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TRANSMITTAL

December 27, 2000

To: Vicki Huang, P.E.
City of Wichita
455 N. Main, 7th Floor
Wichita, KS 67202

RE: Spencer Gardens Drainage Plan

AM No: 00390

We transmit the following:

_____ Bluelines	__X__ Photocopies	_____ Legal Desc.
_____ Originals	_____ Shop Drawings	_____ Application

# Copies	Dated	Description
2		Drainage Plan & Calcs

Remarks:

AUSTIN MILLER, P.A.

Doug Klassen, I.E.

JOB SPENCER GARDENS DRAINAGE
SHEET NO. 1 OF 2
CALCULATED BY DK DATE 12/22/00
CHECKED BY _____ DATE _____
SCALE _____

SPENCER GARDENS DRAINAGE:

$DA-2 = \frac{481304}{43560} = 11.05 Ac$

$DA-1 = \frac{503139}{43560} = 11.55 Ac$

UNDEVELOPED CONDITIONS: SOIL GROUP D

5-YEAR: $I = 4.56 in/hr$ $C = 0.54$

$Q_{5_{DA-1}} = (0.54)(4.56)(11.55) = 28.4 cfs$

$Q_{5_{DA-2}} = (0.54)(4.56)(11.05) = 27.2 cfs$

TOTAL $Q_5 = 55.6 cfs$

100-YEAR: $I = 7.37 in/hr$ $C = 0.68$

$Q_{100_{DA-1}} = (0.68)(7.37)(11.55) = 57.9 cfs$

$Q_{100_{DA-2}} = (0.68)(7.37)(11.05) = 55.4 cfs$

TOTAL $Q_{100} = 113.3 cfs$

DEVELOPED CONDITIONS:

5-YEAR: $I = 4.56$ $C = 0.69$

$Q_{5_{DA-1}} = (0.69)(4.56)(11.55) = 36.3 cfs$

$Q_{5_{DA-2}} = (0.69)(4.56)(11.05) = 34.8 cfs$

TOTAL $Q_5 = 71.1 cfs$

100-YEAR: $I = 7.37 in/hr$ $C = 0.80$

$Q_{100_{DA-1}} = (0.80)(7.37)(11.55) = 68.1 cfs$

$Q_{100_{DA-2}} = (0.80)(7.37)(11.05) = 65.2 cfs$

TOTAL $Q_{100} = 133.3 cfs$

JOB SPENCER GARDENS DRAINAGE
SHEET NO. 2 OF 2
CALCULATED BY DK DATE 12/22/00
CHECKED BY _____ DATE _____
SCALE _____

CAPACITY OF 30" PIPE (EXISTING)

SLOPE = 1.22% $n = 0.013$

$A = 4.909\ ft^2$

$R = 0.625\ ft$

$$Q = \frac{1.49}{n} A R^{2/3} \sqrt{S}$$

$$= \frac{1.49}{0.013} (4.909)(0.625)^{2/3} \sqrt{0.0122}$$

$$= 45.4\ cfs$$

DA-2 + 30" = 55.4 + 45.4 = 100.8

TOTAL UNDEVELOPED RUNOFF INCL. 30":

55.4 + 45.4 + 57.9 = 158.7 cfs (ALLOWABLE)

TOTAL DEVELOPED RUNOFF W/ DETENTION POND:

68.1 + 52.1 = 120.2 cfs < 158.7 Allowed

Hydrograph Report

Hyd. No. 1

DA-2

Hydrograph type	= Rational	Peak discharge	= 65.11 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 11.05 ac	Runoff coeff.	= .8
Intensity	= 7.37 in/hr	Time of conc. (Tc)	= 15 min
I-D-F Curve	= WICHITA.IDF	Reced. limb factor	= 1

Total Volume = 58,596 cuft, 1.345 acft

Hydrograph Discharge Table

Time (hrs)	Outflow cfs)
0.02	4.34
0.03	8.68
0.05	13.02
0.07	17.36
0.08	21.70
0.10	26.04
0.12	30.38
0.13	34.72
0.15	39.06
0.17	43.40
0.18	47.75
0.20	52.09
0.22	56.43
0.23	60.77
0.25	65.11 <<
0.27	60.77
0.28	56.43
0.30	52.09
0.32	47.75
0.33	43.40
0.35	39.06
0.37	34.72
0.38	30.38
0.40	26.04
0.42	21.70
0.43	17.36
0.45	13.02
0.47	8.68
0.48	4.34

...End

Hydrograph Report

Hyd. No. 2

Drainage from Exist 30"

Hydrograph type	= Rational	Peak discharge	= 45.37 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 7 ac	Runoff coeff.	= .88
Intensity	= 7.37 in/hr	Time of conc. (Tc)	= 15 min
I-D-F Curve	= WICHITA.IDF	Reced. limb factor	= 1

Hydrograph Discharge Table

Total Volume = 40,832 cuft, 0.937 acft

Time (hrs)	Outflow cfs)
0.02	3.02
0.03	6.05
0.05	9.07
0.07	12.10
0.08	15.12
0.10	18.15
0.12	21.17
0.13	24.20
0.15	27.22
0.17	30.25
0.18	33.27
0.20	36.30
0.22	39.32
0.23	42.34
0.25	45.37 <<
0.27	42.34
0.28	39.32
0.30	36.30
0.32	33.27
0.33	30.25
0.35	27.22
0.37	24.20
0.38	21.17
0.40	18.15
0.42	15.12
0.43	12.10
0.45	9.07
0.47	6.05
0.48	3.02

...End

Hydrograph Report

Hyd. No. 3

Hydrograph type	= Combine	Peak discharge	= 110.48 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
1st inflow hyd. No.	= 1	2nd inflow hyd. No.	= 2

Total Volume = 99,428 cuft, 2.283 acft

Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
0.02	4.34		3.02		7.37
0.03	8.68		6.05		14.73
0.05	13.02		9.07		22.10
0.07	17.36		12.10		29.46
0.08	21.70		15.12		36.83
0.10	26.04		18.15		44.19
0.12	30.38		21.17		51.56
0.13	34.72		24.20		58.92
0.15	39.06		27.22		66.29
0.17	43.40		30.25		73.65
0.18	47.75		33.27		81.02
0.20	52.09		36.30		88.38
0.22	56.43		39.32		95.75
0.23	60.77		42.34		103.11
0.25	65.11 <<		45.37 <<		110.48 <<
0.27	60.77		42.34		103.11
0.28	56.43		39.32		95.75
0.30	52.09		36.30		88.38
0.32	47.75		33.27		81.02
0.33	43.40		30.25		73.65
0.35	39.06		27.22		66.29
0.37	34.72		24.20		58.92
0.38	30.38		21.17		51.56
0.40	26.04		18.15		44.19
0.42	21.70		15.12		36.83
0.43	17.36		12.10		29.46
0.45	13.02		9.07		22.10
0.47	8.68		6.05		14.73
0.48	4.34		3.02		7.37

...End

Hydrograph Report

Hyd. No. 4

Hydrograph type	= Reservoir	Peak discharge	= 52.10 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Inflow hyd. No.	= 3	Reservoir name	= Pond Option 3
Max. Elevation	= 1302.84 ft	Max. Storage	= 46,628 cuft

Storage Indication method used.

Total Volume = 99,428 cuft, 2.283 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)
0.02	7.37	1299.02	1.45	-----	-----	-----	-----	-----	1.45
0.03	14.73	1299.07	5.22	-----	-----	-----	-----	-----	5.22
0.05	22.10	1299.14	8.92	-----	-----	-----	-----	-----	8.92
0.07	29.46	1299.24	11.75	-----	-----	-----	-----	-----	11.75
0.08	36.83	1299.37	14.59	-----	-----	-----	-----	-----	14.59
0.10	44.19	1299.53	17.45	-----	-----	-----	-----	-----	17.45
0.12	51.56	1299.71	20.22	-----	-----	-----	-----	-----	20.22
0.13	58.92	1299.93	23.19	-----	-----	-----	-----	-----	23.19
0.15	66.29	1300.14	25.74	-----	-----	-----	-----	-----	25.74
0.17	73.65	1300.37	28.21	-----	-----	-----	-----	-----	28.21
0.18	81.02	1300.63	30.73	-----	-----	-----	-----	-----	30.72
0.20	88.38	1300.91	33.27	-----	-----	-----	-----	-----	33.27
0.22	95.75	1301.19	35.59	-----	-----	-----	-----	-----	35.59
0.23	103.11	1301.47	37.84	-----	-----	-----	-----	-----	37.84
0.25	110.48 <<	1301.78	40.13	-----	-----	-----	-----	-----	40.13
0.27	103.11	1302.07	42.60	-----	-----	-----	-----	-----	42.60
0.28	95.75	1302.29	45.47	-----	-----	-----	-----	-----	45.47
0.30	88.38	1302.46	47.69	-----	-----	-----	-----	-----	47.69
0.32	81.02	1302.61	49.39	-----	-----	-----	-----	-----	49.39
0.33	73.65	1302.71	50.63	-----	-----	-----	-----	-----	50.63
0.35	66.29	1302.79	51.48	-----	-----	-----	-----	-----	51.48
0.37	58.92	1302.83	51.96	-----	-----	-----	-----	-----	51.96
0.38	51.56	1302.84 <<	52.10	-----	-----	-----	-----	-----	52.10 <<
0.40	44.19	1302.83	51.92	-----	-----	-----	-----	-----	51.92
0.42	36.83	1302.78	51.42	-----	-----	-----	-----	-----	51.42
0.43	29.46	1302.71	50.63	-----	-----	-----	-----	-----	50.63
0.45	22.10	1302.62	49.52	-----	-----	-----	-----	-----	49.52
0.47	14.73	1302.50	48.10	-----	-----	-----	-----	-----	48.10
0.48	7.37	1302.36	46.35	-----	-----	-----	-----	-----	46.35
0.50	0.00	1302.19	44.26	-----	-----	-----	-----	-----	44.26
0.52	0.00	1302.02	41.98	-----	-----	-----	-----	-----	41.98
0.53	0.00	1301.84	40.54	-----	-----	-----	-----	-----	40.54
0.55	0.00	1301.66	39.23	-----	-----	-----	-----	-----	39.23
0.57	0.00	1301.48	37.91	-----	-----	-----	-----	-----	37.91
0.58	0.00	1301.31	36.59	-----	-----	-----	-----	-----	36.59
0.60	0.00	1301.15	35.28	-----	-----	-----	-----	-----	35.28
0.62	0.00	1300.99	33.95	-----	-----	-----	-----	-----	33.95

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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)
0.63	0.00	1300.81	32.40	-----	-----	-----	-----	-----	32.40
0.65	0.00	1300.64	30.85	-----	-----	-----	-----	-----	30.85
0.67	0.00	1300.48	29.31	-----	-----	-----	-----	-----	29.31
0.68	0.00	1300.33	27.76	-----	-----	-----	-----	-----	27.76
0.70	0.00	1300.19	26.21	-----	-----	-----	-----	-----	26.21
0.72	0.00	1300.05	24.66	-----	-----	-----	-----	-----	24.66
0.73	0.00	1299.91	22.93	-----	-----	-----	-----	-----	22.93
0.75	0.00	1299.77	20.59	-----	-----	-----	-----	-----	20.59
0.77	0.00	1299.64	19.24	-----	-----	-----	-----	-----	19.24
0.78	0.00	1299.52	17.38	-----	-----	-----	-----	-----	17.38
0.80	0.00	1299.42	15.52	-----	-----	-----	-----	-----	15.52
0.82	0.00	1299.32	13.64	-----	-----	-----	-----	-----	13.64
0.83	0.00	1299.24	11.76	-----	-----	-----	-----	-----	11.75
0.85	0.00	1299.17	9.86	-----	-----	-----	-----	-----	9.86
0.87	0.00	1299.11	8.05	-----	-----	-----	-----	-----	8.05
0.88	0.00	1299.07	5.38	-----	-----	-----	-----	-----	5.38
0.90	0.00	1299.04	3.27	-----	-----	-----	-----	-----	3.27
0.92	0.00	1299.03	1.98	-----	-----	-----	-----	-----	1.98
0.93	0.00	1299.02	1.20	-----	-----	-----	-----	-----	1.20

...End

Reservoir Report

Reservoir No. 3

Pond Option 3

Culvert / Orifice Structures

		[A]	[B]	[C]
Rise (in)	=	36.0	0.0	0.0
Span (in)	=	36.0	0.0	0.0
No. Barrels	=	1	0	0
Invert El. (ft)	=	1299.00	0.00	0.00
Length (ft)	=	50.0	0.0	0.0
Slope (%)	=	0.50	0.00	0.00
N-Value	=	.013	.013	.013
Orif. Coeff.	=	0.60	0.60	0.60
Multi-Stage	=	-----	No	No

Weir Structures

		[A]	[B]	[C]
Crest Len (ft)	=	0.0	0.0	0.0
Crest El. (ft)	=	0.00	0.00	0.00
Weir Coeff.	=	3.00	3.00	3.00
Eqn. Exp.	=	1.50	1.50	1.50
Multi-Stage	=	No	No	No

Tailwater Elevation = 0.00 ft

Note: All outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Discharge (cfs)
0.0	00	1299.00	0.00	---	---	---	---	---	0.00
0.1	933	1299.10	7.61	---	---	---	---	---	7.61
0.2	1,866	1299.20	10.76	---	---	---	---	---	10.76
0.3	2,799	1299.30	13.18	---	---	---	---	---	13.18
0.4	3,732	1299.40	15.22	---	---	---	---	---	15.22
0.5	4,665	1299.50	17.02	---	---	---	---	---	17.02
0.6	5,598	1299.60	18.64	---	---	---	---	---	18.64
0.7	6,531	1299.70	20.13	---	---	---	---	---	20.13
0.8	7,464	1299.80	20.80	---	---	---	---	---	20.80
0.9	8,397	1299.90	22.83	---	---	---	---	---	22.83
1.0	9,330	1300.00	24.07	---	---	---	---	---	24.07
1.1	10,453	1300.10	25.24	---	---	---	---	---	25.24
1.2	11,576	1300.20	26.36	---	---	---	---	---	26.36
1.3	12,699	1300.30	27.44	---	---	---	---	---	27.44
1.4	13,822	1300.40	28.47	---	---	---	---	---	28.47
1.5	14,945	1300.50	29.47	---	---	---	---	---	29.47
1.6	16,067	1300.60	30.44	---	---	---	---	---	30.44
1.7	17,190	1300.70	31.38	---	---	---	---	---	31.38
1.8	18,313	1300.80	32.29	---	---	---	---	---	32.29
1.9	19,436	1300.90	33.17	---	---	---	---	---	33.17
2.0	20,559	1301.00	34.04	---	---	---	---	---	34.04
2.1	21,879	1301.10	34.88	---	---	---	---	---	34.88
2.2	23,199	1301.20	35.70	---	---	---	---	---	35.70
2.3	24,519	1301.30	36.50	---	---	---	---	---	36.50
2.4	25,839	1301.40	37.28	---	---	---	---	---	37.28

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Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Discharge (cfs)
2.5	27,160	1301.50	38.05	---	---	---	---	---	38.05
2.6	28,480	1301.60	38.80	---	---	---	---	---	38.80
2.7	29,800	1301.70	39.54	---	---	---	---	---	39.54
2.8	31,120	1301.80	40.27	---	---	---	---	---	40.27
2.9	32,440	1301.90	40.98	---	---	---	---	---	40.98
3.0	33,760	1302.00	41.68	---	---	---	---	---	41.68
3.1	35,285	1302.10	43.05	---	---	---	---	---	43.05
3.2	36,809	1302.20	44.37	---	---	---	---	---	44.37
3.3	38,334	1302.30	45.66	---	---	---	---	---	45.66
3.4	39,859	1302.40	46.91	---	---	---	---	---	46.91
3.5	41,384	1302.50	48.13	---	---	---	---	---	48.13
3.6	42,908	1302.60	49.31	---	---	---	---	---	49.31
3.7	44,433	1302.70	50.47	---	---	---	---	---	50.47
3.8	45,958	1302.80	51.61	---	---	---	---	---	51.61
3.9	47,482	1302.90	52.72	---	---	---	---	---	52.72
4.0	49,007	1303.00	53.81	---	---	---	---	---	53.81
4.1	50,744	1303.10	54.87	---	---	---	---	---	54.87
4.2	52,481	1303.20	55.92	---	---	---	---	---	55.92
4.3	54,217	1303.30	56.94	---	---	---	---	---	56.94
4.4	55,954	1303.40	57.95	---	---	---	---	---	57.95
4.5	57,691	1303.50	58.94	---	---	---	---	---	58.94
4.6	59,428	1303.60	59.92	---	---	---	---	---	59.92
4.7	61,165	1303.70	60.87	---	---	---	---	---	60.87
4.8	62,901	1303.80	61.82	---	---	---	---	---	61.82
4.9	64,638	1303.90	62.75	---	---	---	---	---	62.75
5.0	66,375	1304.00	63.67	---	---	---	---	---	63.67

Hydrograph Report

Hyd. No. 5

DA-2 (5 year)

Hydrograph type	= Rational	Peak discharge	= 40.21 cfs
Storm frequency	= 5 yrs	Time interval	= 1 min
Drainage area	= 11.05 ac	Runoff coeff.	= .8
Intensity	= 4.55 in/hr	Time of conc. (Tc)	= 15 min
I-D-F Curve	= WICHITA.IDF	Reced. limb factor	= 1

Total Volume = 36,193 cuft, 0.831 acft

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
0.02	2.68
0.03	5.36
0.05	8.04
0.07	10.72
0.08	13.40
0.10	16.09
0.12	18.77
0.13	21.45
0.15	24.13
0.17	26.81
0.18	29.49
0.20	32.17
0.22	34.85
0.23	37.53
0.25	40.21 <<
0.27	37.53
0.28	34.85
0.30	32.17
0.32	29.49
0.33	26.81
0.35	24.13
0.37	21.45
0.38	18.77
0.40	16.09
0.42	13.40
0.43	10.72
0.45	8.04
0.47	5.36
0.48	2.68

...End

Hydrograph Report

Hyd. No. 6

Exist. 30" (5-year)

Hydrograph type	= Rational	Peak discharge	= 28.02 cfs
Storm frequency	= 5 yrs	Time interval	= 1 min
Drainage area	= 7 ac	Runoff coeff.	= .88
Intensity	= 4.55 in/hr	Time of conc. (Tc)	= 15 min
I-D-F Curve	= WICHITA.IDF	Reced. limb factor	= 1

Total Volume = 25,220 cuft, 0.579 acft

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)
0.02	1.87
0.03	3.74
0.05	5.60
0.07	7.47
0.08	9.34
0.10	11.21
0.12	13.08
0.13	14.95
0.15	16.81
0.17	18.68
0.18	20.55
0.20	22.42
0.22	24.29
0.23	26.15
0.25	28.02 <<
0.27	26.15
0.28	24.29
0.30	22.42
0.32	20.55
0.33	18.68
0.35	16.81
0.37	14.95
0.38	13.08
0.40	11.21
0.42	9.34
0.43	7.47
0.45	5.60
0.47	3.74
0.48	1.87

...End

Hydrograph Report

Hyd. No. 7

Hydrograph type	= Combine	Peak discharge	= 68.24 cfs
Storm frequency	= 5 yrs	Time interval	= 1 min
1st inflow hyd. No.	= 5	2nd inflow hyd. No.	= 6

Total Volume = 61,413 cuft, 1.410 acft

Hydrograph Discharge Table

Time (hrs)	1st Inflow (cfs)	+	2nd Inflow (cfs)	=	Outflow (cfs)
0.02	2.68		1.87		4.55
0.03	5.36		3.74		9.10
0.05	8.04		5.60		13.65
0.07	10.72		7.47		18.20
0.08	13.40		9.34		22.75
0.10	16.09		11.21		27.29
0.12	18.77		13.08		31.84
0.13	21.45		14.95		36.39
0.15	24.13		16.81		40.94
0.17	26.81		18.68		45.49
0.18	29.49		20.55		50.04
0.20	32.17		22.42		54.59
0.22	34.85		24.29		59.14
0.23	37.53		26.15		63.69
0.25	40.21 <<		28.02 <<		68.24 <<
0.27	37.53		26.15		63.69
0.28	34.85		24.29		59.14
0.30	32.17		22.42		54.59
0.32	29.49		20.55		50.04
0.33	26.81		18.68		45.49
0.35	24.13		16.81		40.94
0.37	21.45		14.95		36.39
0.38	18.77		13.08		31.84
0.40	16.09		11.21		27.29
0.42	13.40		9.34		22.75
0.43	10.72		7.47		18.20
0.45	8.04		5.60		13.65
0.47	5.36		3.74		9.10
0.48	2.68		1.87		4.55

...End

Hydrograph Report

Hyd. No. 8

Hydrograph type	= Reservoir	Peak discharge	= 36.19 cfs
Storm frequency	= 5 yrs	Time interval	= 1 min
Inflow hyd. No.	= 7	Reservoir name	= Pond Option 3
Max. Elevation	= 1301.26 ft	Max. Storage	= 24,018 cuft

Storage Indication method used.

Total Volume = 61,413 cuft, 1.410 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)
0.03	9.10	1299.04	3.22	-----	-----	-----	-----	-----	3.23
0.05	13.65	1299.08	6.43	-----	-----	-----	-----	-----	6.43
0.07	18.20	1299.14	8.80	-----	-----	-----	-----	-----	8.80
0.08	22.75	1299.21	10.91	-----	-----	-----	-----	-----	10.91
0.10	27.29	1299.29	12.95	-----	-----	-----	-----	-----	12.95
0.12	31.84	1299.39	15.03	-----	-----	-----	-----	-----	15.03
0.13	36.39	1299.51	17.12	-----	-----	-----	-----	-----	17.12
0.15	40.94	1299.64	19.21	-----	-----	-----	-----	-----	19.21
0.17	45.49	1299.79	20.72	-----	-----	-----	-----	-----	20.72
0.18	50.04	1299.95	23.48	-----	-----	-----	-----	-----	23.48
0.20	54.59	1300.11	25.35	-----	-----	-----	-----	-----	25.35
0.22	59.14	1300.27	27.15	-----	-----	-----	-----	-----	27.15
0.23	63.69	1300.45	28.99	-----	-----	-----	-----	-----	28.99
0.25	68.24 <<	1300.64	30.85	-----	-----	-----	-----	-----	30.86
0.27	63.69	1300.83	32.53	-----	-----	-----	-----	-----	32.53
0.28	59.14	1300.98	33.85	-----	-----	-----	-----	-----	33.85
0.30	54.59	1301.08	34.74	-----	-----	-----	-----	-----	34.74
0.32	50.04	1301.16	35.39	-----	-----	-----	-----	-----	35.39
0.33	45.49	1301.22	35.84	-----	-----	-----	-----	-----	35.84
0.35	40.94	1301.25	36.10	-----	-----	-----	-----	-----	36.10
0.37	36.39	1301.26 <<	36.19	-----	-----	-----	-----	-----	36.19 <<
0.38	31.84	1301.25	36.12	-----	-----	-----	-----	-----	36.12
0.40	27.29	1301.22	35.88	-----	-----	-----	-----	-----	35.88
0.42	22.75	1301.18	35.49	-----	-----	-----	-----	-----	35.49
0.43	18.20	1301.11	34.94	-----	-----	-----	-----	-----	34.94
0.45	13.65	1301.02	34.23	-----	-----	-----	-----	-----	34.23
0.47	9.10	1300.91	33.24	-----	-----	-----	-----	-----	33.24
0.48	4.55	1300.77	32.01	-----	-----	-----	-----	-----	32.01
0.50	0.00	1300.61	30.58	-----	-----	-----	-----	-----	30.58
0.52	0.00	1300.46	29.03	-----	-----	-----	-----	-----	29.03
0.53	0.00	1300.30	27.49	-----	-----	-----	-----	-----	27.49
0.55	0.00	1300.16	25.94	-----	-----	-----	-----	-----	25.94
0.57	0.00	1300.03	24.39	-----	-----	-----	-----	-----	24.39
0.58	0.00	1299.88	22.47	-----	-----	-----	-----	-----	22.47
0.60	0.00	1299.74	20.43	-----	-----	-----	-----	-----	20.43
0.62	0.00	1299.62	18.91	-----	-----	-----	-----	-----	18.91
0.63	0.00	1299.50	17.05	-----	-----	-----	-----	-----	17.05

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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)
0.65	0.00	1299.40	15.19	-----	-----	-----	-----	-----	15.19
0.67	0.00	1299.31	13.32	-----	-----	-----	-----	-----	13.32
0.68	0.00	1299.23	11.42	-----	-----	-----	-----	-----	11.42
0.70	0.00	1299.16	9.50	-----	-----	-----	-----	-----	9.50
0.72	0.00	1299.10	7.76	-----	-----	-----	-----	-----	7.75
0.73	0.00	1299.06	4.87	-----	-----	-----	-----	-----	4.87
0.75	0.00	1299.04	2.95	-----	-----	-----	-----	-----	2.96
0.77	0.00	1299.02	1.79	-----	-----	-----	-----	-----	1.79
0.78	0.00	1299.01	1.09	-----	-----	-----	-----	-----	1.09

...End

Reservoir Report

Reservoir No. 3

Pond Option 3

Culvert / Orifice Structures

		[A]	[B]	[C]
Rise (in)	=	36.0	0.0	0.0
Span (in)	=	36.0	0.0	0.0
No. Barrels	=	1	0	0
Invert El. (ft)	=	1299.00	0.00	0.00
Length (ft)	=	50.0	0.0	0.0
Slope (%)	=	0.50	0.00	0.00
N-Value	=	.013	.013	.013
Orif. Coeff.	=	0.60	0.60	0.60
Multi-Stage	=	-----	No	No

Weir Structures

		[A]	[B]	[C]
Crest Len (ft)	=	0.0	0.0	0.0
Crest El. (ft)	=	0.00	0.00	0.00
Weir Coeff.	=	3.00	3.00	3.00
Eqn. Exp.	=	1.50	1.50	1.50
Multi-Stage	=	No	No	No

Tailwater Elevation = 0.00 ft

Note: All outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Discharge (cfs)
0.0	00	1299.00	0.00	---	---	---	---	---	0.00
0.1	933	1299.10	7.61	---	---	---	---	---	7.61
0.2	1,866	1299.20	10.76	---	---	---	---	---	10.76
0.3	2,799	1299.30	13.18	---	---	---	---	---	13.18
0.4	3,732	1299.40	15.22	---	---	---	---	---	15.22
0.5	4,665	1299.50	17.02	---	---	---	---	---	17.02
0.6	5,598	1299.60	18.64	---	---	---	---	---	18.64
0.7	6,531	1299.70	20.13	---	---	---	---	---	20.13
0.8	7,464	1299.80	20.80	---	---	---	---	---	20.80
0.9	8,397	1299.90	22.83	---	---	---	---	---	22.83
1.0	9,330	1300.00	24.07	---	---	---	---	---	24.07
1.1	10,453	1300.10	25.24	---	---	---	---	---	25.24
1.2	11,576	1300.20	26.36	---	---	---	---	---	26.36
1.3	12,699	1300.30	27.44	---	---	---	---	---	27.44
1.4	13,822	1300.40	28.47	---	---	---	---	---	28.47
1.5	14,945	1300.50	29.47	---	---	---	---	---	29.47
1.6	16,067	1300.60	30.44	---	---	---	---	---	30.44
1.7	17,190	1300.70	31.38	---	---	---	---	---	31.38
1.8	18,313	1300.80	32.29	---	---	---	---	---	32.29
1.9	19,436	1300.90	33.17	---	---	---	---	---	33.17
2.0	20,559	1301.00	34.04	---	---	---	---	---	34.04
2.1	21,879	1301.10	34.88	---	---	---	---	---	34.88
2.2	23,199	1301.20	35.70	---	---	---	---	---	35.70
2.3	24,519	1301.30	36.50	---	---	---	---	---	36.50
2.4	25,839	1301.40	37.28	---	---	---	---	---	37.28

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Stage / Storage / Discharge Table

Stage (ft)	Storage (cuft)	Elevation (ft)	Culv. A (cfs)	Culv. B (cfs)	Culv. C (cfs)	Weir A (cfs)	Weir B (cfs)	Weir C (cfs)	Discharge (cfs)
2.5	27,160	1301.50	38.05	---	---	---	---	---	38.05
2.6	28,480	1301.60	38.80	---	---	---	---	---	38.80
2.7	29,800	1301.70	39.54	---	---	---	---	---	39.54
2.8	31,120	1301.80	40.27	---	---	---	---	---	40.27
2.9	32,440	1301.90	40.98	---	---	---	---	---	40.98
3.0	33,760	1302.00	41.68	---	---	---	---	---	41.68
3.1	35,285	1302.10	43.05	---	---	---	---	---	43.05
3.2	36,809	1302.20	44.37	---	---	---	---	---	44.37
3.3	38,334	1302.30	45.66	---	---	---	---	---	45.66
3.4	39,859	1302.40	46.91	---	---	---	---	---	46.91
3.5	41,384	1302.50	48.13	---	---	---	---	---	48.13
3.6	42,908	1302.60	49.31	---	---	---	---	---	49.31
3.7	44,433	1302.70	50.47	---	---	---	---	---	50.47
3.8	45,958	1302.80	51.61	---	---	---	---	---	51.61
3.9	47,482	1302.90	52.72	---	---	---	---	---	52.72
4.0	49,007	1303.00	53.81	---	---	---	---	---	53.81
4.1	50,744	1303.10	54.87	---	---	---	---	---	54.87
4.2	52,481	1303.20	55.92	---	---	---	---	---	55.92
4.3	54,217	1303.30	56.94	---	---	---	---	---	56.94
4.4	55,954	1303.40	57.95	---	---	---	---	---	57.95
4.5	57,691	1303.50	58.94	---	---	---	---	---	58.94
4.6	59,428	1303.60	59.92	---	---	---	---	---	59.92
4.7	61,165	1303.70	60.87	---	---	---	---	---	60.87
4.8	62,901	1303.80	61.82	---	---	---	---	---	61.82
4.9	64,638	1303.90	62.75	---	---	---	---	---	62.75
5.0	66,375	1304.00	63.67	---	---	---	---	---	63.67