ARLINGTON
SKAGIT STATE BANK

DRAINAGE REPORT

Prepared for
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June 6, 2000

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WASHINGTON.

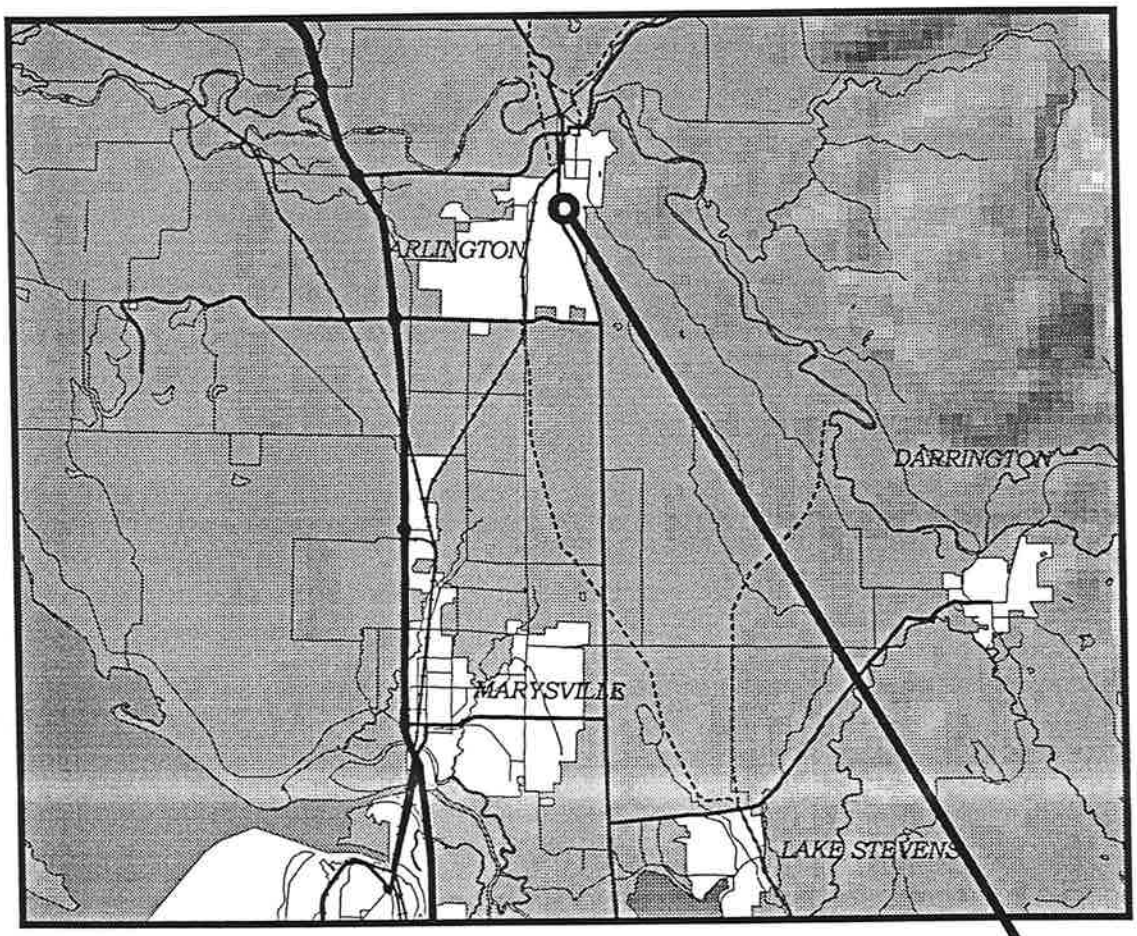
DATE: _____

BY: _____

STATE OF WASHINGTON
ROBERT E. SKODJE
12139
REGISTERED
PROFESSIONAL ENGINEER

EXPIRES 10/09/00

VICINITY MAP



SKAGIT STATE BANK - ARLINGTON

Snohomish County, Washington

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ARLINGTON SKAGIT STATE BANK DRAINAGE REPORT
TABLE OF CONTENTS

I. INTRODUCTION AND PROJECT SCOPE

The purpose of this report is to provide an analysis of stormwater runoff for the proposed new Skagit State Bank site as required by the City of Arlington. Arlington drainage requirements are based on the Department of Ecology's Stormwater Management Manual for the Puget Sound Basin, subsequently referred to as the DOE Manual.

The DOE Manual requires both runoff quantity and quality controls, in order to mitigate increased runoff from new impervious surfaces, and associated particulate and oil pollutants from these surfaces.

This report will address the existing conditions on the site and the proposed site plan. Proposed drainage improvements will be designed to meet DOE Manual requirements and City of Arlington development standards.

II. EXISTING CONDITIONS

Location. The Skagit State Bank site in Arlington is located on Lot #1 of the Jay Three Two Short Plat. The property covers 30,000 square feet, and is located at the southeast quadrant of the intersection of 204th Street NE and 77th Avenue NE, approximately 800 feet east of Highway 9. The site is within the NW¼ of the NE¼ of Section 14, Township 31 North, Range 5 East. W.M.

Site Description. The site slopes to the northwest at approximately two percent, and is bounded on the north and west by sidewalks and roads. There are no structures on the site, and it is covered by sparse pasture type grass. Runoff from areas to the south and east of the property sheetflows onto the site, and it continues until reaching the existing roadways. The underlying soil, according to the SCS's Soil Survey of Snohomish County Area, Washington, is #39, Norma loam. This material is classified hydrologically as highly impermeable Type D.

Drainage Utilities. There is an existing storm main along the north side of 204th Street NE, which flows in a westerly direction. Several catch basins on the south side of 204th connect into this main. Two CB's abut the Skagit State Bank site – one along its north edge, and a second near its northeast corner. The northern CB has a rim elevation of 131.11 feet, and an outflow invert of 127.11 feet. The northwestern CB has a rim of 128.95 feet and an outlet invert of 126.85 feet. Both of these CB's discharge into pipes that connect into the primary main along 204th Street NE.

A site plan showing the existing site conditions is included in Appendix A.

III. PROPOSED CONDITIONS

PROPOSED CHANGES TO SITE:
The project proposal involves constructing a bank building, including parking and drive-through banking facilities. There will also be sidewalks, landscaping and access roads constructed.

New impervious surfacing will include the bank building, access roads, parking areas and sidewalks, totaling approximately 23,500 square feet. The remaining area of 6,500 square feet will be landscaped with lawn, trees, a biofiltration swale and a detention pond.

The site plan, including the proposed collection system and drainage improvements, is included in Appendix B.

IV. STORM DRAINAGE DESIGN CRITERIA

This site is being developed using DOE Manual criteria for stormwater controls.

Detention. The site runoff is discharges offsite, so stormwater detention is required to lower the peak developed runoff rates to existing condition rates. Note that because the runoff is discharging into an existing manmade underground conveyance system, streambank erosion control design is not required. Thus, the 2-Year, 24-Hour developed condition storm runoff needs to match the full predeveloped 2-Year rate, not one-half of the predeveloped 2-Year rate. However, because the Santa Barbara Urban Hydrograph (SBUH) method is being used, the DOE Manual recommends that a factor of safety be applied to the required volume. This safety factor accounts for design deficiencies in the SBUH method. The total detention volume will thus be the designed volume plus a safety factor increase, applied horizontally so as to not increase the discharge rate at any particular stage.

Treatment. Stormwater treatment is required, since this project has paved areas with vehicular traffic. The treatment system will be designed to treat the 6-Month, 24-Hour storm, as specified in the DOE Manual.

V. DETENTION AND TREATMENT FACILITY DESIGN

This section of the report involves the analysis of proposed drainage system. Runoff calculations were performed using WaterWorks, a storm drainage runoff simulation computer model following the SBUH hydrograph method.

Stormwater Runoff Calculations

Below is the data used to calculate the runoff rates for the 2, 10 and 100-Year, 24-Hour storms.

- Total Existing Area: 30,000 square feet 0.69 acre
- Total Developed Collected Area: 30,000 square feet 0.69 acre
  - Roof, Parking, Road, Concrete: 23,500 square feet 0.54 acre
  - Lawn and Other Landscaping: 6,500 square feet 0.15 acre

- Soil Type: Norma Loam, Hydrologic Type D

- Rainfall Values for Arlington:
  - 2-Year, 24-Hour Storm: 2.0 inches
  - 10-Year, 24-Hour Storm: 2.7 inches
  - 100-Year, 24-Hour Storm: 3.9 inches

- Estimated CN Values over Type D Soil:
  - Impervious Surfaces (Roof and Concrete): 98
  - Pervious Surface: Lawn = 90, Pasture = 89

- Time of Concentration (See maps for Flow Paths and Appendix C for Calc. Worksheet):
  - Existing: 21.2 minutes (200 feet at 2% through pasture grass)
  - Developed: Less than 5 minutes, so 5 minutes is minimum applicable value

Based on these values, the resulting runoff rates for the site are listed below. The detailed WaterWorks calculations are included in Appendix C.

Skagit State Bank Site – Estimated Runoff Rates

Storm Event	Existing Runoff Rate (cfs)	Developed Runoff Rate (cfs)
6-Month, 24-Hour	n/a	0.15
2-Year, 24-Hour	0.12	0.25
10-Year, 24-Hour	0.20	0.36
100-Year, 24-Hour	0.35	0.54

Based on these runoff rates, a detention pond with an orifice controlled outlet structure was analyzed to provide stormwater attenuation. The detention pond was sized with the outlet control structure to match the predeveloped runoff rates, and its dimension are given below. The "expanded" values given are the pond characteristics after it has been enlarged using the factor of safety. Because this site is approximate 80% impervious, the factor of safety increase is 42%. The applicable factor of safety chart from the DOE Manual is included in Appendix C.

Detention Pond Sizing

Stage (feet)	Analysis Area (square feet)	Analysis Vol. (cubic feet)	Expanded Area (square feet)	Expanded Vol. (cubic feet)
127.5	136	0	193	0
128.5	420	438	596	554
129.5	888	1092	1261	1483

Outlet Control Structure Sizing

Orifice	Invert (feet)	Diameter (inches)	Controls Storm Event	to Stage (feet)	at Rate (cfs)
Lowest	127.50	2.100	2-Year	128.56	0.12
Middle	128.60	1.900	10-Year	128.92	0.20
Highest	129.00	2.250	100-Year	129.47	0.35

Thus, the completed pond, with a volume of approximately 1,500 cubic feet (including 160 cubic feet in conveyance pipe and CB storage) will provide adequate detention to reduce flows to predeveloped rates.

An overflow structure will be placed at an elevation above the 100-year storm water surface. In the event that the pond outlet structure or downstream conveyance is blocked, water will first back up into the biofiltration swale. If water continues to rise, the runoff will overflow into the structure, which will connect into the conveyance system along 204th Street NE, as shown on the plans.

Stormwater Treatment

Stormwater runoff will be treated using two devices; a biofiltration swale and an SA-type oil/water separator. The oil/water separator has been added to treat areas that physically cannot drain to the biofiltration swale. In addition, it will provide secondary treatment for runoff that has passed through the swale.

The proposed biofiltration swale is located along the west side of the property, and is divided into two sections by a sidewalk crossing.

Both sections are proposed to have three foot bottom widths, side slopes of approximately 3:1 and a slope of 0.7 percent. The upper section is 40 feet long and the lower section is 70 feet long, for a total of 110 feet.

In order to provide a conservative sizing analysis, runoff from the entire site was assumed to flow through the swale. However, in actuality approximately 50% of the site (and approximately 75% of the roadway area) will be directed through the swale, with a peak 6-month runoff rate estimated at 0.08 cfs (50% of the full rate of 0.15 cfs). The estimated peak 100-year rate through the swale is 0.27 cfs, or 50% of the full site rate of 0.54 cfs.

Because of the small amount of runoff, the 6-month storm will be trickling through dense bottom layer of grasses, with an estimated Mannings "n" value of 0.07 (heavily vegetated). The velocity of flow in the swale is estimated at 0.39 feet per second (fps). Thus, it will take the 6-month storm runoff approximately 5 minutes to traverse the swale, equal to the minimum five minute time for passage through a swale. Velocity during the 100-year event is calculated at 0.96 cfs, so swale stability is not an issue. The 100-year flow depth is estimated at 0.16 feet, so the minimum swale depth of 1.35 feet will provide a freeboard of over one foot.

Runoff from the swale and the remainder of the site will pass through the detention outlet control structure and a standard SA-type oil/water separator (from Utility Vault or equal), providing additional runoff treatment. An oil/water separator description is attached in Appendix C.

Downstream Conveyance

The runoff from the site (and from adjacent areas) flows into the conveyance system along 204th Street NE. The primary conveyance is a 12-inch diameter main running along the north side of the street, draining towards the west. The downstream conveyance system does not appear to discharge into a natural water body within a quarter mile of the site.

Upon passing through the proposed detention system, the peak runoff rates from the site will be equal to or less than the predeveloped rates for storms at or below the 100-year, 24-hour event. Thus, for 100-year or smaller storms, the site development will not decrease downstream flow capacity.

In addition, note that the calculated peak pre-detained runoff under developed conditions is 0.54 cfs. Even if no detention was provided, the increase in runoff over predeveloped conditions for a 100-year event would be only 0.19 cfs for this site. This small increase is due to the underlying Type D soils.

VI. EROSION AND SEDIMENTATION CONTROL

Temporary. Temporary controls, as shown on the plans, will be used to mitigate the potential erosion and sedimentation due to construction activities. As indicated on the plans, the TESC features will be installed on the site prior to the beginning of other construction activities. The Best Management Practices (BMPs) used include:

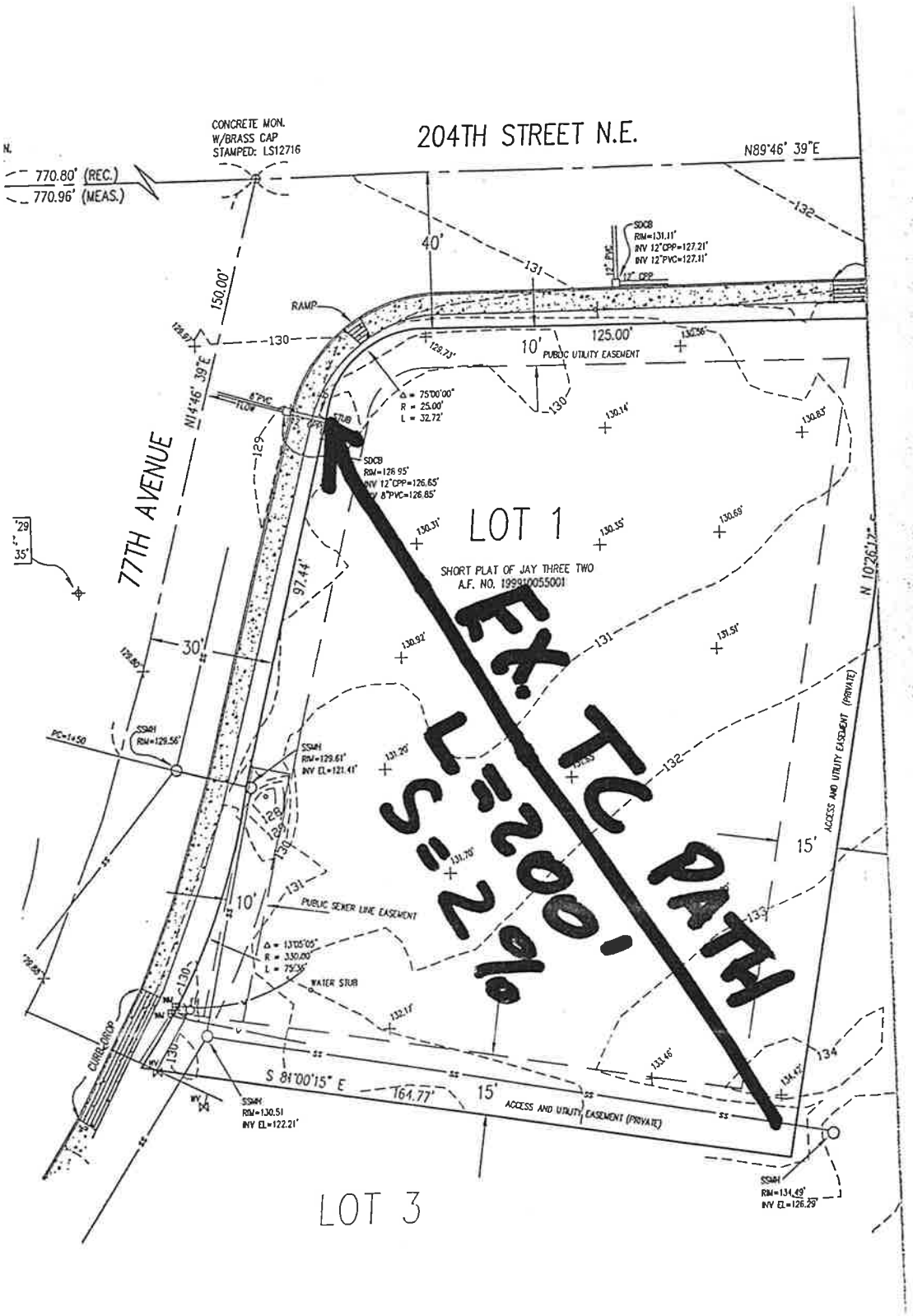
- Temporary Construction Entrance. Quarry spall construction entrances will be constructed for traffic moving off the site along both 204th Street NE and 77th Avenue NE.
- Silt Fencing. Sediment control fencing will be supplied along the north and west edges of the property, to minimize the transport of sediment onto the adjacent sidewalks and roadways.
- Catch Basin Sediment Traps. Filter and gravel barriers will be installed around site CB's prior to completion of the project. The barriers will be removed upon completion of paving and building construction.
- Sediment Trap. Runoff will be directed into two sediment traps, at the proposed detention pond and biofiltration swale locations. A gravel/filter fabric outlet at the pond discharge point. Upon completion of the construction the pond will be restored to a permanent condition, and any collected sediment will be removed to an approved site.
- Sweeping. Dirt tracked onto new pavement areas or offsite roadways will be swept up and disposed of on a regular basis.

Locations of the above facilities are shown on the plan sheets. In addition, exposed areas will be covered with straw, plastic or vegetation if left open and incomplete for extended periods of time.

Permanent. Permanent controls (including catch basins, a biofiltration swale, an oil/water separator and a stormwater detention pond) will be supplied for this project. These BMPs match the requirements for a bank site, which does not have any unusual pollutant loading.

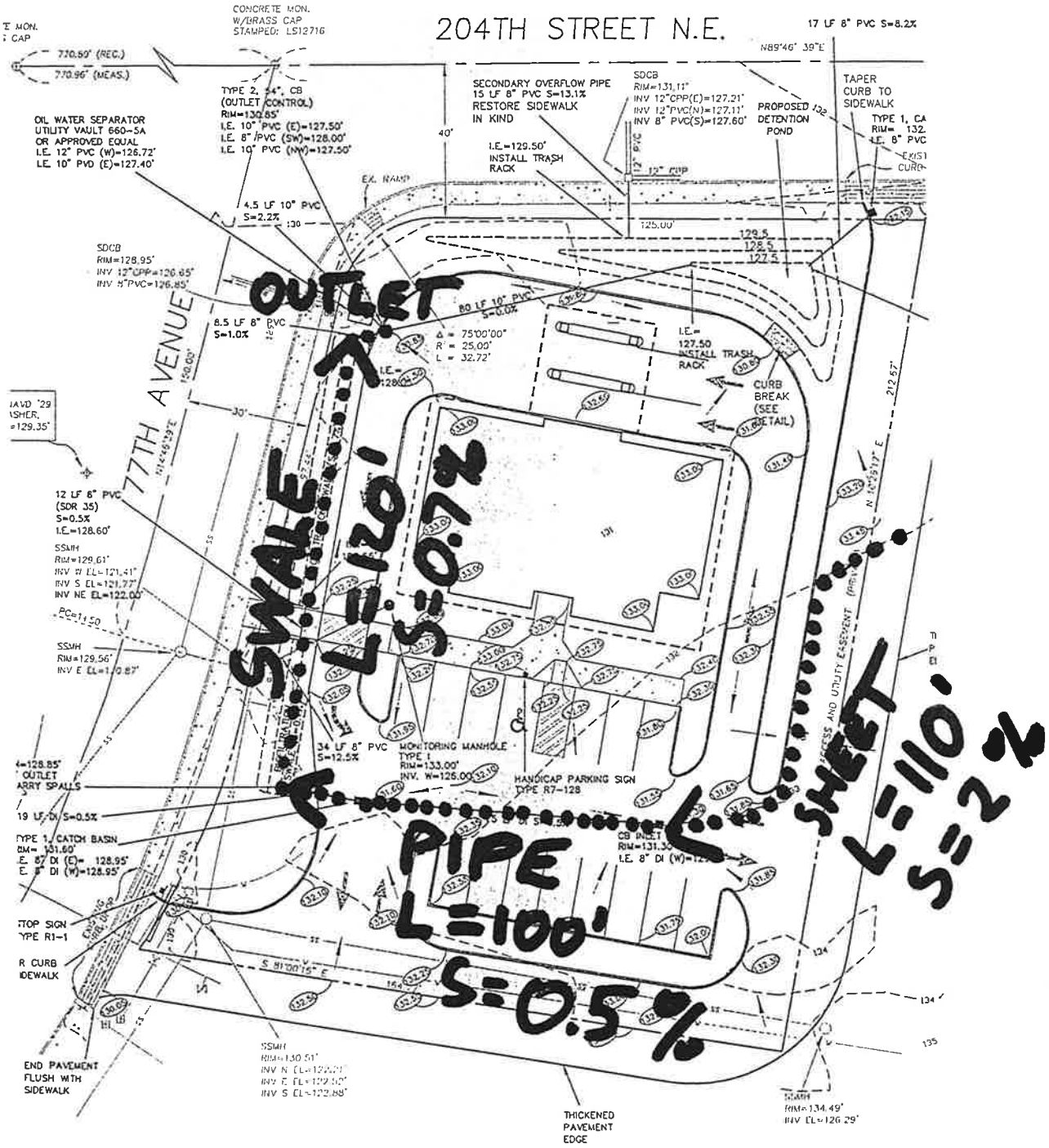
APPENDIX A

EXISTING CONDITIONS MAP


204TH STREET N.E.
N89°46' 39"E
CONCRETE MON.
W/BRASS CAP
STAMPED: LS12716
770.80' (REC.)
770.96' (MEAS.)
77TH AVENUE
N14°46' 39"E
150.00'
40'
125.00'
10'
PUBLIC UTILITY EASEMENT
RAMP
SDCB
RIM=131.11'
INV 12"CPP=127.21'
INV 12"PVC=127.11'
Δ = 75°00'00"
R = 25.00'
L = 32.72'
SDCB
RIM=126.95'
INV 12"CPP=126.65'
INV 8"PVC=126.85'
LOT 1
SHORT PLAT OF JAY THREE TWO
A.F. NO. 199910055001
EX. TC PATH
L=200'
S=2%
97.44'
30'
PC=1+50
SSMH
RIM=129.56'
SSMH
RIM=129.61'
INV EL=121.41'
PUBLIC SEWER LINE EASEMENT
10'
Δ = 13°05'05"
R = 330.00'
L = 75.35'
WATER STUB
CURB/GUTTER
S 81°00'15" E
164.77'
15'
ACCESS AND UTILITY EASEMENT (PRIVATE)
SSMH
RIM=130.51
INV EL=122.21'
SSMH
RIM=134.49'
INV EL=126.29'
LOT 3
N 10°26'37" E

APPENDIX B

PROPOSED CONDITIONS MAP



SEE ENGINEERING PLANS FOR ADDITIONAL DETAIL

APPENDIX C

SUPPORTING DATA AND CALCULATIONS

- SOIL MAPS AND DATA
- PRECIPITATION DATA
- CN VALUE TABLE
- TIME OF CONCENTRATION WORKSHEET
- WATERWORKS INPUT AND OUTPUT
- BIOFILTRATION SWALE CALCULATIONS

)L TY AREA, WASHINGTON — SHEET NUMBER 15

TABLE 15.--WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table	
		Frequency	Duration	Months	Depth	Kind
					Ft	
23*:						
Oso	C	None	---	---	1.5-3.0	Perched
Rock outcrop.						
24----	A	None	---	---	>6.0	---
Greenwater						
25*:						
Hartnit	C	None	---	---	1.5-3.5	Perched
Potchub	C	None	---	---	1.5-3.0	Perched
Rock outcrop.						
26----	A	None	---	---	>6.0	---
Indianola						
27, 28, 29----	C	None	---	---	1.5-2.5	Perched
Kitsap						
30----	A	None	---	---	>6.0	---
Lynnwood						
31*:						
Lynnwood	A	None	---	---	>6.0	---
Nargar	A	None	---	---	>6.0	---
32----	D	None	---	---	+1-0.5	Perched
McKenna						
33----	B	Rare	---	---	>6.0	---
Menzel						
34----	D	None	---	---	+1-0	Apparent
Mukilteo						
35, 36----	A	None	---	---	>6.0	---
Nargar						
37*:						
Nargar	A	None	---	---	>6.0	---
Lynnwood	A	None	---	---	>6.0	---
38----	A	None	---	---	>6.0	---
Nargar Variant						
39----	D	None	---	---	+1-1.0	Apparent
Norma						
40----	D	None	---	---	+1-1.0	Apparent
Norma Variant						
41*:						
Ogarty	C	None	---	---	>6.0	---
Tokul	C	None	---	---	1.5-3.0	Perched
Rock outcrop.						
42----	C	None	---	---	1.5-3.5	Perched
Olomount						

See footnote at end of table.

RAINFALL INTENSITIES

AREA	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Alger	1.9	2.4	2.8	3.3	3.6	3.8
Anacortes	1.4	1.8	2.1	2.5	2.8	3.1
Arlington	2.0		2.7	3.3		3.9
Big Lake	1.8	2.4	2.8	3.2	3.5	3.9
Bow	1.8	2.3	2.6	3.0	3.3	3.6
Burlington	1.8	2.3	2.6	3.1	3.4	3.7
Concrete	2.9	3.4	3.8	4.4	4.8	5.0
Conway	1.7	2.2	2.5	2.9	3.2	3.6
La Conner	1.5	1.9	2.3	2.7	3.0	3.2
Lyman	2.5	3.2	3.5	4.0	4.4	4.5
Marblemount	3.3	4.2	4.8	5.4	5.9	6.4
Mount Vernon	1.8	2.3	2.6	3.1	3.4	3.7
Oak Harbor	1.2	1.6	1.75	2.25		2.7
Port of Skagit County	1.7		2.5	2.9		3.55
Rockport	3.3	4.2	4.7	5.3	5.8	6.0
Sedro-Woolley	2.1	2.6	2.9	3.4	3.7	3.9
Skyline Area	1.3	1.8	2.1	2.5		3.1
Stanwood-city	1.45	1.9	2.2	2.6	3.0	3.3
Wickersham	2.5	3.2	3.5	4.0	4.2	4.3

Table III-1.3 SCS Western Washington Runoff Curve Numbers
(Published by SCS in 1982) Runoff curve numbers for selected agricultural, suburban and urban land use for Type 1A rainfall distribution, 24-hour storm duration.

LAND USE DESCRIPTION		CURVE NUMBERS BY HYDROLOGIC SOIL GROUP A	B	C	D
Cultivated land(1):	winter condition	86	91	94	95
Mountain open areas:	low growing brush & grasslands	74	82	89	92
Meadow or pasture:		65	78	85	89
Wood or forest land:	undisturbed	42	64	76	81
Wood or forest land:	young second growth or brush	55	72	81	86
Orchard:	with cover crop	81	88	92	94
Open spaces, lawns, parks, golf courses, cemeteries, landscaping.					
Good condition:	grass cover on ≥75% of the area	68	80	86	90
Fair condition:	grass cover on 50-75% of the area	77	85	90	92
Gravel roads & parking lots:		76	85	89	91
Dirt roads & parking lots:		72	82	87	89
Impervious surfaces, pavement, roofs etc.		98	98	98	98
Open water bodies:	lakes, wetlands, ponds etc.	100	100	100	100

Single family residential(2):

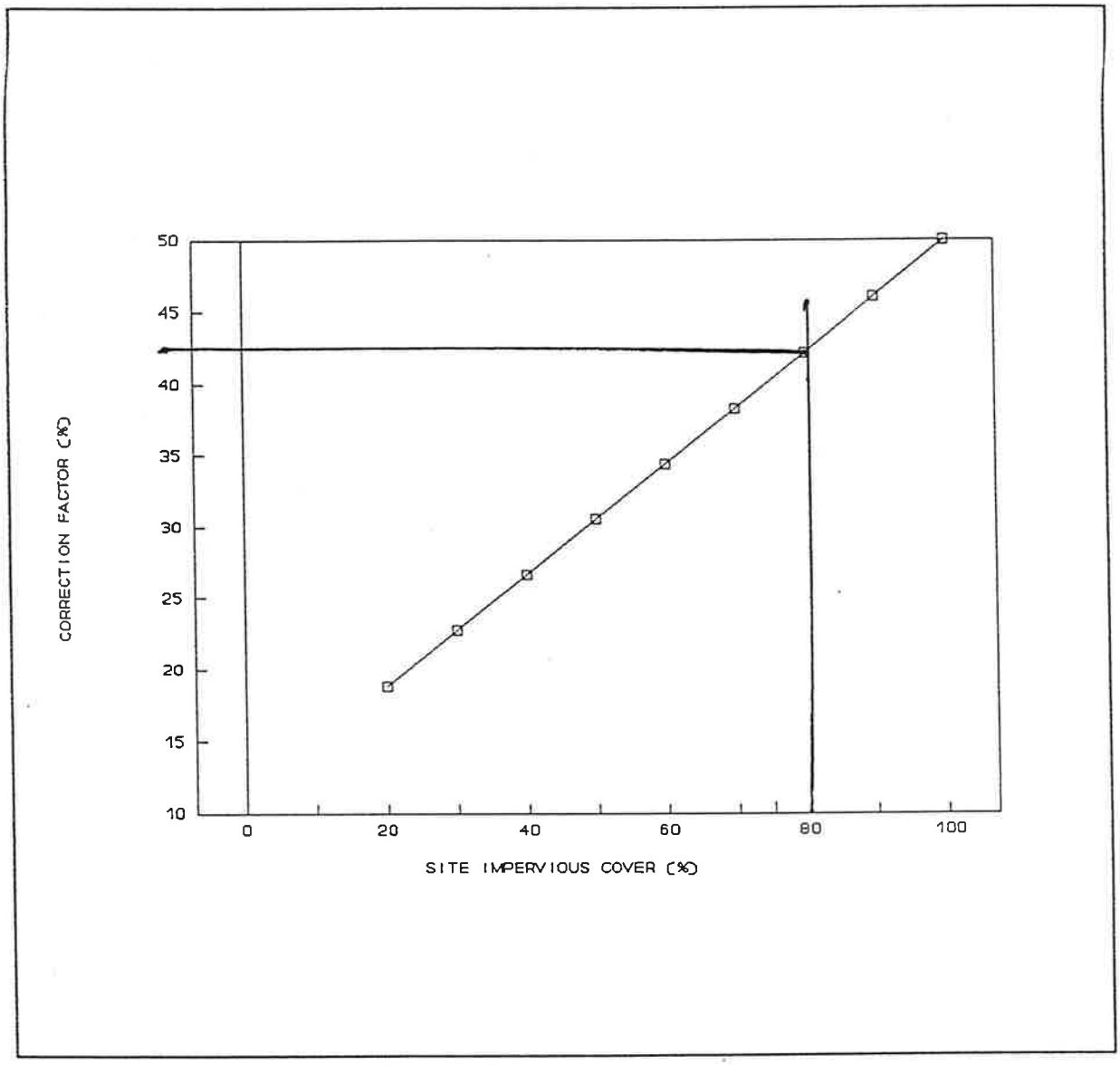
Dwelling Unit/Gross Acre	%Impervious(3)
1.0 DU/GA	15
1.5 DU/GA	20
2.0 DU/GA	25
2.5 DU/GA	30
3.0 DU/GA	34
3.5 DU/GA	38
4.0 DU/GA	42
4.5 DU/GA	46
5.0 DU/GA	48
5.5 DU/GA	50
6.0 DU/GA	52
6.5 DU/GA	54
7.0 DU/GA	56

PUD's, condos, apartments, commercial businesses & industrial areas — %impervious must be computed

Separate curve number shall be selected for pervious & impervious portions of the site or basin

(1) For a more detailed description of agricultural land use curve numbers refer to National Engineering Handbook, Sec. 4, Hydrology, Chapter 9, August 1972.
(2) Assumes roof and driveway runoff is directed into street/storm system.
(3) The remaining pervious areas (lawn) are considered to be in good condition for these curve numbers.

FIGURE III-1.1
Volume Correction Factor to be Applied to
Streambank Erosion Control BMPs
Based on Site Impervious Cover



Skagit State Bank Site
Time of Concentration Calculations

Date: June 6, 2000
Project: 00028

Existing Conditions

1. Sheet flow across existing pasture type ground, for 200 feet at 2 percent.

1. Sheet Flow: $\dfrac{0.42 \times (n \times L)^{0.8}}{(P2^{0.527}) \times (S^{0.4})}$

Data: P2 = 2 inches; L = 200 feet
n = 0.15 (pasture); S = 0.02 feet/foot

Sheet Flow = 21.18 minutes

Total Existing Time of Concentration = 21.18 minutes

Developed Conditions

1. Sheet flow across pavement for 110 feet at 2 percent, then
2. Channel flow through pipe for 100 feet at 0.5 percent, then
3. Channel flow through swale for 120 feet at 0.7 percent

1. Sheet Flow: $\dfrac{0.42 \times (n \times L)^{0.8}}{(P2^{0.527}) \times (S^{0.4})}$

Data: P2 = 2 inches; L = 110 feet
n = 0.011 (roadway); S = 0.02 feet/foot

Sheet Flow = 1.62 minutes

2. Channel Flow: $\dfrac{L}{60 \times k \times \text{sqrt}(S)}$

L = 100 feet
k = 42 (pipe)
S = 0.005 feet/foot

Channel Flow = 0.56 minutes

3. Channel Flow: $\dfrac{L}{60 \times k \times \text{sqrt}(S)}$

L = 120 feet
k = 17 (grass swale)
S = 0.007 feet/foot

Channel Flow = 1.41 minutes

Total Developed Time of Concentration = 3.59 minutes*

* Procedures do not allow T of C of below 5 minutes, so 5 minutes will be used in analysis

Detention Sizing (2, 10, 100), Pre-Safety Factor
Project No. 00028

DETAIL BASIN SUMMARY

BASIN ID: d100y NAME: Developed Basin, 100y
SBUH METHODOLOGY
TOTAL AREA.....: 0.69 Acres BASEFLOWS: 0.00 cfs
RAINFALL TYPE....: TYPE1A PERVIOUS AREA
PRECIPITATION....: 3.90 inches AREA..: 0.15 Acres
TIME INTERVAL....: 10.00 min CN....: 90.00
TIME OF CONC.....: 5.00 min IMPERVIOUS AREA
ABSTRACTION COEFF: 0.20 AREA..: 0.54 Acres
CN....: 98.00

PEAK RATE: 0.54 cfs VOL: 0.20 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.1411	690	0.1053	1030	0.0663	1370	0.0538	1710	
20		360	0.1423	700	0.1061	1040	0.0799	1380	0.0538	1720	
30		370	0.1376	710	0.1053	1050	0.0799	1390	0.0530	1730	
40	0.0009	380	0.1328	720	0.1054	1060	0.0799	1400	0.0538	1740	
50	0.0042	390	0.1328	730	0.1062	1070	0.0799	1410	0.0538	1750	
60	0.0084	400	0.1335	740	0.1055	1080	0.0800	1420	0.0530	1760	
70	0.0159	410	0.1349	750	0.1055	1090	0.0736	1430	0.0538	1770	
80	0.0245	420	0.1348	760	0.1064	1100	0.0664	1440	0.0538	1780	
90	0.0298	430	0.2158	770	0.1056	1110	0.0664	1450	0.0265	1790	
100	0.0341	440	0.2984	780	0.1056	1120	0.0912	1460		1800	
110	0.0376	450	0.3006	790	0.0930	1130	0.0664	1470		1810	
120	0.0405	460	0.4169	800	0.0795	1140	0.0424	1480		1820	
130	0.0466	470	0.5343	810	0.0795	1150	0.0672	1490		1830	
140	0.0532	480	0.5385	820	0.0795	1160	0.0664	1500		1840	
150	0.0561	490	0.3865	830	0.0795	1170	0.0665	1510		1850	
160	0.0584	500	0.2328	840	0.0796	1180	0.0673	1520		1860	
170	0.0613	510	0.2334	850	0.0860	1190	0.0665	1530		1870	
180	0.0634	520	0.2206	860	0.0931	1200	0.0665	1540		1880	
190	0.0648	530	0.2085	870	0.0932	1210	0.0673	1550		1890	
200	0.0671	540	0.2088	880	0.0924	1220	0.0665	1560		1900	
210	0.0686	550	0.1762	890	0.0932	1230	0.0665	1570		1910	
220	0.0694	560	0.1435	900	0.0932	1240	0.0673	1580		1920	
230	0.0713	570	0.1436	910	0.0925	1250	0.0665	1590		1930	
240	0.0725	580	0.1445	920	0.0933	1260	0.0665	1600		1940	
250	0.0787	590	0.1439	930	0.0933	1270	0.0673	1610		1950	
260	0.0849	600	0.1440	940	0.0925	1280	0.0665	1620		1960	
270	0.0861	610	0.1378	950	0.0934	1290	0.0665	1630		1970	
280	0.0878	620	0.1316	960	0.0934	1300	0.0674	1640		1980	
290	0.0881	630	0.1317	970	0.0726	1310	0.0666	1650		1990	
300	0.0890	640	0.1310	980	0.0535	1320	0.0666	1660		2000	
310	0.1131	650	0.1319	990	0.0535	1330	0.0602	1670		2010	
320	0.1369	660	0.1320	1000	0.0527	1340	0.0537	1680		2020	
330	0.1384	670	0.1186	1010	0.0535	1350	0.0538	1690		2030	
340	0.1398	680	0.1052	1020	0.0535	1360	0.0530	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: d10y NAME: Developed Basin, 10y
SBUH METHODOLOGY
TOTAL AREA.....: 0.69 Acres BASEFLOWS: 0.00 cfs
RAINFALL TYPE....: TYPE1A PERVIOUS AREA
PRECIPITATION....: 2.70 inches AREA..: 0.15 Acres
TIME INTERVAL....: 10.00 min CN....: 90.00
TIME OF CONC.....: 5.00 min IMPERVIOUS AREA
ABSTRACTION COEFF: 0.20 AREA..: 0.54 Acres
CN....: 98.00
PEAK RATE: 0.36 cfs VOL: 0.13 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0905	690	0.0714	1030	0.0452	1370	0.0368	1710	
20		360	0.0915	700	0.0719	1040	0.0545	1380	0.0368	1720	
30		370	0.0888	710	0.0715	1050	0.0545	1390	0.0362	1730	
40		380	0.0859	720	0.0715	1060	0.0545	1400	0.0368	1740	
50	0.0001	390	0.0862	730	0.0721	1070	0.0546	1410	0.0368	1750	
60	0.0013	400	0.0869	740	0.0716	1080	0.0546	1420	0.0363	1760	
70	0.0049	410	0.0880	750	0.0717	1090	0.0502	1430	0.0368	1770	
80	0.0095	420	0.0881	760	0.0722	1100	0.0453	1440	0.0368	1780	
90	0.0132	430	0.1414	770	0.0717	1110	0.0453	1450	0.0181	1790	
100	0.0164	440	0.1961	780	0.0718	1120	0.0623	1460		1800	
110	0.0191	450	0.1982	790	0.0632	1130	0.0454	1470		1810	
120	0.0214	460	0.2760	800	0.0540	1140	0.0290	1480		1820	
130	0.0254	470	0.3551	810	0.0541	1150	0.0459	1490		1830	
140	0.0298	480	0.3593	820	0.0541	1160	0.0454	1500		1840	
150	0.0318	490	0.2585	830	0.0541	1170	0.0454	1510		1850	
160	0.0333	500	0.1561	840	0.0541	1180	0.0460	1520		1860	
170	0.0351	510	0.1566	850	0.0585	1190	0.0454	1530		1870	
180	0.0365	520	0.1482	860	0.0634	1200	0.0454	1540		1880	
190	0.0375	530	0.1402	870	0.0634	1210	0.0460	1550		1890	
200	0.0393	540	0.1406	880	0.0629	1220	0.0454	1560		1900	
210	0.0406	550	0.1187	890	0.0635	1230	0.0455	1570		1910	
220	0.0414	560	0.0967	900	0.0635	1240	0.0460	1580		1920	
230	0.0429	570	0.0969	910	0.0630	1250	0.0455	1590		1930	
240	0.0439	580	0.0975	920	0.0635	1260	0.0455	1600		1940	
250	0.0480	590	0.0972	930	0.0636	1270	0.0460	1610		1950	
260	0.0521	600	0.0973	940	0.0631	1280	0.0455	1620		1960	
270	0.0531	610	0.0931	950	0.0636	1290	0.0455	1630		1970	
280	0.0545	620	0.0890	960	0.0637	1300	0.0461	1640		1980	
290	0.0549	630	0.0891	970	0.0495	1310	0.0455	1650		1990	
300	0.0558	640	0.0887	980	0.0365	1320	0.0455	1660		2000	
310	0.0712	650	0.0893	990	0.0365	1330	0.0411	1670		2010	
320	0.0865	660	0.0894	1000	0.0359	1340	0.0368	1680		2020	
330	0.0880	670	0.0804	1010	0.0365	1350	0.0368	1690		2030	
340	0.0893	680	0.0713	1020	0.0365	1360	0.0362	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: d2y NAME: Developed Basin, 2y
SBUH METHODOLOGY

TOTAL AREA.....:	0.69 Acres	BASEFLOWS:	0.00 cfs
RAINFALL TYPE....:	TYPE1A	PERVIOUS AREA	
PRECIPITATION....:	2.00 inches	AREA..:	0.15 Acres
TIME INTERVAL....:	10.00 min	CN....:	90.00
TIME OF CONC.....:	5.00 min	IMPERVIOUS AREA	
ABSTRACTION COEFF:	0.20	AREA..:	0.54 Acres
		CN....:	98.00

PEAK RATE: 0.25 cfs VOL: 0.09 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0614	690	0.0515	1030	0.0329	1370	0.0268	1710	
20		360	0.0624	700	0.0520	1040	0.0396	1380	0.0268	1720	
30		370	0.0607	710	0.0516	1050	0.0396	1390	0.0264	1730	
40		380	0.0590	720	0.0517	1060	0.0397	1400	0.0268	1740	
50		390	0.0593	730	0.0521	1070	0.0397	1410	0.0269	1750	
60		400	0.0599	740	0.0518	1080	0.0397	1420	0.0265	1760	
70	0.0006	410	0.0609	750	0.0518	1090	0.0365	1430	0.0269	1770	
80	0.0027	420	0.0611	760	0.0523	1100	0.0330	1440	0.0269	1780	
90	0.0053	430	0.0984	770	0.0519	1110	0.0330	1450	0.0132	1790	
100	0.0076	440	0.1369	780	0.0520	1120	0.0453	1460		1800	
110	0.0096	450	0.1389	790	0.0457	1130	0.0330	1470		1810	
120	0.0114	460	0.1942	800	0.0391	1140	0.0211	1480		1820	
130	0.0142	470	0.2509	810	0.0391	1150	0.0334	1490		1830	
140	0.0171	480	0.2549	820	0.0392	1160	0.0330	1500		1840	
150	0.0188	490	0.1839	830	0.0392	1170	0.0331	1510		1850	
160	0.0201	500	0.1113	840	0.0392	1180	0.0335	1520		1860	
170	0.0216	510	0.1118	850	0.0424	1190	0.0331	1530		1870	
180	0.0228	520	0.1059	860	0.0459	1200	0.0331	1540		1880	
190	0.0237	530	0.1003	870	0.0460	1210	0.0335	1550		1890	
200	0.0248	540	0.1007	880	0.0456	1220	0.0331	1560		1900	
210	0.0257	550	0.0851	890	0.0460	1230	0.0331	1570		1910	
220	0.0262	560	0.0694	900	0.0461	1240	0.0335	1580		1920	
230	0.0272	570	0.0695	910	0.0457	1250	0.0331	1590		1930	
240	0.0280	580	0.0701	920	0.0461	1260	0.0331	1600		1940	
250	0.0308	590	0.0698	930	0.0462	1270	0.0336	1610		1950	
260	0.0337	600	0.0700	940	0.0458	1280	0.0332	1620		1960	
270	0.0346	610	0.0670	950	0.0462	1290	0.0332	1630		1970	
280	0.0357	620	0.0641	960	0.0462	1300	0.0336	1640		1980	
290	0.0362	630	0.0642	970	0.0360	1310	0.0332	1650		1990	
300	0.0369	640	0.0639	980	0.0265	1320	0.0332	1660		2000	
310	0.0474	650	0.0644	990	0.0265	1330	0.0300	1670		2010	
320	0.0579	660	0.0644	1000	0.0261	1340	0.0268	1680		2020	
330	0.0592	670	0.0580	1010	0.0265	1350	0.0268	1690		2030	
340	0.0603	680	0.0515	1020	0.0265	1360	0.0264	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: d6m NAME: Developed Basin, 6 Month
SBUH METHODOLOGY

TOTAL AREA.....:	0.69 Acres	BASEFLOWS:	0.00 cfs
RAINFALL TYPE....:	TYPE1A	PERVIOUS AREA	
PRECIPITATION....:	1.28 inches	AREA..:	0.15 Acres
TIME INTERVAL....:	10.00 min	CN....:	90.00
TIME OF CONC.....:	5.00 min	IMPERVIOUS AREA	
ABSTRACTION COEFF:	0.20	AREA..:	0.54 Acres
		CN....:	98.00

PEAK RATE: 0.15 cfs VOL: 0.05 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0326	690	0.0311	1030	0.0201	1370	0.0166	1710	
20		360	0.0334	700	0.0314	1040	0.0243	1380	0.0166	1720	
30		370	0.0328	710	0.0312	1050	0.0243	1390	0.0163	1730	
40		380	0.0320	720	0.0312	1060	0.0243	1400	0.0166	1740	
50		390	0.0324	730	0.0315	1070	0.0243	1410	0.0166	1750	
60		400	0.0329	740	0.0313	1080	0.0243	1420	0.0163	1760	
70		410	0.0336	750	0.0314	1090	0.0224	1430	0.0166	1770	
80		420	0.0339	760	0.0317	1100	0.0202	1440	0.0166	1780	
90	0.0001	430	0.0550	770	0.0315	1110	0.0202	1450	0.0082	1790	
100	0.0008	440	0.0770	780	0.0315	1120	0.0278	1460		1800	
110	0.0020	450	0.0788	790	0.0278	1130	0.0203	1470		1810	
120	0.0030	460	0.1113	800	0.0238	1140	0.0130	1480		1820	
130	0.0044	470	0.1448	810	0.0238	1150	0.0205	1490		1830	
140	0.0060	480	0.1485	820	0.0238	1160	0.0203	1500		1840	
150	0.0071	490	0.1077	830	0.0238	1170	0.0203	1510		1850	
160	0.0080	500	0.0655	840	0.0239	1180	0.0206	1520		1860	
170	0.0090	510	0.0660	850	0.0258	1190	0.0203	1530		1870	
180	0.0099	520	0.0627	860	0.0280	1200	0.0203	1540		1880	
190	0.0106	530	0.0595	870	0.0280	1210	0.0206	1550		1890	
200	0.0114	540	0.0598	880	0.0278	1220	0.0204	1560		1900	
210	0.0121	550	0.0506	890	0.0281	1230	0.0204	1570		1910	
220	0.0126	560	0.0414	900	0.0281	1240	0.0206	1580		1920	
230	0.0133	570	0.0415	910	0.0279	1250	0.0204	1590		1930	
240	0.0138	580	0.0419	920	0.0282	1260	0.0204	1600		1940	
250	0.0153	590	0.0418	930	0.0282	1270	0.0207	1610		1950	
260	0.0169	600	0.0419	940	0.0280	1280	0.0204	1620		1960	
270	0.0174	610	0.0402	950	0.0282	1290	0.0204	1630		1970	
280	0.0181	620	0.0384	960	0.0283	1300	0.0207	1640		1980	
290	0.0184	630	0.0385	970	0.0220	1310	0.0205	1650		1990	
300	0.0188	640	0.0384	980	0.0162	1320	0.0205	1660		2000	
310	0.0243	650	0.0387	990	0.0162	1330	0.0185	1670		2010	
320	0.0298	660	0.0388	1000	0.0160	1340	0.0165	1680		2020	
330	0.0307	670	0.0349	1010	0.0162	1350	0.0165	1690		2030	
340	0.0317	680	0.0310	1020	0.0162	1360	0.0163	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: e100y NAME: Existing Basin, 100y
SBUH METHODOLOGY
TOTAL AREA.....: 0.69 Acres BASEFLOWS: 0.00 cfs
RAINFALL TYPE....: TYPE1A PERVIOUS AREA
PRECIPITATION....: 3.90 inches AREA..: 0.69 Acres
TIME INTERVAL....: 10.00 min CN....: 89.00
TIME OF CONC.....: 21.58 min IMPERVIOUS AREA
ABSTRACTION COEFF: 0.20 AREA..: 0.00 Acres
CN....: 98.00

TcReach - Sheet L: 200.00 ns:0.1500 p2yr: 2.00 s:0.0200
PEAK RATE: 0.35 cfs VOL: 0.16 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0745	690	0.1022	1030	0.0560	1370	0.0522	1710	
20		360	0.0791	700	0.0997	1040	0.0630	1380	0.0517	1720	
30		370	0.0817	710	0.0980	1050	0.0673	1390	0.0511	1730	
40		380	0.0830	720	0.0970	1060	0.0701	1400	0.0511	1740	
50		390	0.0846	730	0.0967	1070	0.0718	1410	0.0510	1750	
60		400	0.0864	740	0.0963	1080	0.0729	1420	0.0507	1760	
70		410	0.0885	750	0.0962	1090	0.0714	1430	0.0508	1770	
80		420	0.0904	760	0.0964	1100	0.0679	1440	0.0509	1780	
90		430	0.1141	770	0.0963	1110	0.0657	1450	0.0412	1790	
100		440	0.1527	780	0.0964	1120	0.0732	1460	0.0257	1800	
110		450	0.1797	790	0.0920	1130	0.0691	1470	0.0160	1810	
120		460	0.2328	800	0.0848	1140	0.0580	1480	0.0100	1820	
130		470	0.3040	810	0.0803	1150	0.0599	1490	0.0062	1830	
140		480	0.3542	820	0.0775	1160	0.0609	1500	0.0039	1840	
150	0.0002	490	0.3411	830	0.0758	1170	0.0614	1510	0.0024	1850	
160	0.0010	500	0.2863	840	0.0747	1180	0.0621	1520	0.0015	1860	
170	0.0028	510	0.2528	850	0.0763	1190	0.0622	1530	0.0009	1870	
180	0.0050	520	0.2284	860	0.0798	1200	0.0623	1540	0.0006	1880	
190	0.0075	530	0.2097	870	0.0821	1210	0.0627	1550	0.0004	1890	
200	0.0102	540	0.1985	880	0.0832	1220	0.0627	1560	0.0002	1900	
210	0.0128	550	0.1813	890	0.0843	1230	0.0626	1570	0.0001	1910	
220	0.0154	560	0.1600	900	0.0850	1240	0.0629	1580		1920	
230	0.0179	570	0.1470	910	0.0851	1250	0.0628	1590		1930	
240	0.0204	580	0.1393	920	0.0856	1260	0.0628	1600		1940	
250	0.0235	590	0.1345	930	0.0859	1270	0.0631	1610		1950	
260	0.0271	600	0.1317	940	0.0858	1280	0.0630	1620		1960	
270	0.0303	610	0.1280	950	0.0861	1290	0.0629	1630		1970	
280	0.0333	620	0.1237	960	0.0863	1300	0.0632	1640		1980	
290	0.0360	630	0.1212	970	0.0792	1310	0.0631	1650		1990	
300	0.0384	640	0.1195	980	0.0681	1320	0.0630	1660		2000	
310	0.0453	650	0.1189	990	0.0612	1330	0.0607	1670		2010	
320	0.0552	660	0.1186	1000	0.0566	1340	0.0570	1680		2020	
330	0.0629	670	0.1140	1010	0.0541	1350	0.0547	1690		2030	
340	0.0692	680	0.1067	1020	0.0525	1360	0.0530	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: e10y NAME: Existing Basin, 10y
SBUH METHODOLOGY
TOTAL AREA.....: 0.69 Acres BASEFLOWS: 0.00 cfs
RAINFALL TYPE....: TYPE1A PERVIOUS AREA
PRECIPITATION....: 2.70 inches AREA..: 0.69 Acres
TIME INTERVAL....: 10.00 min CN....: 89.00
TIME OF CONC.....: 21.58 min IMPERVIOUS AREA
ABSTRACTION COEFF: 0.20 AREA..: 0.00 Acres
CN....: 98.00

TcReach - Sheet L: 200.00 ns:0.1500 p2yr: 2.00 s:0.0200
PEAK RATE: 0.20 cfs VOL: 0.09 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0336	690	0.0640	1030	0.0362	1370	0.0342	1710	
20		360	0.0366	700	0.0626	1040	0.0407	1380	0.0339	1720	
30		370	0.0387	710	0.0616	1050	0.0435	1390	0.0335	1730	
40		380	0.0401	720	0.0610	1060	0.0453	1400	0.0335	1740	
50		390	0.0415	730	0.0609	1070	0.0465	1410	0.0335	1750	
60		400	0.0431	740	0.0608	1080	0.0472	1420	0.0333	1760	
70		410	0.0448	750	0.0607	1090	0.0462	1430	0.0333	1770	
80		420	0.0464	760	0.0610	1100	0.0440	1440	0.0334	1780	
90		430	0.0597	770	0.0610	1110	0.0426	1450	0.0270	1790	
100		440	0.0814	780	0.0611	1120	0.0475	1460	0.0169	1800	
110		450	0.0972	790	0.0584	1130	0.0448	1470	0.0105	1810	
120		460	0.1285	800	0.0538	1140	0.0377	1480	0.0066	1820	
130		470	0.1711	810	0.0510	1150	0.0389	1490	0.0041	1830	
140		480	0.2027	820	0.0493	1160	0.0395	1500	0.0026	1840	
150		490	0.1974	830	0.0483	1170	0.0399	1510	0.0016	1850	
160		500	0.1670	840	0.0476	1180	0.0404	1520	0.0010	1860	
170		510	0.1487	850	0.0487	1190	0.0405	1530	0.0006	1870	
180		520	0.1354	860	0.0510	1200	0.0406	1540	0.0004	1880	
190		530	0.1252	870	0.0524	1210	0.0408	1550	0.0002	1890	
200	0.0001	540	0.1193	880	0.0532	1220	0.0408	1560	0.0002	1900	
210	0.0006	550	0.1095	890	0.0539	1230	0.0408	1570		1910	
220	0.0015	560	0.0971	900	0.0544	1240	0.0410	1580		1920	
230	0.0027	570	0.0895	910	0.0546	1250	0.0410	1590		1930	
240	0.0039	580	0.0852	920	0.0549	1260	0.0410	1600		1940	
250	0.0055	590	0.0825	930	0.0551	1270	0.0412	1610		1950	
260	0.0073	600	0.0810	940	0.0552	1280	0.0411	1620		1960	
270	0.0091	610	0.0789	950	0.0554	1290	0.0411	1630		1970	
280	0.0108	620	0.0765	960	0.0556	1300	0.0413	1640		1980	
290	0.0125	630	0.0751	970	0.0510	1310	0.0412	1650		1990	
300	0.0141	640	0.0742	980	0.0439	1320	0.0412	1660		2000	
310	0.0176	650	0.0740	990	0.0395	1330	0.0397	1670		2010	
320	0.0224	660	0.0740	1000	0.0365	1340	0.0373	1680		2020	
330	0.0266	670	0.0712	1010	0.0349	1350	0.0358	1690		2030	
340	0.0303	680	0.0667	1020	0.0339	1360	0.0347	1700		2040	

DETAIL BASIN SUMMARY

BASIN ID: e2y NAME: Existing Basin, 2Y
SBUH METHODOLOGY
TOTAL AREA.....: 0.69 Acres BASEFLOWS: 0.00 cfs
RAINFALL TYPE....: TYPE1A PERVIOUS AREA
PRECIPITATION....: 2.00 inches AREA..: 0.69 Acres
TIME INTERVAL....: 10.00 min CN....: 89.00
TIME OF CONC.....: 21.58 min IMPERVIOUS AREA
ABSTRACTION COEFF: 0.20 AREA..: 0.00 Acres
CN....: 98.00
TcReach - Sheet L: 200.00 ns:0.1500 p2yr: 2.00 s:0.0200
PEAK RATE: 0.12 cfs VOL: 0.06 Ac-ft TIME: 480 min

TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)	TIME (min)	DESIGN RUNOFF (cfs)
10		350	0.0139	690	0.0420	1030	0.0245	1370	0.0236	1710	
20		360	0.0159	700	0.0411	1040	0.0276	1380	0.0234	1720	
30		370	0.0175	710	0.0405	1050	0.0296	1390	0.0231	1730	
40		380	0.0187	720	0.0402	1060	0.0308	1400	0.0231	1740	
50		390	0.0200	730	0.0402	1070	0.0316	1410	0.0231	1750	
60		400	0.0213	740	0.0401	1080	0.0321	1420	0.0230	1760	
70		410	0.0226	750	0.0402	1090	0.0315	1430	0.0230	1770	
80		420	0.0238	760	0.0404	1100	0.0300	1440	0.0231	1780	
90		430	0.0315	770	0.0405	1110	0.0291	1450	0.0187	1790	
100		440	0.0439	780	0.0406	1120	0.0324	1460	0.0117	1800	
110		450	0.0536	790	0.0388	1130	0.0306	1470	0.0073	1810	
120		460	0.0727	800	0.0358	1140	0.0257	1480	0.0045	1820	
130		470	0.0990	810	0.0340	1150	0.0266	1490	0.0028	1830	
140		480	0.1197	820	0.0329	1160	0.0270	1500	0.0018	1840	
150		490	0.1181	830	0.0322	1170	0.0273	1510	0.0011	1850	
160		500	0.1008	840	0.0318	1180	0.0276	1520	0.0007	1860	
170		510	0.0906	850	0.0326	1190	0.0277	1530	0.0004	1870	
180		520	0.0833	860	0.0341	1200	0.0278	1540	0.0003	1880	
190		530	0.0776	870	0.0351	1210	0.0280	1550	0.0002	1890	
200		540	0.0745	880	0.0357	1220	0.0280	1560	0.0001	1900	
210		550	0.0688	890	0.0362	1230	0.0280	1570		1910	
220		560	0.0613	900	0.0366	1240	0.0281	1580		1920	
230		570	0.0568	910	0.0367	1250	0.0281	1590		1930	
240		580	0.0542	920	0.0370	1260	0.0281	1600		1940	
250		590	0.0527	930	0.0372	1270	0.0283	1610		1950	
260	0.0003	600	0.0520	940	0.0372	1280	0.0282	1620		1960	
270	0.0008	610	0.0508	950	0.0374	1290	0.0282	1630		1970	
280	0.0016	620	0.0494	960	0.0375	1300	0.0284	1640		1980	
290	0.0025	630	0.0486	970	0.0345	1310	0.0284	1650		1990	
300	0.0034	640	0.0482	980	0.0297	1320	0.0284	1660		2000	
310	0.0051	650	0.0481	990	0.0267	1330	0.0273	1670		2010	
320	0.0074	660	0.0482	1000	0.0247	1340	0.0257	1680		2020	
330	0.0096	670	0.0465	1010	0.0236	1350	0.0247	1690		2030	
340	0.0118	680	0.0437	1020	0.0230	1360	0.0239	1700		2040	

STAGE STORAGE TABLE

CUSTOM STORAGE ID No. 2
Description: Detention Pond

STAGE (ft)	<----STORAGE----> ---cf---	--Ac-Ft-	STAGE (ft)	<----STORAGE----> ---cf---	--Ac-Ft-	STAGE (ft)	<----STORAGE----> ---cf---	--Ac-Ft-	STAGE (ft)	<----STORAGE----> ---cf---	--Ac-Ft-
127.50	0.0000	0.0000	129.30	961.20	0.0221	131.10	2138	0.0491	132.90	3316	0.0761
127.60	43.800	0.0010	129.40	1027	0.0236	131.20	2204	0.0506	133.00	3381	0.0776
127.70	87.600	0.0020	129.50	1092	0.0251	131.30	2269	0.0521	133.10	3446	0.0791
127.80	131.40	0.0030	129.60	1157	0.0266	131.40	2335	0.0536	133.20	3512	0.0806
127.90	175.20	0.0040	129.70	1223	0.0281	131.50	2400	0.0551	133.30	3577	0.0821
128.00	219.00	0.0050	129.80	1288	0.0296	131.60	2465	0.0566	133.40	3643	0.0836
128.10	262.80	0.0060	129.90	1354	0.0311	131.70	2531	0.0581	133.50	3708	0.0851
128.20	306.60	0.0070	130.00	1419	0.0326	131.80	2596	0.0596	133.60	3773	0.0866
128.30	350.40	0.0080	130.10	1484	0.0341	131.90	2662	0.0611	133.70	3839	0.0881
128.40	394.20	0.0090	130.20	1550	0.0356	132.00	2727	0.0626	133.80	3904	0.0896
128.50	438.00	0.0101	130.30	1615	0.0371	132.10	2792	0.0641	133.90	3970	0.0911
128.60	503.40	0.0116	130.40	1681	0.0386	132.20	2858	0.0656	134.00	4035	0.0926
128.70	568.80	0.0131	130.50	1746	0.0401	132.30	2923	0.0671	134.10	4100	0.0941
128.80	634.20	0.0146	130.60	1811	0.0416	132.40	2989	0.0686	134.20	4166	0.0956
128.90	699.60	0.0161	130.70	1877	0.0431	132.50	3054	0.0701	134.30	4231	0.0971
129.00	765.00	0.0176	130.80	1942	0.0446	132.60	3119	0.0716	134.40	4297	0.0986
129.10	830.40	0.0191	130.90	2008	0.0461	132.70	3185	0.0731	134.50	4362	0.1001
129.20	895.80	0.0206	131.00	2073	0.0476	132.80	3250	0.0746			

STAGE DISCHARGE TABLE

MULTIPLE ORIFICE ID No. 2
Description: Pond Outlet Control
Outlet Elev: 127.50
Elev: 125.50 ft Orifice Diameter: 2.1000 in.
Elev: 128.60 ft Orifice 2 Diameter: 1.9000 in.
Elev: 129.00 ft Orifice 3 Diameter: 2.2500 in.

STAGE (ft)	<--DISCHARGE---> ---cfs-- -------	STAGE (ft)	<--DISCHARGE---> ---cfs-- -------	STAGE (ft)	<--DISCHARGE---> ---cfs-- -------	STAGE (ft)	<--DISCHARGE---> ---cfs-- -------
127.50	0.0000	128.10	0.0927	128.70	0.1621	129.30	0.3178
127.60	0.0378	128.20	0.1001	128.80	0.1803	129.40	0.3395
127.70	0.0535	128.30	0.1070	128.90	0.1953	129.50	0.3593
127.80	0.0655	128.40	0.1135	129.00	0.2085		
127.90	0.0757	128.50	0.1197	129.10	0.2641		
128.00	0.0846	128.60	0.1255	129.20	0.2934		

ROUTING REPORT

STORAGE LIST ID No. 2
Description: Detention Pond

MULTIPLE ORIFICE ID No. 2
Description: Pond Outlet Control
Outlet Elev: 127.50
Elev: 125.50 ft Orifice Diameter: 2.1000 in.
Elev: 128.60 ft Orifice 2 Diameter: 1.9000 in.
Elev: 129.00 ft Orifice 3 Diameter: 2.2500 in.

ROUTING CURVE

STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min
127.50	0.0000	0.0000	0.0000	129.90	1354	0.4274	4.9394	132.30	2923	0.7002	10.444
127.60	43.800	0.0378	0.1838	130.00	1419	0.4425	5.1725	132.40	2989	0.7092	10.671
127.70	87.600	0.0535	0.3455	130.10	1484	0.4570	5.4050	132.50	3054	0.7181	10.898
127.80	131.40	0.0655	0.5035	130.20	1550	0.4711	5.6371	132.60	3119	0.7269	11.125
127.90	175.20	0.0757	0.6597	130.30	1615	0.4846	5.8686	132.70	3185	0.7355	11.352
128.00	219.00	0.0846	0.8146	130.40	1681	0.4978	6.0998	132.80	3250	0.7441	11.578
128.10	262.80	0.0927	0.9687	130.50	1746	0.5106	6.3306	132.90	3316	0.7525	11.805
128.20	306.60	0.1001	1.1221	130.60	1811	0.5230	6.5610	133.00	3381	0.7609	12.031
128.30	350.40	0.1070	1.2750	130.70	1877	0.5352	6.7912	133.10	3446	0.7692	12.257
128.40	394.20	0.1135	1.4275	130.80	1942	0.5470	7.0210	133.20	3512	0.7774	12.483
128.50	438.00	0.1197	1.5797	130.90	2008	0.5586	7.2506	133.30	3577	0.7855	12.709
128.60	503.40	0.1255	1.8035	131.00	2073	0.5699	7.4799	133.40	3643	0.7935	12.935
128.70	568.80	0.1621	2.0581	131.10	2138	0.5810	7.7090	133.50	3708	0.8014	13.161
128.80	634.20	0.1803	2.2943	131.20	2204	0.5919	7.9379	133.60	3773	0.8093	13.387
128.90	699.60	0.1953	2.5273	131.30	2269	0.6026	8.1666	133.70	3839	0.8171	13.613
129.00	765.00	0.2085	2.7585	131.40	2335	0.6131	8.3951	133.80	3904	0.8248	13.839
129.10	830.40	0.2641	3.0321	131.50	2400	0.6234	8.6234	133.90	3970	0.8324	14.064
129.20	895.80	0.2934	3.2794	131.60	2465	0.6335	8.8515	134.00	4035	0.8400	14.290
129.30	961.20	0.3178	3.5218	131.70	2531	0.6435	9.0795	134.10	4100	0.8474	14.515
129.40	1027	0.3395	3.7615	131.80	2596	0.6533	9.3073	134.20	4166	0.8549	14.741
129.50	1092	0.3593	3.9993	131.90	2662	0.6629	9.5349	134.30	4231	0.8622	14.966
129.60	1157	0.3778	4.2358	132.00	2727	0.6725	9.7625	134.40	4297	0.8695	15.192
129.70	1223	0.3952	4.4712	132.10	2792	0.6818	9.9898				
129.80	1288	0.4117	4.7057	132.20	2858	0.6911	10.217				

LEVEL POOL ROUTING TABLE

2-Year Storm
MATCH Q (cfs) : 0.12 INFLOW Q (cfs): 0.25
PEAK STAGE (ft): 128.56 PEAK OUTFLOW : 0.12
PEAK TIME: 510.00 min.
INFLOW HYD No. : 4 OUTFLOW HYD No.: 10

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE (ft)	TIME (min)
<---------- cfs min ---------->							
0.0000	0.0006	0.0000	0.0006	0.0000	0.0006	127.50	70.00
0.0006	0.0027	0.0005	0.0039	0.0001	0.0037	127.50	80.00
0.0027	0.0053	0.0030	0.0110	0.0008	0.0102	127.60	90.00
0.0053	0.0076	0.0081	0.0210	0.0021	0.0189	127.60	100.00
0.0076	0.0096	0.0150	0.0323	0.0039	0.0284	127.60	110.00
0.0096	0.0114	0.0225	0.0436	0.0058	0.0378	127.60	120.00
0.0114	0.0142	0.0300	0.0556	0.0078	0.0478	127.60	130.00
0.0142	0.0171	0.0380	0.0693	0.0098	0.0594	127.60	140.00
0.0171	0.0188	0.0472	0.0831	0.0122	0.0709	127.60	150.00
0.0188	0.0201	0.0563	0.0952	0.0146	0.0806	127.60	160.00
0.0201	0.0216	0.0640	0.1058	0.0166	0.0892	127.60	170.00
0.0216	0.0228	0.0708	0.1153	0.0184	0.0969	127.60	180.00
0.0228	0.0237	0.0770	0.1234	0.0199	0.1035	127.60	190.00
0.0237	0.0248	0.0822	0.1307	0.0213	0.1094	127.60	200.00
0.0248	0.0257	0.0869	0.1374	0.0225	0.1149	127.60	210.00
0.0257	0.0262	0.0912	0.1432	0.0236	0.1195	127.60	220.00
0.0262	0.0272	0.0949	0.1484	0.0246	0.1238	127.60	230.00
0.0272	0.0280	0.0983	0.1534	0.0255	0.1280	127.60	240.00
0.0280	0.0308	0.1016	0.1604	0.0263	0.1340	127.60	250.00
0.0308	0.0337	0.1064	0.1709	0.0276	0.1433	127.60	260.00
0.0337	0.0346	0.1138	0.1820	0.0295	0.1525	127.60	270.00
0.0346	0.0357	0.1211	0.1913	0.0314	0.1600	127.60	280.00
0.0357	0.0362	0.1270	0.1989	0.0329	0.1659	127.60	290.00
0.0362	0.0369	0.1318	0.2048	0.0342	0.1707	127.60	300.00
0.0369	0.0474	0.1355	0.2198	0.0351	0.1847	127.60	310.00
0.0474	0.0579	0.1467	0.2520	0.0379	0.2141	127.60	320.00
0.0579	0.0592	0.1733	0.2904	0.0408	0.2496	127.62	330.00
0.0592	0.0603	0.2054	0.3249	0.0442	0.2806	127.64	340.00
0.0603	0.0614	0.2334	0.3552	0.0472	0.3079	127.66	350.00
0.0614	0.0624	0.2581	0.3819	0.0499	0.3320	127.68	360.00
0.0624	0.0607	0.2798	0.4029	0.0522	0.3507	127.69	370.00
0.0607	0.0590	0.2968	0.4165	0.0539	0.3626	127.70	380.00
0.0590	0.0593	0.3078	0.4261	0.0548	0.3712	127.71	390.00
0.0593	0.0599	0.3158	0.4350	0.0555	0.3795	127.72	400.00
0.0599	0.0609	0.3234	0.4442	0.0561	0.3881	127.72	410.00
0.0609	0.0611	0.3313	0.4533	0.0568	0.3965	127.73	420.00
0.0611	0.0984	0.3391	0.4986	0.0574	0.4412	127.73	430.00
0.0984	0.1369	0.3804	0.6156	0.0608	0.5548	127.76	440.00
0.1369	0.1389	0.4860	0.7617	0.0689	0.6928	127.83	450.00
0.1389	0.1942	0.6152	0.9483	0.0776	0.8707	127.92	460.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.1942	0.2509	0.7832	1.2283	0.0876	1.1407	128.04	470.00
0.2509	0.2549	1.0397	1.5455	0.1010	1.4445	128.21	480.00
0.2549	0.1839	1.3303	1.7691	0.1142	1.6548	128.41	490.00
0.1839	0.1113	1.5332	1.8284	0.1216	1.7068	128.53	500.00
0.1113	0.1118	1.5838	1.8069	0.1230	1.6839	128.56	510.00
0.1118	0.1059	1.5615	1.7793	0.1224	1.6569	128.55	520.00
0.1059	0.1003	1.5352	1.7415	0.1217	1.6198	128.53	530.00
0.1003	0.1007	1.4990	1.7001	0.1207	1.5794	128.52	540.00
0.1007	0.0851	1.4597	1.6455	0.1197	1.5258	128.50	550.00
0.0851	0.0694	1.4083	1.5628	0.1175	1.4453	128.46	560.00
0.0694	0.0695	1.3311	1.4700	0.1143	1.3558	128.41	570.00
0.0695	0.0701	1.2453	1.3849	0.1105	1.2744	128.35	580.00
0.0701	0.0698	1.1674	1.3073	0.1070	1.2003	128.30	590.00
0.0698	0.0700	1.0966	1.2364	0.1037	1.1328	128.25	600.00
0.0700	0.0670	1.0321	1.1691	0.1006	1.0685	128.21	610.00
0.0670	0.0641	0.9710	1.1021	0.0975	1.0045	128.17	620.00
0.0641	0.0642	0.9101	1.0383	0.0944	0.9439	128.12	630.00
0.0642	0.0639	0.8525	0.9805	0.0914	0.8891	128.08	640.00
0.0639	0.0644	0.8006	0.9288	0.0885	0.8403	128.05	650.00
0.0644	0.0644	0.7543	0.8831	0.0860	0.7972	128.02	660.00
0.0644	0.0580	0.7136	0.8360	0.0836	0.7524	127.99	670.00
0.0580	0.0515	0.6713	0.7807	0.0810	0.6997	127.96	680.00
0.0515	0.0515	0.6217	0.7247	0.0780	0.6467	127.93	690.00
0.0515	0.0520	0.5718	0.6753	0.0748	0.6005	127.89	700.00
0.0520	0.0516	0.5286	0.6322	0.0718	0.5604	127.86	710.00
0.0516	0.0517	0.4911	0.5944	0.0692	0.5252	127.84	720.00
0.0517	0.0521	0.4582	0.5620	0.0670	0.4950	127.81	730.00
0.0521	0.0518	0.4301	0.5340	0.0649	0.4691	127.79	740.00
0.0518	0.0518	0.4062	0.5098	0.0629	0.4469	127.78	750.00
0.0518	0.0523	0.3856	0.4897	0.0612	0.4285	127.76	760.00
0.0523	0.0519	0.3686	0.4728	0.0598	0.4130	127.75	770.00
0.0519	0.0520	0.3543	0.4582	0.0587	0.3995	127.74	780.00
0.0520	0.0457	0.3419	0.4396	0.0576	0.3820	127.73	790.00
0.0457	0.0391	0.3257	0.4105	0.0563	0.3542	127.72	800.00
0.0391	0.0391	0.3001	0.3783	0.0542	0.3242	127.71	810.00
0.0391	0.0392	0.2727	0.3510	0.0514	0.2996	127.69	820.00
0.0392	0.0392	0.2505	0.3289	0.0491	0.2798	127.67	830.00
0.0392	0.0392	0.2327	0.3111	0.0472	0.2639	127.66	840.00
0.0392	0.0424	0.2183	0.2999	0.0456	0.2543	127.65	850.00
0.0424	0.0459	0.2096	0.2980	0.0447	0.2533	127.64	860.00
0.0459	0.0460	0.2087	0.3007	0.0446	0.2561	127.64	870.00
0.0460	0.0456	0.2112	0.3028	0.0448	0.2580	127.64	880.00
0.0456	0.0460	0.2129	0.3046	0.0450	0.2596	127.65	890.00
0.0460	0.0461	0.2144	0.3065	0.0452	0.2613	127.65	900.00
0.0461	0.0457	0.2159	0.3077	0.0454	0.2624	127.65	910.00
0.0457	0.0461	0.2169	0.3087	0.0455	0.2633	127.65	920.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0461	0.0462	0.2177	0.3100	0.0455	0.2645	127.65	930.00
0.0462	0.0458	0.2188	0.3107	0.0457	0.2651	127.65	940.00
0.0458	0.0462	0.2193	0.3113	0.0457	0.2656	127.65	950.00
0.0462	0.0462	0.2198	0.3123	0.0458	0.2665	127.65	960.00
0.0462	0.0360	0.2207	0.3029	0.0459	0.2570	127.65	970.00
0.0360	0.0265	0.2121	0.2745	0.0449	0.2296	127.65	980.00
0.0265	0.0265	0.1873	0.2403	0.0423	0.1980	127.63	990.00
0.0265	0.0261	0.1588	0.2114	0.0392	0.1722	127.61	1000.00
0.0261	0.0265	0.1368	0.1894	0.0355	0.1540	127.59	1010.00
0.0265	0.0265	0.1223	0.1753	0.0317	0.1436	127.60	1020.00
0.0265	0.0329	0.1141	0.1735	0.0296	0.1439	127.60	1030.00
0.0329	0.0396	0.1143	0.1868	0.0296	0.1572	127.60	1040.00
0.0396	0.0396	0.1248	0.2041	0.0324	0.1717	127.60	1050.00
0.0396	0.0397	0.1364	0.2157	0.0354	0.1803	127.60	1060.00
0.0397	0.0397	0.1432	0.2226	0.0371	0.1854	127.60	1070.00
0.0397	0.0397	0.1474	0.2268	0.0380	0.1888	127.60	1080.00
0.0397	0.0365	0.1505	0.2267	0.0383	0.1884	127.60	1090.00
0.0365	0.0330	0.1501	0.2196	0.0383	0.1813	127.60	1100.00
0.0330	0.0330	0.1440	0.2100	0.0373	0.1726	127.60	1110.00
0.0330	0.0453	0.1371	0.2154	0.0355	0.1799	127.60	1120.00
0.0453	0.0330	0.1429	0.2212	0.0370	0.1842	127.60	1130.00
0.0330	0.0211	0.1463	0.2004	0.0379	0.1625	127.60	1140.00
0.0211	0.0334	0.1291	0.1836	0.0335	0.1501	127.59	1150.00
0.0334	0.0330	0.1192	0.1857	0.0309	0.1548	127.60	1160.00
0.0330	0.0331	0.1229	0.1890	0.0319	0.1572	127.60	1170.00
0.0331	0.0335	0.1248	0.1913	0.0324	0.1590	127.60	1180.00
0.0335	0.0331	0.1262	0.1928	0.0327	0.1601	127.60	1190.00
0.0331	0.0331	0.1271	0.1933	0.0329	0.1603	127.60	1200.00
0.0331	0.0335	0.1273	0.1939	0.0330	0.1609	127.60	1210.00
0.0335	0.0331	0.1278	0.1944	0.0331	0.1612	127.60	1220.00
0.0331	0.0331	0.1281	0.1943	0.0332	0.1611	127.60	1230.00
0.0331	0.0335	0.1279	0.1946	0.0332	0.1614	127.60	1240.00
0.0335	0.0331	0.1282	0.1948	0.0332	0.1616	127.60	1250.00
0.0331	0.0331	0.1283	0.1946	0.0333	0.1614	127.60	1260.00
0.0331	0.0336	0.1281	0.1948	0.0332	0.1616	127.60	1270.00
0.0336	0.0332	0.1284	0.1951	0.0333	0.1618	127.60	1280.00
0.0332	0.0332	0.1285	0.1948	0.0333	0.1615	127.60	1290.00
0.0332	0.0336	0.1283	0.1950	0.0332	0.1618	127.60	1300.00
0.0336	0.0332	0.1285	0.1952	0.0333	0.1619	127.60	1310.00
0.0332	0.0332	0.1286	0.1950	0.0333	0.1617	127.60	1320.00
0.0332	0.0300	0.1284	0.1916	0.0333	0.1583	127.60	1330.00
0.0300	0.0268	0.1257	0.1825	0.0326	0.1500	127.60	1340.00
0.0268	0.0268	0.1191	0.1727	0.0309	0.1419	127.60	1350.00
0.0268	0.0264	0.1127	0.1659	0.0292	0.1367	127.60	1360.00
0.0264	0.0268	0.1086	0.1618	0.0281	0.1337	127.60	1370.00
0.0268	0.0268	0.1062	0.1598	0.0275	0.1323	127.60	1380.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE (ft)	TIME (min)
<---------- cfs min ---------->							
0.0268	0.0264	0.1051	0.1583	0.0272	0.1311	127.60	1390.00
0.0264	0.0268	0.1041	0.1574	0.0270	0.1304	127.60	1400.00
0.0268	0.0269	0.1036	0.1573	0.0268	0.1304	127.60	1410.00
0.0269	0.0265	0.1036	0.1569	0.0268	0.1300	127.60	1420.00
0.0265	0.0269	0.1033	0.1566	0.0268	0.1298	127.60	1430.00
0.0269	0.0269	0.1031	0.1568	0.0267	0.1301	127.60	1440.00
0.0269	0.0132	0.1033	0.1434	0.0268	0.1166	127.60	1450.00
0.0132	0.0000	0.0926	0.1059	0.0240	0.0819	127.60	1460.00
0.0000	0.0000	0.0650	0.0650	0.0169	0.0482	127.60	1470.00
0.0000	0.0000	0.0382	0.0382	0.0099	0.0283	127.60	1480.00
0.0000	0.0000	0.0225	0.0225	0.0058	0.0167	127.60	1490.00
0.0000	0.0000	0.0132	0.0132	0.0034	0.0098	127.60	1500.00
0.0000	0.0000	0.0078	0.0078	0.0020	0.0058	127.60	1510.00
0.0000	0.0000	0.0046	0.0046	0.0012	0.0034	127.60	1520.00
0.0000	0.0000	0.0027	0.0027	0.0007	0.0020	127.60	1530.00
0.0000	0.0000	0.0016	0.0016	0.0004	0.0012	127.60	1540.00
0.0000	0.0000	0.0009	0.0009	0.0002	0.0007	127.60	1550.00
0.0000	0.0000	0.0005	0.0005	0.0001	0.0004	127.60	1560.00
0.0000	0.0000	0.0003	0.0003	0.0001	0.0002	127.60	1570.00
0.0000	0.0000	0.0002	0.0002	0.0000	0.0001	127.60	1580.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0001	127.60	1590.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	127.60	1600.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1610.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1620.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1630.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1640.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1650.00

ROUTING REPORT

STORAGE LIST ID No. 2
Description: Detention Pond

MULTIPLE ORIFICE ID No. 2
Description: Pond Outlet Control
Outlet Elev: 127.50
Elev: 125.50 ft Orifice Diameter: 2.1000 in.
Elev: 128.60 ft Orifice 2 Diameter: 1.9000 in.
Elev: 129.00 ft Orifice 3 Diameter: 2.2500 in.

ROUTING CURVE

STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min
127.50	0.0000	0.0000	0.0000	129.90	1354	0.4274	4.9394	132.30	2923	0.7002	10.444
127.60	43.800	0.0378	0.1838	130.00	1419	0.4425	5.1725	132.40	2989	0.7092	10.671
127.70	87.600	0.0535	0.3455	130.10	1484	0.4570	5.4050	132.50	3054	0.7181	10.898
127.80	131.40	0.0655	0.5035	130.20	1550	0.4711	5.6371	132.60	3119	0.7269	11.125
127.90	175.20	0.0757	0.6597	130.30	1615	0.4846	5.8686	132.70	3185	0.7355	11.352
128.00	219.00	0.0846	0.8146	130.40	1681	0.4978	6.0998	132.80	3250	0.7441	11.578
128.10	262.80	0.0927	0.9687	130.50	1746	0.5106	6.3306	132.90	3316	0.7525	11.805
128.20	306.60	0.1001	1.1221	130.60	1811	0.5230	6.5610	133.00	3381	0.7609	12.031
128.30	350.40	0.1070	1.2750	130.70	1877	0.5352	6.7912	133.10	3446	0.7692	12.257
128.40	394.20	0.1135	1.4275	130.80	1942	0.5470	7.0210	133.20	3512	0.7774	12.483
128.50	438.00	0.1197	1.5797	130.90	2008	0.5586	7.2506	133.30	3577	0.7855	12.709
128.60	503.40	0.1255	1.8035	131.00	2073	0.5699	7.4799	133.40	3643	0.7935	12.935
128.70	568.80	0.1621	2.0581	131.10	2138	0.5810	7.7090	133.50	3708	0.8014	13.161
128.80	634.20	0.1803	2.2943	131.20	2204	0.5919	7.9379	133.60	3773	0.8093	13.387
128.90	699.60	0.1953	2.5273	131.30	2269	0.6026	8.1666	133.70	3839	0.8171	13.613
129.00	765.00	0.2085	2.7585	131.40	2335	0.6131	8.3951	133.80	3904	0.8248	13.839
129.10	830.40	0.2641	3.0321	131.50	2400	0.6234	8.6234	133.90	3970	0.8324	14.064
129.20	895.80	0.2934	3.2794	131.60	2465	0.6335	8.8515	134.00	4035	0.8400	14.290
129.30	961.20	0.3178	3.5218	131.70	2531	0.6435	9.0795	134.10	4100	0.8474	14.515
129.40	1027	0.3395	3.7615	131.80	2596	0.6533	9.3073	134.20	4166	0.8549	14.741
129.50	1092	0.3593	3.9993	131.90	2662	0.6629	9.5349	134.30	4231	0.8622	14.966
129.60	1157	0.3778	4.2358	132.00	2727	0.6725	9.7625	134.40	4297	0.8695	15.192
129.70	1223	0.3952	4.4712	132.10	2792	0.6818	9.9898				
129.80	1288	0.4117	4.7057	132.20	2858	0.6911	10.217				

LEVEL POOL ROUTING TABLE

10-Year Storm
MATCH Q (cfs) : 0.20 INFLOW Q (cfs): 0.36
PEAK STAGE (ft): 128.92 PEAK OUTFLOW : 0.20
PEAK TIME: 510.00 min.
INFLOW HYD No. : 5 OUTFLOW HYD No.: 11

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE (ft)	TIME (min)
<---------- cfs min ---------->							
0.0000	0.0001	0.0000	0.0001	0.0000	0.0001	127.50	50.00
0.0001	0.0013	0.0001	0.0016	0.0000	0.0015	127.50	60.00
0.0013	0.0049	0.0012	0.0074	0.0003	0.0071	127.60	70.00
0.0049	0.0095	0.0056	0.0200	0.0015	0.0186	127.60	80.00
0.0095	0.0132	0.0147	0.0375	0.0038	0.0336	127.60	90.00
0.0132	0.0164	0.0267	0.0563	0.0069	0.0494	127.60	100.00
0.0164	0.0191	0.0392	0.0747	0.0102	0.0645	127.60	110.00
0.0191	0.0214	0.0512	0.0917	0.0133	0.0784	127.60	120.00
0.0214	0.0254	0.0623	0.1091	0.0161	0.0930	127.60	130.00
0.0254	0.0298	0.0738	0.1290	0.0191	0.1099	127.60	140.00
0.0298	0.0318	0.0873	0.1488	0.0226	0.1262	127.60	150.00
0.0318	0.0333	0.1002	0.1653	0.0260	0.1393	127.60	160.00
0.0333	0.0351	0.1106	0.1790	0.0287	0.1503	127.60	170.00
0.0351	0.0365	0.1194	0.1910	0.0309	0.1600	127.60	180.00
0.0365	0.0375	0.1271	0.2011	0.0329	0.1682	127.60	190.00
0.0375	0.0393	0.1335	0.2104	0.0346	0.1757	127.60	200.00
0.0393	0.0406	0.1396	0.2194	0.0362	0.1833	127.60	210.00
0.0406	0.0414	0.1455	0.2276	0.0377	0.1898	127.60	220.00
0.0414	0.0429	0.1514	0.2358	0.0384	0.1973	127.60	230.00
0.0429	0.0439	0.1582	0.2450	0.0392	0.2058	127.61	240.00
0.0439	0.0480	0.1659	0.2577	0.0400	0.2178	127.61	250.00
0.0480	0.0521	0.1766	0.2767	0.0411	0.2356	127.62	260.00
0.0521	0.0531	0.1927	0.2979	0.0429	0.2551	127.63	270.00
0.0531	0.0545	0.2103	0.3179	0.0447	0.2732	127.64	280.00
0.0545	0.0549	0.2267	0.3361	0.0465	0.2896	127.66	290.00
0.0549	0.0558	0.2415	0.3522	0.0481	0.3041	127.67	300.00
0.0558	0.0712	0.2546	0.3815	0.0495	0.3320	127.67	310.00
0.0712	0.0865	0.2798	0.4376	0.0522	0.3853	127.69	320.00
0.0865	0.0880	0.3288	0.5033	0.0566	0.4468	127.73	330.00
0.0880	0.0893	0.3855	0.5628	0.0612	0.5016	127.76	340.00
0.0893	0.0905	0.4362	0.6159	0.0654	0.5505	127.80	350.00
0.0905	0.0915	0.4819	0.6639	0.0686	0.5953	127.83	360.00
0.0915	0.0888	0.5238	0.7041	0.0715	0.6326	127.86	370.00
0.0888	0.0859	0.5587	0.7334	0.0739	0.6595	127.88	380.00
0.0859	0.0862	0.5838	0.7559	0.0757	0.6802	127.90	390.00
0.0862	0.0869	0.6033	0.7764	0.0769	0.6995	127.91	400.00
0.0869	0.0880	0.6215	0.7963	0.0780	0.7183	127.93	410.00
0.0880	0.0881	0.6393	0.8153	0.0791	0.7362	127.94	420.00
0.0881	0.1414	0.6561	0.8856	0.0801	0.8055	127.95	430.00
0.1414	0.1961	0.7214	1.0589	0.0841	0.9748	127.99	440.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.1961	0.1982	0.8818	1.2762	0.0930	1.1832	128.10	450.00
0.1982	0.2760	1.0803	1.5546	0.1029	1.4517	128.24	460.00
0.2760	0.3551	1.3372	1.9684	0.1145	1.8539	128.42	470.00
0.3551	0.3593	1.7211	2.4355	0.1327	2.3028	128.62	480.00
0.3593	0.2585	2.1220	2.7398	0.1808	2.5590	128.80	490.00
0.2585	0.1561	2.3619	2.7765	0.1971	2.5794	128.91	500.00
0.1561	0.1566	2.3812	2.6939	0.1983	2.4957	128.92	510.00
0.1566	0.1482	2.3024	2.6073	0.1932	2.4140	128.89	520.00
0.1482	0.1402	2.2261	2.5145	0.1880	2.3265	128.85	530.00
0.1402	0.1406	2.1442	2.4250	0.1823	2.2426	128.81	540.00
0.1406	0.1187	2.0664	2.3256	0.1763	2.1494	128.78	550.00
0.1187	0.0967	1.9803	2.1957	0.1691	2.0266	128.74	560.00
0.0967	0.0969	1.8690	2.0626	0.1576	1.9051	128.69	570.00
0.0969	0.0975	1.7650	1.9594	0.1401	1.8193	128.64	580.00
0.0975	0.0972	1.6915	1.8862	0.1278	1.7584	128.61	590.00
0.0972	0.0973	1.6341	1.8285	0.1243	1.7042	128.58	600.00
0.0973	0.0931	1.5813	1.7717	0.1229	1.6488	128.56	610.00
0.0931	0.0890	1.5273	1.7095	0.1215	1.5880	128.53	620.00
0.0890	0.0891	1.4681	1.6462	0.1199	1.5263	128.50	630.00
0.0891	0.0887	1.4088	1.5865	0.1175	1.4690	128.46	640.00
0.0887	0.0893	1.3538	1.5318	0.1152	1.4165	128.43	650.00
0.0893	0.0894	1.3035	1.4821	0.1131	1.3691	128.39	660.00
0.0894	0.0804	1.2580	1.4278	0.1110	1.3167	128.36	670.00
0.0804	0.0713	1.2079	1.3596	0.1088	1.2507	128.33	680.00
0.0713	0.0714	1.1448	1.2875	0.1059	1.1815	128.28	690.00
0.0714	0.0719	1.0787	1.2220	0.1028	1.1192	128.24	700.00
0.0719	0.0715	1.0192	1.1626	0.1000	1.0626	128.20	710.00
0.0715	0.0715	0.9654	1.1084	0.0972	1.0111	128.16	720.00
0.0715	0.0721	0.9164	1.0600	0.0948	0.9652	128.13	730.00
0.0721	0.0716	0.8727	1.0164	0.0925	0.9239	128.10	740.00
0.0716	0.0717	0.8336	0.9768	0.0904	0.8865	128.07	750.00
0.0717	0.0722	0.7981	0.9420	0.0884	0.8536	128.05	760.00
0.0722	0.0717	0.7669	0.9109	0.0867	0.8242	128.03	770.00
0.0717	0.0718	0.7391	0.8827	0.0851	0.7975	128.01	780.00
0.0718	0.0632	0.7139	0.8489	0.0836	0.7652	127.99	790.00
0.0632	0.0540	0.6835	0.8007	0.0818	0.7189	127.97	800.00
0.0540	0.0541	0.6398	0.7479	0.0791	0.6688	127.94	810.00
0.0541	0.0541	0.5926	0.7007	0.0762	0.6245	127.91	820.00
0.0541	0.0541	0.5511	0.6593	0.0734	0.5859	127.88	830.00
0.0541	0.0541	0.5150	0.6232	0.0709	0.5523	127.85	840.00
0.0541	0.0585	0.4836	0.5962	0.0687	0.5275	127.83	850.00
0.0585	0.0634	0.4604	0.5823	0.0671	0.5151	127.82	860.00
0.0634	0.0634	0.4488	0.5756	0.0663	0.5093	127.81	870.00
0.0634	0.0629	0.4434	0.5697	0.0659	0.5038	127.80	880.00
0.0629	0.0635	0.4382	0.5646	0.0656	0.4990	127.80	890.00
0.0635	0.0635	0.4338	0.5608	0.0652	0.4956	127.80	900.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0635	0.0630	0.4306	0.5571	0.0649	0.4922	127.79	910.00
0.0630	0.0635	0.4275	0.5540	0.0647	0.4893	127.79	920.00
0.0635	0.0636	0.4249	0.5520	0.0645	0.4875	127.79	930.00
0.0636	0.0631	0.4232	0.5498	0.0643	0.4855	127.79	940.00
0.0631	0.0636	0.4213	0.5480	0.0642	0.4838	127.79	950.00
0.0636	0.0637	0.4198	0.5471	0.0640	0.4830	127.79	960.00
0.0637	0.0495	0.4190	0.5322	0.0640	0.4682	127.79	970.00
0.0495	0.0365	0.4054	0.4914	0.0629	0.4285	127.78	980.00
0.0365	0.0365	0.3687	0.4416	0.0598	0.3818	127.75	990.00
0.0365	0.0359	0.3255	0.3979	0.0563	0.3416	127.72	1000.00
0.0359	0.0365	0.2885	0.3609	0.0531	0.3078	127.70	1010.00
0.0365	0.0365	0.2579	0.3309	0.0499	0.2811	127.68	1020.00
0.0365	0.0452	0.2338	0.3155	0.0473	0.2683	127.66	1030.00
0.0452	0.0545	0.2222	0.3220	0.0460	0.2759	127.65	1040.00
0.0545	0.0545	0.2292	0.3382	0.0468	0.2914	127.66	1050.00
0.0545	0.0545	0.2432	0.3522	0.0483	0.3040	127.67	1060.00
0.0545	0.0546	0.2545	0.3636	0.0495	0.3141	127.67	1070.00
0.0546	0.0546	0.2636	0.3727	0.0505	0.3223	127.68	1080.00
0.0546	0.0502	0.2710	0.3758	0.0513	0.3245	127.69	1090.00
0.0502	0.0453	0.2731	0.3686	0.0515	0.3171	127.69	1100.00
0.0453	0.0453	0.2663	0.3570	0.0508	0.3062	127.68	1110.00
0.0453	0.0623	0.2565	0.3641	0.0497	0.3144	127.68	1120.00
0.0623	0.0454	0.2639	0.3716	0.0505	0.3211	127.68	1130.00
0.0454	0.0290	0.2699	0.3442	0.0511	0.2931	127.68	1140.00
0.0290	0.0459	0.2446	0.3195	0.0484	0.2711	127.67	1150.00
0.0459	0.0454	0.2248	0.3161	0.0463	0.2698	127.65	1160.00
0.0454	0.0454	0.2236	0.3144	0.0462	0.2682	127.65	1170.00
0.0454	0.0460	0.2222	0.3135	0.0460	0.2675	127.65	1180.00
0.0460	0.0454	0.2216	0.3129	0.0460	0.2670	127.65	1190.00
0.0454	0.0454	0.2211	0.3119	0.0459	0.2660	127.65	1200.00
0.0454	0.0460	0.2202	0.3116	0.0458	0.2658	127.65	1210.00
0.0460	0.0454	0.2200	0.3114	0.0458	0.2656	127.65	1220.00
0.0454	0.0455	0.2198	0.3107	0.0458	0.2650	127.65	1230.00
0.0455	0.0460	0.2193	0.3107	0.0457	0.2650	127.65	1240.00
0.0460	0.0455	0.2193	0.3108	0.0457	0.2651	127.65	1250.00
0.0455	0.0455	0.2193	0.3103	0.0457	0.2646	127.65	1260.00
0.0455	0.0460	0.2189	0.3104	0.0457	0.2647	127.65	1270.00
0.0460	0.0455	0.2190	0.3106	0.0457	0.2649	127.65	1280.00
0.0455	0.0455	0.2192	0.3102	0.0457	0.2645	127.65	1290.00
0.0455	0.0461	0.2188	0.3104	0.0457	0.2647	127.65	1300.00
0.0461	0.0455	0.2190	0.3106	0.0457	0.2649	127.65	1310.00
0.0455	0.0455	0.2192	0.3103	0.0457	0.2646	127.65	1320.00
0.0455	0.0411	0.2189	0.3056	0.0457	0.2599	127.65	1330.00
0.0411	0.0368	0.2147	0.2926	0.0452	0.2474	127.65	1340.00
0.0368	0.0368	0.2034	0.2769	0.0440	0.2329	127.64	1350.00
0.0368	0.0362	0.1903	0.2633	0.0426	0.2207	127.63	1360.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0362	0.0368	0.1793	0.2523	0.0414	0.2109	127.62	1370.00
0.0368	0.0368	0.1704	0.2440	0.0405	0.2035	127.62	1380.00
0.0368	0.0362	0.1638	0.2368	0.0398	0.1970	127.61	1390.00
0.0362	0.0368	0.1579	0.2310	0.0391	0.1918	127.61	1400.00
0.0368	0.0368	0.1532	0.2268	0.0386	0.1882	127.60	1410.00
0.0368	0.0363	0.1499	0.2230	0.0383	0.1847	127.60	1420.00
0.0363	0.0368	0.1468	0.2199	0.0379	0.1819	127.60	1430.00
0.0368	0.0368	0.1445	0.2181	0.0375	0.1807	127.60	1440.00
0.0368	0.0181	0.1435	0.1984	0.0372	0.1612	127.60	1450.00
0.0181	0.0000	0.1280	0.1462	0.0332	0.1130	127.60	1460.00
0.0000	0.0000	0.0897	0.0897	0.0233	0.0665	127.60	1470.00
0.0000	0.0000	0.0528	0.0528	0.0137	0.0391	127.60	1480.00
0.0000	0.0000	0.0311	0.0311	0.0080	0.0230	127.60	1490.00
0.0000	0.0000	0.0183	0.0183	0.0047	0.0135	127.60	1500.00
0.0000	0.0000	0.0107	0.0107	0.0028	0.0080	127.60	1510.00
0.0000	0.0000	0.0063	0.0063	0.0016	0.0047	127.60	1520.00
0.0000	0.0000	0.0037	0.0037	0.0010	0.0028	127.60	1530.00
0.0000	0.0000	0.0022	0.0022	0.0006	0.0016	127.60	1540.00
0.0000	0.0000	0.0013	0.0013	0.0003	0.0010	127.60	1550.00
0.0000	0.0000	0.0008	0.0008	0.0002	0.0006	127.60	1560.00
0.0000	0.0000	0.0004	0.0004	0.0001	0.0003	127.60	1570.00
0.0000	0.0000	0.0003	0.0003	0.0001	0.0002	127.60	1580.00
0.0000	0.0000	0.0002	0.0002	0.0000	0.0001	127.60	1590.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0001	127.60	1600.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	127.60	1610.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1620.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1630.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1640.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1650.00

ROUTING REPORT

STORAGE LIST ID No. 2
Description: Detention Pond

MULTIPLE ORIFICE ID No. 2
Description: Pond Outlet Control
Outlet Elev: 127.50
Elev: 125.50 ft Orifice Diameter: 2.1000 in.
Elev: 128.60 ft Orifice 2 Diameter: 1.9000 in.
Elev: 129.00 ft Orifice 3 Diameter: 2.2500 in.

ROUTING CURVE

STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min	STAGE (ft)	STORAGE (cf)	OUTFLOW (cfs)	O+2S cfs-min
127.50	0.0000	0.0000	0.0000	129.90	1354	0.4274	4.9394	132.30	2923	0.7002	10.444
127.60	43.800	0.0378	0.1838	130.00	1419	0.4425	5.1725	132.40	2989	0.7092	10.671
127.70	87.600	0.0535	0.3455	130.10	1484	0.4570	5.4050	132.50	3054	0.7181	10.898
127.80	131.40	0.0655	0.5035	130.20	1550	0.4711	5.6371	132.60	3119	0.7269	11.125
127.90	175.20	0.0757	0.6597	130.30	1615	0.4846	5.8686	132.70	3185	0.7355	11.352
128.00	219.00	0.0846	0.8146	130.40	1681	0.4978	6.0998	132.80	3250	0.7441	11.578
128.10	262.80	0.0927	0.9687	130.50	1746	0.5106	6.3306	132.90	3316	0.7525	11.805
128.20	306.60	0.1001	1.1221	130.60	1811	0.5230	6.5610	133.00	3381	0.7609	12.031
128.30	350.40	0.1070	1.2750	130.70	1877	0.5352	6.7912	133.10	3446	0.7692	12.257
128.40	394.20	0.1135	1.4275	130.80	1942	0.5470	7.0210	133.20	3512	0.7774	12.483
128.50	438.00	0.1197	1.5797	130.90	2008	0.5586	7.2506	133.30	3577	0.7855	12.709
128.60	503.40	0.1255	1.8035	131.00	2073	0.5699	7.4799	133.40	3643	0.7935	12.935
128.70	568.80	0.1621	2.0581	131.10	2138	0.5810	7.7090	133.50	3708	0.8014	13.161
128.80	634.20	0.1803	2.2943	131.20	2204	0.5919	7.9379	133.60	3773	0.8093	13.387
128.90	699.60	0.1953	2.5273	131.30	2269	0.6026	8.1666	133.70	3839	0.8171	13.613
129.00	765.00	0.2085	2.7585	131.40	2335	0.6131	8.3951	133.80	3904	0.8248	13.839
129.10	830.40	0.2641	3.0321	131.50	2400	0.6234	8.6234	133.90	3970	0.8324	14.064
129.20	895.80	0.2934	3.2794	131.60	2465	0.6335	8.8515	134.00	4035	0.8400	14.290
129.30	961.20	0.3178	3.5218	131.70	2531	0.6435	9.0795	134.10	4100	0.8474	14.515
129.40	1027	0.3395	3.7615	131.80	2596	0.6533	9.3073	134.20	4166	0.8549	14.741
129.50	1092	0.3593	3.9993	131.90	2662	0.6629	9.5349	134.30	4231	0.8622	14.966
129.60	1157	0.3778	4.2358	132.00	2727	0.6725	9.7625	134.40	4297	0.8695	15.192
129.70	1223	0.3952	4.4712	132.10	2792	0.6818	9.9898				
129.80	1288	0.4117	4.7057	132.20	2858	0.6911	10.217				

LEVEL POOL ROUTING TABLE

100-Year Storm
MATCH Q (cfs) : 0.35 INFLOW Q (cfs): 0.54
PEAK STAGE (ft): 129.47 PEAK OUTFLOW : 0.35
PEAK TIME: 500.00 min.
INFLOW HYD No. : 6 OUTFLOW HYD No.: 12

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0000	0.0009	0.0000	0.0009	0.0000	0.0009	127.50	40.00
0.0009	0.0042	0.0007	0.0059	0.0002	0.0057	127.50	50.00
0.0042	0.0084	0.0045	0.0172	0.0012	0.0160	127.60	60.00
0.0084	0.0159	0.0127	0.0371	0.0033	0.0338	127.60	70.00
0.0159	0.0245	0.0268	0.0672	0.0069	0.0602	127.60	80.00
0.0245	0.0298	0.0478	0.1021	0.0124	0.0897	127.60	90.00
0.0298	0.0341	0.0712	0.1350	0.0185	0.1166	127.60	100.00
0.0341	0.0376	0.0926	0.1642	0.0240	0.1402	127.60	110.00
0.0376	0.0405	0.1113	0.1894	0.0289	0.1606	127.60	120.00
0.0405	0.0466	0.1275	0.2146	0.0331	0.1816	127.60	130.00
0.0466	0.0532	0.1442	0.2440	0.0374	0.2066	127.60	140.00
0.0532	0.0561	0.1666	0.2759	0.0401	0.2358	127.61	150.00
0.0561	0.0584	0.1929	0.3074	0.0429	0.2645	127.63	160.00
0.0584	0.0613	0.2188	0.3385	0.0457	0.2928	127.65	170.00
0.0613	0.0634	0.2444	0.3692	0.0484	0.3208	127.67	180.00
0.0634	0.0648	0.2696	0.3979	0.0511	0.3468	127.68	190.00
0.0648	0.0671	0.2932	0.4250	0.0536	0.3714	127.70	200.00
0.0671	0.0686	0.3159	0.4517	0.0555	0.3962	127.72	210.00
0.0686	0.0694	0.3388	0.4768	0.0574	0.4195	127.73	220.00
0.0694	0.0713	0.3603	0.5011	0.0591	0.4419	127.75	230.00
0.0713	0.0725	0.3811	0.5249	0.0609	0.4640	127.76	240.00
0.0725	0.0787	0.4015	0.5526	0.0625	0.4901	127.77	250.00
0.0787	0.0849	0.4255	0.5891	0.0645	0.5246	127.79	260.00
0.0849	0.0861	0.4577	0.6286	0.0669	0.5617	127.81	270.00
0.0861	0.0878	0.4924	0.6662	0.0693	0.5969	127.84	280.00
0.0878	0.0881	0.5253	0.7011	0.0716	0.6295	127.86	290.00
0.0881	0.0890	0.5558	0.7329	0.0737	0.6592	127.88	300.00
0.0890	0.1131	0.5836	0.7857	0.0757	0.7100	127.90	310.00
0.1131	0.1369	0.6314	0.8814	0.0786	0.8028	127.93	320.00
0.1369	0.1384	0.7188	0.9941	0.0839	0.9102	127.99	330.00
0.1384	0.1398	0.8205	1.0988	0.0896	1.0092	128.06	340.00
0.1398	0.1411	0.9145	1.1955	0.0947	1.1009	128.13	350.00
0.1411	0.1423	1.0018	1.2852	0.0991	1.1861	128.19	360.00
0.1423	0.1376	1.0831	1.3630	0.1030	1.2600	128.24	370.00
0.1376	0.1328	1.1536	1.4240	0.1064	1.3176	128.29	380.00
0.1328	0.1328	1.2088	1.4743	0.1089	1.3655	128.33	390.00
0.1328	0.1335	1.2546	1.5209	0.1109	1.4100	128.36	400.00
0.1335	0.1349	1.2972	1.5657	0.1128	1.4529	128.39	410.00
0.1349	0.1348	1.3383	1.6081	0.1146	1.4935	128.42	420.00
0.1348	0.2158	1.3773	1.7279	0.1162	1.6117	128.44	430.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.2158	0.2984	1.4912	2.0054	0.1205	1.8849	128.51	440.00
0.2984	0.3006	1.7477	2.3467	0.1372	2.2095	128.63	450.00
0.3006	0.4169	2.0357	2.7532	0.1737	2.5795	128.76	460.00
0.4169	0.5343	2.3812	3.3324	0.1983	3.1341	128.92	470.00
0.5343	0.5385	2.8580	3.9308	0.2762	3.6546	129.14	480.00
0.5385	0.3865	3.3248	4.2498	0.3298	3.9200	129.36	490.00
0.3865	0.2328	3.5673	4.1866	0.3527	3.8339	129.47	500.00
0.2328	0.2334	3.4884	3.9546	0.3455	3.6091	129.43	510.00
0.2334	0.2206	3.2834	3.7373	0.3257	3.4117	129.34	520.00
0.2206	0.2085	3.1050	3.5340	0.3067	3.2273	129.25	530.00
0.2085	0.2088	2.9401	3.3574	0.2872	3.0702	129.18	540.00
0.2088	0.1762	2.8016	3.1866	0.2686	2.9180	129.12	550.00
0.1762	0.1435	2.6771	2.9968	0.2409	2.7558	129.06	560.00
0.1435	0.1436	2.5475	2.8346	0.2084	2.6262	129.00	570.00
0.1436	0.1445	2.4252	2.7134	0.2009	2.5124	128.94	580.00
0.1445	0.1439	2.3181	2.6066	0.1943	2.4122	128.89	590.00
0.1439	0.1440	2.2244	2.5123	0.1879	2.3244	128.85	600.00
0.1440	0.1378	2.1422	2.4240	0.1822	2.2418	128.81	610.00
0.1378	0.1316	2.0656	2.3350	0.1762	2.1588	128.78	620.00
0.1316	0.1317	1.9890	2.2523	0.1698	2.0824	128.74	630.00
0.1317	0.1310	1.9185	2.1812	0.1640	2.0172	128.71	640.00
0.1310	0.1319	1.8610	2.1239	0.1562	1.9677	128.68	650.00
0.1319	0.1320	1.8186	2.0824	0.1491	1.9333	128.66	660.00
0.1320	0.1186	1.7892	2.0397	0.1442	1.8956	128.65	670.00
0.1186	0.1052	1.7568	1.9806	0.1387	1.8419	128.64	680.00
0.1052	0.1053	1.7109	1.9213	0.1310	1.7903	128.62	690.00
0.1053	0.1061	1.6651	1.8765	0.1252	1.7513	128.59	700.00
0.1061	0.1053	1.6271	1.8386	0.1242	1.7144	128.58	710.00
0.1053	0.1054	1.5912	1.8020	0.1232	1.6788	128.56	720.00
0.1054	0.1062	1.5565	1.7681	0.1223	1.6459	128.54	730.00
0.1062	0.1055	1.5245	1.7362	0.1214	1.6148	128.53	740.00
0.1055	0.1055	1.4942	1.7052	0.1206	1.5846	128.52	750.00
0.1055	0.1064	1.4648	1.6767	0.1198	1.5569	128.50	760.00
0.1064	0.1056	1.4381	1.6501	0.1188	1.5313	128.49	770.00
0.1056	0.1056	1.4136	1.6249	0.1177	1.5072	128.47	780.00
0.1056	0.0930	1.3904	1.5890	0.1167	1.4723	128.45	790.00
0.0930	0.0795	1.3569	1.5294	0.1153	1.4140	128.43	800.00
0.0795	0.0795	1.3011	1.4601	0.1130	1.3471	128.39	810.00
0.0795	0.0795	1.2370	1.3960	0.1101	1.2859	128.35	820.00
0.0795	0.0795	1.1784	1.3375	0.1075	1.2300	128.31	830.00
0.0795	0.0796	1.1250	1.2841	0.1050	1.1791	128.27	840.00
0.0796	0.0860	1.0764	1.2419	0.1027	1.1392	128.24	850.00
0.0860	0.0931	1.0383	1.2174	0.1009	1.1165	128.21	860.00
0.0931	0.0932	1.0166	1.2029	0.0999	1.1031	128.20	870.00
0.0932	0.0924	1.0039	1.1894	0.0992	1.0902	128.19	880.00
0.0924	0.0932	0.9917	1.1773	0.0986	1.0787	128.18	890.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0932	0.0932	0.9807	1.1671	0.0980	1.0691	128.17	900.00
0.0932	0.0925	0.9715	1.1572	0.0976	1.0597	128.17	910.00
0.0925	0.0933	0.9626	1.1483	0.0971	1.0512	128.16	920.00
0.0933	0.0933	0.9545	1.1411	0.0967	1.0444	128.15	930.00
0.0933	0.0925	0.9481	1.1339	0.0964	1.0376	128.15	940.00
0.0925	0.0934	0.9415	1.1274	0.0960	1.0314	128.14	950.00
0.0934	0.0934	0.9357	1.1224	0.0957	1.0267	128.14	960.00
0.0934	0.0726	0.9311	1.0972	0.0955	1.0017	128.14	970.00
0.0726	0.0535	0.9074	1.0335	0.0943	0.9392	128.12	980.00
0.0535	0.0535	0.8481	0.9550	0.0912	0.8639	128.08	990.00
0.0535	0.0527	0.7767	0.8829	0.0872	0.7957	128.03	1000.00
0.0527	0.0535	0.7122	0.8184	0.0835	0.7348	127.99	1010.00
0.0535	0.0535	0.6548	0.7619	0.0800	0.6818	127.95	1020.00
0.0535	0.0663	0.6049	0.7247	0.0770	0.6477	127.91	1030.00
0.0663	0.0799	0.5728	0.7190	0.0749	0.6441	127.89	1040.00
0.0799	0.0799	0.5694	0.7293	0.0747	0.6546	127.89	1050.00
0.0799	0.0799	0.5792	0.7391	0.0754	0.6637	127.90	1060.00
0.0799	0.0799	0.5878	0.7477	0.0759	0.6718	127.90	1070.00
0.0799	0.0800	0.5954	0.7553	0.0764	0.6789	127.91	1080.00
0.0800	0.0736	0.6021	0.7556	0.0768	0.6788	127.91	1090.00
0.0736	0.0664	0.6021	0.7420	0.0768	0.6652	127.91	1100.00
0.0664	0.0664	0.5892	0.7220	0.0760	0.6460	127.90	1110.00
0.0664	0.0912	0.5712	0.7288	0.0748	0.6540	127.89	1120.00
0.0912	0.0664	0.5787	0.7363	0.0753	0.6610	127.90	1130.00
0.0664	0.0424	0.5852	0.6941	0.0758	0.6183	127.90	1140.00
0.0424	0.0672	0.5453	0.6550	0.0730	0.5820	127.87	1150.00
0.0672	0.0664	0.5113	0.6450	0.0706	0.5743	127.85	1160.00
0.0664	0.0665	0.5042	0.6371	0.0701	0.5669	127.85	1170.00
0.0665	0.0673	0.4973	0.6310	0.0697	0.5613	127.84	1180.00
0.0673	0.0665	0.4920	0.6258	0.0693	0.5565	127.84	1190.00
0.0665	0.0665	0.4875	0.6204	0.0690	0.5514	127.83	1200.00
0.0665	0.0673	0.4828	0.6165	0.0687	0.5479	127.83	1210.00
0.0673	0.0665	0.4794	0.6132	0.0684	0.5448	127.83	1220.00
0.0665	0.0665	0.4766	0.6096	0.0682	0.5413	127.83	1230.00
0.0665	0.0673	0.4733	0.6071	0.0680	0.5391	127.82	1240.00
0.0673	0.0665	0.4713	0.6051	0.0679	0.5372	127.82	1250.00
0.0665	0.0665	0.4695	0.6025	0.0677	0.5348	127.82	1260.00
0.0665	0.0673	0.4672	0.6011	0.0676	0.5335	127.82	1270.00
0.0673	0.0665	0.4660	0.5999	0.0675	0.5324	127.82	1280.00
0.0665	0.0665	0.4650	0.5981	0.0674	0.5306	127.82	1290.00
0.0665	0.0674	0.4633	0.5972	0.0673	0.5299	127.82	1300.00
0.0674	0.0666	0.4627	0.5966	0.0673	0.5293	127.82	1310.00
0.0666	0.0666	0.4621	0.5952	0.0672	0.5280	127.82	1320.00
0.0666	0.0602	0.4609	0.5876	0.0671	0.5205	127.82	1330.00
0.0602	0.0537	0.4538	0.5677	0.0666	0.5011	127.81	1340.00
0.0537	0.0538	0.4357	0.5432	0.0654	0.4778	127.80	1350.00

LEVEL POOL ROUTING TABLE

LEVEL POOL ROUTING TABLE

I1	I2	2S1	SUM	O1	O2+2S2	STAGE	TIME
<---------- cfs min ---------->						(ft)	(min)
0.0538	0.0530	0.4143	0.5210	0.0636	0.4574	127.78	1360.00
0.0530	0.0538	0.3953	0.5020	0.0620	0.4400	127.77	1370.00
0.0538	0.0538	0.3793	0.4868	0.0607	0.4261	127.76	1380.00
0.0538	0.0530	0.3665	0.4732	0.0597	0.4135	127.75	1390.00
0.0530	0.0538	0.3548	0.4616	0.0587	0.4029	127.74	1400.00
0.0538	0.0538	0.3450	0.4525	0.0579	0.3947	127.74	1410.00
0.0538	0.0530	0.3374	0.4441	0.0573	0.3869	127.73	1420.00
0.0530	0.0538	0.3302	0.4370	0.0567	0.3803	127.73	1430.00
0.0538	0.0538	0.3241	0.4317	0.0562	0.3756	127.72	1440.00
0.0538	0.0265	0.3197	0.4000	0.0558	0.3442	127.72	1450.00
0.0265	0.0000	0.2908	0.3173	0.0534	0.2639	127.70	1460.00
0.0000	0.0000	0.2183	0.2183	0.0456	0.1727	127.65	1470.00
0.0000	0.0000	0.1372	0.1372	0.0356	0.1016	127.59	1480.00
0.0000	0.0000	0.0807	0.0807	0.0209	0.0598	127.60	1490.00
0.0000	0.0000	0.0475	0.0475	0.0123	0.0352	127.60	1500.00
0.0000	0.0000	0.0279	0.0279	0.0072	0.0207	127.60	1510.00
0.0000	0.0000	0.0164	0.0164	0.0043	0.0122	127.60	1520.00
0.0000	0.0000	0.0097	0.0097	0.0025	0.0072	127.60	1530.00
0.0000	0.0000	0.0057	0.0057	0.0015	0.0042	127.60	1540.00
0.0000	0.0000	0.0033	0.0033	0.0009	0.0025	127.60	1550.00
0.0000	0.0000	0.0020	0.0020	0.0005	0.0015	127.60	1560.00
0.0000	0.0000	0.0012	0.0012	0.0003	0.0009	127.60	1570.00
0.0000	0.0000	0.0007	0.0007	0.0002	0.0005	127.60	1580.00
0.0000	0.0000	0.0004	0.0004	0.0001	0.0003	127.60	1590.00
0.0000	0.0000	0.0002	0.0002	0.0001	0.0002	127.60	1600.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0001	127.60	1610.00
0.0000	0.0000	0.0001	0.0001	0.0000	0.0001	127.60	1620.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1630.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1640.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1650.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1660.00
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	127.60	1670.00

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

June 6, 2000
Skagit State Bank Site
Bioswale Treatment Sizing
6-Month, 24-Hour Storm

==========

PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second)	0.15
Channel Bottom Slope (feet per foot)	0.0070
Manning's Roughness Coefficient (n-value)	0.0700
Channel Side Slope - Left Side (horizontal/vertical)	3.00
Channel Side Slope - Right Side (horizontal/vertical)	3.00
Channel Bottom Width (feet)	3.0

FOR LOW FLOW THROUGH DENSE GRASS

==========

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet)	0.11
Flow Velocity (feet per second)	0.39
Froude Number (Flow is Sub-Critical)	0.214
Velocity Head (feet)	0.00
Energy Head (feet)	0.12
Cross-Sectional Area of Flow (square feet)	0.38
Top Width of Flow (feet)	3.69

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TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

June 6, 2000
Skagit State Bank Site
Bioswale Conveyance Sizing
100-Year, 24-Hour Storm

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PROGRAM INPUT DATA:

DESCRIPTION	VALUE
Flow Rate (cubic feet per second)	0.54
Channel Bottom Slope (feet per foot)	0.0070
Manning's Roughness Coefficient (n-value)	0.0350
Channel Side Slope - Left Side (horizontal/vertical)	3.00
Channel Side Slope - Right Side (horizontal/vertical)	3.00
Channel Bottom Width (feet)	3.0

For High Flow, some grass knocked down

==========

PROGRAM RESULTS:

DESCRIPTION	VALUE
Normal Depth (feet)	0.16
Flow Velocity (feet per second)	0.96
Froude Number (Flow is Sub-Critical)	0.449
Velocity Head (feet)	0.01
Energy Head (feet)	0.18
Cross-Sectional Area of Flow (square feet)	0.56
Top Width of Flow (feet)	3.97

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TRAPEZOIDAL CHANNEL ANALYSIS COMPUTER PROGRAM, Version 1.3 (c) 1986
Dodson & Associates, Inc., 7015 W. Tidwell, #107, Houston, TX 77092
(713) 895-8322. A manual with equations & flow chart is available.

APPENDIX D

STORM DRAINAGE FACILITY MAINTENANCE REQUIREMENTS

Storm Drainage Facility Maintenance Requirements

- **Oil/Water Separator.** The oil/water separator shall be cleaned by October 15 each year, after every significant storm, and if an inspection determines a need for cleaning.

  A. Inspection. The facility shall be inspected weekly.

  B. Oil Absorbent Pads. These pads shall be replaced every October 15, or more frequently as determined during inspections.

  C. Cleaning. The outlet shall be blocked during cleaning operations, and waste products and waste water disposed of in an approved manner. Any water removed during cleaning shall be replaced with clean water to prevent oil carry-over during the next storm event.

- **Biofiltration Swale.** The biofiltration swale shall be inspected monthly, or after significant storm events. When necessary, reseeding or sediment removal shall take place promptly. During the fall, leaves shall be promptly removed to prevent blocked flow and clogging of the downstream outlet control structure. The swale shall be mowed regularly, with a remaining minimum grass height of four (4) inches. Any woody plants found growing within the swale shall be removed.

- **Detention Pond.** The detention pond shall be inspected monthly, or after significant storm events. When necessary, reseeding, sediment removal and erosion damage repair shall take place promptly. During the fall, leaves shall be promptly removed to prevent blocked flow and clogging of the downstream outlet control structure. The outflow and overflow pipe inlets shall be cleared if blocked, and repaired if damaged. Woody plants shall be kept out of the detention pond, and pond vegetation shall not be allowed to exceed 18 inches in height.

- **Catch Basins.** Catch basins shall be inspected every October 15, or after significant storm events. Accumulated debris shall be removed annually or more frequently as necessary. Blockages or damage to the outlet control structure shall be repaired immediately.