.10		32.10	0.04	32.10	2130.54	2130.58
32.20		32.20	0.04	32.20	2122.29	2122.33
32.30		32.30	0.04	32.30	2113.96	2114.00
32.40		32.40	0.04	32.40	2105.55	2105.59
32.50		32.50	0.04	32.50	2097.06	2097.10
32.60		32.60	0.03	32.60	2088.48	2088.51
32.70		32.70	0.03	32.70	2079.82	2079.85
32.80		32.80	0.03	32.80	2071.08	2071.11
32.90		32.90	0.03	32.90	2062.26	2062.29
33.00		33.00	0.03	33.00	2053.37	2053.40
33.10		33.10	0.03	33.10	2044.40	2044.43
33.20		33.20	0.03	33.20	2035.36	2035.39
33.30		33.30	0.02	33.30	2026.24	2026.26
33.40		33.40	0.02	33.40	2017.05	2017.07
33.50		33.50	0.02	33.50	2007.78	2007.80
33.60		33.60	0.02	33.60	1998.45	1998.47
33.70		33.70	0.02	33.70	1989.05	1989.07
33.80		33.80	0.02	33.80	1979.58	1979.60
33.90		33.90	0.02	33.90	1970.05	1970.07
34.00		34.00	0.02	34.00	1960.45	1960.47
34.10		34.10	0.02	34.10	1950.78	1950.80
34.20		34.20	0.02	34.20	1941.05	1941.07
34.30		34.30	0.01	34.30	1931.26	1931.27
34.40		34.40	0.01	34.40	1921.40	1921.41
34.50		34.50	0.01	34.50	1911.48	1911.49
34.60		34.60	0.01	34.60	1901.49	1901.50
34.70		34.70	0.01	34.70	1891.44	1891.45
34.80		34.80	0.01	34.80	1881.32	1881.33
34.90		34.90	0.01	34.90	1871.14	1871.15
35.00		35.00	0.01	35.00	1860.90	1860.91

AUSTIN MILLER, P. A.

254 S. Laura; Suite 210, Wichita, Kansas 67211 316.262.1281 fax: 316.262.6773 e-mail: foram@feist.com

August 5, 1999

VIA FACSIMILE

Memo To: Mr. Jim Weber, P. E.
SG Co. Bureau of Public Works

From: Tim Austin, P. E.

RE: **Hoskinson 2nd Addition**
Drainage Plan

Jim,

Attached is the drainage plan for Hoskinson 2nd Addition. We are planning to drain the water via stormsewer to the existing lake. The existing lake (19.5 acres ±) is sufficient for on-site detention and has previously been covenanted as such (see attached recorded document). Our client is currently anticipating that the lake will need to be expanded somewhat to obtain some additional fill for the land west of the lake.

The property has previously been filled and the existing grade is above the flood-plain elevation shown on the FEMA maps (see attached survey by M. S. Mitchell). We have also advised our client that a LOMR will probably need to be filed prior to a building permit. Based upon Mitch's survey, we plan to establish minimum pad elevation of 1333 MSL.

Please call if you have any questions.

Thanks.

FILM 1230 PAGE 0304

CENTRAL SAND INC.

A TRACT OF LAND IN THE E 1/2 OF THE NE 1/4 OF SECTION 33, TOWNSHIP 27 SOUTH, RANGE 1 WEST OF THE 6TH P.M. DESCRIBED AS FOLLOWS: COMMENCING AT THE N.E. CORNER OF THE N.E. 1/4 OF SAID SECTION 33; THENCE BEARING S 89°29'08" W ALONG THE NORTH LINE OF SAID N.E. 1/4 A DISTANCE OF 75.84 FEET; THENCE BEARING S 0°30'52" E A DISTANCE OF 75.00 FEET TO THE POINT OF BEGINNING; THENCE BEARING S 0°07'35" W PARALLEL TO AND 75 FEET WEST OF THE EAST LINE OF SAID N.E. 1/4 A DISTANCE OF 174.16 FEET; THENCE BEARING S 8°24'16" E A DISTANCE OF 101.12 FEET; THENCE BEARING S 0°07'35" W PARALLEL TO AND 60 FEET WEST OF THE EAST LINE OF SAID N.E. 1/4 A DISTANCE OF 1500.00 FEET; THENCE BEARING N 89°52'25" W A DISTANCE OF 120.00 FEET; THENCE BEARING N 7°17'38" W A DISTANCE OF 140.37 FEET; THENCE BEARING N 24°32'44" W A DISTANCE OF 139.62 FEET; THENCE BEARING N 43°13'43" W A DISTANCE OF 68.62 FEET; THENCE BEARING N 18°49'00" W A DISTANCE OF 713.11 FEET; THENCE BEARING N 8°21'33" W A DISTANCE OF 68.73 FEET; THENCE BEARING N 0°00'00" E A DISTANCE OF 220.00 FEET; THENCE BEARING N 3°44'42" W A DISTANCE OF 275.60 FEET; THENCE BEARING N 37°08'03" W A DISTANCE OF 42.70 FEET; THENCE BEARING S 89°29'08" W A DISTANCE OF 292.00; THENCE BEARING N 0°30'52" W A DISTANCE OF 206.00 FEET; THENCE BEARING N 89°29'08" E PARALLEL TO AND 50.00 FEET SOUTH OF THE NORTH LINE OF SAID N.E. 1/4 A DISTANCE OF 535.00 FEET; THENCE BEARING S 76°28'42" E A DISTANCE OF 103.08 FEET; THENCE BEARING N 89°29'08" E PARALLEL TO AND 75.00 FEET SOUTH OF THE NORTH LINE OF SAID N.E. 1/4 A DISTANCE OF 174.16 FEET TO THE POINT OF BEGINNING. CONTAINING 17.158 ACRES MORE OR LESS.

State of Kansas)
) SS
County of Sedgwick)

I, M. S. Mitchell, a Registered Land Surveyor in said state and county do hereby certify that the above is a true and correct description of the area filled to Base Flood Elevation and above, as shown on the accompanying map.

March 6, 1992

M. S. Mitchell L. S. #486

STATE OF KANSAS } SS
SEDGWICK COUNTY
FILED FOR RECORD AT
4:30 P M
MAR 6 92 1192795
PAT KETTLER
REGISTER OF DEEDS
Ed Reed
Deputy

SANDRA D. CALL
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 6-19-94

M.S. MITCHELL
REGISTERED
LS-486
KANSAS
LAND SURVEYOR

State of Kansas

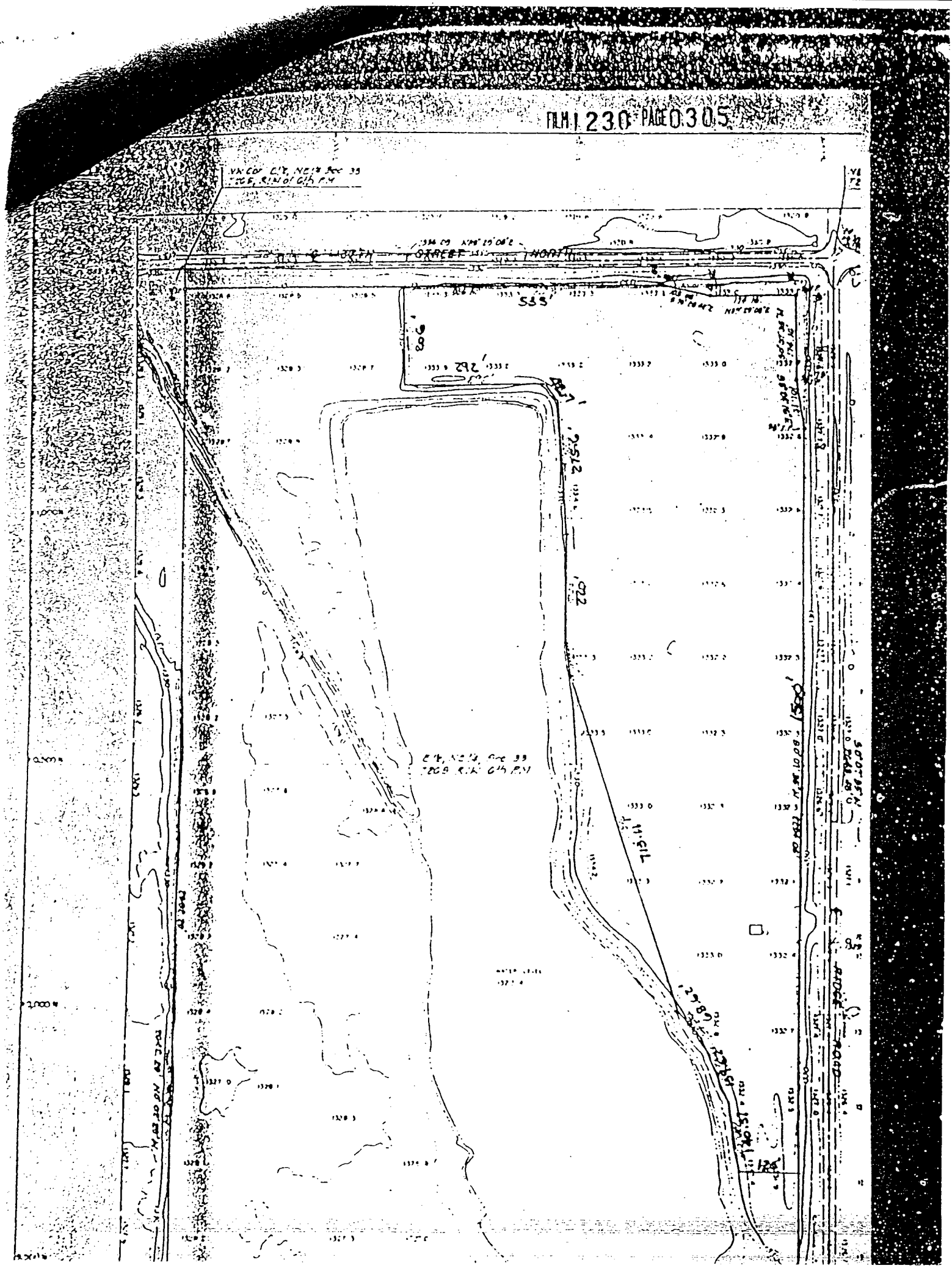
County of Sedgwick

This instrument was acknowledged before me on March 6, 1992 by M.S. Mitchell

Sandra D. Call
Signature of Notary Public
My appointment expires: 6.19.94

M.S. Mitchell 1215 Forest Wichita C7203

800


NORTH STREET
NORTH
595
292'
2512'
022'
1500'
7191'
2780'
SOUTHERN ROAD
ROAD

RIDGE ROAD
N 89° 16' 45" E 230.00'
N 89° 16' 45" E 230.00'
N 89° 16' 45" E 230.00'

RECEIVED FOR RECORD

FLM 0837 PAGE 0395

Sedgwick County, Kansas

FLOODWAY RESERVE AGREEMENT

WHEREAS, to assure protection of the interests and safety of the public, it becomes necessary that Sedgwick County, State of Kansas, Party of the First Part, provide flood protection and preserve the natural drainageway through the establishment of a "FLOODWAY RESERVE" within the property below described.

STATE OF KANSAS, SEDGWICK COUNTY } ss
FILED FOR RECORD AT

OCT 9 1986

NO 8 37862

PAT KETTLER
REGISTER OF DEEDS

E L Reed
Deputy

THE EAST 1/2 OF THE NORTHEAST 1/4, SECTION 33, T26S, R1W OF THE 6th P.M.; EXCEPT ROAD RIGHT-OF-WAY.

AND WHEREAS, Lola B. Torkleson, Party of the Second Part, is the rightful owner of, or legal agent for, the above property;

THE PARTIES HERETO AGREE as follows: That the Party of the Second Part, for himself, his heirs, executors, administrators, and assigns for the consideration of ONE Dollars and zero Cents ($ 1.00), and other valuable consideration as follows: ___

One dollar ($1.00) of the above amount being paid in hand and receipt therefore being hereby acknowledged, the remainder to be allowed at the next regular meeting of the Board of County Commissioners when claim is presented as required by law in similar cases do ___ hereby Grant and Convey to the Party of the First Part and its successors a "FLOODWAY RESERVE" over and across the following described portion of the above described tract, to-wit:

A TRACT OF LAND 300 FEET WIDE ON EITHER SIDE OF THE FOLLOWING DESCRIBED LINE:
COMMENCING AT THE NW CORNER OF THE E 1/2, NE 1/4, SECTION 33, T26S, R1W of the 6th P.M.; THENCE SOUTH ALONG THE WEST LINE OF THE E 1/2 OF SAID 1/4 SECTION, 200 FEET TO THE POINT OF BEGINNING; THENCE SOUTHEASTERLY TO THE SOUTHEAST CORNER OF SAID 1/4 SECTION.

FURTHER, the "FLOODWAY RESERVE" shall be the responsibility of the owners of the property, Party of the Second Part, until such time as the governing body excercising jurisdiction elects to assume the responsibility for maintenance of and improvement of drainage. Provided further that no building shall be constructed on or within said "FLOODWAY RESERVE" nor shall any fill, change of grade, creation of channels or other work be carried on without the permission of the Sedgwick County Engineer and the Wichita-Valley Center Flood Control Office or their successors. Grantor ___ their heirs or assigns, to fully use and enjoy the premises except for and subject to the right of the grantee for the purpose herein granted.

DATED THIS 22nd DAY OF September, 19 86.

PARTY OF THE SECOND PART

Lola B Torkleson
Lola B. Torkleson

County Clerk Vicki

BOOK 0837 PAGE 0396

STATE OF KANSAS)
SEDGWICK COUNTY) ss

I hereby certify that on this 22nd day of September, 19 86, before me the undersigned, a Notary Public in and for the County and State aforesaid, came Lola B. Torkleson to me personally known to be the same person who signed and executed the above and foregoing instrument and duly acknowledged the execution of the same.

WITNESS my hand and Notary Seal on the day and date last above written.

NOTARY PUBLIC

My commission expires

SUBMITTED TO THE OFFICE OF COUNTY ENGINEER AND THE BOARD OF COUNTY COMMISSIONERS FOR APPROVAL ON October 8, 1986

APPROVED BY:

DAVID C. SPEARS, P.E.,
COUNTY ENGINEER/DIRECTOR OF
PUBLILIC WORKS

PARTY OF THE FIRST PART
SEDGWICK COUNTY COMMISSIONERS

BERNARD A. HENTZEN,
CHAIRMAN

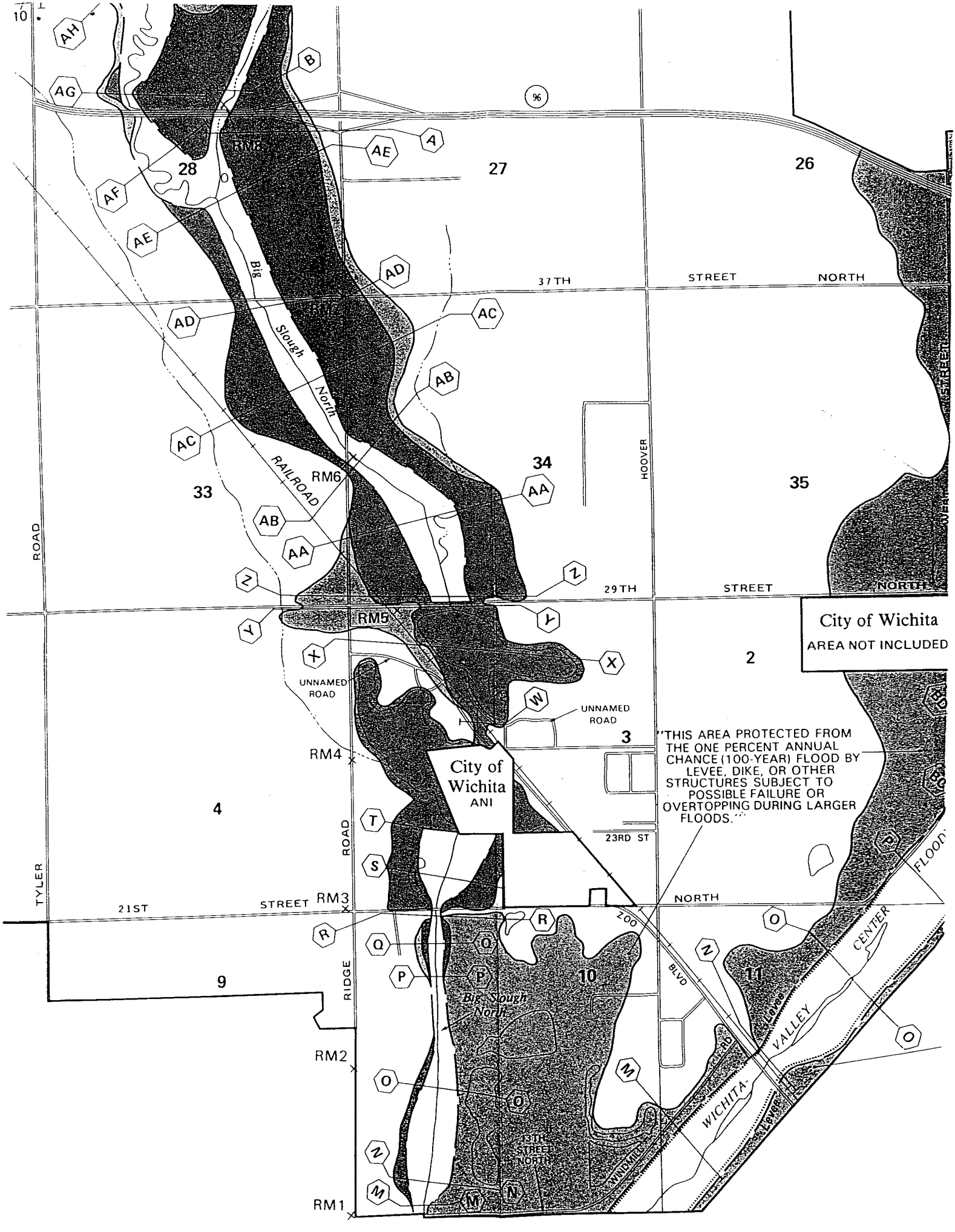
DONALD E. GRAGG,
COMMISSIONER

TOM SCOTT
COMMISSIONER

ATTEST: [illegible]
COUNTY CLERK

APPROVED AS TO FORM ONLY

RICHARD A. EUSON, ASSIST.
COUNTY COUNSELOR


10
AH
AG
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A
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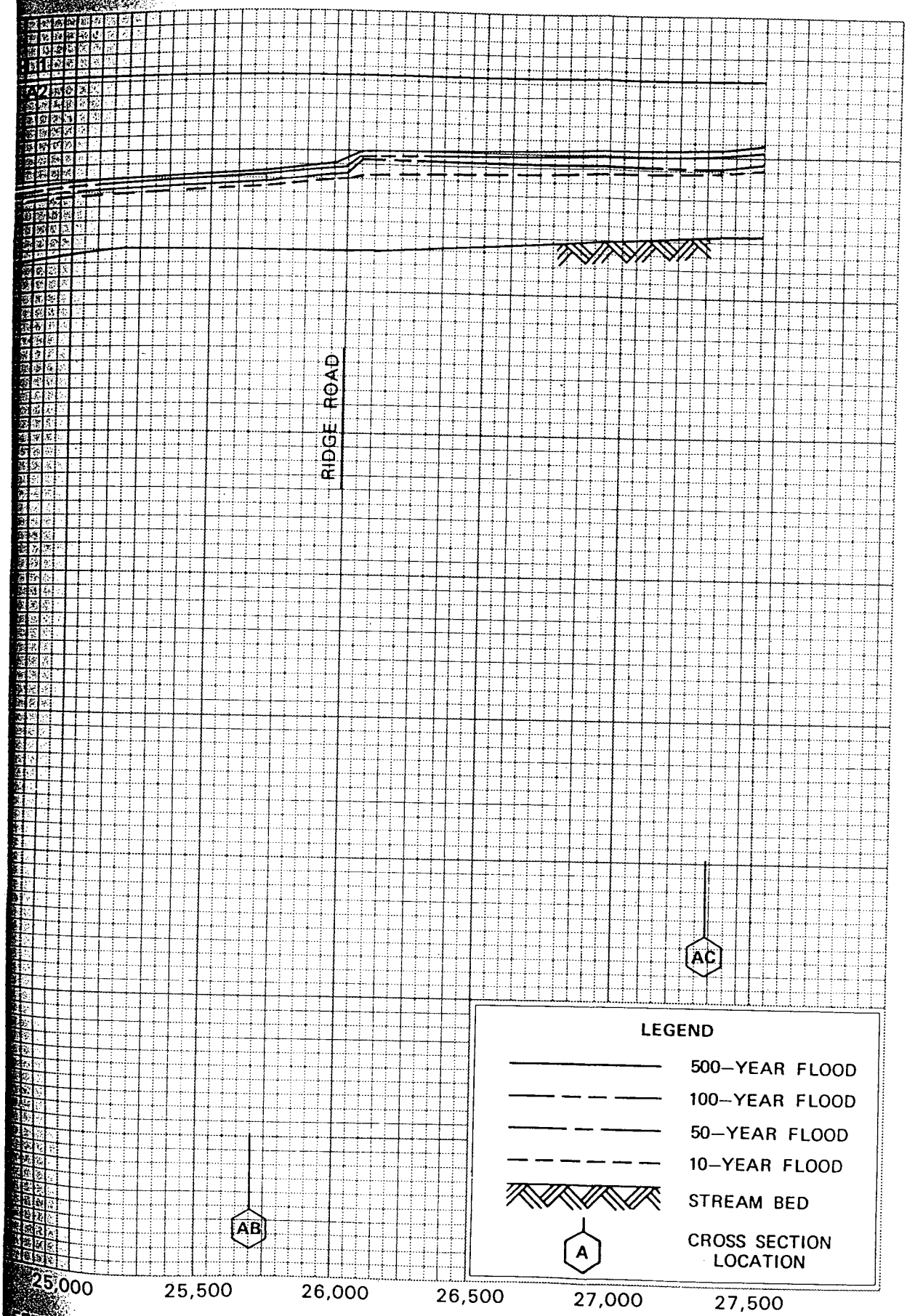
RM8
28
27
26
AF
AE
Big
Slough
North
AD
37TH
STREET
NORTH
AD
AC
RM7
AB
AC
RAILROAD
RM6
33
34
35
HOOVER
AB
AA
AA
ROAD
Z
Z
29TH
STREET
NORTH
RM5
Y
Y
City of Wichita
AREA NOT INCLUDED
X
X
2
UNNAMED
ROAD
W
UNNAMED
ROAD
3
"THIS AREA PROTECTED FROM THE ONE PERCENT ANNUAL CHANCE (100-YEAR) FLOOD BY LEVEE, DIKE, OR OTHER STRUCTURES SUBJECT TO POSSIBLE FAILURE OR OVERTOPPING DURING LARGER FLOODS."
RM4
City of Wichita
ANI
4
T
23RD ST
ROAD
S
TYLER
21ST
STREET
RM3
NORTH
R
R
ZOO
O
Q
Q
O
N
CENTER
P
P
10
11
BLVD
9
RIDGE
Big Slough North
VALLEY
RM2
O
O
M
WICHITA
13TH STREET NORTH
WINDMILL
N
M
M
N
RM1

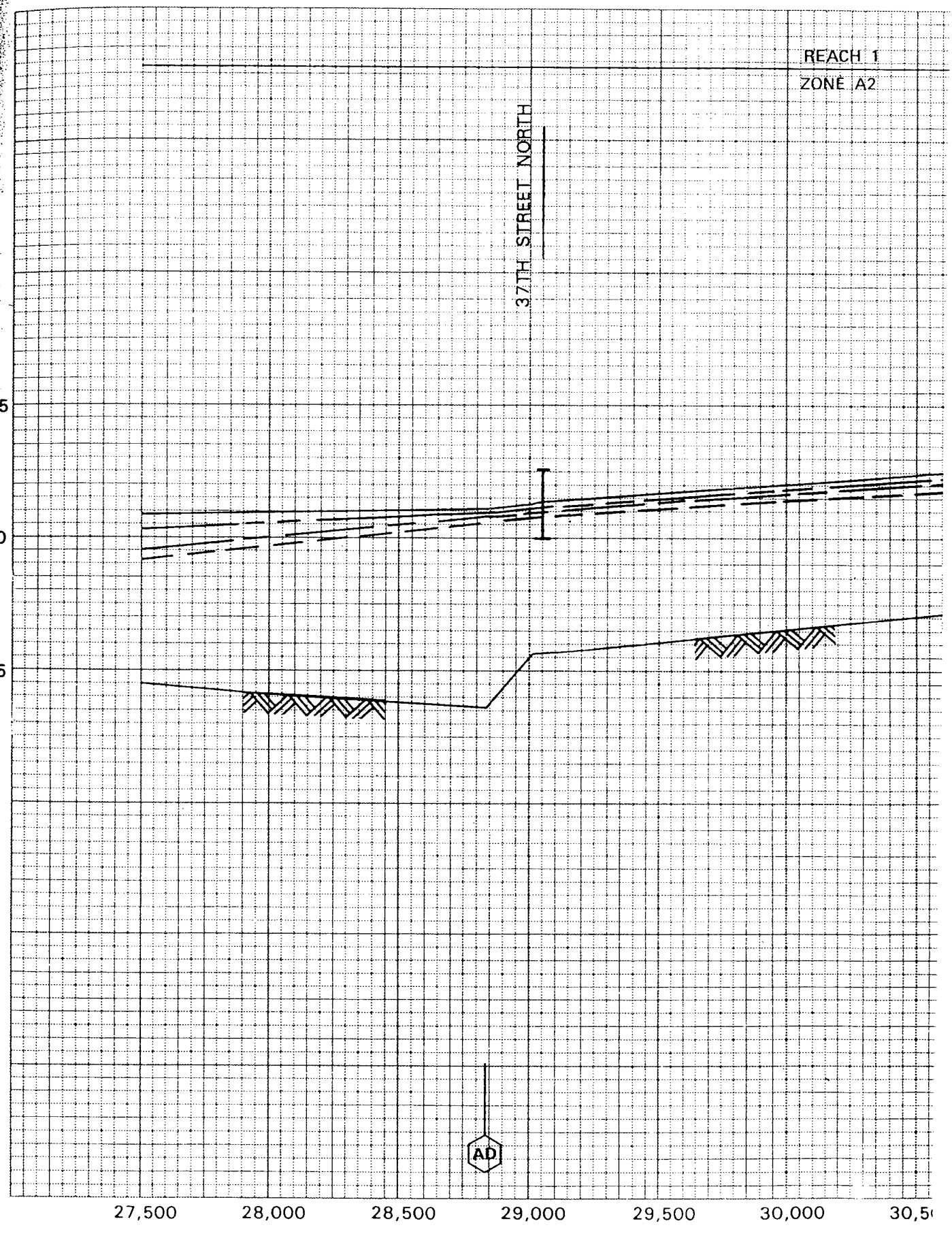


FLOOD PROFILES

BIG SLOUGH NORTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

SEDGWICK COUNTY, KS
(UNINCORPORATED AREAS)


REACH 1
ZONE A2
37TH STREET NORTH
1335
1330
1325
1320
ELEVATION IN FEET (NGVD)
AD
27,500
28,000
28,500
29,000
29,500
30,000
STREAM DISTANCE IN FEET AI