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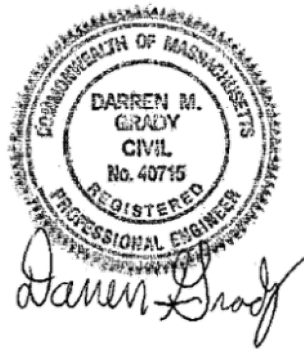
STORMWATER MANAGEMENT DESIGN CALCULATIONS

Bridle Crossing off Ferry Street

Assessors Map

G12-29-02

Marshfield, Massachusetts



Prepared for

Matlin LLC c/o

Kevin Sealund & Matthew Dacey

794 Washington Street

Pembroke, MA 02359

Latest Revision

January 4, 2023

November 10, 2023

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SUMMARY

This analysis was prepared to demonstrate Compliance with the Town of Marshfield and Mass DEP Stormwater Regulations. The proposed project is for the construction of a 7 multi-family units with an on-site septic systems, driveway, associated grading, and landscaping.

The area of the proposed work is a currently wooded with patches of gravel. Stormwater runoff currently flows from the site to 6 locations around the site.



The attenuation of storm water flows has been achieved by capturing runoff from impervious surfaces into a catch basin, then into an oil water separator, which then flow into one of 5 subsurface infiltration systems.

The post development runoff is analyzed in 6 design points.

DP A - The areas draining towards the north section of the site, this includes grassed areas and wooded areas.

DP B - The areas draining towards the northwest section of the site, this includes grassed areas and wooded areas. All catch basins will serve as an overflow for the subsurface drainage structures, which will outflow into this design point.

DP C - The areas draining towards the west of the site, this includes grassed areas and wooded areas.

DP D - The areas draining towards the south of the site, this includes grassed areas and wooded areas.

DP E - The areas draining towards the east of the site, this includes grassed areas and wooded areas.

DP F - The areas draining towards the north of the site, towards the existing basins off-site, this includes grassed areas.

The design as proposed reduces peak runoff rates, improves and promotes infiltration and improves stormwater quality with the use of catch basins, oil water separators, and subsurface infiltration systems.

This analysis is divided into the following sections:

- | | |
|-------------|--|
| Section I | Overall Site Analysis |
| Section II | Compliance with Massachusetts Storm water Management Regulations |
| Section III | Operation And Maintenance Plan |

The calculations have been performed for the 2, 10, 25, 100-year 24 hour storm event, using the HydroCAD computer program. This computer program is based upon the Soils Conservation Service (SCS) TR-20 and TR-55 computer models and uses the SCS Curvilinear Unit rainfall distribution.

SUMMARY OF STORMWATER FLOWS

Pre-Development Flows

	100 Year	25 Year	10 Year	2 Year
DP-A	1.10	0.18	0.05	0.00
DP-B	4.18	2.29	1.36	0.29
DP-C	0.69	0.24	0.08	0.00
DP-D	0.20	0.03	0.00	0.00
DP-E	0.07	0.01	0.00	0.00
DP-F	0.10	0.03	0.01	0.00

Post-Development Flows

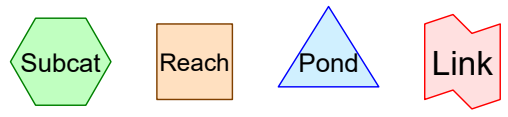
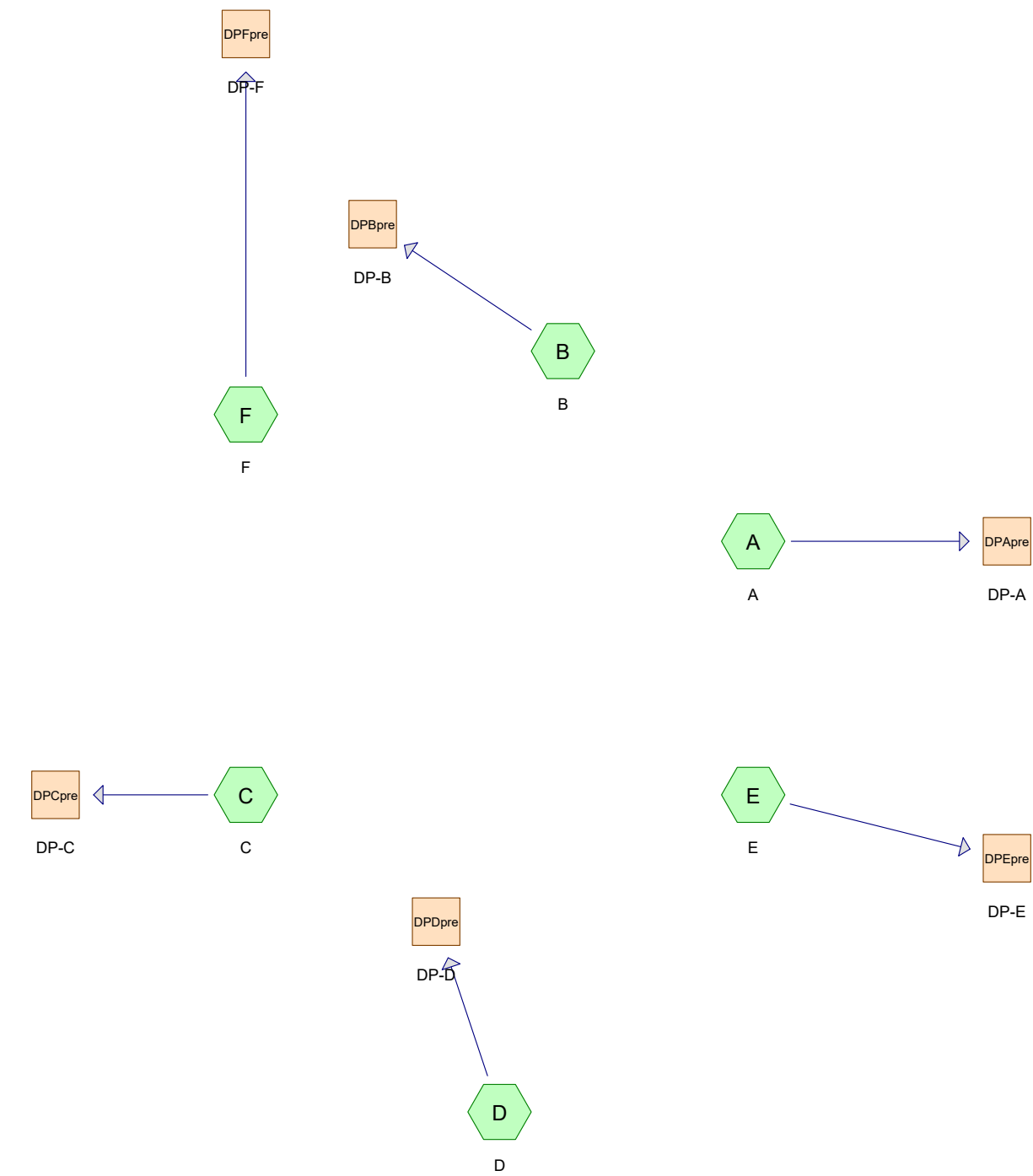
	100 Year	25 Year	10 Year	2 Year
DP-A	0.40	0.05	0.01	0.00
DP-B	0.38	0.09	0.02	0.00
DP-C	0.53	0.12	0.03	0.00
DP-D	0.00	0.00	0.00	0.00
DP-E	0.03	0.01	0.00	0.00
DP-F	0.02	0.00	0.00	0.00

Flow Reduction

	100 Year	25 Year	10 Year	2 Year
DP-A	0.70	0.13	0.04	0.00
DP-B	3.80	2.20	1.34	0.29
DP-C	0.16	0.12	0.05	0.00
DP-D	0.20	0.03	0.00	0.00
DP-E	0.04	0.00	0.00	0.00
DP-F	0.08	0.03	0.01	0.00

Section I

Overall Site Analysis



Routing Diagram for Bridal Path Pre
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Bridal Path Pre

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
11,263	39	>75% Grass cover, Good, HSG A (F)
119,706	76	Gravel roads, HSG A (A, B, C, D)
441,033	30	Woods, Good, HSG A (A, B, C, D, E)
572,002	40	TOTAL AREA

Bridal Path Pre

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
572,002	HSG A	A, B, C, D, E, F
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
572,002		TOTAL AREA

Bridal Path Pre*Type III 24-hr 2-Year Rainfall=3.30"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: A	Runoff Area=187,326 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=227' Tc=16.2 min CN=37 Runoff=0.00 cfs 0 cf
Subcatchment B: B	Runoff Area=129,745 sf 0.00% Impervious Runoff Depth>0.23" Flow Length=480' Tc=25.6 min CN=55 Runoff=0.29 cfs 2,529 cf
Subcatchment C: C	Runoff Area=52,295 sf 0.00% Impervious Runoff Depth>0.02" Flow Length=116' Tc=21.9 min CN=43 Runoff=0.00 cfs 77 cf
Subcatchment D: D	Runoff Area=82,811 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=187' Tc=9.0 min CN=33 Runoff=0.00 cfs 0 cf
Subcatchment E: E	Runoff Area=108,562 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=511' Tc=34.5 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment F: F	Runoff Area=11,263 sf 0.00% Impervious Runoff Depth>0.00" Flow Length=511' Tc=10.5 min CN=39 Runoff=0.00 cfs 0 cf
Reach DPAPre: DP-A	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPBpre: DP-B	Inflow=0.29 cfs 2,529 cf Outflow=0.29 cfs 2,529 cf
Reach DPCpre: DP-C	Inflow=0.00 cfs 77 cf Outflow=0.00 cfs 77 cf
Reach DPDpre: DP-D	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPEpre: DP-E	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPFpre: DP-F	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf

Total Runoff Area = 572,002 sf Runoff Volume = 2,607 cf Average Runoff Depth = 0.05"
100.00% Pervious = 572,002 sf 0.00% Impervious = 0 sf

Bridal Path Pre

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment A: A

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"

Routed to Reach DPAPre : DP-A

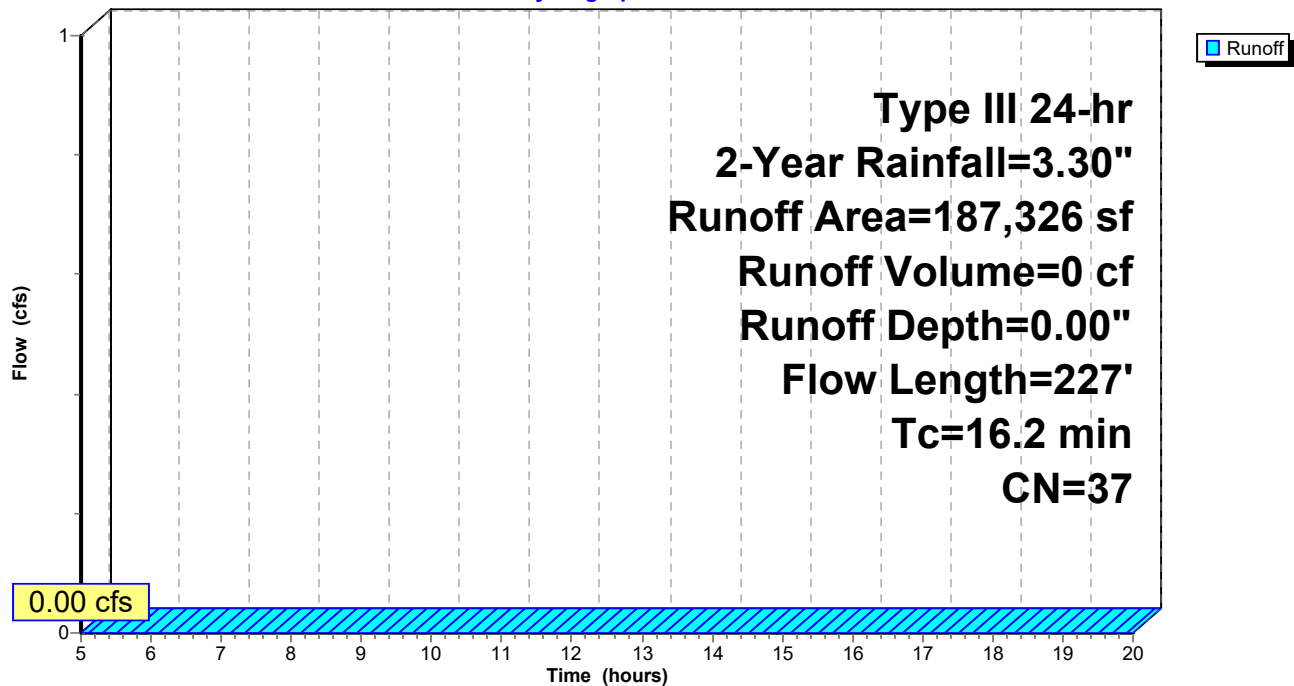
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
158,342	30	Woods, Good, HSG A
28,984	76	Gravel roads, HSG A
187,326	37	Weighted Average
187,326		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	50	0.0500	0.06		Sheet Flow, WOODS
					Woods: Dense underbrush n= 0.800 P2= 3.35"
1.7	177	0.1271	1.78		Shallow Concentrated Flow, WOODS
					Woodland Kv= 5.0 fps
16.2	227	Total			

Subcatchment A: A

Hydrograph



Bridal Path Pre

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment B: B

Runoff = 0.29 cfs @ 12.61 hrs, Volume= 2,529 cf, Depth> 0.23"
 Routed to Reach DPBpre : DP-B

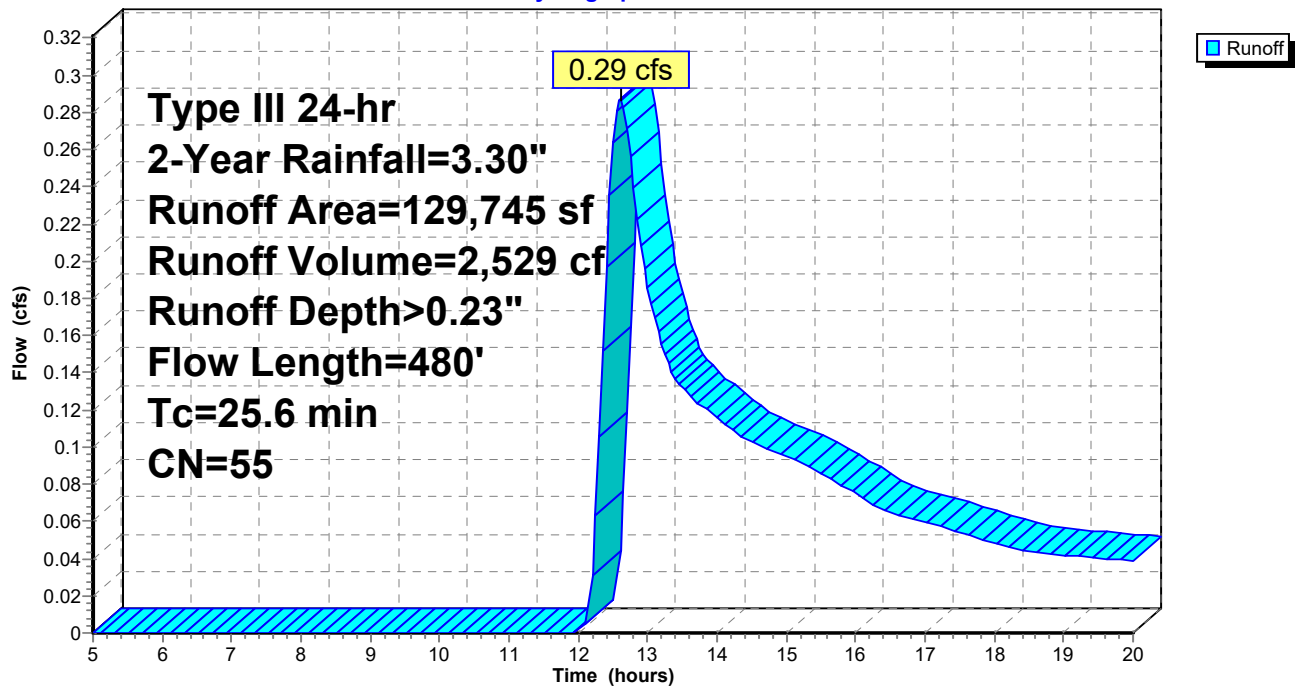
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
59,237	30	Woods, Good, HSG A
70,508	76	Gravel roads, HSG A
129,745	55	Weighted Average
129,745		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
0.5	78	0.2300	2.40		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
4.1	352	0.0080	1.44		Shallow Concentrated Flow, GRAVEL Unpaved Kv= 16.1 fps
25.6	480	Total			

Subcatchment B: B

Hydrograph



Bridal Path Pre

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Type III 24-hr 2-Year Rainfall=3.30"

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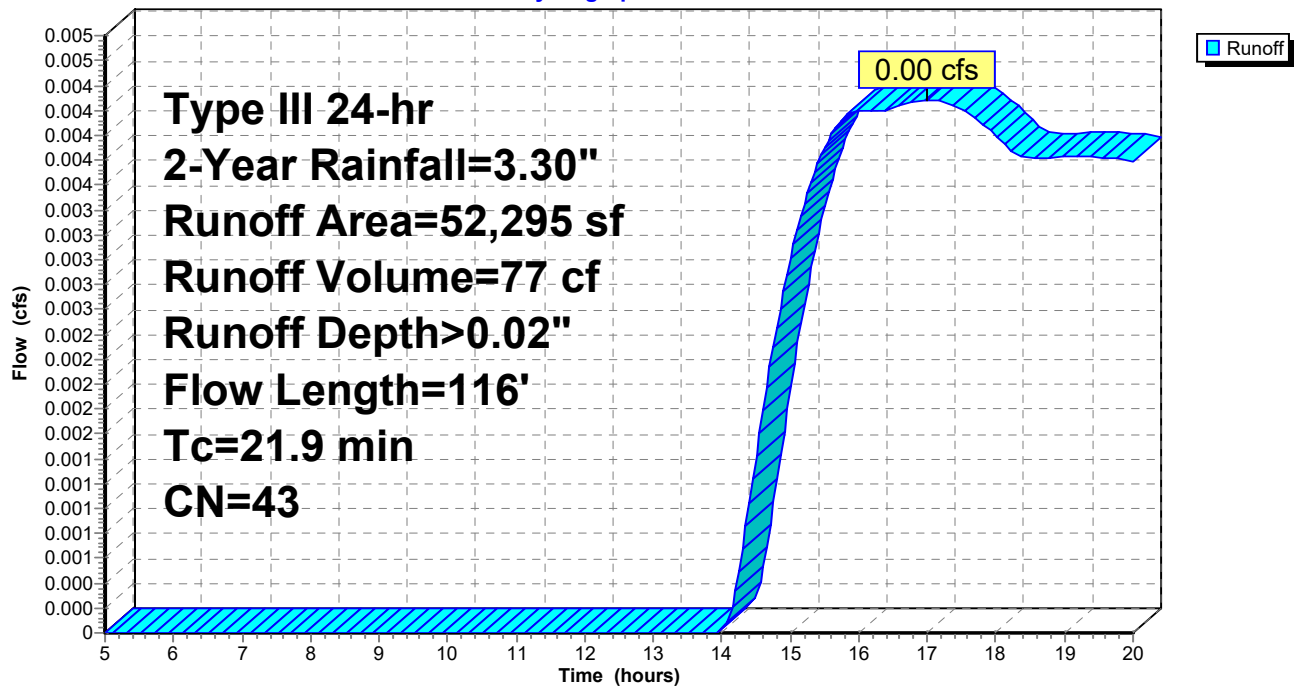
Summary for Subcatchment C: C

Runoff = 0.00 cfs @ 17.01 hrs, Volume= 77 cf, Depth> 0.02"
 Routed to Reach DPCpre : DP-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
37,620	30	Woods, Good, HSG A
14,675	76	Gravel roads, HSG A
52,295	43	Weighted Average
52,295		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS
					Woods: Dense underbrush n= 0.800 P2= 3.35"
0.9	66	0.0610	1.23		Shallow Concentrated Flow, WOODS
					Woodland Kv= 5.0 fps
21.9	116	Total			

Subcatchment C: C**Hydrograph**

Bridal Path Pre

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment D: D

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
 Routed to Reach DPDpre : DP-D

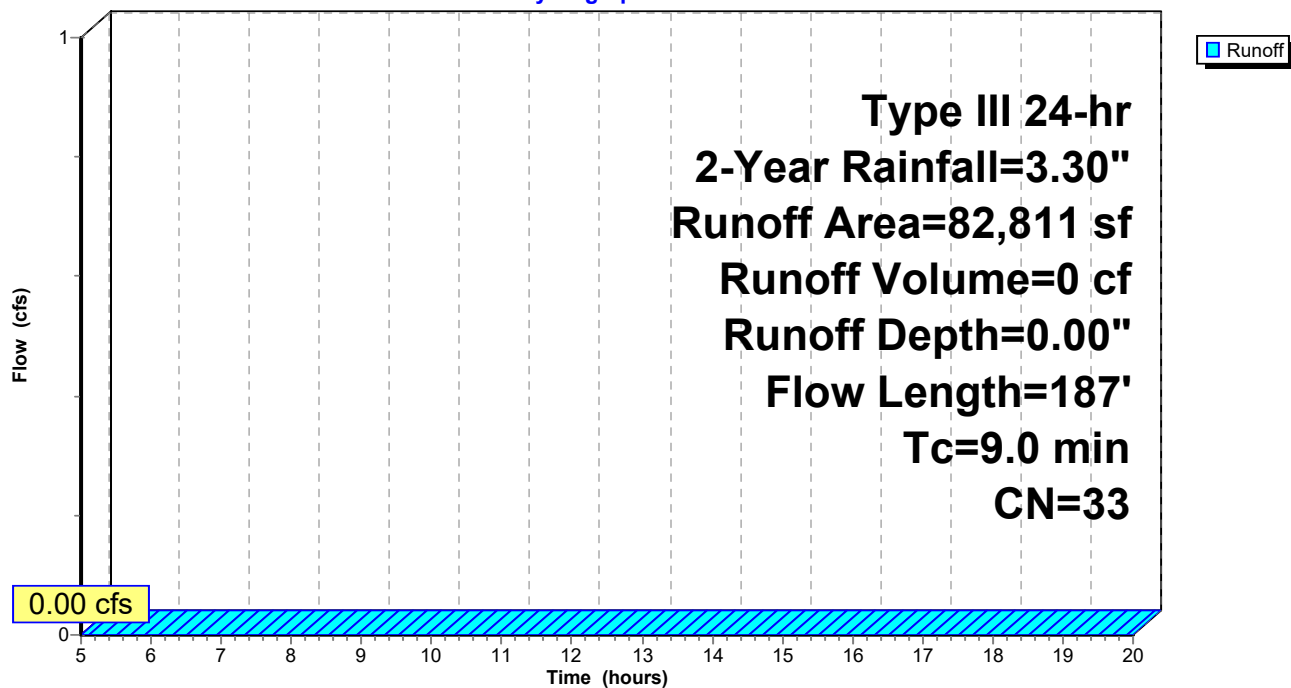
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
77,272	30	Woods, Good, HSG A
5,539	76	Gravel roads, HSG A
82,811	33	Weighted Average
82,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	50	0.2200	0.10		Sheet Flow, WOODS
					Woods: Dense underbrush n= 0.800 P2= 3.35"
1.0	137	0.2000	2.24		Shallow Concentrated Flow, WOODS
					Woodland Kv= 5.0 fps
9.0	187	Total			

Subcatchment D: D

Hydrograph



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment E: E

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
 Routed to Reach DPEpre : DP-E

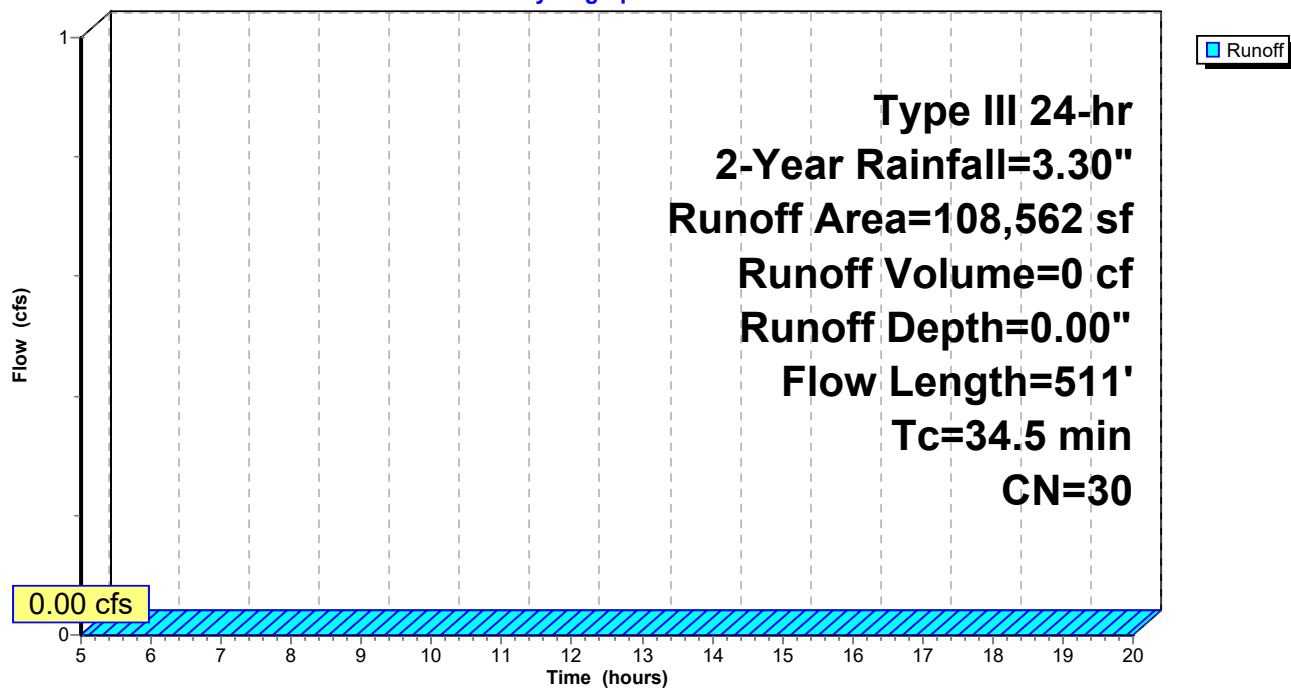
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
108,562	30	Woods, Good, HSG A
108,562		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.7	50	0.0100	0.03		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
3.9	221	0.0360	0.95		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
2.9	240	0.0750	1.37		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
34.5	511	Total			

Subcatchment E: E

Hydrograph



Bridal Path Pre

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment F: F

Runoff = 0.00 cfs @ 20.00 hrs, Volume= 0 cf, Depth> 0.00"
 Routed to Reach DPFpre : DP-F

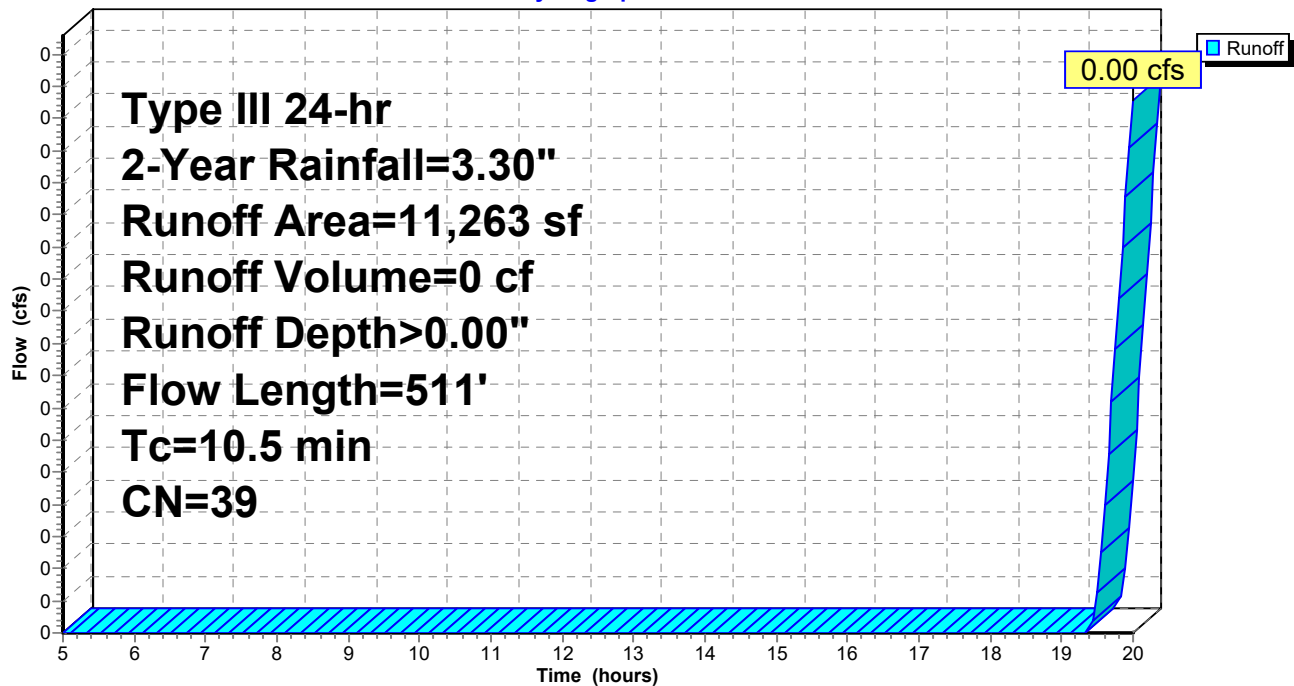
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
11,263	39	>75% Grass cover, Good, HSG A
11,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.0500	0.15		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.35"
2.8	221	0.0360	1.33		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
2.1	240	0.0750	1.92		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
10.5	511	Total			

Subcatchment F: F

Hydrograph

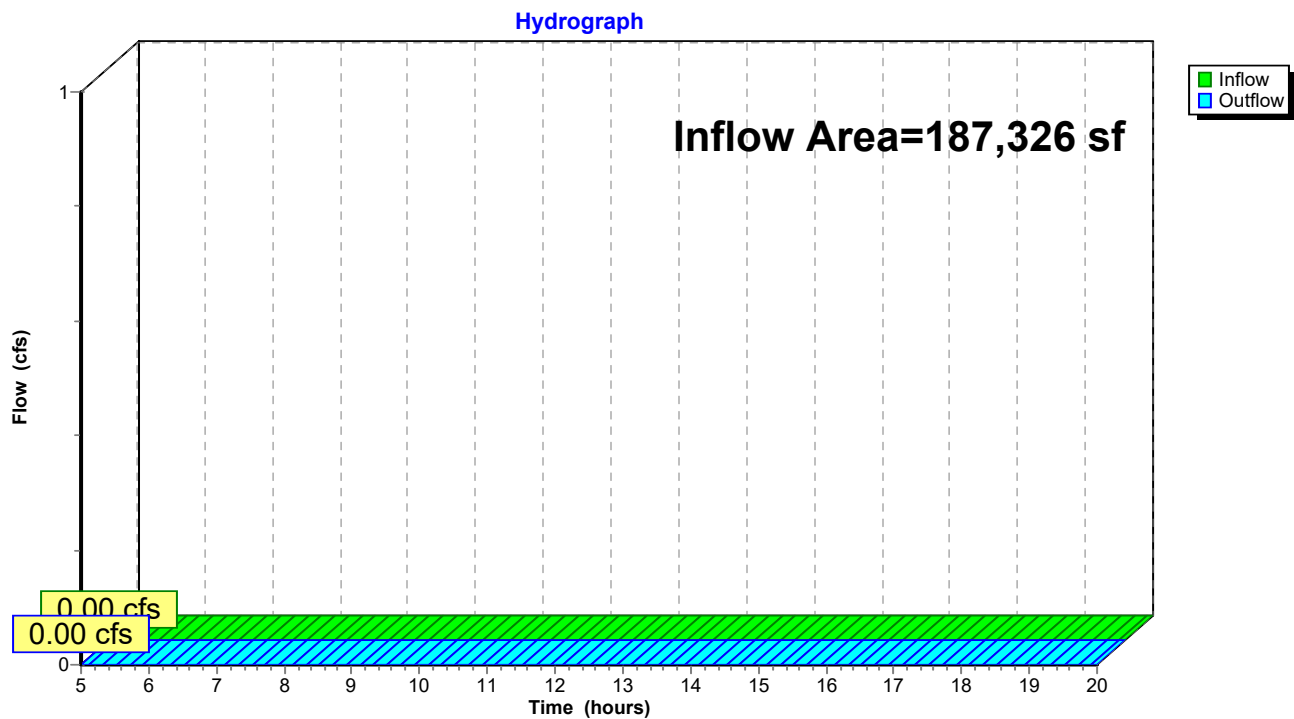


Summary for Reach DPApr: DP-A

Inflow Area = 187,326 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

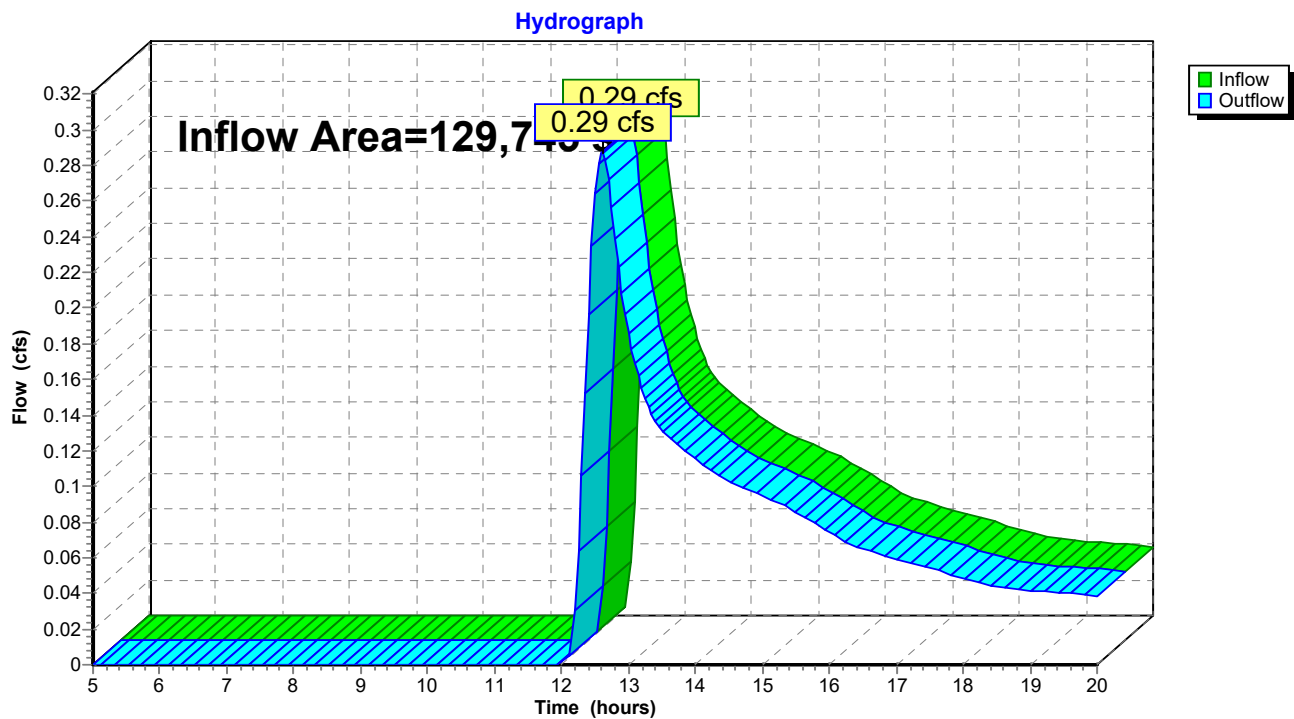
Reach DPApr: DP-A



Summary for Reach DPBpre: DP-B

Inflow Area = 129,745 sf, 0.00% Impervious, Inflow Depth > 0.23" for 2-Year event
Inflow = 0.29 cfs @ 12.61 hrs, Volume= 2,529 cf
Outflow = 0.29 cfs @ 12.61 hrs, Volume= 2,529 cf, Atten= 0%, Lag= 0.0 min

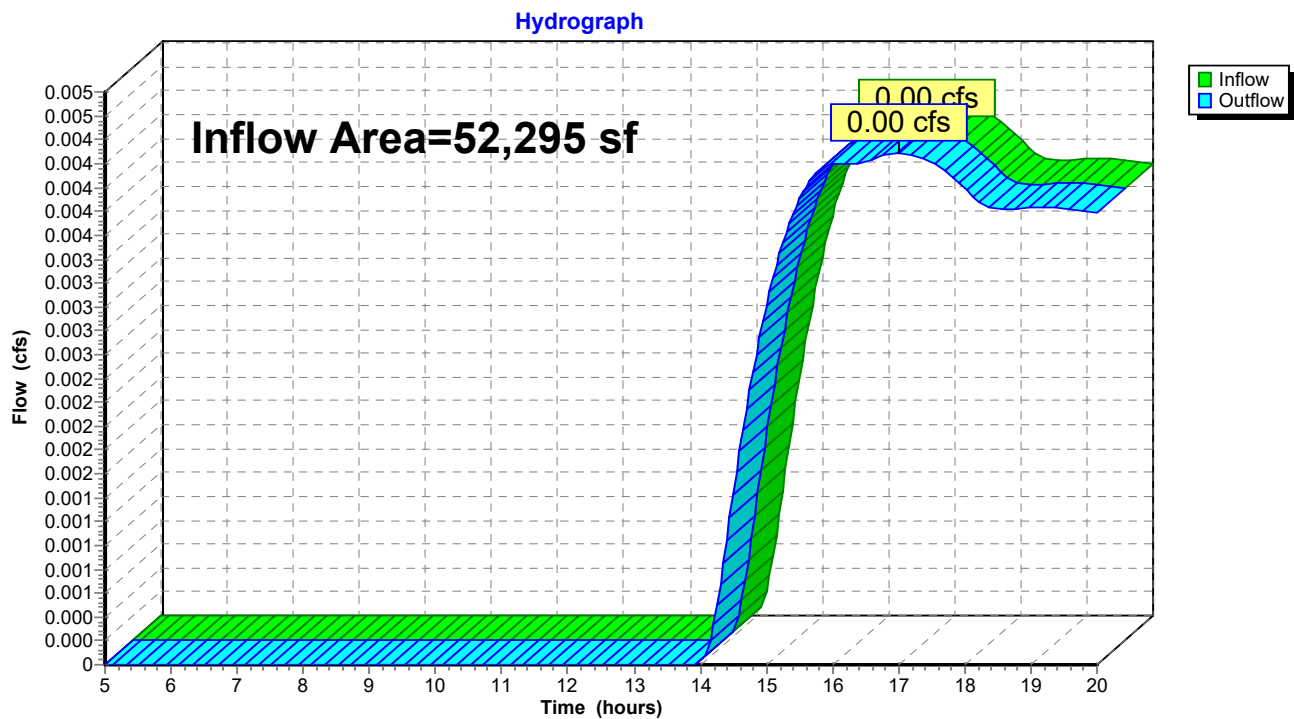
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPBpre: DP-B

Summary for Reach DPCpre: DP-C

Inflow Area = 52,295 sf, 0.00% Impervious, Inflow Depth > 0.02" for 2-Year event
Inflow = 0.00 cfs @ 17.01 hrs, Volume= 77 cf
Outflow = 0.00 cfs @ 17.01 hrs, Volume= 77 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

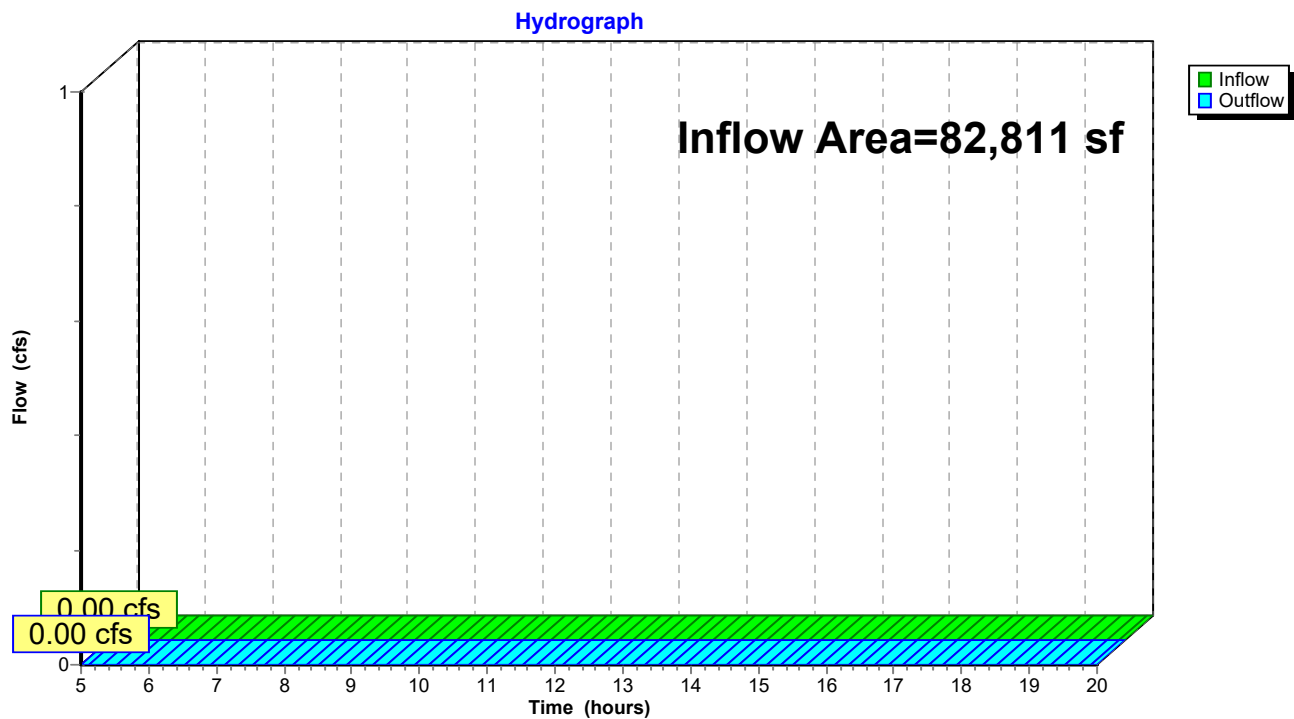
Reach DPCpre: DP-C

Summary for Reach DPDpre: DP-D

Inflow Area = 82,811 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPDpre: DP-D

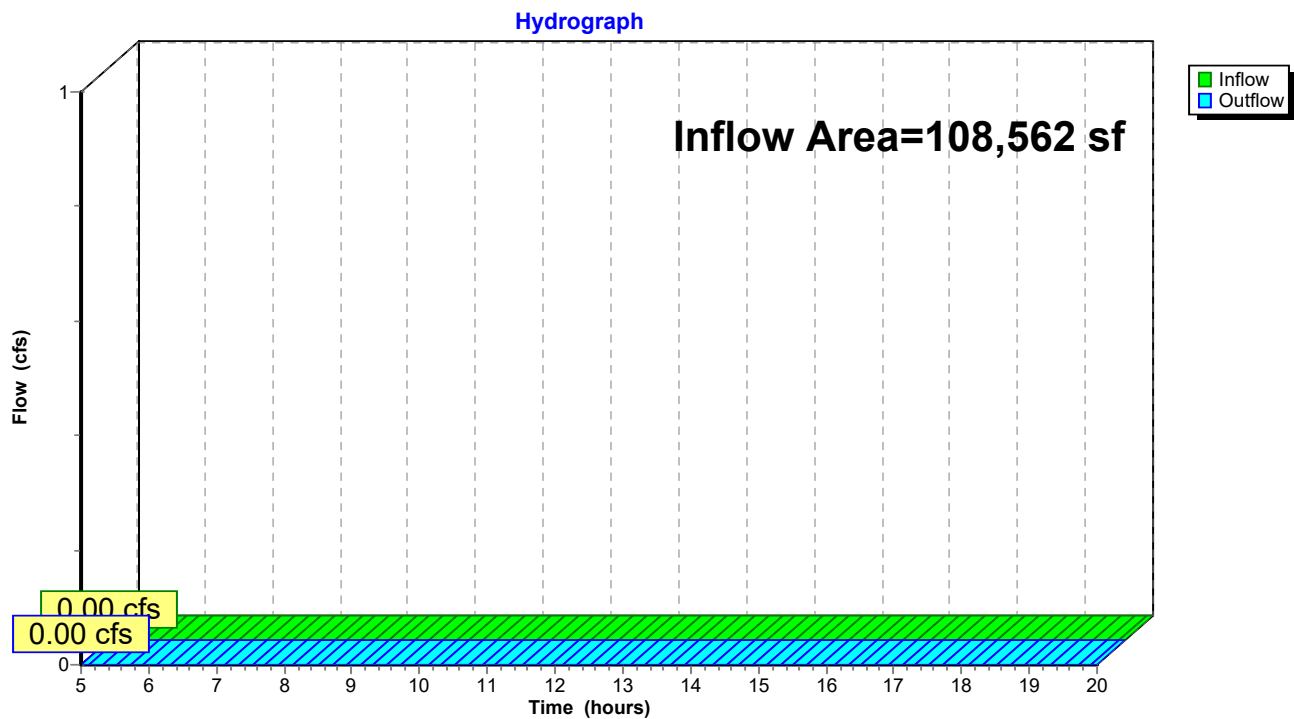


Summary for Reach DPEpre: DP-E

Inflow Area = 108,562 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-Year event
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

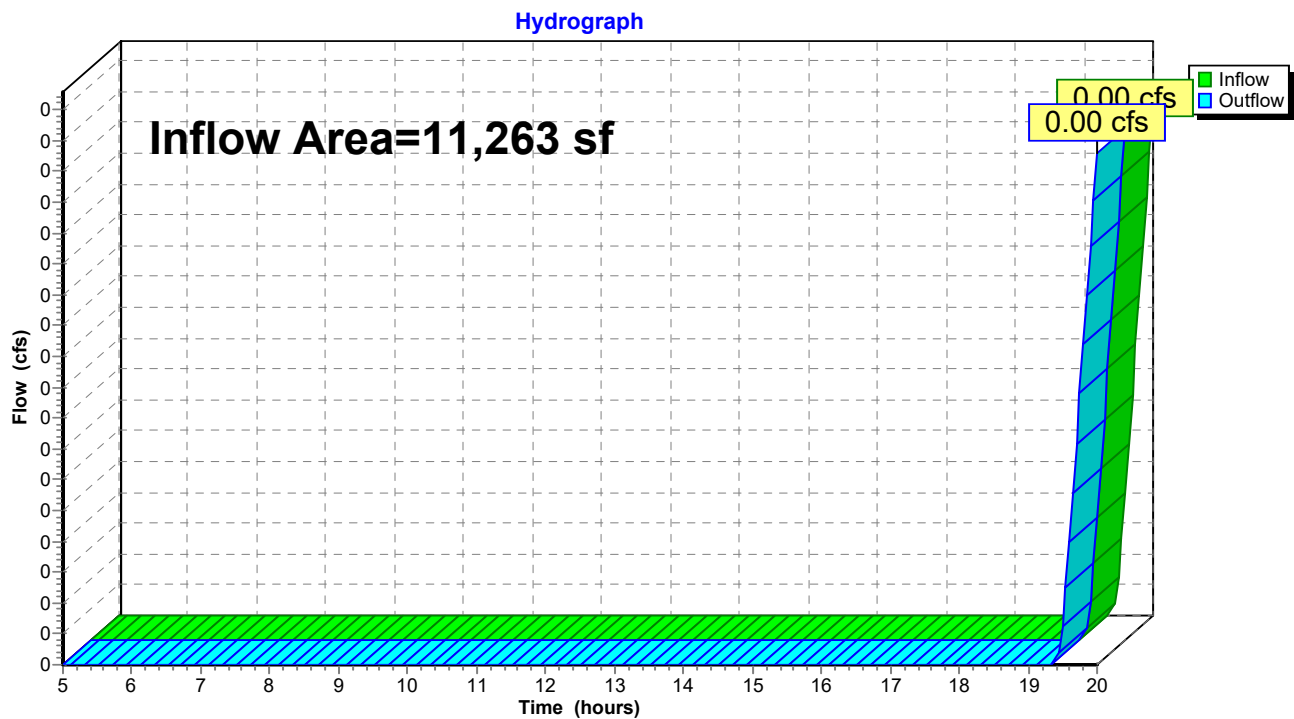
Reach DPEpre: DP-E



Summary for Reach DPFpre: DP-F

Inflow Area = 11,263 sf, 0.00% Impervious, Inflow Depth > 0.00" for 2-Year event
Inflow = 0.00 cfs @ 20.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 20.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPFpre: DP-F

Bridal Path Pre*Type III 24-hr 10-Year Rainfall=4.70"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: A	Runoff Area=187,326 sf 0.00% Impervious Runoff Depth>0.06" Flow Length=227' Tc=16.2 min CN=37 Runoff=0.05 cfs 1,003 cf
Subcatchment B: B	Runoff Area=129,745 sf 0.00% Impervious Runoff Depth>0.73" Flow Length=480' Tc=25.6 min CN=55 Runoff=1.36 cfs 7,904 cf
Subcatchment C: C	Runoff Area=52,295 sf 0.00% Impervious Runoff Depth>0.22" Flow Length=116' Tc=21.9 min CN=43 Runoff=0.08 cfs 965 cf
Subcatchment D: D	Runoff Area=82,811 sf 0.00% Impervious Runoff Depth>0.01" Flow Length=187' Tc=9.0 min CN=33 Runoff=0.00 cfs 62 cf
Subcatchment E: E	Runoff Area=108,562 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=511' Tc=34.5 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment F: F	Runoff Area=11,263 sf 0.00% Impervious Runoff Depth>0.11" Flow Length=511' Tc=10.5 min CN=39 Runoff=0.01 cfs 102 cf
Reach DPAPre: DP-A	Inflow=0.05 cfs 1,003 cf Outflow=0.05 cfs 1,003 cf
Reach DPBpre: DP-B	Inflow=1.36 cfs 7,904 cf Outflow=1.36 cfs 7,904 cf
Reach DPCpre: DP-C	Inflow=0.08 cfs 965 cf Outflow=0.08 cfs 965 cf
Reach DPDpre: DP-D	Inflow=0.00 cfs 62 cf Outflow=0.00 cfs 62 cf
Reach DPEpre: DP-E	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPFpre: DP-F	Inflow=0.01 cfs 102 cf Outflow=0.01 cfs 102 cf

Total Runoff Area = 572,002 sf Runoff Volume = 10,035 cf Average Runoff Depth = 0.21"
100.00% Pervious = 572,002 sf 0.00% Impervious = 0 sf

Bridal Path Pre

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment A: A

Runoff = 0.05 cfs @ 15.14 hrs, Volume= 1,003 cf, Depth> 0.06"
 Routed to Reach DPAPre : DP-A

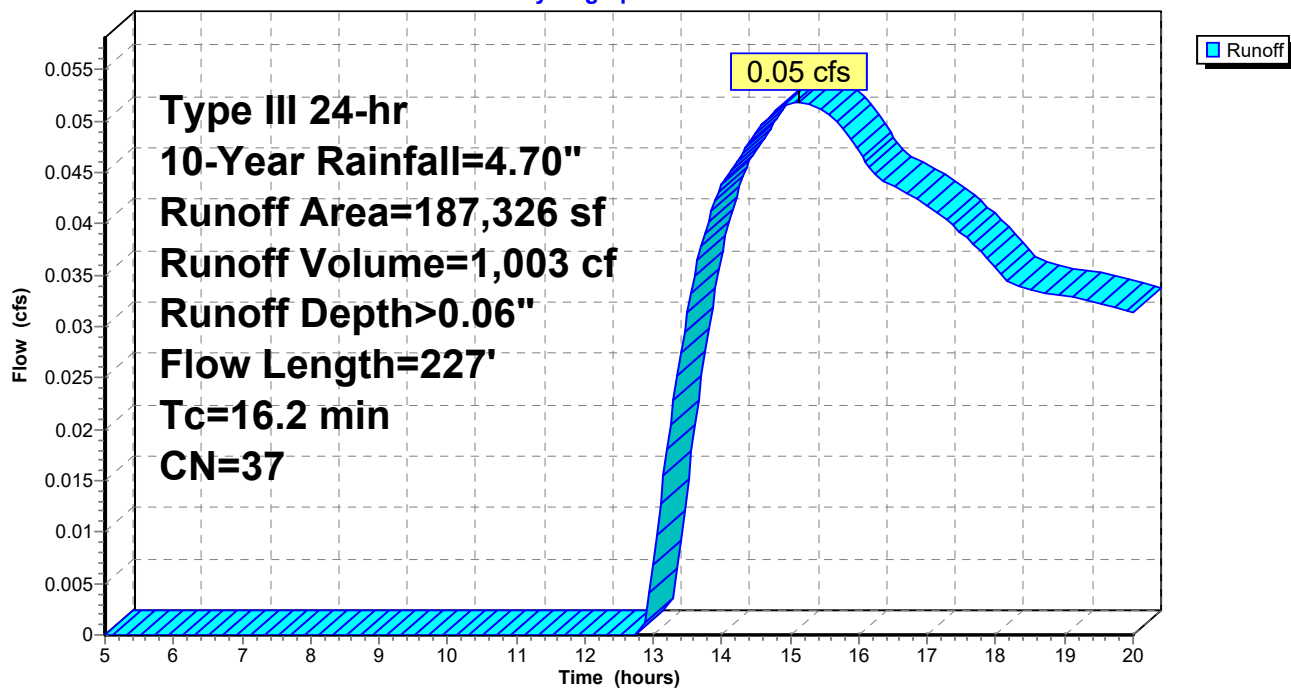
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
158,342	30	Woods, Good, HSG A
28,984	76	Gravel roads, HSG A
187,326	37	Weighted Average
187,326		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	50	0.0500	0.06		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.7	177	0.1271	1.78		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
16.2	227	Total			

Subcatchment A: A

Hydrograph



Bridal Path Pre

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment B: B

Runoff = 1.36 cfs @ 12.45 hrs, Volume= 7,904 cf, Depth> 0.73"
Routed to Reach DPBpre : DP-B

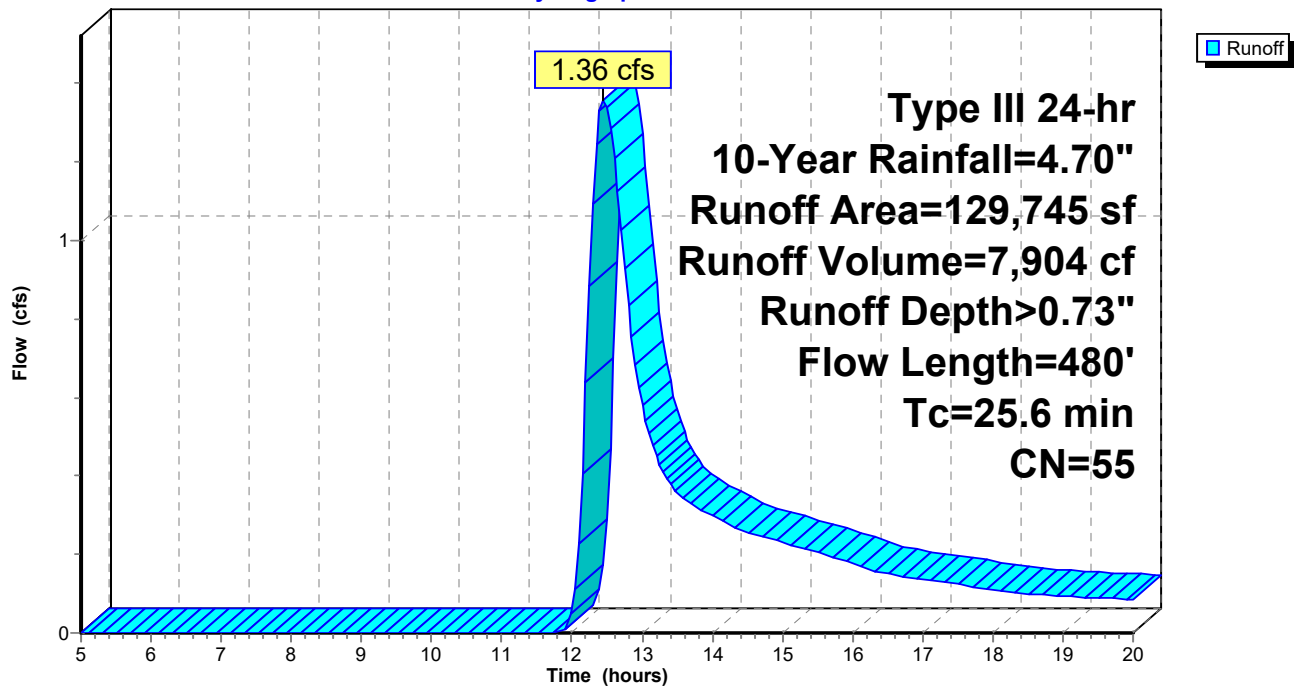
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
59,237	30	Woods, Good, HSG A
70,508	76	Gravel roads, HSG A
129,745	55	Weighted Average
129,745		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
0.5	78	0.2300	2.40		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
4.1	352	0.0080	1.44		Shallow Concentrated Flow, GRAVEL Unpaved Kv= 16.1 fps
25.6	480	Total			

Subcatchment B: B

Hydrograph



Bridal Path Pre

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment C: C

Runoff = 0.08 cfs @ 12.64 hrs, Volume= 965 cf, Depth> 0.22"
 Routed to Reach DPCpre : DP-C

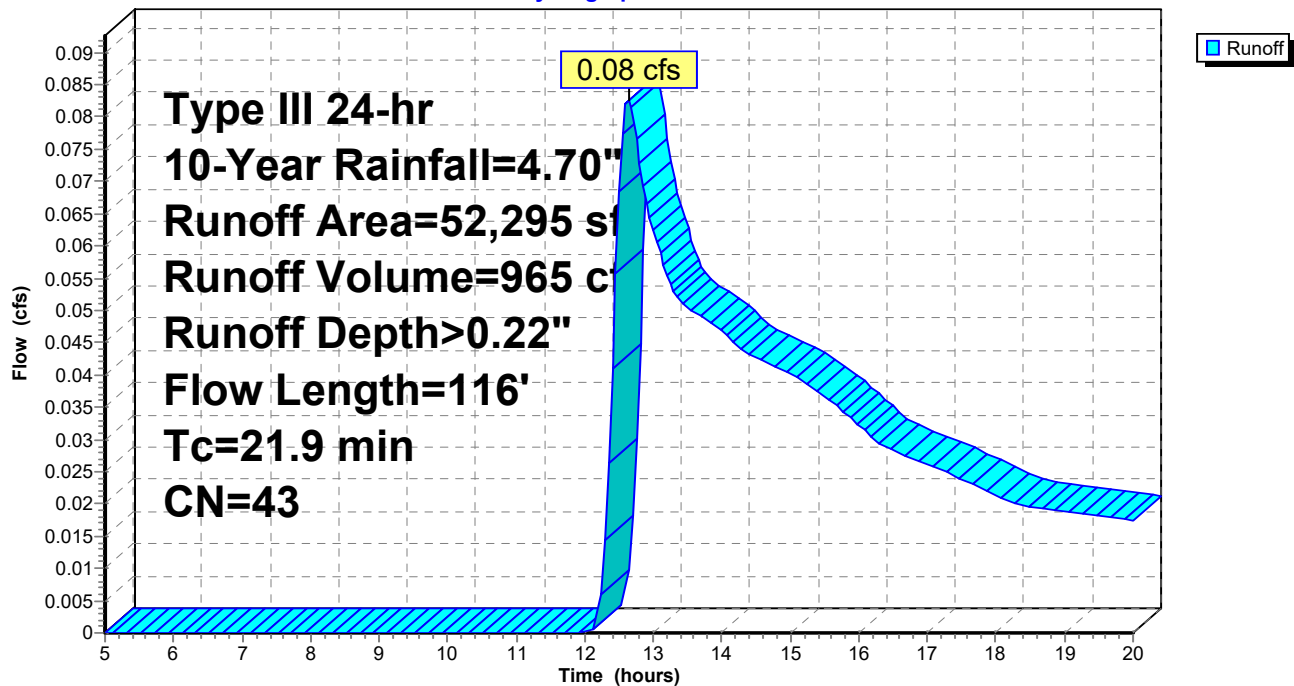
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
37,620	30	Woods, Good, HSG A
14,675	76	Gravel roads, HSG A
52,295	43	Weighted Average
52,295		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS
					Woods: Dense underbrush n= 0.800 P2= 3.35"
0.9	66	0.0610	1.23		Shallow Concentrated Flow, WOODS
					Woodland Kv= 5.0 fps
21.9	116	Total			

Subcatchment C: C

Hydrograph



Bridal Path Pre

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment D: D

Runoff = 0.00 cfs @ 20.00 hrs, Volume= 62 cf, Depth> 0.01"
 Routed to Reach DPDpre : DP-D

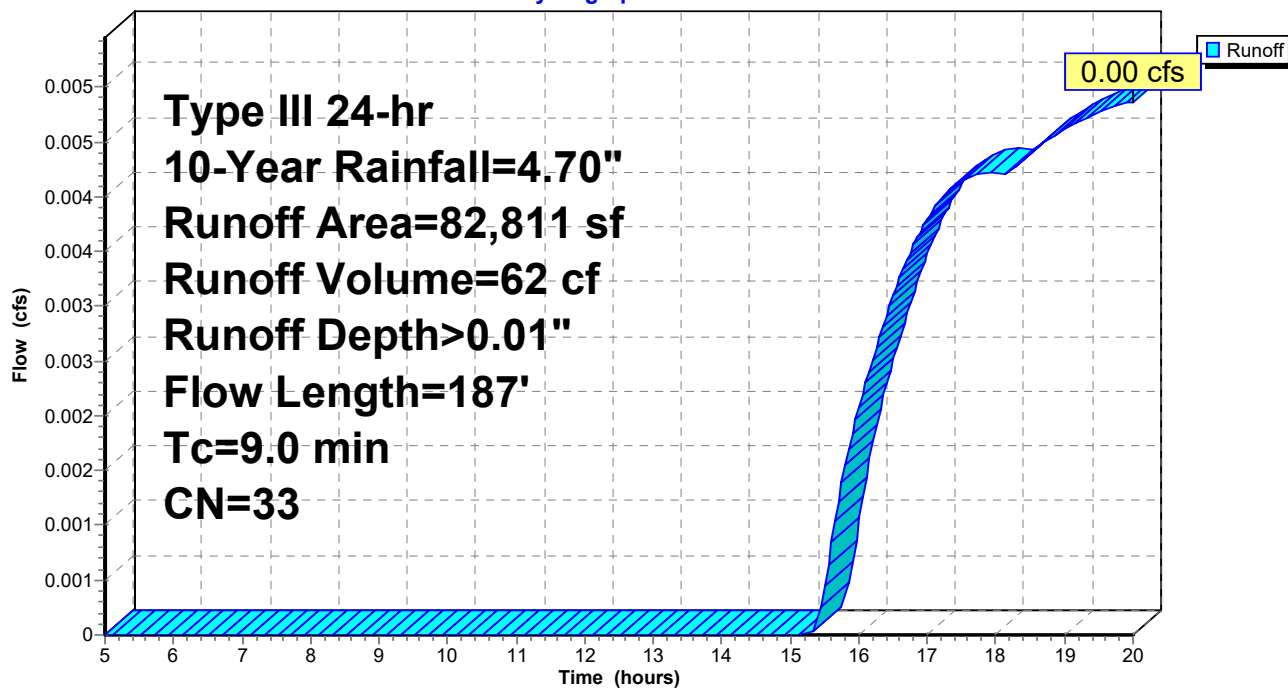
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
77,272	30	Woods, Good, HSG A
5,539	76	Gravel roads, HSG A
82,811	33	Weighted Average
82,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	50	0.2200	0.10		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.0	137	0.2000	2.24		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
9.0	187	Total			

Subcatchment D: D

Hydrograph



Bridal Path Pre

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment E: E

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"

Routed to Reach DPEpre : DP-E

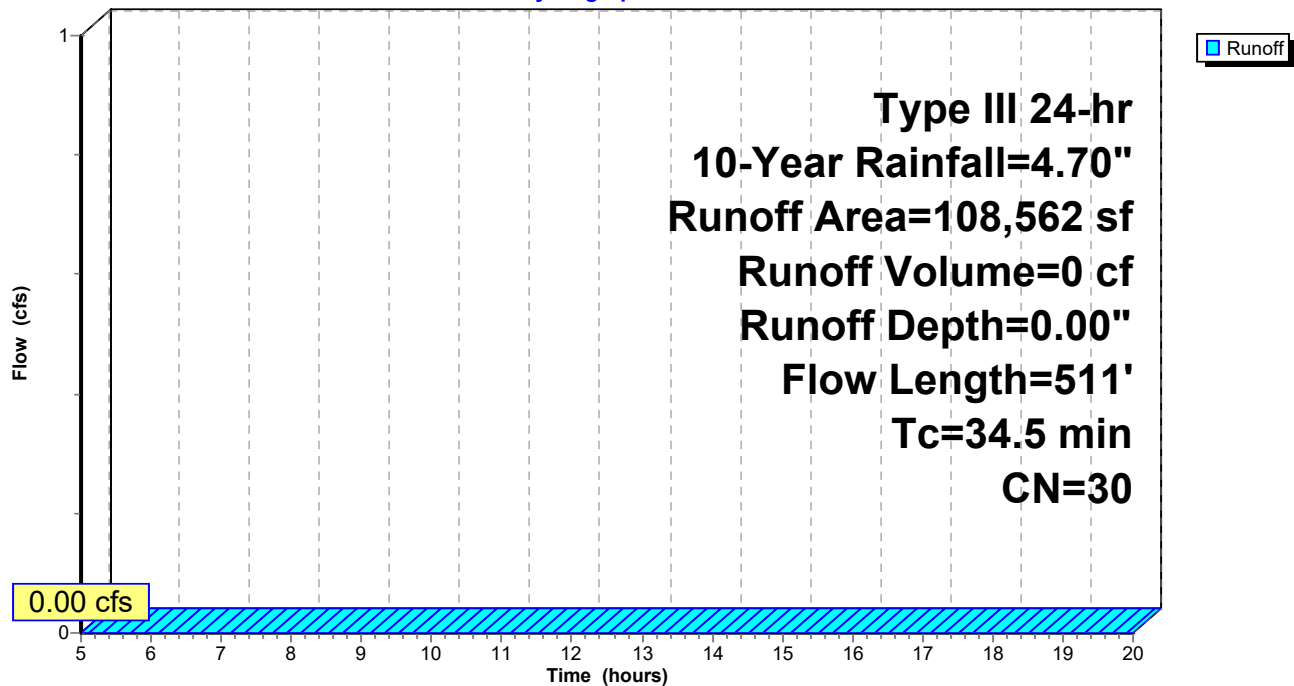
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
108,562	30	Woods, Good, HSG A
108,562		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.7	50	0.0100	0.03		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
3.9	221	0.0360	0.95		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
2.9	240	0.0750	1.37		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
34.5	511	Total			

Subcatchment E: E

Hydrograph



Bridal Path Pre

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment F: F

Runoff = 0.01 cfs @ 13.83 hrs, Volume= 102 cf, Depth> 0.11"
 Routed to Reach DPFpre : DP-F

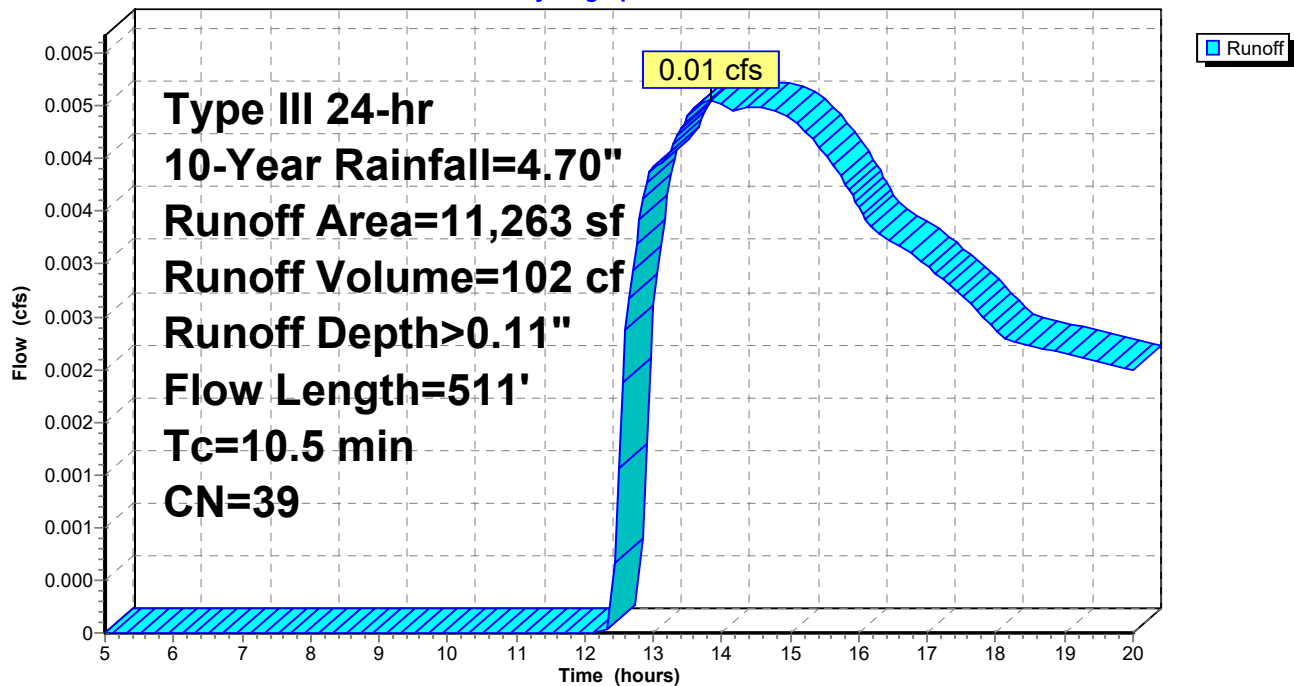
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
11,263	39	>75% Grass cover, Good, HSG A
11,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.0500	0.15		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.35"
2.8	221	0.0360	1.33		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
2.1	240	0.0750	1.92		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
10.5	511	Total			

Subcatchment F: F

Hydrograph

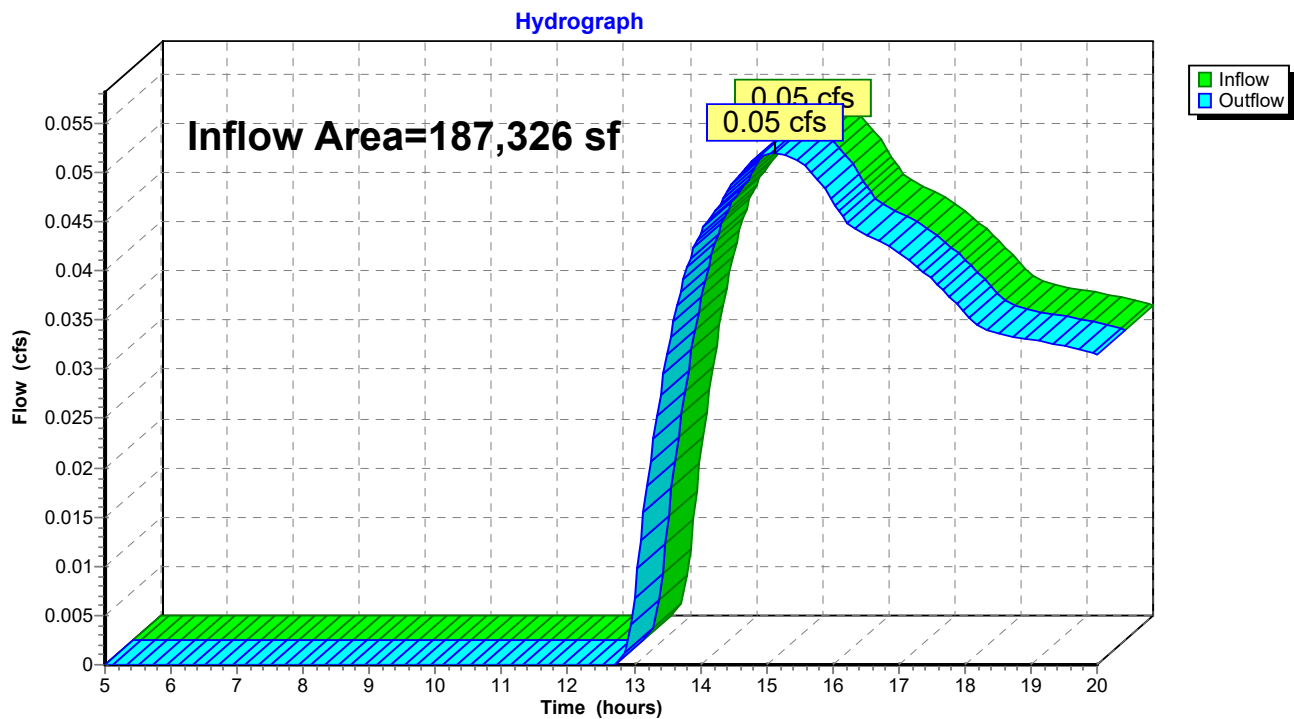


Summary for Reach DPApr: DP-A

Inflow Area = 187,326 sf, 0.00% Impervious, Inflow Depth > 0.06" for 10-Year event
 Inflow = 0.05 cfs @ 15.14 hrs, Volume= 1,003 cf
 Outflow = 0.05 cfs @ 15.14 hrs, Volume= 1,003 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPApr: DP-A

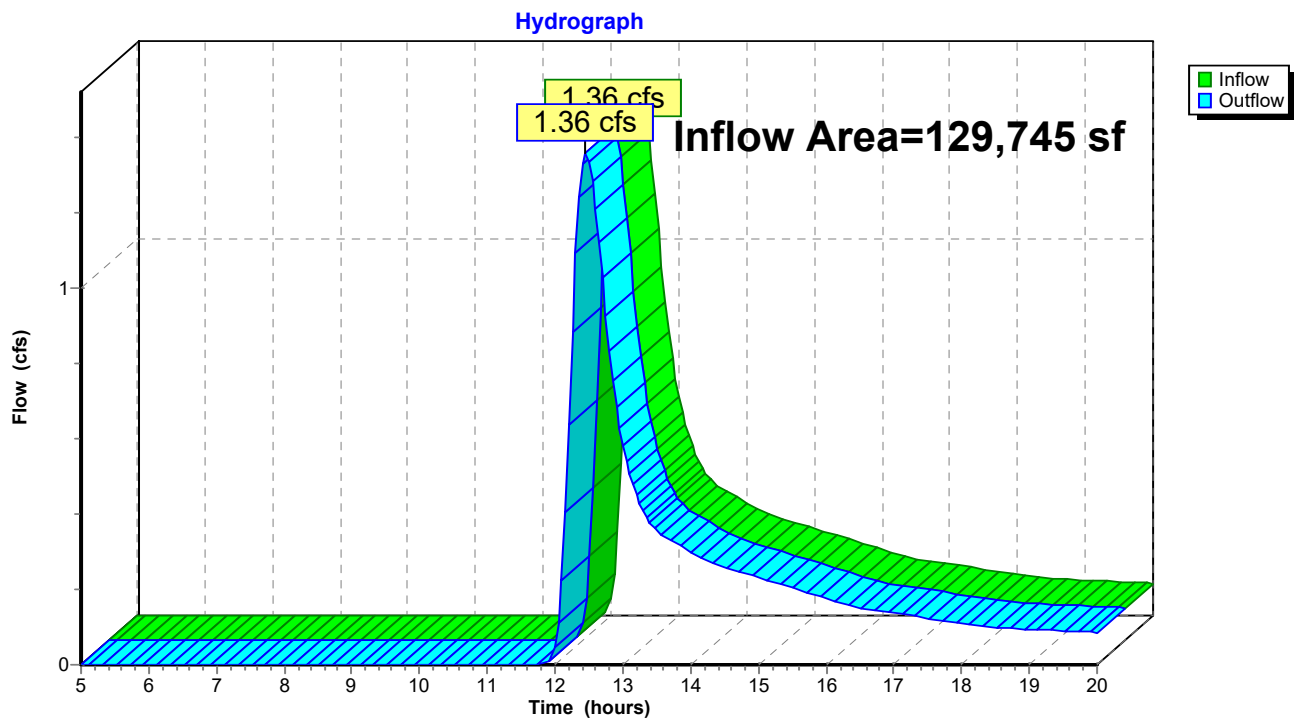


Summary for Reach DPBpre: DP-B

Inflow Area = 129,745 sf, 0.00% Impervious, Inflow Depth > 0.73" for 10-Year event
 Inflow = 1.36 cfs @ 12.45 hrs, Volume= 7,904 cf
 Outflow = 1.36 cfs @ 12.45 hrs, Volume= 7,904 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

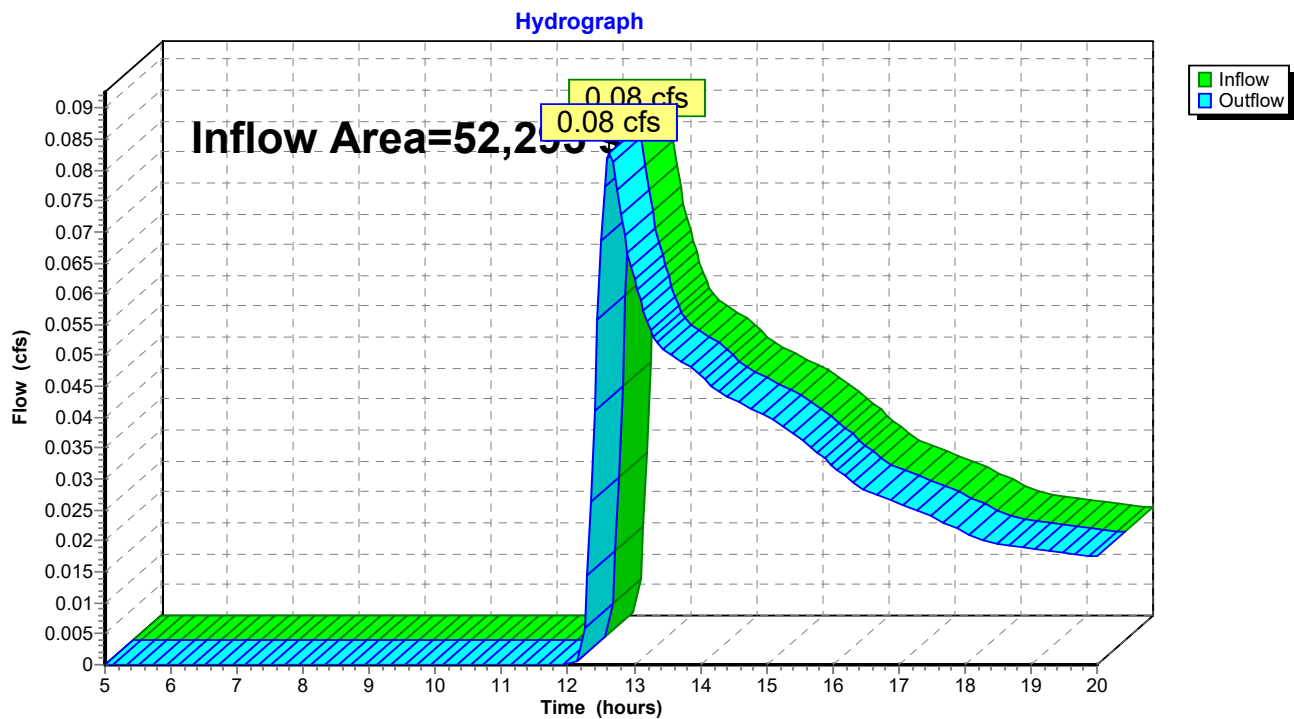
Reach DPBpre: DP-B



Summary for Reach DPCpre: DP-C

Inflow Area = 52,295 sf, 0.00% Impervious, Inflow Depth > 0.22" for 10-Year event
Inflow = 0.08 cfs @ 12.64 hrs, Volume= 965 cf
Outflow = 0.08 cfs @ 12.64 hrs, Volume= 965 cf, Atten= 0%, Lag= 0.0 min

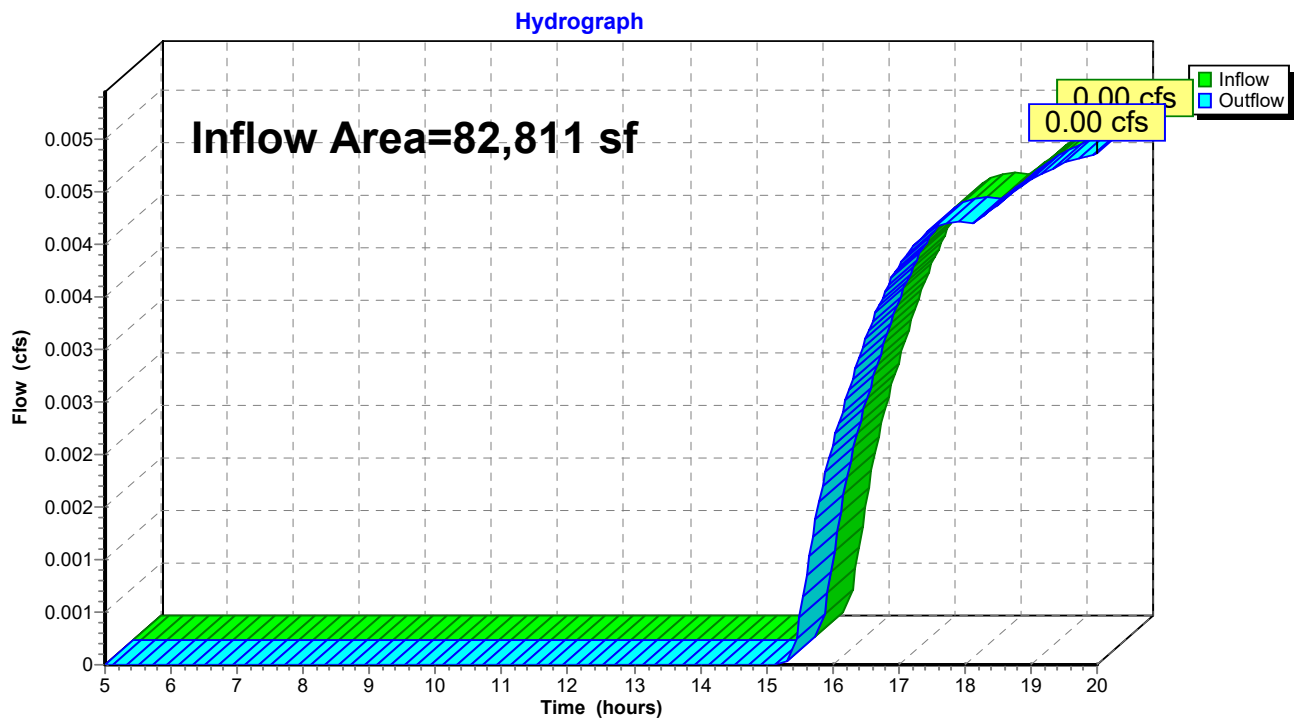
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPCpre: DP-C

Summary for Reach DPDpre: DP-D

Inflow Area = 82,811 sf, 0.00% Impervious, Inflow Depth > 0.01" for 10-Year event
Inflow = 0.00 cfs @ 20.00 hrs, Volume= 62 cf
Outflow = 0.00 cfs @ 20.00 hrs, Volume= 62 cf, Atten= 0%, Lag= 0.0 min

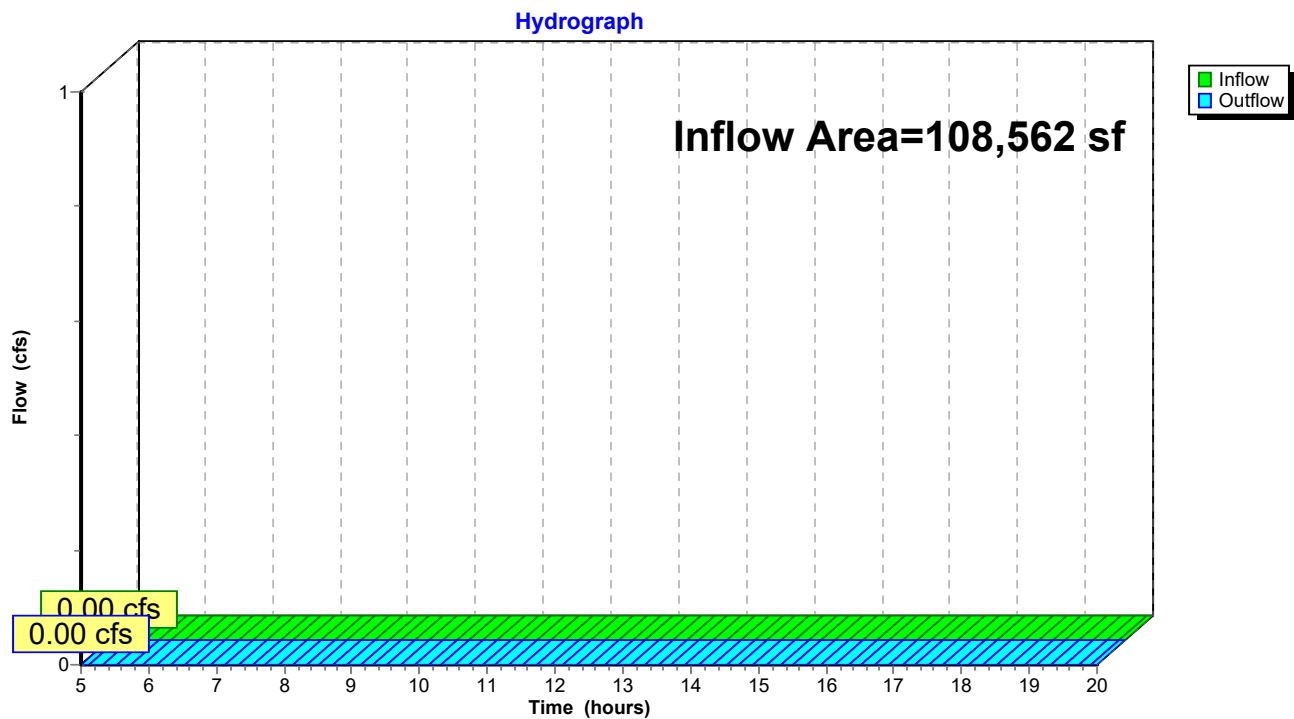
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPDpre: DP-D

Summary for Reach DPEpre: DP-E

Inflow Area = 108,562 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

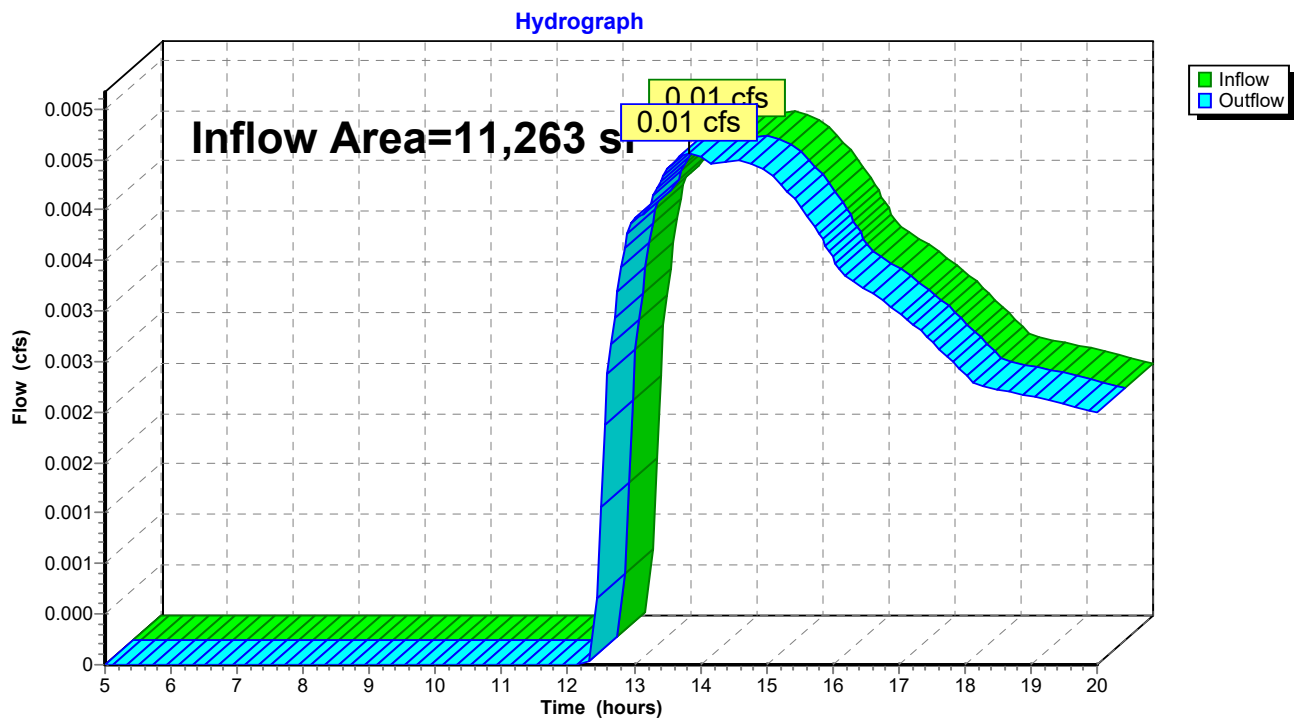
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPEpre: DP-E

Summary for Reach DPFpre: DP-F

Inflow Area = 11,263 sf, 0.00% Impervious, Inflow Depth > 0.11" for 10-Year event
Inflow = 0.01 cfs @ 13.83 hrs, Volume= 102 cf
Outflow = 0.01 cfs @ 13.83 hrs, Volume= 102 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPFpre: DP-F

Bridal Path Pre*Type III 24-hr 25-Year Rainfall=5.55"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: A	Runoff Area=187,326 sf 0.00% Impervious Runoff Depth>0.19" Flow Length=227' Tc=16.2 min CN=37 Runoff=0.18 cfs 2,946 cf
Subcatchment B: B	Runoff Area=129,745 sf 0.00% Impervious Runoff Depth>1.12" Flow Length=480' Tc=25.6 min CN=55 Runoff=2.29 cfs 12,160 cf
Subcatchment C: C	Runoff Area=52,295 sf 0.00% Impervious Runoff Depth>0.44" Flow Length=116' Tc=21.9 min CN=43 Runoff=0.24 cfs 1,907 cf
Subcatchment D: D	Runoff Area=82,811 sf 0.00% Impervious Runoff Depth>0.07" Flow Length=187' Tc=9.0 min CN=33 Runoff=0.03 cfs 494 cf
Subcatchment E: E	Runoff Area=108,562 sf 0.00% Impervious Runoff Depth>0.02" Flow Length=511' Tc=34.5 min CN=30 Runoff=0.01 cfs 139 cf
Subcatchment F: F	Runoff Area=11,263 sf 0.00% Impervious Runoff Depth>0.27" Flow Length=511' Tc=10.5 min CN=39 Runoff=0.03 cfs 249 cf
Reach DPAPre: DP-A	Inflow=0.18 cfs 2,946 cf Outflow=0.18 cfs 2,946 cf
Reach DPBpre: DP-B	Inflow=2.29 cfs 12,160 cf Outflow=2.29 cfs 12,160 cf
Reach DPCpre: DP-C	Inflow=0.24 cfs 1,907 cf Outflow=0.24 cfs 1,907 cf
Reach DPDpre: DP-D	Inflow=0.03 cfs 494 cf Outflow=0.03 cfs 494 cf
Reach DPEpre: DP-E	Inflow=0.01 cfs 139 cf Outflow=0.01 cfs 139 cf
Reach DPFpre: DP-F	Inflow=0.03 cfs 249 cf Outflow=0.03 cfs 249 cf

Total Runoff Area = 572,002 sf Runoff Volume = 17,896 cf Average Runoff Depth = 0.38"
100.00% Pervious = 572,002 sf 0.00% Impervious = 0 sf

Bridal Path Pre

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment A: A

Runoff = 0.18 cfs @ 12.62 hrs, Volume= 2,946 cf, Depth> 0.19"
 Routed to Reach DPAPre : DP-A

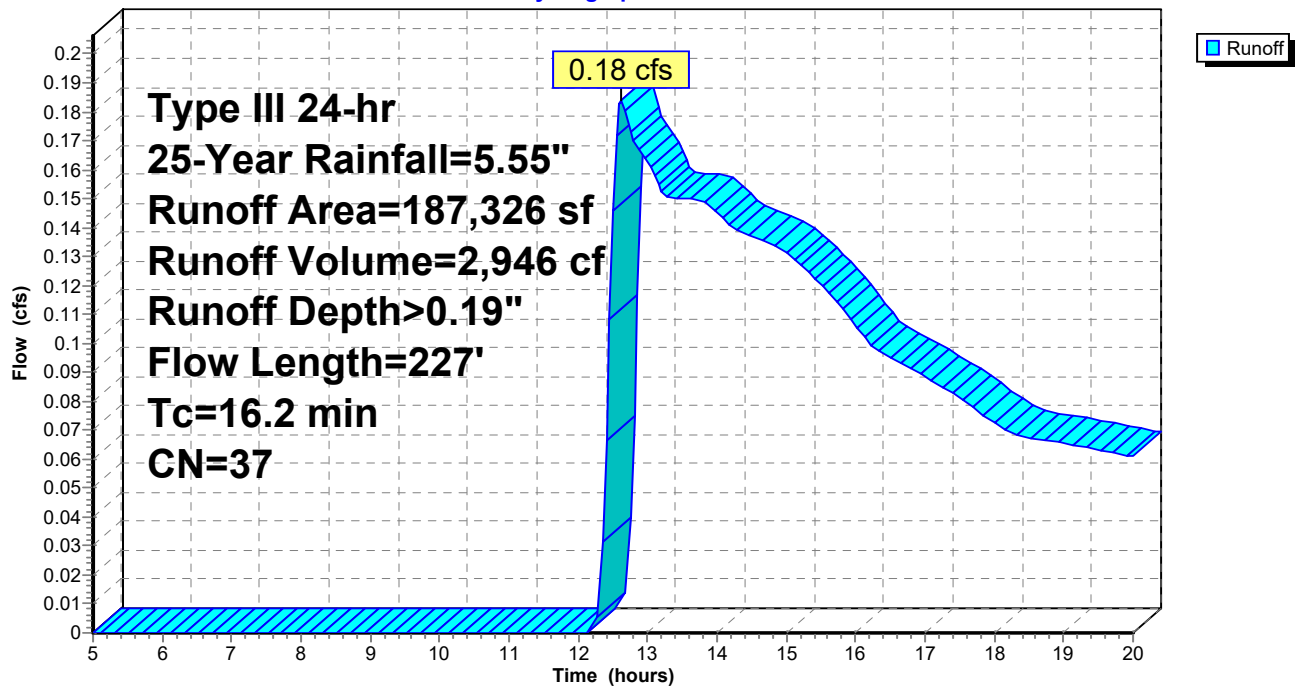
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
158,342	30	Woods, Good, HSG A
28,984	76	Gravel roads, HSG A
187,326	37	Weighted Average
187,326		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	50	0.0500	0.06		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.7	177	0.1271	1.78		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
16.2	227	Total			

Subcatchment A: A

Hydrograph



Bridal Path Pre

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment B: B

Runoff = 2.29 cfs @ 12.42 hrs, Volume= 12,160 cf, Depth> 1.12"
Routed to Reach DPBpre : DP-B

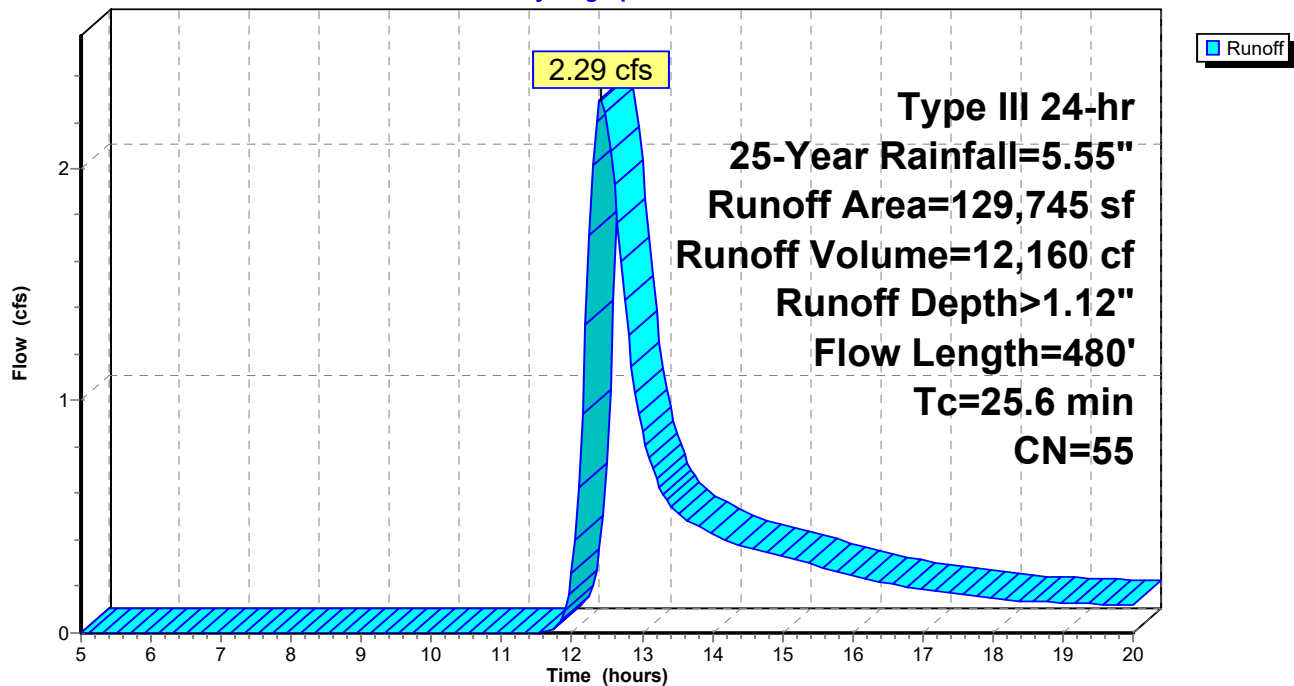
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
59,237	30	Woods, Good, HSG A
70,508	76	Gravel roads, HSG A
129,745	55	Weighted Average
129,745		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
0.5	78	0.2300	2.40		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
4.1	352	0.0080	1.44		Shallow Concentrated Flow, GRAVEL Unpaved Kv= 16.1 fps
25.6	480	Total			

Subcatchment B: B

Hydrograph



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment C: C

Runoff = 0.24 cfs @ 12.53 hrs, Volume= 1,907 cf, Depth> 0.44"
 Routed to Reach DPCpre : DP-C

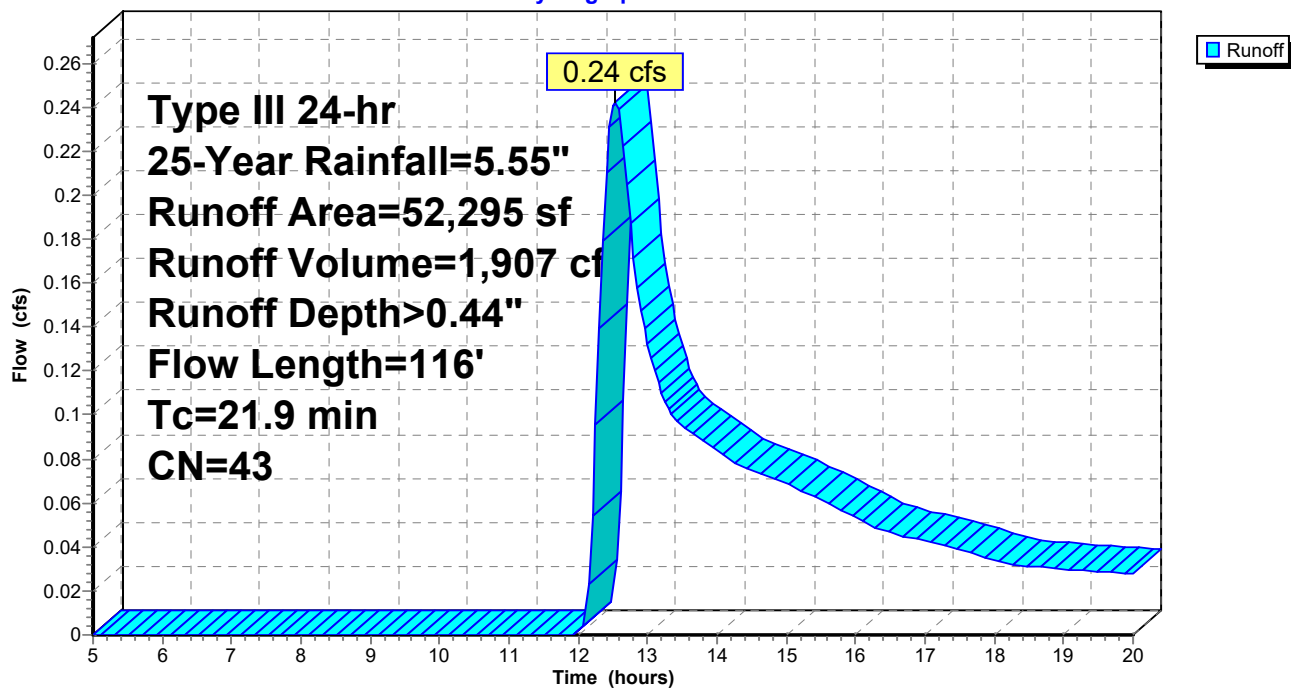
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
37,620	30	Woods, Good, HSG A
14,675	76	Gravel roads, HSG A
52,295	43	Weighted Average
52,295		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS
					Woods: Dense underbrush n= 0.800 P2= 3.35"
0.9	66	0.0610	1.23		Shallow Concentrated Flow, WOODS
					Woodland Kv= 5.0 fps
21.9	116	Total			

Subcatchment C: C

Hydrograph



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment D: D

Runoff = 0.03 cfs @ 15.07 hrs, Volume= 494 cf, Depth> 0.07"
 Routed to Reach DPDpre : DP-D

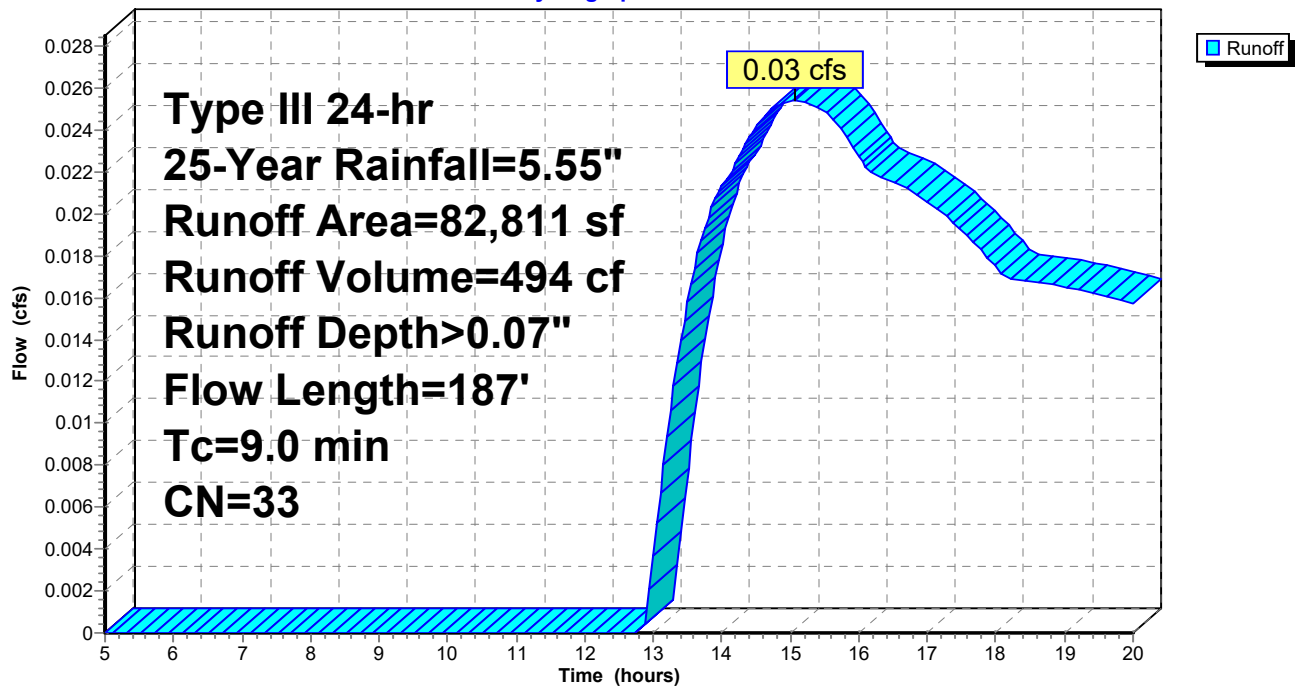
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
77,272	30	Woods, Good, HSG A
5,539	76	Gravel roads, HSG A
82,811	33	Weighted Average
82,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	50	0.2200	0.10		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.0	137	0.2000	2.24		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
9.0	187	Total			

Subcatchment D: D

Hydrograph



Bridal Path Pre

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment E: E

Runoff = 0.01 cfs @ 20.00 hrs, Volume= 139 cf, Depth> 0.02"
Routed to Reach DPEpre : DP-E

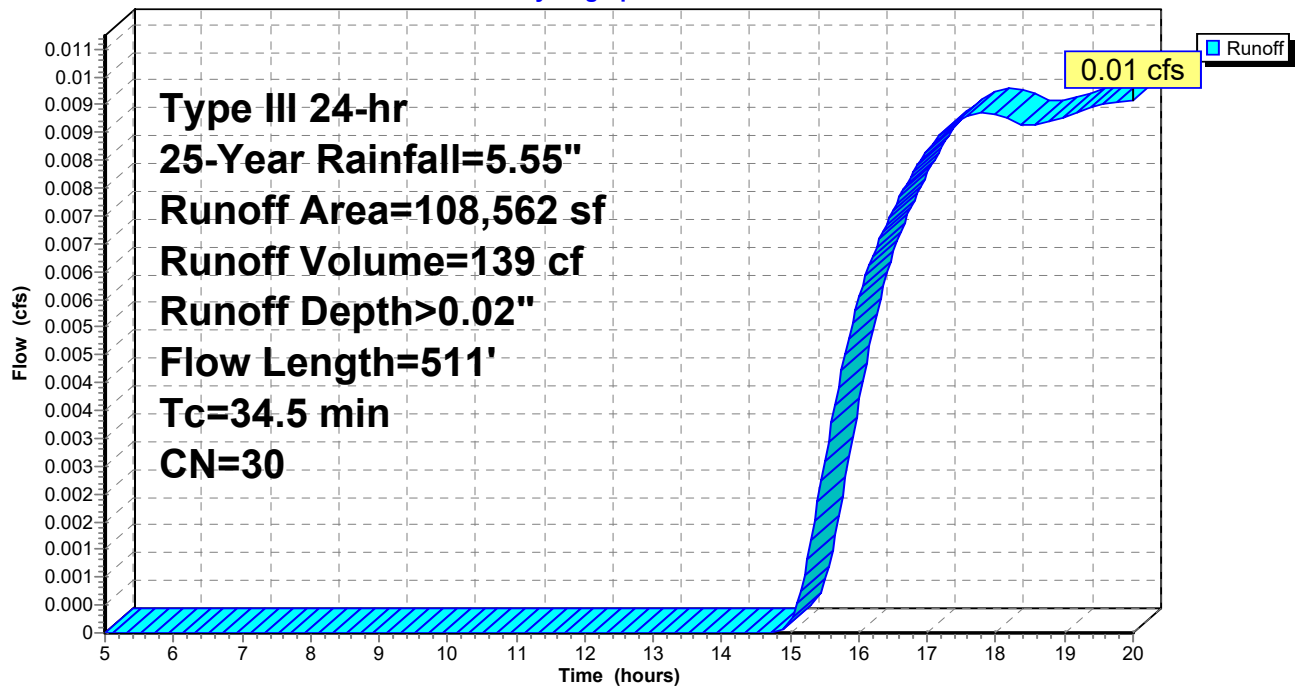
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
108,562	30	Woods, Good, HSG A
108,562		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.7	50	0.0100	0.03		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
3.9	221	0.0360	0.95		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
2.9	240	0.0750	1.37		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
34.5	511	Total			

Subcatchment E: E

Hydrograph



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment F: F

Runoff = 0.03 cfs @ 12.46 hrs, Volume= 249 cf, Depth> 0.27"
 Routed to Reach DPFpre : DP-F

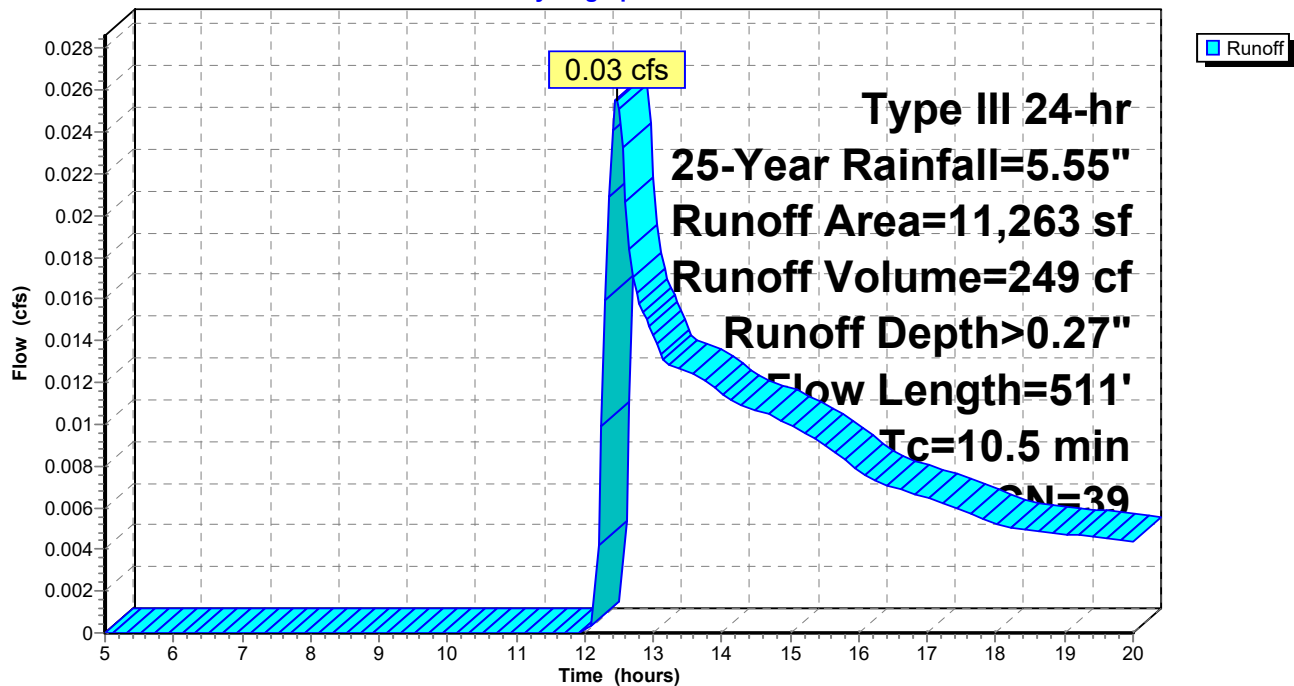
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
11,263	39	>75% Grass cover, Good, HSG A
11,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.0500	0.15		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.35"
2.8	221	0.0360	1.33		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
2.1	240	0.0750	1.92		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
10.5	511	Total			

Subcatchment F: F

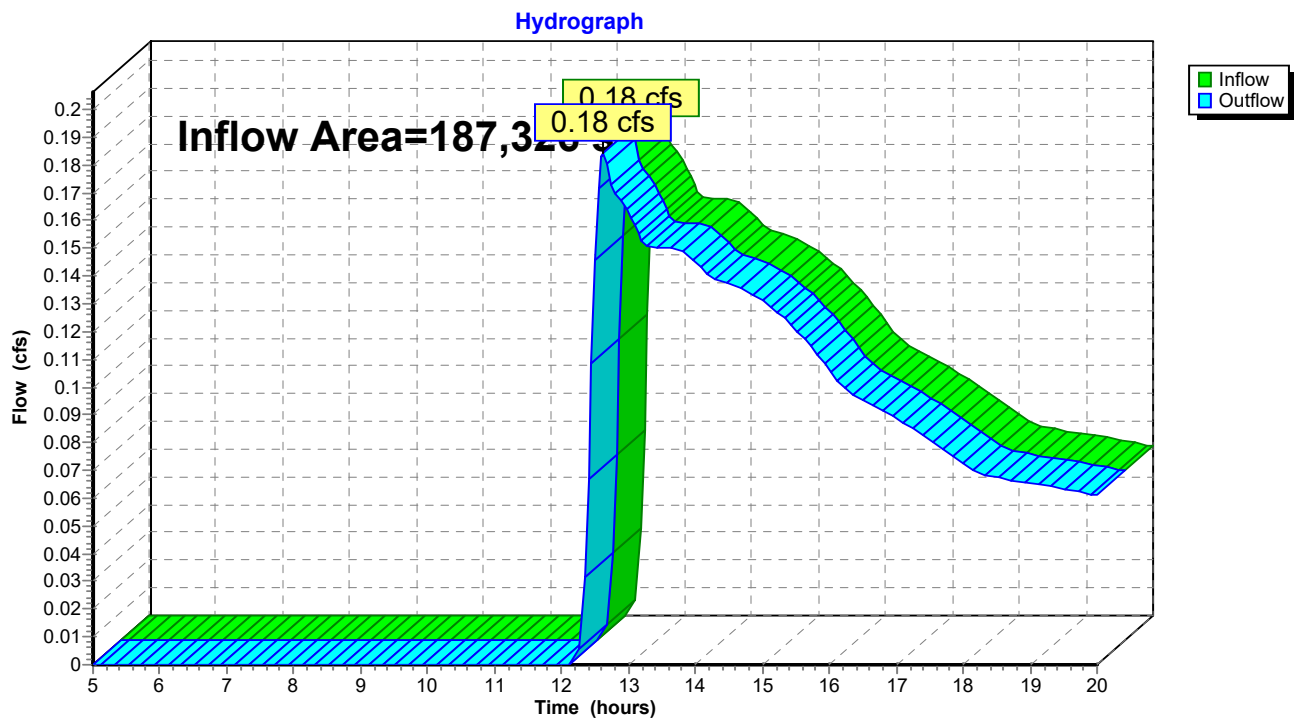
Hydrograph



Summary for Reach DPApr: DP-A

Inflow Area = 187,326 sf, 0.00% Impervious, Inflow Depth > 0.19" for 25-Year event
Inflow = 0.18 cfs @ 12.62 hrs, Volume= 2,946 cf
Outflow = 0.18 cfs @ 12.62 hrs, Volume= 2,946 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

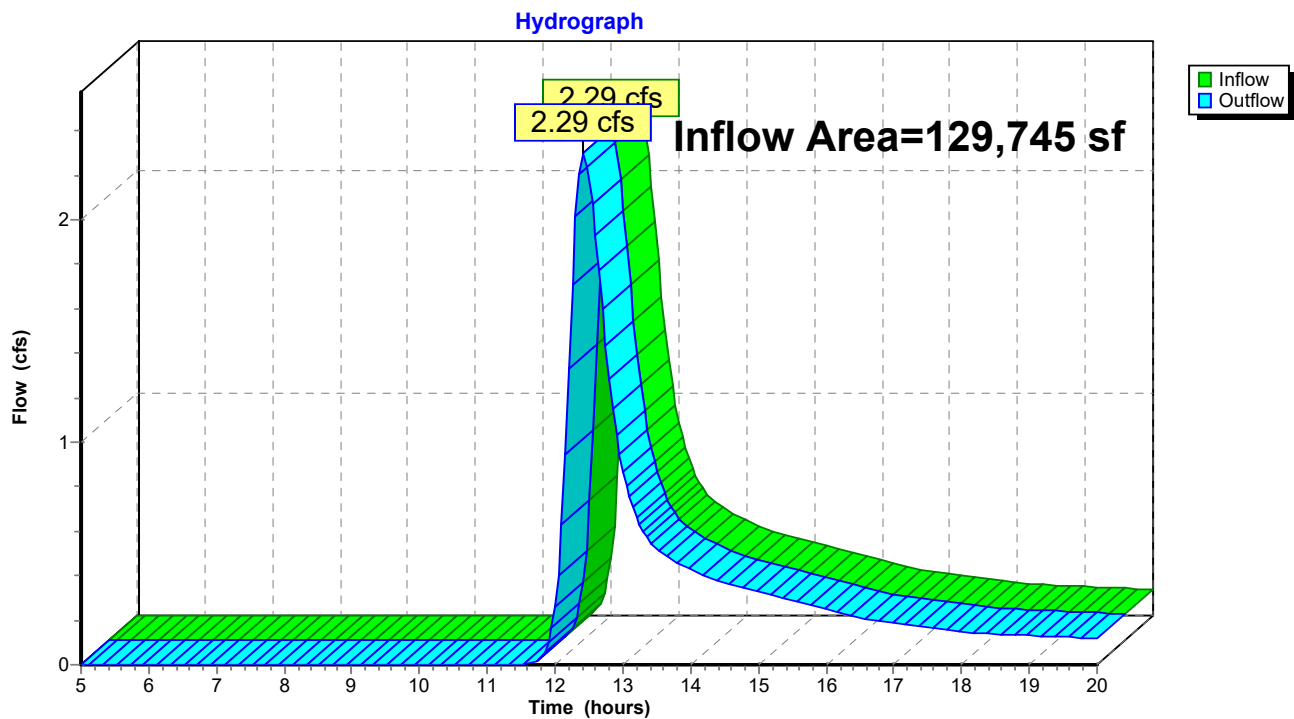
Reach DPApr: DP-A

Summary for Reach DPBpre: DP-B

Inflow Area = 129,745 sf, 0.00% Impervious, Inflow Depth > 1.12" for 25-Year event
 Inflow = 2.29 cfs @ 12.42 hrs, Volume= 12,160 cf
 Outflow = 2.29 cfs @ 12.42 hrs, Volume= 12,160 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

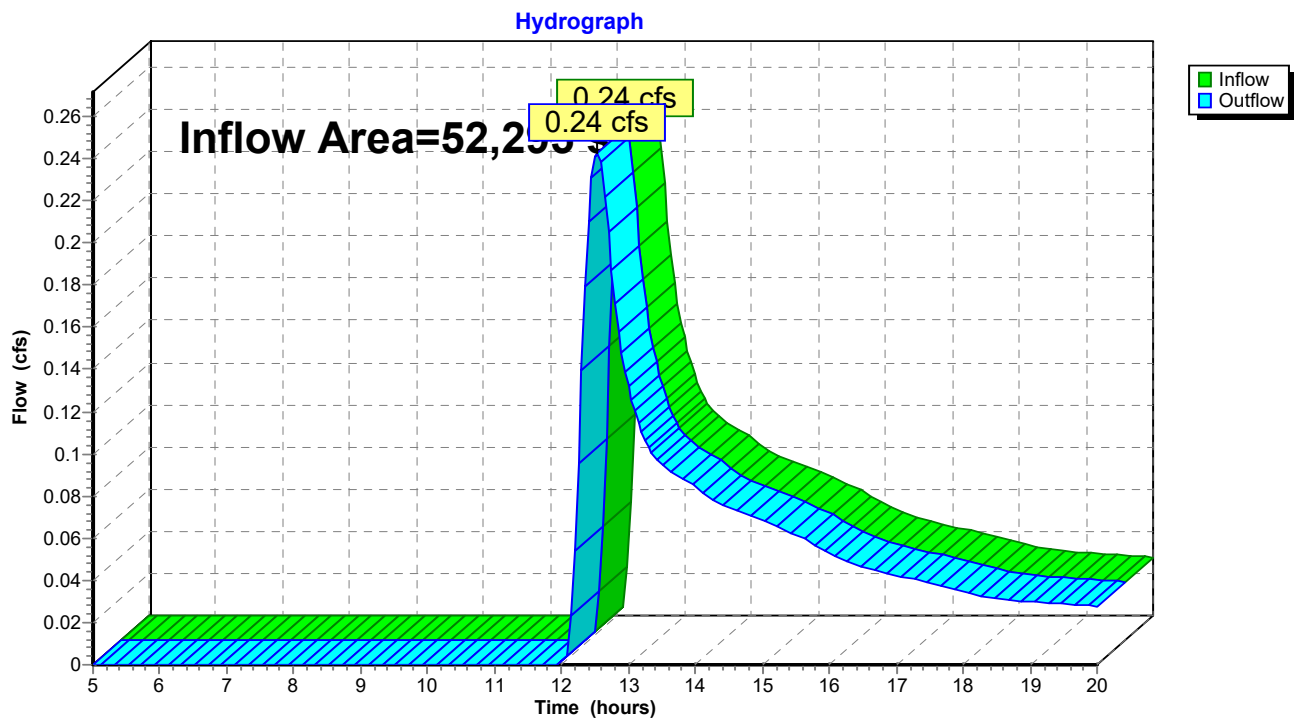
Reach DPBpre: DP-B



Summary for Reach DPCpre: DP-C

Inflow Area = 52,295 sf, 0.00% Impervious, Inflow Depth > 0.44" for 25-Year event
Inflow = 0.24 cfs @ 12.53 hrs, Volume= 1,907 cf
Outflow = 0.24 cfs @ 12.53 hrs, Volume= 1,907 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

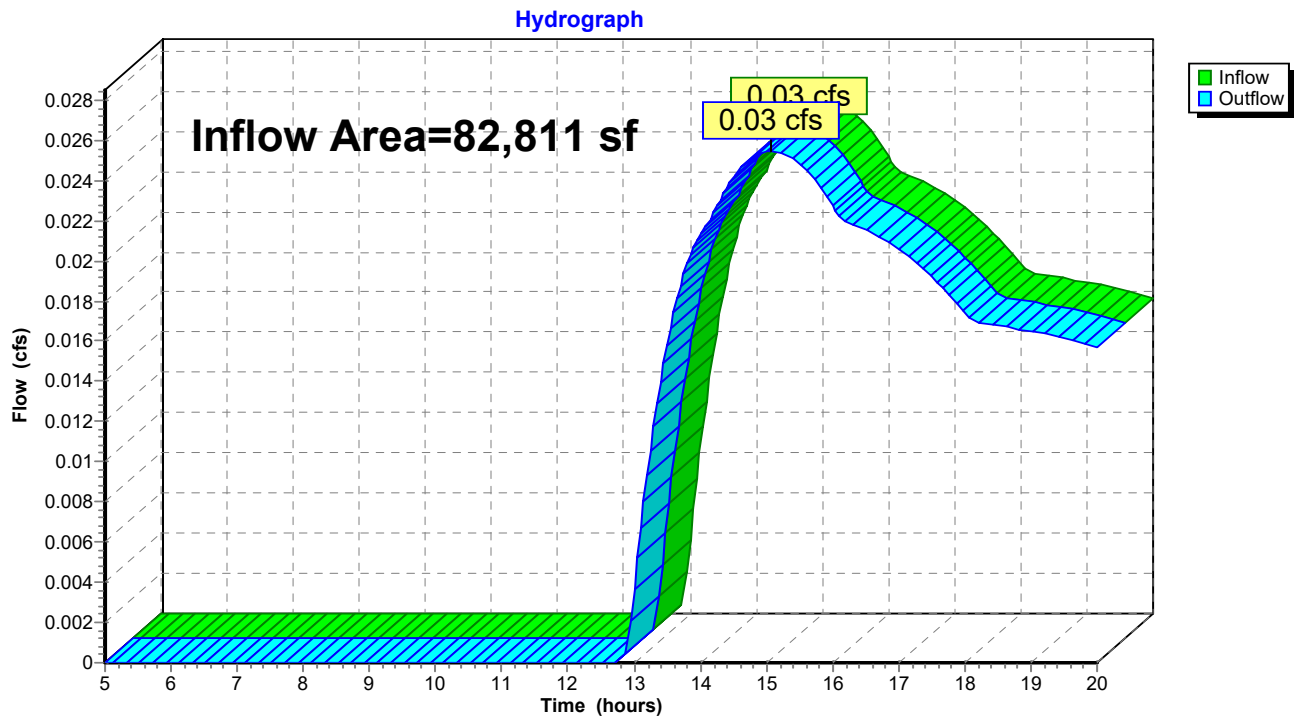
Reach DPCpre: DP-C

Summary for Reach DPDpre: DP-D

Inflow Area = 82,811 sf, 0.00% Impervious, Inflow Depth > 0.07" for 25-Year event
 Inflow = 0.03 cfs @ 15.07 hrs, Volume= 494 cf
 Outflow = 0.03 cfs @ 15.07 hrs, Volume= 494 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

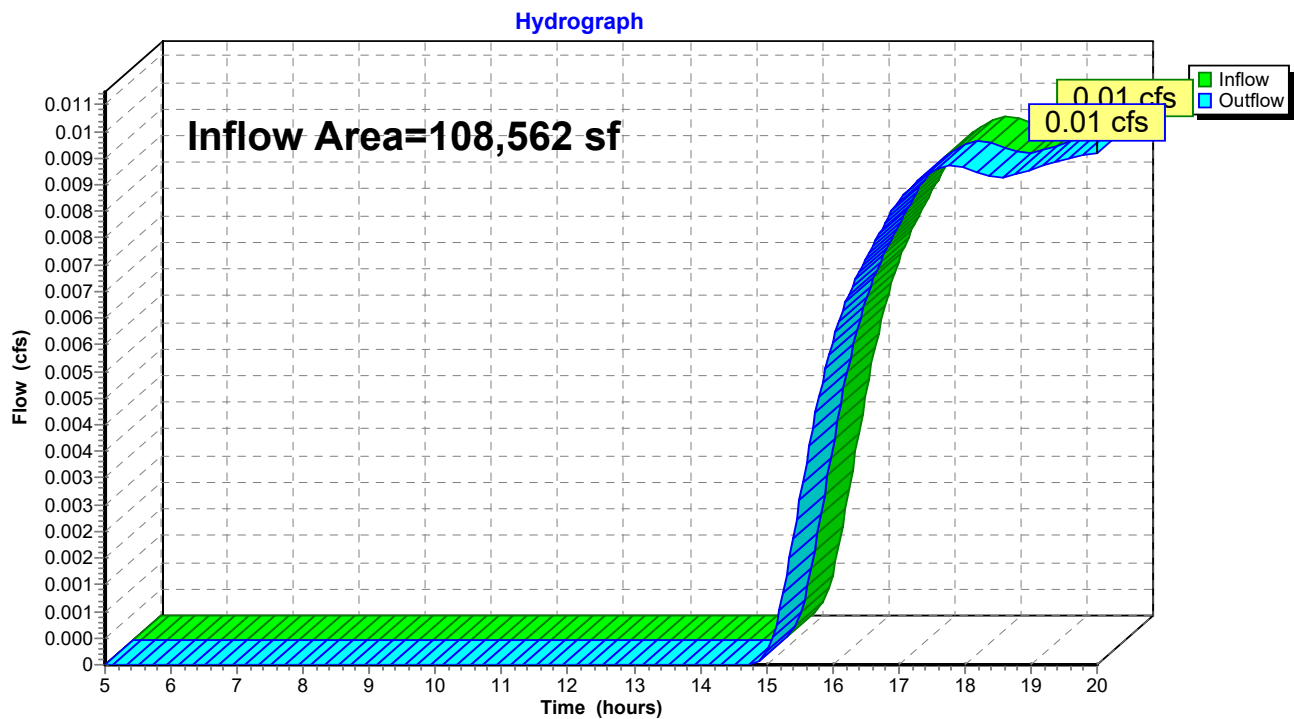
Reach DPDpre: DP-D



Summary for Reach DPEpre: DP-E

Inflow Area = 108,562 sf, 0.00% Impervious, Inflow Depth > 0.02" for 25-Year event
Inflow = 0.01 cfs @ 20.00 hrs, Volume= 139 cf
Outflow = 0.01 cfs @ 20.00 hrs, Volume= 139 cf, Atten= 0%, Lag= 0.0 min

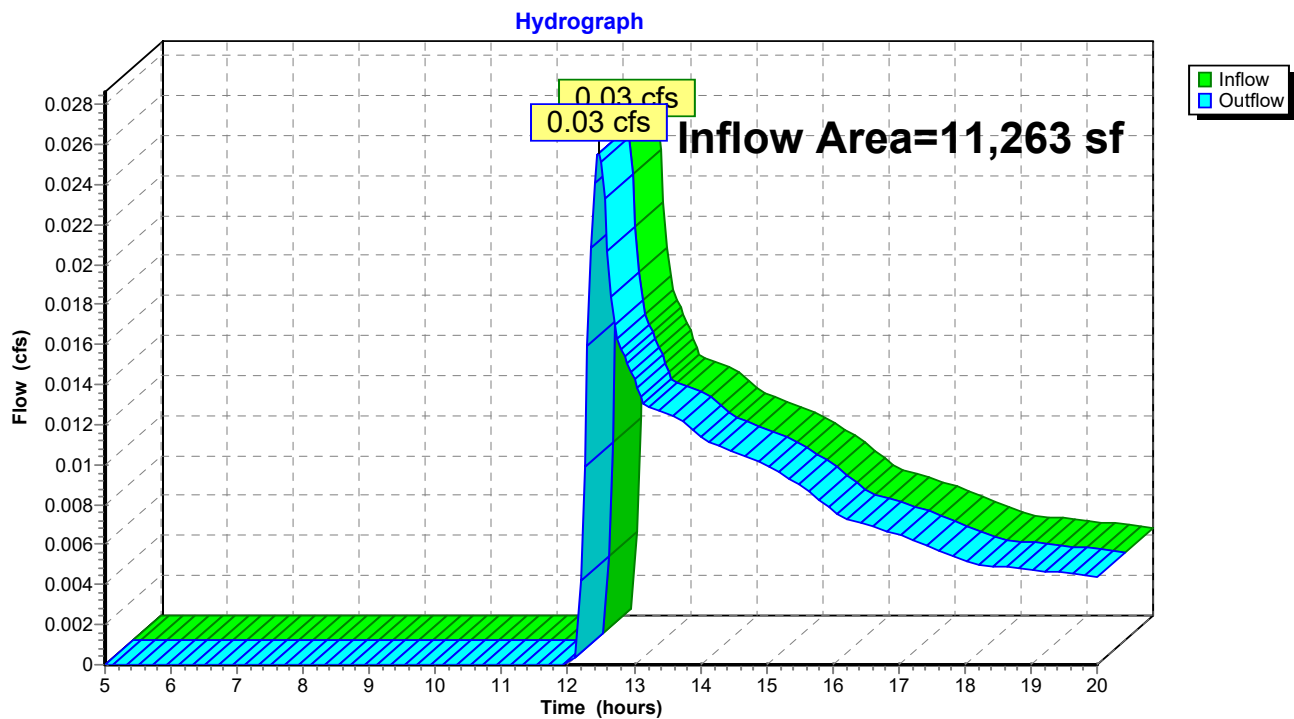
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPEpre: DP-E

Summary for Reach DPFpre: DP-F

Inflow Area = 11,263 sf, 0.00% Impervious, Inflow Depth > 0.27" for 25-Year event
Inflow = 0.03 cfs @ 12.46 hrs, Volume= 249 cf
Outflow = 0.03 cfs @ 12.46 hrs, Volume= 249 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPFpre: DP-F

Bridal Path Pre*Type III 24-hr 100-Year Rainfall=7.00"*

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A: A	Runoff Area=187,326 sf 0.00% Impervious Runoff Depth>0.53" Flow Length=227' Tc=16.2 min CN=37 Runoff=1.10 cfs 8,237 cf
Subcatchment B: B	Runoff Area=129,745 sf 0.00% Impervious Runoff Depth>1.91" Flow Length=480' Tc=25.6 min CN=55 Runoff=4.18 cfs 20,692 cf
Subcatchment C: C	Runoff Area=52,295 sf 0.00% Impervious Runoff Depth>0.93" Flow Length=116' Tc=21.9 min CN=43 Runoff=0.69 cfs 4,074 cf
Subcatchment D: D	Runoff Area=82,811 sf 0.00% Impervious Runoff Depth>0.30" Flow Length=187' Tc=9.0 min CN=33 Runoff=0.20 cfs 2,078 cf
Subcatchment E: E	Runoff Area=108,562 sf 0.00% Impervious Runoff Depth>0.16" Flow Length=511' Tc=34.5 min CN=30 Runoff=0.07 cfs 1,407 cf
Subcatchment F: F	Runoff Area=11,263 sf 0.00% Impervious Runoff Depth>0.66" Flow Length=511' Tc=10.5 min CN=39 Runoff=0.10 cfs 619 cf
Reach DPAPre: DP-A	Inflow=1.10 cfs 8,237 cf Outflow=1.10 cfs 8,237 cf
Reach DPBpre: DP-B	Inflow=4.18 cfs 20,692 cf Outflow=4.18 cfs 20,692 cf
Reach DPCpre: DP-C	Inflow=0.69 cfs 4,074 cf Outflow=0.69 cfs 4,074 cf
Reach DPDpre: DP-D	Inflow=0.20 cfs 2,078 cf Outflow=0.20 cfs 2,078 cf
Reach DPEpre: DP-E	Inflow=0.07 cfs 1,407 cf Outflow=0.07 cfs 1,407 cf
Reach DPFpre: DP-F	Inflow=0.10 cfs 619 cf Outflow=0.10 cfs 619 cf

Total Runoff Area = 572,002 sf Runoff Volume = 37,108 cf Average Runoff Depth = 0.78"
100.00% Pervious = 572,002 sf 0.00% Impervious = 0 sf

Bridal Path Pre

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment A: A

Runoff = 1.10 cfs @ 12.46 hrs, Volume= 8,237 cf, Depth> 0.53"
 Routed to Reach DPAPre : DP-A

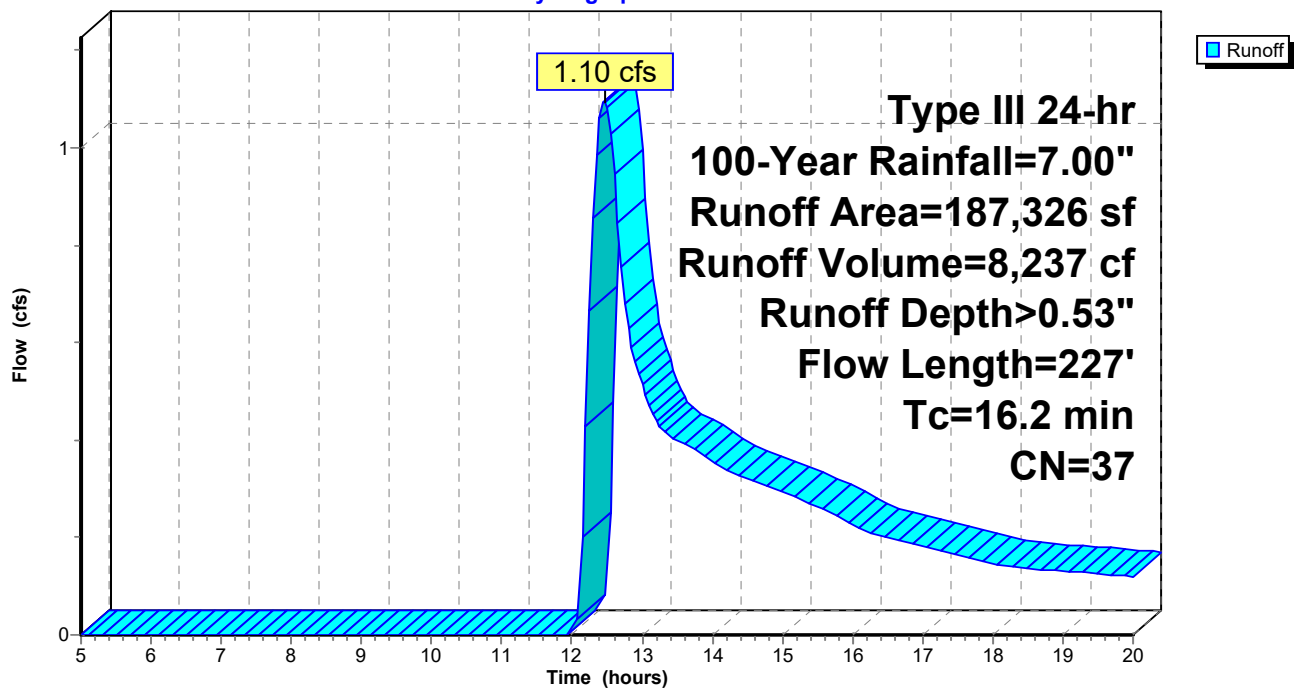
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
158,342	30	Woods, Good, HSG A
28,984	76	Gravel roads, HSG A
187,326	37	Weighted Average
187,326		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	50	0.0500	0.06		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.7	177	0.1271	1.78		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
16.2	227	Total			

Subcatchment A: A

Hydrograph



Bridal Path Pre

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment B: B

Runoff = 4.18 cfs @ 12.39 hrs, Volume= 20,692 cf, Depth> 1.91"
 Routed to Reach DPBpre : DP-B

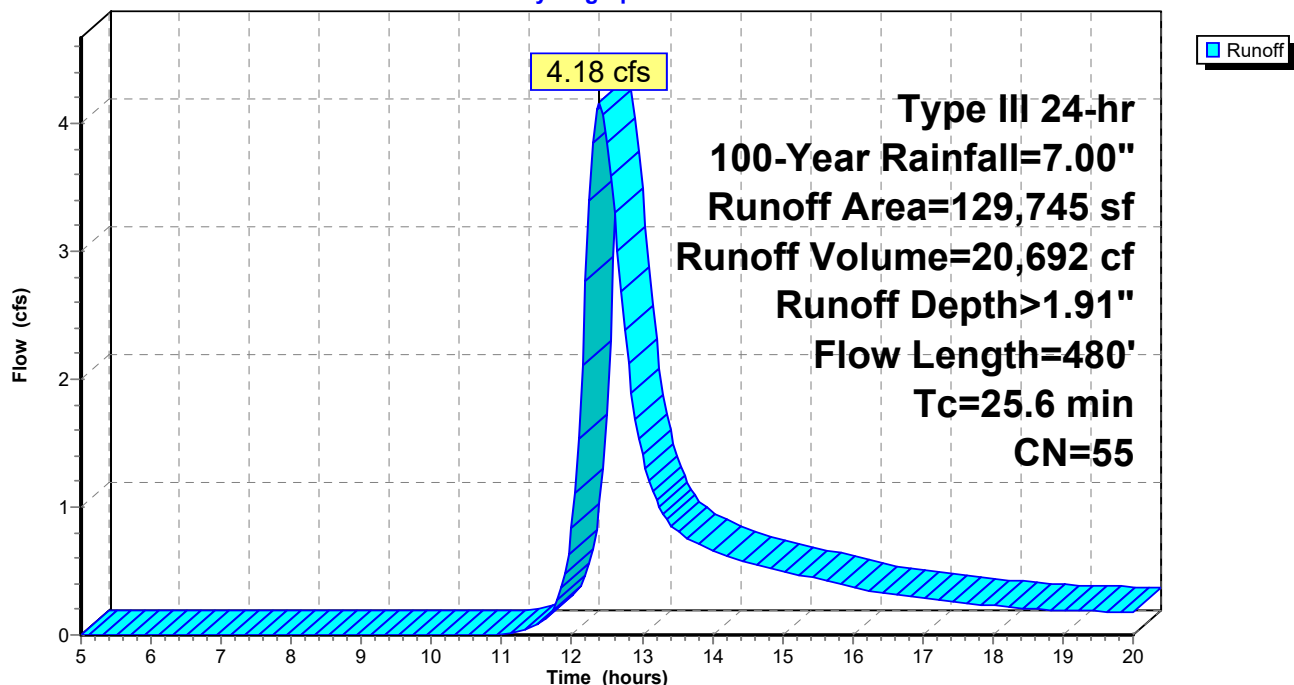
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
59,237	30	Woods, Good, HSG A
70,508	76	Gravel roads, HSG A
129,745	55	Weighted Average
129,745		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
0.5	78	0.2300	2.40		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
4.1	352	0.0080	1.44		Shallow Concentrated Flow, GRAVEL Unpaved Kv= 16.1 fps
25.6	480	Total			

Subcatchment B: B

Hydrograph



Bridal Path Pre

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment C: C

Runoff = 0.69 cfs @ 12.41 hrs, Volume= 4,074 cf, Depth> 0.93"
Routed to Reach DPCpre : DP-C

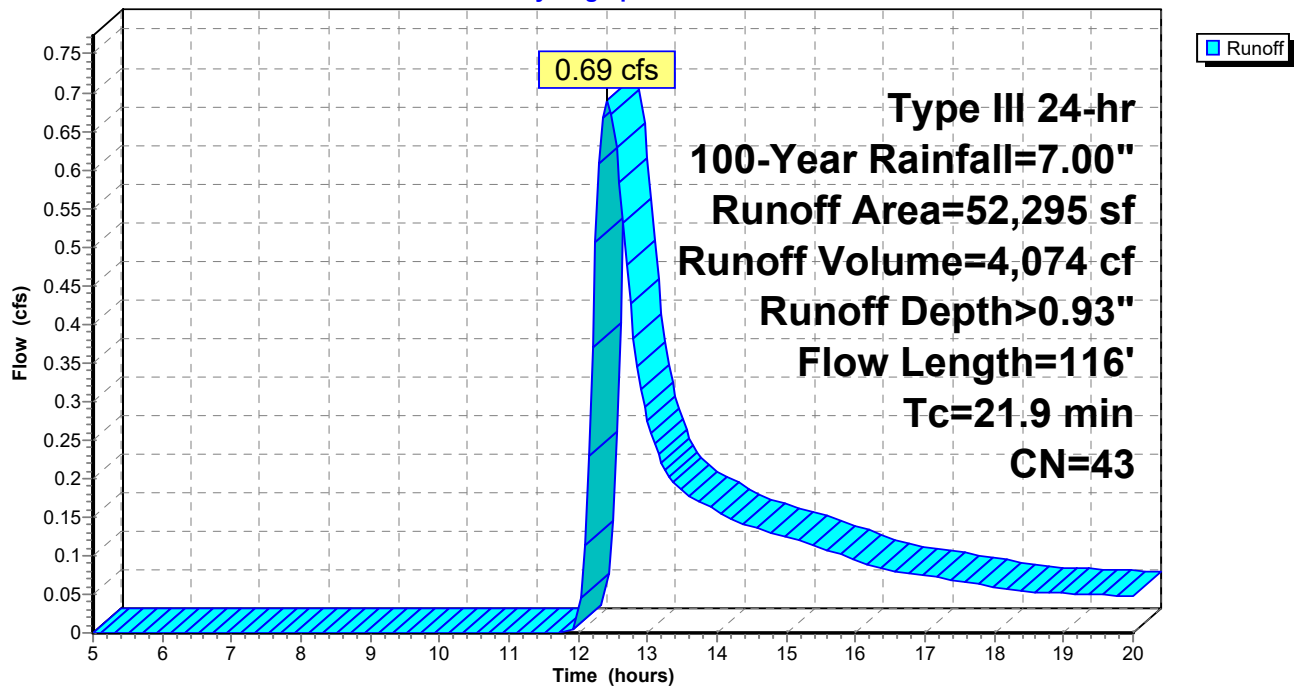
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
37,620	30	Woods, Good, HSG A
14,675	76	Gravel roads, HSG A
52,295	43	Weighted Average
52,295		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
0.9	66	0.0610	1.23		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
21.9	116	Total			

Subcatchment C: C

Hydrograph



Bridal Path Pre

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment D: D

Runoff = 0.20 cfs @ 12.46 hrs, Volume= 2,078 cf, Depth> 0.30"
Routed to Reach DPDpre : DP-D

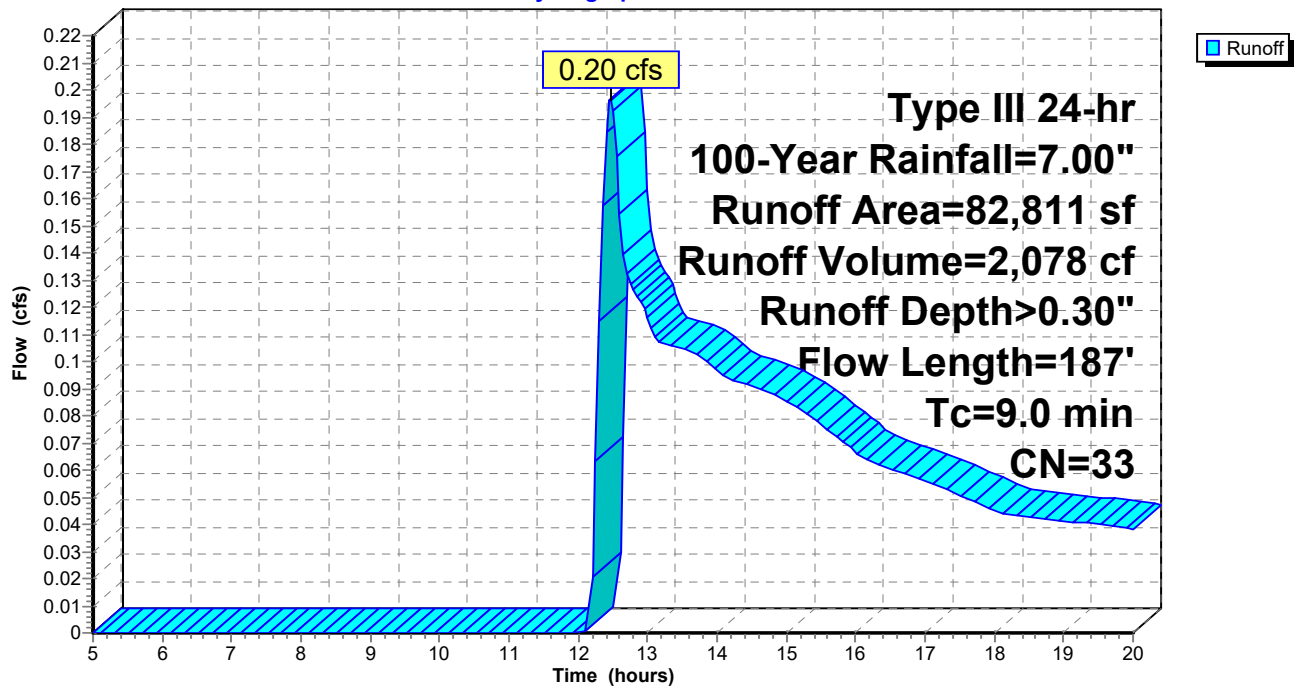
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
77,272	30	Woods, Good, HSG A
5,539	76	Gravel roads, HSG A
82,811	33	Weighted Average
82,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	50	0.2200	0.10		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
1.0	137	0.2000	2.24		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
9.0	187	Total			

Subcatchment D: D

Hydrograph



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment E: E

Runoff = 0.07 cfs @ 14.75 hrs, Volume= 1,407 cf, Depth> 0.16"
 Routed to Reach DPEpre : DP-E

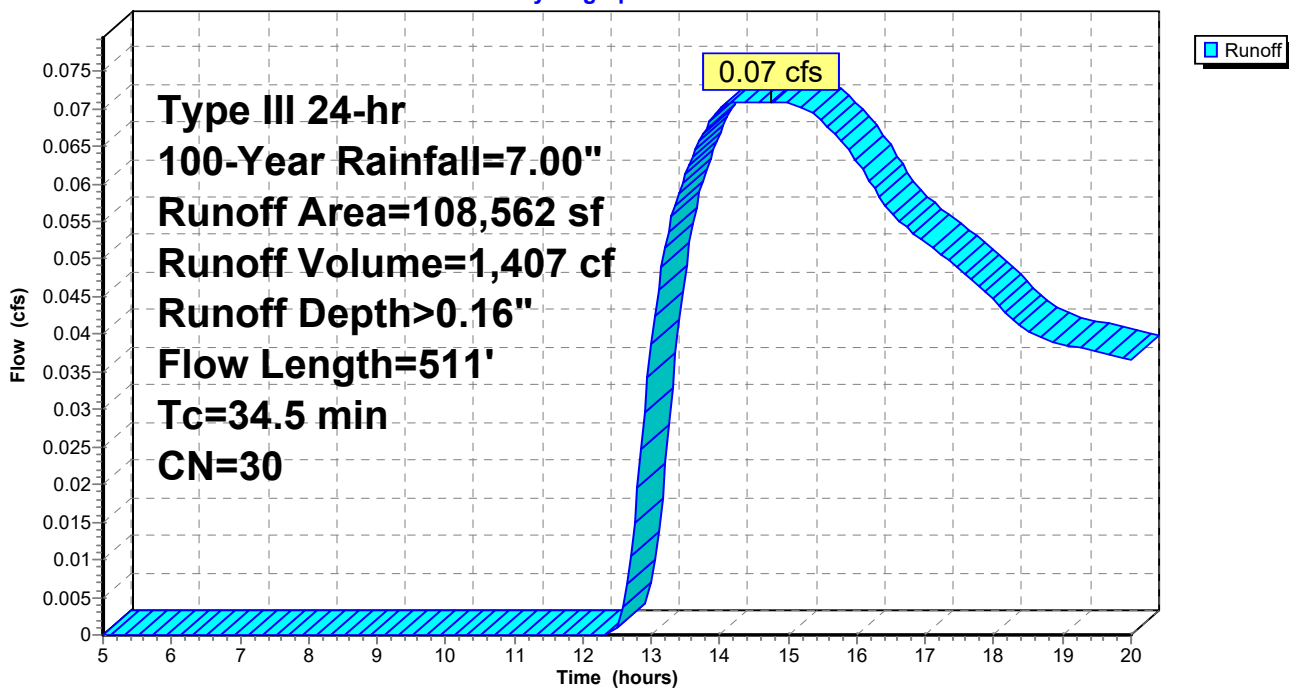
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
108,562	30	Woods, Good, HSG A
108,562		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.7	50	0.0100	0.03		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"
3.9	221	0.0360	0.95		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
2.9	240	0.0750	1.37		Shallow Concentrated Flow, WOODS Woodland Kv= 5.0 fps
34.5	511	Total			

Subcatchment E: E

Hydrograph



Bridal Path Pre

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment F: F

Runoff = 0.10 cfs @ 12.30 hrs, Volume= 619 cf, Depth> 0.66"
 Routed to Reach DPFpre : DP-F

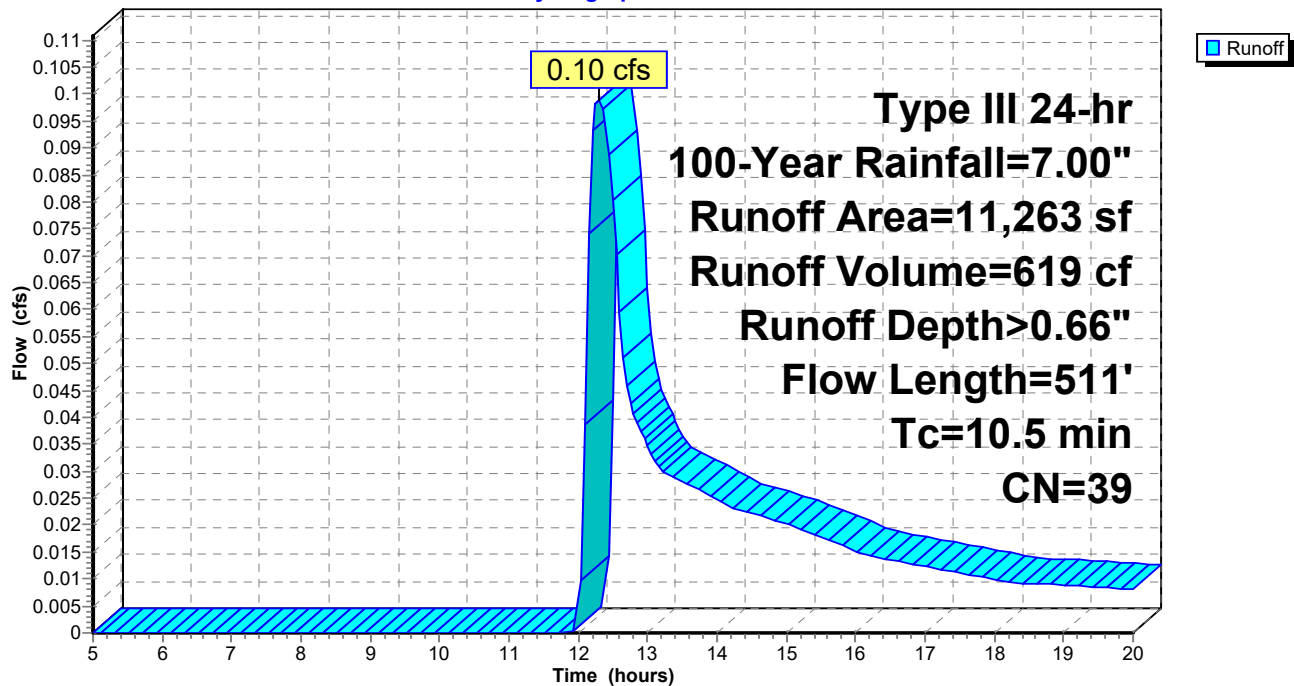
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
11,263	39	>75% Grass cover, Good, HSG A
11,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.0500	0.15		Sheet Flow, GRASS Grass: Dense n= 0.240 P2= 3.35"
2.8	221	0.0360	1.33		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
2.1	240	0.0750	1.92		Shallow Concentrated Flow, GRASS Short Grass Pasture Kv= 7.0 fps
10.5	511	Total			

Subcatchment F: F

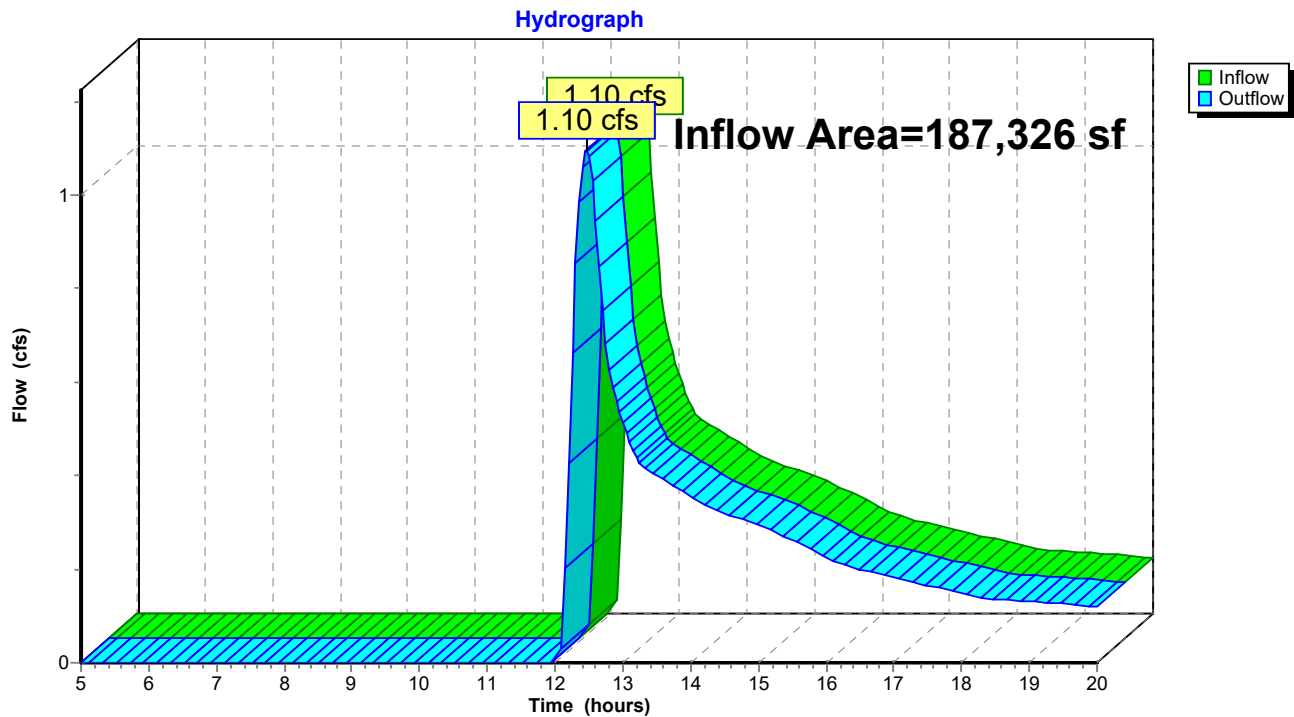
Hydrograph



Summary for Reach DPApr: DP-A

Inflow Area = 187,326 sf, 0.00% Impervious, Inflow Depth > 0.53" for 100-Year event
Inflow = 1.10 cfs @ 12.46 hrs, Volume= 8,237 cf
Outflow = 1.10 cfs @ 12.46 hrs, Volume= 8,237 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

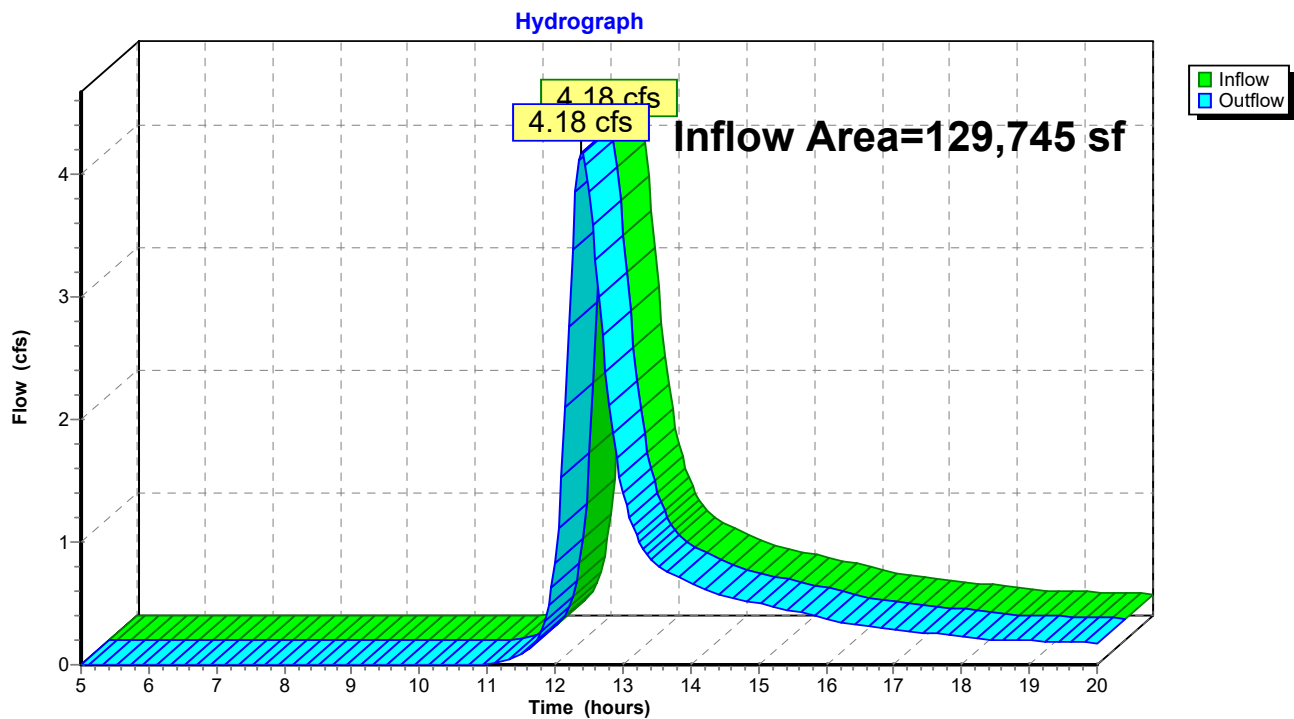
Reach DPApr: DP-A

Summary for Reach DPBpre: DP-B

Inflow Area = 129,745 sf, 0.00% Impervious, Inflow Depth > 1.91" for 100-Year event
 Inflow = 4.18 cfs @ 12.39 hrs, Volume= 20,692 cf
 Outflow = 4.18 cfs @ 12.39 hrs, Volume= 20,692 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPBpre: DP-B

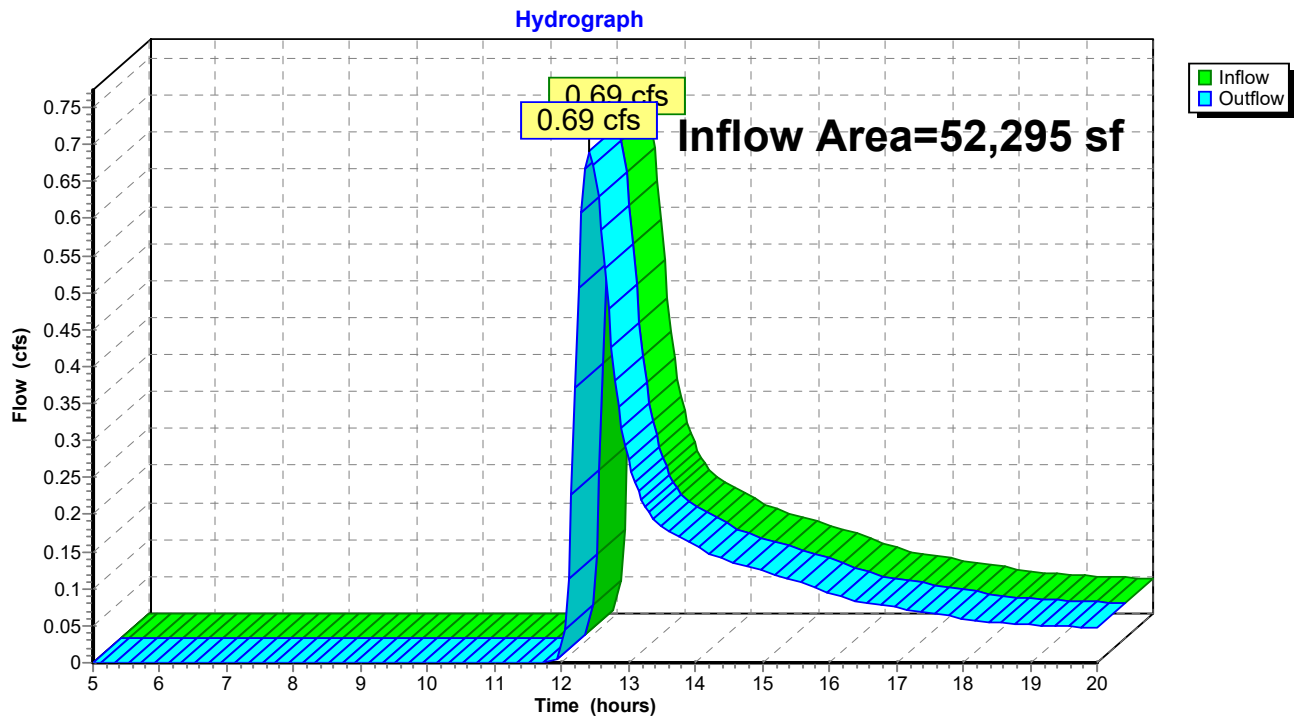


Summary for Reach DPCpre: DP-C

Inflow Area = 52,295 sf, 0.00% Impervious, Inflow Depth > 0.93" for 100-Year event
 Inflow = 0.69 cfs @ 12.41 hrs, Volume= 4,074 cf
 Outflow = 0.69 cfs @ 12.41 hrs, Volume= 4,074 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

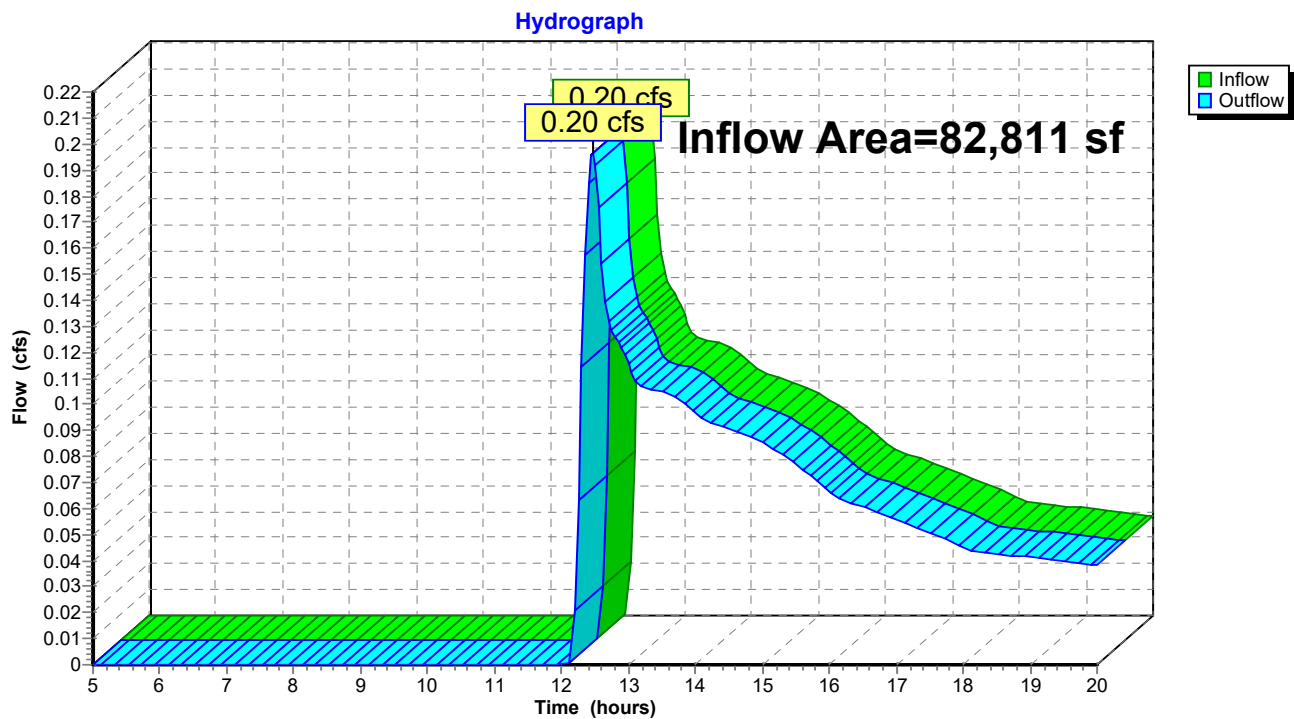
Reach DPCpre: DP-C



Summary for Reach DPDpre: DP-D

Inflow Area = 82,811 sf, 0.00% Impervious, Inflow Depth > 0.30" for 100-Year event
Inflow = 0.20 cfs @ 12.46 hrs, Volume= 2,078 cf
Outflow = 0.20 cfs @ 12.46 hrs, Volume= 2,078 cf, Atten= 0%, Lag= 0.0 min

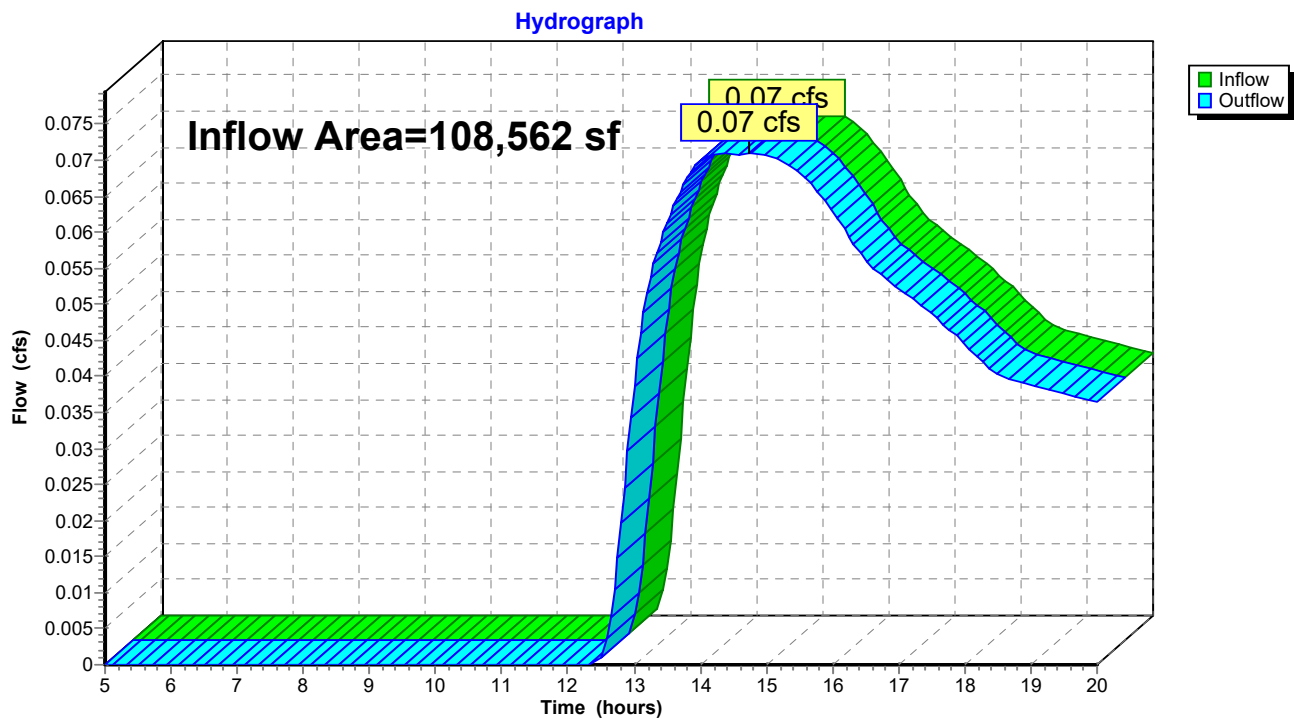
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPDpre: DP-D

Summary for Reach DPEpre: DP-E

Inflow Area = 108,562 sf, 0.00% Impervious, Inflow Depth > 0.16" for 100-Year event
Inflow = 0.07 cfs @ 14.75 hrs, Volume= 1,407 cf
Outflow = 0.07 cfs @ 14.75 hrs, Volume= 1,407 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

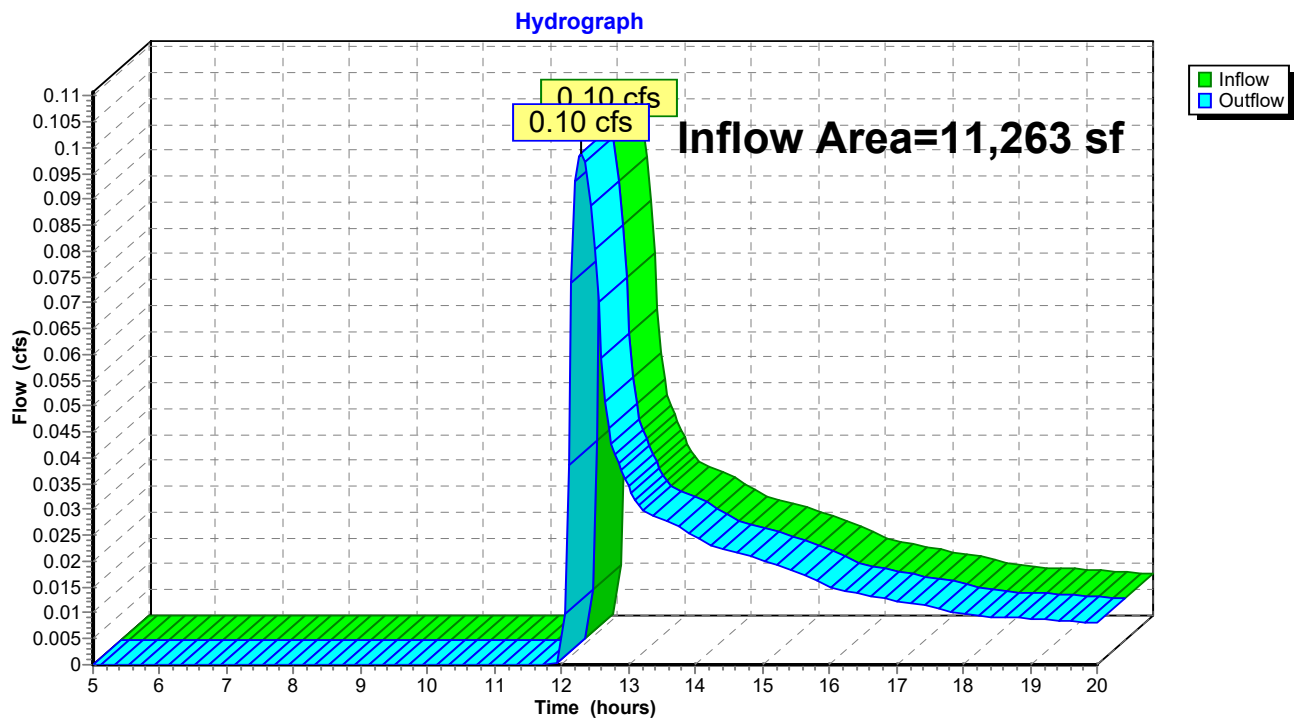
Reach DPEpre: DP-E

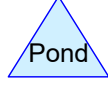
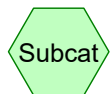
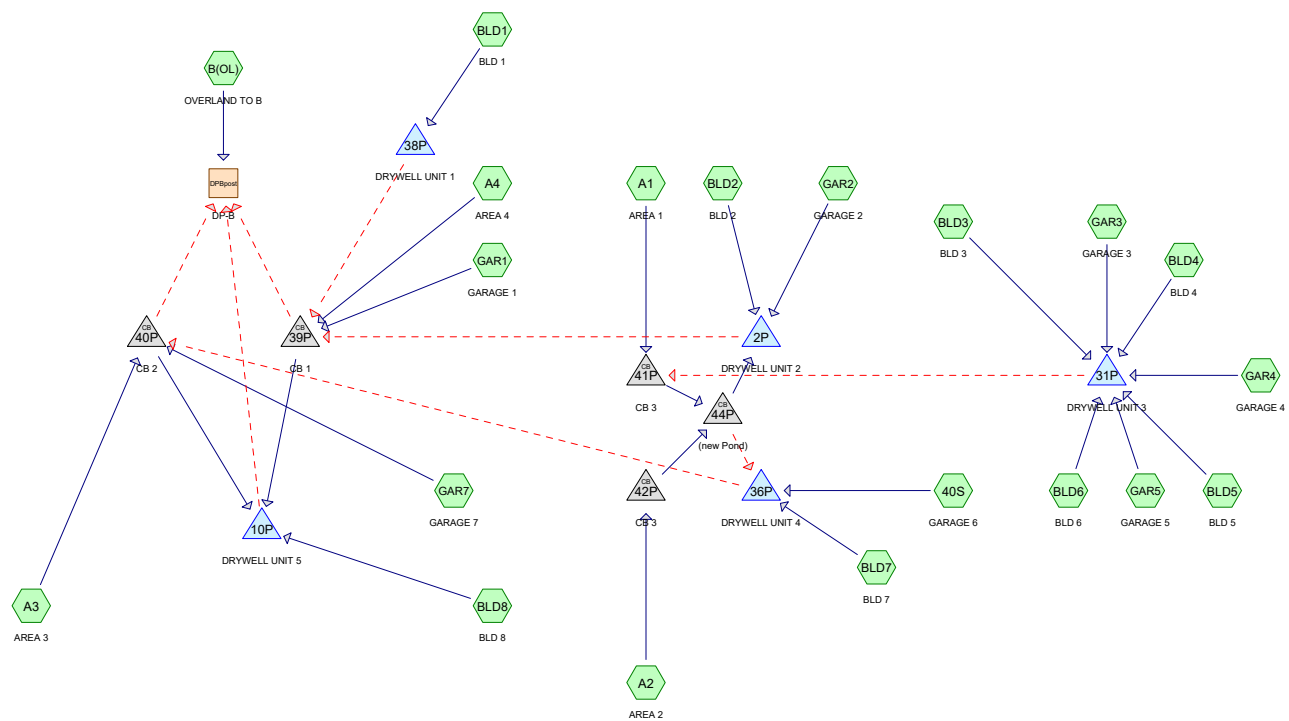
Summary for Reach DPFpre: DP-F

Inflow Area = 11,263 sf, 0.00% Impervious, Inflow Depth > 0.66" for 100-Year event
 Inflow = 0.10 cfs @ 12.30 hrs, Volume= 619 cf
 Outflow = 0.10 cfs @ 12.30 hrs, Volume= 619 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DPFpre: DP-F





Routing Diagram for Bridal Path Post
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Bridal Path Post

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
93,420	39	>75% Grass cover, Good, HSG A (A1, A2, A3, A4, B(OL))
14,340	98	Paved parking, HSG A (Walkways) (A1, A2, A3, A4, B(OL))
84,174	98	Paved roads w/curbs & sewers, HSG A (A1, A2, A3, A4)
44,384	98	Unconnected roofs, HSG A (40S, BLD1, BLD2, BLD3, BLD4, BLD5, BLD6, BLD7, BLD8, GAR1, GAR2, GAR3, GAR4, GAR5, GAR7)
685	30	Woods, Good, HSG A (B(OL))
237,003	75	TOTAL AREA

Bridal Path Post

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
237,003	HSG A	40S, A1, A2, A3, A4, B(OL), BLD1, BLD2, BLD3, BLD4, BLD5, BLD6, BLD7, BLD8, GAR1, GAR2, GAR3, GAR4, GAR5, GAR7
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
237,003		TOTAL AREA

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment40S: GARAGE 6	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.11 cfs 375 cf
SubcatchmentA1: AREA 1	Runoff Area=37,941 sf 67.91% Impervious Runoff Depth>1.41" Tc=5.0 min CN=79 Runoff=1.43 cfs 4,462 cf
SubcatchmentA2: AREA 2	Runoff Area=39,906 sf 57.74% Impervious Runoff Depth>1.05" Tc=5.0 min CN=73 Runoff=1.07 cfs 3,480 cf
SubcatchmentA3: AREA 3	Runoff Area=42,112 sf 59.62% Impervious Runoff Depth>1.10" Tc=5.0 min CN=74 Runoff=1.20 cfs 3,871 cf
SubcatchmentA4: AREA 4	Runoff Area=34,332 sf 68.52% Impervious Runoff Depth>1.41" Tc=5.0 min CN=79 Runoff=1.29 cfs 4,037 cf
SubcatchmentB(OL): OVERLAND TO B	Runoff Area=38,328 sf 2.80% Impervious Runoff Depth>0.01" Tc=5.0 min CN=40 Runoff=0.00 cfs 19 cf
SubcatchmentBLD1: BLD 1	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD2: BLD 2	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD3: BLD 3	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD4: BLD 4	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD5: BLD 5	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD6: BLD 6	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD7: BLD 7	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentBLD8: BLD 8	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.32 cfs 1,083 cf
SubcatchmentGAR1: GARAGE 1	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.09 cfs 321 cf
SubcatchmentGAR2: GARAGE 2	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.11 cfs 375 cf

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Subcatchment GAR3: GARAGE 3	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.09 cfs 321 cf
Subcatchment GAR4: GARAGE 4	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.11 cfs 375 cf
Subcatchment GAR5: GARAGE 5	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.09 cfs 321 cf
Subcatchment GAR7: GARAGE 7	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>3.01" Tc=5.0 min CN=98 Runoff=0.11 cfs 375 cf
Reach DPBpost: DP-B	Inflow=0.00 cfs 19 cf Outflow=0.00 cfs 19 cf
Pond 2P: DRYWELL UNIT 2	Peak Elev=79.50' Storage=5,092 cf Inflow=1.67 cfs 5,094 cf Outflow=0.00 cfs 0 cf
Pond 10P: DRYWELL UNIT 5	Peak Elev=62.58' Storage=9,683 cf Inflow=3.01 cfs 9,686 cf Outflow=0.00 cfs 0 cf
Pond 31P: DRYWELL UNIT 3	Peak Elev=84.26' Storage=5,346 cf Inflow=1.58 cfs 5,348 cf Outflow=0.00 cfs 0 cf
Pond 36P: DRYWELL UNIT 4	Peak Elev=79.50' Storage=5,761 cf Inflow=1.67 cfs 5,763 cf Outflow=0.00 cfs 0 cf
Pond 38P: DRYWELL UNIT 1	Peak Elev=67.98' Storage=1,083 cf Inflow=0.32 cfs 1,083 cf Outflow=0.00 cfs 0 cf
Pond 39P: CB 1	Peak Elev=64.07' Inflow=1.39 cfs 4,358 cf Primary=1.39 cfs 4,358 cf Secondary=0.00 cfs 0 cf Outflow=1.39 cfs 4,358 cf
Pond 40P: CB 2	Peak Elev=64.05' Inflow=1.31 cfs 4,246 cf Primary=1.31 cfs 4,246 cf Secondary=0.00 cfs 0 cf Outflow=1.31 cfs 4,246 cf
Pond 41P: CB 3	Peak Elev=80.74' Inflow=1.43 cfs 4,462 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0273 ' Outflow=1.43 cfs 4,462 cf
Pond 42P: CB 3	Peak Elev=80.64' Inflow=1.07 cfs 3,480 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0187 ' Outflow=1.07 cfs 3,480 cf
Pond 44P: (new Pond)	Peak Elev=79.79' Inflow=2.50 cfs 7,941 cf Primary=1.25 cfs 3,636 cf Secondary=1.25 cfs 4,305 cf Outflow=2.50 cfs 7,941 cf

Total Runoff Area = 237,003 sf Runoff Volume = 26,992 cf Average Runoff Depth = 1.37"
39.71% Pervious = 94,105 sf 60.29% Impervious = 142,898 sf

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment 40S: GARAGE 6

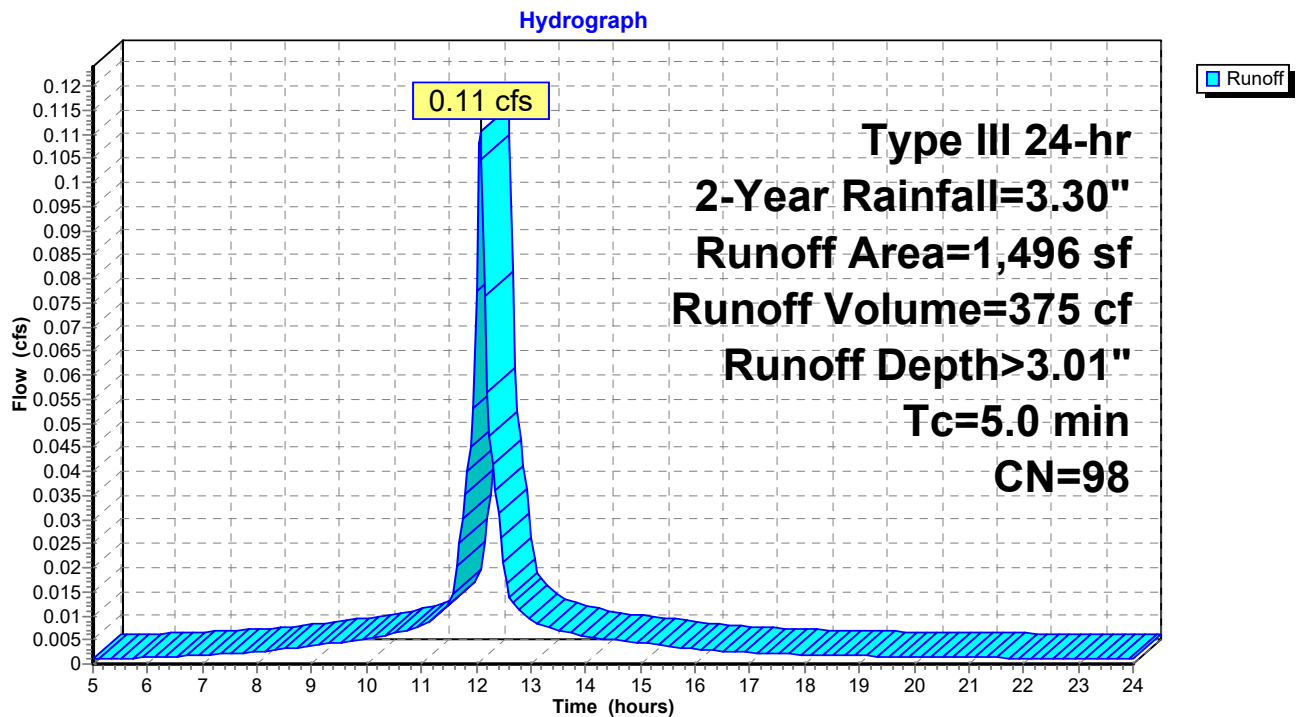
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 375 cf, Depth> 3.01"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment 40S: GARAGE 6



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment A1: AREA 1

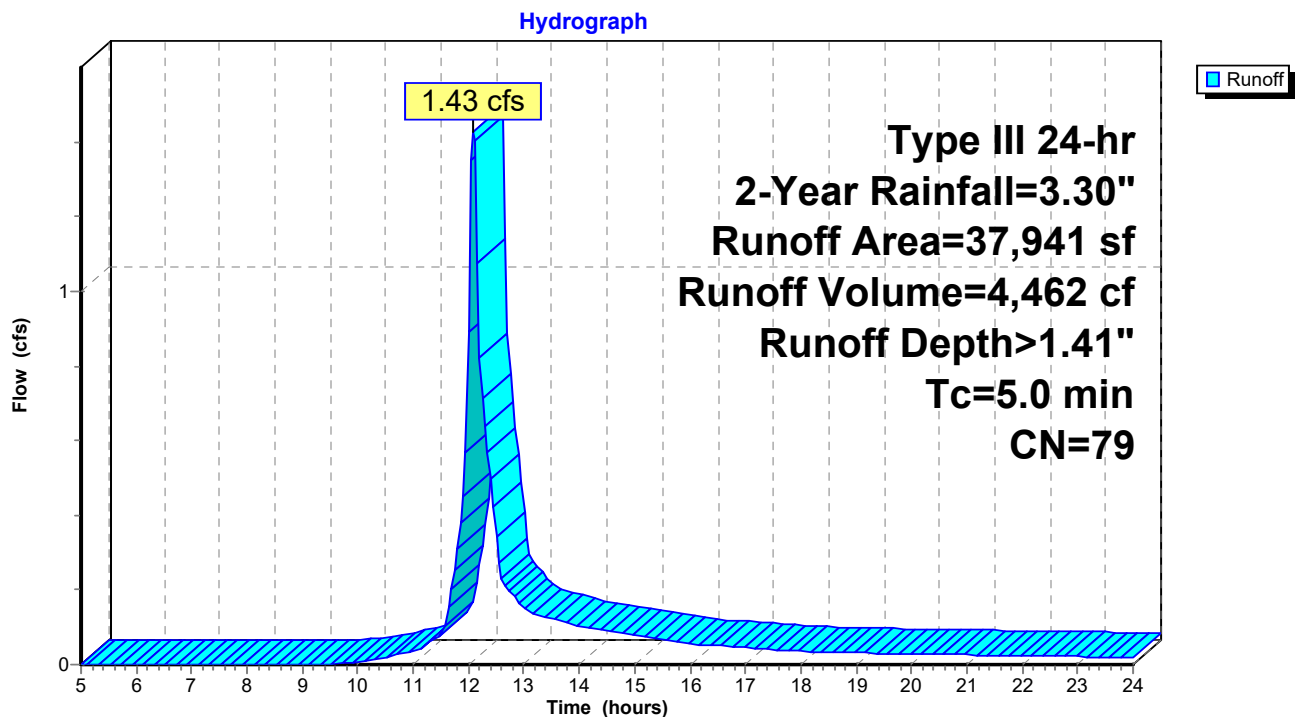
Runoff = 1.43 cfs @ 12.08 hrs, Volume= 4,462 cf, Depth> 1.41"
Routed to Pond 41P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
21,386	98	Paved roads w/curbs & sewers, HSG A
* 4,378	98	Paved parking, HSG A (Walkways)
12,177	39	>75% Grass cover, Good, HSG A
37,941	79	Weighted Average
12,177		32.09% Pervious Area
25,764		67.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A1: AREA 1



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment A2: AREA 2

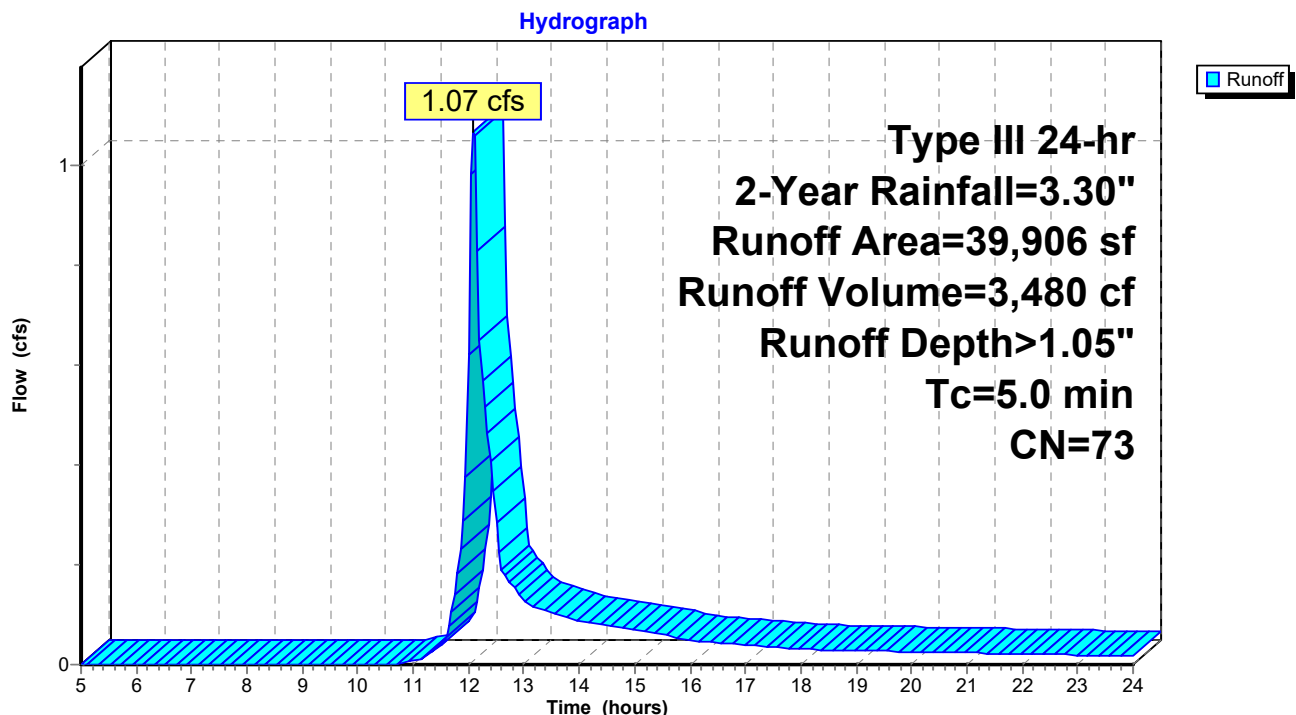
Runoff = 1.07 cfs @ 12.09 hrs, Volume= 3,480 cf, Depth> 1.05"
Routed to Pond 42P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
19,287	98	Paved roads w/curbs & sewers, HSG A
* 3,755	98	Paved parking, HSG A (Walkways)
16,864	39	>75% Grass cover, Good, HSG A
39,906	73	Weighted Average
16,864		42.26% Pervious Area
23,042		57.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A2: AREA 2



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment A3: AREA 3

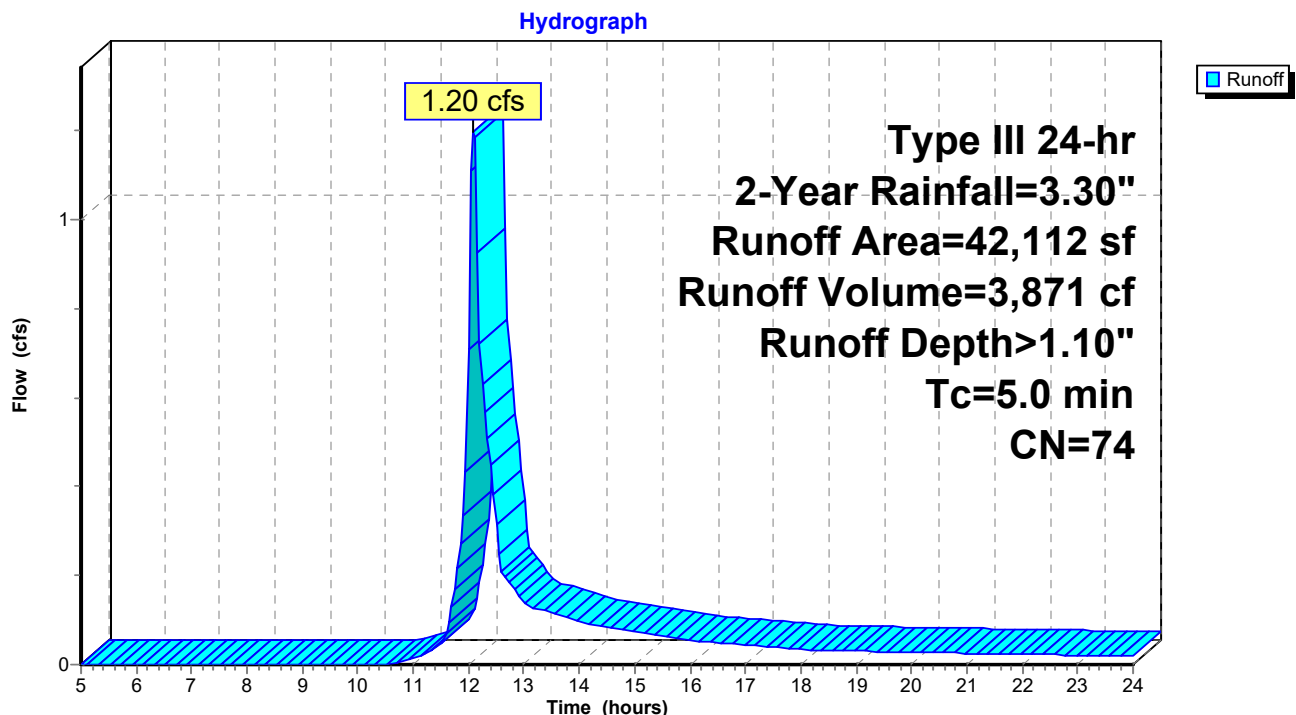
Runoff = 1.20 cfs @ 12.09 hrs, Volume= 3,871 cf, Depth> 1.10"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
	23,275	98	Paved roads w/curbs & sewers, HSG A
*	1,832	98	Paved parking, HSG A (Walkways)
	17,005	39	>75% Grass cover, Good, HSG A
	42,112	74	Weighted Average
	17,005		40.38% Pervious Area
	25,107		59.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A3: AREA 3



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment A4: AREA 4

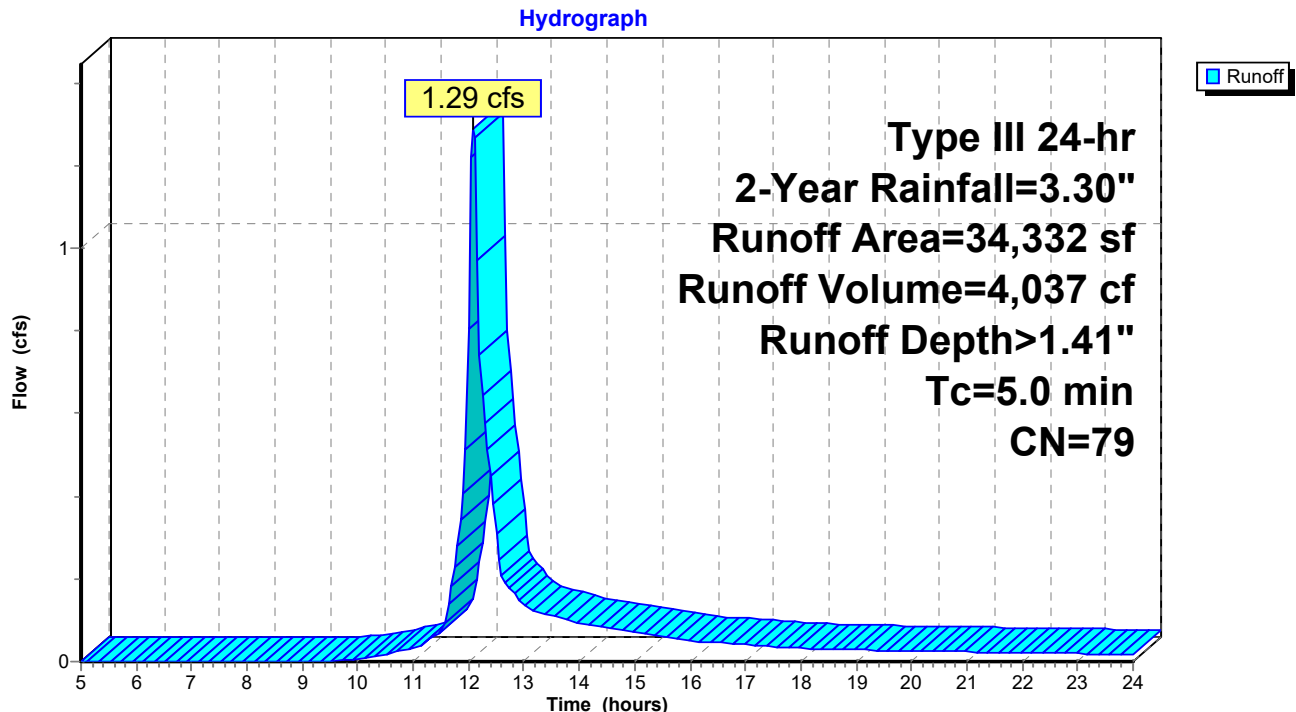
Runoff = 1.29 cfs @ 12.08 hrs, Volume= 4,037 cf, Depth> 1.41"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
20,226	98	Paved roads w/curbs & sewers, HSG A
* 3,300	98	Paved parking, HSG A (Walkways)
10,806	39	>75% Grass cover, Good, HSG A
34,332	79	Weighted Average
10,806		31.48% Pervious Area
23,526		68.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A4: AREA 4



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Type III 24-hr 2-Year Rainfall=3.30"

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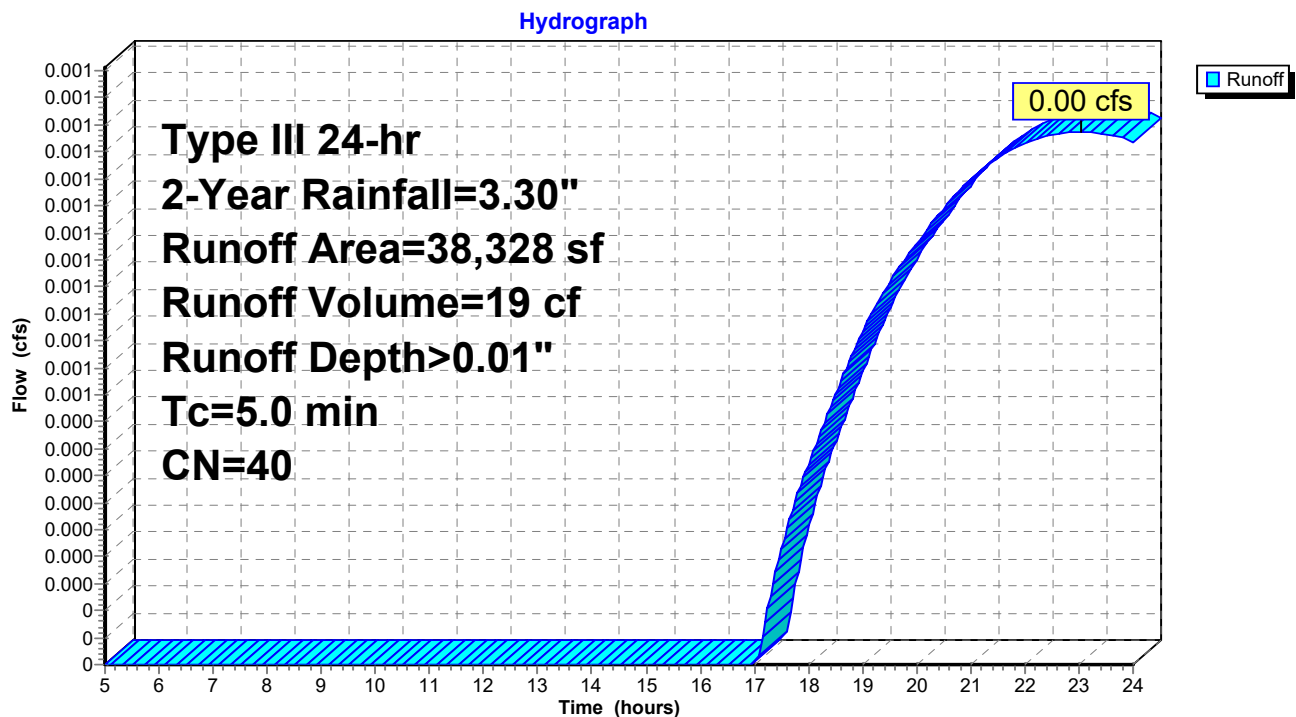
Summary for Subcatchment B(OL): OVERLAND TO B

Runoff = 0.00 cfs @ 23.04 hrs, Volume= 19 cf, Depth> 0.01"
Routed to Reach DPBpost : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
	685	30	Woods, Good, HSG A
*	1,075	98	Paved parking, HSG A (Walkways)
	36,568	39	>75% Grass cover, Good, HSG A
	38,328	40	Weighted Average
	37,253		97.20% Pervious Area
	1,075		2.80% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.0					Direct Entry, MIN

Subcatchment B(OL): OVERLAND TO B

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD1: BLD 1

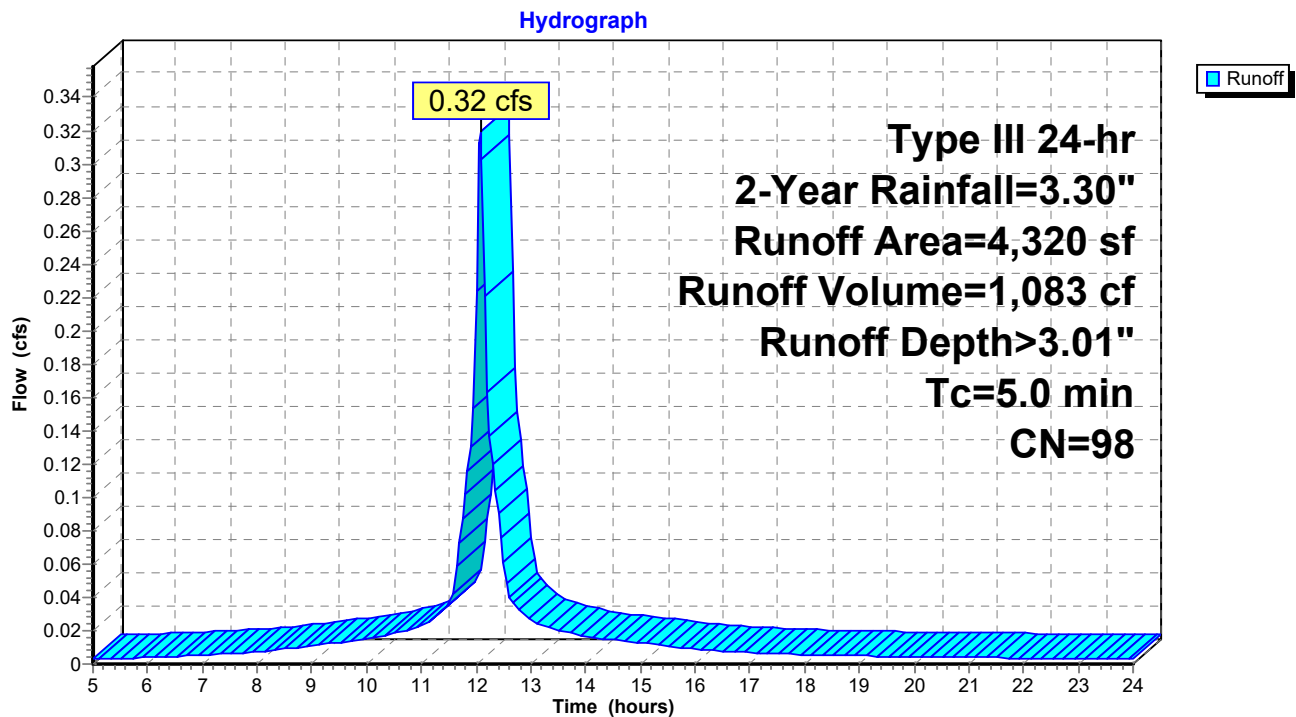
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 38P : DRYWELL UNIT 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD1: BLD 1



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD2: BLD 2

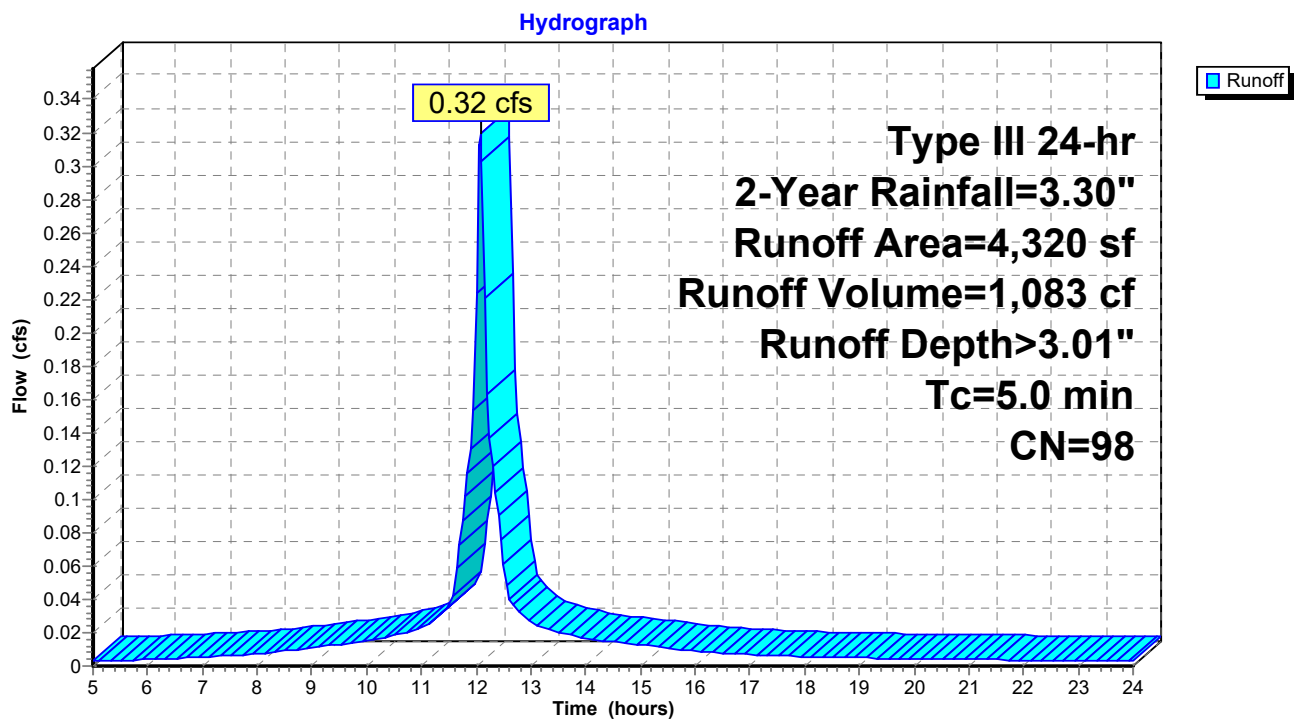
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD2: BLD 2



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD3: BLD 3

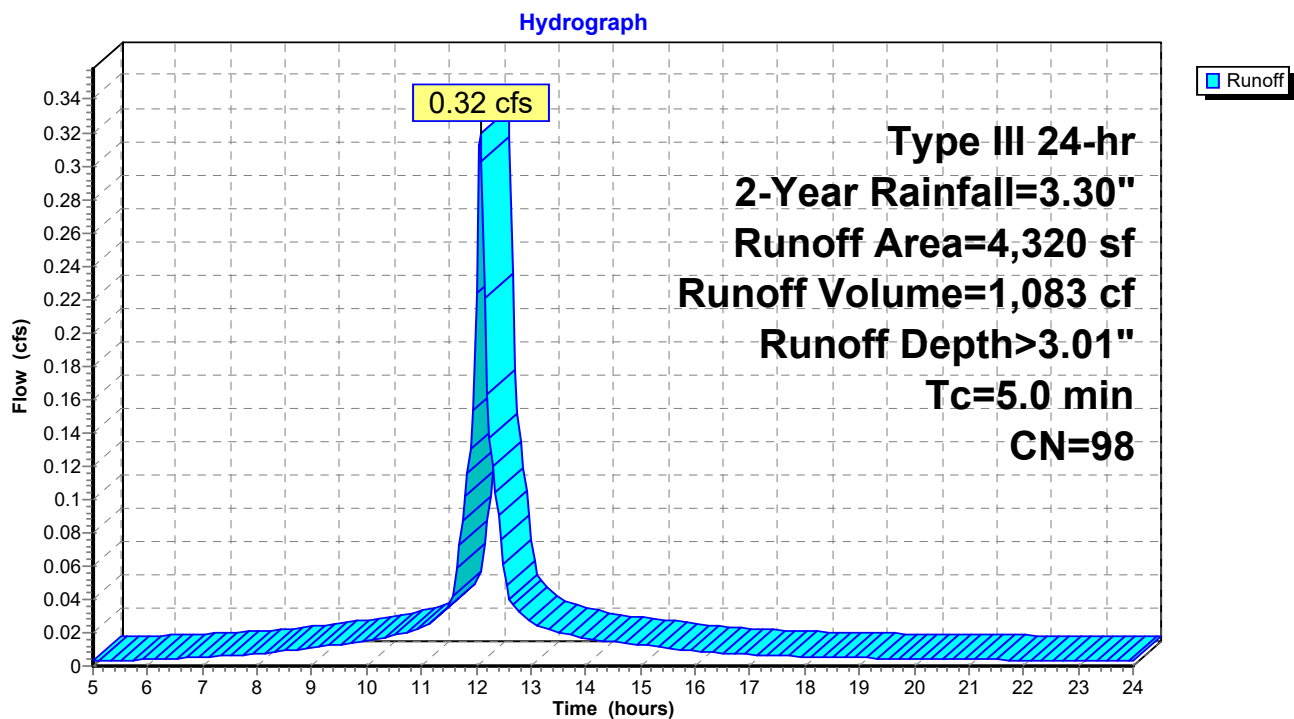
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD3: BLD 3



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD4: BLD 4

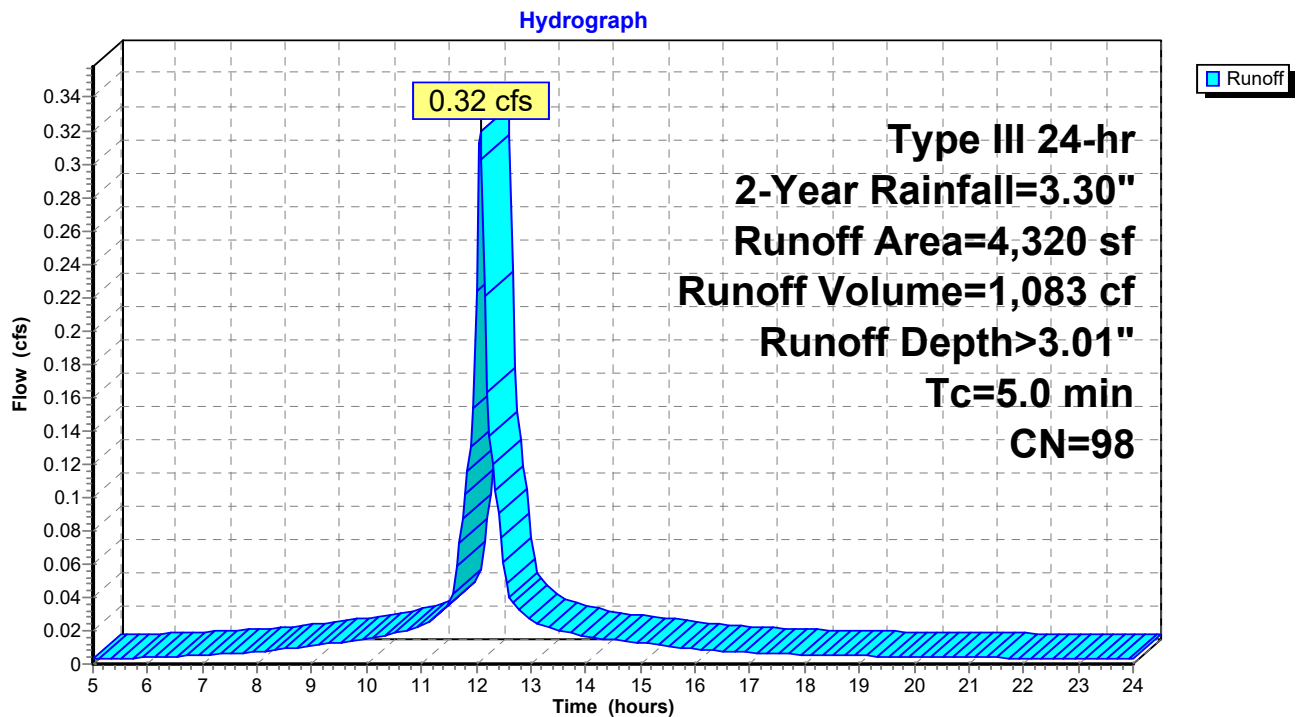
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD4: BLD 4



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD5: BLD 5

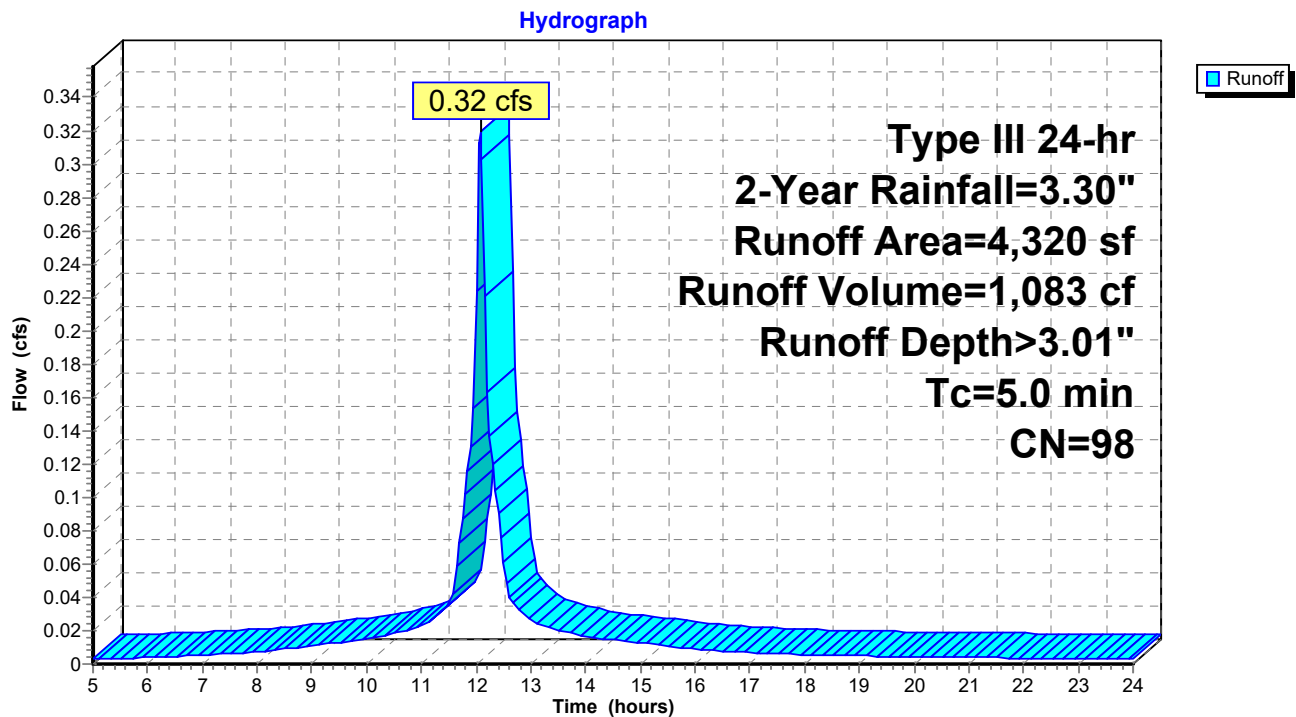
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD5: BLD 5



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD6: BLD 6

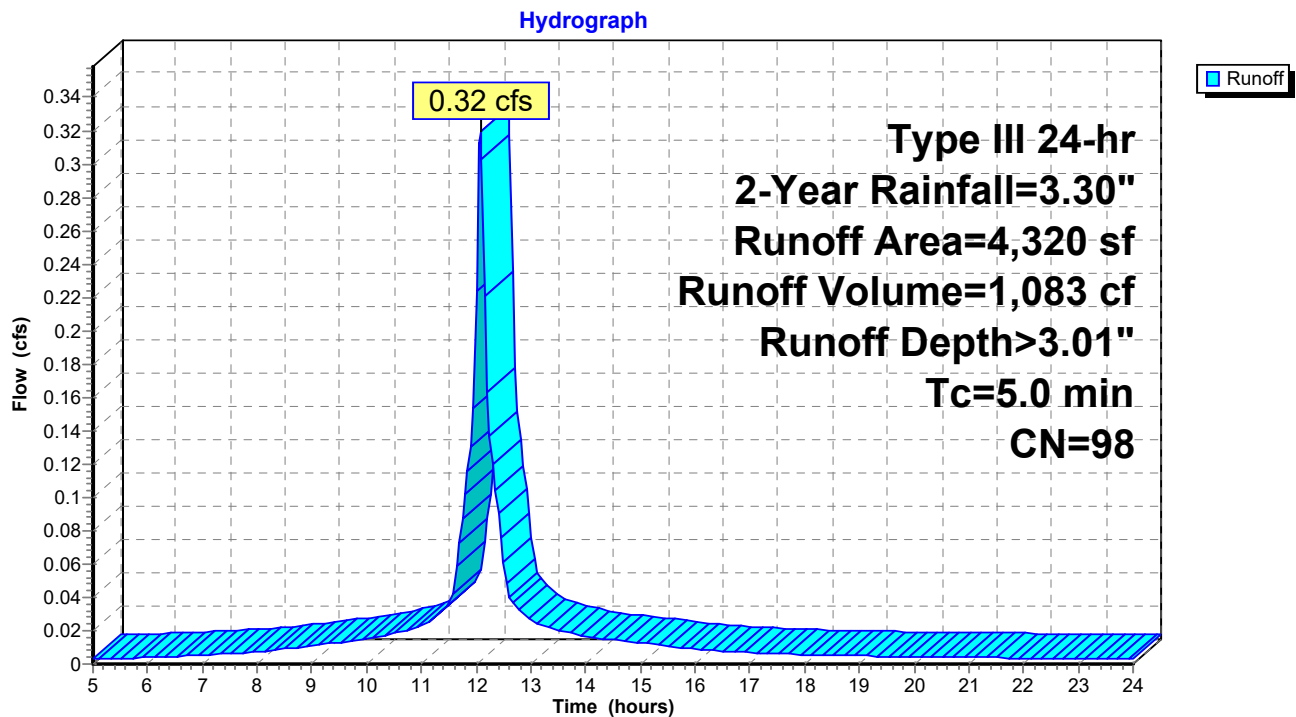
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD6: BLD 6



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD7: BLD 7

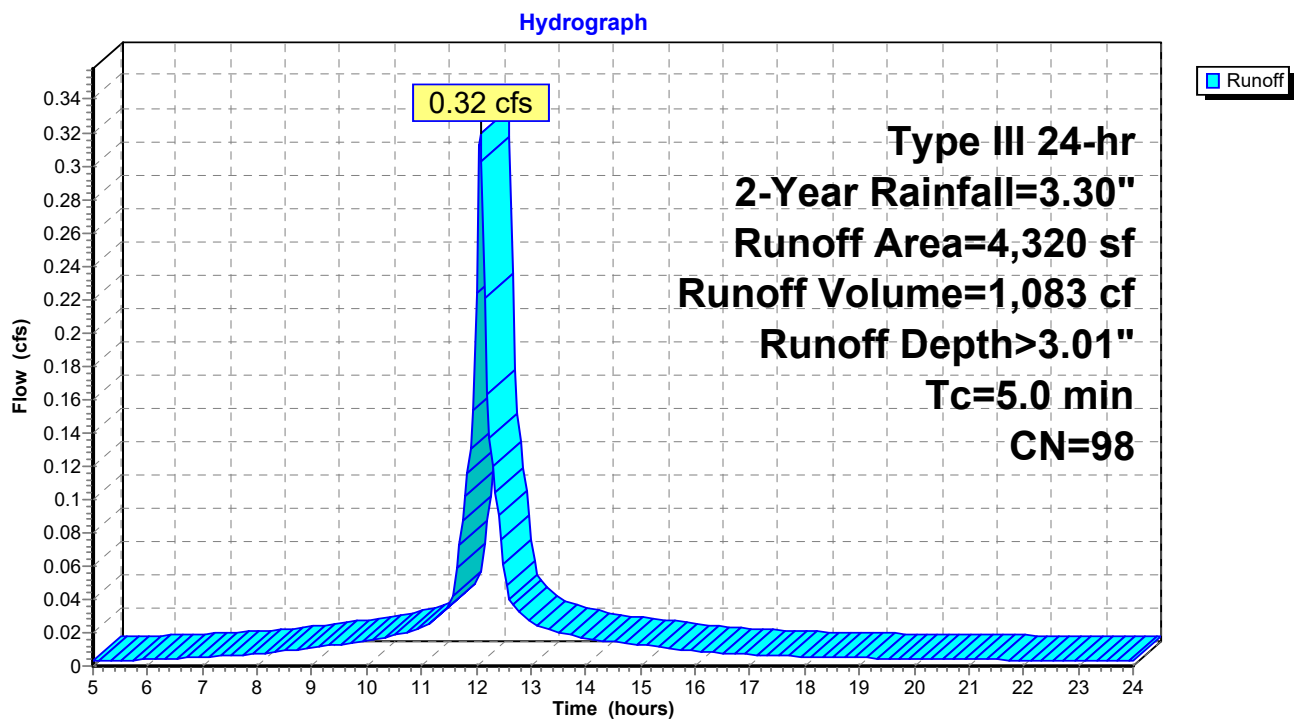
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD7: BLD 7



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment BLD8: BLD 8

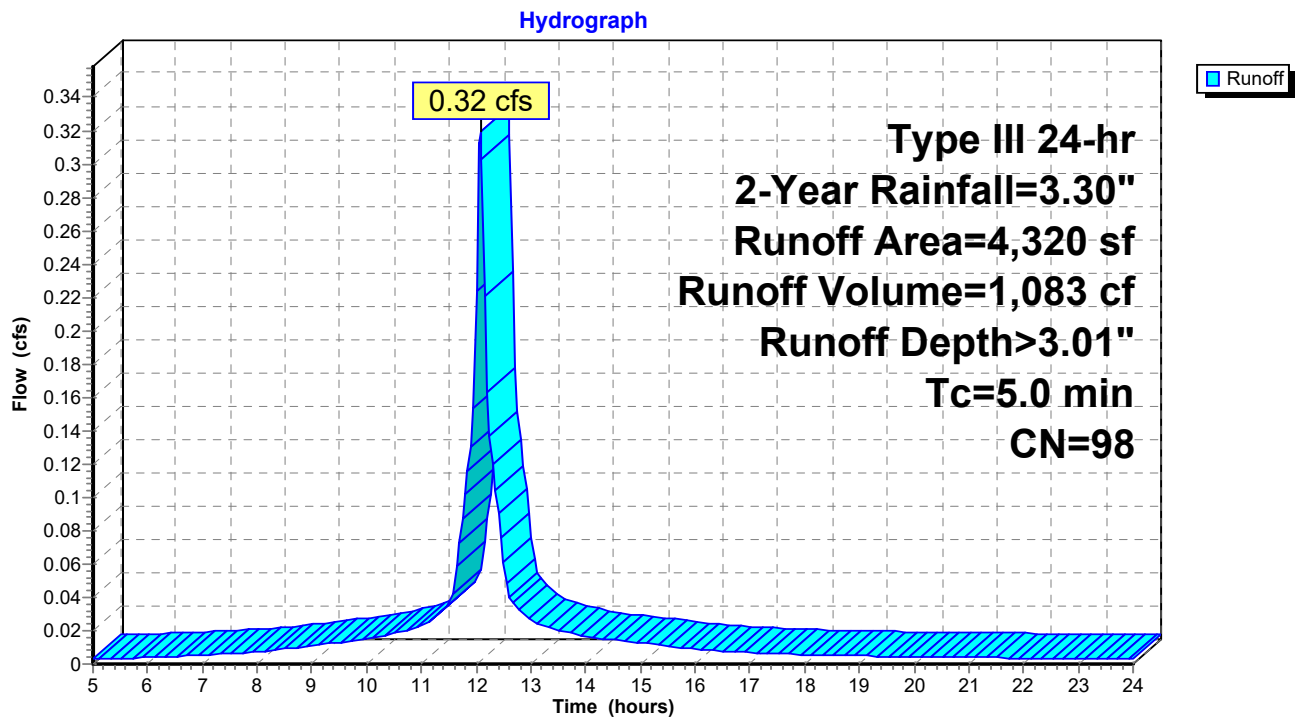
Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf, Depth> 3.01"
Routed to Pond 10P : DRYWELL UNIT 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD8: BLD 8



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR1: GARAGE 1

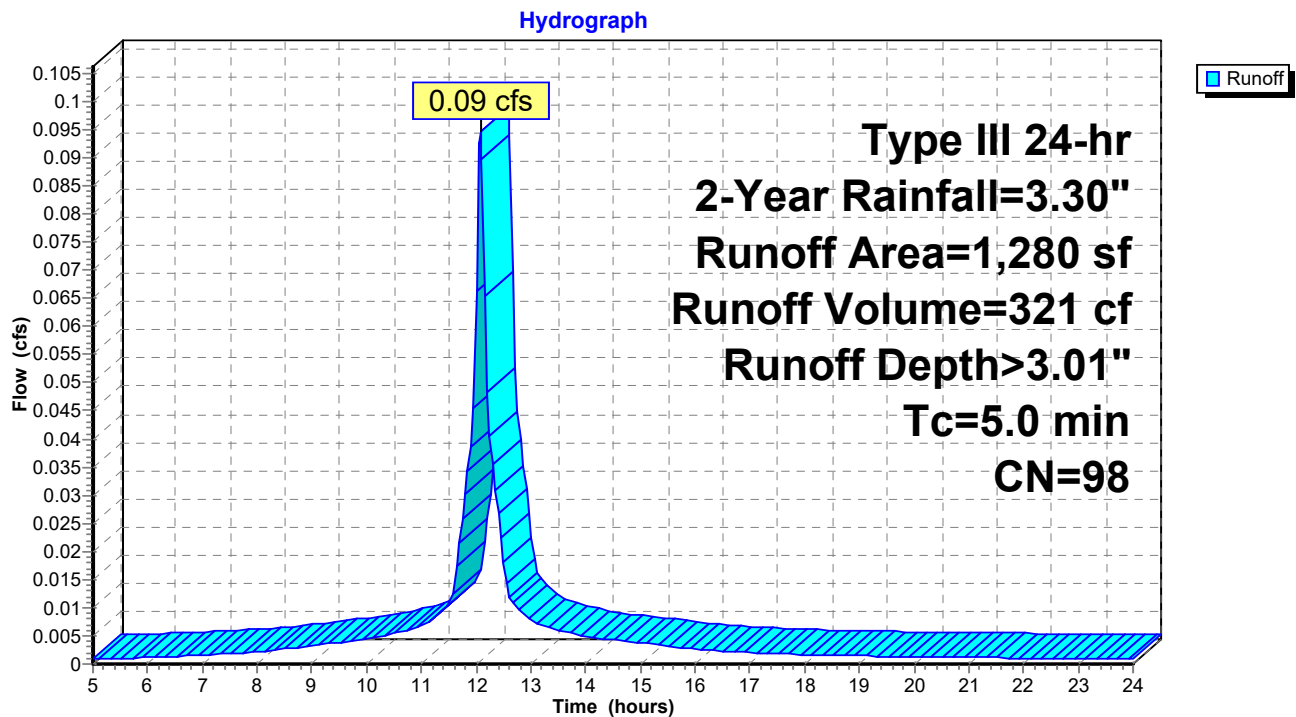
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 321 cf, Depth> 3.01"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR1: GARAGE 1



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR2: GARAGE 2

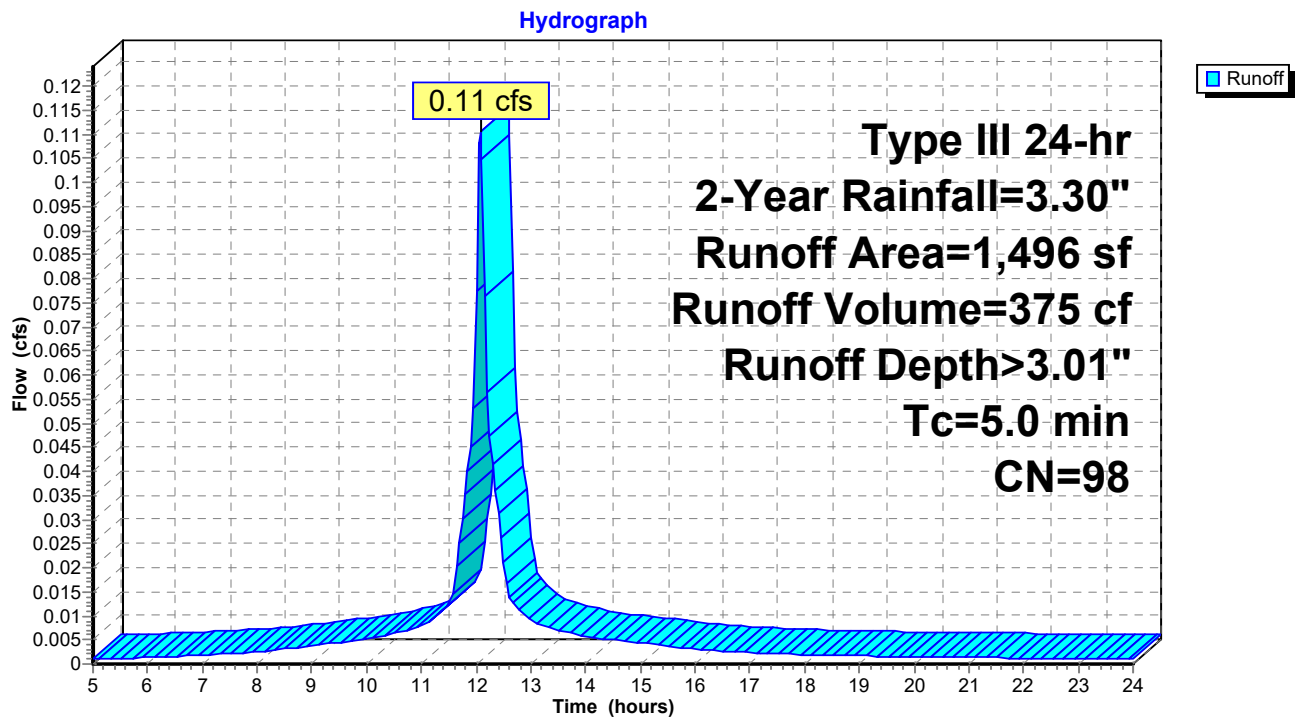
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 375 cf, Depth> 3.01"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR2: GARAGE 2



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR3: GARAGE 3

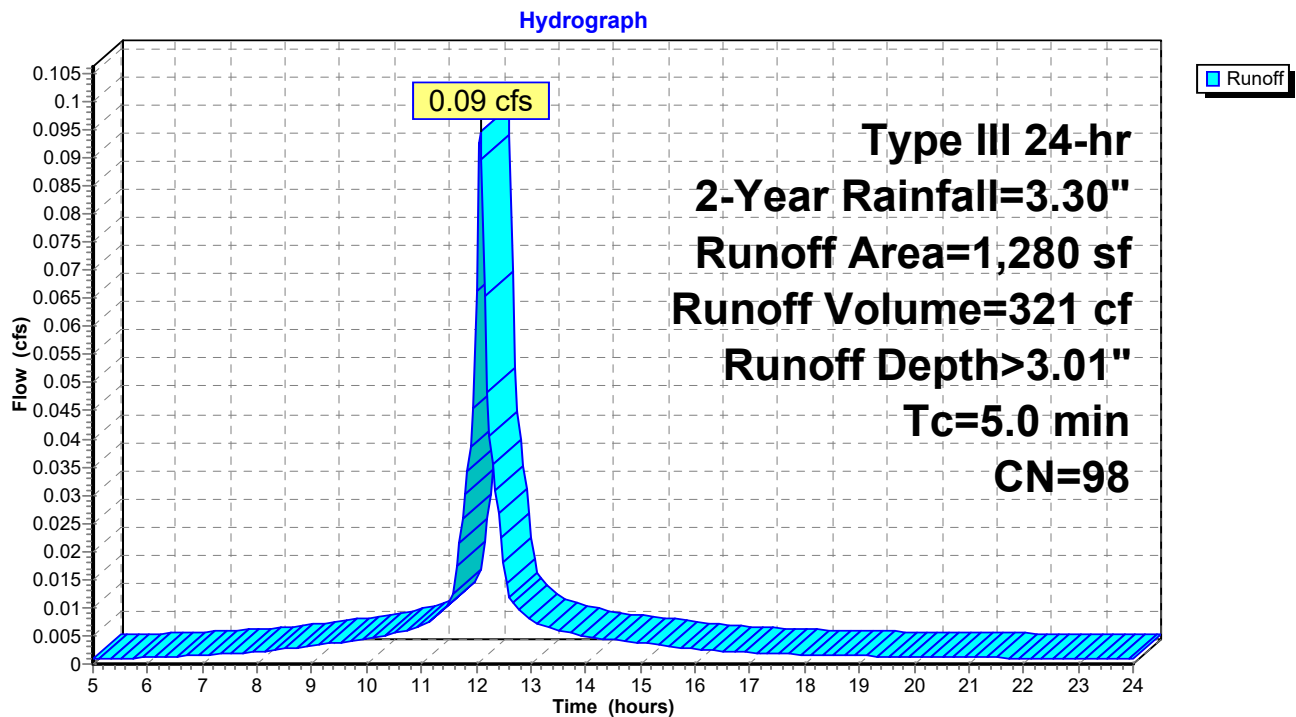
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 321 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR3: GARAGE 3



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR4: GARAGE 4

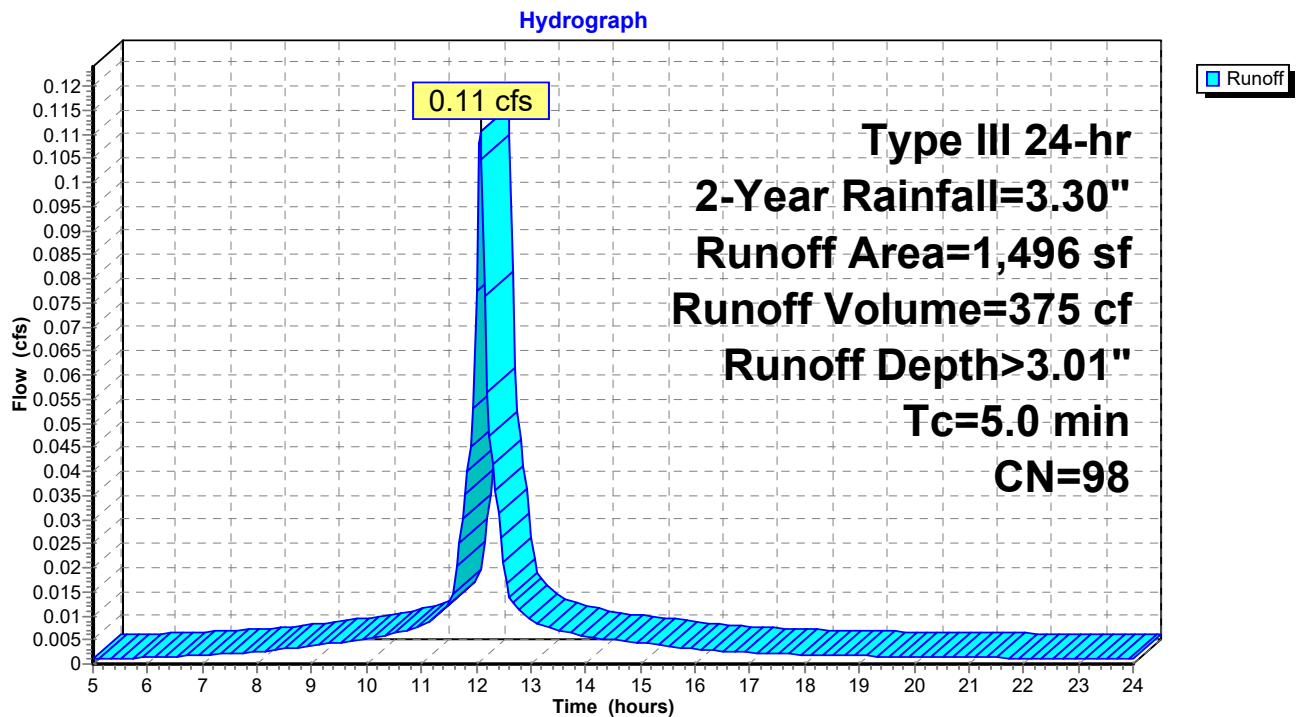
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 375 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR4: GARAGE 4



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR5: GARAGE 5

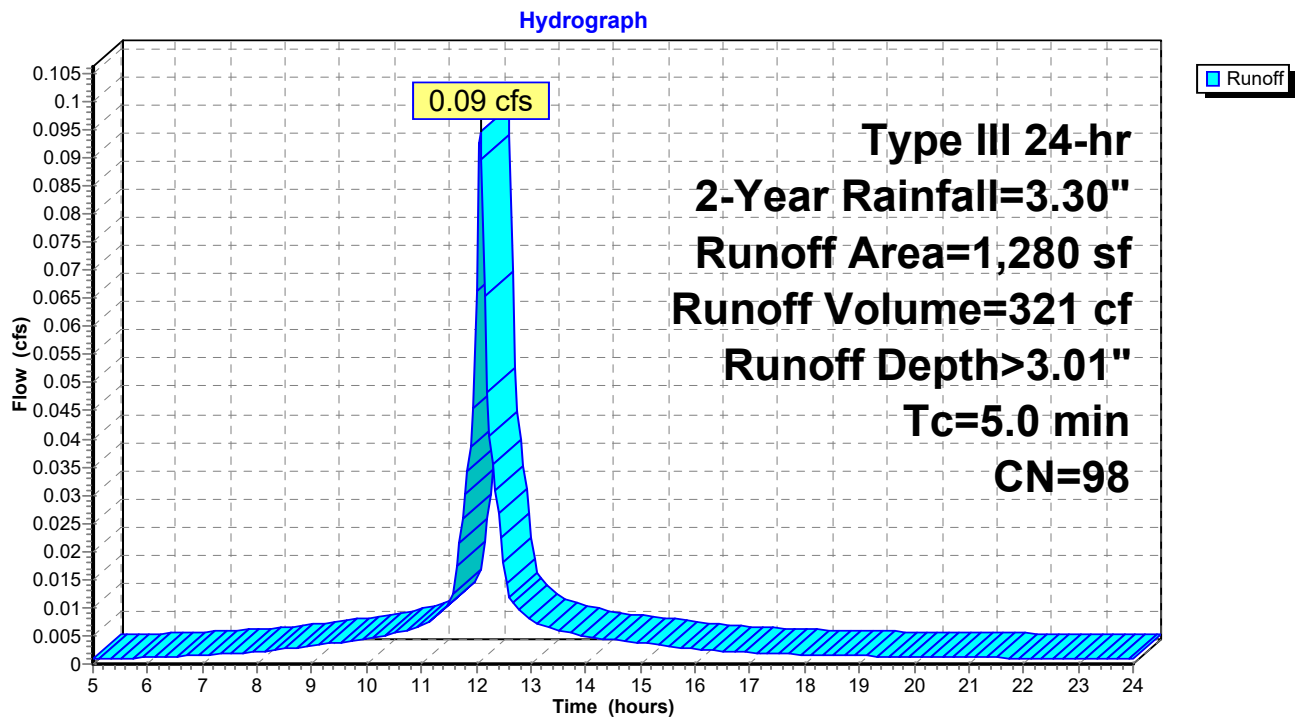
Runoff = 0.09 cfs @ 12.07 hrs, Volume= 321 cf, Depth> 3.01"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR5: GARAGE 5



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment GAR7: GARAGE 7

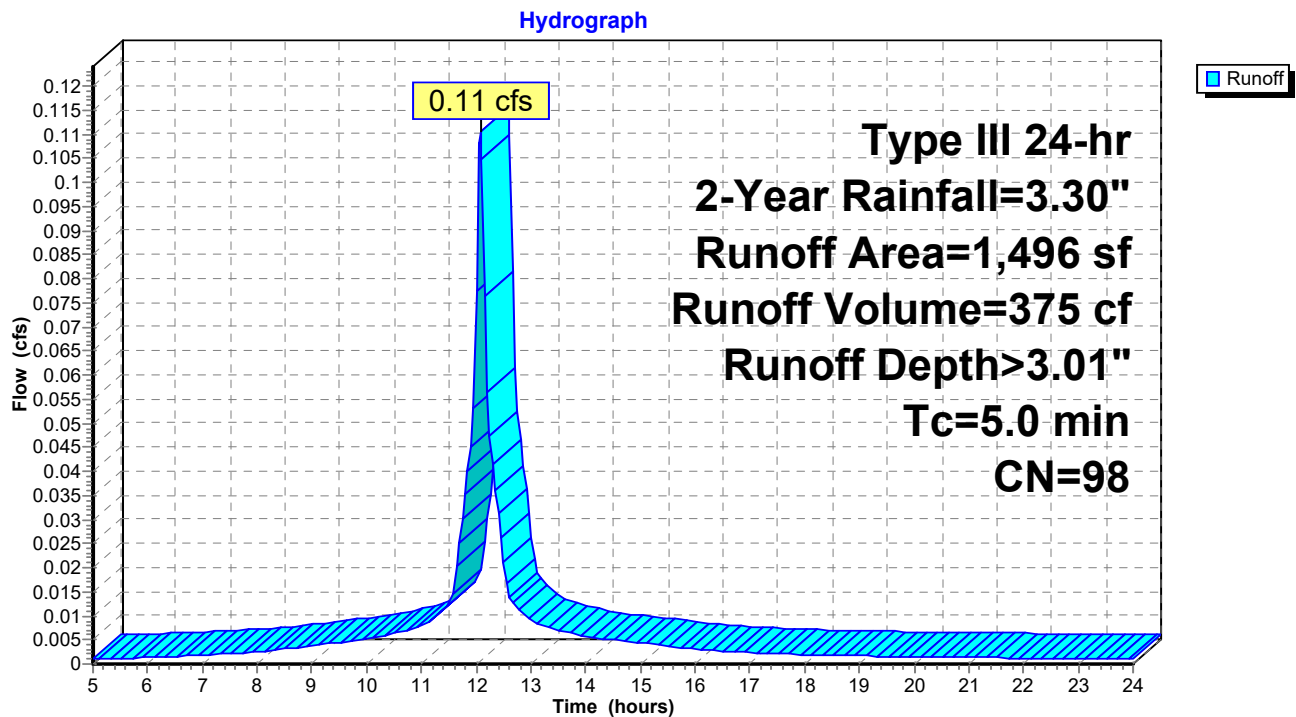
Runoff = 0.11 cfs @ 12.07 hrs, Volume= 375 cf, Depth> 3.01"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR7: GARAGE 7



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Type III 24-hr 2-Year Rainfall=3.30"

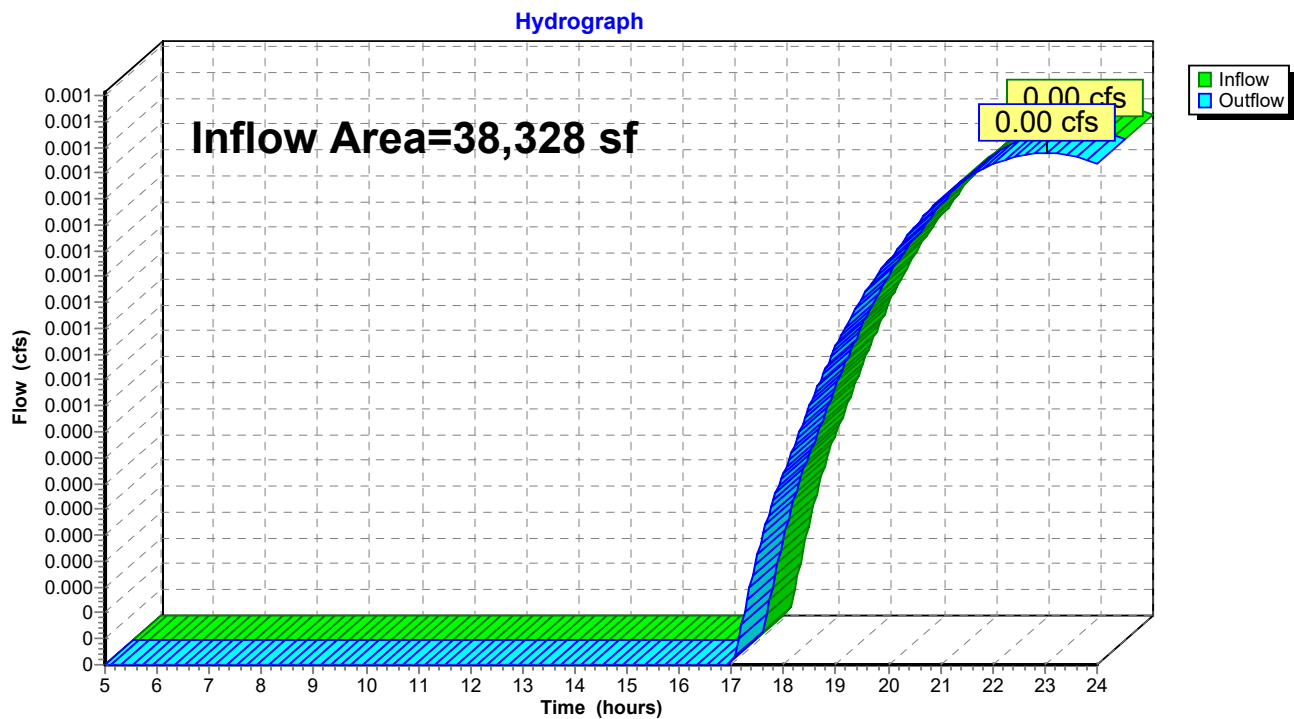
Page 26

Summary for Reach DPBpost: DP-B

Inflow Area = 38,328 sf, 2.80% Impervious, Inflow Depth > 0.01" for 2-Year event
Inflow = 0.00 cfs @ 23.04 hrs, Volume= 19 cf
Outflow = 0.00 cfs @ 23.04 hrs, Volume= 19 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPBpost: DP-B



Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 2P: DRYWELL UNIT 2

Inflow Area = 83,663 sf, 65.29% Impervious, Inflow Depth > 0.73" for 2-Year event
 Inflow = 1.67 cfs @ 12.08 hrs, Volume= 5,094 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 79.50' @ 24.00 hrs Surf.Area= 4,618 sf Storage= 5,092 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,418 cf	59.20'W x 78.00'L x 5.00'H Field A 23,088 cf Overall - 14,542 cf Embedded = 8,546 cf x 40.0% Voids
#2A	78.30'	10,953 cf	Concrete Galley 4x4x4 x 247 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 247 Chambers in 13 Rows
		14,371 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

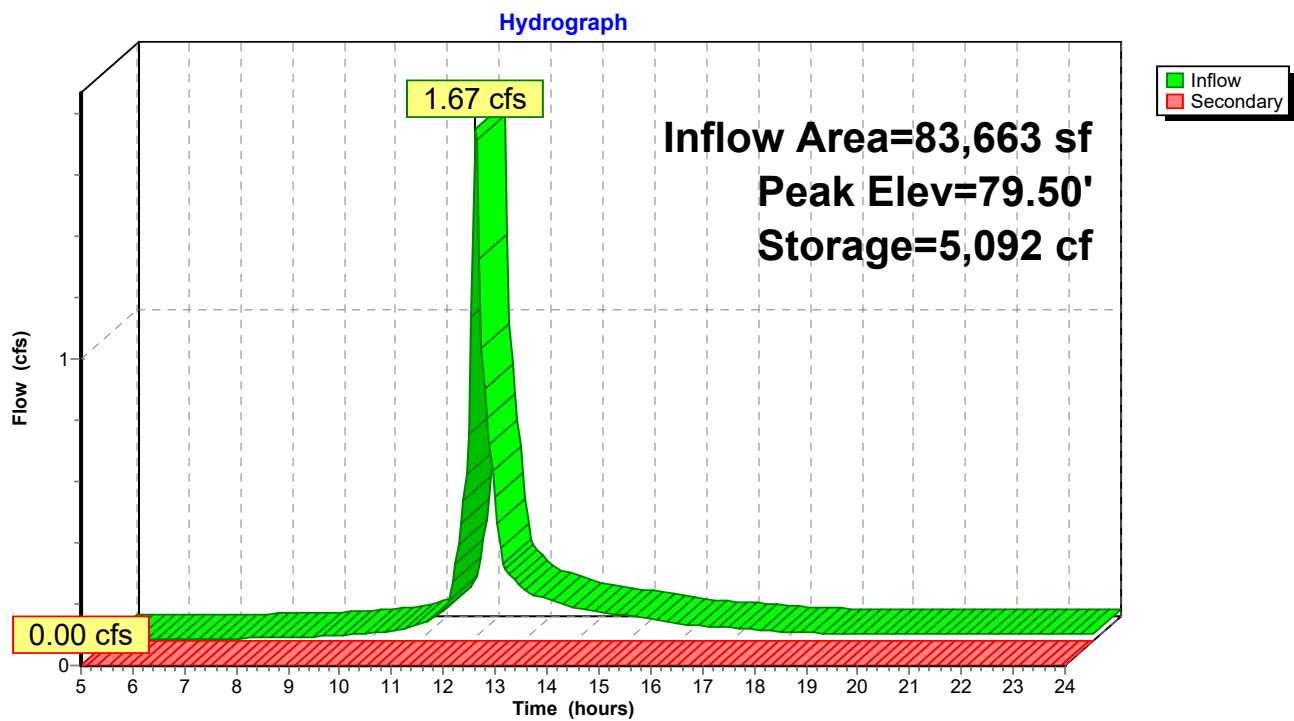
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Type III 24-hr 2-Year Rainfall=3.30"

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Pond 2P: DRYWELL UNIT 2



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	14,371
77.90	185	83.20	14,371
78.00	369	83.30	14,371
78.10	554	83.40	14,371
78.20	739	83.50	14,371
78.30	924	83.60	14,371
78.40	1,259	83.70	14,371
78.50	1,596	83.80	14,371
78.60	1,941	83.90	14,371
78.70	2,290	84.00	14,371
78.80	2,640	84.10	14,371
78.90	2,989	84.20	14,371
79.00	3,338	84.30	14,371
79.10	3,686	84.40	14,371
79.20	4,034	84.50	14,371
79.30	4,382	84.60	14,371
79.40	4,730	84.70	14,371
79.50	5,077	84.80	14,371
79.60	5,425	84.90	14,371
79.70	5,771	85.00	14,371
79.80	6,118	85.10	14,371
79.90	6,464	85.20	14,371
80.00	6,810	85.30	14,371
80.10	7,156	85.40	14,371
80.20	7,502	85.50	14,371
80.30	7,847	85.60	14,371
80.40	8,192	85.70	14,371
80.50	8,536	85.80	14,371
80.60	8,881	85.90	14,371
80.70	9,225	86.00	14,371
80.80	9,569	86.10	14,371
80.90	9,912	86.20	14,371
81.00	10,256	86.30	14,371
81.10	10,599	86.40	14,371
81.20	10,941	86.50	14,371
81.30	11,284	86.60	14,371
81.40	11,626	86.70	14,371
81.50	11,968	86.80	14,371
81.60	12,310	86.90	14,371
81.70	12,651	87.00	14,371
81.80	12,992	87.10	14,371
81.90	13,274	87.20	14,371
82.00	13,317	87.30	14,371
82.10	13,360	87.40	14,371
82.20	13,404	87.50	14,371
82.30	13,448	87.60	14,371
82.40	13,633	87.70	14,371
82.50	13,817	87.80	14,371
82.60	14,002	87.90	14,371
82.70	14,187	88.00	14,371
82.80	14,371	88.10	14,371
82.90	14,371		
83.00	14,371		

Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 10P: DRYWELL UNIT 5

Inflow Area = 83,540 sf, 66.71% Impervious, Inflow Depth > 1.39" for 2-Year event
 Inflow = 3.01 cfs @ 12.08 hrs, Volume= 9,686 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 62.58' @ 24.00 hrs Surf.Area= 10,304 sf Storage= 9,683 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

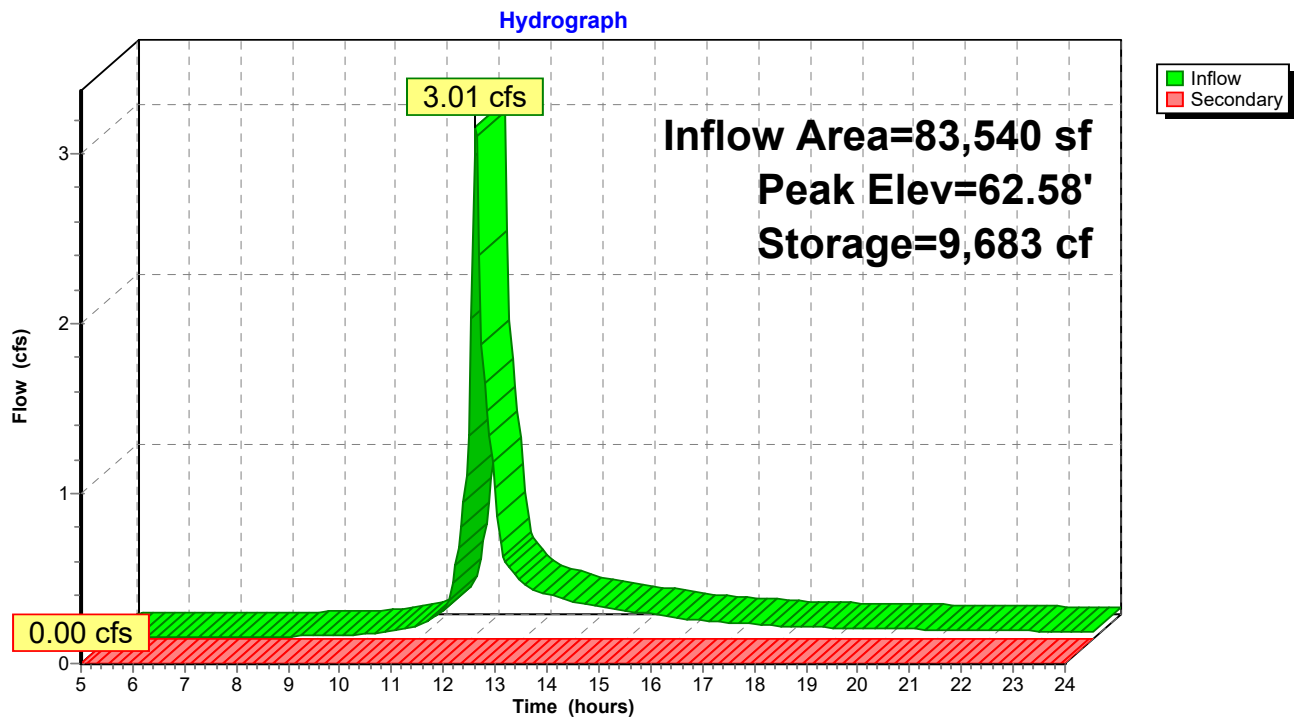
Volume	Invert	Avail.Storage	Storage Description
#1A	61.05'	8,692 cf	55.40'W x 186.00'L x 5.00'H Field A 51,522 cf Overall - 29,791 cf Embedded = 21,731 cf x 40.0% Voids
#2A	61.55'	22,438 cf	Concrete Galley 4x4x4 x 506 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 506 Chambers in 11 Rows
		31,131 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.05' TW=0.00' (Dynamic Tailwater)
 ↑1=Orifice/Grate (Controls 0.00 cfs)

Pond 10P: DRYWELL UNIT 5



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
61.05	0.00	63.70	0.00
61.10	0.00	63.75	0.00
61.15	0.00	63.80	0.00
61.20	0.00	63.85	0.00
61.25	0.00	63.90	0.00
61.30	0.00	63.95	0.00
61.35	0.00	64.00	0.00
61.40	0.00	64.05	0.00
61.45	0.00	64.10	0.00
61.50	0.00	64.15	0.00
61.55	0.00	64.20	0.00
61.60	0.00	64.25	0.00
61.65	0.00	64.30	0.00
61.70	0.00	64.35	0.00
61.75	0.00	64.40	0.00
61.80	0.00	64.45	0.00
61.85	0.00	64.50	0.00
61.90	0.00	64.55	0.00
61.95	0.00	64.60	0.00
62.00	0.00	64.65	0.00
62.05	0.00	64.70	0.00
62.10	0.00	64.75	0.00
62.15	0.00	64.80	0.00
62.20	0.00	64.85	0.00
62.25	0.00	64.90	0.00
62.30	0.00	64.95	0.00
62.35	0.00	65.00	0.00
62.40	0.00	65.05	0.00
62.45	0.00	65.10	0.00
62.50	0.00	65.15	0.00
62.55	0.00	65.20	0.00
62.60	0.00	65.25	0.00
62.65	0.00	65.30	0.00
62.70	0.00	65.35	0.00
62.75	0.00	65.40	0.00
62.80	0.00	65.45	0.00
62.85	0.00	65.50	0.00
62.90	0.00	65.55	0.00
62.95	0.00	65.60	0.00
63.00	0.00	65.65	0.00
63.05	0.00	65.70	0.00
63.10	0.00	65.75	0.00
63.15	0.00	65.80	0.00
63.20	0.00	65.85	0.00
63.25	0.00	65.90	0.00
63.30	0.00	65.95	0.00
63.35	0.00	66.00	0.00
63.40	0.00	66.05	0.27
63.45	0.00		
63.50	0.00		
63.55	0.00		
63.60	0.00		
63.65	0.00		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
61.05	0	63.70	18,030
61.10	206	63.75	18,400
61.15	412	63.80	18,770
61.20	618	63.85	19,139
61.25	824	63.90	19,509
61.30	1,030	63.95	19,878
61.35	1,237	64.00	20,247
61.40	1,443	64.05	20,616
61.45	1,649	64.10	20,985
61.50	1,855	64.15	21,354
61.55	2,061	64.20	21,723
61.60	2,422	64.25	22,091
61.65	2,782	64.30	22,459
61.70	3,143	64.35	22,828
61.75	3,506	64.40	23,196
61.80	3,874	64.45	23,564
61.85	4,246	64.50	23,931
61.90	4,621	64.55	24,299
61.95	4,996	64.60	24,666
62.00	5,371	64.65	25,034
62.05	5,746	64.70	25,401
62.10	6,120	64.75	25,768
62.15	6,495	64.80	26,135
62.20	6,869	64.85	26,502
62.25	7,243	64.90	26,868
62.30	7,617	64.95	27,235
62.35	7,991	65.00	27,601
62.40	8,364	65.05	27,968
62.45	8,738	65.10	28,334
62.50	9,111	65.15	28,578
62.55	9,484	65.20	28,639
62.60	9,857	65.25	28,700
62.65	10,230	65.30	28,762
62.70	10,603	65.35	28,823
62.75	10,976	65.40	28,885
62.80	11,348	65.45	28,946
62.85	11,721	65.50	29,008
62.90	12,093	65.55	29,070
62.95	12,465	65.60	29,276
63.00	12,837	65.65	29,482
63.05	13,209	65.70	29,688
63.10	13,581	65.75	29,894
63.15	13,952	65.80	30,100
63.20	14,324	65.85	30,306
63.25	14,695	65.90	30,512
63.30	15,066	65.95	30,718
63.35	15,437	66.00	30,925
63.40	15,808	66.05	31,131
63.45	16,179		
63.50	16,549		
63.55	16,920		
63.60	17,290		
63.65	17,660		

Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 31P: DRYWELL UNIT 3

Inflow Area = 21,336 sf, 100.00% Impervious, Inflow Depth > 3.01" for 2-Year event
 Inflow = 1.58 cfs @ 12.07 hrs, Volume= 5,348 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 41P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 84.26' @ 24.00 hrs Surf.Area= 3,622 sf Storage= 5,346 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	82.00'	1,660 cf	28.40'W x 74.00'L x 5.00'H Field A 10,508 cf Overall - 6,359 cf Embedded = 4,149 cf x 40.0% Voids
#2A	82.50'	4,789 cf	Concrete Galley 4x4x4 x 108 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 108 Chambers in 6 Rows
#3B	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field B 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#4B	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #3 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
#5C	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field C 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#6C	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #5 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
		10,986 cf	Total Available Storage

Storage Group A created with Chamber Wizard
 Storage Group B created with Chamber Wizard
 Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.00'	6.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=82.00' TW=80.10' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Controls 0.00 cfs)

Bridal Path Post

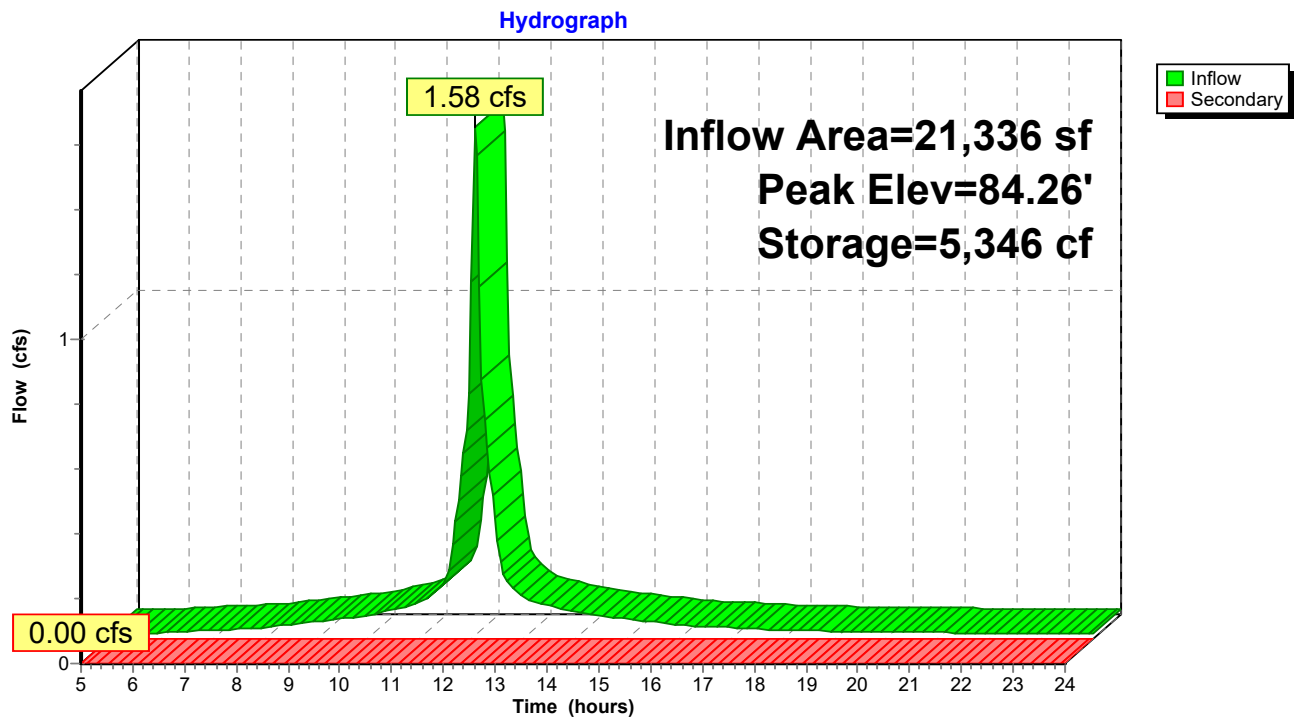
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Type III 24-hr 2-Year Rainfall=3.30"

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Pond 31P: DRYWELL UNIT 3



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
82.00	0.00	84.65	0.00	87.30	0.00
82.05	0.00	84.70	0.00	87.35	0.00
82.10	0.00	84.75	0.00	87.40	0.00
82.15	0.00	84.80	0.00	87.45	0.00
82.20	0.00	84.85	0.00	87.50	0.00
82.25	0.00	84.90	0.00	87.55	0.00
82.30	0.00	84.95	0.00	87.60	0.00
82.35	0.00	85.00	0.00	87.65	0.00
82.40	0.00	85.05	0.00	87.70	0.00
82.45	0.00	85.10	0.00	87.75	0.00
82.50	0.00	85.15	0.00	87.80	0.00
82.55	0.00	85.20	0.00	87.85	0.00
82.60	0.00	85.25	0.00	87.90	0.00
82.65	0.00	85.30	0.00	87.95	0.00
82.70	0.00	85.35	0.00	88.00	0.00
82.75	0.00	85.40	0.00		
82.80	0.00	85.45	0.00		
82.85	0.00	85.50	0.00		
82.90	0.00	85.55	0.00		
82.95	0.00	85.60	0.00		
83.00	0.00	85.65	0.00		
83.05	0.00	85.70	0.00		
83.10	0.00	85.75	0.00		
83.15	0.00	85.80	0.00		
83.20	0.00	85.85	0.00		
83.25	0.00	85.90	0.00		
83.30	0.00	85.95	0.00		
83.35	0.00	86.00	0.00		
83.40	0.00	86.05	0.00		
83.45	0.00	86.10	0.00		
83.50	0.00	86.15	0.00		
83.55	0.00	86.20	0.00		
83.60	0.00	86.25	0.00		
83.65	0.00	86.30	0.00		
83.70	0.00	86.35	0.00		
83.75	0.00	86.40	0.00		
83.80	0.00	86.45	0.00		
83.85	0.00	86.50	0.00		
83.90	0.00	86.55	0.00		
83.95	0.00	86.60	0.00		
84.00	0.00	86.65	0.00		
84.05	0.00	86.70	0.00		
84.10	0.00	86.75	0.00		
84.15	0.00	86.80	0.00		
84.20	0.00	86.85	0.00		
84.25	0.00	86.90	0.00		
84.30	0.00	86.95	0.00		
84.35	0.00	87.00	0.00		
84.40	0.00	87.05	0.00		
84.45	0.00	87.10	0.00		
84.50	0.00	87.15	0.00		
84.55	0.00	87.20	0.00		
84.60	0.00	87.25	0.00		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
82.00	0	84.65	6,367	87.30	10,986
82.05	72	84.70	6,498	87.35	10,986
82.10	145	84.75	6,629	87.40	10,986
82.15	217	84.80	6,759	87.45	10,986
82.20	290	84.85	6,890	87.50	10,986
82.25	362	84.90	7,020	87.55	10,986
82.30	435	84.95	7,151	87.60	10,986
82.35	507	85.00	7,281	87.65	10,986
82.40	579	85.05	7,411	87.70	10,986
82.45	652	85.10	7,542	87.75	10,986
82.50	724	85.15	7,672	87.80	10,986
82.55	852	85.20	7,802	87.85	10,986
82.60	979	85.25	7,932	87.90	10,986
82.65	1,107	85.30	8,062	87.95	10,986
82.70	1,235	85.35	8,192	88.00	10,986
82.75	1,365	85.40	8,322		
82.80	1,496	85.45	8,452		
82.85	1,629	85.50	8,582		
82.90	1,762	85.55	8,712		
82.95	1,894	85.60	8,842		
83.00	2,026	85.65	8,972		
83.05	2,159	85.70	9,101		
83.10	2,291	85.75	9,231		
83.15	2,423	85.80	9,361		
83.20	2,555	85.85	9,490		
83.25	2,688	85.90	9,620		
83.30	2,820	85.95	9,749		
83.35	2,952	86.00	9,879		
83.40	3,084	86.05	10,008		
83.45	3,216	86.10	10,094		
83.50	3,347	86.15	10,115		
83.55	3,479	86.20	10,136		
83.60	3,611	86.25	10,157		
83.65	3,743	86.30	10,178		
83.70	3,875	86.35	10,199		
83.75	4,006	86.40	10,220		
83.80	4,138	86.45	10,241		
83.85	4,269	86.50	10,262		
83.90	4,401	86.55	10,334		
83.95	4,532	86.60	10,407		
84.00	4,664	86.65	10,479		
84.05	4,795	86.70	10,552		
84.10	4,926	86.75	10,624		
84.15	5,058	86.80	10,696		
84.20	5,189	86.85	10,769		
84.25	5,320	86.90	10,841		
84.30	5,451	86.95	10,914		
84.35	5,582	87.00	10,986		
84.40	5,713	87.05	10,986		
84.45	5,844	87.10	10,986		
84.50	5,975	87.15	10,986		
84.55	6,106	87.20	10,986		
84.60	6,236	87.25	10,986		

Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 36P: DRYWELL UNIT 4

Inflow Area = 5,816 sf, 100.00% Impervious, Inflow Depth > 11.89" for 2-Year event
 Inflow = 1.67 cfs @ 12.08 hrs, Volume= 5,763 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 40P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 79.50' @ 24.00 hrs Surf.Area= 5,220 sf Storage= 5,761 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,846 cf	90.00'W x 58.00'L x 5.00'H Field A 26,100 cf Overall - 16,485 cf Embedded = 9,615 cf x 40.0% Voids
#2A	78.30'	12,417 cf	Concrete Galley 4x4x4 x 280 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 280 Chambers in 20 Rows
		16,262 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↑ **1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

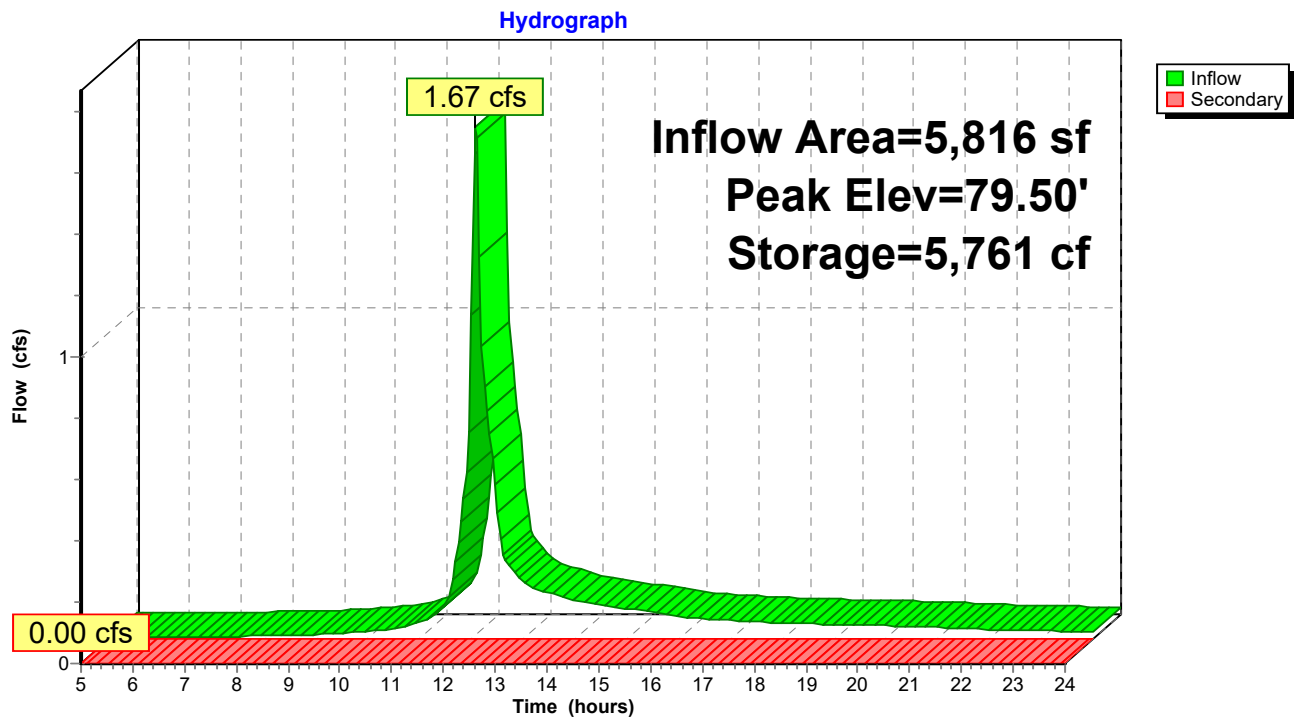
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Type III 24-hr 2-Year Rainfall=3.30"

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Pond 36P: DRYWELL UNIT 4



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	16,262
77.90	209	83.20	16,262
78.00	418	83.30	16,262
78.10	626	83.40	16,262
78.20	835	83.50	16,262
78.30	1,044	83.60	16,262
78.40	1,424	83.70	16,262
78.50	1,805	83.80	16,262
78.60	2,196	83.90	16,262
78.70	2,591	84.00	16,262
78.80	2,987	84.10	16,262
78.90	3,382	84.20	16,262
79.00	3,777	84.30	16,262
79.10	4,171	84.40	16,262
79.20	4,565	84.50	16,262
79.30	4,959	84.60	16,262
79.40	5,353	84.70	16,262
79.50	5,746	84.80	16,262
79.60	6,139	84.90	16,262
79.70	6,531	85.00	16,262
79.80	6,924	85.10	16,262
79.90	7,316	85.20	16,262
80.00	7,707	85.30	16,262
80.10	8,099	85.40	16,262
80.20	8,490	85.50	16,262
80.30	8,881	85.60	16,262
80.40	9,271	85.70	16,262
80.50	9,661	85.80	16,262
80.60	10,051	85.90	16,262
80.70	10,441	86.00	16,262
80.80	10,830	86.10	16,262
80.90	11,219	86.20	16,262
81.00	11,607	86.30	16,262
81.10	11,996	86.40	16,262
81.20	12,384	86.50	16,262
81.30	12,771	86.60	16,262
81.40	13,159	86.70	16,262
81.50	13,546	86.80	16,262
81.60	13,932	86.90	16,262
81.70	14,319	87.00	16,262
81.80	14,705	87.10	16,262
81.90	15,023	87.20	16,262
82.00	15,072	87.30	16,262
82.10	15,120	87.40	16,262
82.20	15,169	87.50	16,262
82.30	15,218	87.60	16,262
82.40	15,427	87.70	16,262
82.50	15,636	87.80	16,262
82.60	15,845	87.90	16,262
82.70	16,054	88.00	16,262
82.80	16,262	88.10	16,262
82.90	16,262		
83.00	16,262		

Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 38P: DRYWELL UNIT 1

Inflow Area = 4,320 sf, 100.00% Impervious, Inflow Depth > 3.01" for 2-Year event
 Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,083 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 67.98' @ 24.00 hrs Surf.Area= 853 sf Storage= 1,083 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

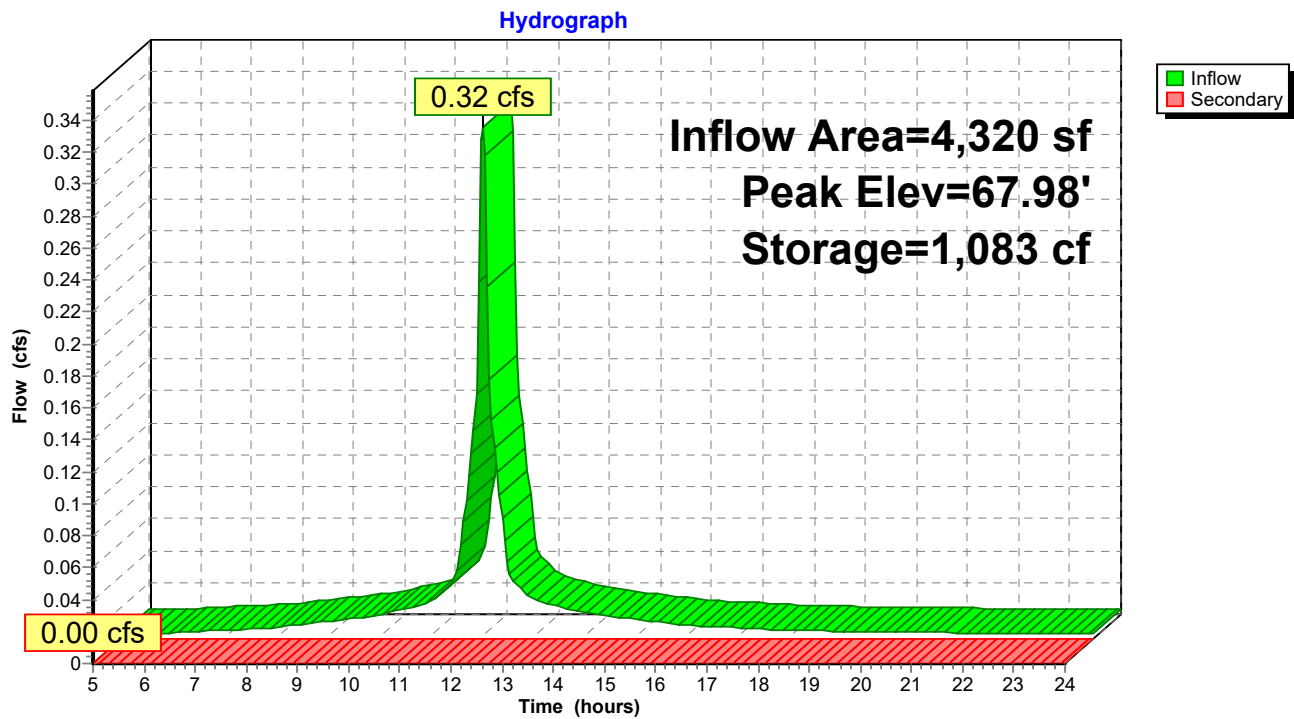
Volume	Invert	Avail.Storage	Storage Description
#1A	66.00'	716 cf	32.80'W x 26.00'L x 5.00'H Field A 4,264 cf Overall - 2,473 cf Embedded = 1,791 cf x 40.0% Voids
#2A	66.50'	1,862 cf	Concrete Galley 4x4x4 x 42 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 42 Chambers in 7 Rows
		2,579 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	72.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.00' TW=63.52' (Dynamic Tailwater)
 1=Orifice/Grate (Controls 0.00 cfs)

Pond 38P: DRYWELL UNIT 1



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
66.00	0.00	68.65	0.00	71.30	0.00
66.05	0.00	68.70	0.00	71.35	0.00
66.10	0.00	68.75	0.00	71.40	0.00
66.15	0.00	68.80	0.00	71.45	0.00
66.20	0.00	68.85	0.00	71.50	0.00
66.25	0.00	68.90	0.00	71.55	0.00
66.30	0.00	68.95	0.00	71.60	0.00
66.35	0.00	69.00	0.00	71.65	0.00
66.40	0.00	69.05	0.00	71.70	0.00
66.45	0.00	69.10	0.00	71.75	0.00
66.50	0.00	69.15	0.00	71.80	0.00
66.55	0.00	69.20	0.00	71.85	0.00
66.60	0.00	69.25	0.00	71.90	0.00
66.65	0.00	69.30	0.00	71.95	0.00
66.70	0.00	69.35	0.00	72.00	0.00
66.75	0.00	69.40	0.00		
66.80	0.00	69.45	0.00		
66.85	0.00	69.50	0.00		
66.90	0.00	69.55	0.00		
66.95	0.00	69.60	0.00		
67.00	0.00	69.65	0.00		
67.05	0.00	69.70	0.00		
67.10	0.00	69.75	0.00		
67.15	0.00	69.80	0.00		
67.20	0.00	69.85	0.00		
67.25	0.00	69.90	0.00		
67.30	0.00	69.95	0.00		
67.35	0.00	70.00	0.00		
67.40	0.00	70.05	0.00		
67.45	0.00	70.10	0.00		
67.50	0.00	70.15	0.00		
67.55	0.00	70.20	0.00		
67.60	0.00	70.25	0.00		
67.65	0.00	70.30	0.00		
67.70	0.00	70.35	0.00		
67.75	0.00	70.40	0.00		
67.80	0.00	70.45	0.00		
67.85	0.00	70.50	0.00		
67.90	0.00	70.55	0.00		
67.95	0.00	70.60	0.00		
68.00	0.00	70.65	0.00		
68.05	0.00	70.70	0.00		
68.10	0.00	70.75	0.00		
68.15	0.00	70.80	0.00		
68.20	0.00	70.85	0.00		
68.25	0.00	70.90	0.00		
68.30	0.00	70.95	0.00		
68.35	0.00	71.00	0.00		
68.40	0.00	71.05	0.00		
68.45	0.00	71.10	0.00		
68.50	0.00	71.15	0.00		
68.55	0.00	71.20	0.00		
68.60	0.00	71.25	0.00		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
66.00	0	68.65	1,494	71.30	2,579
66.05	17	68.70	1,525	71.35	2,579
66.10	34	68.75	1,555	71.40	2,579
66.15	51	68.80	1,586	71.45	2,579
66.20	68	68.85	1,616	71.50	2,579
66.25	85	68.90	1,647	71.55	2,579
66.30	102	68.95	1,678	71.60	2,579
66.35	119	69.00	1,708	71.65	2,579
66.40	136	69.05	1,739	71.70	2,579
66.45	154	69.10	1,769	71.75	2,579
66.50	171	69.15	1,800	71.80	2,579
66.55	200	69.20	1,830	71.85	2,579
66.60	230	69.25	1,861	71.90	2,579
66.65	260	69.30	1,891	71.95	2,579
66.70	290	69.35	1,922	72.00	2,579
66.75	321	69.40	1,952		
66.80	352	69.45	1,983		
66.85	383	69.50	2,013		
66.90	414	69.55	2,044		
66.95	445	69.60	2,074		
67.00	476	69.65	2,105		
67.05	507	69.70	2,135		
67.10	538	69.75	2,166		
67.15	569	69.80	2,196		
67.20	600	69.85	2,226		
67.25	631	69.90	2,257		
67.30	662	69.95	2,287		
67.35	693	70.00	2,317		
67.40	724	70.05	2,348		
67.45	755	70.10	2,368		
67.50	786	70.15	2,373		
67.55	817	70.20	2,378		
67.60	848	70.25	2,383		
67.65	878	70.30	2,388		
67.70	909	70.35	2,393		
67.75	940	70.40	2,398		
67.80	971	70.45	2,403		
67.85	1,002	70.50	2,408		
67.90	1,033	70.55	2,425		
67.95	1,064	70.60	2,443		
68.00	1,094	70.65	2,460		
68.05	1,125	70.70	2,477		
68.10	1,156	70.75	2,494		
68.15	1,187	70.80	2,511		
68.20	1,218	70.85	2,528		
68.25	1,248	70.90	2,545		
68.30	1,279	70.95	2,562		
68.35	1,310	71.00	2,579		
68.40	1,340	71.05	2,579		
68.45	1,371	71.10	2,579		
68.50	1,402	71.15	2,579		
68.55	1,433	71.20	2,579		
68.60	1,463	71.25	2,579		

Bridal Path Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 39P: CB 1

Inflow Area = 35,612 sf, 69.66% Impervious, Inflow Depth > 1.47" for 2-Year event
Inflow = 1.39 cfs @ 12.08 hrs, Volume= 4,358 cf
Outflow = 1.39 cfs @ 12.08 hrs, Volume= 4,358 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.39 cfs @ 12.08 hrs, Volume= 4,358 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

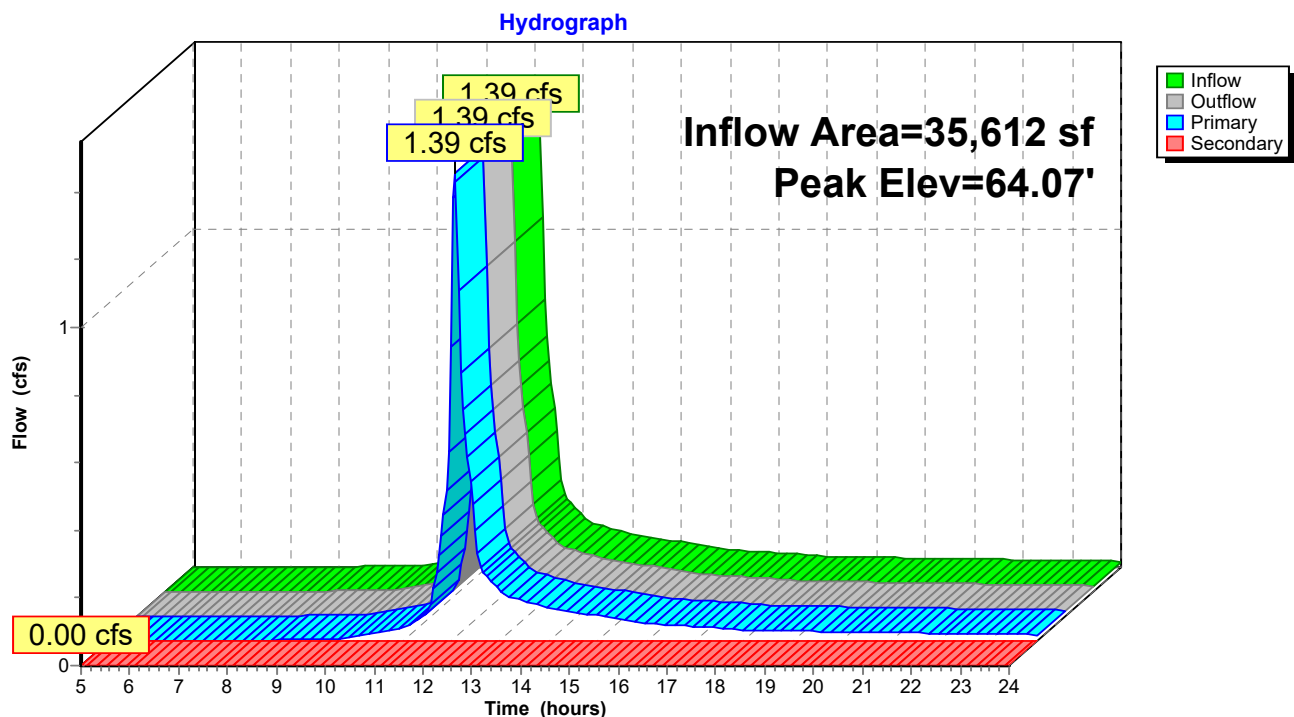
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.07' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.34 cfs @ 12.08 hrs HW=64.06' TW=61.62' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 1.34 cfs @ 2.54 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 39P: CB 1



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 39P: CB 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 39P: CB 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 40P: CB 2

Inflow Area = 43,608 sf, 61.00% Impervious, Inflow Depth > 1.17" for 2-Year event
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 4,246 cf
Outflow = 1.31 cfs @ 12.09 hrs, Volume= 4,246 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.09 hrs, Volume= 4,246 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

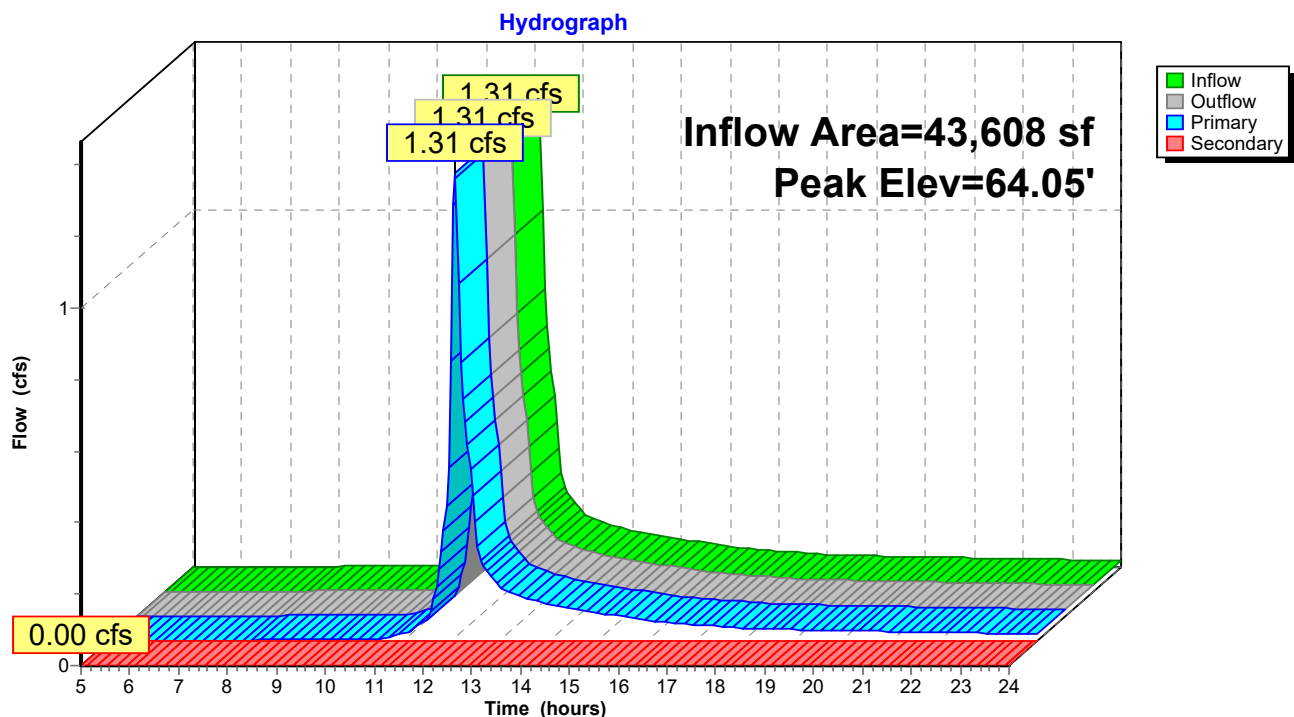
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.05' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.27 cfs @ 12.09 hrs HW=64.04' TW=61.62' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 1.27 cfs @ 2.50 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 40P: CB 2



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 40P: CB 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 40P: CB 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 41P: CB 3

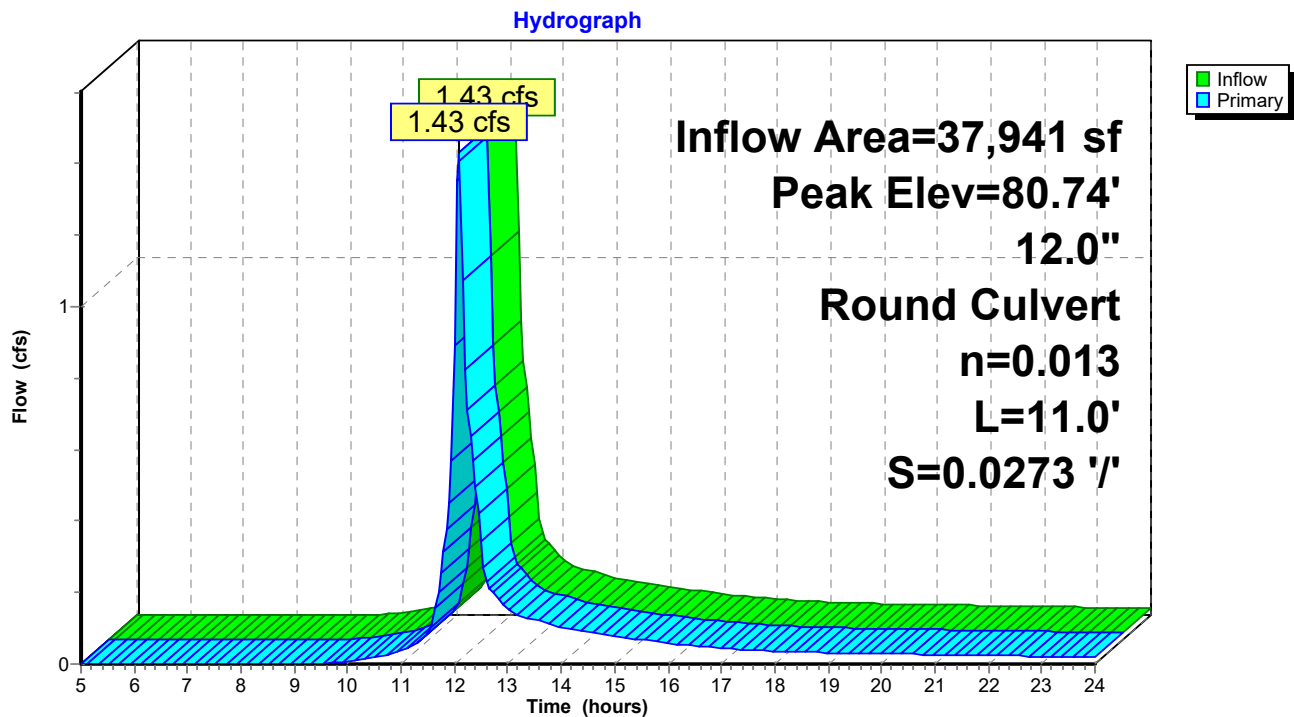
Inflow Area = 37,941 sf, 67.91% Impervious, Inflow Depth > 1.41" for 2-Year event
Inflow = 1.43 cfs @ 12.08 hrs, Volume= 4,462 cf
Outflow = 1.43 cfs @ 12.08 hrs, Volume= 4,462 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.43 cfs @ 12.08 hrs, Volume= 4,462 cf
Routed to Pond 44P : (new Pond)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 80.74' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0273 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.38 cfs @ 12.08 hrs HW=80.72' TW=79.78' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 1.38 cfs @ 2.69 fps)

Pond 41P: CB 3



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 41P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05
80.11	0.00	80.64	1.08
80.12	0.00	80.65	1.12
80.13	0.00	80.66	1.15
80.14	0.01	80.67	1.19
80.15	0.01	80.68	1.22
80.16	0.02	80.69	1.26
80.17	0.02	80.70	1.30
80.18	0.03	80.71	1.33
80.19	0.04	80.72	1.37
80.20	0.04	80.73	1.41
80.21	0.05	80.74	1.45
80.22	0.06	80.75	1.48
80.23	0.07	80.76	1.52
80.24	0.09	80.77	1.56
80.25	0.10	80.78	1.60
80.26	0.11	80.79	1.63
80.27	0.12	80.80	1.67
80.28	0.14	80.81	1.71
80.29	0.15	80.82	1.75
80.30	0.17	80.83	1.79
80.31	0.19	80.84	1.83
80.32	0.20	80.85	1.86
80.33	0.22	80.86	1.90
80.34	0.24	80.87	1.94
80.35	0.26	80.88	1.98
80.36	0.28	80.89	2.01
80.37	0.30	80.90	2.05
80.38	0.32	80.91	2.09
80.39	0.35	80.92	2.13
80.40	0.37	80.93	2.16
80.41	0.39	80.94	2.20
80.42	0.42	80.95	2.23
80.43	0.44	80.96	2.27
80.44	0.47	80.97	2.30
80.45	0.49	80.98	2.34
80.46	0.52	80.99	2.37
80.47	0.55	81.00	2.40
80.48	0.57	81.01	2.44
80.49	0.60	81.02	2.47
80.50	0.63	81.03	2.50
80.51	0.66	81.04	2.53
80.52	0.69	81.05	2.56
80.53	0.72	81.06	2.58
80.54	0.75	81.07	2.61
80.55	0.78	81.08	2.63
80.56	0.81	81.09	2.66
80.57	0.85	81.10	2.67
80.58	0.88		
80.59	0.91		
80.60	0.95		
80.61	0.98		
80.62	1.01		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 41P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0
80.11	0	80.64	0
80.12	0	80.65	0
80.13	0	80.66	0
80.14	0	80.67	0
80.15	0	80.68	0
80.16	0	80.69	0
80.17	0	80.70	0
80.18	0	80.71	0
80.19	0	80.72	0
80.20	0	80.73	0
80.21	0	80.74	0
80.22	0	80.75	0
80.23	0	80.76	0
80.24	0	80.77	0
80.25	0	80.78	0
80.26	0	80.79	0
80.27	0	80.80	0
80.28	0	80.81	0
80.29	0	80.82	0
80.30	0	80.83	0
80.31	0	80.84	0
80.32	0	80.85	0
80.33	0	80.86	0
80.34	0	80.87	0
80.35	0	80.88	0
80.36	0	80.89	0
80.37	0	80.90	0
80.38	0	80.91	0
80.39	0	80.92	0
80.40	0	80.93	0
80.41	0	80.94	0
80.42	0	80.95	0
80.43	0	80.96	0
80.44	0	80.97	0
80.45	0	80.98	0
80.46	0	80.99	0
80.47	0	81.00	0
80.48	0	81.01	0
80.49	0	81.02	0
80.50	0	81.03	0
80.51	0	81.04	0
80.52	0	81.05	0
80.53	0	81.06	0
80.54	0	81.07	0
80.55	0	81.08	0
80.56	0	81.09	0
80.57	0	81.10	0
80.58	0		
80.59	0		
80.60	0		
80.61	0		
80.62	0		

Bridal Path Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 42P: CB 3

Inflow Area = 39,906 sf, 57.74% Impervious, Inflow Depth > 1.05" for 2-Year event
Inflow = 1.07 cfs @ 12.09 hrs, Volume= 3,480 cf
Outflow = 1.07 cfs @ 12.09 hrs, Volume= 3,480 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 12.09 hrs, Volume= 3,480 cf
Routed to Pond 44P : (new Pond)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

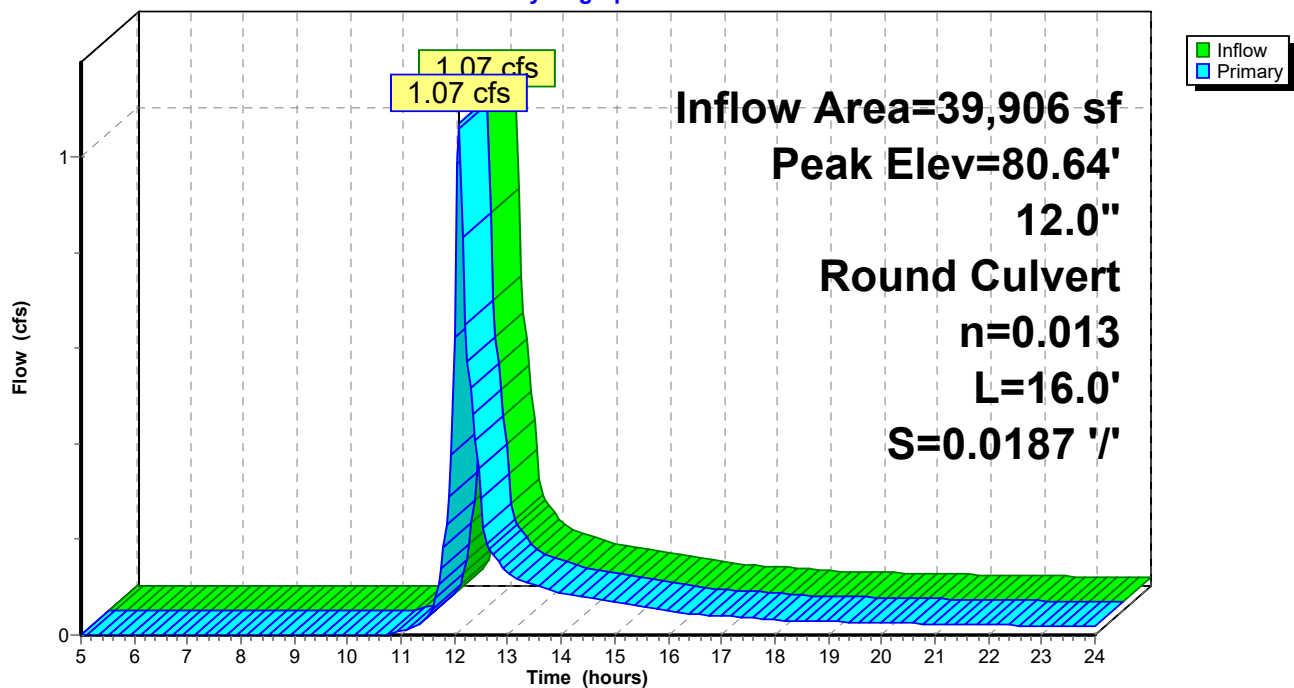
Peak Elev= 80.64' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0187 ' S= 0.0187 ' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.04 cfs @ 12.09 hrs HW=80.63' TW=79.78' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 1.04 cfs @ 2.47 fps)

Pond 42P: CB 3

Hydrograph



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 42P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05
80.11	0.00	80.64	1.08
80.12	0.00	80.65	1.12
80.13	0.00	80.66	1.15
80.14	0.01	80.67	1.19
80.15	0.01	80.68	1.22
80.16	0.02	80.69	1.25
80.17	0.02	80.70	1.29
80.18	0.03	80.71	1.32
80.19	0.04	80.72	1.36
80.20	0.04	80.73	1.39
80.21	0.05	80.74	1.43
80.22	0.06	80.75	1.46
80.23	0.07	80.76	1.50
80.24	0.09	80.77	1.53
80.25	0.10	80.78	1.57
80.26	0.11	80.79	1.60
80.27	0.12	80.80	1.64
80.28	0.14	80.81	1.68
80.29	0.15	80.82	1.71
80.30	0.17	80.83	1.75
80.31	0.19	80.84	1.79
80.32	0.20	80.85	1.82
80.33	0.22	80.86	1.86
80.34	0.24	80.87	1.90
80.35	0.26	80.88	1.93
80.36	0.28	80.89	1.97
80.37	0.30	80.90	2.01
80.38	0.32	80.91	2.04
80.39	0.35	80.92	2.08
80.40	0.37	80.93	2.12
80.41	0.39	80.94	2.15
80.42	0.42	80.95	2.19
80.43	0.44	80.96	2.23
80.44	0.47	80.97	2.26
80.45	0.49	80.98	2.30
80.46	0.52	80.99	2.34
80.47	0.55	81.00	2.37
80.48	0.57	81.01	2.41
80.49	0.60	81.02	2.45
80.50	0.63	81.03	2.48
80.51	0.66	81.04	2.52
80.52	0.69	81.05	2.56
80.53	0.72	81.06	2.58
80.54	0.75	81.07	2.61
80.55	0.78	81.08	2.63
80.56	0.81	81.09	2.66
80.57	0.85	81.10	2.67
80.58	0.88		
80.59	0.91		
80.60	0.95		
80.61	0.98		
80.62	1.01		

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 42P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0
80.11	0	80.64	0
80.12	0	80.65	0
80.13	0	80.66	0
80.14	0	80.67	0
80.15	0	80.68	0
80.16	0	80.69	0
80.17	0	80.70	0
80.18	0	80.71	0
80.19	0	80.72	0
80.20	0	80.73	0
80.21	0	80.74	0
80.22	0	80.75	0
80.23	0	80.76	0
80.24	0	80.77	0
80.25	0	80.78	0
80.26	0	80.79	0
80.27	0	80.80	0
80.28	0	80.81	0
80.29	0	80.82	0
80.30	0	80.83	0
80.31	0	80.84	0
80.32	0	80.85	0
80.33	0	80.86	0
80.34	0	80.87	0
80.35	0	80.88	0
80.36	0	80.89	0
80.37	0	80.90	0
80.38	0	80.91	0
80.39	0	80.92	0
80.40	0	80.93	0
80.41	0	80.94	0
80.42	0	80.95	0
80.43	0	80.96	0
80.44	0	80.97	0
80.45	0	80.98	0
80.46	0	80.99	0
80.47	0	81.00	0
80.48	0	81.01	0
80.49	0	81.02	0
80.50	0	81.03	0
80.51	0	81.04	0
80.52	0	81.05	0
80.53	0	81.06	0
80.54	0	81.07	0
80.55	0	81.08	0
80.56	0	81.09	0
80.57	0	81.10	0
80.58	0		
80.59	0		
80.60	0		
80.61	0		
80.62	0		

Bridal Path Post

Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Pond 44P: (new Pond)

Inflow Area = 77,847 sf, 62.69% Impervious, Inflow Depth > 1.22" for 2-Year event
 Inflow = 2.50 cfs @ 12.08 hrs, Volume= 7,941 cf
 Outflow = 2.50 cfs @ 12.08 hrs, Volume= 7,941 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.25 cfs @ 12.08 hrs, Volume= 3,636 cf
 Routed to Pond 2P : DRYWELL UNIT 2
 Secondary = 1.25 cfs @ 12.08 hrs, Volume= 4,305 cf
 Routed to Pond 36P : DRYWELL UNIT 4

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 79.79' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	79.20'	12.0" Round Culvert L= 86.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	79.20'	12.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0113 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.08 hrs HW=79.78' TW=78.48' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 1.21 cfs @ 2.58 fps)**Secondary OutFlow** Max=1.21 cfs @ 12.08 hrs HW=79.78' TW=78.43' (Dynamic Tailwater)↑**2=Culvert** (Inlet Controls 1.21 cfs @ 2.58 fps)

Bridal Path Post

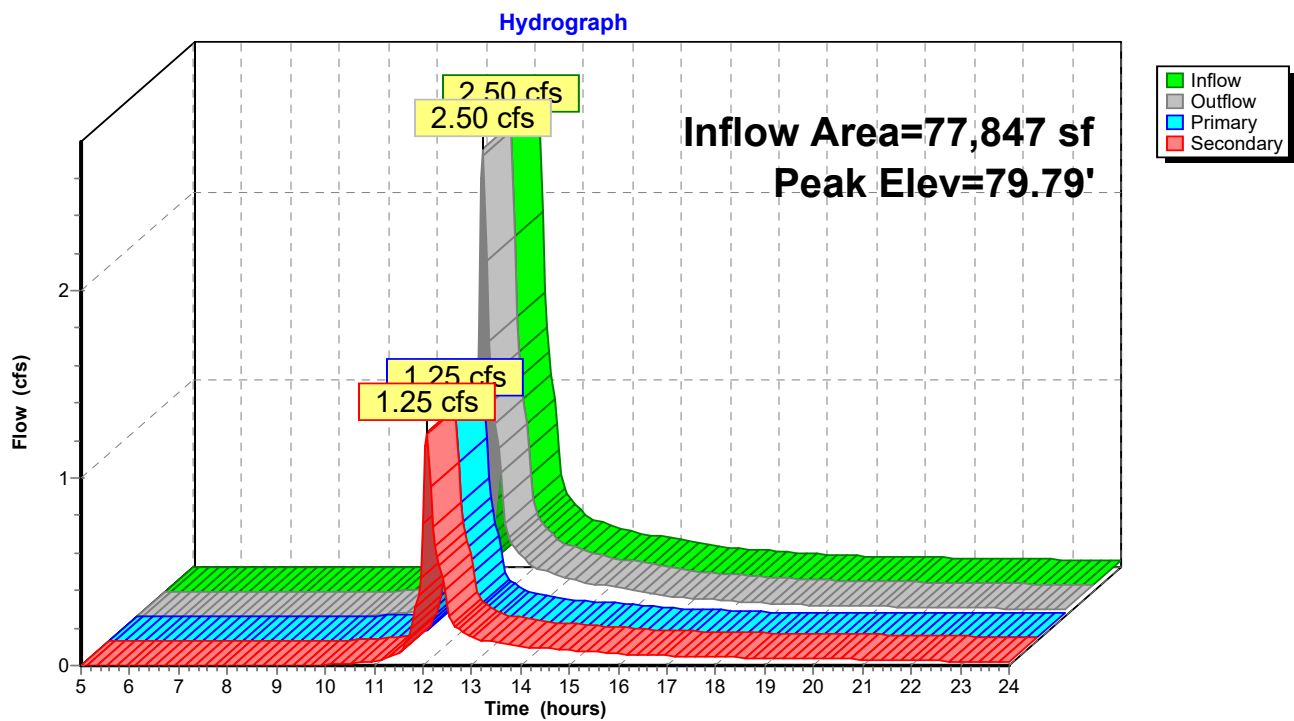
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Type III 24-hr 2-Year Rainfall=3.30"

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Pond 44P: (new Pond)



Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Pond 44P: (new Pond)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
79.20	0.00	0.00	0.00	79.73	2.10	1.05	1.05
79.21	0.00	0.00	0.00	79.74	2.16	1.08	1.08
79.22	0.00	0.00	0.00	79.75	2.24	1.12	1.12
79.23	0.01	0.00	0.00	79.76	2.31	1.15	1.15
79.24	0.01	0.01	0.01	79.77	2.38	1.19	1.19
79.25	0.02	0.01	0.01	79.78	2.45	1.22	1.22
79.26	0.03	0.01	0.01	79.79	2.52	1.26	1.26
79.27	0.04	0.02	0.02	79.80	2.60	1.30	1.30
79.28	0.05	0.03	0.03	79.81	2.67	1.33	1.33
79.29	0.07	0.03	0.03	79.82	2.74	1.37	1.37
79.30	0.08	0.04	0.04	79.83	2.82	1.41	1.41
79.31	0.10	0.05	0.05	79.84	2.89	1.45	1.45
79.32	0.12	0.06	0.06	79.85	2.97	1.48	1.48
79.33	0.14	0.07	0.07	79.86	3.04	1.52	1.52
79.34	0.17	0.08	0.08	79.87	3.12	1.56	1.56
79.35	0.19	0.09	0.10	79.88	3.19	1.60	1.60
79.36	0.22	0.11	0.11	79.89	3.27	1.63	1.63
79.37	0.25	0.12	0.12	79.90	3.35	1.67	1.67
79.38	0.28	0.14	0.14	79.91	3.42	1.71	1.71
79.39	0.31	0.15	0.15	79.92	3.50	1.75	1.75
79.40	0.34	0.17	0.17	79.93	3.57	1.79	1.79
79.41	0.37	0.19	0.19	79.94	3.65	1.83	1.83
79.42	0.41	0.20	0.20	79.95	3.73	1.86	1.86
79.43	0.45	0.22	0.22	79.96	3.80	1.90	1.90
79.44	0.48	0.24	0.24	79.97	3.88	1.94	1.94
79.45	0.52	0.26	0.26	79.98	3.95	1.98	1.98
79.46	0.56	0.28	0.28	79.99	4.03	2.01	2.01
79.47	0.61	0.30	0.30	80.00	4.10	2.05	2.05
79.48	0.65	0.32	0.32	80.01	4.18	2.09	2.09
79.49	0.69	0.35	0.35	80.02	4.25	2.13	2.13
79.50	0.74	0.37	0.37	80.03	4.32	2.16	2.16
79.51	0.79	0.39	0.39	80.04	4.40	2.20	2.20
79.52	0.83	0.42	0.42	80.05	4.47	2.23	2.23
79.53	0.88	0.44	0.44	80.06	4.54	2.27	2.27
79.54	0.93	0.47	0.47	80.07	4.61	2.30	2.30
79.55	0.99	0.49	0.49	80.08	4.68	2.34	2.34
79.56	1.04	0.52	0.52	80.09	4.74	2.37	2.37
79.57	1.09	0.55	0.55	80.10	4.81	2.40	2.40
79.58	1.15	0.57	0.57	80.11	4.87	2.44	2.44
79.59	1.21	0.60	0.60	80.12	4.94	2.47	2.47
79.60	1.26	0.63	0.63	80.13	5.00	2.50	2.50
79.61	1.32	0.66	0.66	80.14	5.06	2.53	2.53
79.62	1.38	0.69	0.69	80.15	5.12	2.56	2.56
79.63	1.44	0.72	0.72	80.16	5.17	2.58	2.58
79.64	1.50	0.75	0.75	80.17	5.22	2.61	2.61
79.65	1.57	0.78	0.78	80.18	5.27	2.63	2.63
79.66	1.63	0.81	0.81	80.19	5.31	2.66	2.66
79.67	1.69	0.85	0.85	80.20	5.35	2.67	2.67
79.68	1.76	0.88	0.88				
79.69	1.82	0.91	0.91				
79.70	1.89	0.95	0.95				
79.71	1.96	0.98	0.98				
79.72	2.03	1.01	1.01				

Bridal Path Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Pond 44P: (new Pond)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
79.20	0	79.73	0
79.21	0	79.74	0
79.22	0	79.75	0
79.23	0	79.76	0
79.24	0	79.77	0
79.25	0	79.78	0
79.26	0	79.79	0
79.27	0	79.80	0
79.28	0	79.81	0
79.29	0	79.82	0
79.30	0	79.83	0
79.31	0	79.84	0
79.32	0	79.85	0
79.33	0	79.86	0
79.34	0	79.87	0
79.35	0	79.88	0
79.36	0	79.89	0
79.37	0	79.90	0
79.38	0	79.91	0
79.39	0	79.92	0
79.40	0	79.93	0
79.41	0	79.94	0
79.42	0	79.95	0
79.43	0	79.96	0
79.44	0	79.97	0
79.45	0	79.98	0
79.46	0	79.99	0
79.47	0	80.00	0
79.48	0	80.01	0
79.49	0	80.02	0
79.50	0	80.03	0
79.51	0	80.04	0
79.52	0	80.05	0
79.53	0	80.06	0
79.54	0	80.07	0
79.55	0	80.08	0
79.56	0	80.09	0
79.57	0	80.10	0
79.58	0	80.11	0
79.59	0	80.12	0
79.60	0	80.13	0
79.61	0	80.14	0
79.62	0	80.15	0
79.63	0	80.16	0
79.64	0	80.17	0
79.65	0	80.18	0
79.66	0	80.19	0
79.67	0	80.20	0
79.68	0		
79.69	0		
79.70	0		
79.71	0		
79.72	0		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment40S: GARAGE 6	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.16 cfs 542 cf
SubcatchmentA1: AREA 1	Runoff Area=37,941 sf 67.91% Impervious Runoff Depth>2.54" Tc=5.0 min CN=79 Runoff=2.60 cfs 8,042 cf
SubcatchmentA2: AREA 2	Runoff Area=39,906 sf 57.74% Impervious Runoff Depth>2.05" Tc=5.0 min CN=73 Runoff=2.18 cfs 6,805 cf
SubcatchmentA3: AREA 3	Runoff Area=42,112 sf 59.62% Impervious Runoff Depth>2.13" Tc=5.0 min CN=74 Runoff=2.40 cfs 7,460 cf
SubcatchmentA4: AREA 4	Runoff Area=34,332 sf 68.52% Impervious Runoff Depth>2.54" Tc=5.0 min CN=79 Runoff=2.35 cfs 7,277 cf
SubcatchmentB(OL): OVERLAND TO B	Runoff Area=38,328 sf 2.80% Impervious Runoff Depth>0.17" Tc=5.0 min CN=40 Runoff=0.02 cfs 551 cf
SubcatchmentBLD1: BLD 1	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD2: BLD 2	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD3: BLD 3	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD4: BLD 4	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD5: BLD 5	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD6: BLD 6	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD7: BLD 7	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentBLD8: BLD 8	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.46 cfs 1,565 cf
SubcatchmentGAR1: GARAGE 1	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.14 cfs 464 cf
SubcatchmentGAR2: GARAGE 2	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.16 cfs 542 cf

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Subcatchment GAR3: GARAGE 3	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.14 cfs 464 cf
Subcatchment GAR4: GARAGE 4	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.16 cfs 542 cf
Subcatchment GAR5: GARAGE 5	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.14 cfs 464 cf
Subcatchment GAR7: GARAGE 7	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>4.35" Tc=5.0 min CN=98 Runoff=0.16 cfs 542 cf
Reach DPBpost: DP-B	Inflow=0.02 cfs 551 cf Outflow=0.02 cfs 551 cf
Pond 2P: DRYWELL UNIT 2	Peak Elev=80.62' Storage=8,943 cf Inflow=3.00 cfs 8,949 cf Outflow=0.00 cfs 0 cf
Pond 10P: DRYWELL UNIT 5	Peak Elev=63.60' Storage=17,302 cf Inflow=5.50 cfs 17,308 cf Outflow=0.00 cfs 0 cf
Pond 31P: DRYWELL UNIT 3	Peak Elev=85.17' Storage=7,729 cf Inflow=2.27 cfs 7,731 cf Outflow=0.00 cfs 0 cf
Pond 36P: DRYWELL UNIT 4	Peak Elev=80.62' Storage=10,111 cf Inflow=3.00 cfs 10,112 cf Outflow=0.00 cfs 0 cf
Pond 38P: DRYWELL UNIT 1	Peak Elev=68.77' Storage=1,565 cf Inflow=0.46 cfs 1,565 cf Outflow=0.00 cfs 0 cf
Pond 39P: CB 1	Peak Elev=64.29' Inflow=2.49 cfs 7,741 cf Primary=2.49 cfs 7,741 cf Secondary=0.00 cfs 0 cf Outflow=2.49 cfs 7,741 cf
Pond 40P: CB 2	Peak Elev=64.31' Inflow=2.56 cfs 8,002 cf Primary=2.56 cfs 8,002 cf Secondary=0.00 cfs 0 cf Outflow=2.56 cfs 8,002 cf
Pond 41P: CB 3	Peak Elev=81.06' Inflow=2.60 cfs 8,042 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0273 ' Outflow=2.60 cfs 8,042 cf
Pond 42P: CB 3	Peak Elev=80.95' Inflow=2.18 cfs 6,805 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0187 ' Outflow=2.18 cfs 6,805 cf
Pond 44P: (new Pond)	Peak Elev=80.62' Inflow=4.78 cfs 14,846 cf Primary=2.39 cfs 6,842 cf Secondary=2.39 cfs 8,005 cf Outflow=4.78 cfs 14,846 cf

Total Runoff Area = 237,003 sf Runoff Volume = 46,217 cf Average Runoff Depth = 2.34"
39.71% Pervious = 94,105 sf 60.29% Impervious = 142,898 sf

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment 40S: GARAGE 6

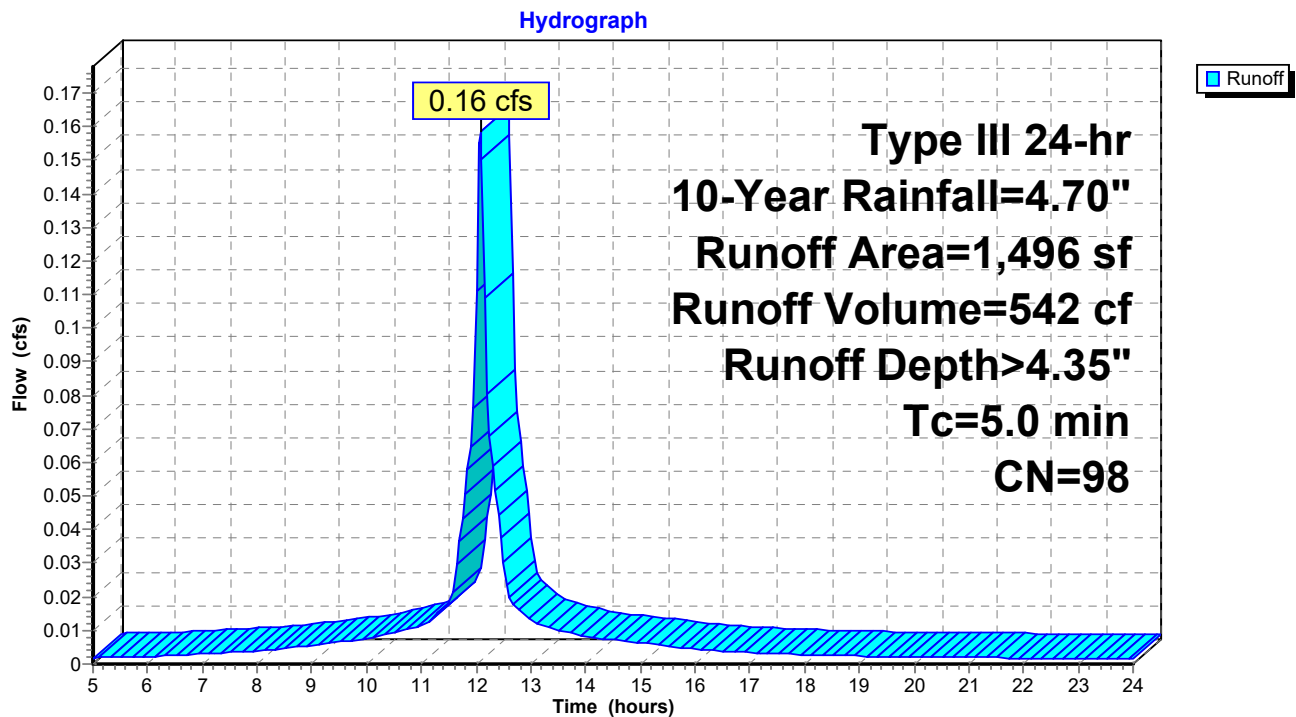
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 542 cf, Depth> 4.35"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment 40S: GARAGE 6



Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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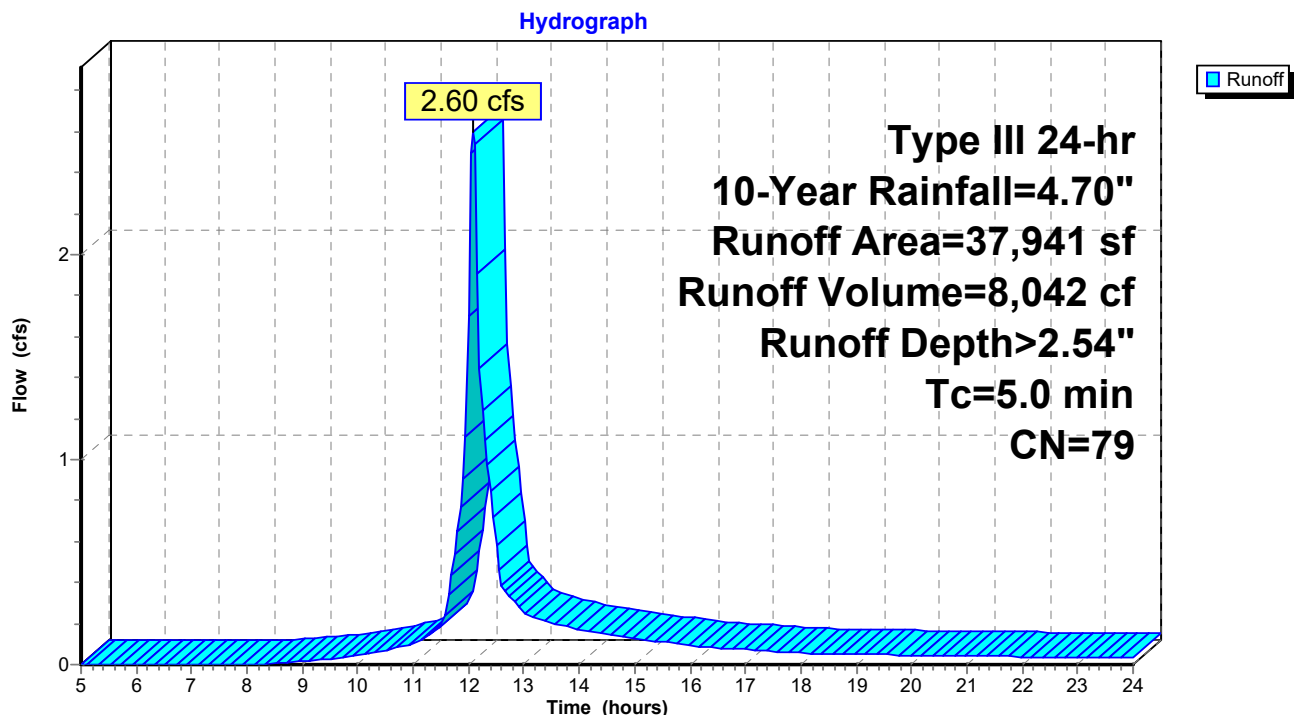
Summary for Subcatchment A1: AREA 1

Runoff = 2.60 cfs @ 12.08 hrs, Volume= 8,042 cf, Depth> 2.54"
Routed to Pond 41P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	21,386	98	Paved roads w/curbs & sewers, HSG A
*	4,378	98	Paved parking, HSG A (Walkways)
	12,177	39	>75% Grass cover, Good, HSG A
	37,941	79	Weighted Average
	12,177		32.09% Pervious Area
	25,764		67.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A1: AREA 1

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment A2: AREA 2

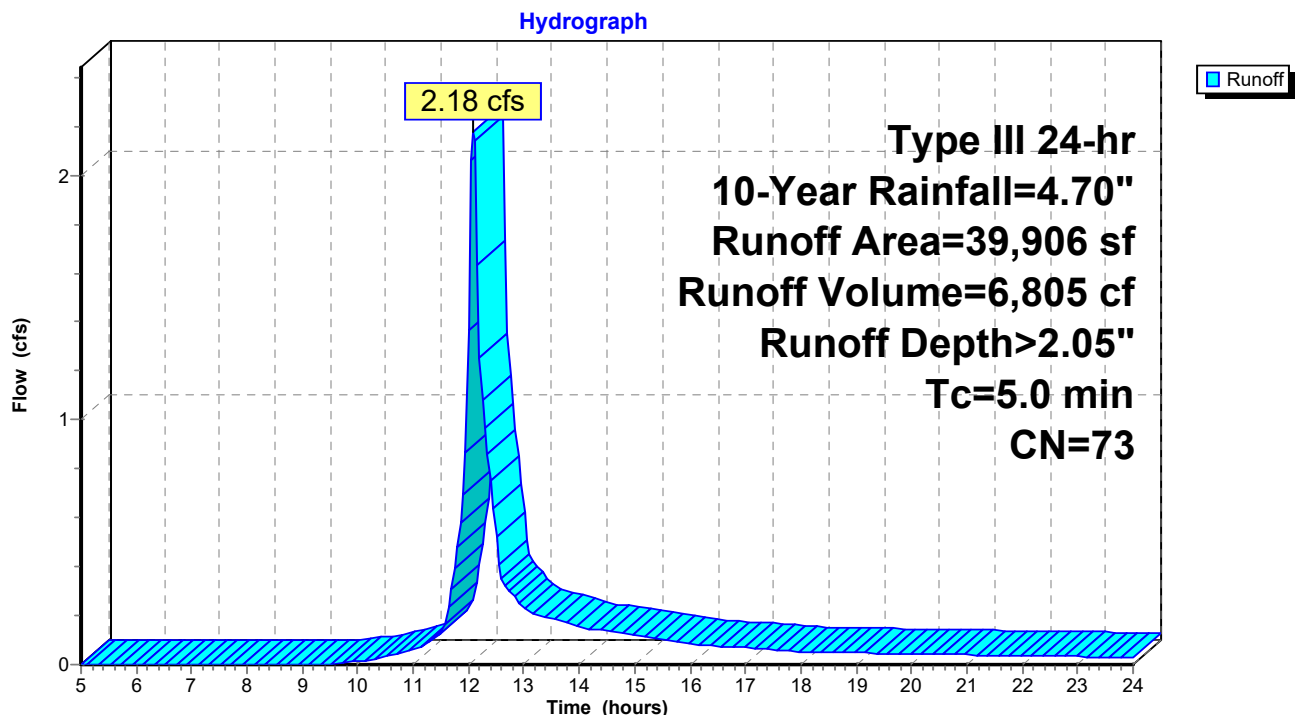
Runoff = 2.18 cfs @ 12.08 hrs, Volume= 6,805 cf, Depth> 2.05"
Routed to Pond 42P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	19,287	98	Paved roads w/curbs & sewers, HSG A
*	3,755	98	Paved parking, HSG A (Walkways)
	16,864	39	>75% Grass cover, Good, HSG A
	39,906	73	Weighted Average
	16,864		42.26% Pervious Area
	23,042		57.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A2: AREA 2



Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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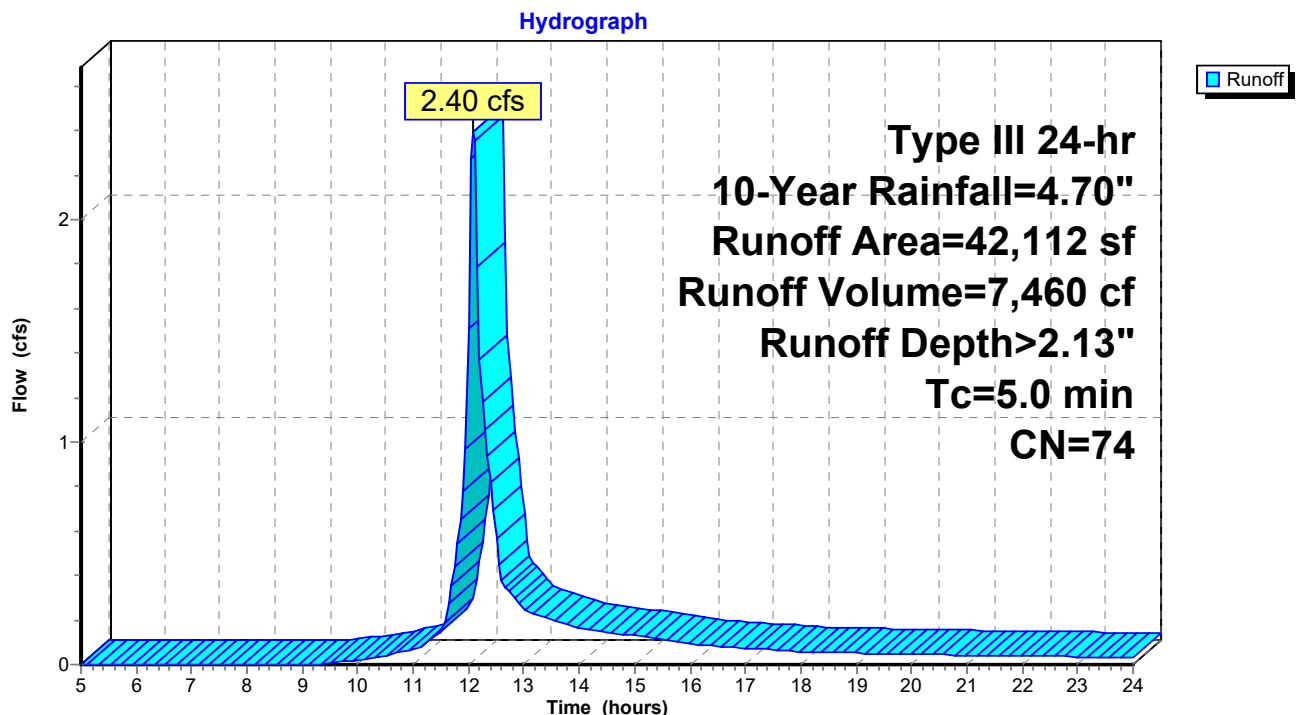
Summary for Subcatchment A3: AREA 3

Runoff = 2.40 cfs @ 12.08 hrs, Volume= 7,460 cf, Depth> 2.13"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	23,275	98	Paved roads w/curbs & sewers, HSG A
*	1,832	98	Paved parking, HSG A (Walkways)
	17,005	39	>75% Grass cover, Good, HSG A
	42,112	74	Weighted Average
	17,005		40.38% Pervious Area
	25,107		59.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A3: AREA 3

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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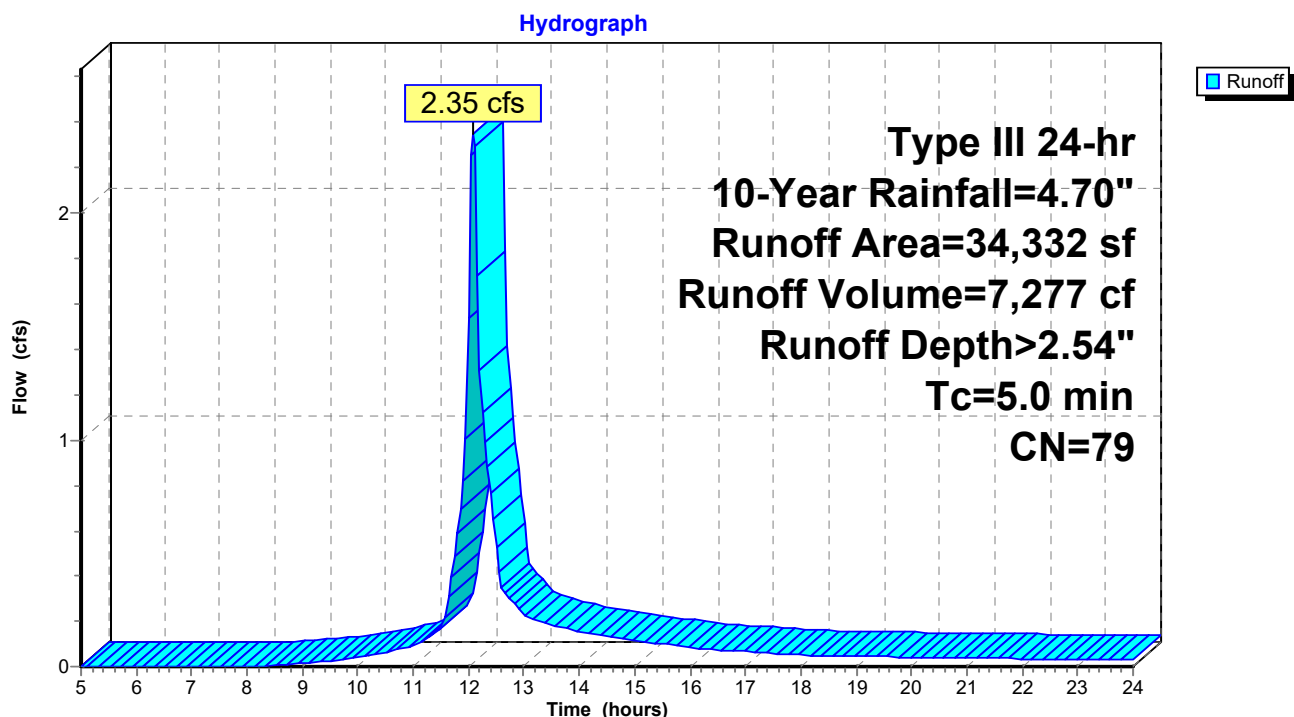
Summary for Subcatchment A4: AREA 4

Runoff = 2.35 cfs @ 12.08 hrs, Volume= 7,277 cf, Depth> 2.54"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	20,226	98	Paved roads w/curbs & sewers, HSG A
*	3,300	98	Paved parking, HSG A (Walkways)
	10,806	39	>75% Grass cover, Good, HSG A
	34,332	79	Weighted Average
	10,806		31.48% Pervious Area
	23,526		68.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A4: AREA 4

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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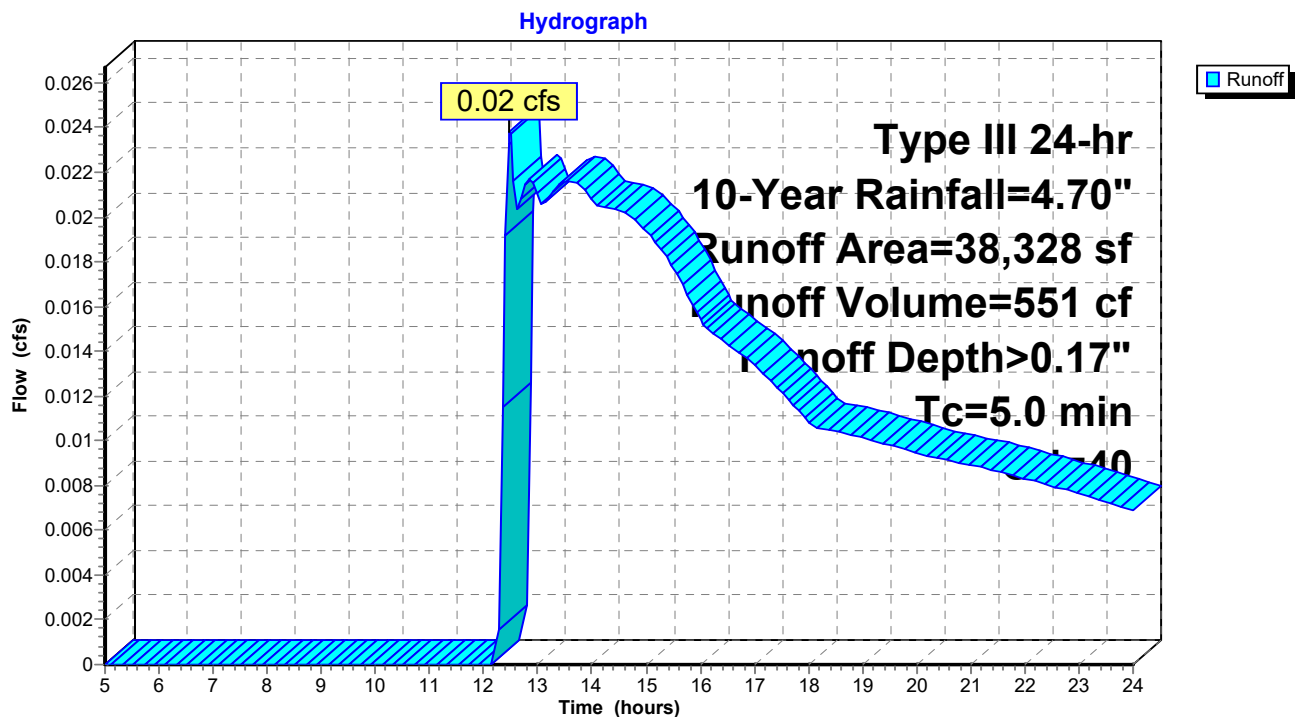
Summary for Subcatchment B(OL): OVERLAND TO B

Runoff = 0.02 cfs @ 12.48 hrs, Volume= 551 cf, Depth> 0.17"
Routed to Reach DPBpost : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	685	30	Woods, Good, HSG A
*	1,075	98	Paved parking, HSG A (Walkways)
	36,568	39	>75% Grass cover, Good, HSG A
	38,328	40	Weighted Average
	37,253		97.20% Pervious Area
	1,075		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment B(OL): OVERLAND TO B

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD1: BLD 1

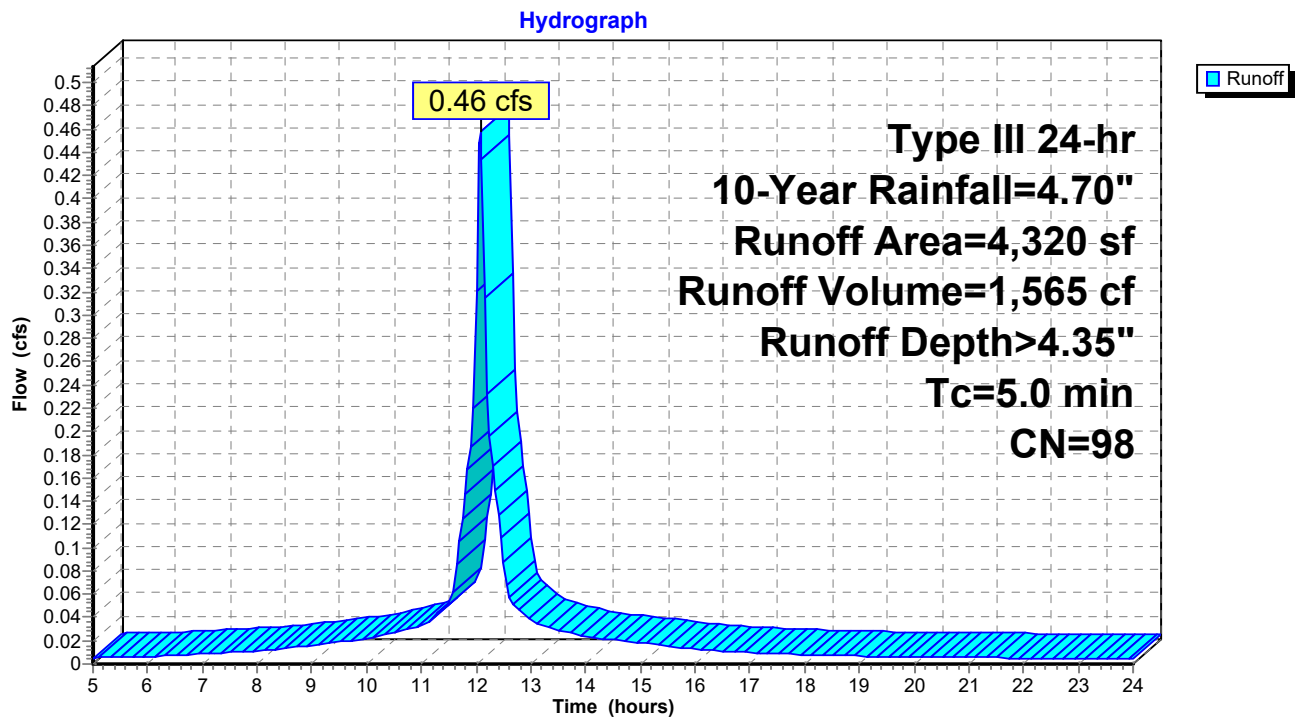
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 38P : DRYWELL UNIT 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD1: BLD 1



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD2: BLD 2

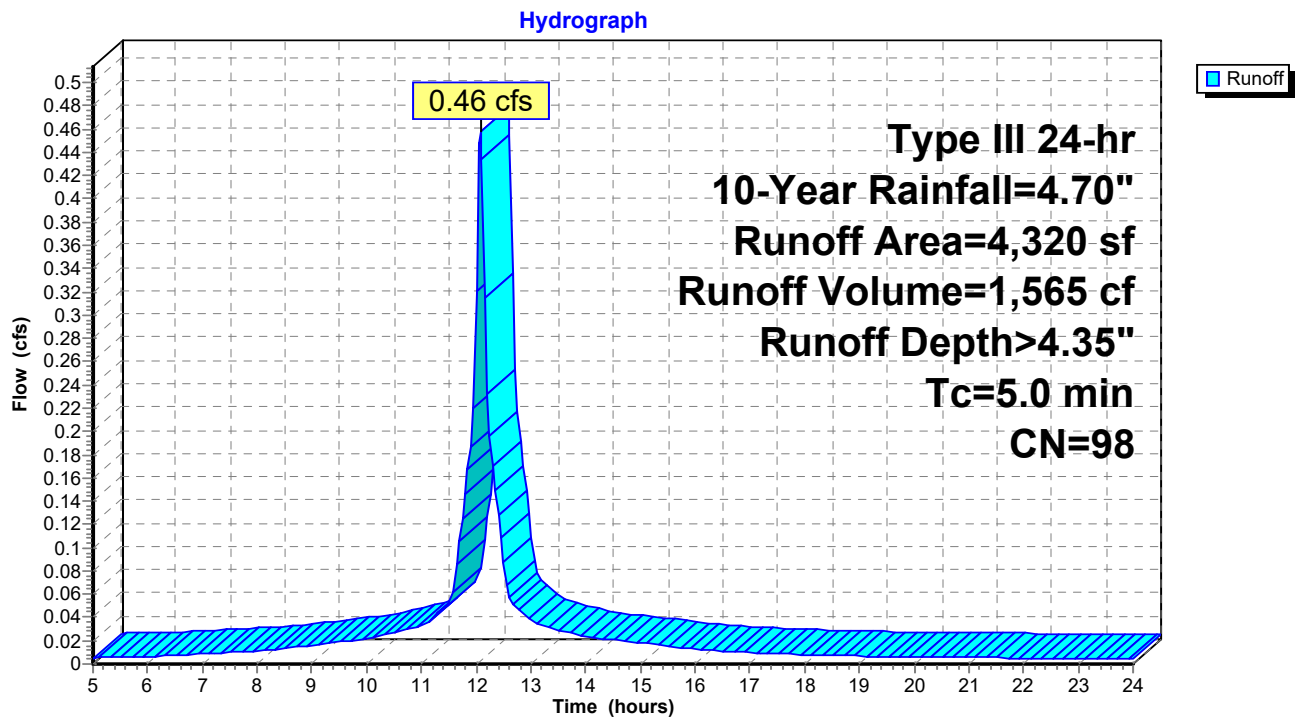
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD2: BLD 2



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD3: BLD 3

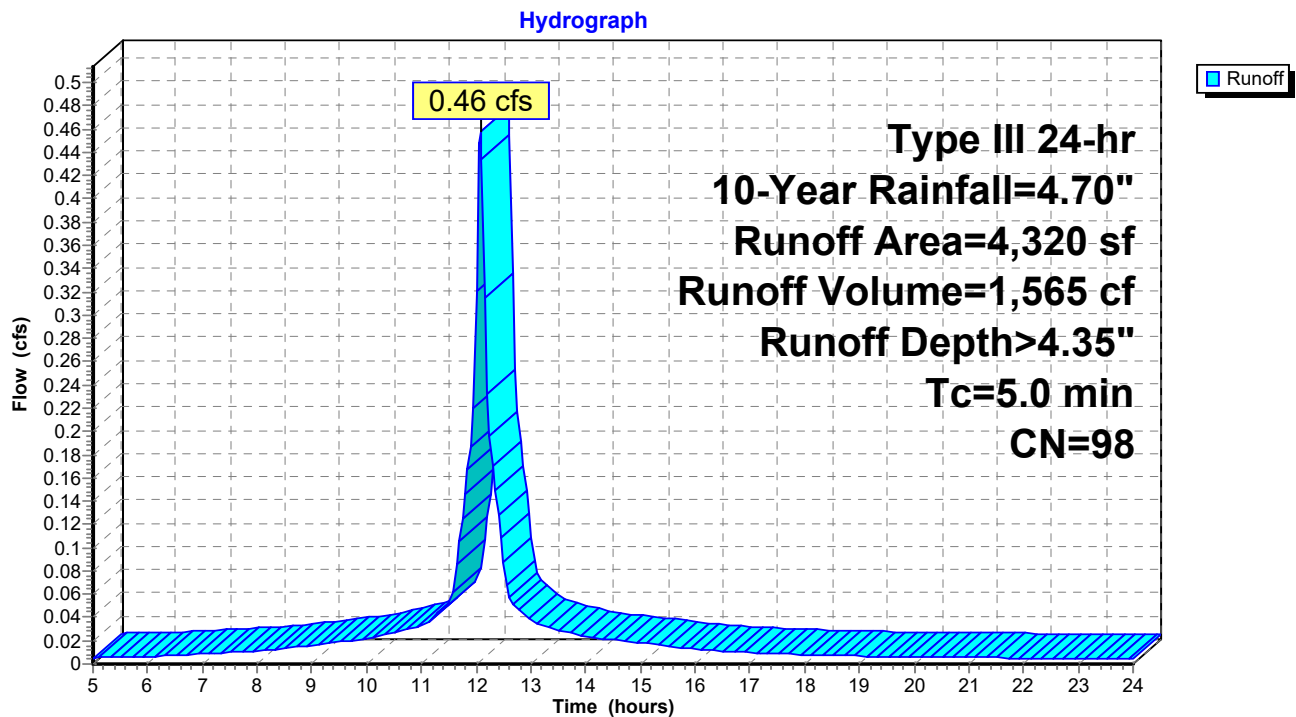
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD3: BLD 3



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD4: BLD 4

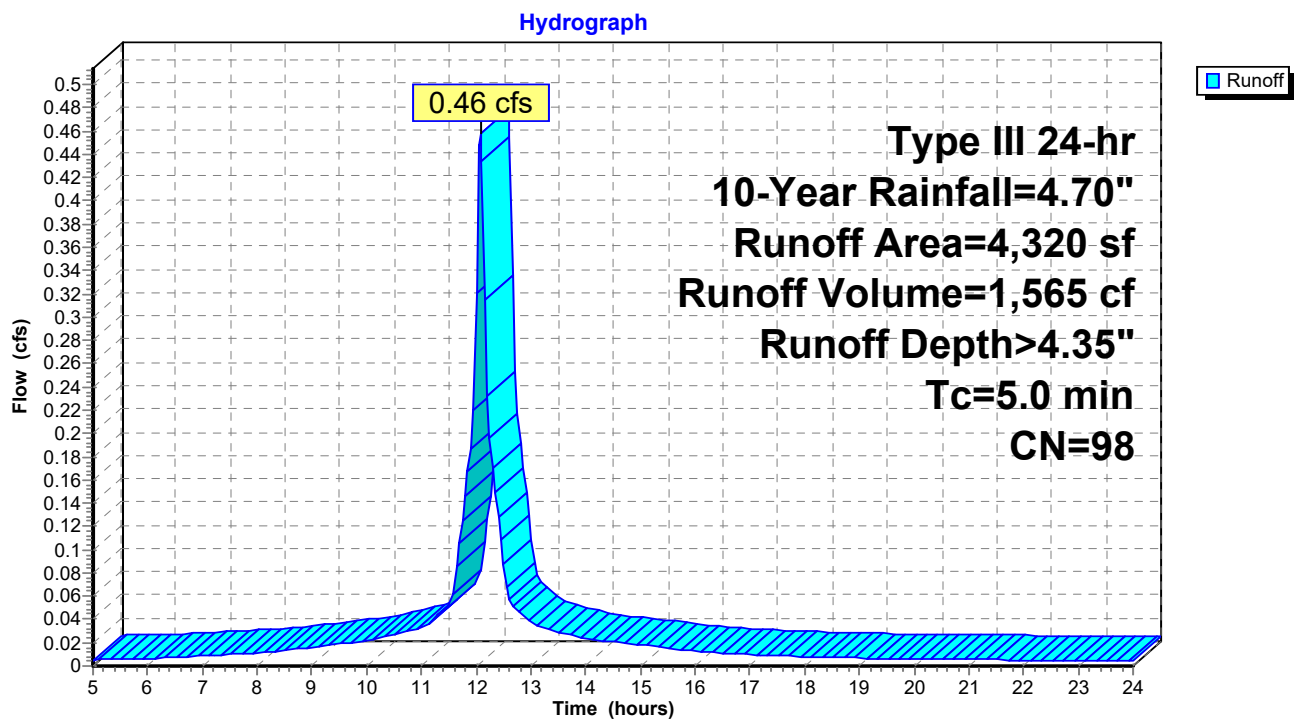
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD4: BLD 4



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD5: BLD 5

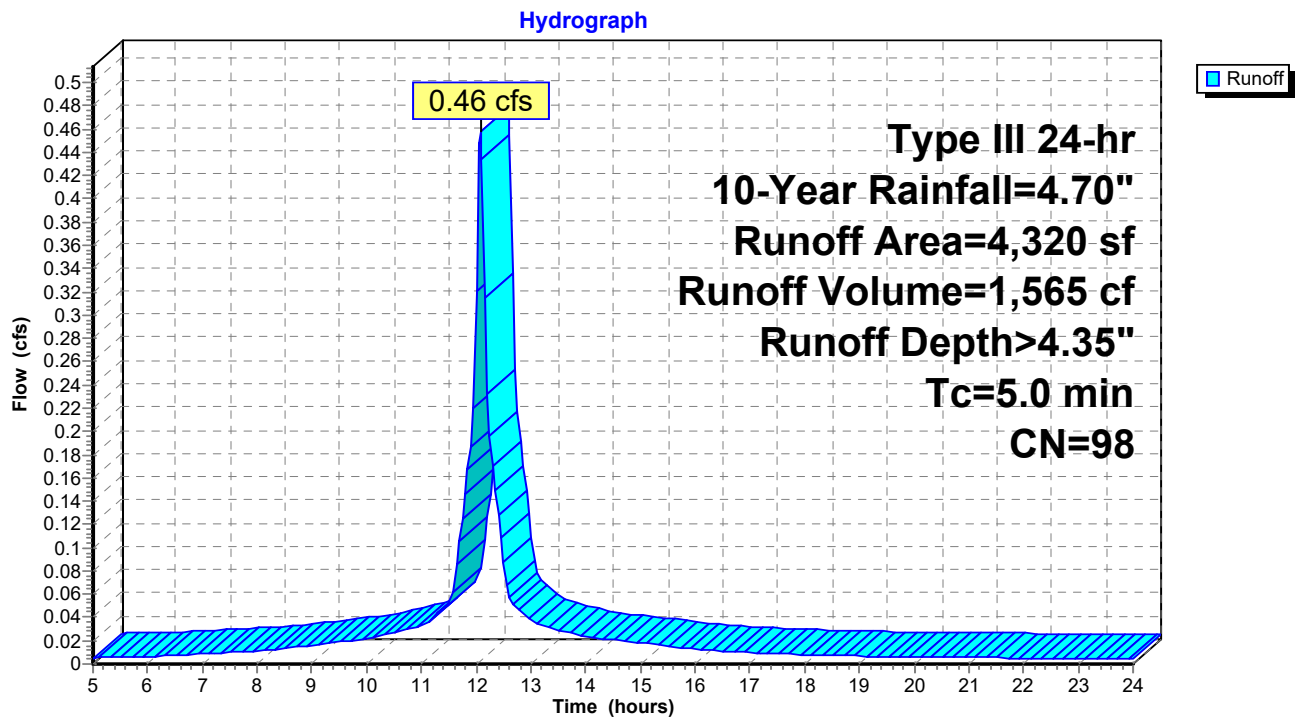
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD5: BLD 5



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD6: BLD 6

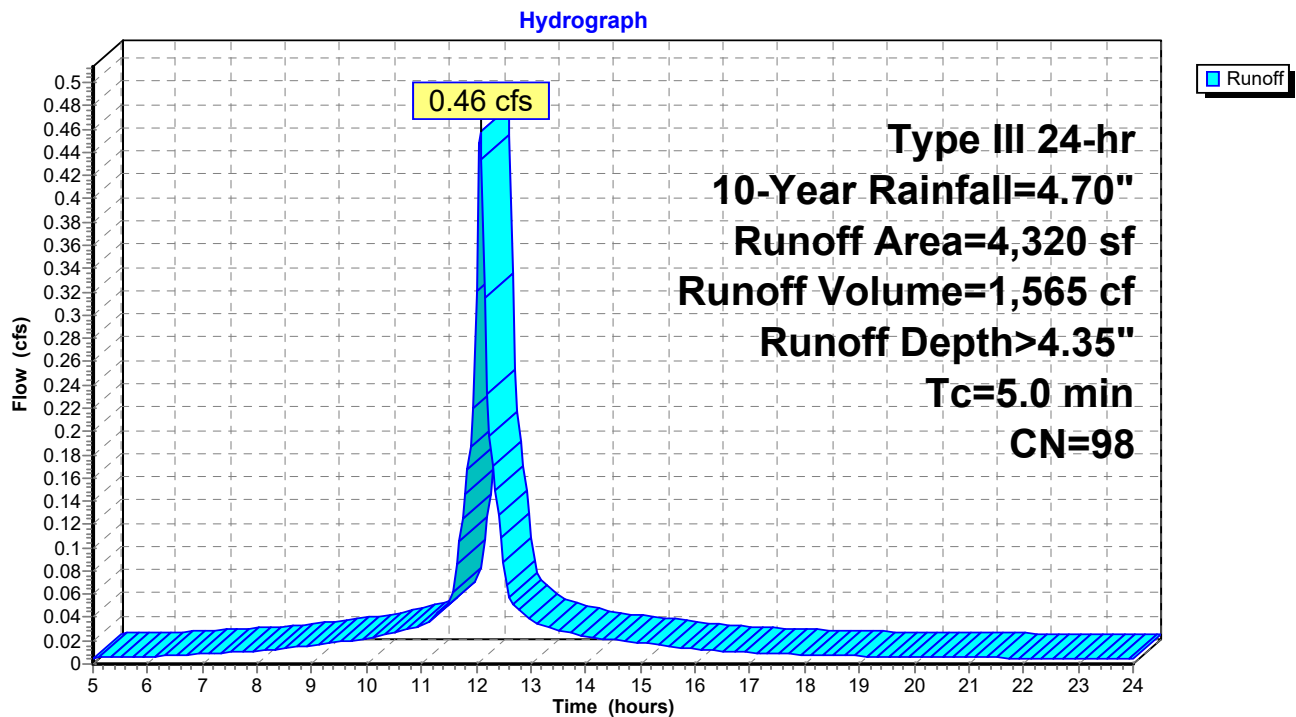
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD6: BLD 6



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD7: BLD 7

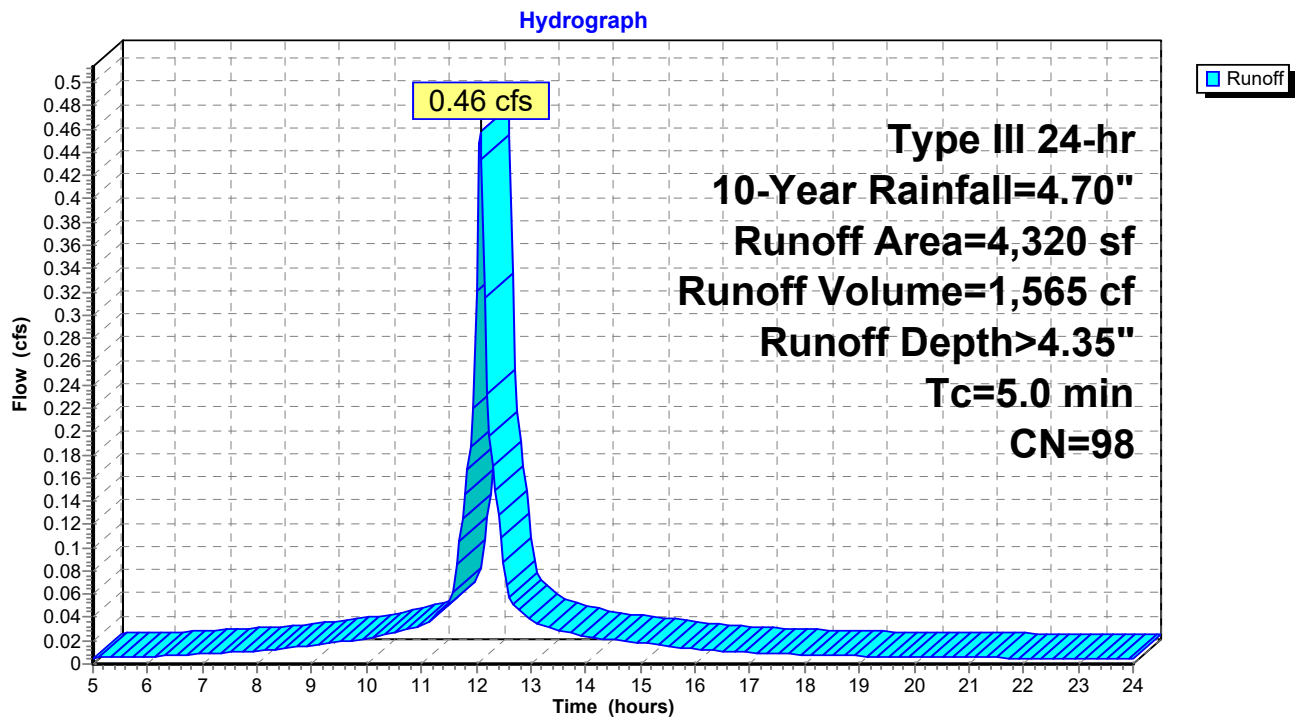
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD7: BLD 7



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment BLD8: BLD 8

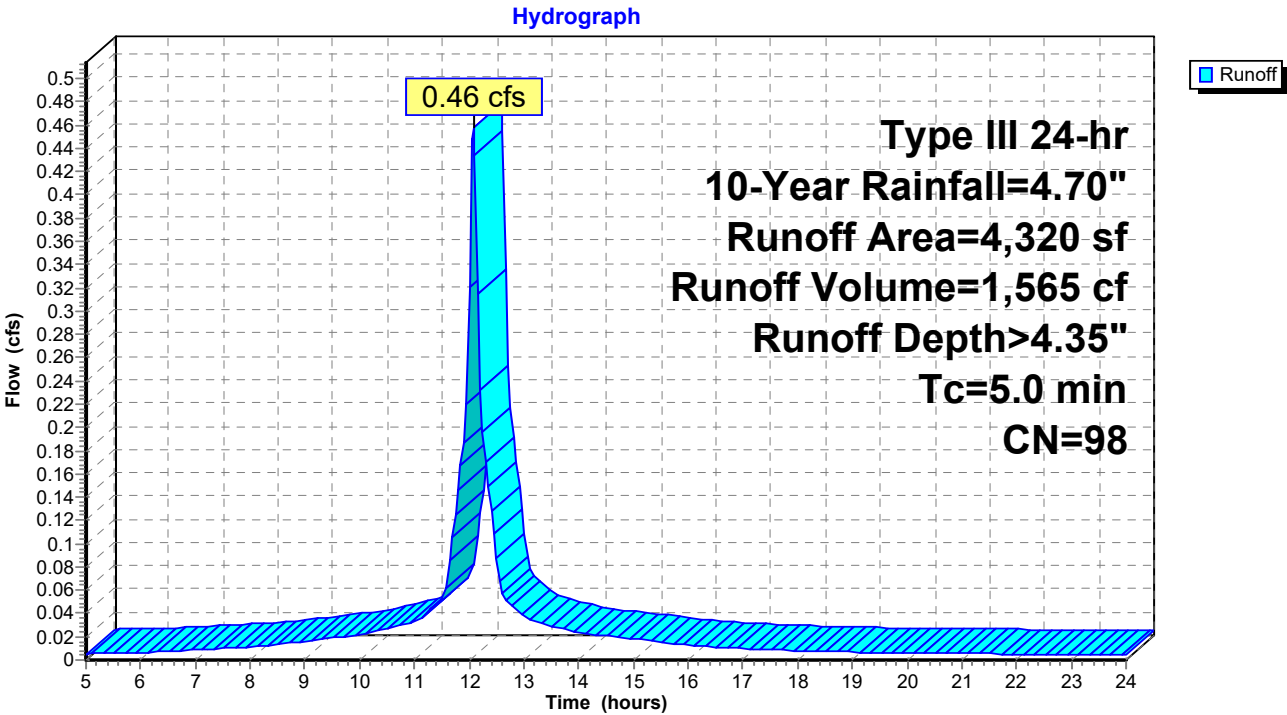
Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf, Depth> 4.35"
Routed to Pond 10P : DRYWELL UNIT 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD8: BLD 8



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment GAR1: GARAGE 1

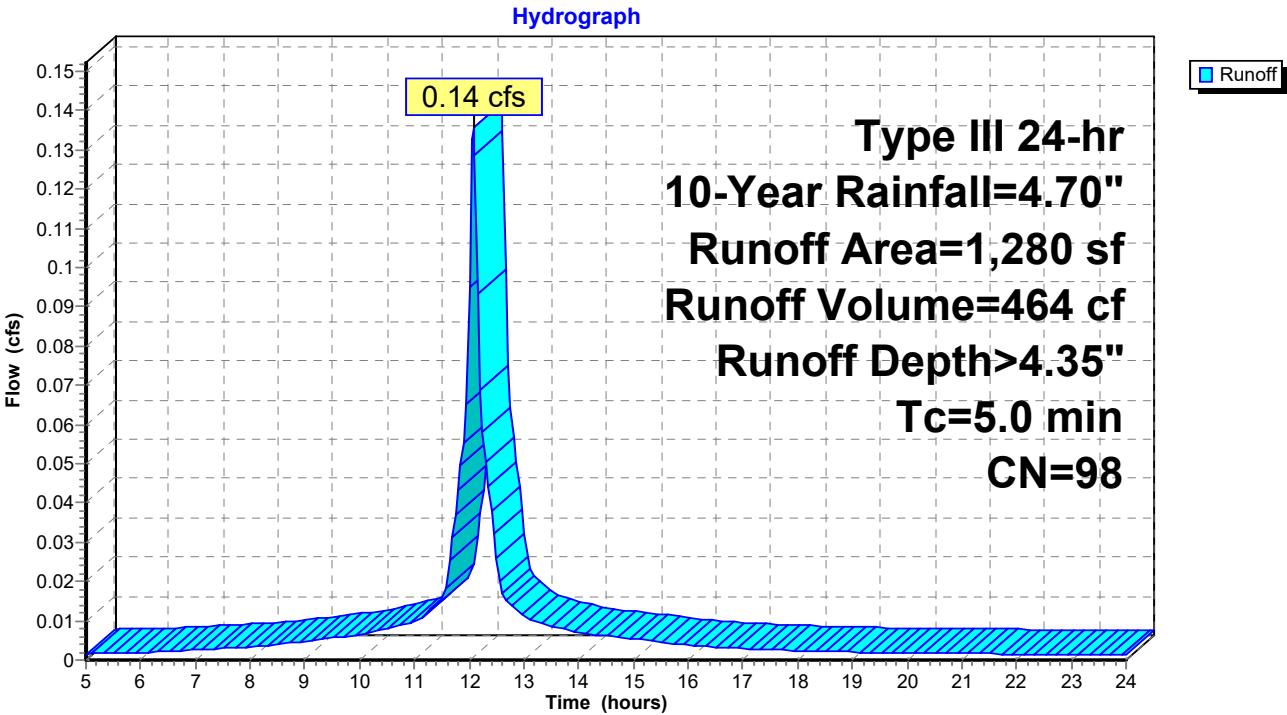
Runoff = 0.14 cfs @ 12.07 hrs, Volume= 464 cf, Depth> 4.35"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR1: GARAGE 1



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment GAR2: GARAGE 2

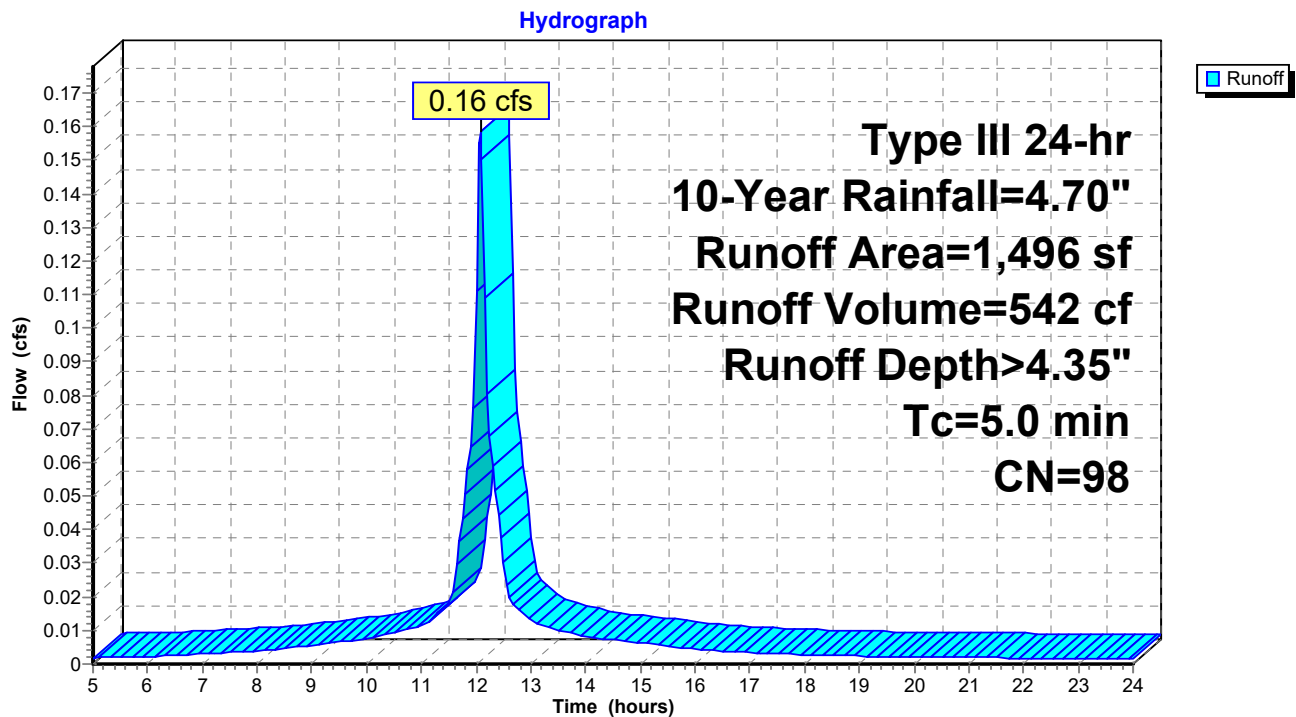
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 542 cf, Depth> 4.35"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR2: GARAGE 2



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment GAR3: GARAGE 3

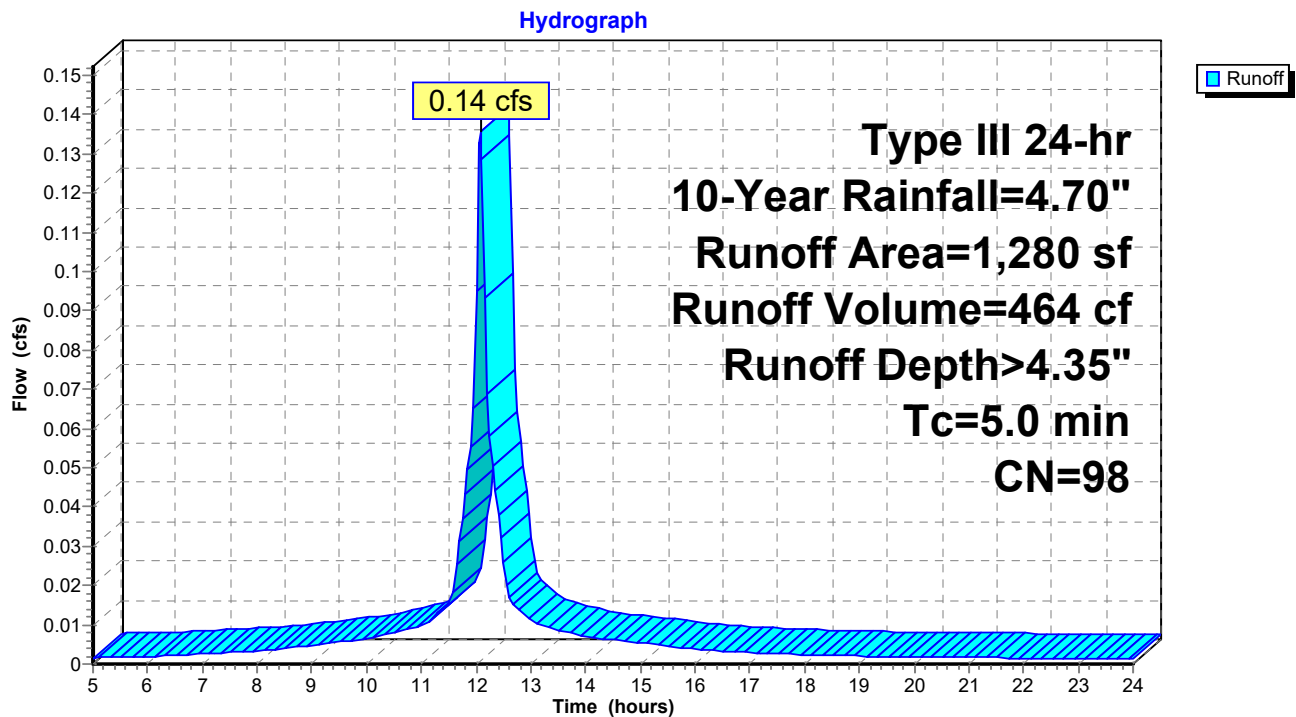
Runoff = 0.14 cfs @ 12.07 hrs, Volume= 464 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR3: GARAGE 3



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Type III 24-hr 10-Year Rainfall=4.70"

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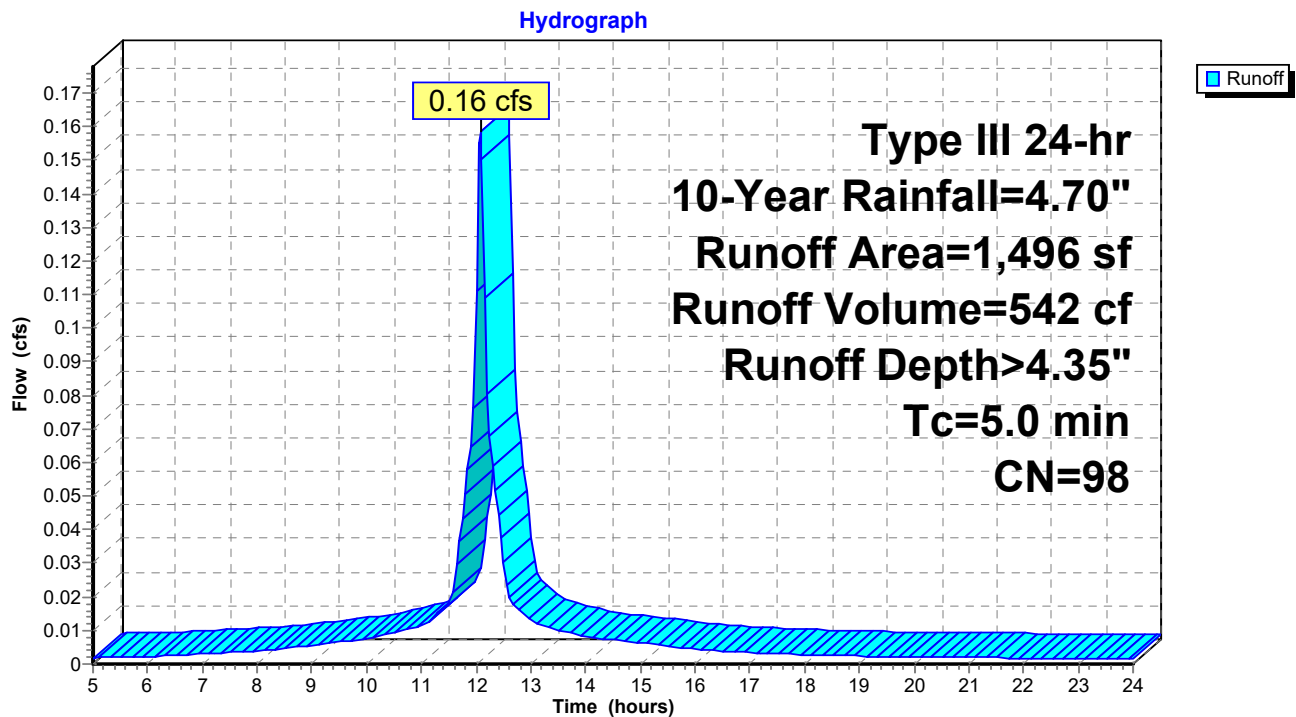
Summary for Subcatchment GAR4: GARAGE 4

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 542 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR4: GARAGE 4

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment GAR5: GARAGE 5

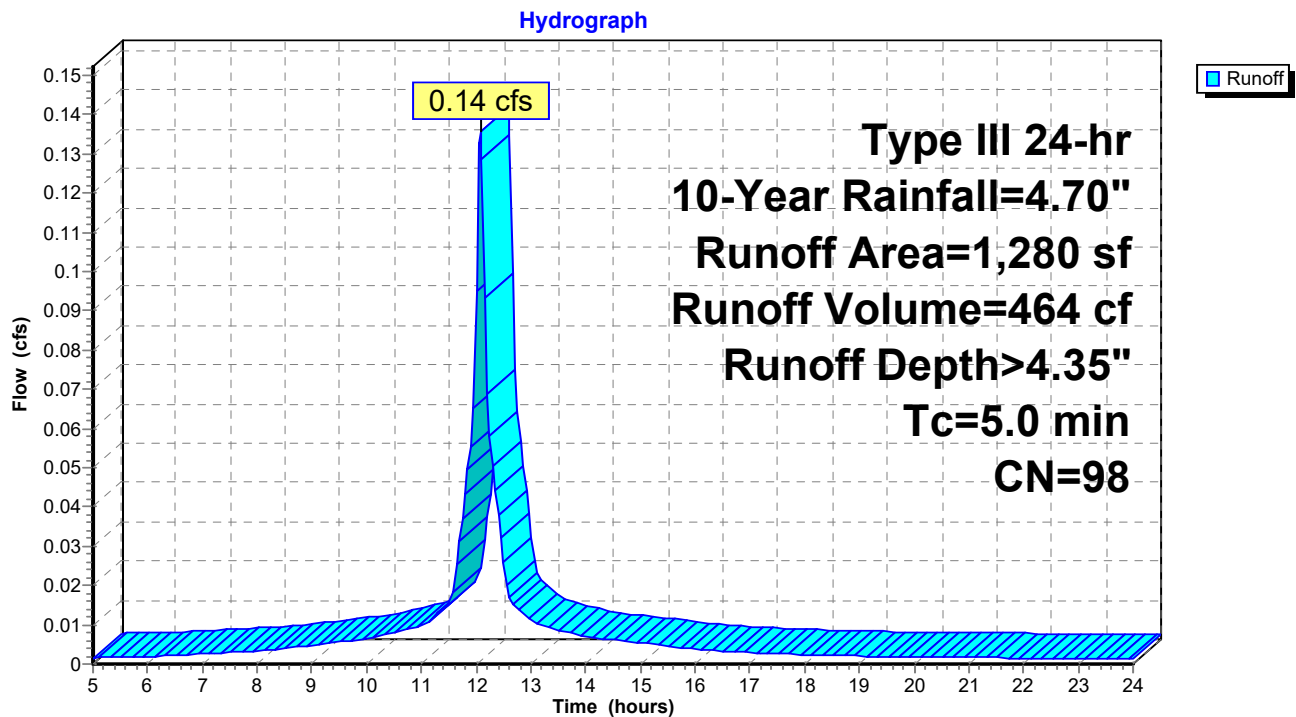
Runoff = 0.14 cfs @ 12.07 hrs, Volume= 464 cf, Depth> 4.35"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR5: GARAGE 5



Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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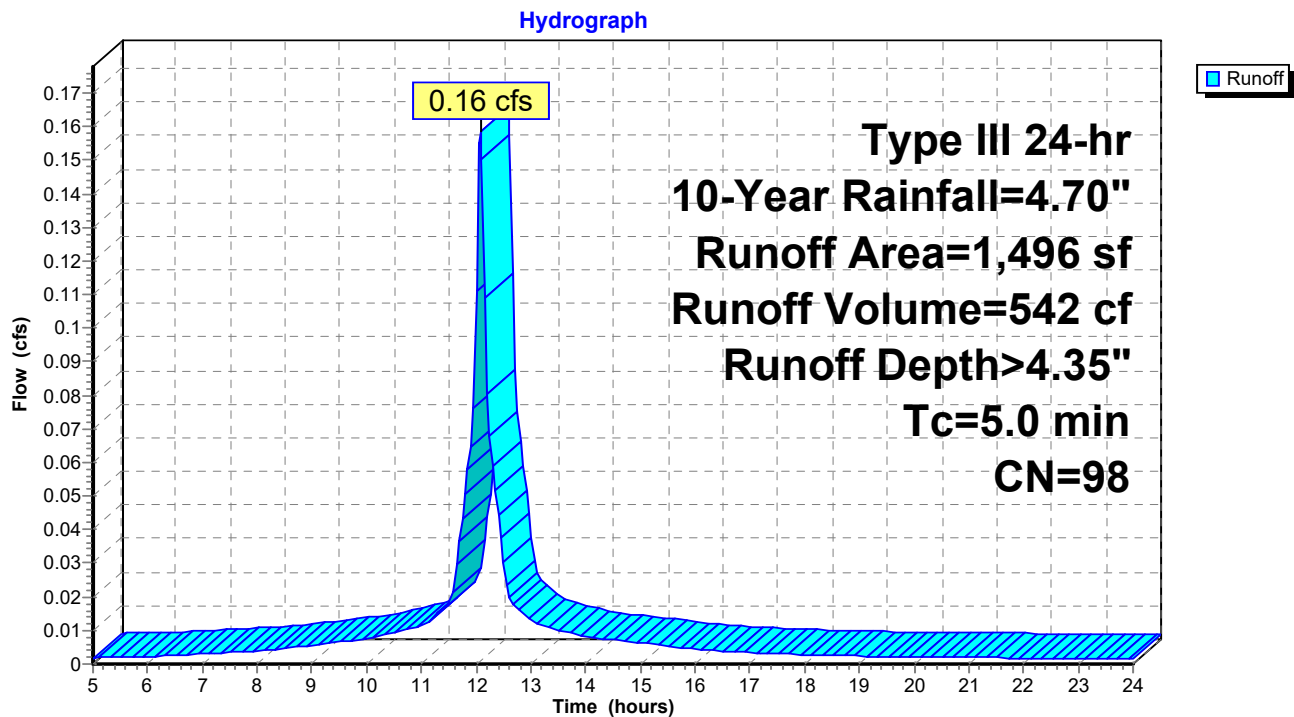
Summary for Subcatchment GAR7: GARAGE 7

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 542 cf, Depth> 4.35"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR7: GARAGE 7

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Type III 24-hr 10-Year Rainfall=4.70"

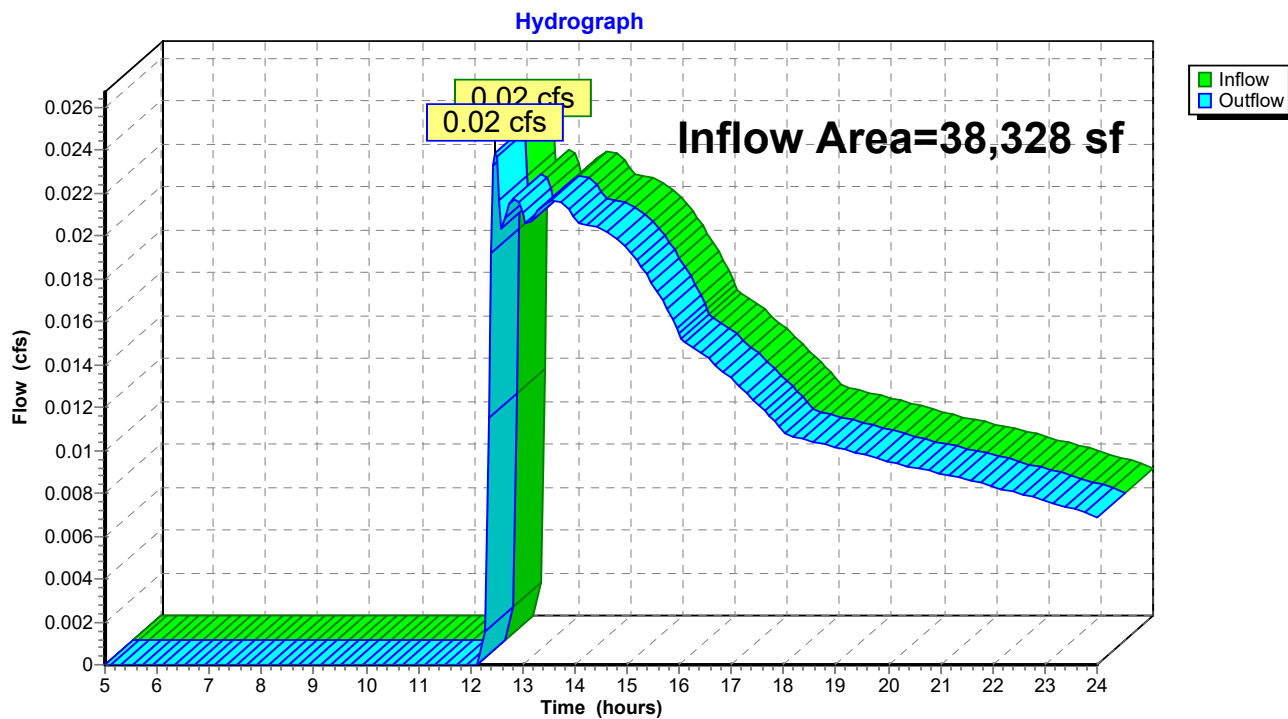
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Summary for Reach DPBpost: DP-B

Inflow Area = 38,328 sf, 2.80% Impervious, Inflow Depth > 0.17" for 10-Year event
Inflow = 0.02 cfs @ 12.48 hrs, Volume= 551 cf
Outflow = 0.02 cfs @ 12.48 hrs, Volume= 551 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPBpost: DP-B



Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 2P: DRYWELL UNIT 2

Inflow Area = 83,663 sf, 65.29% Impervious, Inflow Depth > 1.28" for 10-Year event
 Inflow = 3.00 cfs @ 12.08 hrs, Volume= 8,949 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 80.62' @ 24.00 hrs Surf.Area= 4,618 sf Storage= 8,943 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

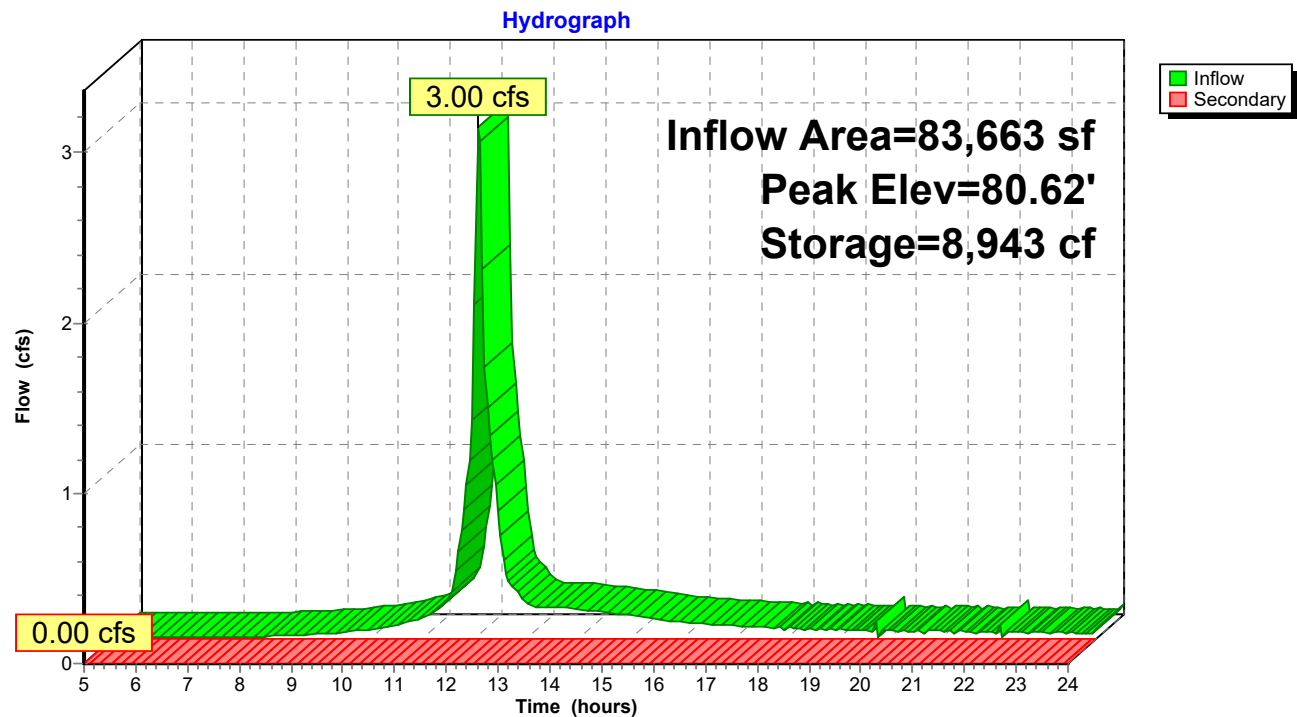
Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,418 cf	59.20'W x 78.00'L x 5.00'H Field A 23,088 cf Overall - 14,542 cf Embedded = 8,546 cf x 40.0% Voids
#2A	78.30'	10,953 cf	Concrete Galley 4x4x4 x 247 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 247 Chambers in 13 Rows
		14,371 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 2P: DRYWELL UNIT 2



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	14,371
77.90	185	83.20	14,371
78.00	369	83.30	14,371
78.10	554	83.40	14,371
78.20	739	83.50	14,371
78.30	924	83.60	14,371
78.40	1,259	83.70	14,371
78.50	1,596	83.80	14,371
78.60	1,941	83.90	14,371
78.70	2,290	84.00	14,371
78.80	2,640	84.10	14,371
78.90	2,989	84.20	14,371
79.00	3,338	84.30	14,371
79.10	3,686	84.40	14,371
79.20	4,034	84.50	14,371
79.30	4,382	84.60	14,371
79.40	4,730	84.70	14,371
79.50	5,077	84.80	14,371
79.60	5,425	84.90	14,371
79.70	5,771	85.00	14,371
79.80	6,118	85.10	14,371
79.90	6,464	85.20	14,371
80.00	6,810	85.30	14,371
80.10	7,156	85.40	14,371
80.20	7,502	85.50	14,371
80.30	7,847	85.60	14,371
80.40	8,192	85.70	14,371
80.50	8,536	85.80	14,371
80.60	8,881	85.90	14,371
80.70	9,225	86.00	14,371
80.80	9,569	86.10	14,371
80.90	9,912	86.20	14,371
81.00	10,256	86.30	14,371
81.10	10,599	86.40	14,371
81.20	10,941	86.50	14,371
81.30	11,284	86.60	14,371
81.40	11,626	86.70	14,371
81.50	11,968	86.80	14,371
81.60	12,310	86.90	14,371
81.70	12,651	87.00	14,371
81.80	12,992	87.10	14,371
81.90	13,274	87.20	14,371
82.00	13,317	87.30	14,371
82.10	13,360	87.40	14,371
82.20	13,404	87.50	14,371
82.30	13,448	87.60	14,371
82.40	13,633	87.70	14,371
82.50	13,817	87.80	14,371
82.60	14,002	87.90	14,371
82.70	14,187	88.00	14,371
82.80	14,371	88.10	14,371
82.90	14,371		
83.00	14,371		

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 10P: DRYWELL UNIT 5

Inflow Area = 83,540 sf, 66.71% Impervious, Inflow Depth > 2.49" for 10-Year event
 Inflow = 5.50 cfs @ 12.08 hrs, Volume= 17,308 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 63.60' @ 24.00 hrs Surf.Area= 10,304 sf Storage= 17,302 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.05'	8,692 cf	55.40'W x 186.00'L x 5.00'H Field A 51,522 cf Overall - 29,791 cf Embedded = 21,731 cf x 40.0% Voids
#2A	61.55'	22,438 cf	Concrete Galley 4x4x4 x 506 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 506 Chambers in 11 Rows
		31,131 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.05' TW=0.00' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

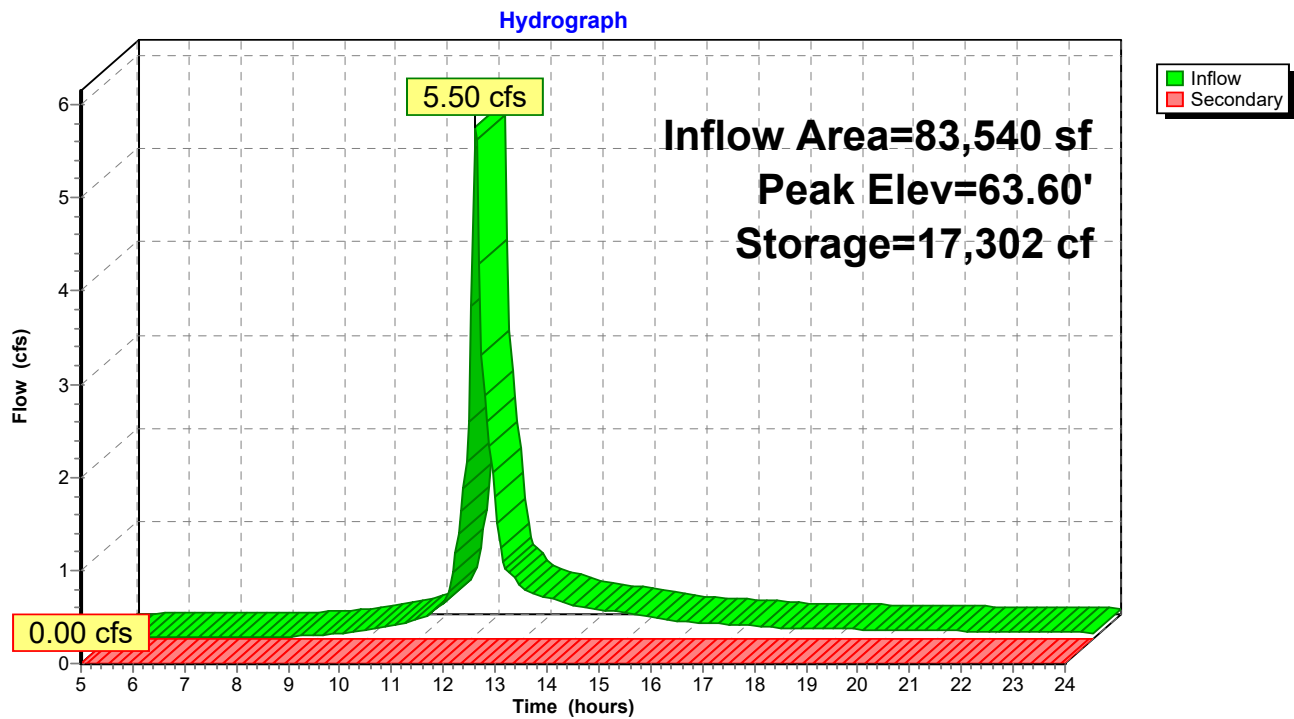
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Type III 24-hr 10-Year Rainfall=4.70"

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Pond 10P: DRYWELL UNIT 5



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
61.05	0.00	63.70	0.00
61.10	0.00	63.75	0.00
61.15	0.00	63.80	0.00
61.20	0.00	63.85	0.00
61.25	0.00	63.90	0.00
61.30	0.00	63.95	0.00
61.35	0.00	64.00	0.00
61.40	0.00	64.05	0.00
61.45	0.00	64.10	0.00
61.50	0.00	64.15	0.00
61.55	0.00	64.20	0.00
61.60	0.00	64.25	0.00
61.65	0.00	64.30	0.00
61.70	0.00	64.35	0.00
61.75	0.00	64.40	0.00
61.80	0.00	64.45	0.00
61.85	0.00	64.50	0.00
61.90	0.00	64.55	0.00
61.95	0.00	64.60	0.00
62.00	0.00	64.65	0.00
62.05	0.00	64.70	0.00
62.10	0.00	64.75	0.00
62.15	0.00	64.80	0.00
62.20	0.00	64.85	0.00
62.25	0.00	64.90	0.00
62.30	0.00	64.95	0.00
62.35	0.00	65.00	0.00
62.40	0.00	65.05	0.00
62.45	0.00	65.10	0.00
62.50	0.00	65.15	0.00
62.55	0.00	65.20	0.00
62.60	0.00	65.25	0.00
62.65	0.00	65.30	0.00
62.70	0.00	65.35	0.00
62.75	0.00	65.40	0.00
62.80	0.00	65.45	0.00
62.85	0.00	65.50	0.00
62.90	0.00	65.55	0.00
62.95	0.00	65.60	0.00
63.00	0.00	65.65	0.00
63.05	0.00	65.70	0.00
63.10	0.00	65.75	0.00
63.15	0.00	65.80	0.00
63.20	0.00	65.85	0.00
63.25	0.00	65.90	0.00
63.30	0.00	65.95	0.00
63.35	0.00	66.00	0.00
63.40	0.00	66.05	0.27
63.45	0.00		
63.50	0.00		
63.55	0.00		
63.60	0.00		
63.65	0.00		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
61.05	0	63.70	18,030
61.10	206	63.75	18,400
61.15	412	63.80	18,770
61.20	618	63.85	19,139
61.25	824	63.90	19,509
61.30	1,030	63.95	19,878
61.35	1,237	64.00	20,247
61.40	1,443	64.05	20,616
61.45	1,649	64.10	20,985
61.50	1,855	64.15	21,354
61.55	2,061	64.20	21,723
61.60	2,422	64.25	22,091
61.65	2,782	64.30	22,459
61.70	3,143	64.35	22,828
61.75	3,506	64.40	23,196
61.80	3,874	64.45	23,564
61.85	4,246	64.50	23,931
61.90	4,621	64.55	24,299
61.95	4,996	64.60	24,666
62.00	5,371	64.65	25,034
62.05	5,746	64.70	25,401
62.10	6,120	64.75	25,768
62.15	6,495	64.80	26,135
62.20	6,869	64.85	26,502
62.25	7,243	64.90	26,868
62.30	7,617	64.95	27,235
62.35	7,991	65.00	27,601
62.40	8,364	65.05	27,968
62.45	8,738	65.10	28,334
62.50	9,111	65.15	28,578
62.55	9,484	65.20	28,639
62.60	9,857	65.25	28,700
62.65	10,230	65.30	28,762
62.70	10,603	65.35	28,823
62.75	10,976	65.40	28,885
62.80	11,348	65.45	28,946
62.85	11,721	65.50	29,008
62.90	12,093	65.55	29,070
62.95	12,465	65.60	29,276
63.00	12,837	65.65	29,482
63.05	13,209	65.70	29,688
63.10	13,581	65.75	29,894
63.15	13,952	65.80	30,100
63.20	14,324	65.85	30,306
63.25	14,695	65.90	30,512
63.30	15,066	65.95	30,718
63.35	15,437	66.00	30,925
63.40	15,808	66.05	31,131
63.45	16,179		
63.50	16,549		
63.55	16,920		
63.60	17,290		
63.65	17,660		

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 31P: DRYWELL UNIT 3

Inflow Area = 21,336 sf, 100.00% Impervious, Inflow Depth > 4.35" for 10-Year event
 Inflow = 2.27 cfs @ 12.07 hrs, Volume= 7,731 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 41P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 85.17' @ 24.00 hrs Surf.Area= 3,622 sf Storage= 7,729 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	82.00'	1,660 cf	28.40'W x 74.00'L x 5.00'H Field A 10,508 cf Overall - 6,359 cf Embedded = 4,149 cf x 40.0% Voids
#2A	82.50'	4,789 cf	Concrete Galley 4x4x4 x 108 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 108 Chambers in 6 Rows
#3B	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field B 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#4B	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #3 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
#5C	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field C 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#6C	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #5 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
		10,986 cf	Total Available Storage

Storage Group A created with Chamber Wizard
 Storage Group B created with Chamber Wizard
 Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.00'	6.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=82.00' TW=80.10' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Controls 0.00 cfs)

Bridal Path Post

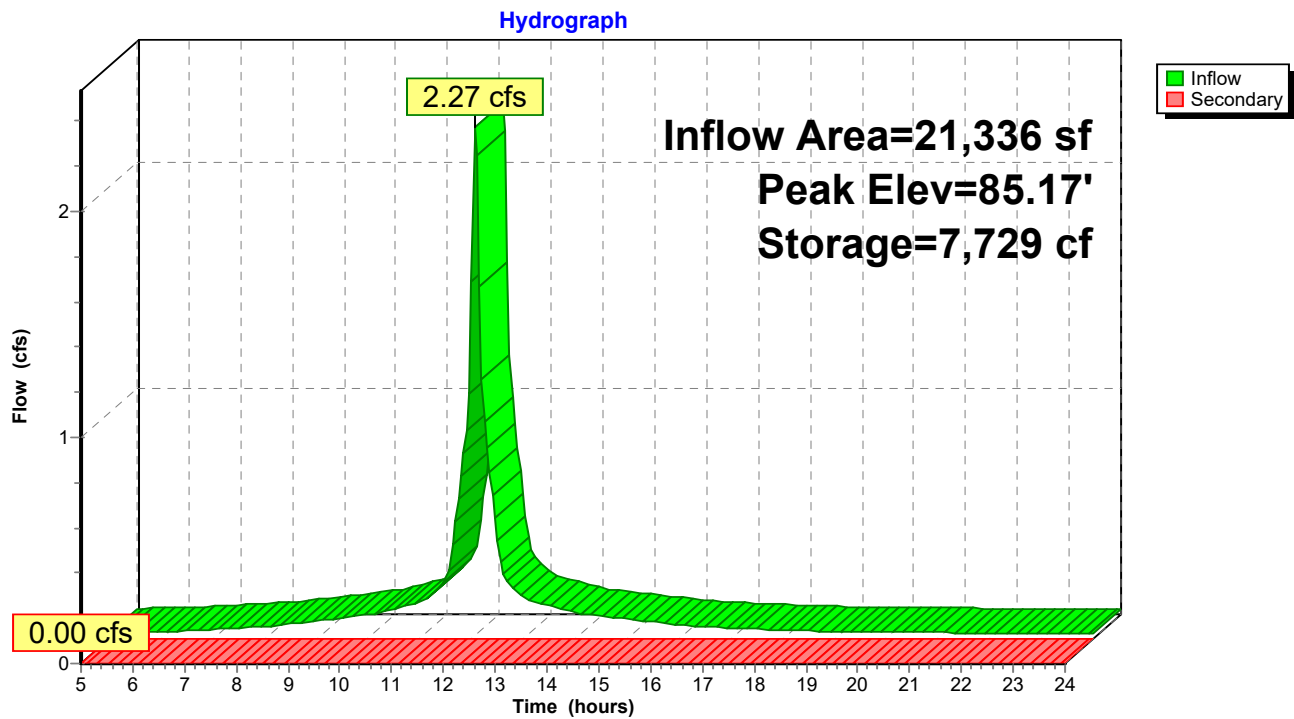
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Type III 24-hr 10-Year Rainfall=4.70"

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Pond 31P: DRYWELL UNIT 3



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
82.00	0.00	84.65	0.00	87.30	0.00
82.05	0.00	84.70	0.00	87.35	0.00
82.10	0.00	84.75	0.00	87.40	0.00
82.15	0.00	84.80	0.00	87.45	0.00
82.20	0.00	84.85	0.00	87.50	0.00
82.25	0.00	84.90	0.00	87.55	0.00
82.30	0.00	84.95	0.00	87.60	0.00
82.35	0.00	85.00	0.00	87.65	0.00
82.40	0.00	85.05	0.00	87.70	0.00
82.45	0.00	85.10	0.00	87.75	0.00
82.50	0.00	85.15	0.00	87.80	0.00
82.55	0.00	85.20	0.00	87.85	0.00
82.60	0.00	85.25	0.00	87.90	0.00
82.65	0.00	85.30	0.00	87.95	0.00
82.70	0.00	85.35	0.00	88.00	0.00
82.75	0.00	85.40	0.00		
82.80	0.00	85.45	0.00		
82.85	0.00	85.50	0.00		
82.90	0.00	85.55	0.00		
82.95	0.00	85.60	0.00		
83.00	0.00	85.65	0.00		
83.05	0.00	85.70	0.00		
83.10	0.00	85.75	0.00		
83.15	0.00	85.80	0.00		
83.20	0.00	85.85	0.00		
83.25	0.00	85.90	0.00		
83.30	0.00	85.95	0.00		
83.35	0.00	86.00	0.00		
83.40	0.00	86.05	0.00		
83.45	0.00	86.10	0.00		
83.50	0.00	86.15	0.00		
83.55	0.00	86.20	0.00		
83.60	0.00	86.25	0.00		
83.65	0.00	86.30	0.00		
83.70	0.00	86.35	0.00		
83.75	0.00	86.40	0.00		
83.80	0.00	86.45	0.00		
83.85	0.00	86.50	0.00		
83.90	0.00	86.55	0.00		
83.95	0.00	86.60	0.00		
84.00	0.00	86.65	0.00		
84.05	0.00	86.70	0.00		
84.10	0.00	86.75	0.00		
84.15	0.00	86.80	0.00		
84.20	0.00	86.85	0.00		
84.25	0.00	86.90	0.00		
84.30	0.00	86.95	0.00		
84.35	0.00	87.00	0.00		
84.40	0.00	87.05	0.00		
84.45	0.00	87.10	0.00		
84.50	0.00	87.15	0.00		
84.55	0.00	87.20	0.00		
84.60	0.00	87.25	0.00		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
82.00	0	84.65	6,367	87.30	10,986
82.05	72	84.70	6,498	87.35	10,986
82.10	145	84.75	6,629	87.40	10,986
82.15	217	84.80	6,759	87.45	10,986
82.20	290	84.85	6,890	87.50	10,986
82.25	362	84.90	7,020	87.55	10,986
82.30	435	84.95	7,151	87.60	10,986
82.35	507	85.00	7,281	87.65	10,986
82.40	579	85.05	7,411	87.70	10,986
82.45	652	85.10	7,542	87.75	10,986
82.50	724	85.15	7,672	87.80	10,986
82.55	852	85.20	7,802	87.85	10,986
82.60	979	85.25	7,932	87.90	10,986
82.65	1,107	85.30	8,062	87.95	10,986
82.70	1,235	85.35	8,192	88.00	10,986
82.75	1,365	85.40	8,322		
82.80	1,496	85.45	8,452		
82.85	1,629	85.50	8,582		
82.90	1,762	85.55	8,712		
82.95	1,894	85.60	8,842		
83.00	2,026	85.65	8,972		
83.05	2,159	85.70	9,101		
83.10	2,291	85.75	9,231		
83.15	2,423	85.80	9,361		
83.20	2,555	85.85	9,490		
83.25	2,688	85.90	9,620		
83.30	2,820	85.95	9,749		
83.35	2,952	86.00	9,879		
83.40	3,084	86.05	10,008		
83.45	3,216	86.10	10,094		
83.50	3,347	86.15	10,115		
83.55	3,479	86.20	10,136		
83.60	3,611	86.25	10,157		
83.65	3,743	86.30	10,178		
83.70	3,875	86.35	10,199		
83.75	4,006	86.40	10,220		
83.80	4,138	86.45	10,241		
83.85	4,269	86.50	10,262		
83.90	4,401	86.55	10,334		
83.95	4,532	86.60	10,407		
84.00	4,664	86.65	10,479		
84.05	4,795	86.70	10,552		
84.10	4,926	86.75	10,624		
84.15	5,058	86.80	10,696		
84.20	5,189	86.85	10,769		
84.25	5,320	86.90	10,841		
84.30	5,451	86.95	10,914		
84.35	5,582	87.00	10,986		
84.40	5,713	87.05	10,986		
84.45	5,844	87.10	10,986		
84.50	5,975	87.15	10,986		
84.55	6,106	87.20	10,986		
84.60	6,236	87.25	10,986		

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 36P: DRYWELL UNIT 4

Inflow Area = 5,816 sf, 100.00% Impervious, Inflow Depth > 20.86" for 10-Year event
 Inflow = 3.00 cfs @ 12.08 hrs, Volume= 10,112 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 40P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 80.62' @ 24.00 hrs Surf.Area= 5,220 sf Storage= 10,111 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,846 cf	90.00'W x 58.00'L x 5.00'H Field A 26,100 cf Overall - 16,485 cf Embedded = 9,615 cf x 40.0% Voids
#2A	78.30'	12,417 cf	Concrete Galley 4x4x4 x 280 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 280 Chambers in 20 Rows
		16,262 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

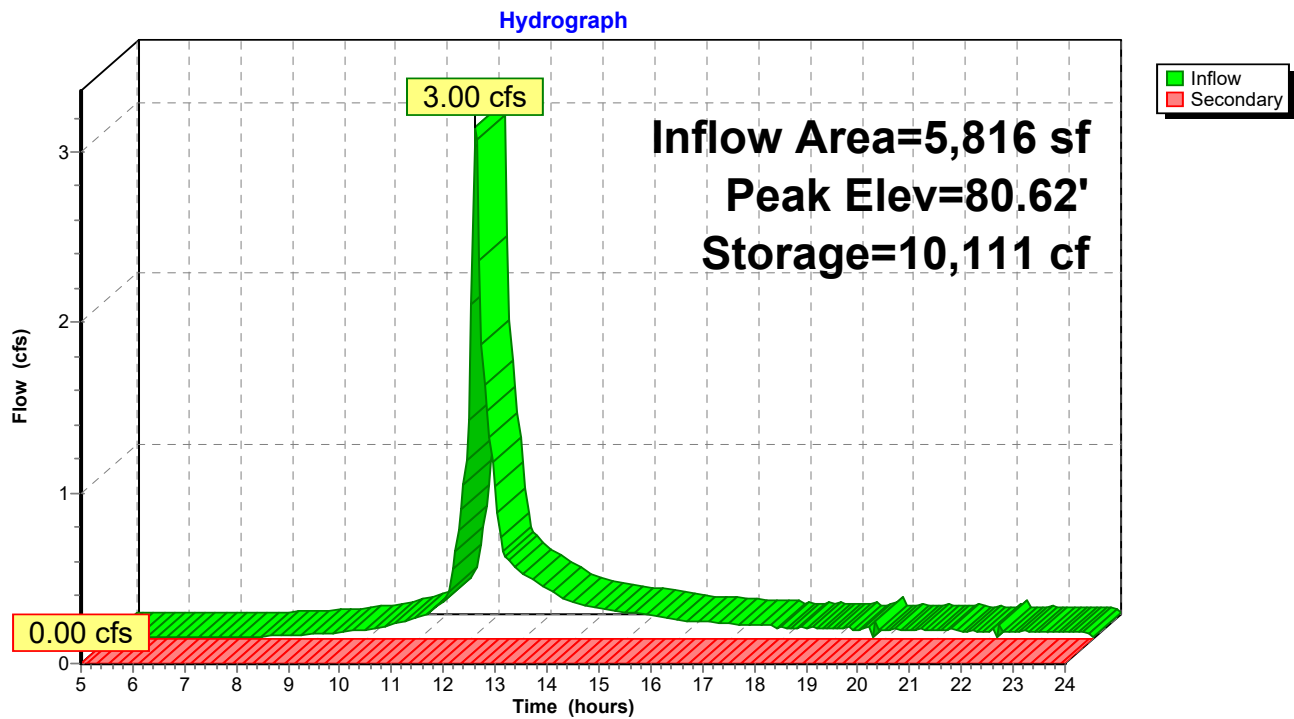
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Type III 24-hr 10-Year Rainfall=4.70"

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Pond 36P: DRYWELL UNIT 4



Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Stage-Discharge for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	16,262
77.90	209	83.20	16,262
78.00	418	83.30	16,262
78.10	626	83.40	16,262
78.20	835	83.50	16,262
78.30	1,044	83.60	16,262
78.40	1,424	83.70	16,262
78.50	1,805	83.80	16,262
78.60	2,196	83.90	16,262
78.70	2,591	84.00	16,262
78.80	2,987	84.10	16,262
78.90	3,382	84.20	16,262
79.00	3,777	84.30	16,262
79.10	4,171	84.40	16,262
79.20	4,565	84.50	16,262
79.30	4,959	84.60	16,262
79.40	5,353	84.70	16,262
79.50	5,746	84.80	16,262
79.60	6,139	84.90	16,262
79.70	6,531	85.00	16,262
79.80	6,924	85.10	16,262
79.90	7,316	85.20	16,262
80.00	7,707	85.30	16,262
80.10	8,099	85.40	16,262
80.20	8,490	85.50	16,262
80.30	8,881	85.60	16,262
80.40	9,271	85.70	16,262
80.50	9,661	85.80	16,262
80.60	10,051	85.90	16,262
80.70	10,441	86.00	16,262
80.80	10,830	86.10	16,262
80.90	11,219	86.20	16,262
81.00	11,607	86.30	16,262
81.10	11,996	86.40	16,262
81.20	12,384	86.50	16,262
81.30	12,771	86.60	16,262
81.40	13,159	86.70	16,262
81.50	13,546	86.80	16,262
81.60	13,932	86.90	16,262
81.70	14,319	87.00	16,262
81.80	14,705	87.10	16,262
81.90	15,023	87.20	16,262
82.00	15,072	87.30	16,262
82.10	15,120	87.40	16,262
82.20	15,169	87.50	16,262
82.30	15,218	87.60	16,262
82.40	15,427	87.70	16,262
82.50	15,636	87.80	16,262
82.60	15,845	87.90	16,262
82.70	16,054	88.00	16,262
82.80	16,262	88.10	16,262
82.90	16,262		
83.00	16,262		

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 38P: DRYWELL UNIT 1

Inflow Area = 4,320 sf, 100.00% Impervious, Inflow Depth > 4.35" for 10-Year event
 Inflow = 0.46 cfs @ 12.07 hrs, Volume= 1,565 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 68.77' @ 24.00 hrs Surf.Area= 853 sf Storage= 1,565 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	66.00'	716 cf	32.80'W x 26.00'L x 5.00'H Field A 4,264 cf Overall - 2,473 cf Embedded = 1,791 cf x 40.0% Voids
#2A	66.50'	1,862 cf	Concrete Galley 4x4x4 x 42 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 42 Chambers in 7 Rows
		2,579 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	72.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.00' TW=63.52' (Dynamic Tailwater)
 1=Orifice/Grate (Controls 0.00 cfs)

Bridal Path Post

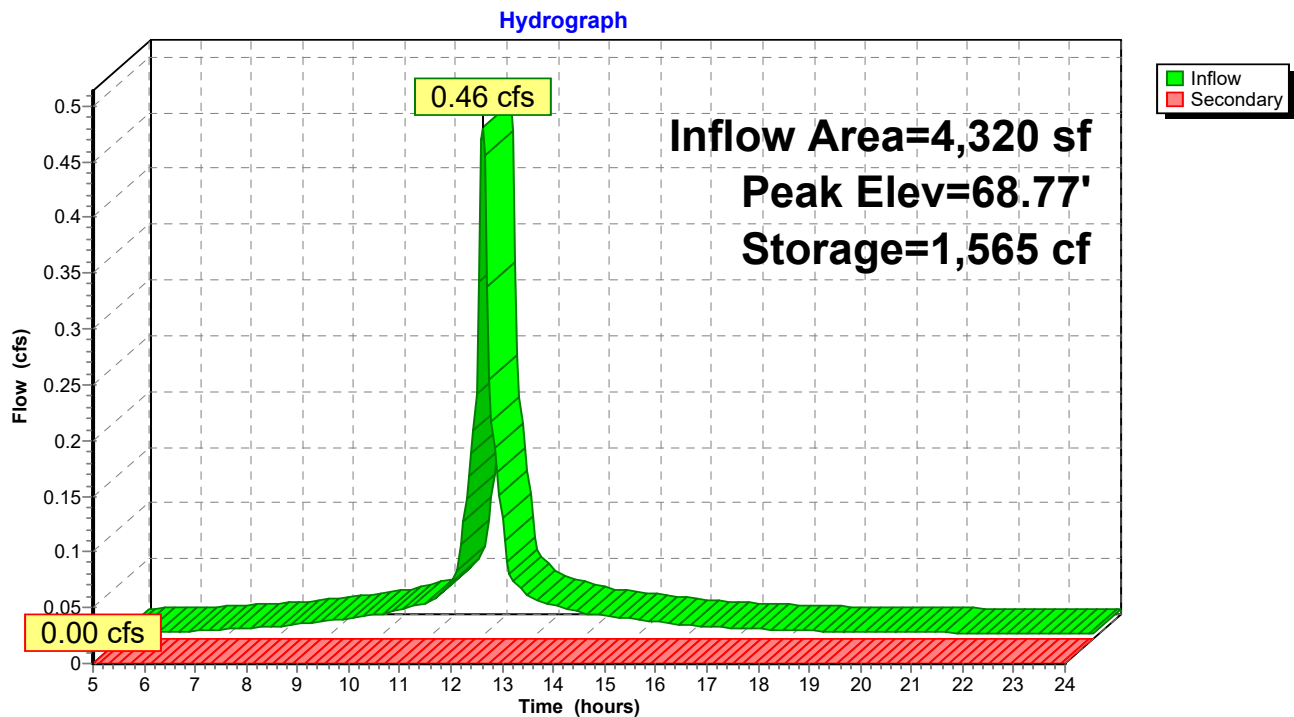
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Type III 24-hr 10-Year Rainfall=4.70"

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Pond 38P: DRYWELL UNIT 1



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
66.00	0.00	68.65	0.00	71.30	0.00
66.05	0.00	68.70	0.00	71.35	0.00
66.10	0.00	68.75	0.00	71.40	0.00
66.15	0.00	68.80	0.00	71.45	0.00
66.20	0.00	68.85	0.00	71.50	0.00
66.25	0.00	68.90	0.00	71.55	0.00
66.30	0.00	68.95	0.00	71.60	0.00
66.35	0.00	69.00	0.00	71.65	0.00
66.40	0.00	69.05	0.00	71.70	0.00
66.45	0.00	69.10	0.00	71.75	0.00
66.50	0.00	69.15	0.00	71.80	0.00
66.55	0.00	69.20	0.00	71.85	0.00
66.60	0.00	69.25	0.00	71.90	0.00
66.65	0.00	69.30	0.00	71.95	0.00
66.70	0.00	69.35	0.00	72.00	0.00
66.75	0.00	69.40	0.00		
66.80	0.00	69.45	0.00		
66.85	0.00	69.50	0.00		
66.90	0.00	69.55	0.00		
66.95	0.00	69.60	0.00		
67.00	0.00	69.65	0.00		
67.05	0.00	69.70	0.00		
67.10	0.00	69.75	0.00		
67.15	0.00	69.80	0.00		
67.20	0.00	69.85	0.00		
67.25	0.00	69.90	0.00		
67.30	0.00	69.95	0.00		
67.35	0.00	70.00	0.00		
67.40	0.00	70.05	0.00		
67.45	0.00	70.10	0.00		
67.50	0.00	70.15	0.00		
67.55	0.00	70.20	0.00		
67.60	0.00	70.25	0.00		
67.65	0.00	70.30	0.00		
67.70	0.00	70.35	0.00		
67.75	0.00	70.40	0.00		
67.80	0.00	70.45	0.00		
67.85	0.00	70.50	0.00		
67.90	0.00	70.55	0.00		
67.95	0.00	70.60	0.00		
68.00	0.00	70.65	0.00		
68.05	0.00	70.70	0.00		
68.10	0.00	70.75	0.00		
68.15	0.00	70.80	0.00		
68.20	0.00	70.85	0.00		
68.25	0.00	70.90	0.00		
68.30	0.00	70.95	0.00		
68.35	0.00	71.00	0.00		
68.40	0.00	71.05	0.00		
68.45	0.00	71.10	0.00		
68.50	0.00	71.15	0.00		
68.55	0.00	71.20	0.00		
68.60	0.00	71.25	0.00		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
66.00	0	68.65	1,494	71.30	2,579
66.05	17	68.70	1,525	71.35	2,579
66.10	34	68.75	1,555	71.40	2,579
66.15	51	68.80	1,586	71.45	2,579
66.20	68	68.85	1,616	71.50	2,579
66.25	85	68.90	1,647	71.55	2,579
66.30	102	68.95	1,678	71.60	2,579
66.35	119	69.00	1,708	71.65	2,579
66.40	136	69.05	1,739	71.70	2,579
66.45	154	69.10	1,769	71.75	2,579
66.50	171	69.15	1,800	71.80	2,579
66.55	200	69.20	1,830	71.85	2,579
66.60	230	69.25	1,861	71.90	2,579
66.65	260	69.30	1,891	71.95	2,579
66.70	290	69.35	1,922	72.00	2,579
66.75	321	69.40	1,952		
66.80	352	69.45	1,983		
66.85	383	69.50	2,013		
66.90	414	69.55	2,044		
66.95	445	69.60	2,074		
67.00	476	69.65	2,105		
67.05	507	69.70	2,135		
67.10	538	69.75	2,166		
67.15	569	69.80	2,196		
67.20	600	69.85	2,226		
67.25	631	69.90	2,257		
67.30	662	69.95	2,287		
67.35	693	70.00	2,317		
67.40	724	70.05	2,348		
67.45	755	70.10	2,368		
67.50	786	70.15	2,373		
67.55	817	70.20	2,378		
67.60	848	70.25	2,383		
67.65	878	70.30	2,388		
67.70	909	70.35	2,393		
67.75	940	70.40	2,398		
67.80	971	70.45	2,403		
67.85	1,002	70.50	2,408		
67.90	1,033	70.55	2,425		
67.95	1,064	70.60	2,443		
68.00	1,094	70.65	2,460		
68.05	1,125	70.70	2,477		
68.10	1,156	70.75	2,494		
68.15	1,187	70.80	2,511		
68.20	1,218	70.85	2,528		
68.25	1,248	70.90	2,545		
68.30	1,279	70.95	2,562		
68.35	1,310	71.00	2,579		
68.40	1,340	71.05	2,579		
68.45	1,371	71.10	2,579		
68.50	1,402	71.15	2,579		
68.55	1,433	71.20	2,579		
68.60	1,463	71.25	2,579		

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 39P: CB 1

Inflow Area = 35,612 sf, 69.66% Impervious, Inflow Depth > 2.61" for 10-Year event
Inflow = 2.49 cfs @ 12.08 hrs, Volume= 7,741 cf
Outflow = 2.49 cfs @ 12.08 hrs, Volume= 7,741 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.49 cfs @ 12.08 hrs, Volume= 7,741 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

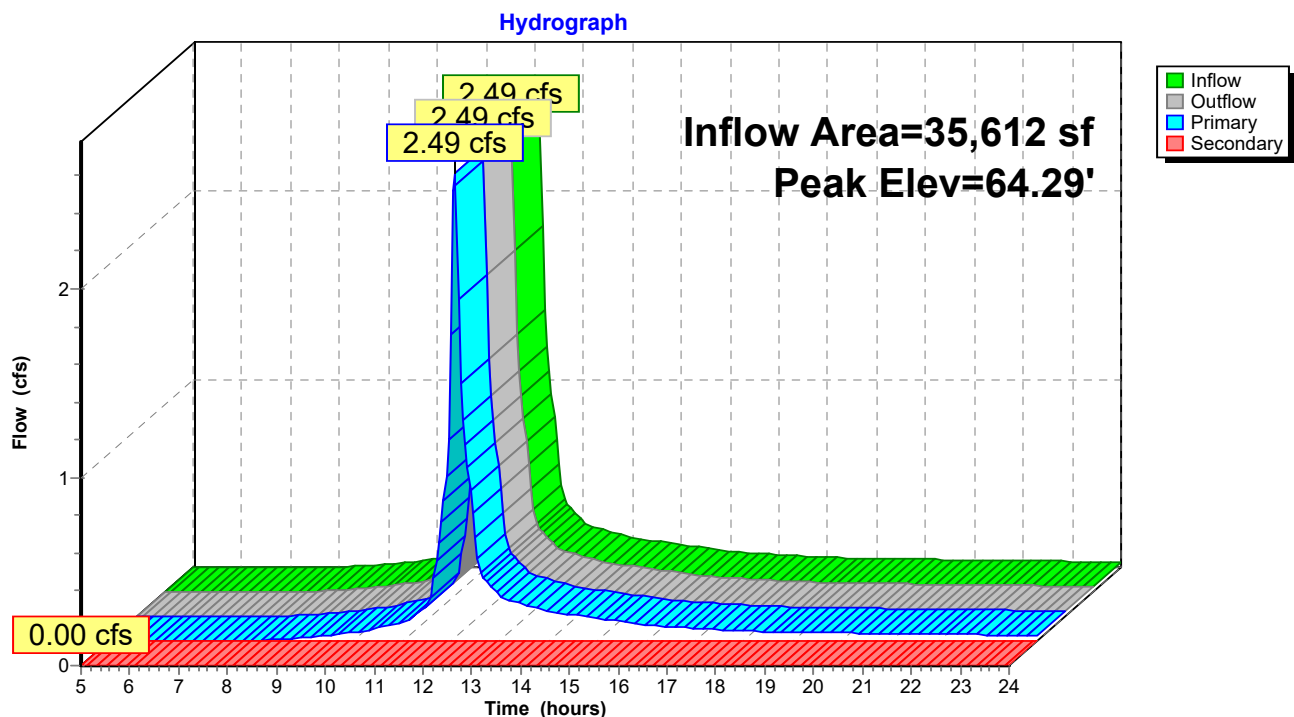
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.29' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.41 cfs @ 12.08 hrs HW=64.28' TW=61.98' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 2.41 cfs @ 3.00 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 39P: CB 1



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 39P: CB 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 39P: CB 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 40P: CB 2

Inflow Area = 43,608 sf, 61.00% Impervious, Inflow Depth > 2.20" for 10-Year event
Inflow = 2.56 cfs @ 12.08 hrs, Volume= 8,002 cf
Outflow = 2.56 cfs @ 12.08 hrs, Volume= 8,002 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.56 cfs @ 12.08 hrs, Volume= 8,002 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 64.31' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

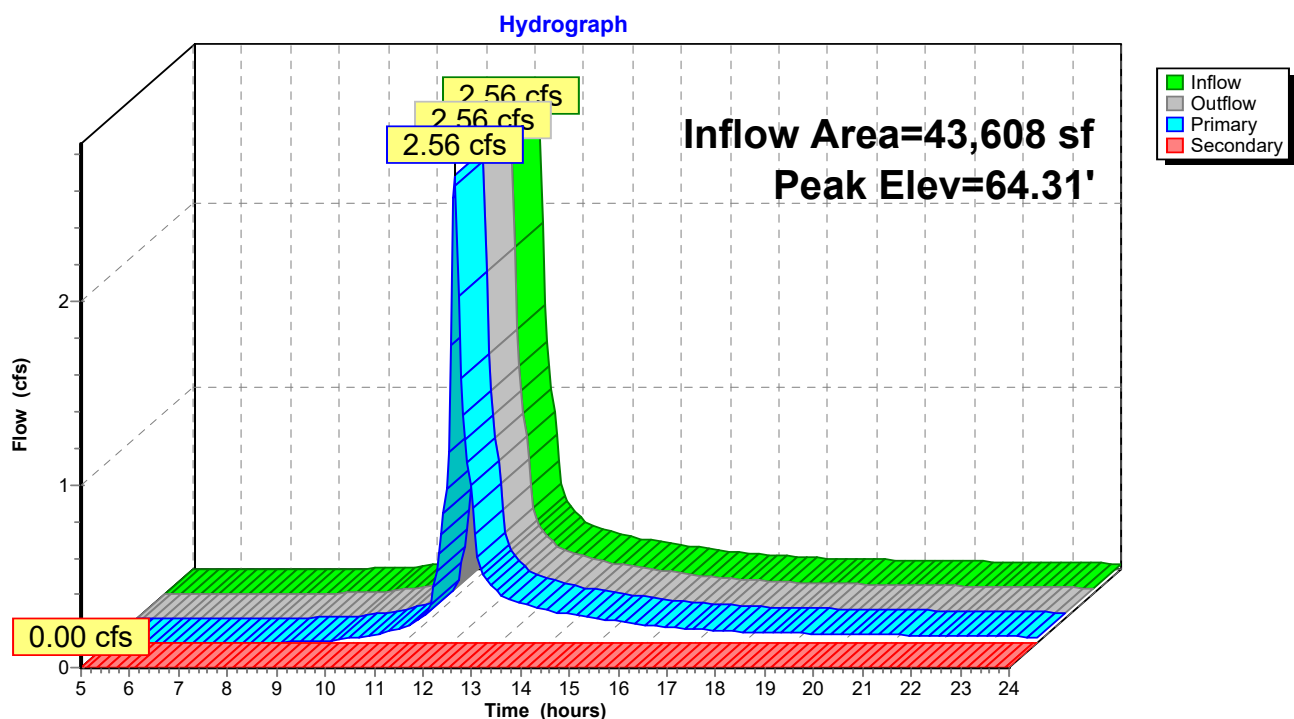
Primary OutFlow Max=2.47 cfs @ 12.08 hrs HW=64.29' TW=61.98' (Dynamic Tailwater)

↑**2=Culvert** (Inlet Controls 2.47 cfs @ 3.03 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 40P: CB 2



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 40P: CB 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 40P: CB 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 41P: CB 3

Inflow Area = 37,941 sf, 67.91% Impervious, Inflow Depth > 2.54" for 10-Year event
Inflow = 2.60 cfs @ 12.08 hrs, Volume= 8,042 cf
Outflow = 2.60 cfs @ 12.08 hrs, Volume= 8,042 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.60 cfs @ 12.08 hrs, Volume= 8,042 cf
Routed to Pond 44P : (new Pond)

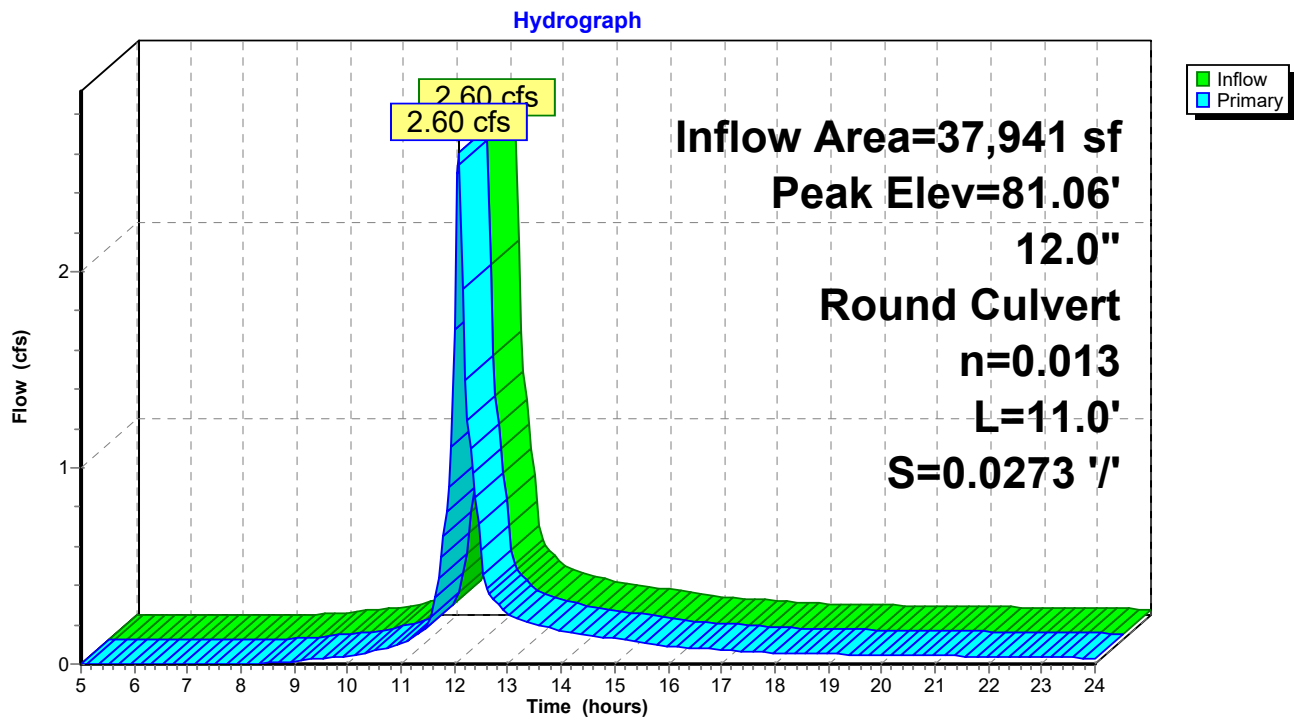
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 81.06' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0273 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.52 cfs @ 12.08 hrs HW=81.04' TW=80.07' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 2.52 cfs @ 3.30 fps)

Pond 41P: CB 3



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 41P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05
80.11	0.00	80.64	1.08
80.12	0.00	80.65	1.12
80.13	0.00	80.66	1.15
80.14	0.01	80.67	1.19
80.15	0.01	80.68	1.22
80.16	0.02	80.69	1.26
80.17	0.02	80.70	1.30
80.18	0.03	80.71	1.33
80.19	0.04	80.72	1.37
80.20	0.04	80.73	1.41
80.21	0.05	80.74	1.45
80.22	0.06	80.75	1.48
80.23	0.07	80.76	1.52
80.24	0.09	80.77	1.56
80.25	0.10	80.78	1.60
80.26	0.11	80.79	1.63
80.27	0.12	80.80	1.67
80.28	0.14	80.81	1.71
80.29	0.15	80.82	1.75
80.30	0.17	80.83	1.79
80.31	0.19	80.84	1.83
80.32	0.20	80.85	1.86
80.33	0.22	80.86	1.90
80.34	0.24	80.87	1.94
80.35	0.26	80.88	1.98
80.36	0.28	80.89	2.01
80.37	0.30	80.90	2.05
80.38	0.32	80.91	2.09
80.39	0.35	80.92	2.13
80.40	0.37	80.93	2.16
80.41	0.39	80.94	2.20
80.42	0.42	80.95	2.23
80.43	0.44	80.96	2.27
80.44	0.47	80.97	2.30
80.45	0.49	80.98	2.34
80.46	0.52	80.99	2.37
80.47	0.55	81.00	2.40
80.48	0.57	81.01	2.44
80.49	0.60	81.02	2.47
80.50	0.63	81.03	2.50
80.51	0.66	81.04	2.53
80.52	0.69	81.05	2.56
80.53	0.72	81.06	2.58
80.54	0.75	81.07	2.61
80.55	0.78	81.08	2.63
80.56	0.81	81.09	2.66
80.57	0.85	81.10	2.67
80.58	0.88		
80.59	0.91		
80.60	0.95		
80.61	0.98		
80.62	1.01		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 41P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0
80.11	0	80.64	0
80.12	0	80.65	0
80.13	0	80.66	0
80.14	0	80.67	0
80.15	0	80.68	0
80.16	0	80.69	0
80.17	0	80.70	0
80.18	0	80.71	0
80.19	0	80.72	0
80.20	0	80.73	0
80.21	0	80.74	0
80.22	0	80.75	0
80.23	0	80.76	0
80.24	0	80.77	0
80.25	0	80.78	0
80.26	0	80.79	0
80.27	0	80.80	0
80.28	0	80.81	0
80.29	0	80.82	0
80.30	0	80.83	0
80.31	0	80.84	0
80.32	0	80.85	0
80.33	0	80.86	0
80.34	0	80.87	0
80.35	0	80.88	0
80.36	0	80.89	0
80.37	0	80.90	0
80.38	0	80.91	0
80.39	0	80.92	0
80.40	0	80.93	0
80.41	0	80.94	0
80.42	0	80.95	0
80.43	0	80.96	0
80.44	0	80.97	0
80.45	0	80.98	0
80.46	0	80.99	0
80.47	0	81.00	0
80.48	0	81.01	0
80.49	0	81.02	0
80.50	0	81.03	0
80.51	0	81.04	0
80.52	0	81.05	0
80.53	0	81.06	0
80.54	0	81.07	0
80.55	0	81.08	0
80.56	0	81.09	0
80.57	0	81.10	0
80.58	0		
80.59	0		
80.60	0		
80.61	0		
80.62	0		

Bridal Path Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 42P: CB 3

Inflow Area = 39,906 sf, 57.74% Impervious, Inflow Depth > 2.05" for 10-Year event
Inflow = 2.18 cfs @ 12.08 hrs, Volume= 6,805 cf
Outflow = 2.18 cfs @ 12.08 hrs, Volume= 6,805 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 12.08 hrs, Volume= 6,805 cf
Routed to Pond 44P : (new Pond)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

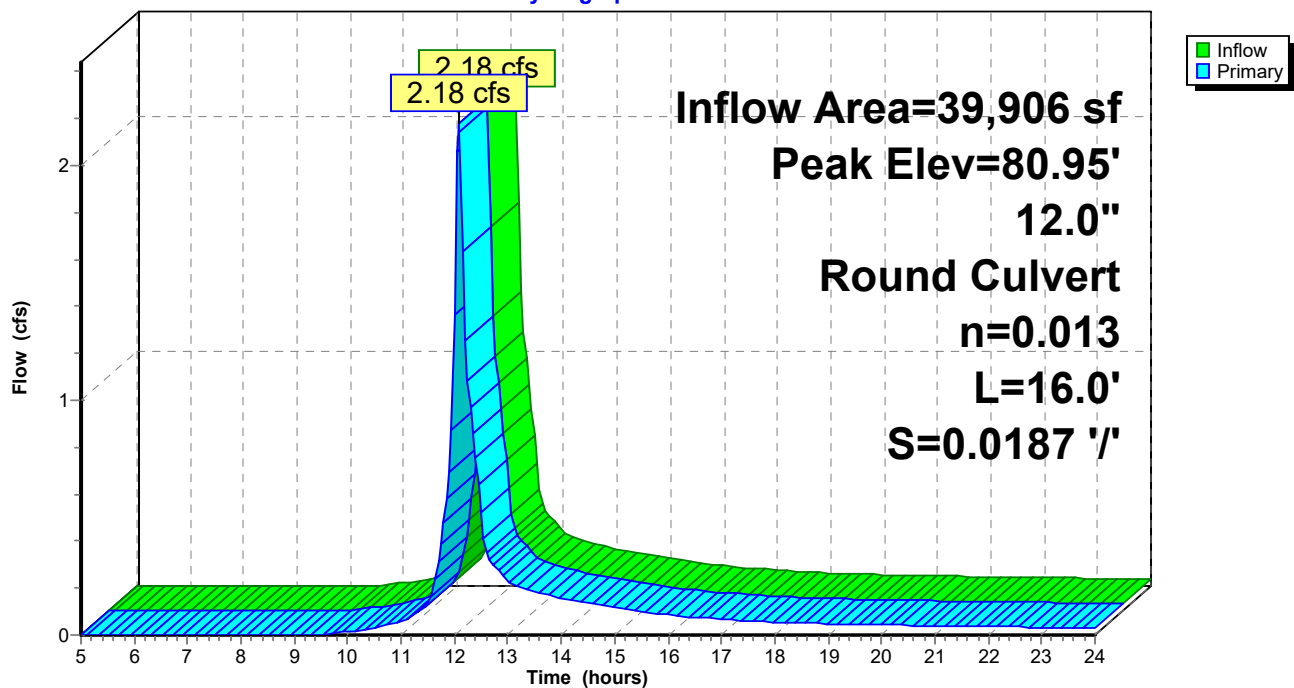
Peak Elev= 80.95' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0187 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.11 cfs @ 12.08 hrs HW=80.93' TW=80.07' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 2.11 cfs @ 4.12 fps)

Pond 42P: CB 3

Hydrograph



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 42P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05
80.11	0.00	80.64	1.08
80.12	0.00	80.65	1.12
80.13	0.00	80.66	1.15
80.14	0.01	80.67	1.19
80.15	0.01	80.68	1.22
80.16	0.02	80.69	1.25
80.17	0.02	80.70	1.29
80.18	0.03	80.71	1.32
80.19	0.04	80.72	1.36
80.20	0.04	80.73	1.39
80.21	0.05	80.74	1.43
80.22	0.06	80.75	1.46
80.23	0.07	80.76	1.50
80.24	0.09	80.77	1.53
80.25	0.10	80.78	1.57
80.26	0.11	80.79	1.60
80.27	0.12	80.80	1.64
80.28	0.14	80.81	1.68
80.29	0.15	80.82	1.71
80.30	0.17	80.83	1.75
80.31	0.19	80.84	1.79
80.32	0.20	80.85	1.82
80.33	0.22	80.86	1.86
80.34	0.24	80.87	1.90
80.35	0.26	80.88	1.93
80.36	0.28	80.89	1.97
80.37	0.30	80.90	2.01
80.38	0.32	80.91	2.04
80.39	0.35	80.92	2.08
80.40	0.37	80.93	2.12
80.41	0.39	80.94	2.15
80.42	0.42	80.95	2.19
80.43	0.44	80.96	2.23
80.44	0.47	80.97	2.26
80.45	0.49	80.98	2.30
80.46	0.52	80.99	2.34
80.47	0.55	81.00	2.37
80.48	0.57	81.01	2.41
80.49	0.60	81.02	2.45
80.50	0.63	81.03	2.48
80.51	0.66	81.04	2.52
80.52	0.69	81.05	2.56
80.53	0.72	81.06	2.58
80.54	0.75	81.07	2.61
80.55	0.78	81.08	2.63
80.56	0.81	81.09	2.66
80.57	0.85	81.10	2.67
80.58	0.88		
80.59	0.91		
80.60	0.95		
80.61	0.98		
80.62	1.01		

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 42P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0
80.11	0	80.64	0
80.12	0	80.65	0
80.13	0	80.66	0
80.14	0	80.67	0
80.15	0	80.68	0
80.16	0	80.69	0
80.17	0	80.70	0
80.18	0	80.71	0
80.19	0	80.72	0
80.20	0	80.73	0
80.21	0	80.74	0
80.22	0	80.75	0
80.23	0	80.76	0
80.24	0	80.77	0
80.25	0	80.78	0
80.26	0	80.79	0
80.27	0	80.80	0
80.28	0	80.81	0
80.29	0	80.82	0
80.30	0	80.83	0
80.31	0	80.84	0
80.32	0	80.85	0
80.33	0	80.86	0
80.34	0	80.87	0
80.35	0	80.88	0
80.36	0	80.89	0
80.37	0	80.90	0
80.38	0	80.91	0
80.39	0	80.92	0
80.40	0	80.93	0
80.41	0	80.94	0
80.42	0	80.95	0
80.43	0	80.96	0
80.44	0	80.97	0
80.45	0	80.98	0
80.46	0	80.99	0
80.47	0	81.00	0
80.48	0	81.01	0
80.49	0	81.02	0
80.50	0	81.03	0
80.51	0	81.04	0
80.52	0	81.05	0
80.53	0	81.06	0
80.54	0	81.07	0
80.55	0	81.08	0
80.56	0	81.09	0
80.57	0	81.10	0
80.58	0		
80.59	0		
80.60	0		
80.61	0		
80.62	0		

Bridal Path Post

Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Pond 44P: (new Pond)

Inflow Area = 77,847 sf, 62.69% Impervious, Inflow Depth > 2.29" for 10-Year event
 Inflow = 4.78 cfs @ 12.08 hrs, Volume= 14,846 cf
 Outflow = 4.78 cfs @ 12.08 hrs, Volume= 14,846 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.39 cfs @ 12.08 hrs, Volume= 6,842 cf
 Routed to Pond 2P : DRYWELL UNIT 2
 Secondary = 2.39 cfs @ 12.08 hrs, Volume= 8,005 cf
 Routed to Pond 36P : DRYWELL UNIT 4

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 80.62' @ 24.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	79.20'	12.0" Round Culvert L= 86.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	79.20'	12.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0113 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.32 cfs @ 12.08 hrs HW=80.07' TW=78.90' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 2.32 cfs @ 3.18 fps)**Secondary OutFlow** Max=2.32 cfs @ 12.08 hrs HW=80.07' TW=78.81' (Dynamic Tailwater)↑**2=Culvert** (Inlet Controls 2.32 cfs @ 3.18 fps)

Bridal Path Post

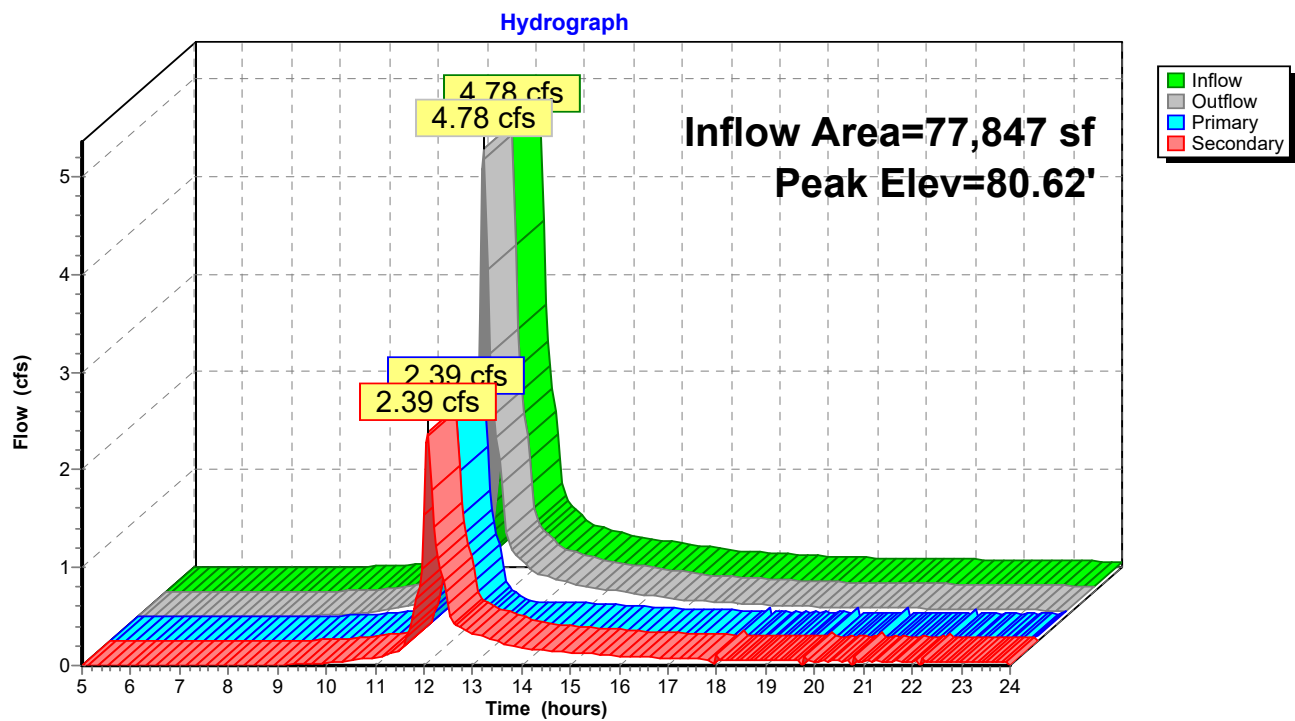
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Type III 24-hr 10-Year Rainfall=4.70"

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Pond 44P: (new Pond)



Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Pond 44P: (new Pond)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
79.20	0.00	0.00	0.00	80.26	5.66	2.83	2.83
79.22	0.00	0.00	0.00	80.28	5.76	2.88	2.88
79.24	0.01	0.01	0.01	80.30	5.86	2.93	2.93
79.26	0.03	0.01	0.01	80.32	5.96	2.98	2.98
79.28	0.05	0.03	0.03	80.34	6.05	3.03	3.03
79.30	0.08	0.04	0.04	80.36	6.14	3.07	3.07
79.32	0.12	0.06	0.06	80.38	6.24	3.12	3.12
79.34	0.17	0.08	0.08	80.40	6.33	3.16	3.16
79.36	0.22	0.11	0.11	80.42	6.42	3.21	3.21
79.38	0.28	0.14	0.14	80.44	6.51	3.25	3.25
79.40	0.34	0.17	0.17	80.46	6.59	3.30	3.30
79.42	0.41	0.20	0.20	80.48	6.68	3.34	3.34
79.44	0.48	0.24	0.24	80.50	6.76	3.38	3.38
79.46	0.56	0.28	0.28	80.52	6.85	3.42	3.42
79.48	0.65	0.32	0.32	80.54	6.89	3.42	3.47
79.50	0.74	0.37	0.37	80.56	6.96	3.45	3.51
79.52	0.83	0.42	0.42	80.58	7.03	3.48	3.55
79.54	0.93	0.47	0.47	80.60	7.09	3.51	3.59
79.56	1.04	0.52	0.52	80.62	7.15	3.53	3.62
79.58	1.15	0.57	0.57				
79.60	1.26	0.63	0.63				
79.62	1.38	0.69	0.69				
79.64	1.50	0.75	0.75				
79.66	1.63	0.81	0.81				
79.68	1.76	0.88	0.88				
79.70	1.89	0.95	0.95				
79.72	2.03	1.01	1.01				
79.74	2.16	1.08	1.08				
79.76	2.31	1.15	1.15				
79.78	2.45	1.22	1.22				
79.80	2.60	1.30	1.30				
79.82	2.74	1.37	1.37				
79.84	2.89	1.45	1.45				
79.86	3.04	1.52	1.52				
79.88	3.19	1.60	1.60				
79.90	3.35	1.67	1.67				
79.92	3.50	1.75	1.75				
79.94	3.65	1.83	1.83				
79.96	3.80	1.90	1.90				
79.98	3.95	1.98	1.98				
80.00	4.10	2.05	2.05				
80.02	4.25	2.13	2.13				
80.04	4.40	2.20	2.20				
80.06	4.54	2.27	2.27				
80.08	4.68	2.34	2.34				
80.10	4.81	2.40	2.40				
80.12	4.94	2.47	2.47				
80.14	5.06	2.53	2.53				
80.16	5.17	2.58	2.58				
80.18	5.27	2.63	2.63				
80.20	5.35	2.67	2.67				
80.22	5.45	2.73	2.73				
80.24	5.56	2.78	2.78				

Bridal Path Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Pond 44P: (new Pond)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
79.20	0	79.73	0	80.26	0
79.21	0	79.74	0	80.27	0
79.22	0	79.75	0	80.28	0
79.23	0	79.76	0	80.29	0
79.24	0	79.77	0	80.30	0
79.25	0	79.78	0	80.31	0
79.26	0	79.79	0	80.32	0
79.27	0	79.80	0	80.33	0
79.28	0	79.81	0	80.34	0
79.29	0	79.82	0	80.35	0
79.30	0	79.83	0	80.36	0
79.31	0	79.84	0	80.37	0
79.32	0	79.85	0	80.38	0
79.33	0	79.86	0	80.39	0
79.34	0	79.87	0	80.40	0
79.35	0	79.88	0	80.41	0
79.36	0	79.89	0	80.42	0
79.37	0	79.90	0	80.43	0
79.38	0	79.91	0	80.44	0
79.39	0	79.92	0	80.45	0
79.40	0	79.93	0	80.46	0
79.41	0	79.94	0	80.47	0
79.42	0	79.95	0	80.48	0
79.43	0	79.96	0	80.49	0
79.44	0	79.97	0	80.50	0
79.45	0	79.98	0	80.51	0
79.46	0	79.99	0	80.52	0
79.47	0	80.00	0	80.53	0
79.48	0	80.01	0	80.54	0
79.49	0	80.02	0	80.55	0
79.50	0	80.03	0	80.56	0
79.51	0	80.04	0	80.57	0
79.52	0	80.05	0	80.58	0
79.53	0	80.06	0	80.59	0
79.54	0	80.07	0	80.60	0
79.55	0	80.08	0	80.61	0
79.56	0	80.09	0	80.62	0
79.57	0	80.10	0		
79.58	0	80.11	0		
79.59	0	80.12	0		
79.60	0	80.13	0		
79.61	0	80.14	0		
79.62	0	80.15	0		
79.63	0	80.16	0		
79.64	0	80.17	0		
79.65	0	80.18	0		
79.66	0	80.19	0		
79.67	0	80.20	0		
79.68	0	80.21	0		
79.69	0	80.22	0		
79.70	0	80.23	0		
79.71	0	80.24	0		
79.72	0	80.25	0		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment40S: GARAGE 6	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.19 cfs 643 cf
SubcatchmentA1: AREA 1	Runoff Area=37,941 sf 67.91% Impervious Runoff Depth>3.28" Tc=5.0 min CN=79 Runoff=3.35 cfs 10,366 cf
SubcatchmentA2: AREA 2	Runoff Area=39,906 sf 57.74% Impervious Runoff Depth>2.72" Tc=5.0 min CN=73 Runoff=2.92 cfs 9,037 cf
SubcatchmentA3: AREA 3	Runoff Area=42,112 sf 59.62% Impervious Runoff Depth>2.81" Tc=5.0 min CN=74 Runoff=3.19 cfs 9,855 cf
SubcatchmentA4: AREA 4	Runoff Area=34,332 sf 68.52% Impervious Runoff Depth>3.28" Tc=5.0 min CN=79 Runoff=3.03 cfs 9,380 cf
SubcatchmentB(OL): OVERLAND TO B	Runoff Area=38,328 sf 2.80% Impervious Runoff Depth>0.37" Tc=5.0 min CN=40 Runoff=0.12 cfs 1,181 cf
SubcatchmentBLD1: BLD 1	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD2: BLD 2	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD3: BLD 3	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD4: BLD 4	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD5: BLD 5	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD6: BLD 6	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD7: BLD 7	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentBLD8: BLD 8	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.54 cfs 1,857 cf
SubcatchmentGAR1: GARAGE 1	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.16 cfs 550 cf
SubcatchmentGAR2: GARAGE 2	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.19 cfs 643 cf

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Subcatchment GAR3: GARAGE 3	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.16 cfs 550 cf
Subcatchment GAR4: GARAGE 4	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.19 cfs 643 cf
Subcatchment GAR5: GARAGE 5	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.16 cfs 550 cf
Subcatchment GAR7: GARAGE 7	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>5.16" Tc=5.0 min CN=98 Runoff=0.19 cfs 643 cf
Reach DPBpost: DP-B	Inflow=0.12 cfs 1,181 cf Outflow=0.12 cfs 1,181 cf
Pond 2P: DRYWELL UNIT 2	Peak Elev=81.35' Storage=11,449 cf Inflow=3.87 cfs 11,455 cf Outflow=0.00 cfs 0 cf
Pond 10P: DRYWELL UNIT 5	Peak Elev=64.28' Storage=22,278 cf Inflow=7.09 cfs 22,286 cf Outflow=0.00 cfs 0 cf
Pond 31P: DRYWELL UNIT 3	Peak Elev=85.73' Storage=9,171 cf Inflow=2.68 cfs 9,173 cf Outflow=0.00 cfs 0 cf
Pond 36P: DRYWELL UNIT 4	Peak Elev=81.35' Storage=12,947 cf Inflow=3.84 cfs 12,948 cf Outflow=0.00 cfs 0 cf
Pond 38P: DRYWELL UNIT 1	Peak Elev=69.24' Storage=1,857 cf Inflow=0.54 cfs 1,857 cf Outflow=0.00 cfs 0 cf
Pond 39P: CB 1	Peak Elev=64.43' Inflow=3.19 cfs 9,930 cf Primary=3.19 cfs 9,930 cf Secondary=0.00 cfs 0 cf Outflow=3.19 cfs 9,930 cf
Pond 40P: CB 2	Peak Elev=64.46' Inflow=3.37 cfs 10,498 cf Primary=3.37 cfs 10,498 cf Secondary=0.00 cfs 0 cf Outflow=3.37 cfs 10,498 cf
Pond 41P: CB 3	Peak Elev=81.34' Inflow=3.35 cfs 10,366 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0273 ' Outflow=3.35 cfs 10,366 cf
Pond 42P: CB 3	Peak Elev=81.34' Inflow=2.92 cfs 9,037 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0187 ' Outflow=2.92 cfs 9,037 cf
Pond 44P: (new Pond)	Peak Elev=81.34' Inflow=6.26 cfs 19,402 cf Primary=3.15 cfs 8,954 cf Secondary=3.12 cfs 10,448 cf Outflow=6.26 cfs 19,402 cf

Total Runoff Area = 237,003 sf Runoff Volume = 58,901 cf Average Runoff Depth = 2.98"
39.71% Pervious = 94,105 sf 60.29% Impervious = 142,898 sf

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment 40S: GARAGE 6

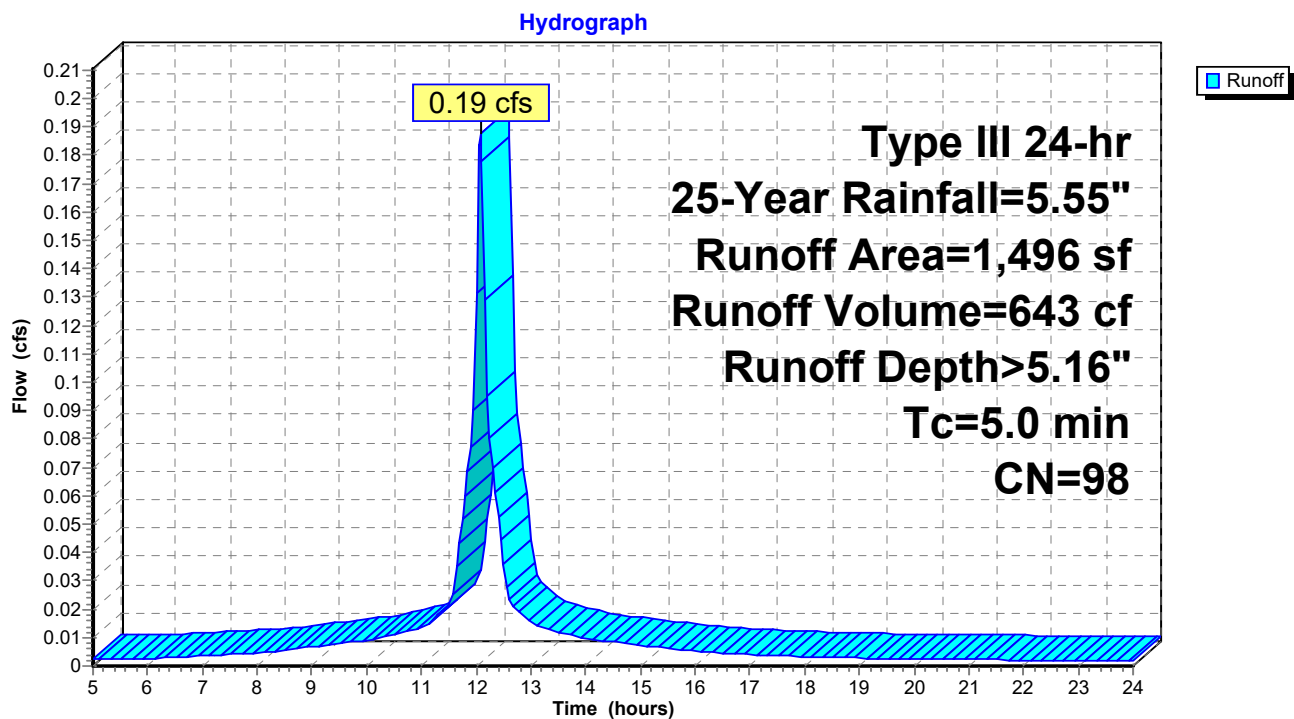
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 643 cf, Depth> 5.16"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment 40S: GARAGE 6



Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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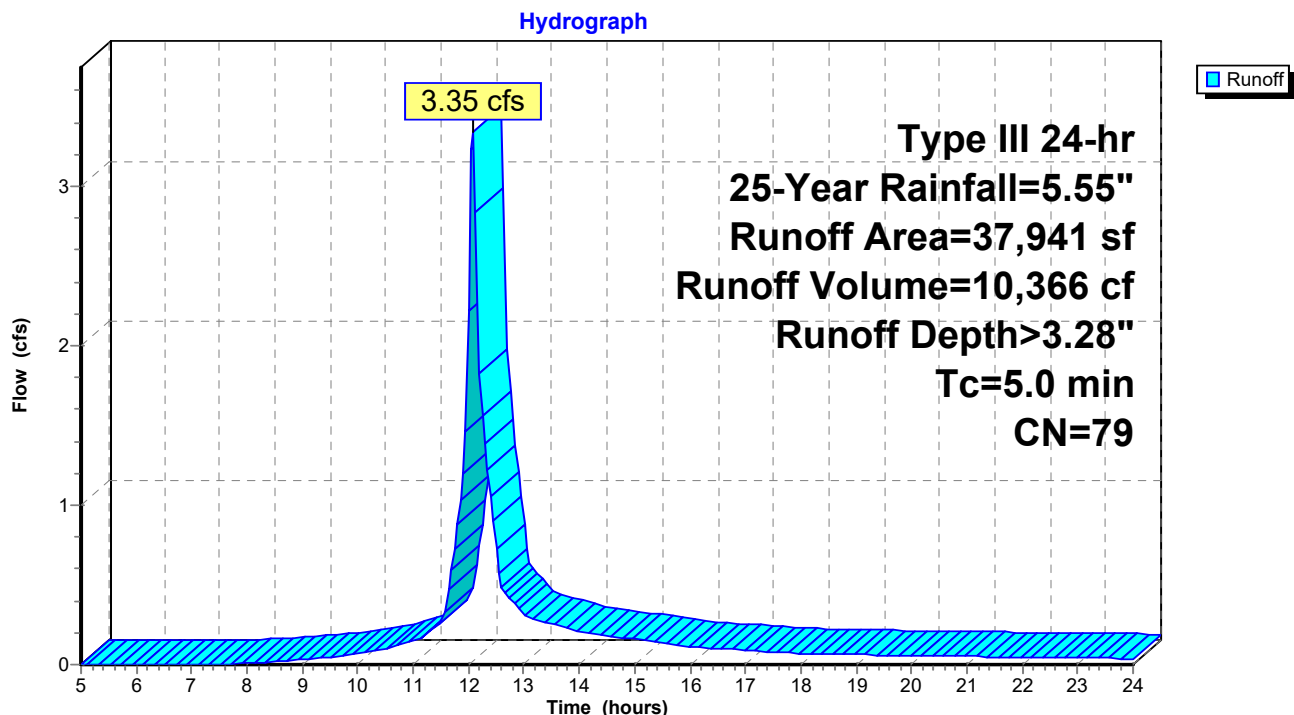
Summary for Subcatchment A1: AREA 1

Runoff = 3.35 cfs @ 12.08 hrs, Volume= 10,366 cf, Depth> 3.28"
Routed to Pond 41P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	21,386	98	Paved roads w/curbs & sewers, HSG A
*	4,378	98	Paved parking, HSG A (Walkways)
	12,177	39	>75% Grass cover, Good, HSG A
	37,941	79	Weighted Average
	12,177		32.09% Pervious Area
	25,764		67.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A1: AREA 1

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment A2: AREA 2

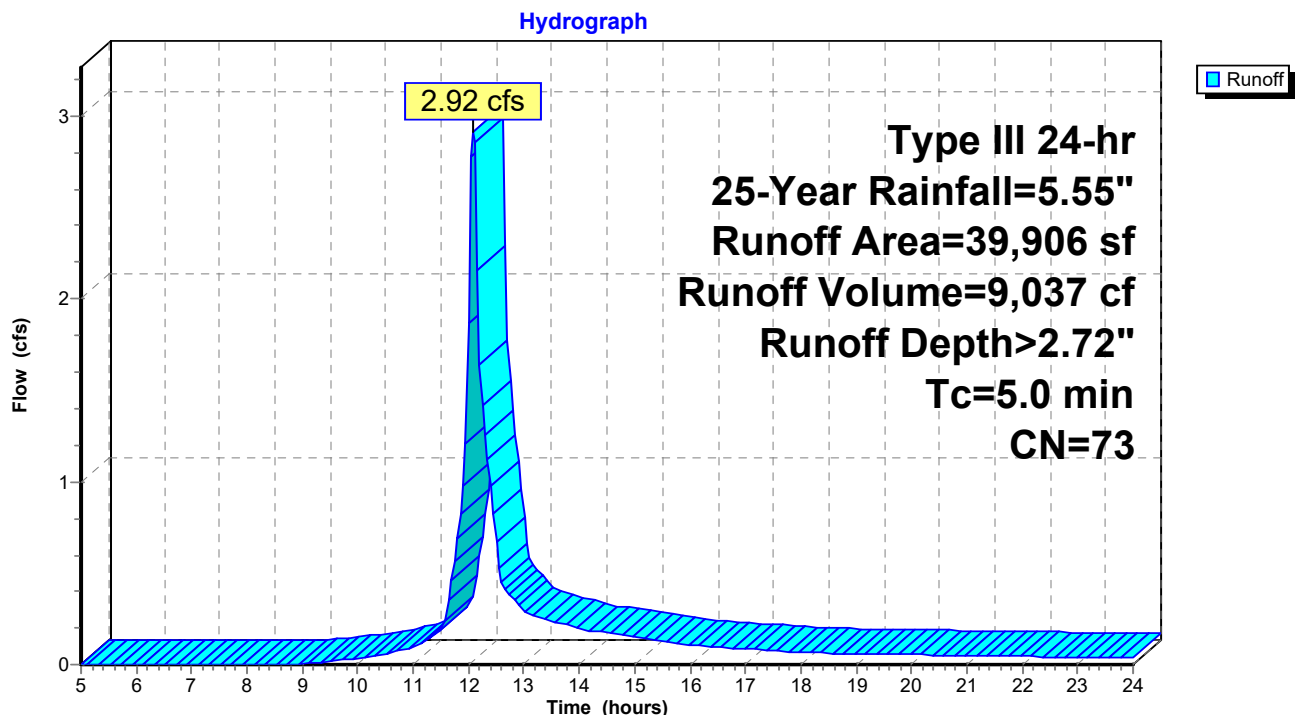
Runoff = 2.92 cfs @ 12.08 hrs, Volume= 9,037 cf, Depth> 2.72"
Routed to Pond 42P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
19,287	98	Paved roads w/curbs & sewers, HSG A
* 3,755	98	Paved parking, HSG A (Walkways)
16,864	39	>75% Grass cover, Good, HSG A
39,906	73	Weighted Average
16,864		42.26% Pervious Area
23,042		57.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A2: AREA 2



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment A3: AREA 3

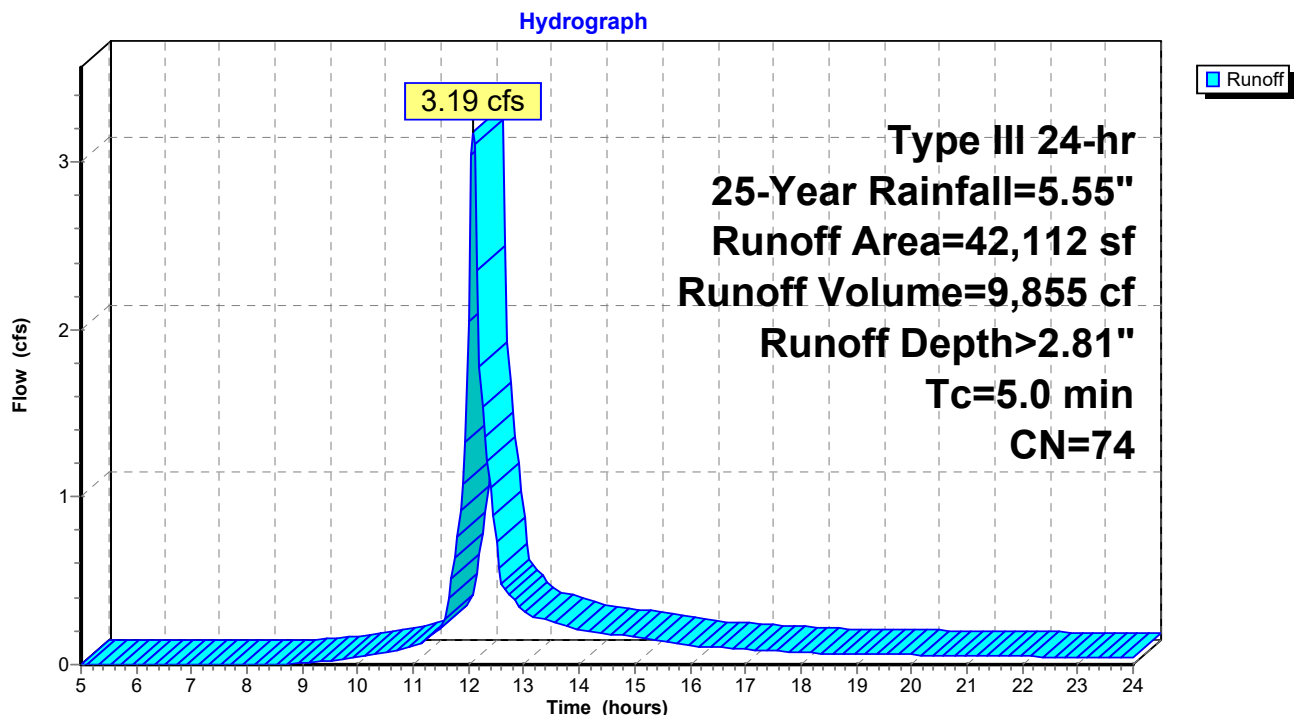
Runoff = 3.19 cfs @ 12.08 hrs, Volume= 9,855 cf, Depth> 2.81"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	23,275	98	Paved roads w/curbs & sewers, HSG A
*	1,832	98	Paved parking, HSG A (Walkways)
	17,005	39	>75% Grass cover, Good, HSG A
	42,112	74	Weighted Average
	17,005		40.38% Pervious Area
	25,107		59.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A3: AREA 3



Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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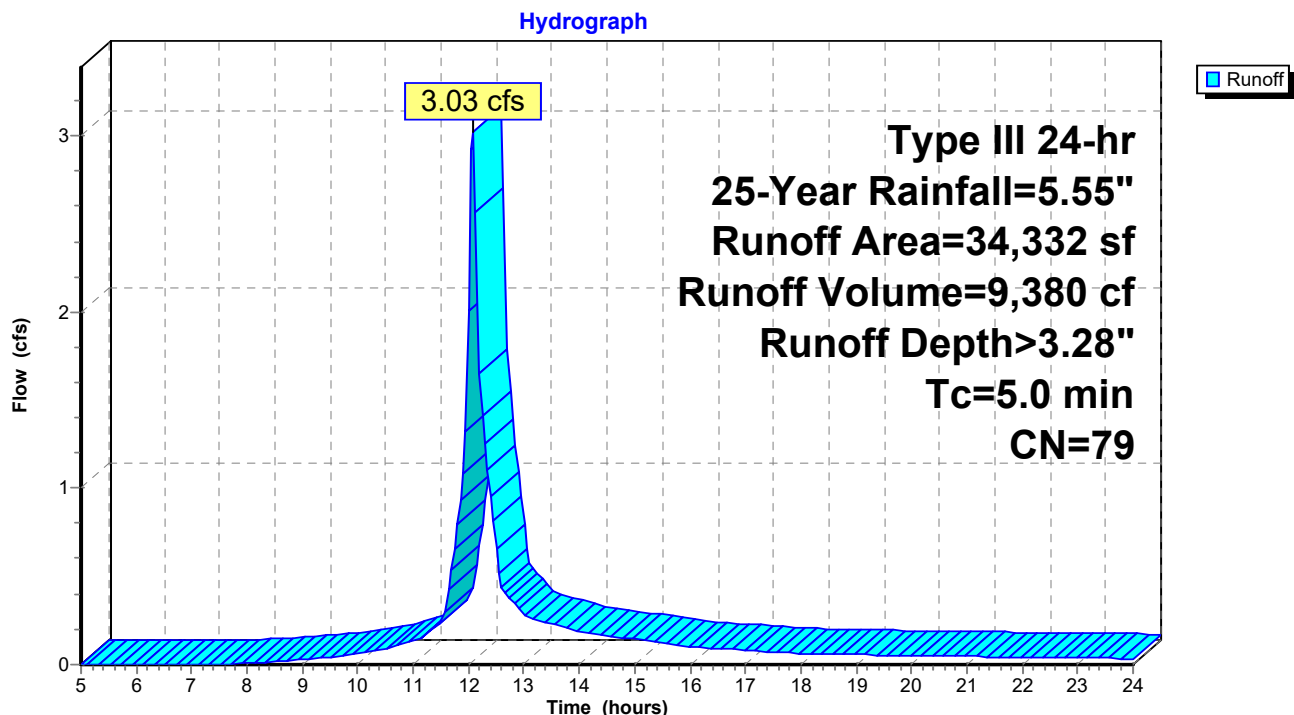
Summary for Subcatchment A4: AREA 4

Runoff = 3.03 cfs @ 12.08 hrs, Volume= 9,380 cf, Depth> 3.28"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
20,226	98	Paved roads w/curbs & sewers, HSG A
* 3,300	98	Paved parking, HSG A (Walkways)
10,806	39	>75% Grass cover, Good, HSG A
34,332	79	Weighted Average
10,806		31.48% Pervious Area
23,526		68.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A4: AREA 4

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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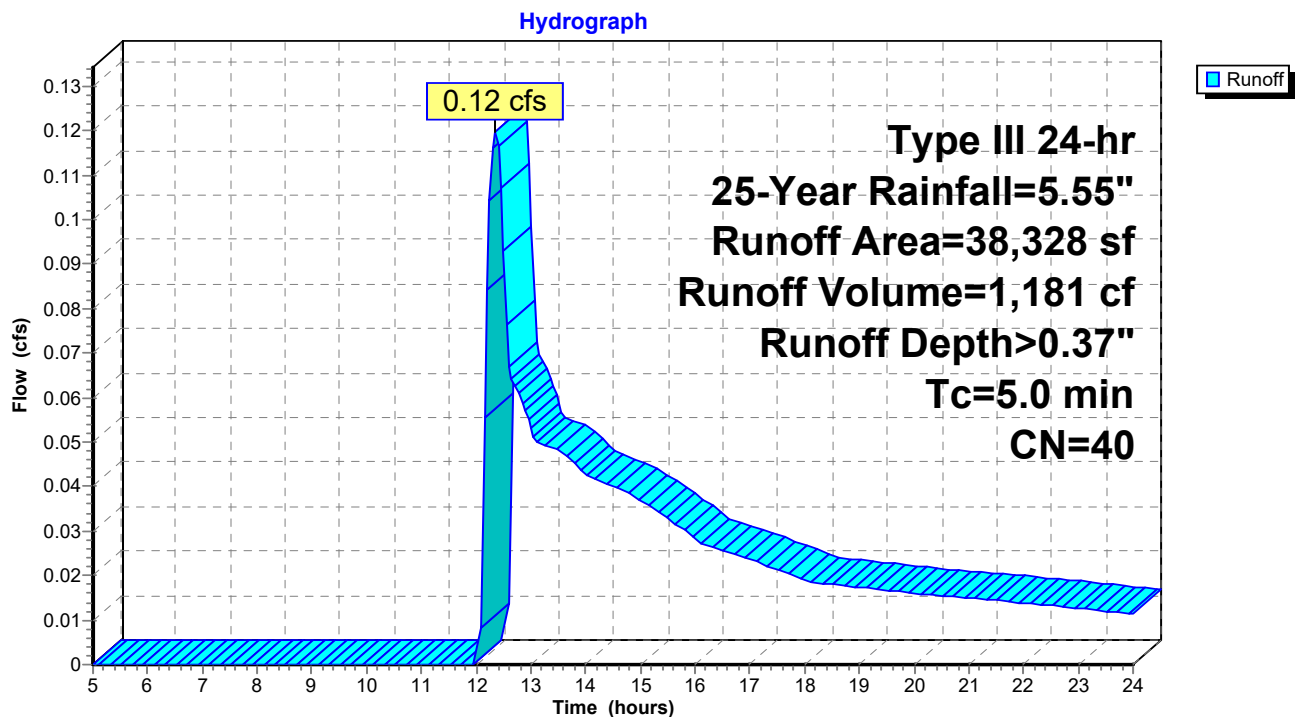
Summary for Subcatchment B(OL): OVERLAND TO B

Runoff = 0.12 cfs @ 12.35 hrs, Volume= 1,181 cf, Depth> 0.37"
Routed to Reach DPBpost : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	685	30	Woods, Good, HSG A
*	1,075	98	Paved parking, HSG A (Walkways)
	36,568	39	>75% Grass cover, Good, HSG A
	38,328	40	Weighted Average
	37,253		97.20% Pervious Area
	1,075		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment B(OL): OVERLAND TO B

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD1: BLD 1

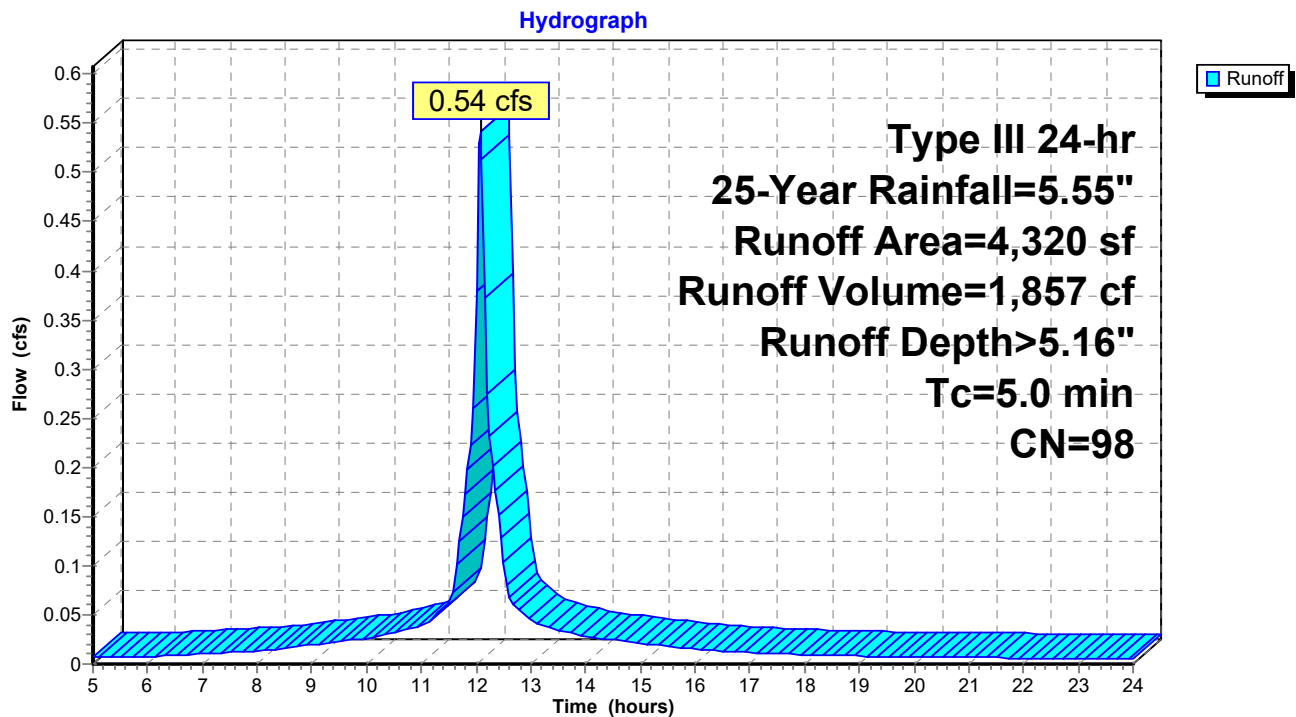
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 38P : DRYWELL UNIT 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD1: BLD 1



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD2: BLD 2

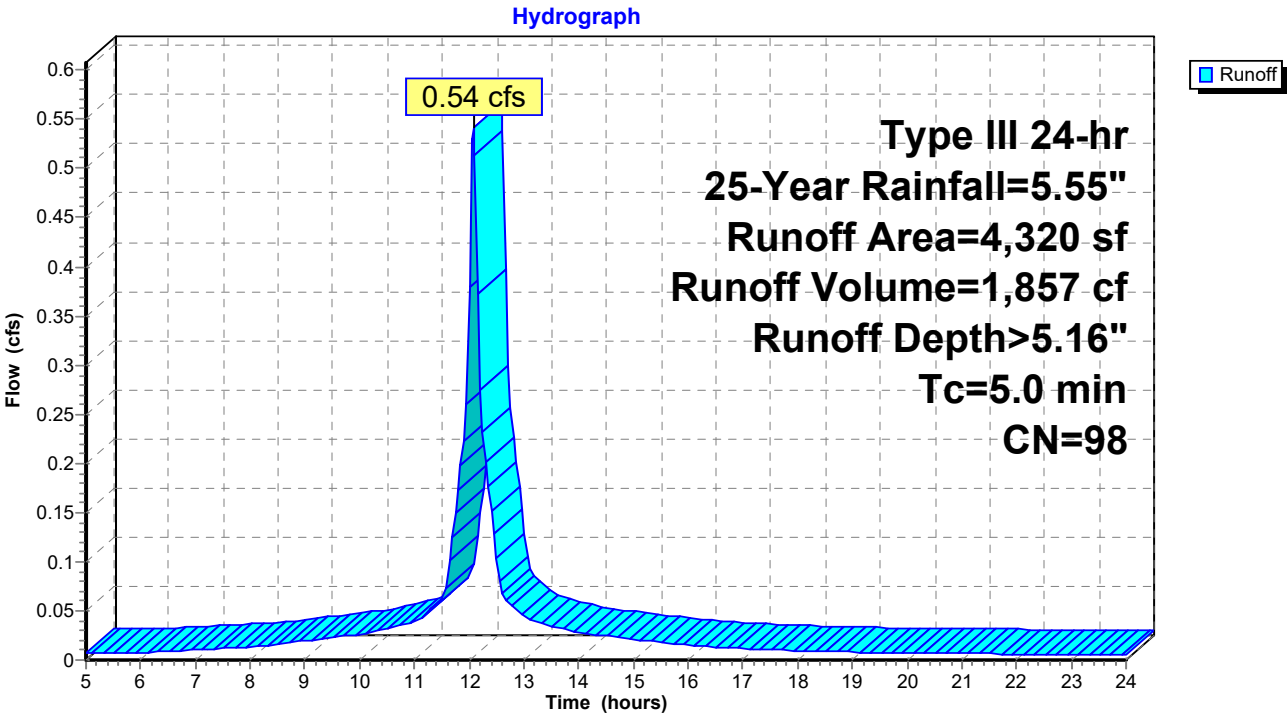
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD2: BLD 2



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Type III 24-hr 25-Year Rainfall=5.55"

Summary for Subcatchment BLD3: BLD 3

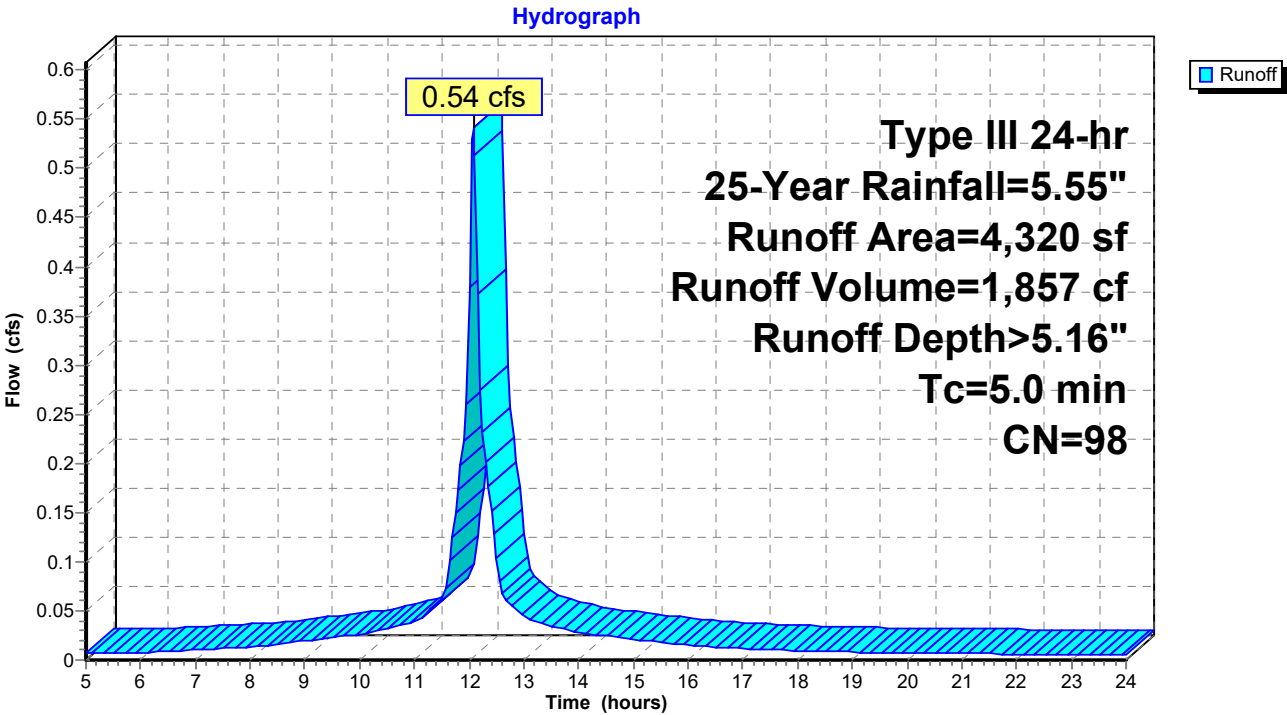
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD3: BLD 3



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD4: BLD 4

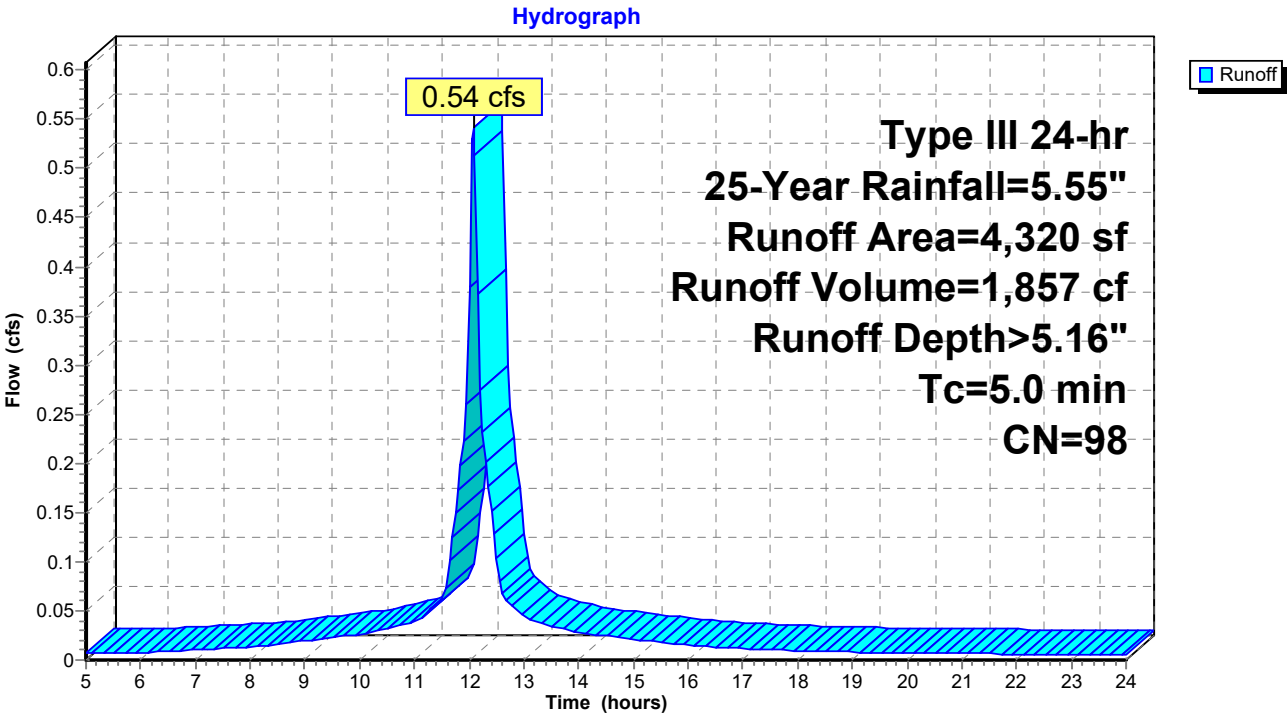
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD4: BLD 4



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD5: BLD 5

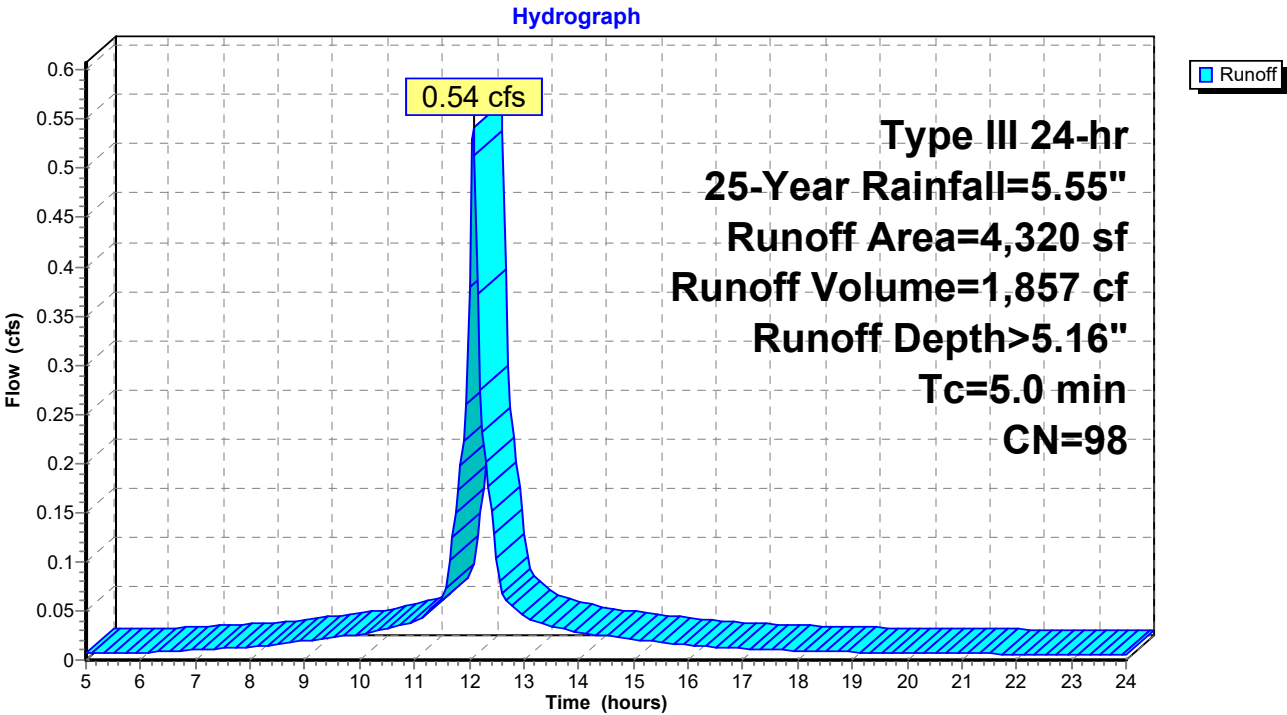
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD5: BLD 5



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD6: BLD 6

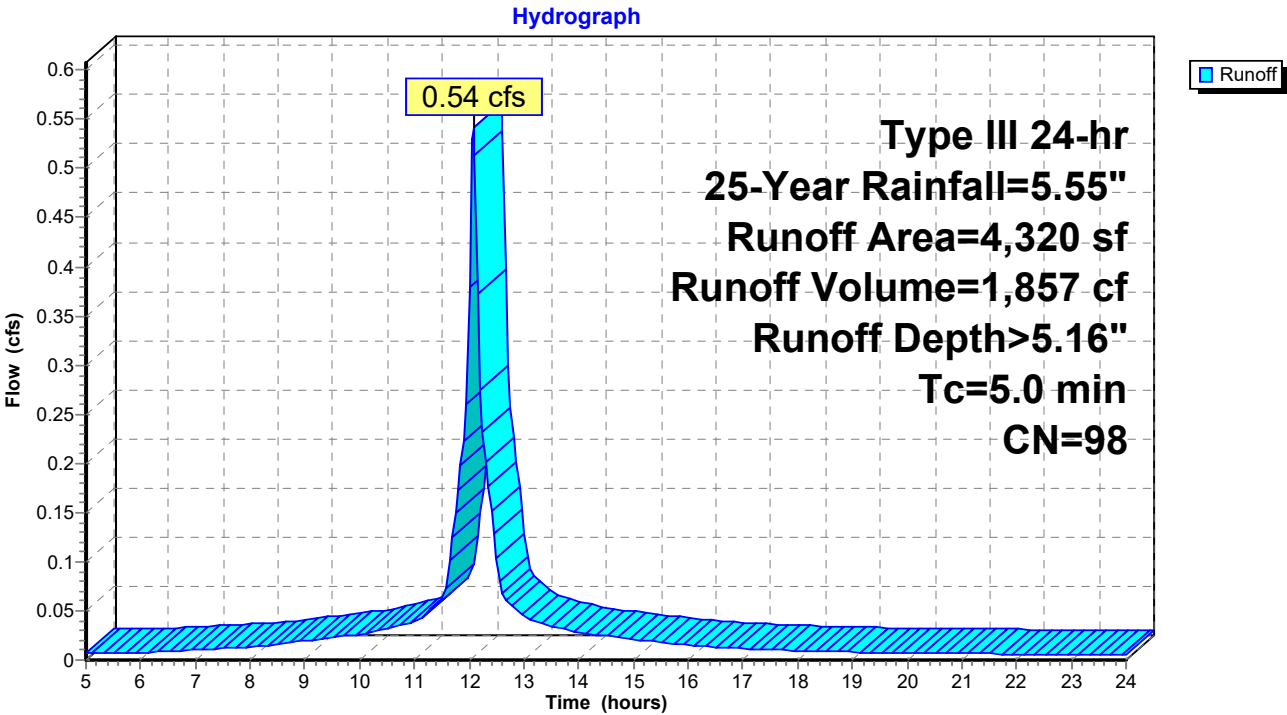
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD6: BLD 6



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD7: BLD 7

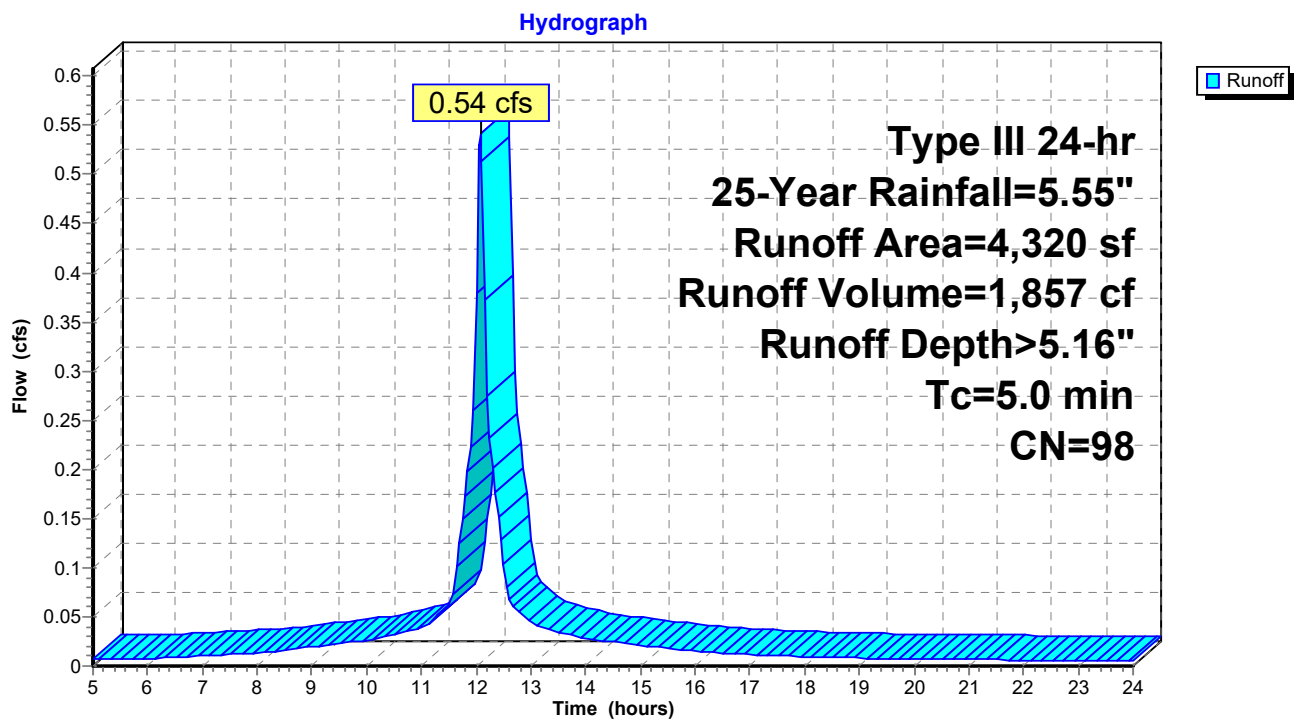
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD7: BLD 7



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment BLD8: BLD 8

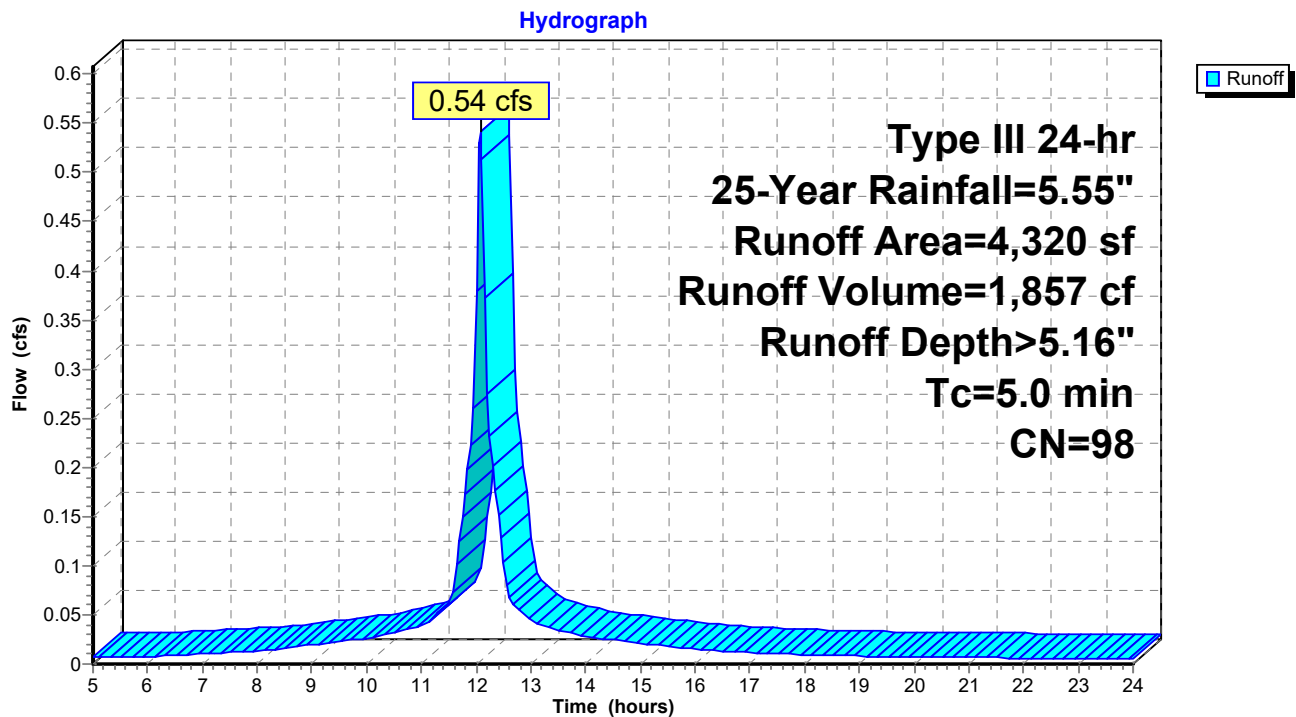
Runoff = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf, Depth> 5.16"
Routed to Pond 10P : DRYWELL UNIT 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD8: BLD 8



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Type III 24-hr 25-Year Rainfall=5.55"

Summary for Subcatchment GAR1: GARAGE 1

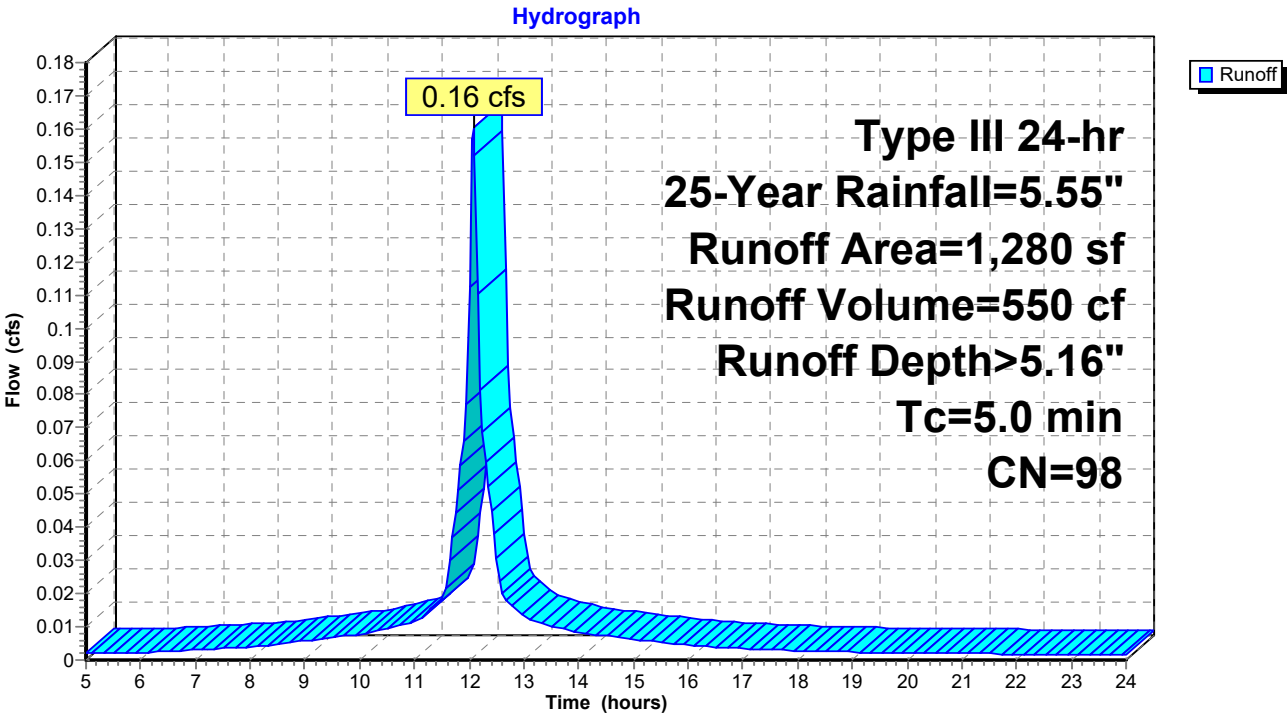
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 550 cf, Depth> 5.16"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR1: GARAGE 1



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Type III 24-hr 25-Year Rainfall=5.55"

Summary for Subcatchment GAR2: GARAGE 2

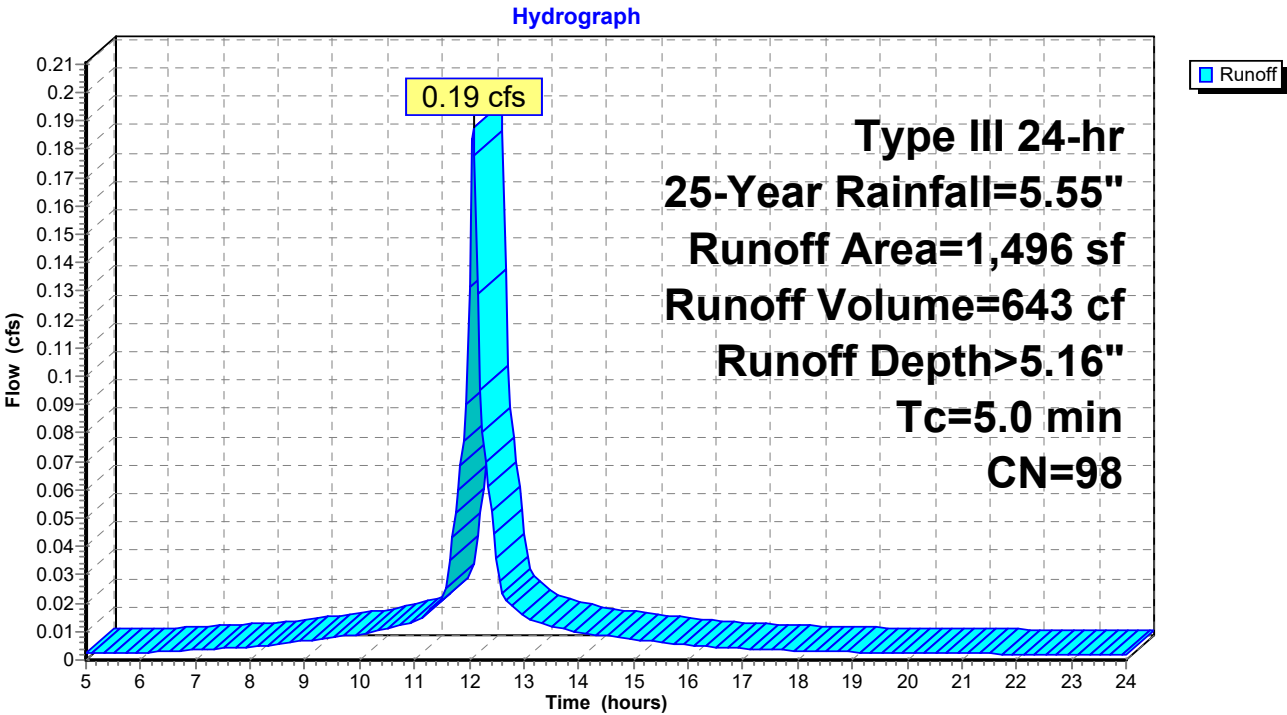
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 643 cf, Depth> 5.16"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR2: GARAGE 2



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment GAR3: GARAGE 3

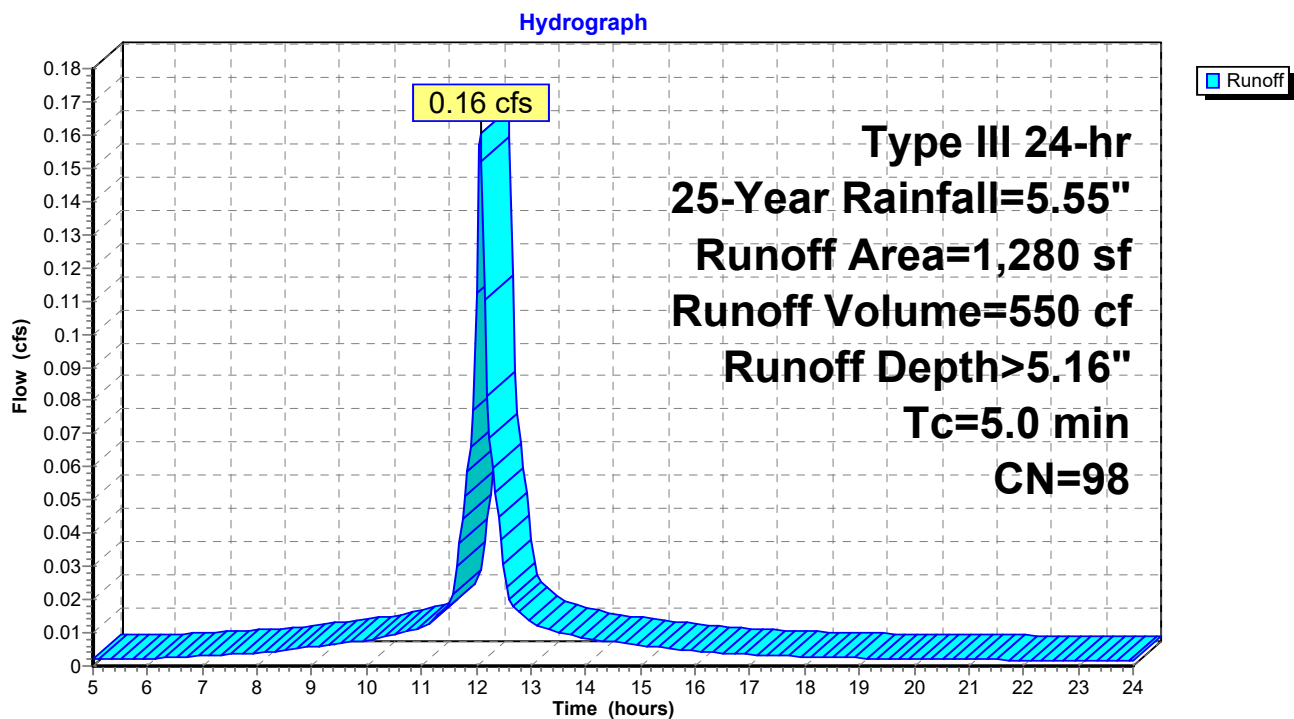
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 550 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR3: GARAGE 3



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment GAR4: GARAGE 4

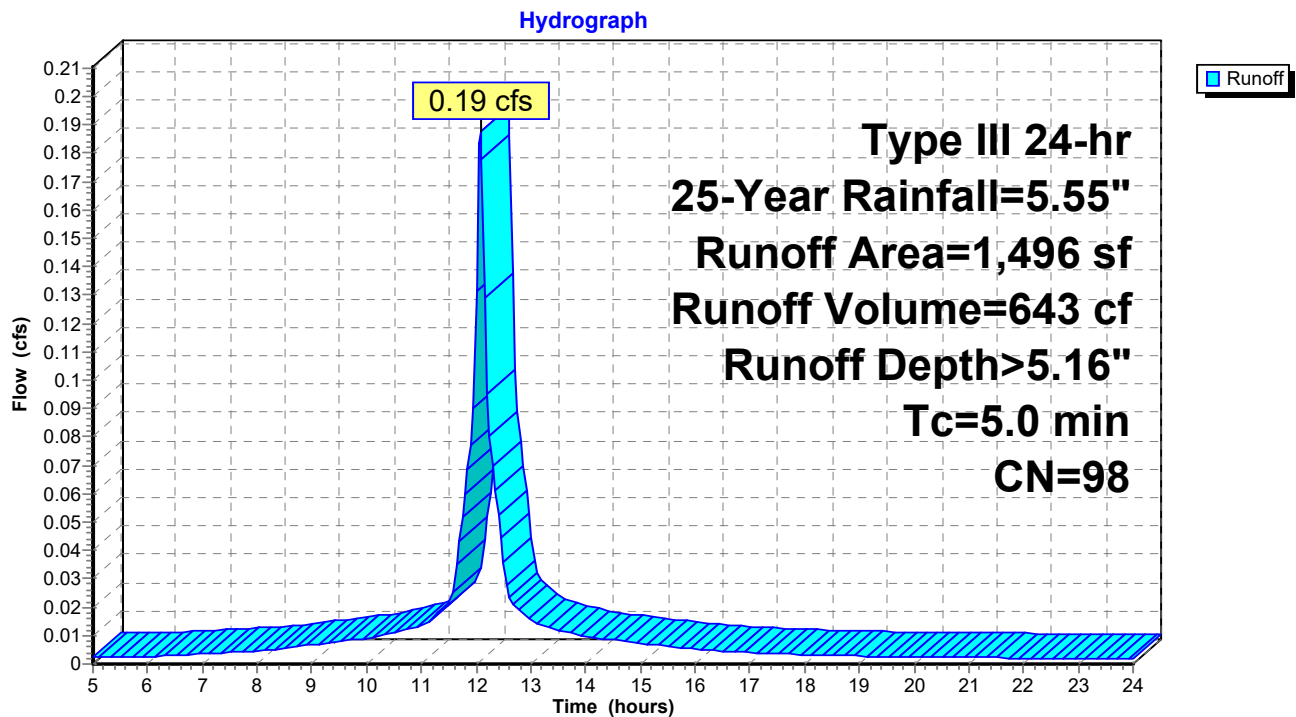
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 643 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR4: GARAGE 4



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment GAR5: GARAGE 5

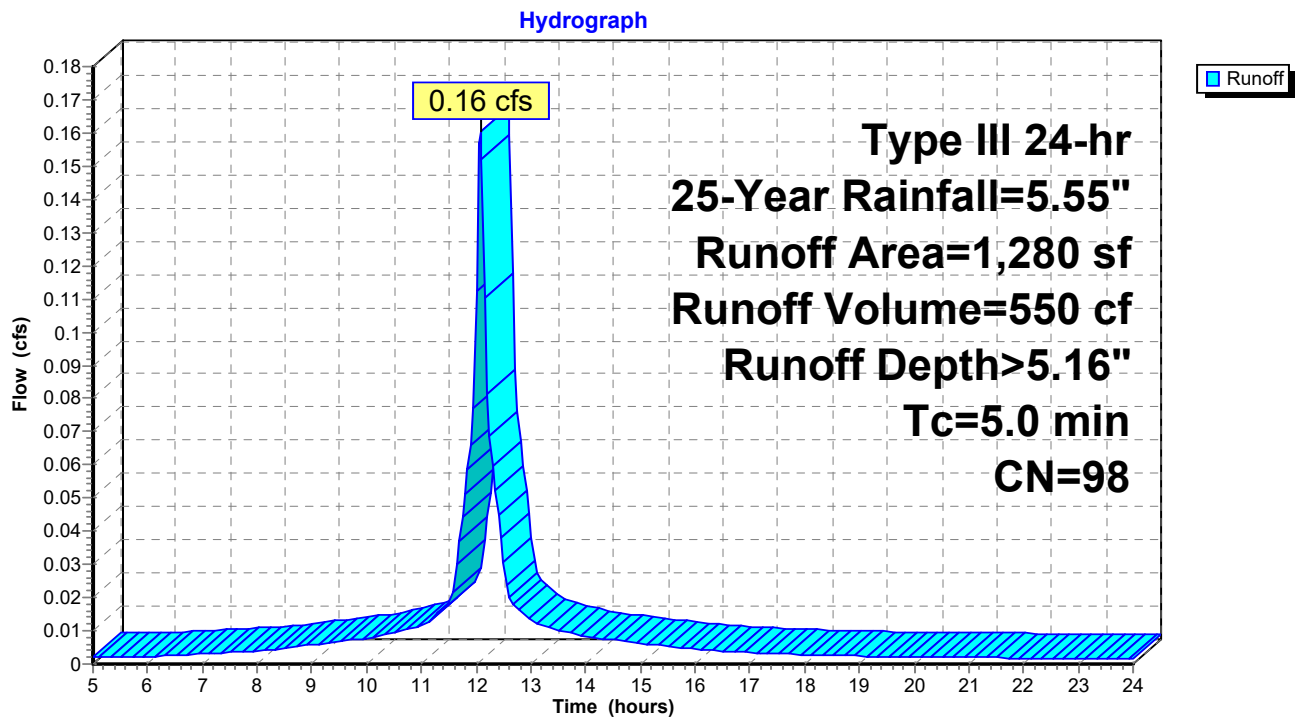
Runoff = 0.16 cfs @ 12.07 hrs, Volume= 550 cf, Depth> 5.16"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR5: GARAGE 5



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment GAR7: GARAGE 7

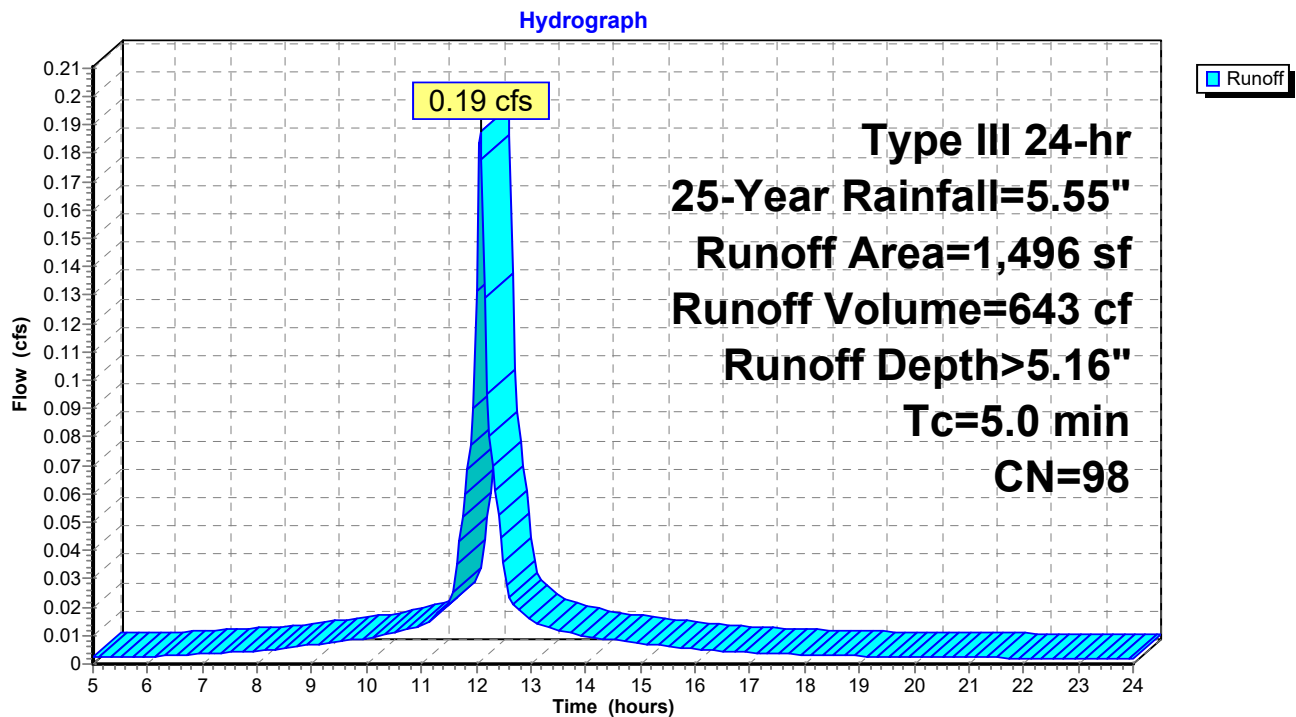
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 643 cf, Depth> 5.16"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR7: GARAGE 7



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Type III 24-hr 25-Year Rainfall=5.55"

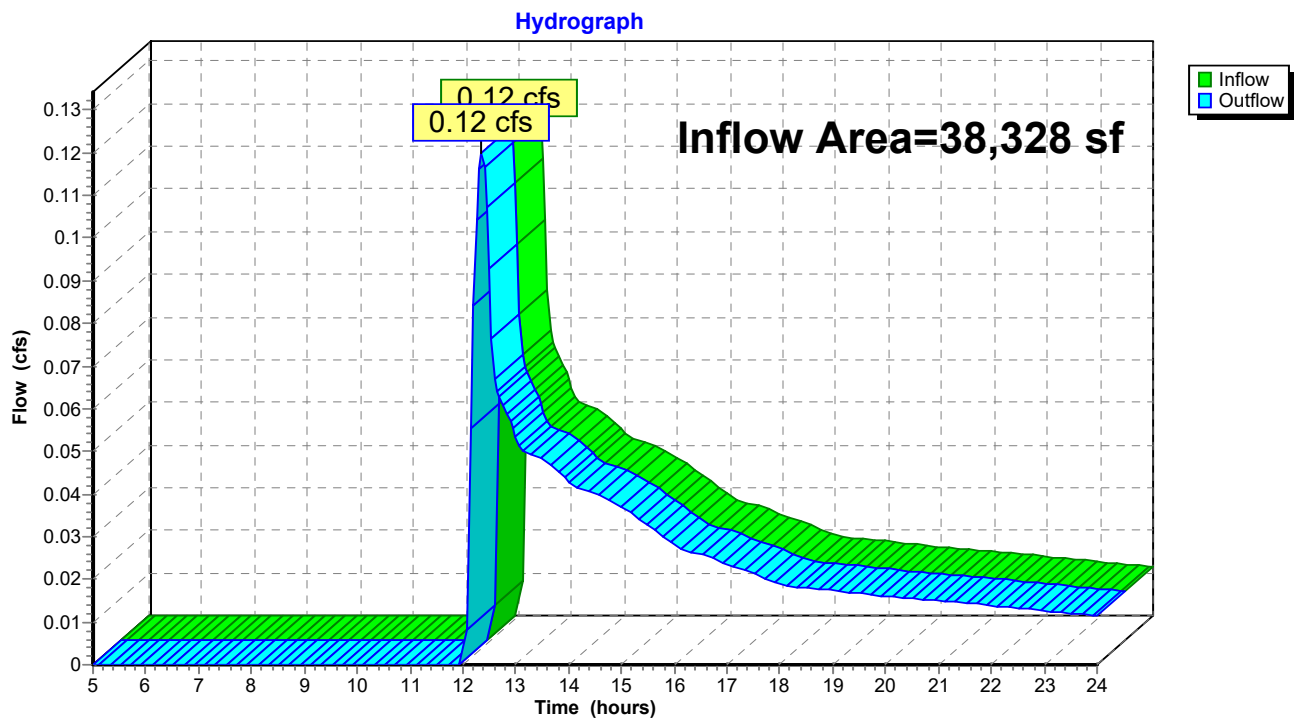
Page 144

Summary for Reach DPBpost: DP-B

Inflow Area = 38,328 sf, 2.80% Impervious, Inflow Depth > 0.37" for 25-Year event
Inflow = 0.12 cfs @ 12.35 hrs, Volume= 1,181 cf
Outflow = 0.12 cfs @ 12.35 hrs, Volume= 1,181 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPBpost: DP-B



Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 2P: DRYWELL UNIT 2

Inflow Area = 83,663 sf, 65.29% Impervious, Inflow Depth > 1.64" for 25-Year event
 Inflow = 3.87 cfs @ 12.08 hrs, Volume= 11,455 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 81.35' @ 24.00 hrs Surf.Area= 4,618 sf Storage= 11,449 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,418 cf	59.20'W x 78.00'L x 5.00'H Field A 23,088 cf Overall - 14,542 cf Embedded = 8,546 cf x 40.0% Voids
#2A	78.30'	10,953 cf	Concrete Galley 4x4x4 x 247 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 247 Chambers in 13 Rows
		14,371 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

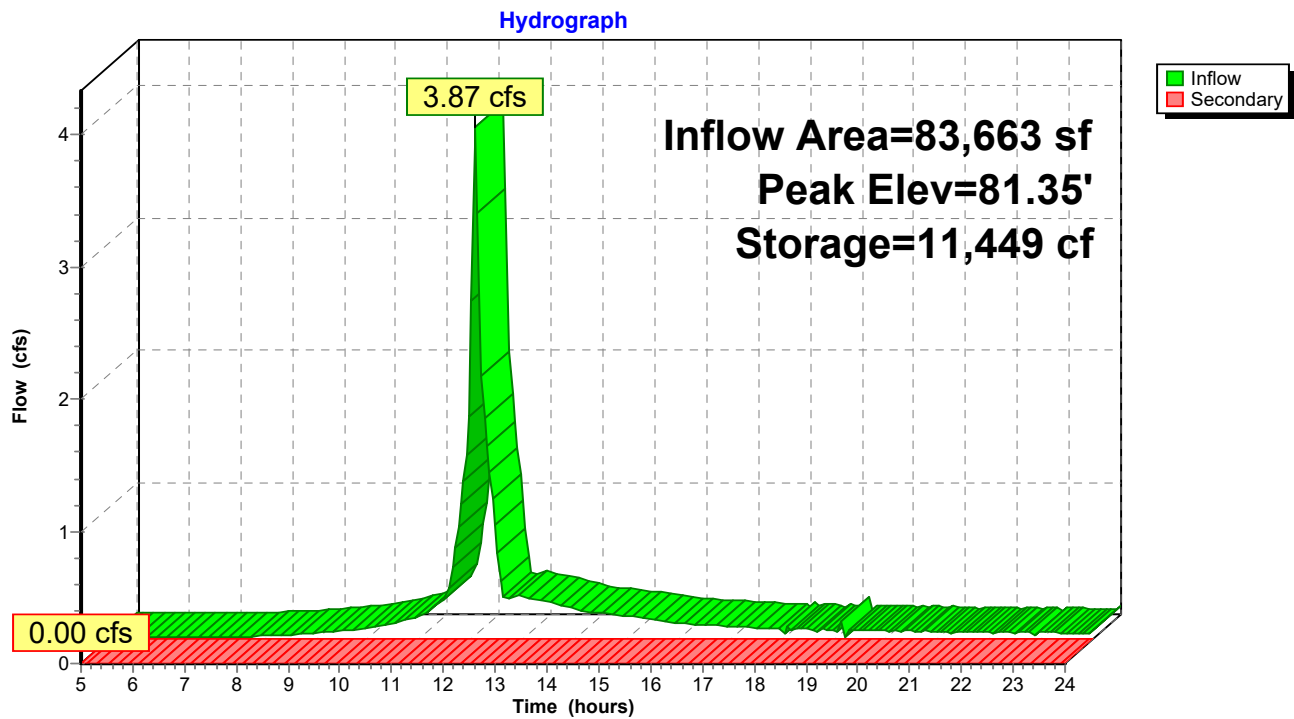
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Type III 24-hr 25-Year Rainfall=5.55"

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Pond 2P: DRYWELL UNIT 2



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	14,371
77.90	185	83.20	14,371
78.00	369	83.30	14,371
78.10	554	83.40	14,371
78.20	739	83.50	14,371
78.30	924	83.60	14,371
78.40	1,259	83.70	14,371
78.50	1,596	83.80	14,371
78.60	1,941	83.90	14,371
78.70	2,290	84.00	14,371
78.80	2,640	84.10	14,371
78.90	2,989	84.20	14,371
79.00	3,338	84.30	14,371
79.10	3,686	84.40	14,371
79.20	4,034	84.50	14,371
79.30	4,382	84.60	14,371
79.40	4,730	84.70	14,371
79.50	5,077	84.80	14,371
79.60	5,425	84.90	14,371
79.70	5,771	85.00	14,371
79.80	6,118	85.10	14,371
79.90	6,464	85.20	14,371
80.00	6,810	85.30	14,371
80.10	7,156	85.40	14,371
80.20	7,502	85.50	14,371
80.30	7,847	85.60	14,371
80.40	8,192	85.70	14,371
80.50	8,536	85.80	14,371
80.60	8,881	85.90	14,371
80.70	9,225	86.00	14,371
80.80	9,569	86.10	14,371
80.90	9,912	86.20	14,371
81.00	10,256	86.30	14,371
81.10	10,599	86.40	14,371
81.20	10,941	86.50	14,371
81.30	11,284	86.60	14,371
81.40	11,626	86.70	14,371
81.50	11,968	86.80	14,371
81.60	12,310	86.90	14,371
81.70	12,651	87.00	14,371
81.80	12,992	87.10	14,371
81.90	13,274	87.20	14,371
82.00	13,317	87.30	14,371
82.10	13,360	87.40	14,371
82.20	13,404	87.50	14,371
82.30	13,448	87.60	14,371
82.40	13,633	87.70	14,371
82.50	13,817	87.80	14,371
82.60	14,002	87.90	14,371
82.70	14,187	88.00	14,371
82.80	14,371	88.10	14,371
82.90	14,371		
83.00	14,371		

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 10P: DRYWELL UNIT 5

Inflow Area = 83,540 sf, 66.71% Impervious, Inflow Depth > 3.20" for 25-Year event
 Inflow = 7.09 cfs @ 12.08 hrs, Volume= 22,286 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.28' @ 24.00 hrs Surf.Area= 10,304 sf Storage= 22,278 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.05'	8,692 cf	55.40'W x 186.00'L x 5.00'H Field A 51,522 cf Overall - 29,791 cf Embedded = 21,731 cf x 40.0% Voids
#2A	61.55'	22,438 cf	Concrete Galley 4x4x4 x 506 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 506 Chambers in 11 Rows
		31,131 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=61.05' TW=0.00' (Dynamic Tailwater)
 ↑**1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

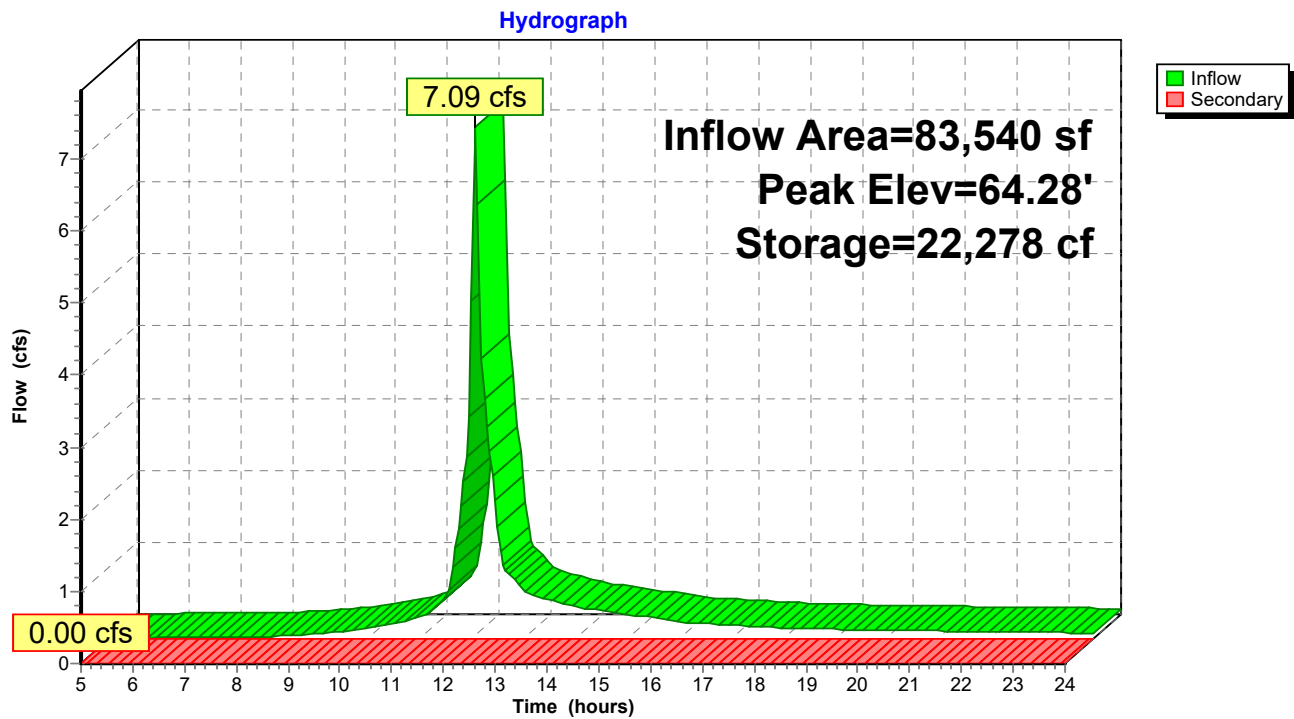
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Type III 24-hr 25-Year Rainfall=5.55"

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Pond 10P: DRYWELL UNIT 5



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
61.05	0.00	63.70	0.00
61.10	0.00	63.75	0.00
61.15	0.00	63.80	0.00
61.20	0.00	63.85	0.00
61.25	0.00	63.90	0.00
61.30	0.00	63.95	0.00
61.35	0.00	64.00	0.00
61.40	0.00	64.05	0.00
61.45	0.00	64.10	0.00
61.50	0.00	64.15	0.00
61.55	0.00	64.20	0.00
61.60	0.00	64.25	0.00
61.65	0.00	64.30	0.00
61.70	0.00	64.35	0.00
61.75	0.00	64.40	0.00
61.80	0.00	64.45	0.00
61.85	0.00	64.50	0.00
61.90	0.00	64.55	0.00
61.95	0.00	64.60	0.00
62.00	0.00	64.65	0.00
62.05	0.00	64.70	0.00
62.10	0.00	64.75	0.00
62.15	0.00	64.80	0.00
62.20	0.00	64.85	0.00
62.25	0.00	64.90	0.00
62.30	0.00	64.95	0.00
62.35	0.00	65.00	0.00
62.40	0.00	65.05	0.00
62.45	0.00	65.10	0.00
62.50	0.00	65.15	0.00
62.55	0.00	65.20	0.00
62.60	0.00	65.25	0.00
62.65	0.00	65.30	0.00
62.70	0.00	65.35	0.00
62.75	0.00	65.40	0.00
62.80	0.00	65.45	0.00
62.85	0.00	65.50	0.00
62.90	0.00	65.55	0.00
62.95	0.00	65.60	0.00
63.00	0.00	65.65	0.00
63.05	0.00	65.70	0.00
63.10	0.00	65.75	0.00
63.15	0.00	65.80	0.00
63.20	0.00	65.85	0.00
63.25	0.00	65.90	0.00
63.30	0.00	65.95	0.00
63.35	0.00	66.00	0.00
63.40	0.00	66.05	0.27
63.45	0.00		
63.50	0.00		
63.55	0.00		
63.60	0.00		
63.65	0.00		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
61.05	0	63.70	18,030
61.10	206	63.75	18,400
61.15	412	63.80	18,770
61.20	618	63.85	19,139
61.25	824	63.90	19,509
61.30	1,030	63.95	19,878
61.35	1,237	64.00	20,247
61.40	1,443	64.05	20,616
61.45	1,649	64.10	20,985
61.50	1,855	64.15	21,354
61.55	2,061	64.20	21,723
61.60	2,422	64.25	22,091
61.65	2,782	64.30	22,459
61.70	3,143	64.35	22,828
61.75	3,506	64.40	23,196
61.80	3,874	64.45	23,564
61.85	4,246	64.50	23,931
61.90	4,621	64.55	24,299
61.95	4,996	64.60	24,666
62.00	5,371	64.65	25,034
62.05	5,746	64.70	25,401
62.10	6,120	64.75	25,768
62.15	6,495	64.80	26,135
62.20	6,869	64.85	26,502
62.25	7,243	64.90	26,868
62.30	7,617	64.95	27,235
62.35	7,991	65.00	27,601
62.40	8,364	65.05	27,968
62.45	8,738	65.10	28,334
62.50	9,111	65.15	28,578
62.55	9,484	65.20	28,639
62.60	9,857	65.25	28,700
62.65	10,230	65.30	28,762
62.70	10,603	65.35	28,823
62.75	10,976	65.40	28,885
62.80	11,348	65.45	28,946
62.85	11,721	65.50	29,008
62.90	12,093	65.55	29,070
62.95	12,465	65.60	29,276
63.00	12,837	65.65	29,482
63.05	13,209	65.70	29,688
63.10	13,581	65.75	29,894
63.15	13,952	65.80	30,100
63.20	14,324	65.85	30,306
63.25	14,695	65.90	30,512
63.30	15,066	65.95	30,718
63.35	15,437	66.00	30,925
63.40	15,808	66.05	31,131
63.45	16,179		
63.50	16,549		
63.55	16,920		
63.60	17,290		
63.65	17,660		

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 31P: DRYWELL UNIT 3

Inflow Area = 21,336 sf, 100.00% Impervious, Inflow Depth > 5.16" for 25-Year event
 Inflow = 2.68 cfs @ 12.07 hrs, Volume= 9,173 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 41P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 85.73' @ 24.00 hrs Surf.Area= 3,622 sf Storage= 9,171 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	82.00'	1,660 cf	28.40'W x 74.00'L x 5.00'H Field A 10,508 cf Overall - 6,359 cf Embedded = 4,149 cf x 40.0% Voids
#2A	82.50'	4,789 cf	Concrete Galley 4x4x4 x 108 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 108 Chambers in 6 Rows
#3B	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field B 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#4B	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #3 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
#5C	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field C 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#6C	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #5 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
		10,986 cf	Total Available Storage

Storage Group A created with Chamber Wizard
 Storage Group B created with Chamber Wizard
 Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.00'	6.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=82.00' TW=80.10' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Controls 0.00 cfs)

Bridal Path Post

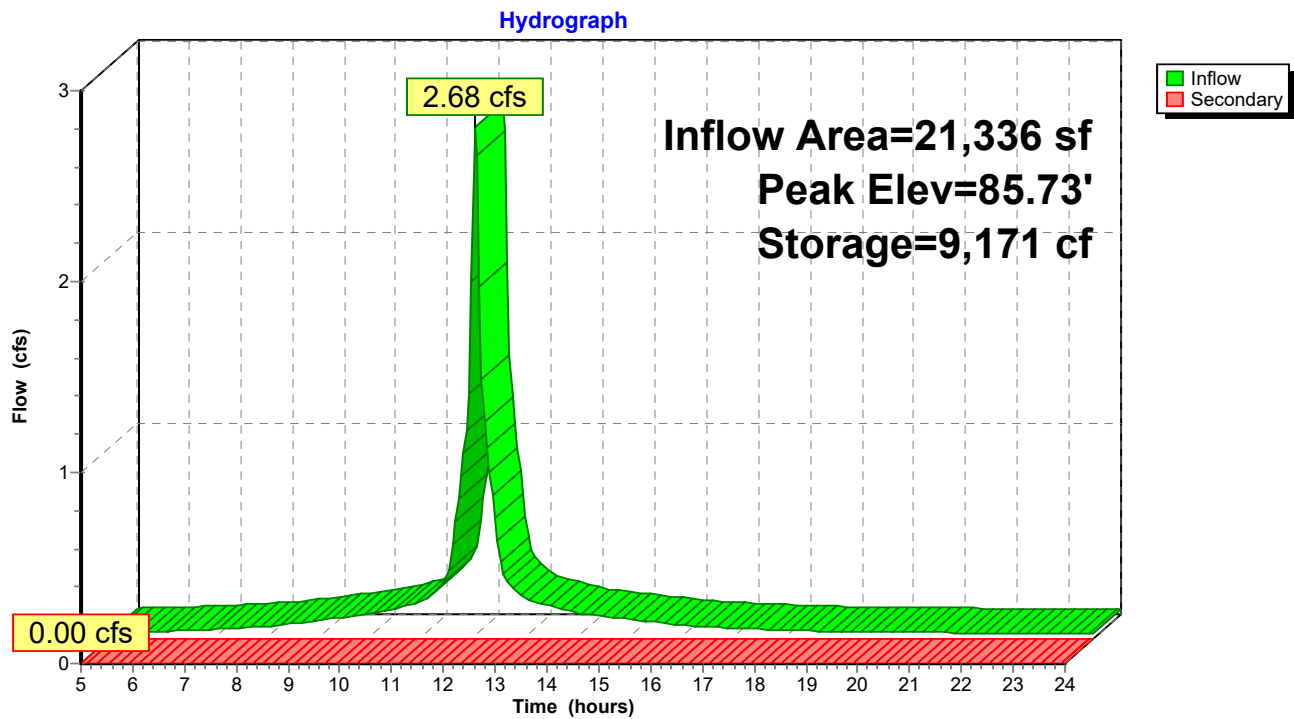
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Type III 24-hr 25-Year Rainfall=5.55"

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Pond 31P: DRYWELL UNIT 3



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
82.00	0.00	84.65	0.00	87.30	0.00
82.05	0.00	84.70	0.00	87.35	0.00
82.10	0.00	84.75	0.00	87.40	0.00
82.15	0.00	84.80	0.00	87.45	0.00
82.20	0.00	84.85	0.00	87.50	0.00
82.25	0.00	84.90	0.00	87.55	0.00
82.30	0.00	84.95	0.00	87.60	0.00
82.35	0.00	85.00	0.00	87.65	0.00
82.40	0.00	85.05	0.00	87.70	0.00
82.45	0.00	85.10	0.00	87.75	0.00
82.50	0.00	85.15	0.00	87.80	0.00
82.55	0.00	85.20	0.00	87.85	0.00
82.60	0.00	85.25	0.00	87.90	0.00
82.65	0.00	85.30	0.00	87.95	0.00
82.70	0.00	85.35	0.00	88.00	0.00
82.75	0.00	85.40	0.00		
82.80	0.00	85.45	0.00		
82.85	0.00	85.50	0.00		
82.90	0.00	85.55	0.00		
82.95	0.00	85.60	0.00		
83.00	0.00	85.65	0.00		
83.05	0.00	85.70	0.00		
83.10	0.00	85.75	0.00		
83.15	0.00	85.80	0.00		
83.20	0.00	85.85	0.00		
83.25	0.00	85.90	0.00		
83.30	0.00	85.95	0.00		
83.35	0.00	86.00	0.00		
83.40	0.00	86.05	0.00		
83.45	0.00	86.10	0.00		
83.50	0.00	86.15	0.00		
83.55	0.00	86.20	0.00		
83.60	0.00	86.25	0.00		
83.65	0.00	86.30	0.00		
83.70	0.00	86.35	0.00		
83.75	0.00	86.40	0.00		
83.80	0.00	86.45	0.00		
83.85	0.00	86.50	0.00		
83.90	0.00	86.55	0.00		
83.95	0.00	86.60	0.00		
84.00	0.00	86.65	0.00		
84.05	0.00	86.70	0.00		
84.10	0.00	86.75	0.00		
84.15	0.00	86.80	0.00		
84.20	0.00	86.85	0.00		
84.25	0.00	86.90	0.00		
84.30	0.00	86.95	0.00		
84.35	0.00	87.00	0.00		
84.40	0.00	87.05	0.00		
84.45	0.00	87.10	0.00		
84.50	0.00	87.15	0.00		
84.55	0.00	87.20	0.00		
84.60	0.00	87.25	0.00		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
82.00	0	84.65	6,367	87.30	10,986
82.05	72	84.70	6,498	87.35	10,986
82.10	145	84.75	6,629	87.40	10,986
82.15	217	84.80	6,759	87.45	10,986
82.20	290	84.85	6,890	87.50	10,986
82.25	362	84.90	7,020	87.55	10,986
82.30	435	84.95	7,151	87.60	10,986
82.35	507	85.00	7,281	87.65	10,986
82.40	579	85.05	7,411	87.70	10,986
82.45	652	85.10	7,542	87.75	10,986
82.50	724	85.15	7,672	87.80	10,986
82.55	852	85.20	7,802	87.85	10,986
82.60	979	85.25	7,932	87.90	10,986
82.65	1,107	85.30	8,062	87.95	10,986
82.70	1,235	85.35	8,192	88.00	10,986
82.75	1,365	85.40	8,322		
82.80	1,496	85.45	8,452		
82.85	1,629	85.50	8,582		
82.90	1,762	85.55	8,712		
82.95	1,894	85.60	8,842		
83.00	2,026	85.65	8,972		
83.05	2,159	85.70	9,101		
83.10	2,291	85.75	9,231		
83.15	2,423	85.80	9,361		
83.20	2,555	85.85	9,490		
83.25	2,688	85.90	9,620		
83.30	2,820	85.95	9,749		
83.35	2,952	86.00	9,879		
83.40	3,084	86.05	10,008		
83.45	3,216	86.10	10,094		
83.50	3,347	86.15	10,115		
83.55	3,479	86.20	10,136		
83.60	3,611	86.25	10,157		
83.65	3,743	86.30	10,178		
83.70	3,875	86.35	10,199		
83.75	4,006	86.40	10,220		
83.80	4,138	86.45	10,241		
83.85	4,269	86.50	10,262		
83.90	4,401	86.55	10,334		
83.95	4,532	86.60	10,407		
84.00	4,664	86.65	10,479		
84.05	4,795	86.70	10,552		
84.10	4,926	86.75	10,624		
84.15	5,058	86.80	10,696		
84.20	5,189	86.85	10,769		
84.25	5,320	86.90	10,841		
84.30	5,451	86.95	10,914		
84.35	5,582	87.00	10,986		
84.40	5,713	87.05	10,986		
84.45	5,844	87.10	10,986		
84.50	5,975	87.15	10,986		
84.55	6,106	87.20	10,986		
84.60	6,236	87.25	10,986		

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 36P: DRYWELL UNIT 4

Inflow Area = 5,816 sf, 100.00% Impervious, Inflow Depth > 26.72" for 25-Year event
 Inflow = 3.84 cfs @ 12.08 hrs, Volume= 12,948 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 40P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 81.35' @ 24.00 hrs Surf.Area= 5,220 sf Storage= 12,947 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,846 cf	90.00'W x 58.00'L x 5.00'H Field A 26,100 cf Overall - 16,485 cf Embedded = 9,615 cf x 40.0% Voids
#2A	78.30'	12,417 cf	Concrete Galley 4x4x4 x 280 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 280 Chambers in 20 Rows
		16,262 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=77.80' TW=63.52' (Dynamic Tailwater)
 ↳ **1=Orifice/Grate** (Controls 0.00 cfs)

Bridal Path Post

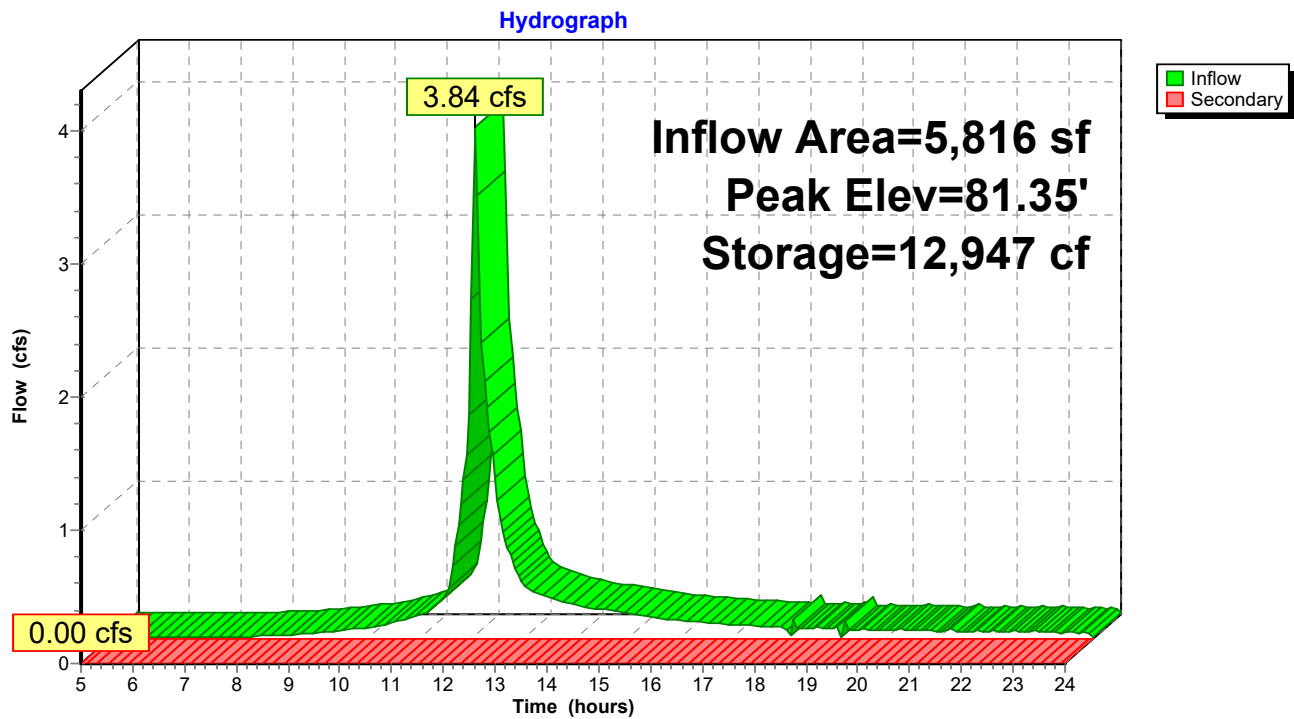
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Type III 24-hr 25-Year Rainfall=5.55"

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Pond 36P: DRYWELL UNIT 4



Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Stage-Discharge for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00		
80.25	0.00	82.90	0.00	85.55	0.00		
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	16,262
77.90	209	83.20	16,262
78.00	418	83.30	16,262
78.10	626	83.40	16,262
78.20	835	83.50	16,262
78.30	1,044	83.60	16,262
78.40	1,424	83.70	16,262
78.50	1,805	83.80	16,262
78.60	2,196	83.90	16,262
78.70	2,591	84.00	16,262
78.80	2,987	84.10	16,262
78.90	3,382	84.20	16,262
79.00	3,777	84.30	16,262
79.10	4,171	84.40	16,262
79.20	4,565	84.50	16,262
79.30	4,959	84.60	16,262
79.40	5,353	84.70	16,262
79.50	5,746	84.80	16,262
79.60	6,139	84.90	16,262
79.70	6,531	85.00	16,262
79.80	6,924	85.10	16,262
79.90	7,316	85.20	16,262
80.00	7,707	85.30	16,262
80.10	8,099	85.40	16,262
80.20	8,490	85.50	16,262
80.30	8,881	85.60	16,262
80.40	9,271	85.70	16,262
80.50	9,661	85.80	16,262
80.60	10,051	85.90	16,262
80.70	10,441	86.00	16,262
80.80	10,830	86.10	16,262
80.90	11,219	86.20	16,262
81.00	11,607	86.30	16,262
81.10	11,996	86.40	16,262
81.20	12,384	86.50	16,262
81.30	12,771	86.60	16,262
81.40	13,159	86.70	16,262
81.50	13,546	86.80	16,262
81.60	13,932	86.90	16,262
81.70	14,319	87.00	16,262
81.80	14,705	87.10	16,262
81.90	15,023	87.20	16,262
82.00	15,072	87.30	16,262
82.10	15,120	87.40	16,262
82.20	15,169	87.50	16,262
82.30	15,218	87.60	16,262
82.40	15,427	87.70	16,262
82.50	15,636	87.80	16,262
82.60	15,845	87.90	16,262
82.70	16,054	88.00	16,262
82.80	16,262	88.10	16,262
82.90	16,262		
83.00	16,262		

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 38P: DRYWELL UNIT 1

Inflow Area = 4,320 sf, 100.00% Impervious, Inflow Depth > 5.16" for 25-Year event
 Inflow = 0.54 cfs @ 12.07 hrs, Volume= 1,857 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 69.24' @ 24.00 hrs Surf.Area= 853 sf Storage= 1,857 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

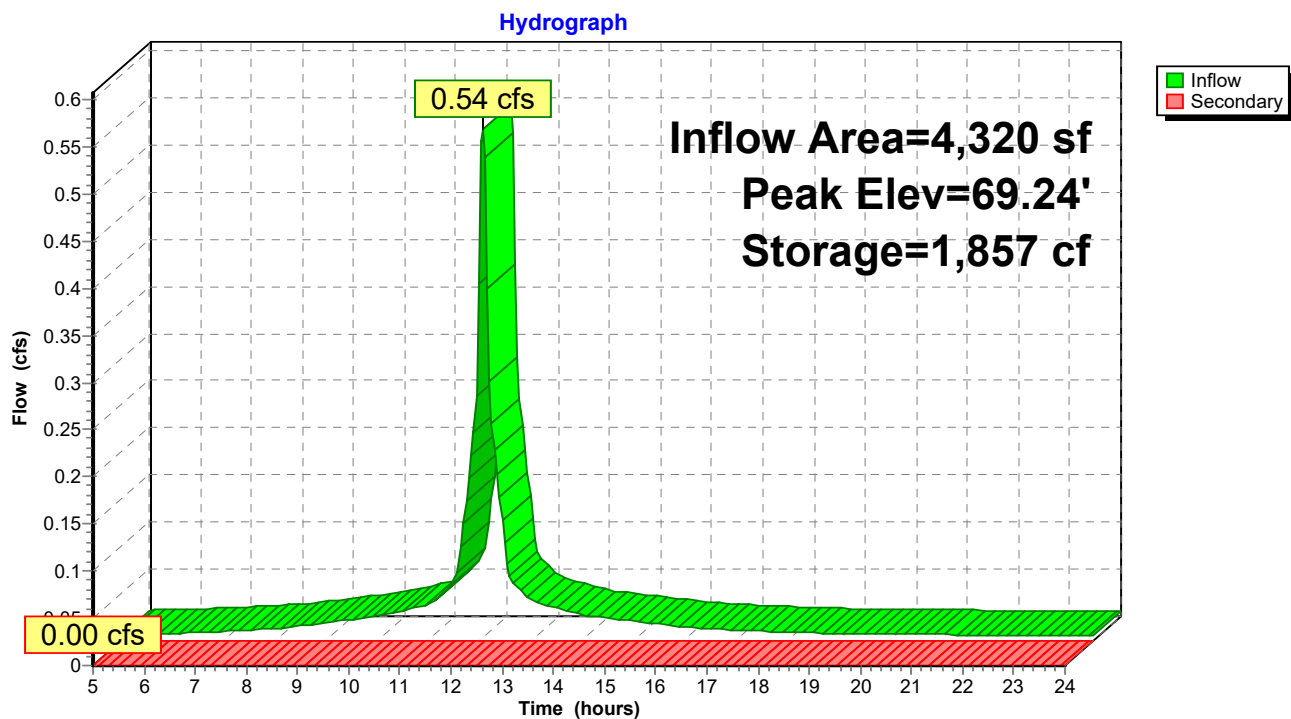
Volume	Invert	Avail.Storage	Storage Description
#1A	66.00'	716 cf	32.80'W x 26.00'L x 5.00'H Field A 4,264 cf Overall - 2,473 cf Embedded = 1,791 cf x 40.0% Voids
#2A	66.50'	1,862 cf	Concrete Galley 4x4x4 x 42 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 42 Chambers in 7 Rows
		2,579 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	72.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.00' TW=63.52' (Dynamic Tailwater)
 ↑ **1=Orifice/Grate** (Controls 0.00 cfs)

Pond 38P: DRYWELL UNIT 1



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
66.00	0.00	68.65	0.00	71.30	0.00
66.05	0.00	68.70	0.00	71.35	0.00
66.10	0.00	68.75	0.00	71.40	0.00
66.15	0.00	68.80	0.00	71.45	0.00
66.20	0.00	68.85	0.00	71.50	0.00
66.25	0.00	68.90	0.00	71.55	0.00
66.30	0.00	68.95	0.00	71.60	0.00
66.35	0.00	69.00	0.00	71.65	0.00
66.40	0.00	69.05	0.00	71.70	0.00
66.45	0.00	69.10	0.00	71.75	0.00
66.50	0.00	69.15	0.00	71.80	0.00
66.55	0.00	69.20	0.00	71.85	0.00
66.60	0.00	69.25	0.00	71.90	0.00
66.65	0.00	69.30	0.00	71.95	0.00
66.70	0.00	69.35	0.00	72.00	0.00
66.75	0.00	69.40	0.00		
66.80	0.00	69.45	0.00		
66.85	0.00	69.50	0.00		
66.90	0.00	69.55	0.00		
66.95	0.00	69.60	0.00		
67.00	0.00	69.65	0.00		
67.05	0.00	69.70	0.00		
67.10	0.00	69.75	0.00		
67.15	0.00	69.80	0.00		
67.20	0.00	69.85	0.00		
67.25	0.00	69.90	0.00		
67.30	0.00	69.95	0.00		
67.35	0.00	70.00	0.00		
67.40	0.00	70.05	0.00		
67.45	0.00	70.10	0.00		
67.50	0.00	70.15	0.00		
67.55	0.00	70.20	0.00		
67.60	0.00	70.25	0.00		
67.65	0.00	70.30	0.00		
67.70	0.00	70.35	0.00		
67.75	0.00	70.40	0.00		
67.80	0.00	70.45	0.00		
67.85	0.00	70.50	0.00		
67.90	0.00	70.55	0.00		
67.95	0.00	70.60	0.00		
68.00	0.00	70.65	0.00		
68.05	0.00	70.70	0.00		
68.10	0.00	70.75	0.00		
68.15	0.00	70.80	0.00		
68.20	0.00	70.85	0.00		
68.25	0.00	70.90	0.00		
68.30	0.00	70.95	0.00		
68.35	0.00	71.00	0.00		
68.40	0.00	71.05	0.00		
68.45	0.00	71.10	0.00		
68.50	0.00	71.15	0.00		
68.55	0.00	71.20	0.00		
68.60	0.00	71.25	0.00		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
66.00	0	68.65	1,494	71.30	2,579
66.05	17	68.70	1,525	71.35	2,579
66.10	34	68.75	1,555	71.40	2,579
66.15	51	68.80	1,586	71.45	2,579
66.20	68	68.85	1,616	71.50	2,579
66.25	85	68.90	1,647	71.55	2,579
66.30	102	68.95	1,678	71.60	2,579
66.35	119	69.00	1,708	71.65	2,579
66.40	136	69.05	1,739	71.70	2,579
66.45	154	69.10	1,769	71.75	2,579
66.50	171	69.15	1,800	71.80	2,579
66.55	200	69.20	1,830	71.85	2,579
66.60	230	69.25	1,861	71.90	2,579
66.65	260	69.30	1,891	71.95	2,579
66.70	290	69.35	1,922	72.00	2,579
66.75	321	69.40	1,952		
66.80	352	69.45	1,983		
66.85	383	69.50	2,013		
66.90	414	69.55	2,044		
66.95	445	69.60	2,074		
67.00	476	69.65	2,105		
67.05	507	69.70	2,135		
67.10	538	69.75	2,166		
67.15	569	69.80	2,196		
67.20	600	69.85	2,226		
67.25	631	69.90	2,257		
67.30	662	69.95	2,287		
67.35	693	70.00	2,317		
67.40	724	70.05	2,348		
67.45	755	70.10	2,368		
67.50	786	70.15	2,373		
67.55	817	70.20	2,378		
67.60	848	70.25	2,383		
67.65	878	70.30	2,388		
67.70	909	70.35	2,393		
67.75	940	70.40	2,398		
67.80	971	70.45	2,403		
67.85	1,002	70.50	2,408		
67.90	1,033	70.55	2,425		
67.95	1,064	70.60	2,443		
68.00	1,094	70.65	2,460		
68.05	1,125	70.70	2,477		
68.10	1,156	70.75	2,494		
68.15	1,187	70.80	2,511		
68.20	1,218	70.85	2,528		
68.25	1,248	70.90	2,545		
68.30	1,279	70.95	2,562		
68.35	1,310	71.00	2,579		
68.40	1,340	71.05	2,579		
68.45	1,371	71.10	2,579		
68.50	1,402	71.15	2,579		
68.55	1,433	71.20	2,579		
68.60	1,463	71.25	2,579		

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 39P: CB 1

Inflow Area = 35,612 sf, 69.66% Impervious, Inflow Depth > 3.35" for 25-Year event
Inflow = 3.19 cfs @ 12.08 hrs, Volume= 9,930 cf
Outflow = 3.19 cfs @ 12.08 hrs, Volume= 9,930 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.19 cfs @ 12.08 hrs, Volume= 9,930 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

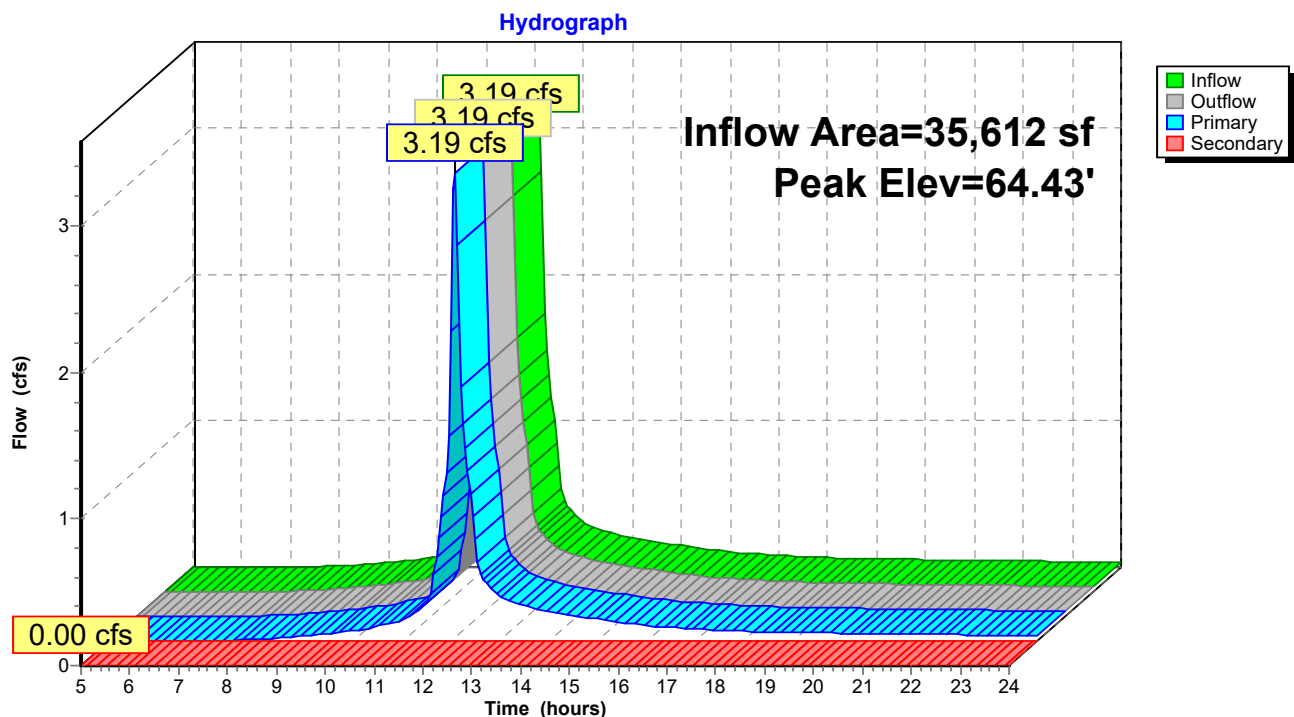
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.43' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.09 cfs @ 12.08 hrs HW=64.41' TW=62.23' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 3.09 cfs @ 3.24 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 39P: CB 1



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 39P: CB 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 39P: CB 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 40P: CB 2

Inflow Area = 43,608 sf, 61.00% Impervious, Inflow Depth > 2.89" for 25-Year event
Inflow = 3.37 cfs @ 12.08 hrs, Volume= 10,498 cf
Outflow = 3.37 cfs @ 12.08 hrs, Volume= 10,498 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.37 cfs @ 12.08 hrs, Volume= 10,498 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Routed to Reach DPBpost : DP-B

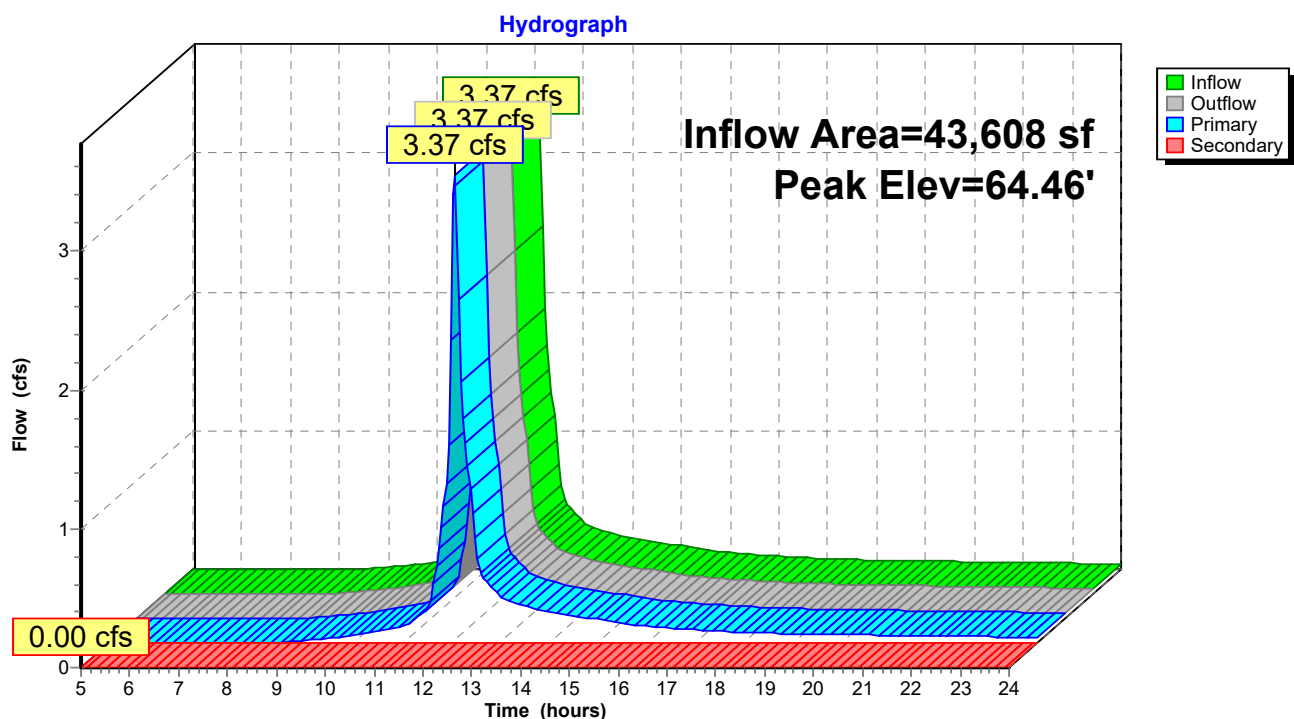
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 64.46' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.26 cfs @ 12.08 hrs HW=64.44' TW=62.24' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 3.26 cfs @ 3.30 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=63.52' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 40P: CB 2



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 40P: CB 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 40P: CB 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0		
63.92	0	64.98	0		
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 41P: CB 3

Inflow Area = 37,941 sf, 67.91% Impervious, Inflow Depth > 3.28" for 25-Year event
Inflow = 3.35 cfs @ 12.08 hrs, Volume= 10,366 cf
Outflow = 3.35 cfs @ 12.08 hrs, Volume= 10,366 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.35 cfs @ 12.08 hrs, Volume= 10,366 cf
Routed to Pond 44P : (new Pond)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

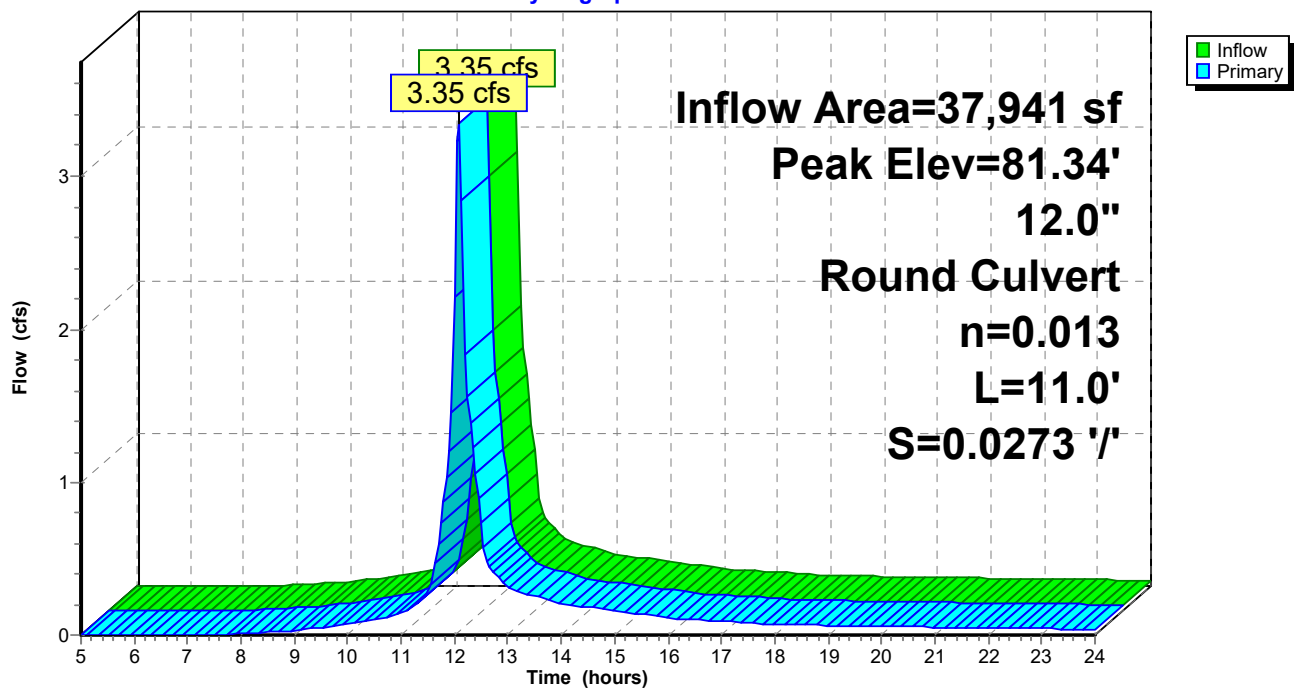
Peak Elev= 81.34' @ 24.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0273 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.24 cfs @ 12.08 hrs HW=81.33' TW=80.34' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 3.24 cfs @ 4.13 fps)

Pond 41P: CB 3

Hydrograph



Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Stage-Discharge for Pond 41P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05	81.16	2.83
80.11	0.00	80.64	1.08	81.17	2.86
80.12	0.00	80.65	1.12	81.18	2.88
80.13	0.00	80.66	1.15	81.19	2.90
80.14	0.01	80.67	1.19	81.20	2.93
80.15	0.01	80.68	1.22	81.21	2.95
80.16	0.02	80.69	1.26	81.22	2.98
80.17	0.02	80.70	1.30	81.23	3.00
80.18	0.03	80.71	1.33	81.24	3.03
80.19	0.04	80.72	1.37	81.25	3.05
80.20	0.04	80.73	1.41	81.26	3.07
80.21	0.05	80.74	1.45	81.27	3.10
80.22	0.06	80.75	1.48	81.28	3.12
80.23	0.07	80.76	1.52	81.29	3.14
80.24	0.09	80.77	1.56	81.30	3.16
80.25	0.10	80.78	1.60	81.31	3.19
80.26	0.11	80.79	1.63	81.32	3.21
80.27	0.12	80.80	1.67	81.33	3.23
80.28	0.14	80.81	1.71	81.34	3.25
80.29	0.15	80.82	1.75	81.35	3.28
80.30	0.17	80.83	1.79		
80.31	0.19	80.84	1.83		
80.32	0.20	80.85	1.86		
80.33	0.22	80.86	1.90		
80.34	0.24	80.87	1.94		
80.35	0.26	80.88	1.98		
80.36	0.28	80.89	2.01		
80.37	0.30	80.90	2.05		
80.38	0.32	80.91	2.09		
80.39	0.35	80.92	2.13		
80.40	0.37	80.93	2.16		
80.41	0.39	80.94	2.20		
80.42	0.42	80.95	2.23		
80.43	0.44	80.96	2.27		
80.44	0.47	80.97	2.30		
80.45	0.49	80.98	2.34		
80.46	0.52	80.99	2.37		
80.47	0.55	81.00	2.40		
80.48	0.57	81.01	2.44		
80.49	0.60	81.02	2.47		
80.50	0.63	81.03	2.50		
80.51	0.66	81.04	2.53		
80.52	0.69	81.05	2.56		
80.53	0.72	81.06	2.58		
80.54	0.75	81.07	2.61		
80.55	0.78	81.08	2.63		
80.56	0.81	81.09	2.66		
80.57	0.85	81.10	2.67		
80.58	0.88	81.11	2.70		
80.59	0.91	81.12	2.73		
80.60	0.95	81.13	2.75		
80.61	0.98	81.14	2.78		
80.62	1.01	81.15	2.80		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 41P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0	81.16	0
80.11	0	80.64	0	81.17	0
80.12	0	80.65	0	81.18	0
80.13	0	80.66	0	81.19	0
80.14	0	80.67	0	81.20	0
80.15	0	80.68	0	81.21	0
80.16	0	80.69	0	81.22	0
80.17	0	80.70	0	81.23	0
80.18	0	80.71	0	81.24	0
80.19	0	80.72	0	81.25	0
80.20	0	80.73	0	81.26	0
80.21	0	80.74	0	81.27	0
80.22	0	80.75	0	81.28	0
80.23	0	80.76	0	81.29	0
80.24	0	80.77	0	81.30	0
80.25	0	80.78	0	81.31	0
80.26	0	80.79	0	81.32	0
80.27	0	80.80	0	81.33	0
80.28	0	80.81	0	81.34	0
80.29	0	80.82	0	81.35	0
80.30	0	80.83	0		
80.31	0	80.84	0		
80.32	0	80.85	0		
80.33	0	80.86	0		
80.34	0	80.87	0		
80.35	0	80.88	0		
80.36	0	80.89	0		
80.37	0	80.90	0		
80.38	0	80.91	0		
80.39	0	80.92	0		
80.40	0	80.93	0		
80.41	0	80.94	0		
80.42	0	80.95	0		
80.43	0	80.96	0		
80.44	0	80.97	0		
80.45	0	80.98	0		
80.46	0	80.99	0		
80.47	0	81.00	0		
80.48	0	81.01	0		
80.49	0	81.02	0		
80.50	0	81.03	0		
80.51	0	81.04	0		
80.52	0	81.05	0		
80.53	0	81.06	0		
80.54	0	81.07	0		
80.55	0	81.08	0		
80.56	0	81.09	0		
80.57	0	81.10	0		
80.58	0	81.11	0		
80.59	0	81.12	0		
80.60	0	81.13	0		
80.61	0	81.14	0		
80.62	0	81.15	0		

Bridal Path Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 42P: CB 3

Inflow Area = 39,906 sf, 57.74% Impervious, Inflow Depth > 2.72" for 25-Year event
Inflow = 2.92 cfs @ 12.08 hrs, Volume= 9,037 cf
Outflow = 2.92 cfs @ 12.08 hrs, Volume= 9,037 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.92 cfs @ 12.08 hrs, Volume= 9,037 cf
Routed to Pond 44P : (new Pond)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

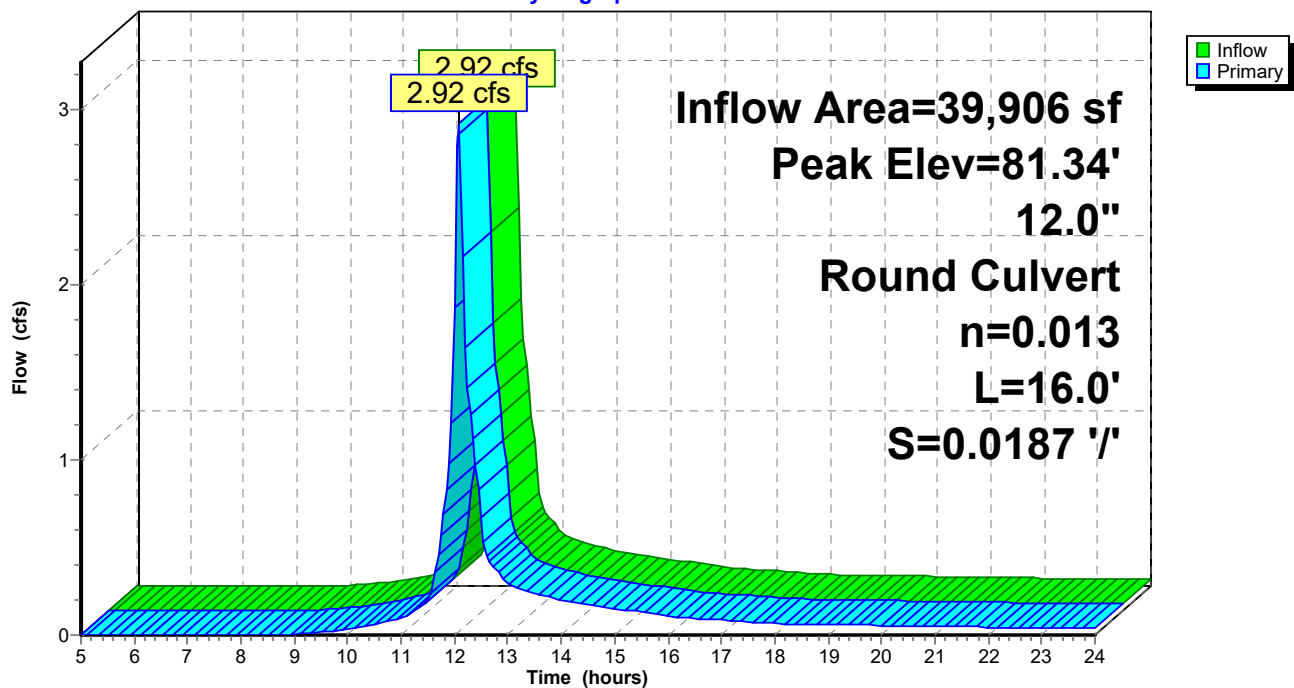
Peak Elev= 81.34' @ 24.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0187 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.83 cfs @ 12.08 hrs HW=81.16' TW=80.34' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 2.83 cfs @ 3.60 fps)

Pond 42P: CB 3

Hydrograph



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 42P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	80.63	1.05	81.16	2.83
80.11	0.00	80.64	1.08	81.17	2.86
80.12	0.00	80.65	1.12	81.18	2.88
80.13	0.00	80.66	1.15	81.19	2.90
80.14	0.01	80.67	1.19	81.20	2.93
80.15	0.01	80.68	1.22	81.21	2.95
80.16	0.02	80.69	1.25	81.22	2.98
80.17	0.02	80.70	1.29	81.23	3.00
80.18	0.03	80.71	1.32	81.24	3.03
80.19	0.04	80.72	1.36	81.25	3.05
80.20	0.04	80.73	1.39	81.26	3.07
80.21	0.05	80.74	1.43	81.27	3.10
80.22	0.06	80.75	1.46	81.28	3.12
80.23	0.07	80.76	1.50	81.29	3.14
80.24	0.09	80.77	1.53	81.30	3.16
80.25	0.10	80.78	1.57	81.31	3.19
80.26	0.11	80.79	1.60	81.32	3.21
80.27	0.12	80.80	1.64	81.33	3.23
80.28	0.14	80.81	1.68	81.34	3.25
80.29	0.15	80.82	1.71	81.35	3.28
80.30	0.17	80.83	1.75		
80.31	0.19	80.84	1.79		
80.32	0.20	80.85	1.82		
80.33	0.22	80.86	1.86		
80.34	0.24	80.87	1.90		
80.35	0.26	80.88	1.93		
80.36	0.28	80.89	1.97		
80.37	0.30	80.90	2.01		
80.38	0.32	80.91	2.04		
80.39	0.35	80.92	2.08		
80.40	0.37	80.93	2.12		
80.41	0.39	80.94	2.15		
80.42	0.42	80.95	2.19		
80.43	0.44	80.96	2.23		
80.44	0.47	80.97	2.26		
80.45	0.49	80.98	2.30		
80.46	0.52	80.99	2.34		
80.47	0.55	81.00	2.37		
80.48	0.57	81.01	2.41		
80.49	0.60	81.02	2.45		
80.50	0.63	81.03	2.48		
80.51	0.66	81.04	2.52		
80.52	0.69	81.05	2.56		
80.53	0.72	81.06	2.58		
80.54	0.75	81.07	2.61		
80.55	0.78	81.08	2.63		
80.56	0.81	81.09	2.66		
80.57	0.85	81.10	2.67		
80.58	0.88	81.11	2.70		
80.59	0.91	81.12	2.73		
80.60	0.95	81.13	2.75		
80.61	0.98	81.14	2.78		
80.62	1.01	81.15	2.80		

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 42P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	80.63	0	81.16	0
80.11	0	80.64	0	81.17	0
80.12	0	80.65	0	81.18	0
80.13	0	80.66	0	81.19	0
80.14	0	80.67	0	81.20	0
80.15	0	80.68	0	81.21	0
80.16	0	80.69	0	81.22	0
80.17	0	80.70	0	81.23	0
80.18	0	80.71	0	81.24	0
80.19	0	80.72	0	81.25	0
80.20	0	80.73	0	81.26	0
80.21	0	80.74	0	81.27	0
80.22	0	80.75	0	81.28	0
80.23	0	80.76	0	81.29	0
80.24	0	80.77	0	81.30	0
80.25	0	80.78	0	81.31	0
80.26	0	80.79	0	81.32	0
80.27	0	80.80	0	81.33	0
80.28	0	80.81	0	81.34	0
80.29	0	80.82	0	81.35	0
80.30	0	80.83	0		
80.31	0	80.84	0		
80.32	0	80.85	0		
80.33	0	80.86	0		
80.34	0	80.87	0		
80.35	0	80.88	0		
80.36	0	80.89	0		
80.37	0	80.90	0		
80.38	0	80.91	0		
80.39	0	80.92	0		
80.40	0	80.93	0		
80.41	0	80.94	0		
80.42	0	80.95	0		
80.43	0	80.96	0		
80.44	0	80.97	0		
80.45	0	80.98	0		
80.46	0	80.99	0		
80.47	0	81.00	0		
80.48	0	81.01	0		
80.49	0	81.02	0		
80.50	0	81.03	0		
80.51	0	81.04	0		
80.52	0	81.05	0		
80.53	0	81.06	0		
80.54	0	81.07	0		
80.55	0	81.08	0		
80.56	0	81.09	0		
80.57	0	81.10	0		
80.58	0	81.11	0		
80.59	0	81.12	0		
80.60	0	81.13	0		
80.61	0	81.14	0		
80.62	0	81.15	0		

Bridal Path Post

Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Pond 44P: (new Pond)

Inflow Area = 77,847 sf, 62.69% Impervious, Inflow Depth > 2.99" for 25-Year event
 Inflow = 6.26 cfs @ 12.08 hrs, Volume= 19,402 cf
 Outflow = 6.26 cfs @ 12.08 hrs, Volume= 19,402 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.15 cfs @ 12.08 hrs, Volume= 8,954 cf
 Routed to Pond 2P : DRYWELL UNIT 2
 Secondary = 3.12 cfs @ 12.08 hrs, Volume= 10,448 cf
 Routed to Pond 36P : DRYWELL UNIT 4

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 81.34' @ 24.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	79.20'	12.0" Round Culvert L= 86.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	79.20'	12.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0113 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.03 cfs @ 12.08 hrs HW=80.34' TW=79.19' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 3.03 cfs @ 3.86 fps)**Secondary OutFlow** Max=3.03 cfs @ 12.08 hrs HW=80.34' TW=79.07' (Dynamic Tailwater)↑**2=Culvert** (Inlet Controls 3.03 cfs @ 3.86 fps)

Bridal Path Post

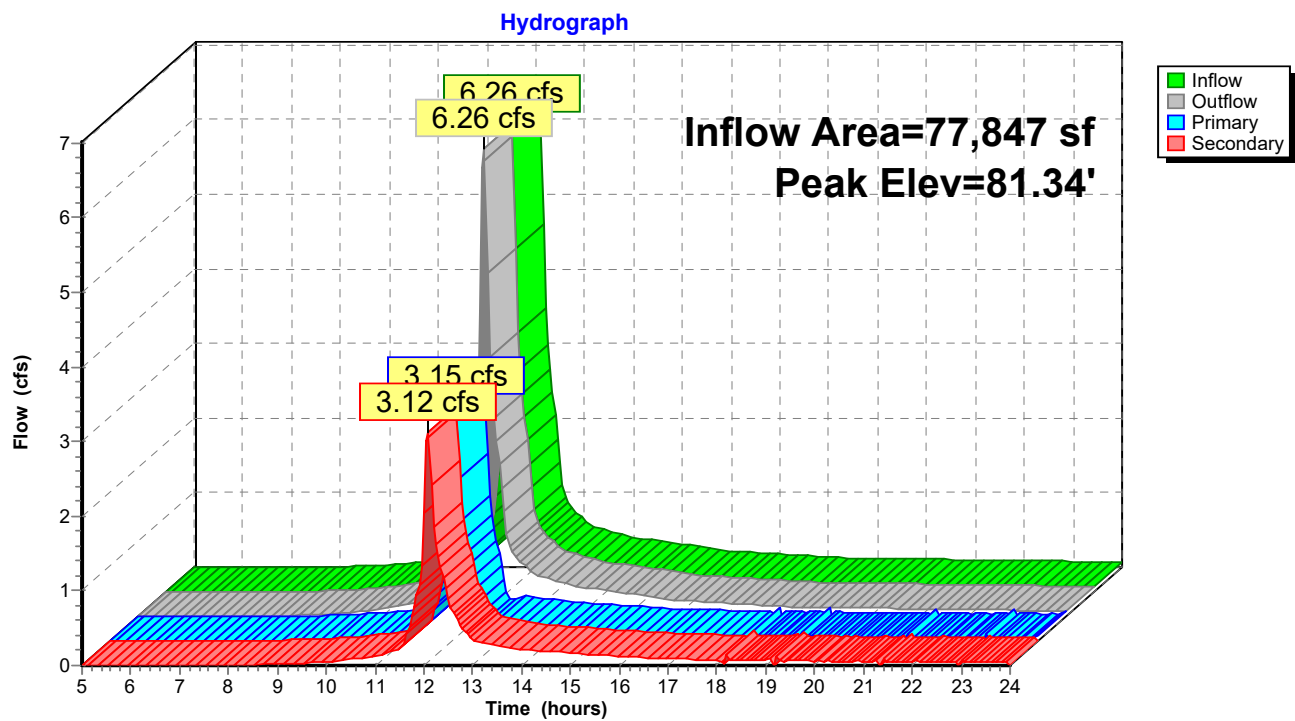
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Type III 24-hr 25-Year Rainfall=5.55"

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Pond 44P: (new Pond)



Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Pond 44P: (new Pond)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
79.20	0.00	0.00	0.00
79.25	0.02	0.01	0.01
79.30	0.08	0.04	0.04
79.35	0.19	0.09	0.10
79.40	0.34	0.17	0.17
79.45	0.52	0.26	0.26
79.50	0.74	0.37	0.37
79.55	0.99	0.49	0.49
79.60	1.26	0.63	0.63
79.65	1.57	0.78	0.78
79.70	1.89	0.95	0.95
79.75	2.24	1.12	1.12
79.80	2.60	1.30	1.30
79.85	2.97	1.48	1.48
79.90	3.35	1.67	1.67
79.95	3.73	1.86	1.86
80.00	4.10	2.05	2.05
80.05	4.47	2.23	2.23
80.10	4.81	2.40	2.40
80.15	5.12	2.56	2.56
80.20	5.35	2.67	2.67
80.25	5.61	2.80	2.80
80.30	5.86	2.93	2.93
80.35	6.10	3.05	3.05
80.40	6.33	3.16	3.16
80.45	6.55	3.28	3.28
80.50	6.76	3.38	3.38
80.55	6.92	3.44	3.49
80.60	7.09	3.51	3.59
80.65	7.23	3.57	3.66
80.70	7.36	3.64	3.72
80.75	7.49	3.70	3.79
80.80	7.62	3.77	3.85
80.85	7.75	3.83	3.92
80.90	7.87	3.89	3.98
80.95	7.99	3.95	4.04
81.00	8.11	4.01	4.10
81.05	8.23	4.07	4.16
81.10	8.35	4.13	4.22
81.15	8.46	4.18	4.28
81.20	8.58	4.24	4.34
81.25	8.69	4.29	4.39
81.30	8.80	4.35	4.45
81.35	8.91	4.40	4.51

Bridal Path Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Pond 44P: (new Pond)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
79.20	0	80.26	0	81.32	0
79.22	0	80.28	0	81.34	0
79.24	0	80.30	0	81.36	0
79.26	0	80.32	0		
79.28	0	80.34	0		
79.30	0	80.36	0		
79.32	0	80.38	0		
79.34	0	80.40	0		
79.36	0	80.42	0		
79.38	0	80.44	0		
79.40	0	80.46	0		
79.42	0	80.48	0		
79.44	0	80.50	0		
79.46	0	80.52	0		
79.48	0	80.54	0		
79.50	0	80.56	0		
79.52	0	80.58	0		
79.54	0	80.60	0		
79.56	0	80.62	0		
79.58	0	80.64	0		
79.60	0	80.66	0		
79.62	0	80.68	0		
79.64	0	80.70	0		
79.66	0	80.72	0		
79.68	0	80.74	0		
79.70	0	80.76	0		
79.72	0	80.78	0		
79.74	0	80.80	0		
79.76	0	80.82	0		
79.78	0	80.84	0		
79.80	0	80.86	0		
79.82	0	80.88	0		
79.84	0	80.90	0		
79.86	0	80.92	0		
79.88	0	80.94	0		
79.90	0	80.96	0		
79.92	0	80.98	0		
79.94	0	81.00	0		
79.96	0	81.02	0		
79.98	0	81.04	0		
80.00	0	81.06	0		
80.02	0	81.08	0		
80.04	0	81.10	0		
80.06	0	81.12	0		
80.08	0	81.14	0		
80.10	0	81.16	0		
80.12	0	81.18	0		
80.14	0	81.20	0		
80.16	0	81.22	0		
80.18	0	81.24	0		
80.20	0	81.26	0		
80.22	0	81.28	0		
80.24	0	81.30	0		

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment40S: GARAGE 6	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.24 cfs 815 cf
SubcatchmentA1: AREA 1	Runoff Area=37,941 sf 67.91% Impervious Runoff Depth>4.58" Tc=5.0 min CN=79 Runoff=4.67 cfs 14,486 cf
SubcatchmentA2: AREA 2	Runoff Area=39,906 sf 57.74% Impervious Runoff Depth>3.93" Tc=5.0 min CN=73 Runoff=4.23 cfs 13,078 cf
SubcatchmentA3: AREA 3	Runoff Area=42,112 sf 59.62% Impervious Runoff Depth>4.04" Tc=5.0 min CN=74 Runoff=4.58 cfs 14,175 cf
SubcatchmentA4: AREA 4	Runoff Area=34,332 sf 68.52% Impervious Runoff Depth>4.58" Tc=5.0 min CN=79 Runoff=4.23 cfs 13,108 cf
SubcatchmentB(OL): OVERLAND TO B	Runoff Area=38,328 sf 2.80% Impervious Runoff Depth>0.84" Tc=5.0 min CN=40 Runoff=0.48 cfs 2,686 cf
SubcatchmentBLD1: BLD 1	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD2: BLD 2	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD3: BLD 3	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD4: BLD 4	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD5: BLD 5	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD6: BLD 6	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD7: BLD 7	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentBLD8: BLD 8	Runoff Area=4,320 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.69 cfs 2,354 cf
SubcatchmentGAR1: GARAGE 1	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.20 cfs 698 cf
SubcatchmentGAR2: GARAGE 2	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.24 cfs 815 cf

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Subcatchment GAR3: GARAGE 3	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.20 cfs 698 cf
Subcatchment GAR4: GARAGE 4	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.24 cfs 815 cf
Subcatchment GAR5: GARAGE 5	Runoff Area=1,280 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.20 cfs 698 cf
Subcatchment GAR7: GARAGE 7	Runoff Area=1,496 sf 100.00% Impervious Runoff Depth>6.54" Tc=5.0 min CN=98 Runoff=0.24 cfs 815 cf
Reach DPBpost: DP-B	Inflow=0.48 cfs 6,732 cf Outflow=0.48 cfs 6,732 cf
Pond 2P: DRYWELL UNIT 2	Peak Elev=88.14' Storage=14,371 cf Inflow=5.27 cfs 16,090 cf Outflow=0.18 cfs 1,719 cf
Pond 10P: DRYWELL UNIT 5	Peak Elev=66.03' Storage=31,037 cf Inflow=9.90 cfs 32,081 cf Outflow=0.11 cfs 1,075 cf
Pond 31P: DRYWELL UNIT 3	Peak Elev=88.14' Storage=10,986 cf Inflow=3.39 cfs 11,628 cf Outflow=0.09 cfs 639 cf
Pond 36P: DRYWELL UNIT 4	Peak Elev=88.16' Storage=16,262 cf Inflow=5.46 cfs 18,452 cf Outflow=0.37 cfs 2,183 cf
Pond 38P: DRYWELL UNIT 1	Peak Elev=70.06' Storage=2,354 cf Inflow=0.69 cfs 2,354 cf Outflow=0.00 cfs 0 cf
Pond 39P: CB 1	Peak Elev=66.03' Inflow=4.43 cfs 15,524 cf Primary=4.43 cfs 14,521 cf Secondary=0.11 cfs 1,003 cf Outflow=4.43 cfs 15,524 cf
Pond 40P: CB 2	Peak Elev=66.03' Inflow=4.82 cfs 17,174 cf Primary=4.82 cfs 15,206 cf Secondary=0.21 cfs 1,968 cf Outflow=4.82 cfs 17,174 cf
Pond 41P: CB 3	Peak Elev=88.14' Inflow=4.67 cfs 15,125 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0273 ' Outflow=4.67 cfs 15,125 cf
Pond 42P: CB 3	Peak Elev=88.14' Inflow=4.23 cfs 13,078 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0187 ' Outflow=4.23 cfs 13,078 cf
Pond 44P: (new Pond)	Peak Elev=88.13' Inflow=8.87 cfs 28,203 cf Primary=4.35 cfs 12,920 cf Secondary=4.55 cfs 15,282 cf Outflow=8.87 cfs 28,203 cf

Total Runoff Area = 237,003 sf Runoff Volume = 81,722 cf Average Runoff Depth = 4.14"
39.71% Pervious = 94,105 sf 60.29% Impervious = 142,898 sf

Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment 40S: GARAGE 6

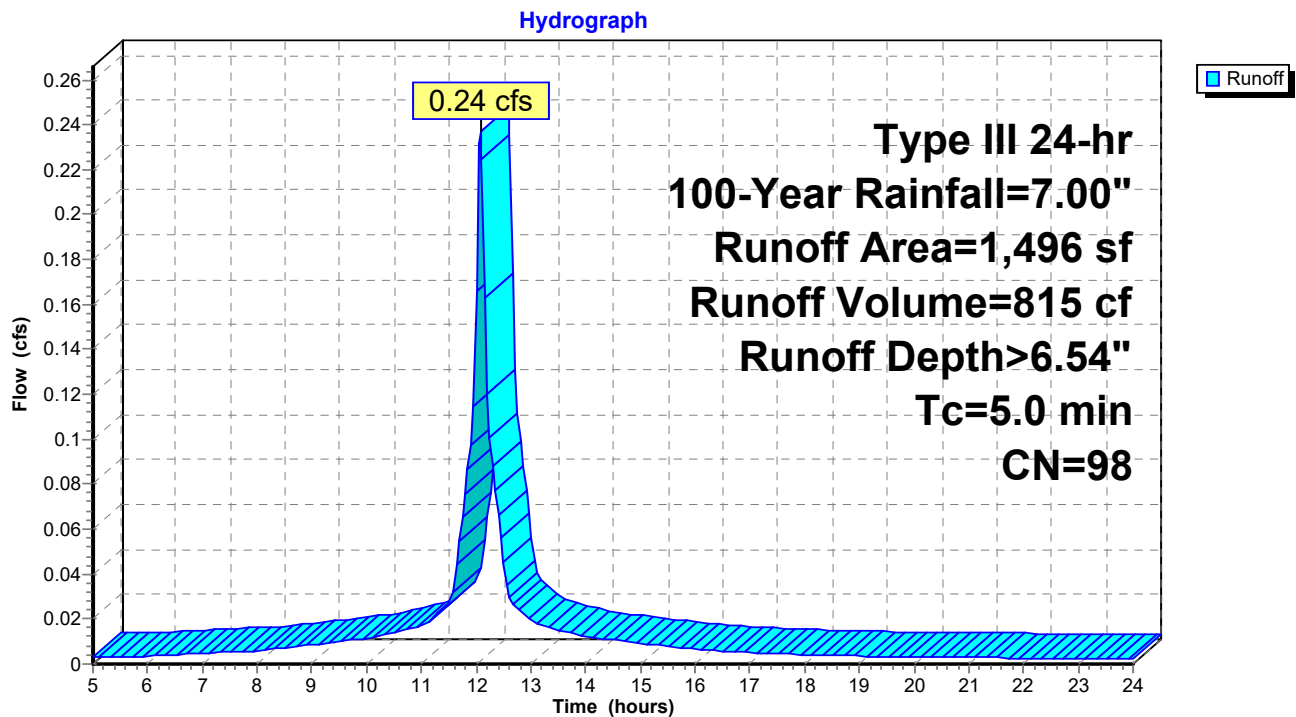
Runoff = 0.24 cfs @ 12.07 hrs, Volume= 815 cf, Depth> 6.54"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment 40S: GARAGE 6



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment A1: AREA 1

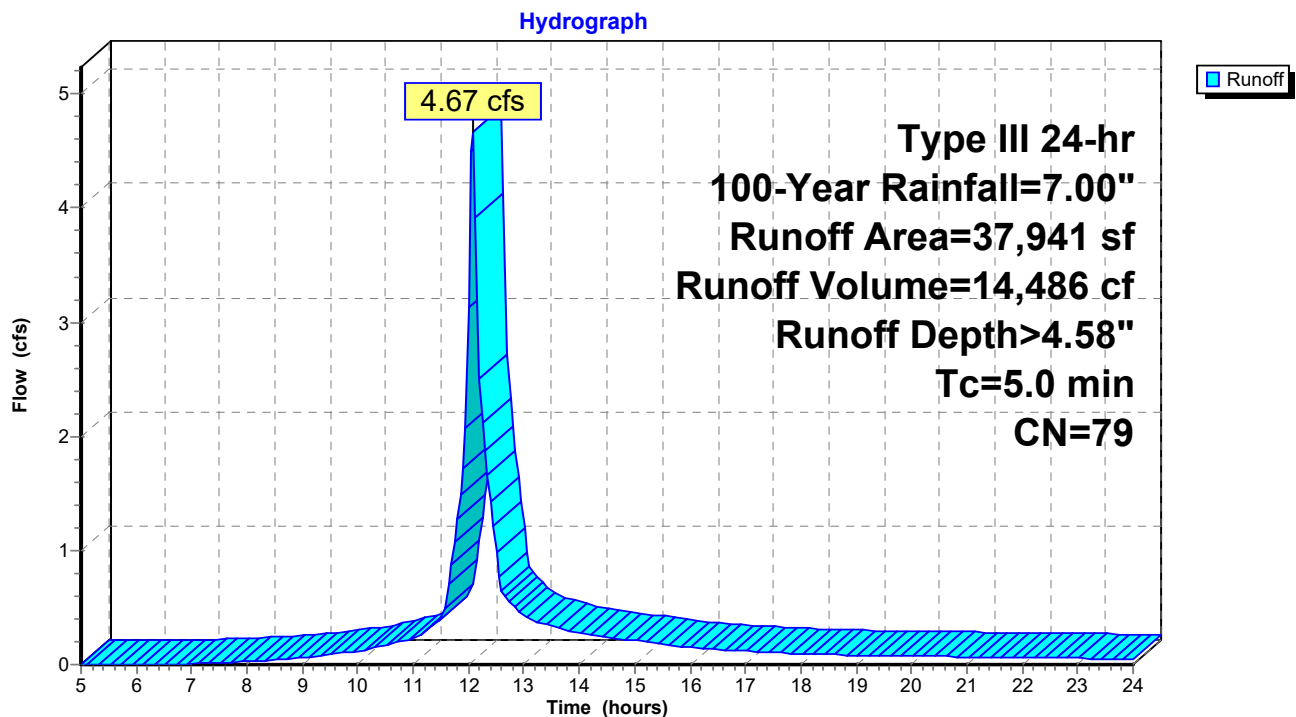
Runoff = 4.67 cfs @ 12.07 hrs, Volume= 14,486 cf, Depth> 4.58"
Routed to Pond 41P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
21,386	98	Paved roads w/curbs & sewers, HSG A
* 4,378	98	Paved parking, HSG A (Walkways)
12,177	39	>75% Grass cover, Good, HSG A
37,941	79	Weighted Average
12,177		32.09% Pervious Area
25,764		67.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A1: AREA 1



Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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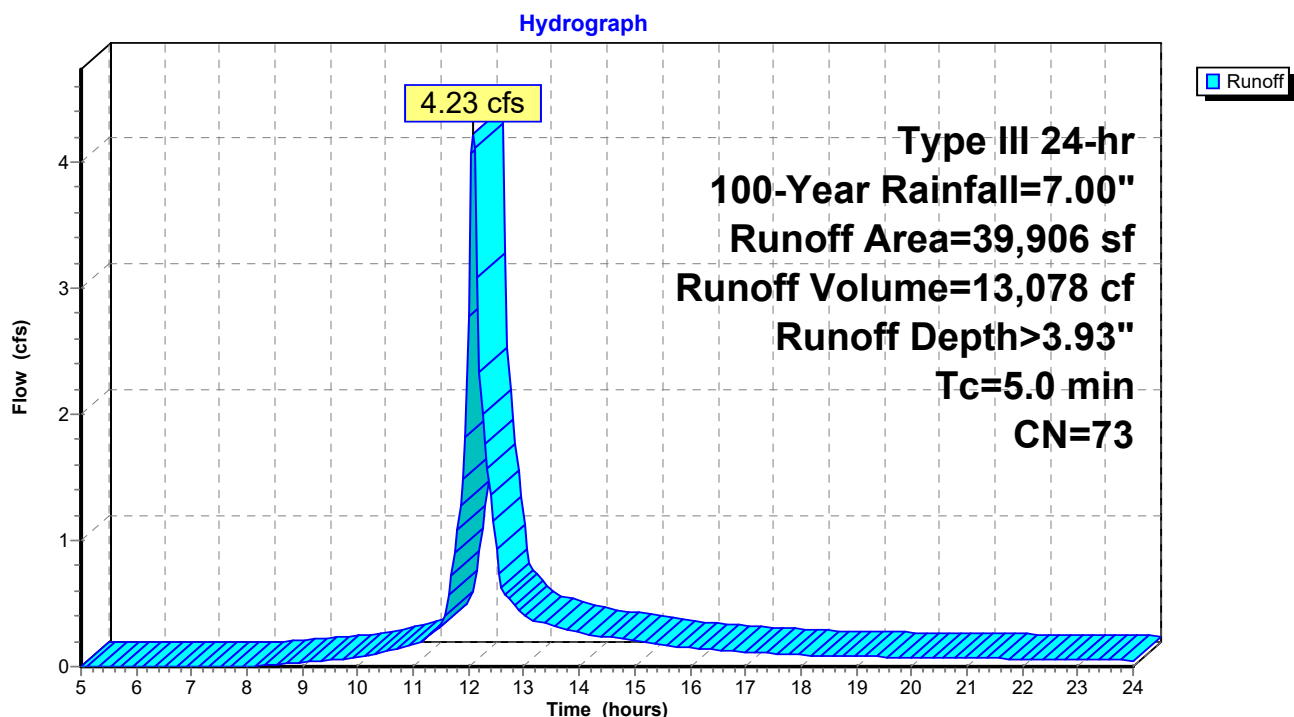
Summary for Subcatchment A2: AREA 2

Runoff = 4.23 cfs @ 12.08 hrs, Volume= 13,078 cf, Depth> 3.93"
Routed to Pond 42P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
19,287	98	Paved roads w/curbs & sewers, HSG A
* 3,755	98	Paved parking, HSG A (Walkways)
16,864	39	>75% Grass cover, Good, HSG A
39,906	73	Weighted Average
16,864		42.26% Pervious Area
23,042		57.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A2: AREA 2

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment A3: AREA 3

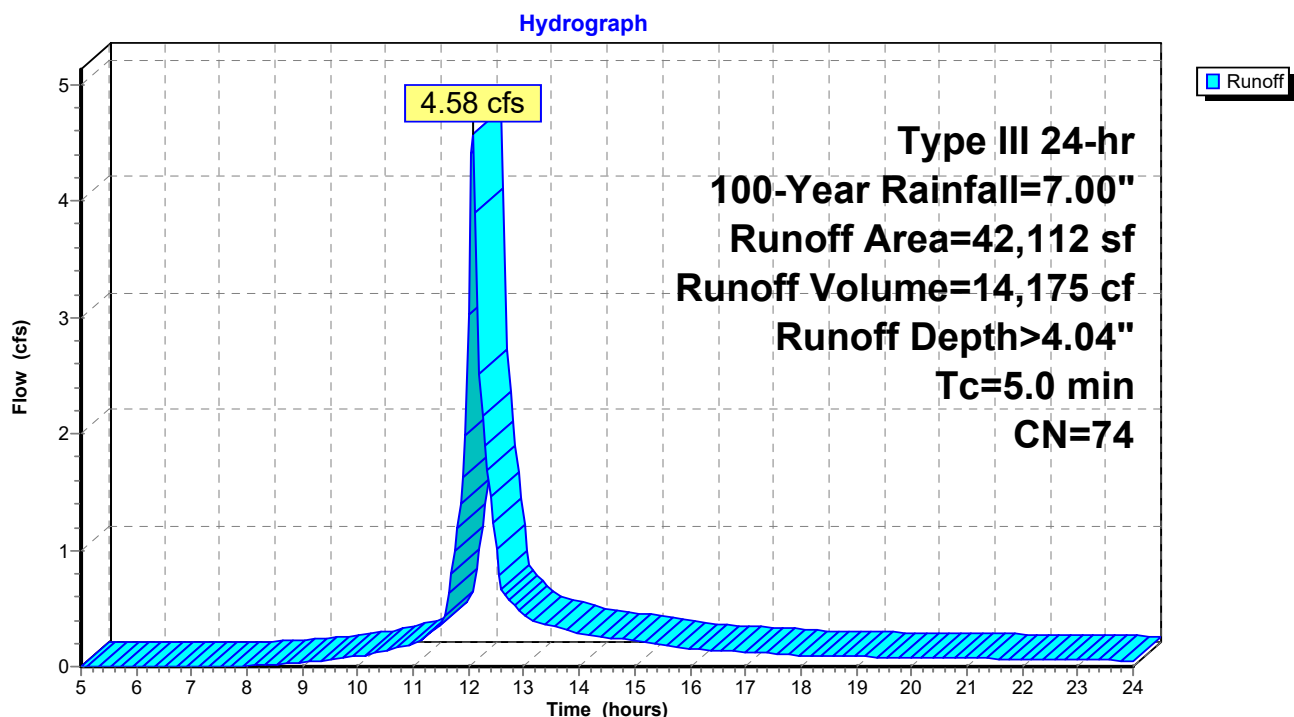
Runoff = 4.58 cfs @ 12.08 hrs, Volume= 14,175 cf, Depth> 4.04"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
23,275	98	Paved roads w/curbs & sewers, HSG A
* 1,832	98	Paved parking, HSG A (Walkways)
17,005	39	>75% Grass cover, Good, HSG A
42,112	74	Weighted Average
17,005		40.38% Pervious Area
25,107		59.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A3: AREA 3



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment A4: AREA 4

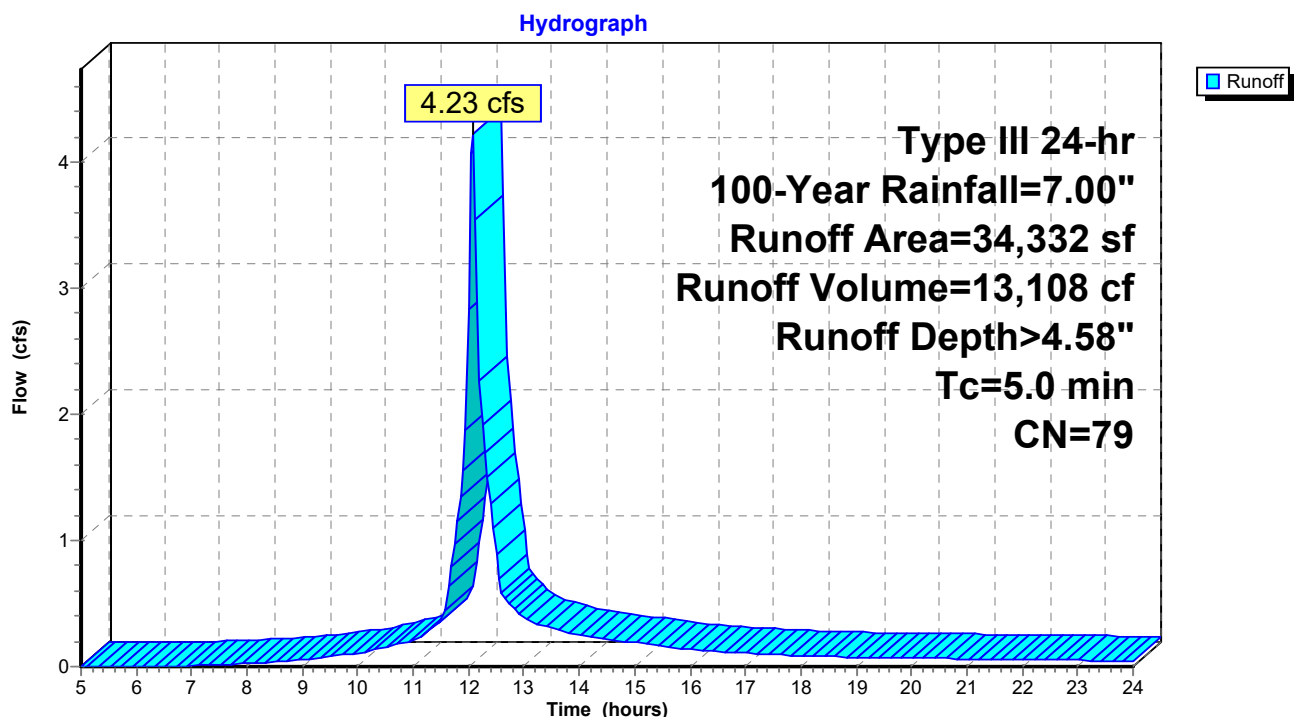
Runoff = 4.23 cfs @ 12.07 hrs, Volume= 13,108 cf, Depth> 4.58"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
20,226	98	Paved roads w/curbs & sewers, HSG A
* 3,300	98	Paved parking, HSG A (Walkways)
10,806	39	>75% Grass cover, Good, HSG A
34,332	79	Weighted Average
10,806		31.48% Pervious Area
23,526		68.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment A4: AREA 4



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment B(OL): OVERLAND TO B

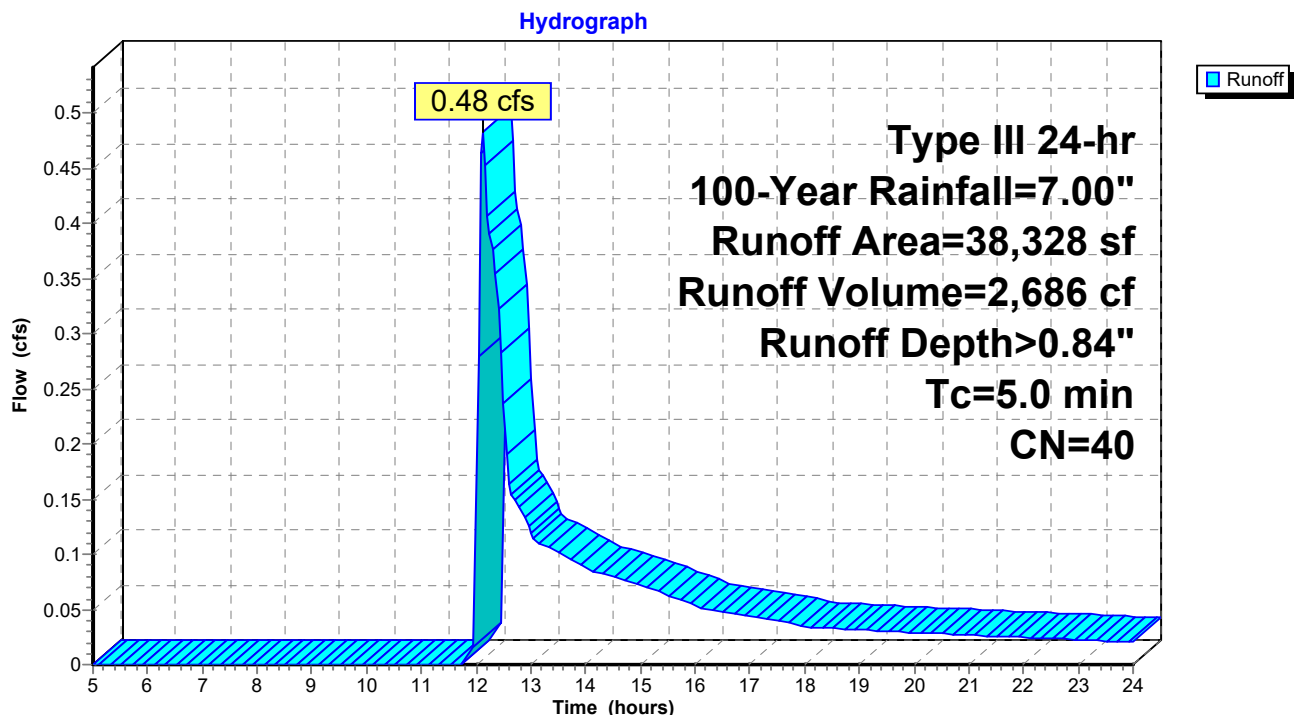
Runoff = 0.48 cfs @ 12.12 hrs, Volume= 2,686 cf, Depth> 0.84"
Routed to Reach DPBpost : DP-B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
685	30	Woods, Good, HSG A
* 1,075	98	Paved parking, HSG A (Walkways)
36,568	39	>75% Grass cover, Good, HSG A
38,328	40	Weighted Average
37,253		97.20% Pervious Area
1,075		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment B(OL): OVERLAND TO B



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD1: BLD 1

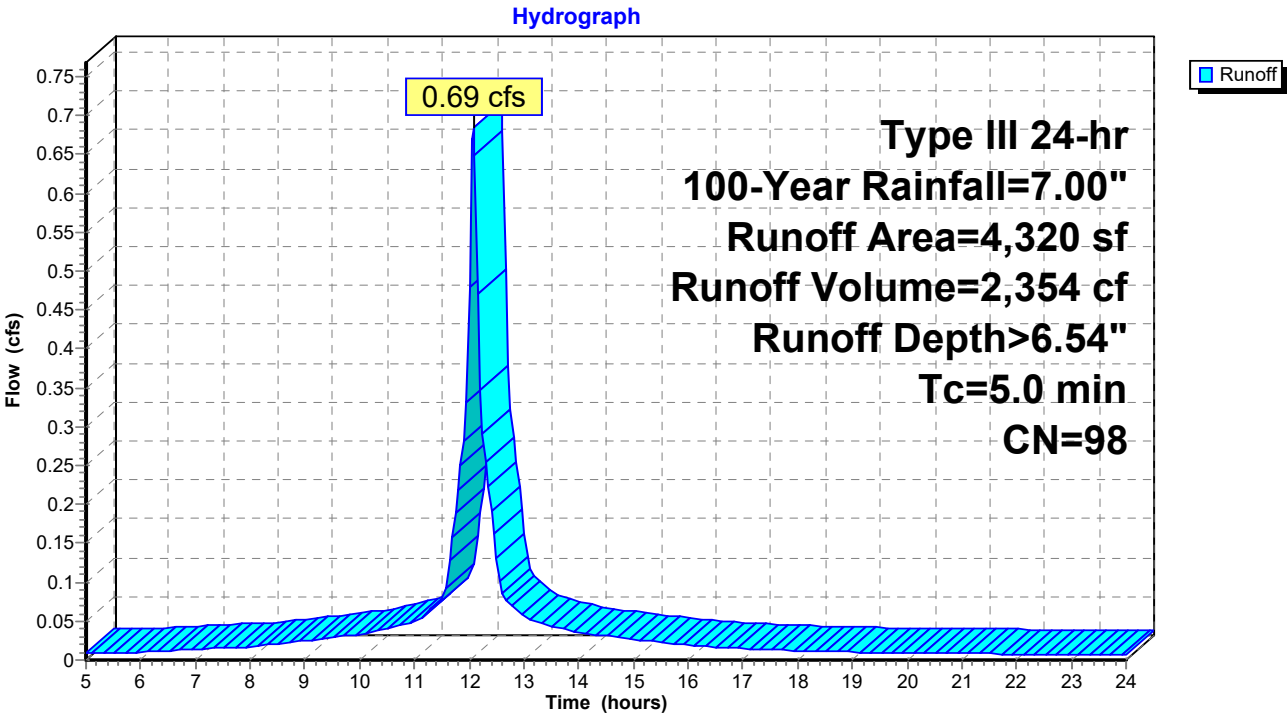
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 38P : DRYWELL UNIT 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD1: BLD 1



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD2: BLD 2

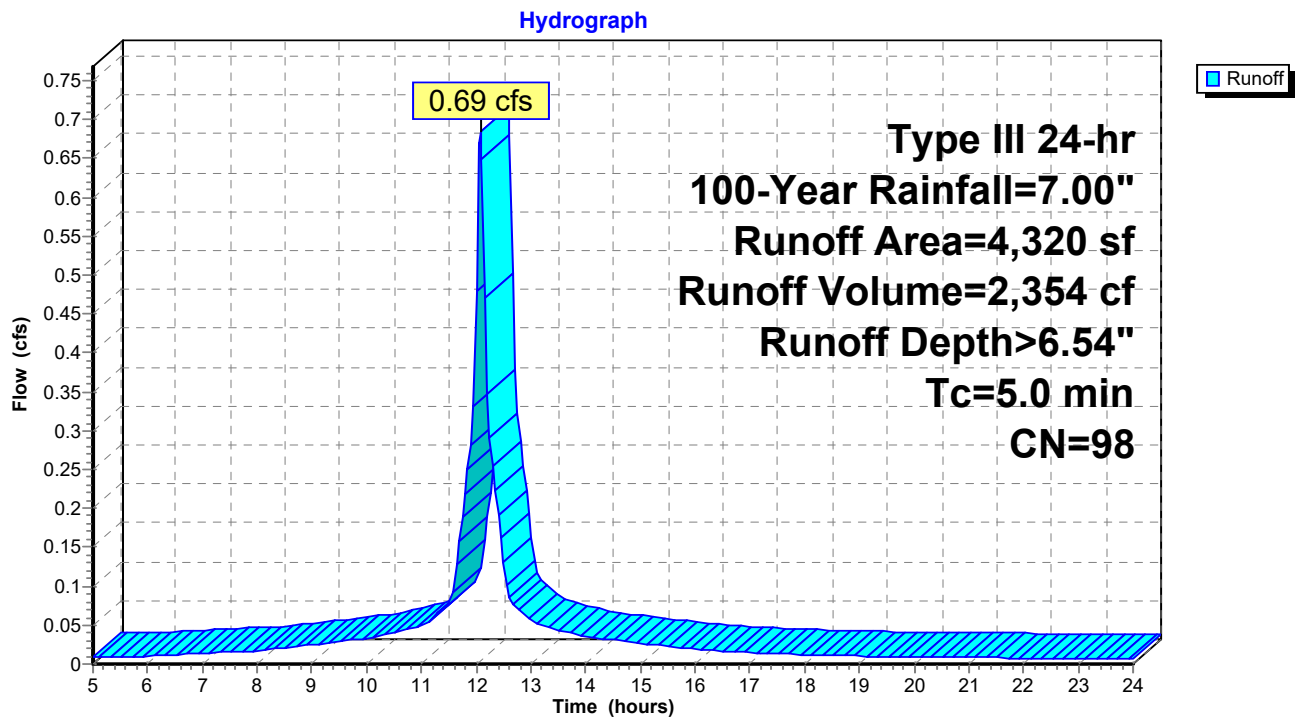
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD2: BLD 2



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD3: BLD 3

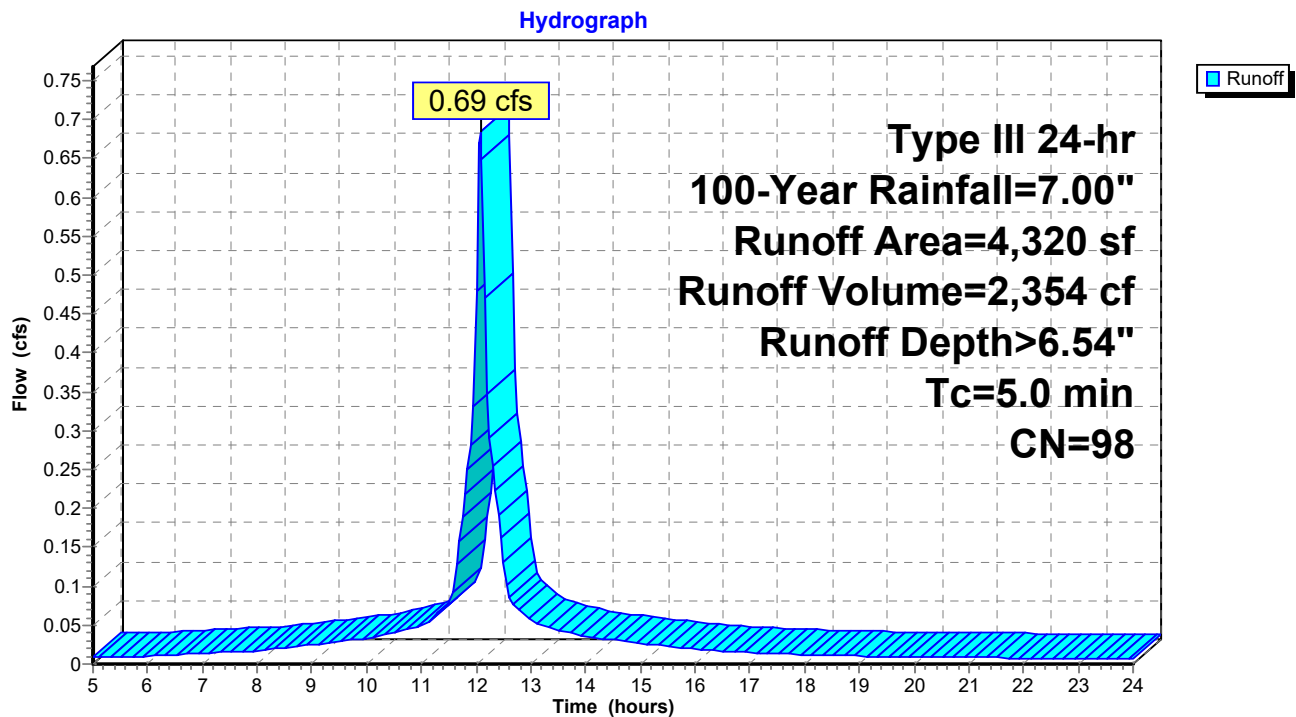
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD3: BLD 3



Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD4: BLD 4

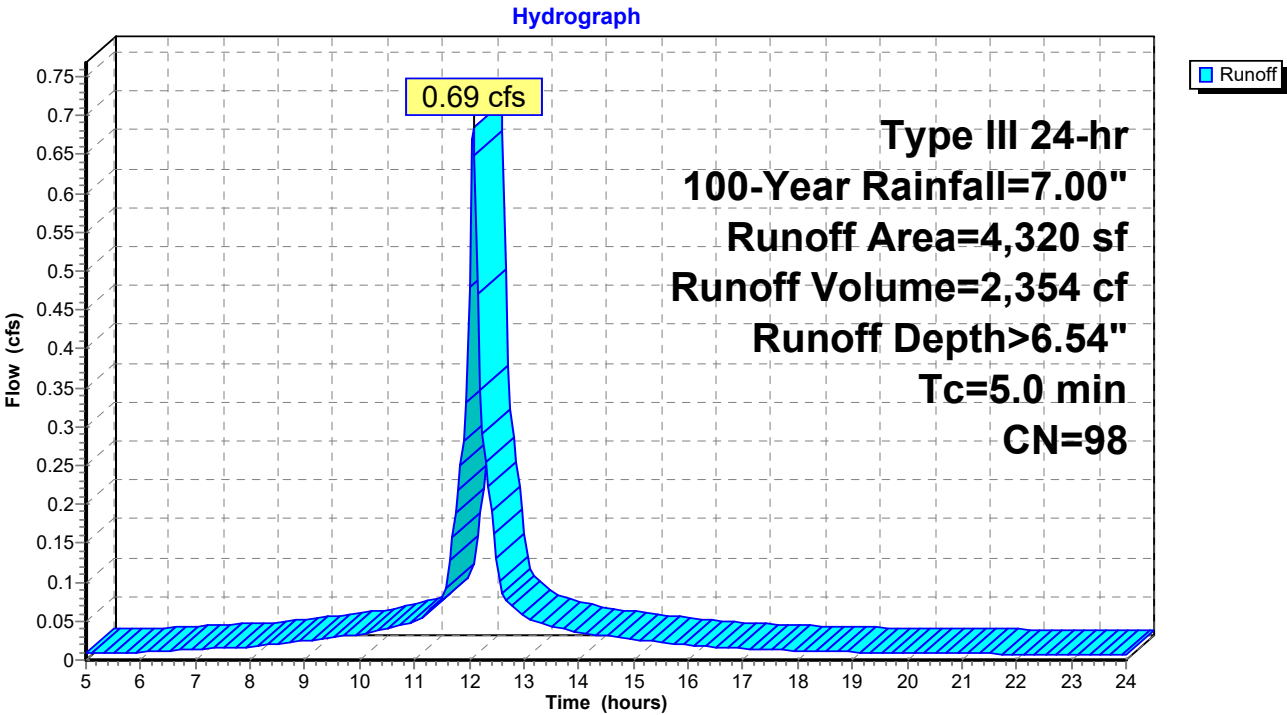
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD4: BLD 4



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD5: BLD 5

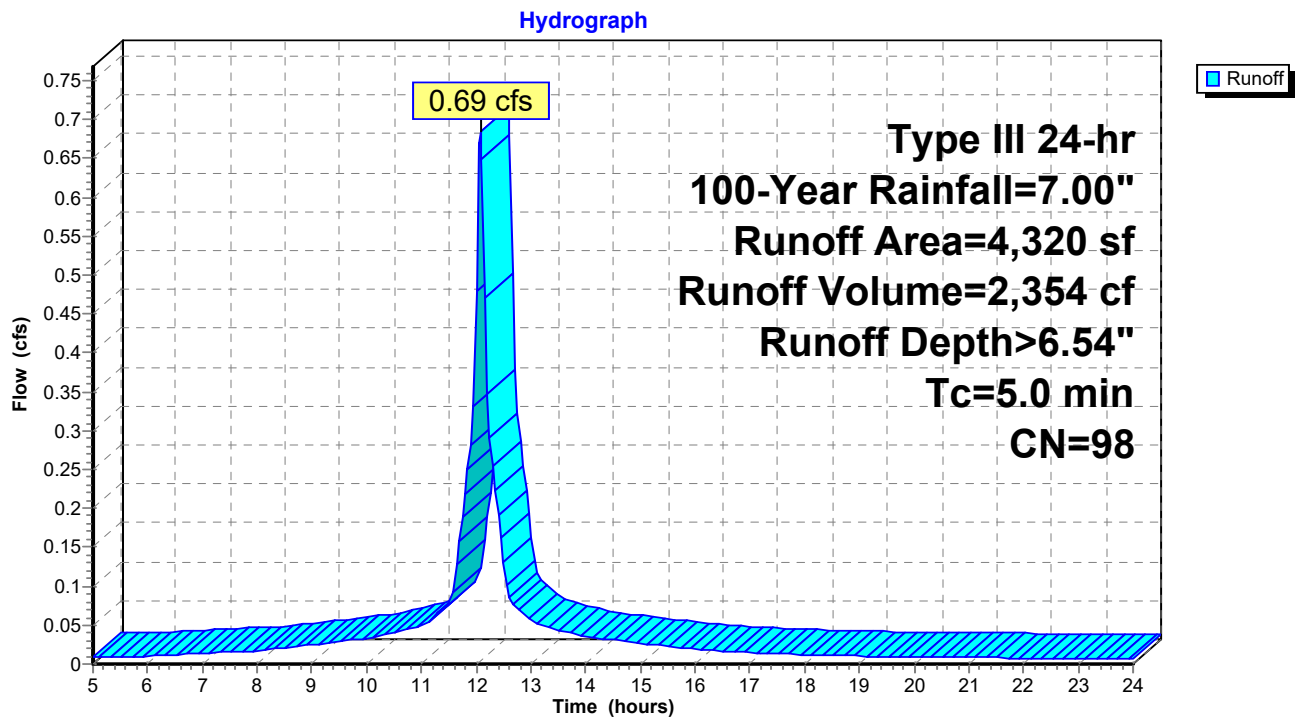
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD5: BLD 5



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD6: BLD 6

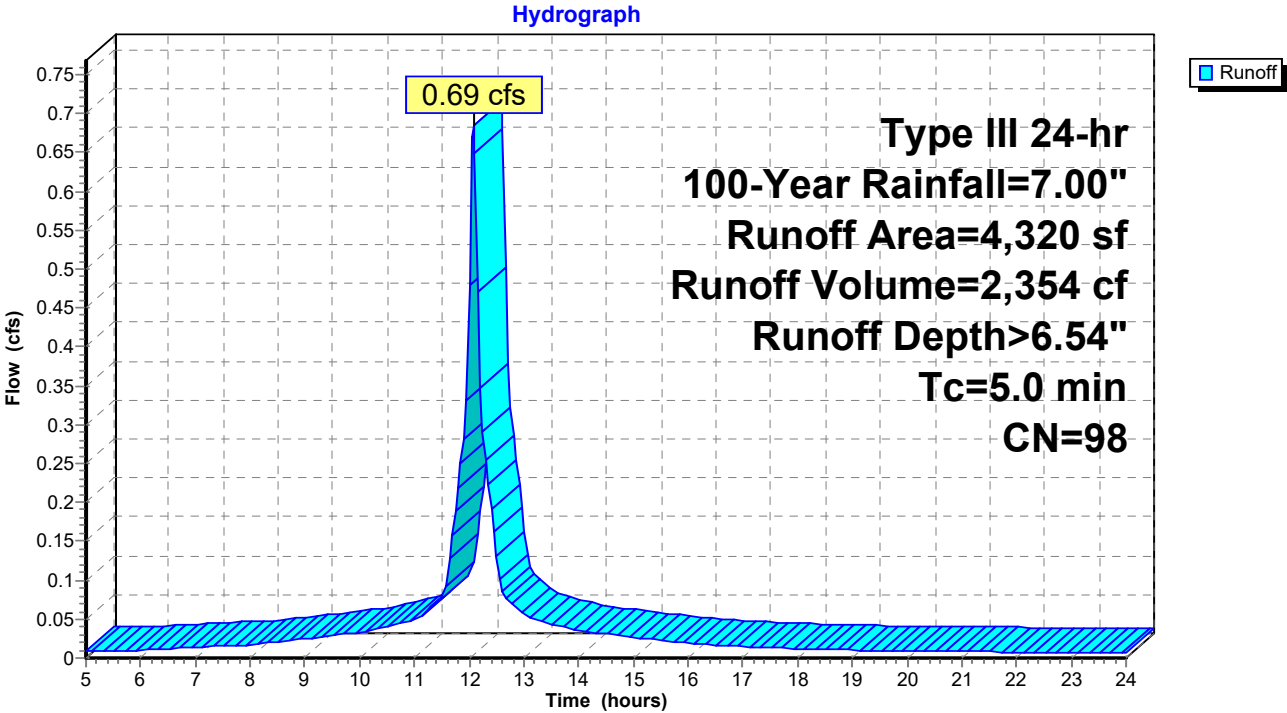
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD6: BLD 6



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD7: BLD 7

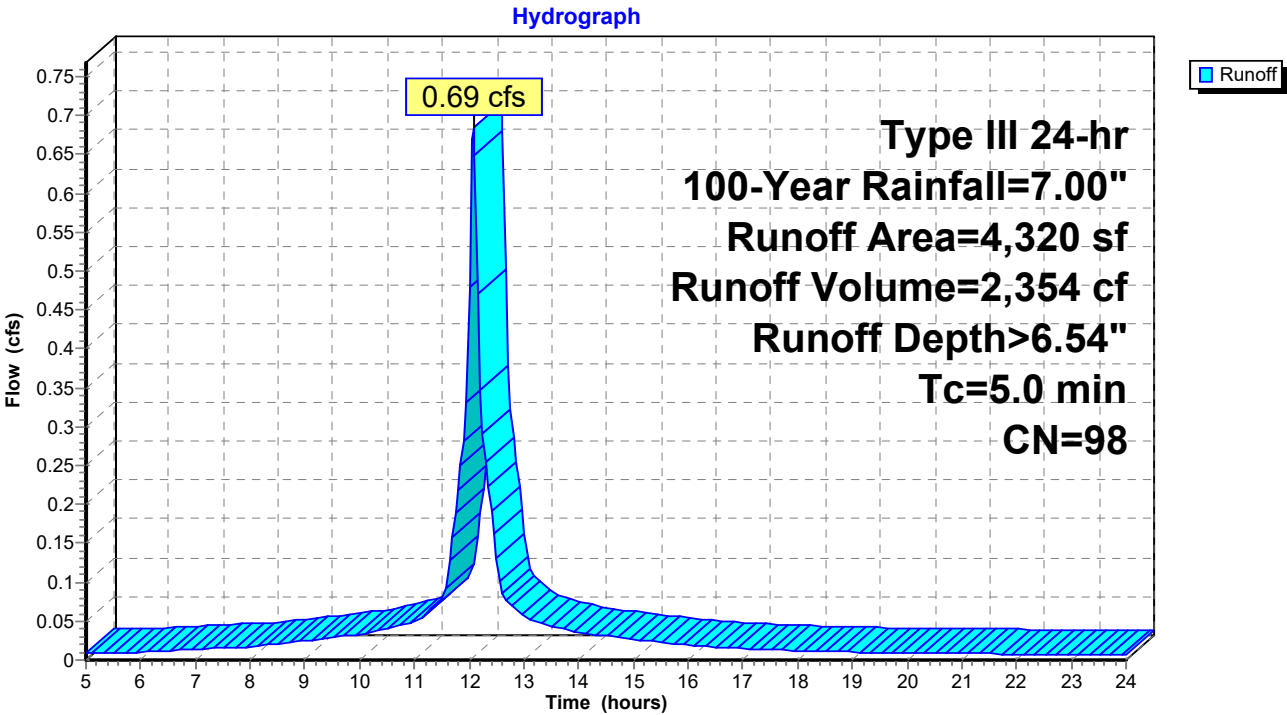
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 36P : DRYWELL UNIT 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD7: BLD 7



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment BLD8: BLD 8

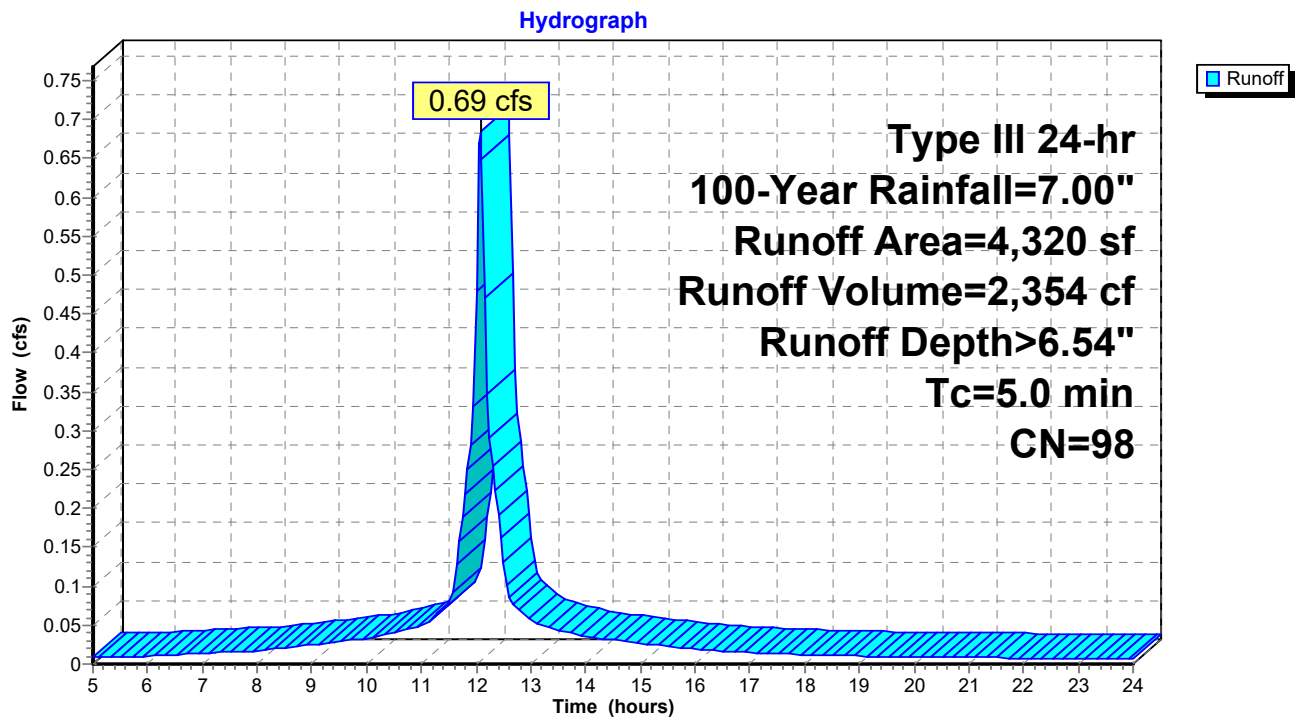
Runoff = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf, Depth> 6.54"
Routed to Pond 10P : DRYWELL UNIT 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
4,320	98	Unconnected roofs, HSG A
4,320		100.00% Impervious Area
4,320		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, min

Subcatchment BLD8: BLD 8



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR1: GARAGE 1

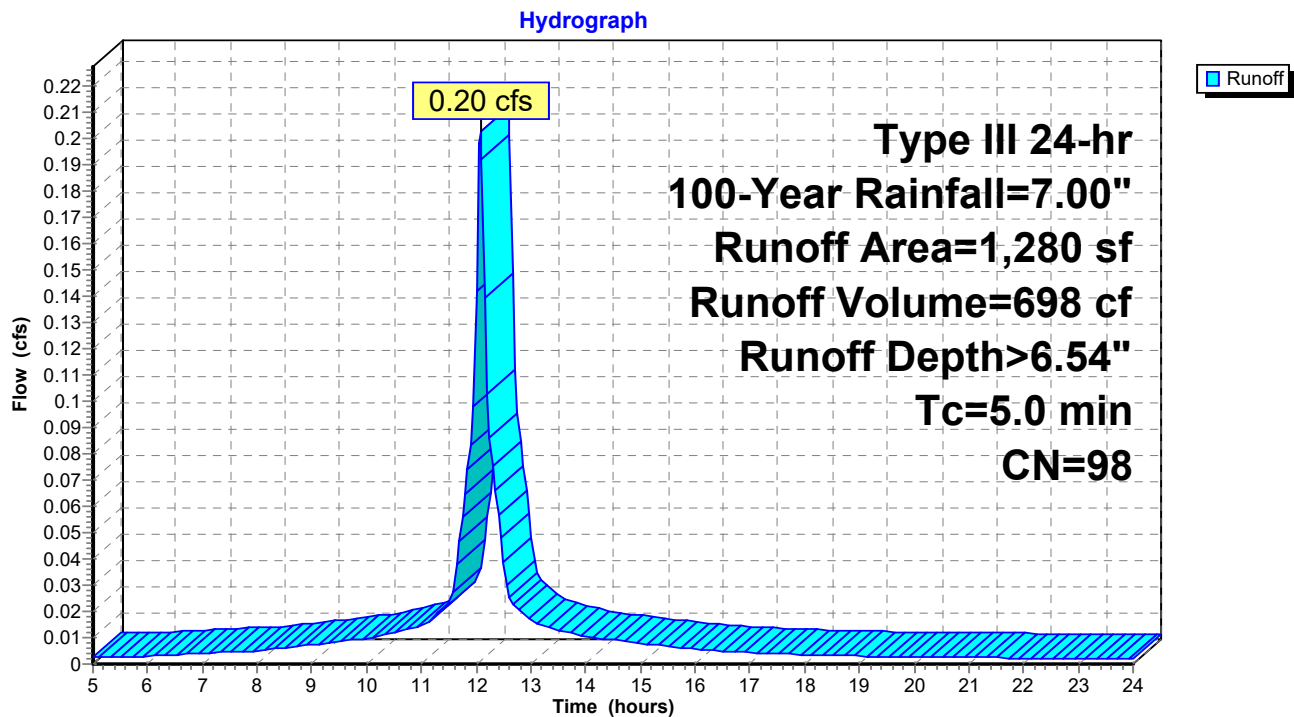
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 698 cf, Depth> 6.54"
Routed to Pond 39P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR1: GARAGE 1



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR2: GARAGE 2

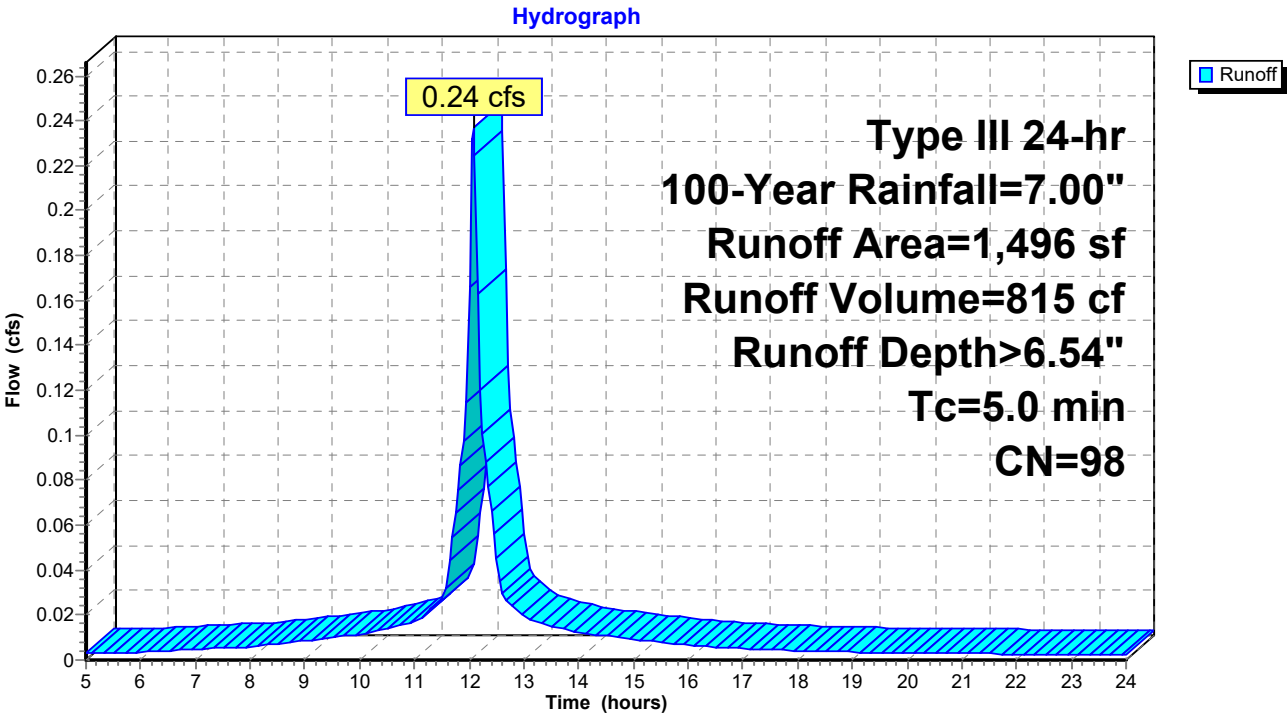
Runoff = 0.24 cfs @ 12.07 hrs, Volume= 815 cf, Depth> 6.54"
Routed to Pond 2P : DRYWELL UNIT 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR2: GARAGE 2



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR3: GARAGE 3

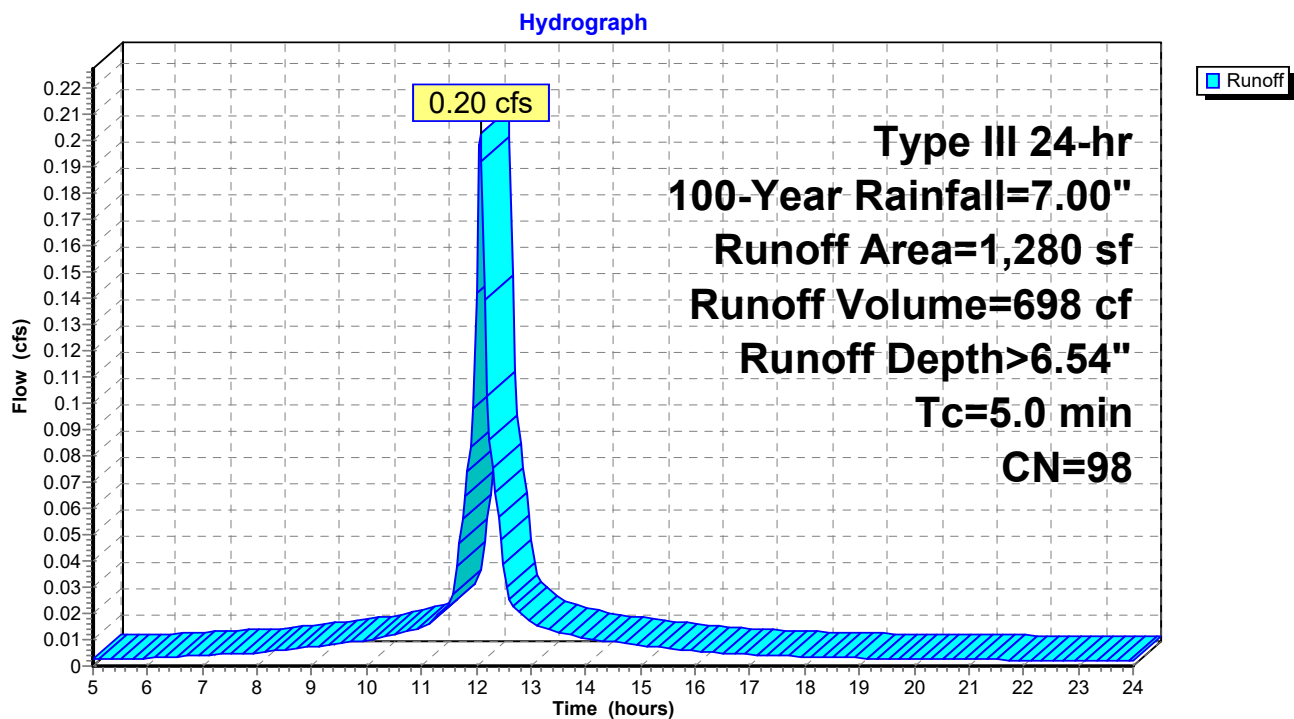
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 698 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR3: GARAGE 3



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR4: GARAGE 4

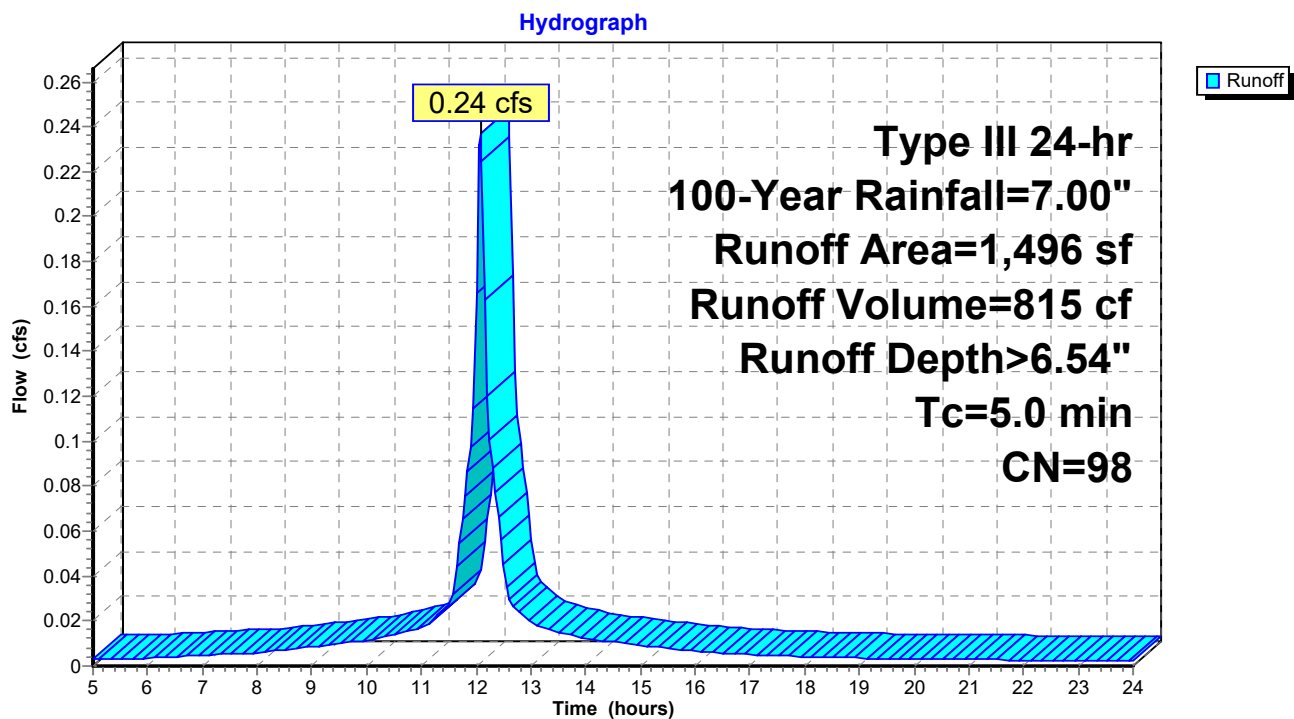
Runoff = 0.24 cfs @ 12.07 hrs, Volume= 815 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR4: GARAGE 4



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR5: GARAGE 5

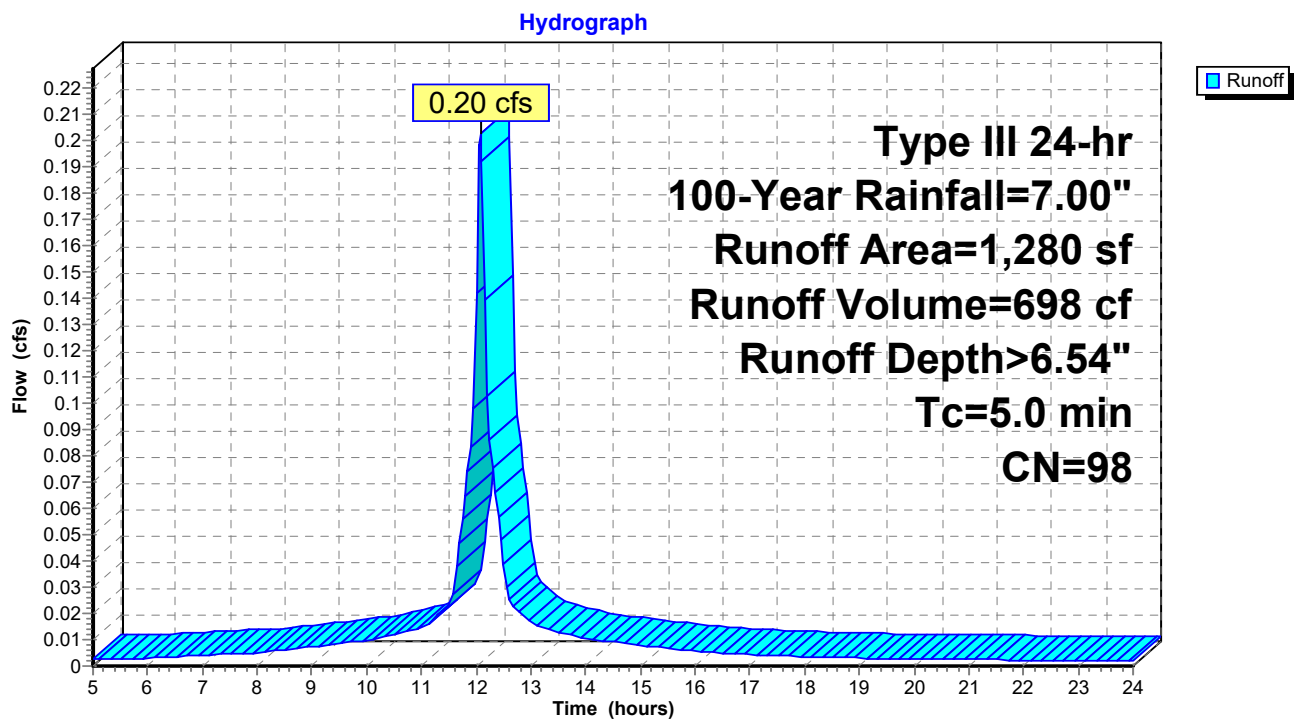
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 698 cf, Depth> 6.54"
Routed to Pond 31P : DRYWELL UNIT 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,280	98	Unconnected roofs, HSG A
1,280		100.00% Impervious Area
1,280		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR5: GARAGE 5



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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment GAR7: GARAGE 7

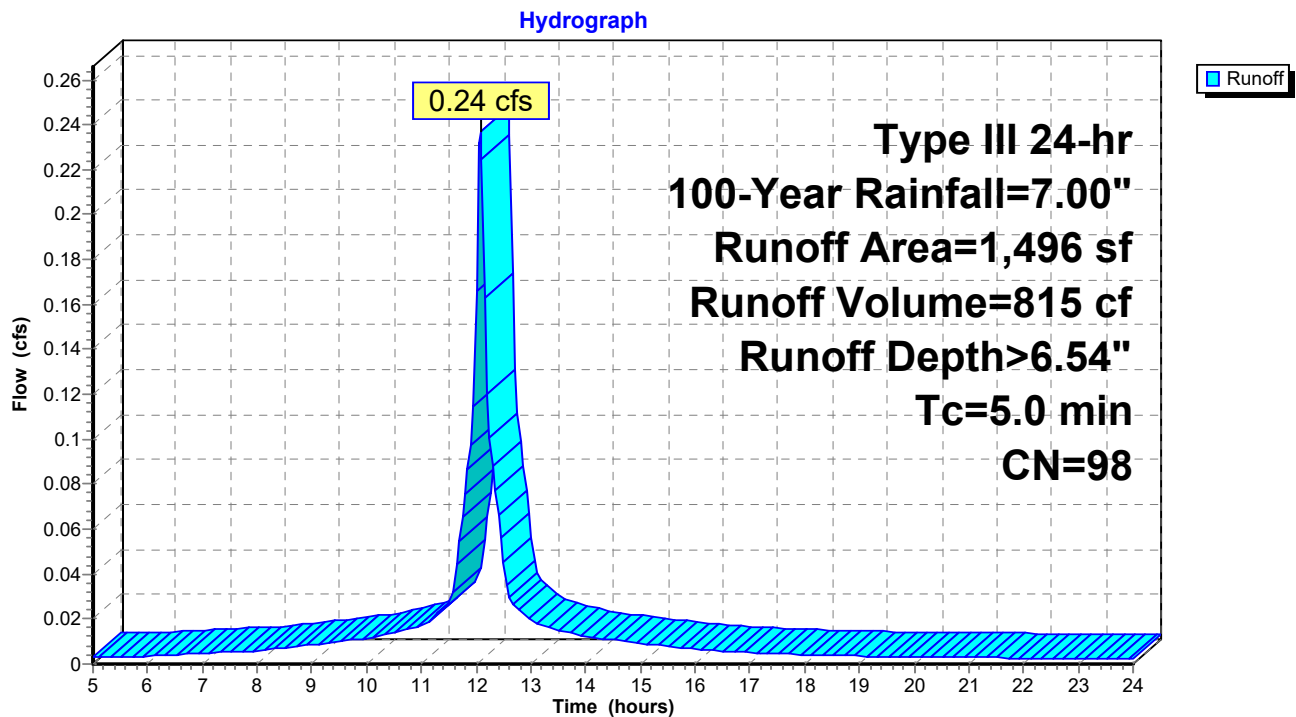
Runoff = 0.24 cfs @ 12.07 hrs, Volume= 815 cf, Depth> 6.54"
Routed to Pond 40P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
1,496	98	Unconnected roofs, HSG A
1,496		100.00% Impervious Area
1,496		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MINIMUM

Subcatchment GAR7: GARAGE 7



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Type III 24-hr 100-Year Rainfall=7.00"

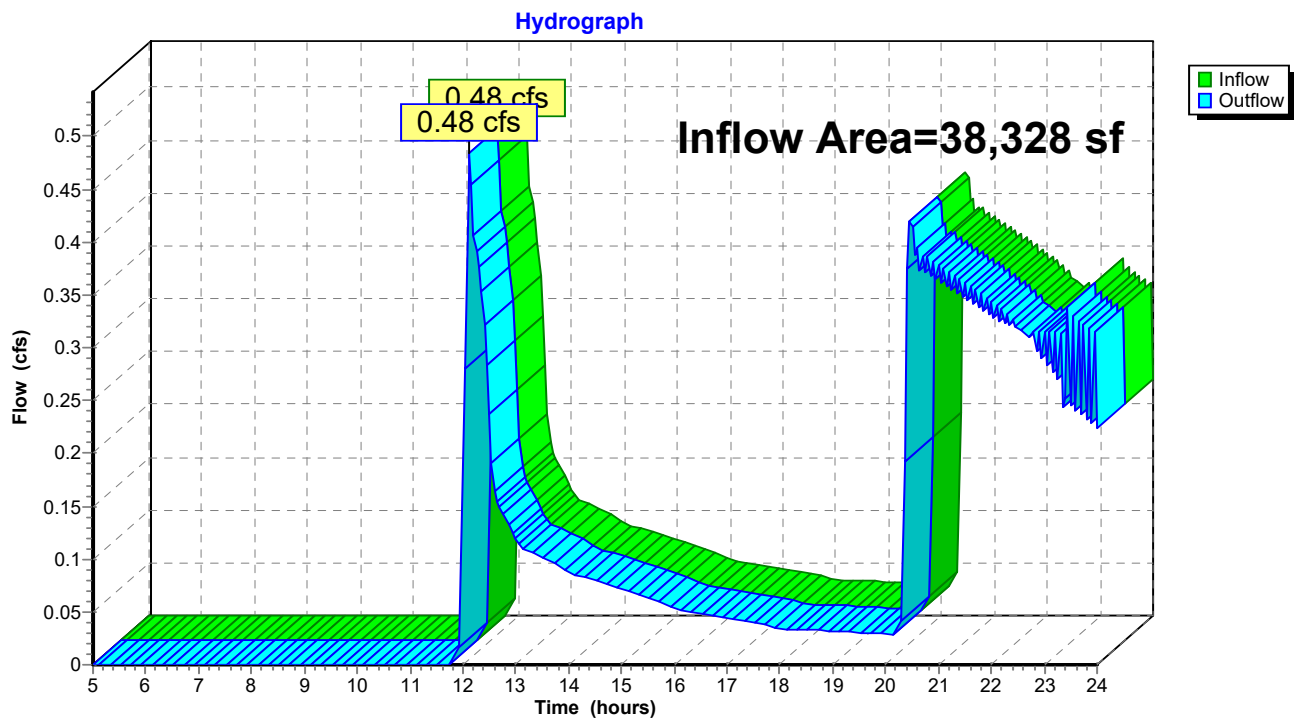
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Summary for Reach DPBpost: DP-B

Inflow Area = 38,328 sf, 2.80% Impervious, Inflow Depth > 2.11" for 100-Year event
Inflow = 0.48 cfs @ 12.12 hrs, Volume= 6,732 cf
Outflow = 0.48 cfs @ 12.12 hrs, Volume= 6,732 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPBpost: DP-B



Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 2P: DRYWELL UNIT 2

Inflow Area = 83,663 sf, 65.29% Impervious, Inflow Depth > 2.31" for 100-Year event
 Inflow = 5.27 cfs @ 12.07 hrs, Volume= 16,090 cf
 Outflow = 0.18 cfs @ 18.70 hrs, Volume= 1,719 cf, Atten= 97%, Lag= 397.6 min
 Secondary = 0.18 cfs @ 18.70 hrs, Volume= 1,719 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 88.14' @ 18.70 hrs Surf.Area= 4,618 sf Storage= 14,371 cf

Plug-Flow detention time= 680.3 min calculated for 1,718 cf (11% of inflow)
 Center-of-Mass det. time= 451.8 min (1,261.7 - 810.0)

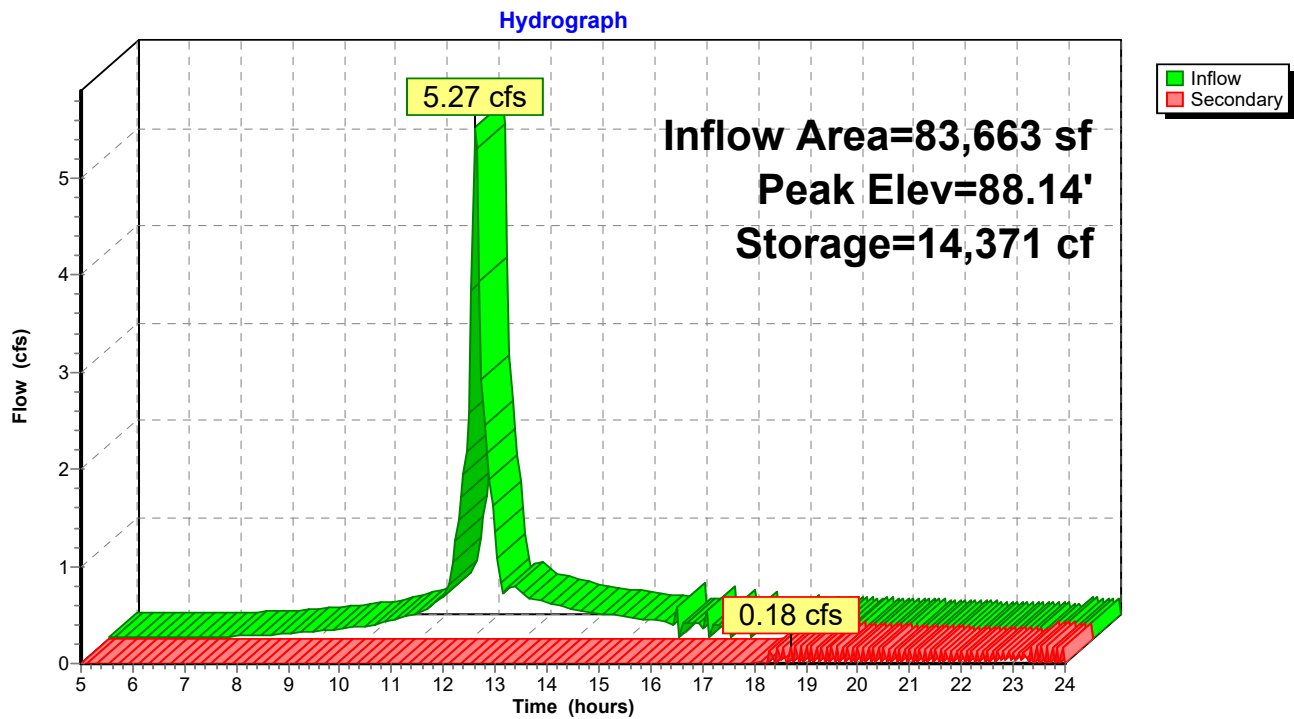
Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,418 cf	59.20'W x 78.00'L x 5.00'H Field A 23,088 cf Overall - 14,542 cf Embedded = 8,546 cf x 40.0% Voids
#2A	78.30'	10,953 cf	Concrete Galley 4x4x4 x 247 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 247 Chambers in 13 Rows
		14,371 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.18 cfs @ 18.70 hrs HW=88.14' TW=65.30' (Dynamic Tailwater)
 ↑ **1=Orifice/Grate** (Weir Controls 0.18 cfs @ 0.64 fps)

Pond 2P: DRYWELL UNIT 2



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00	88.15	0.27
80.25	0.00	82.90	0.00	85.55	0.00	88.20	0.76
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Stage-Area-Storage for Pond 2P: DRYWELL UNIT 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	14,371
77.90	185	83.20	14,371
78.00	369	83.30	14,371
78.10	554	83.40	14,371
78.20	739	83.50	14,371
78.30	924	83.60	14,371
78.40	1,259	83.70	14,371
78.50	1,596	83.80	14,371
78.60	1,941	83.90	14,371
78.70	2,290	84.00	14,371
78.80	2,640	84.10	14,371
78.90	2,989	84.20	14,371
79.00	3,338	84.30	14,371
79.10	3,686	84.40	14,371
79.20	4,034	84.50	14,371
79.30	4,382	84.60	14,371
79.40	4,730	84.70	14,371
79.50	5,077	84.80	14,371
79.60	5,425	84.90	14,371
79.70	5,771	85.00	14,371
79.80	6,118	85.10	14,371
79.90	6,464	85.20	14,371
80.00	6,810	85.30	14,371
80.10	7,156	85.40	14,371
80.20	7,502	85.50	14,371
80.30	7,847	85.60	14,371
80.40	8,192	85.70	14,371
80.50	8,536	85.80	14,371
80.60	8,881	85.90	14,371
80.70	9,225	86.00	14,371
80.80	9,569	86.10	14,371
80.90	9,912	86.20	14,371
81.00	10,256	86.30	14,371
81.10	10,599	86.40	14,371
81.20	10,941	86.50	14,371
81.30	11,284	86.60	14,371
81.40	11,626	86.70	14,371
81.50	11,968	86.80	14,371
81.60	12,310	86.90	14,371
81.70	12,651	87.00	14,371
81.80	12,992	87.10	14,371
81.90	13,274	87.20	14,371
82.00	13,317	87.30	14,371
82.10	13,360	87.40	14,371
82.20	13,404	87.50	14,371
82.30	13,448	87.60	14,371
82.40	13,633	87.70	14,371
82.50	13,817	87.80	14,371
82.60	14,002	87.90	14,371
82.70	14,187	88.00	14,371
82.80	14,371	88.10	14,371
82.90	14,371	88.20	14,371
83.00	14,371		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 10P: DRYWELL UNIT 5

Inflow Area = 83,540 sf, 66.71% Impervious, Inflow Depth > 4.61" for 100-Year event
 Inflow = 9.90 cfs @ 12.08 hrs, Volume= 32,081 cf
 Outflow = 0.11 cfs @ 20.42 hrs, Volume= 1,075 cf, Atten= 99%, Lag= 500.8 min
 Secondary = 0.11 cfs @ 20.42 hrs, Volume= 1,075 cf
 Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 66.03' @ 20.42 hrs Surf.Area= 10,304 sf Storage= 31,037 cf

Plug-Flow detention time= 818.3 min calculated for 1,073 cf (3% of inflow)
 Center-of-Mass det. time= 511.1 min (1,326.0 - 815.0)

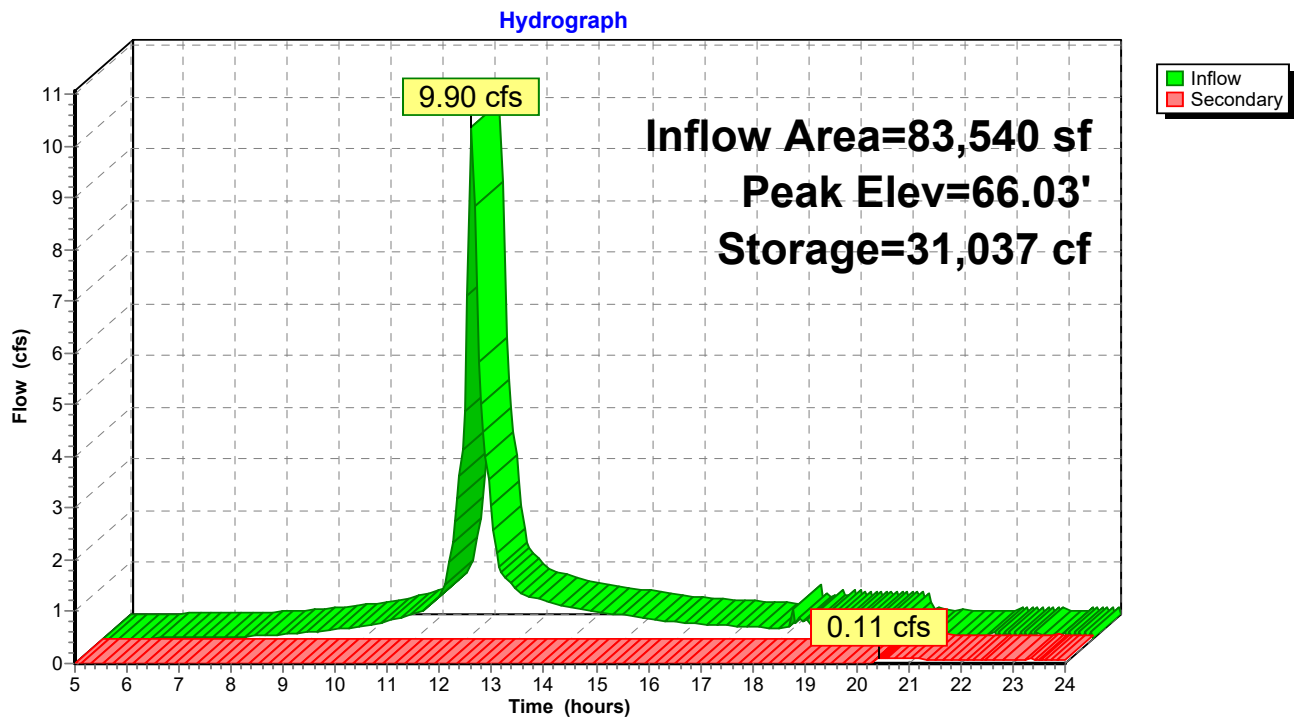
Volume	Invert	Avail.Storage	Storage Description
#1A	61.05'	8,692 cf	55.40'W x 186.00'L x 5.00'H Field A 51,522 cf Overall - 29,791 cf Embedded = 21,731 cf x 40.0% Voids
#2A	61.55'	22,438 cf	Concrete Galley 4x4x4 x 506 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 506 Chambers in 11 Rows
		31,131 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.10 cfs @ 20.42 hrs HW=66.03' TW=0.00' (Dynamic Tailwater)
 ↑ **1=Orifice/Grate** (Weir Controls 0.10 cfs @ 0.53 fps)

Pond 10P: DRYWELL UNIT 5



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
61.05	0.00	63.70	0.00
61.10	0.00	63.75	0.00
61.15	0.00	63.80	0.00
61.20	0.00	63.85	0.00
61.25	0.00	63.90	0.00
61.30	0.00	63.95	0.00
61.35	0.00	64.00	0.00
61.40	0.00	64.05	0.00
61.45	0.00	64.10	0.00
61.50	0.00	64.15	0.00
61.55	0.00	64.20	0.00
61.60	0.00	64.25	0.00
61.65	0.00	64.30	0.00
61.70	0.00	64.35	0.00
61.75	0.00	64.40	0.00
61.80	0.00	64.45	0.00
61.85	0.00	64.50	0.00
61.90	0.00	64.55	0.00
61.95	0.00	64.60	0.00
62.00	0.00	64.65	0.00
62.05	0.00	64.70	0.00
62.10	0.00	64.75	0.00
62.15	0.00	64.80	0.00
62.20	0.00	64.85	0.00
62.25	0.00	64.90	0.00
62.30	0.00	64.95	0.00
62.35	0.00	65.00	0.00
62.40	0.00	65.05	0.00
62.45	0.00	65.10	0.00
62.50	0.00	65.15	0.00
62.55	0.00	65.20	0.00
62.60	0.00	65.25	0.00
62.65	0.00	65.30	0.00
62.70	0.00	65.35	0.00
62.75	0.00	65.40	0.00
62.80	0.00	65.45	0.00
62.85	0.00	65.50	0.00
62.90	0.00	65.55	0.00
62.95	0.00	65.60	0.00
63.00	0.00	65.65	0.00
63.05	0.00	65.70	0.00
63.10	0.00	65.75	0.00
63.15	0.00	65.80	0.00
63.20	0.00	65.85	0.00
63.25	0.00	65.90	0.00
63.30	0.00	65.95	0.00
63.35	0.00	66.00	0.00
63.40	0.00	66.05	0.27
63.45	0.00		
63.50	0.00		
63.55	0.00		
63.60	0.00		
63.65	0.00		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

Prepared by Grady Consulting LLC

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Stage-Area-Storage for Pond 10P: DRYWELL UNIT 5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
61.05	0	63.70	18,030
61.10	206	63.75	18,400
61.15	412	63.80	18,770
61.20	618	63.85	19,139
61.25	824	63.90	19,509
61.30	1,030	63.95	19,878
61.35	1,237	64.00	20,247
61.40	1,443	64.05	20,616
61.45	1,649	64.10	20,985
61.50	1,855	64.15	21,354
61.55	2,061	64.20	21,723
61.60	2,422	64.25	22,091
61.65	2,782	64.30	22,459
61.70	3,143	64.35	22,828
61.75	3,506	64.40	23,196
61.80	3,874	64.45	23,564
61.85	4,246	64.50	23,931
61.90	4,621	64.55	24,299
61.95	4,996	64.60	24,666
62.00	5,371	64.65	25,034
62.05	5,746	64.70	25,401
62.10	6,120	64.75	25,768
62.15	6,495	64.80	26,135
62.20	6,869	64.85	26,502
62.25	7,243	64.90	26,868
62.30	7,617	64.95	27,235
62.35	7,991	65.00	27,601
62.40	8,364	65.05	27,968
62.45	8,738	65.10	28,334
62.50	9,111	65.15	28,578
62.55	9,484	65.20	28,639
62.60	9,857	65.25	28,700
62.65	10,230	65.30	28,762
62.70	10,603	65.35	28,823
62.75	10,976	65.40	28,885
62.80	11,348	65.45	28,946
62.85	11,721	65.50	29,008
62.90	12,093	65.55	29,070
62.95	12,465	65.60	29,276
63.00	12,837	65.65	29,482
63.05	13,209	65.70	29,688
63.10	13,581	65.75	29,894
63.15	13,952	65.80	30,100
63.20	14,324	65.85	30,306
63.25	14,695	65.90	30,512
63.30	15,066	65.95	30,718
63.35	15,437	66.00	30,925
63.40	15,808	66.05	31,131
63.45	16,179		
63.50	16,549		
63.55	16,920		
63.60	17,290		
63.65	17,660		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 31P: DRYWELL UNIT 3

Inflow Area = 21,336 sf, 100.00% Impervious, Inflow Depth > 6.54" for 100-Year event
 Inflow = 3.39 cfs @ 12.07 hrs, Volume= 11,628 cf
 Outflow = 0.09 cfs @ 19.45 hrs, Volume= 639 cf, Atten= 97%, Lag= 442.8 min
 Secondary = 0.09 cfs @ 19.45 hrs, Volume= 639 cf
 Routed to Pond 41P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 88.14' @ 19.55 hrs Surf.Area= 3,622 sf Storage= 10,986 cf

Plug-Flow detention time= 893.5 min calculated for 636 cf (5% of inflow)
 Center-of-Mass det. time= 531.7 min (1,291.3 - 759.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	82.00'	1,660 cf	28.40'W x 74.00'L x 5.00'H Field A 10,508 cf Overall - 6,359 cf Embedded = 4,149 cf x 40.0% Voids
#2A	82.50'	4,789 cf	Concrete Galley 4x4x4 x 108 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 108 Chambers in 6 Rows
#3B	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field B 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#4B	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #3 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
#5C	82.00'	672 cf	15.20'W x 50.00'L x 5.00'H Field C 3,800 cf Overall - 2,120 cf Embedded = 1,680 cf x 40.0% Voids
#6C	82.50'	1,596 cf	Concrete Galley 4x4x4 x 36 Inside #5 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 36 Chambers in 3 Rows
		10,986 cf	Total Available Storage

Storage Group A created with Chamber Wizard
 Storage Group B created with Chamber Wizard
 Storage Group C created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.00'	6.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.27 cfs @ 19.45 hrs HW=88.13' TW=88.11' (Dynamic Tailwater)
 ↳ **1=Orifice/Grate** (Orifice Controls 0.27 cfs @ 0.70 fps)

Bridal Path Post

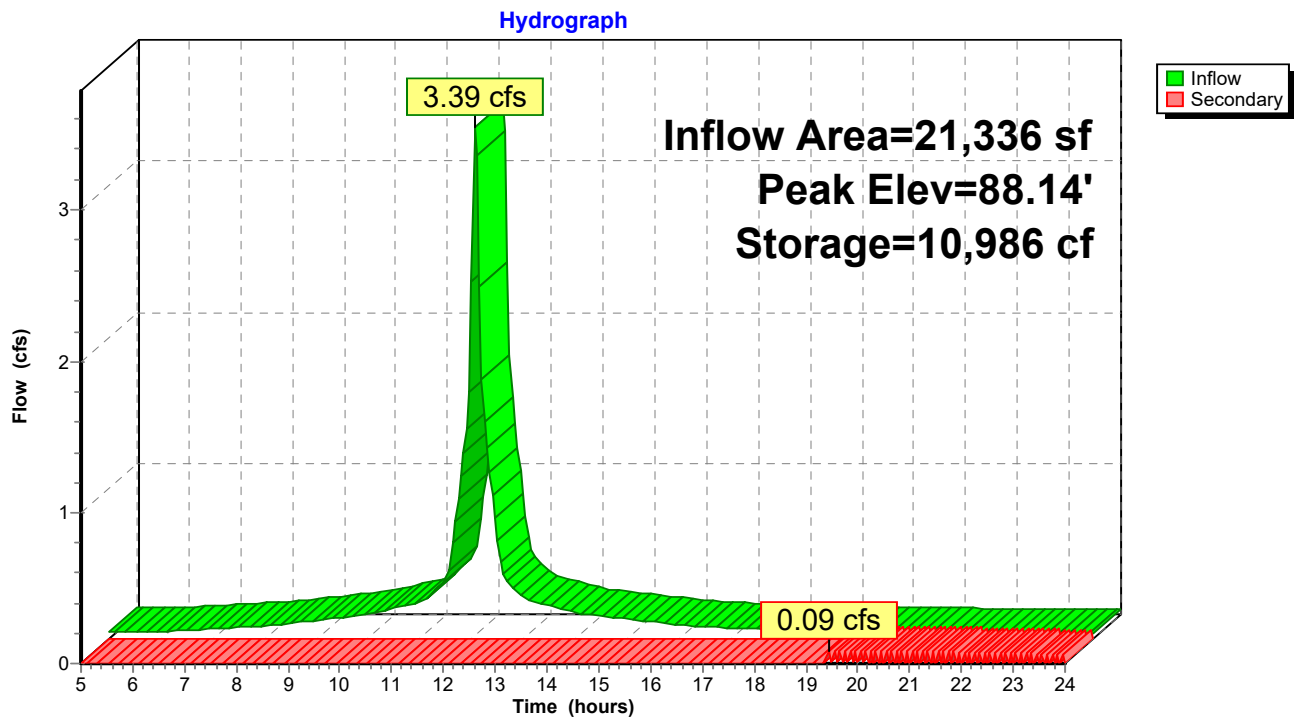
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Type III 24-hr 100-Year Rainfall=7.00"

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Pond 31P: DRYWELL UNIT 3



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
82.00	0.00	84.65	0.00	87.30	0.00
82.05	0.00	84.70	0.00	87.35	0.00
82.10	0.00	84.75	0.00	87.40	0.00
82.15	0.00	84.80	0.00	87.45	0.00
82.20	0.00	84.85	0.00	87.50	0.00
82.25	0.00	84.90	0.00	87.55	0.00
82.30	0.00	84.95	0.00	87.60	0.00
82.35	0.00	85.00	0.00	87.65	0.00
82.40	0.00	85.05	0.00	87.70	0.00
82.45	0.00	85.10	0.00	87.75	0.00
82.50	0.00	85.15	0.00	87.80	0.00
82.55	0.00	85.20	0.00	87.85	0.00
82.60	0.00	85.25	0.00	87.90	0.00
82.65	0.00	85.30	0.00	87.95	0.00
82.70	0.00	85.35	0.00	88.00	0.00
82.75	0.00	85.40	0.00	88.05	0.11
82.80	0.00	85.45	0.00	88.10	0.32
82.85	0.00	85.50	0.00	88.15	0.60
82.90	0.00	85.55	0.00		
82.95	0.00	85.60	0.00		
83.00	0.00	85.65	0.00		
83.05	0.00	85.70	0.00		
83.10	0.00	85.75	0.00		
83.15	0.00	85.80	0.00		
83.20	0.00	85.85	0.00		
83.25	0.00	85.90	0.00		
83.30	0.00	85.95	0.00		
83.35	0.00	86.00	0.00		
83.40	0.00	86.05	0.00		
83.45	0.00	86.10	0.00		
83.50	0.00	86.15	0.00		
83.55	0.00	86.20	0.00		
83.60	0.00	86.25	0.00		
83.65	0.00	86.30	0.00		
83.70	0.00	86.35	0.00		
83.75	0.00	86.40	0.00		
83.80	0.00	86.45	0.00		
83.85	0.00	86.50	0.00		
83.90	0.00	86.55	0.00		
83.95	0.00	86.60	0.00		
84.00	0.00	86.65	0.00		
84.05	0.00	86.70	0.00		
84.10	0.00	86.75	0.00		
84.15	0.00	86.80	0.00		
84.20	0.00	86.85	0.00		
84.25	0.00	86.90	0.00		
84.30	0.00	86.95	0.00		
84.35	0.00	87.00	0.00		
84.40	0.00	87.05	0.00		
84.45	0.00	87.10	0.00		
84.50	0.00	87.15	0.00		
84.55	0.00	87.20	0.00		
84.60	0.00	87.25	0.00		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Stage-Area-Storage for Pond 31P: DRYWELL UNIT 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
82.00	0	84.65	6,367	87.30	10,986
82.05	72	84.70	6,498	87.35	10,986
82.10	145	84.75	6,629	87.40	10,986
82.15	217	84.80	6,759	87.45	10,986
82.20	290	84.85	6,890	87.50	10,986
82.25	362	84.90	7,020	87.55	10,986
82.30	435	84.95	7,151	87.60	10,986
82.35	507	85.00	7,281	87.65	10,986
82.40	579	85.05	7,411	87.70	10,986
82.45	652	85.10	7,542	87.75	10,986
82.50	724	85.15	7,672	87.80	10,986
82.55	852	85.20	7,802	87.85	10,986
82.60	979	85.25	7,932	87.90	10,986
82.65	1,107	85.30	8,062	87.95	10,986
82.70	1,235	85.35	8,192	88.00	10,986
82.75	1,365	85.40	8,322	88.05	10,986
82.80	1,496	85.45	8,452	88.10	10,986
82.85	1,629	85.50	8,582	88.15	10,986
82.90	1,762	85.55	8,712		
82.95	1,894	85.60	8,842		
83.00	2,026	85.65	8,972		
83.05	2,159	85.70	9,101		
83.10	2,291	85.75	9,231		
83.15	2,423	85.80	9,361		
83.20	2,555	85.85	9,490		
83.25	2,688	85.90	9,620		
83.30	2,820	85.95	9,749		
83.35	2,952	86.00	9,879		
83.40	3,084	86.05	10,008		
83.45	3,216	86.10	10,094		
83.50	3,347	86.15	10,115		
83.55	3,479	86.20	10,136		
83.60	3,611	86.25	10,157		
83.65	3,743	86.30	10,178		
83.70	3,875	86.35	10,199		
83.75	4,006	86.40	10,220		
83.80	4,138	86.45	10,241		
83.85	4,269	86.50	10,262		
83.90	4,401	86.55	10,334		
83.95	4,532	86.60	10,407		
84.00	4,664	86.65	10,479		
84.05	4,795	86.70	10,552		
84.10	4,926	86.75	10,624		
84.15	5,058	86.80	10,696		
84.20	5,189	86.85	10,769		
84.25	5,320	86.90	10,841		
84.30	5,451	86.95	10,914		
84.35	5,582	87.00	10,986		
84.40	5,713	87.05	10,986		
84.45	5,844	87.10	10,986		
84.50	5,975	87.15	10,986		
84.55	6,106	87.20	10,986		
84.60	6,236	87.25	10,986		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 36P: DRYWELL UNIT 4

Inflow Area = 5,816 sf, 100.00% Impervious, Inflow Depth > 38.07" for 100-Year event
 Inflow = 5.46 cfs @ 12.08 hrs, Volume= 18,452 cf
 Outflow = 0.37 cfs @ 18.25 hrs, Volume= 2,183 cf, Atten= 93%, Lag= 370.4 min
 Secondary = 0.37 cfs @ 18.25 hrs, Volume= 2,183 cf
 Routed to Pond 40P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 88.16' @ 18.25 hrs Surf.Area= 5,220 sf Storage= 16,262 cf

Plug-Flow detention time= 649.2 min calculated for 2,176 cf (12% of inflow)
 Center-of-Mass det. time= 433.4 min (1,251.2 - 817.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	77.80'	3,846 cf	90.00'W x 58.00'L x 5.00'H Field A 26,100 cf Overall - 16,485 cf Embedded = 9,615 cf x 40.0% Voids
#2A	78.30'	12,417 cf	Concrete Galley 4x4x4 x 280 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 280 Chambers in 20 Rows
		16,262 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	88.10'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.37 cfs @ 18.25 hrs HW=88.16' TW=65.08' (Dynamic Tailwater)
 1=Orifice/Grate (Weir Controls 0.37 cfs @ 0.81 fps)

Bridal Path Post

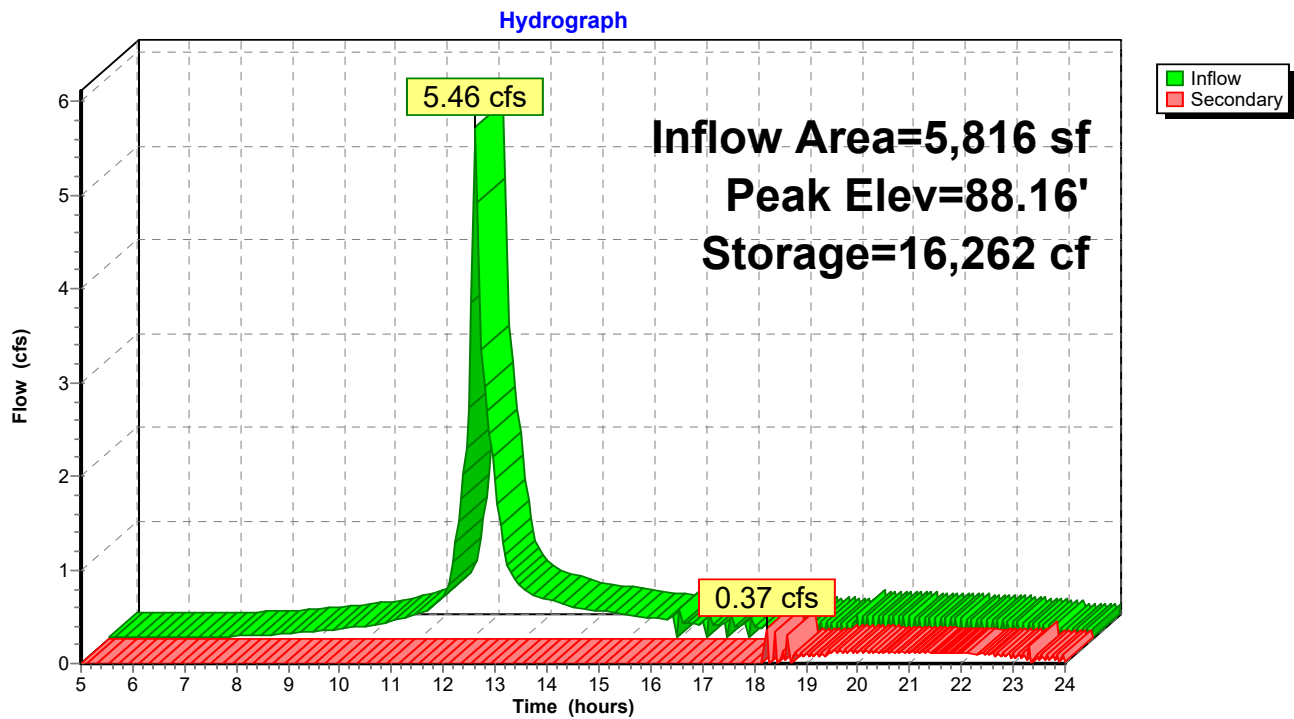
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Type III 24-hr 100-Year Rainfall=7.00"

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Pond 36P: DRYWELL UNIT 4



Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Stage-Discharge for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
77.80	0.00	80.45	0.00	83.10	0.00	85.75	0.00
77.85	0.00	80.50	0.00	83.15	0.00	85.80	0.00
77.90	0.00	80.55	0.00	83.20	0.00	85.85	0.00
77.95	0.00	80.60	0.00	83.25	0.00	85.90	0.00
78.00	0.00	80.65	0.00	83.30	0.00	85.95	0.00
78.05	0.00	80.70	0.00	83.35	0.00	86.00	0.00
78.10	0.00	80.75	0.00	83.40	0.00	86.05	0.00
78.15	0.00	80.80	0.00	83.45	0.00	86.10	0.00
78.20	0.00	80.85	0.00	83.50	0.00	86.15	0.00
78.25	0.00	80.90	0.00	83.55	0.00	86.20	0.00
78.30	0.00	80.95	0.00	83.60	0.00	86.25	0.00
78.35	0.00	81.00	0.00	83.65	0.00	86.30	0.00
78.40	0.00	81.05	0.00	83.70	0.00	86.35	0.00
78.45	0.00	81.10	0.00	83.75	0.00	86.40	0.00
78.50	0.00	81.15	0.00	83.80	0.00	86.45	0.00
78.55	0.00	81.20	0.00	83.85	0.00	86.50	0.00
78.60	0.00	81.25	0.00	83.90	0.00	86.55	0.00
78.65	0.00	81.30	0.00	83.95	0.00	86.60	0.00
78.70	0.00	81.35	0.00	84.00	0.00	86.65	0.00
78.75	0.00	81.40	0.00	84.05	0.00	86.70	0.00
78.80	0.00	81.45	0.00	84.10	0.00	86.75	0.00
78.85	0.00	81.50	0.00	84.15	0.00	86.80	0.00
78.90	0.00	81.55	0.00	84.20	0.00	86.85	0.00
78.95	0.00	81.60	0.00	84.25	0.00	86.90	0.00
79.00	0.00	81.65	0.00	84.30	0.00	86.95	0.00
79.05	0.00	81.70	0.00	84.35	0.00	87.00	0.00
79.10	0.00	81.75	0.00	84.40	0.00	87.05	0.00
79.15	0.00	81.80	0.00	84.45	0.00	87.10	0.00
79.20	0.00	81.85	0.00	84.50	0.00	87.15	0.00
79.25	0.00	81.90	0.00	84.55	0.00	87.20	0.00
79.30	0.00	81.95	0.00	84.60	0.00	87.25	0.00
79.35	0.00	82.00	0.00	84.65	0.00	87.30	0.00
79.40	0.00	82.05	0.00	84.70	0.00	87.35	0.00
79.45	0.00	82.10	0.00	84.75	0.00	87.40	0.00
79.50	0.00	82.15	0.00	84.80	0.00	87.45	0.00
79.55	0.00	82.20	0.00	84.85	0.00	87.50	0.00
79.60	0.00	82.25	0.00	84.90	0.00	87.55	0.00
79.65	0.00	82.30	0.00	84.95	0.00	87.60	0.00
79.70	0.00	82.35	0.00	85.00	0.00	87.65	0.00
79.75	0.00	82.40	0.00	85.05	0.00	87.70	0.00
79.80	0.00	82.45	0.00	85.10	0.00	87.75	0.00
79.85	0.00	82.50	0.00	85.15	0.00	87.80	0.00
79.90	0.00	82.55	0.00	85.20	0.00	87.85	0.00
79.95	0.00	82.60	0.00	85.25	0.00	87.90	0.00
80.00	0.00	82.65	0.00	85.30	0.00	87.95	0.00
80.05	0.00	82.70	0.00	85.35	0.00	88.00	0.00
80.10	0.00	82.75	0.00	85.40	0.00	88.05	0.00
80.15	0.00	82.80	0.00	85.45	0.00	88.10	0.00
80.20	0.00	82.85	0.00	85.50	0.00	88.15	0.27
80.25	0.00	82.90	0.00	85.55	0.00	88.20	0.76
80.30	0.00	82.95	0.00	85.60	0.00		
80.35	0.00	83.00	0.00	85.65	0.00		
80.40	0.00	83.05	0.00	85.70	0.00		

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Pond 36P: DRYWELL UNIT 4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
77.80	0	83.10	16,262
77.90	209	83.20	16,262
78.00	418	83.30	16,262
78.10	626	83.40	16,262
78.20	835	83.50	16,262
78.30	1,044	83.60	16,262
78.40	1,424	83.70	16,262
78.50	1,805	83.80	16,262
78.60	2,196	83.90	16,262
78.70	2,591	84.00	16,262
78.80	2,987	84.10	16,262
78.90	3,382	84.20	16,262
79.00	3,777	84.30	16,262
79.10	4,171	84.40	16,262
79.20	4,565	84.50	16,262
79.30	4,959	84.60	16,262
79.40	5,353	84.70	16,262
79.50	5,746	84.80	16,262
79.60	6,139	84.90	16,262
79.70	6,531	85.00	16,262
79.80	6,924	85.10	16,262
79.90	7,316	85.20	16,262
80.00	7,707	85.30	16,262
80.10	8,099	85.40	16,262
80.20	8,490	85.50	16,262
80.30	8,881	85.60	16,262
80.40	9,271	85.70	16,262
80.50	9,661	85.80	16,262
80.60	10,051	85.90	16,262
80.70	10,441	86.00	16,262
80.80	10,830	86.10	16,262
80.90	11,219	86.20	16,262
81.00	11,607	86.30	16,262
81.10	11,996	86.40	16,262
81.20	12,384	86.50	16,262
81.30	12,771	86.60	16,262
81.40	13,159	86.70	16,262
81.50	13,546	86.80	16,262
81.60	13,932	86.90	16,262
81.70	14,319	87.00	16,262
81.80	14,705	87.10	16,262
81.90	15,023	87.20	16,262
82.00	15,072	87.30	16,262
82.10	15,120	87.40	16,262
82.20	15,169	87.50	16,262
82.30	15,218	87.60	16,262
82.40	15,427	87.70	16,262
82.50	15,636	87.80	16,262
82.60	15,845	87.90	16,262
82.70	16,054	88.00	16,262
82.80	16,262	88.10	16,262
82.90	16,262	88.20	16,262
83.00	16,262		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 38P: DRYWELL UNIT 1

Inflow Area = 4,320 sf, 100.00% Impervious, Inflow Depth > 6.54" for 100-Year event
 Inflow = 0.69 cfs @ 12.07 hrs, Volume= 2,354 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Pond 39P : CB 1

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 70.06' @ 24.00 hrs Surf.Area= 853 sf Storage= 2,354 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	66.00'	716 cf	32.80'W x 26.00'L x 5.00'H Field A 4,264 cf Overall - 2,473 cf Embedded = 1,791 cf x 40.0% Voids
#2A	66.50'	1,862 cf	Concrete Galley 4x4x4 x 42 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 42 Chambers in 7 Rows
		2,579 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Secondary	72.00'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=66.00' TW=63.53' (Dynamic Tailwater)
 1=Orifice/Grate (Controls 0.00 cfs)

Bridal Path Post

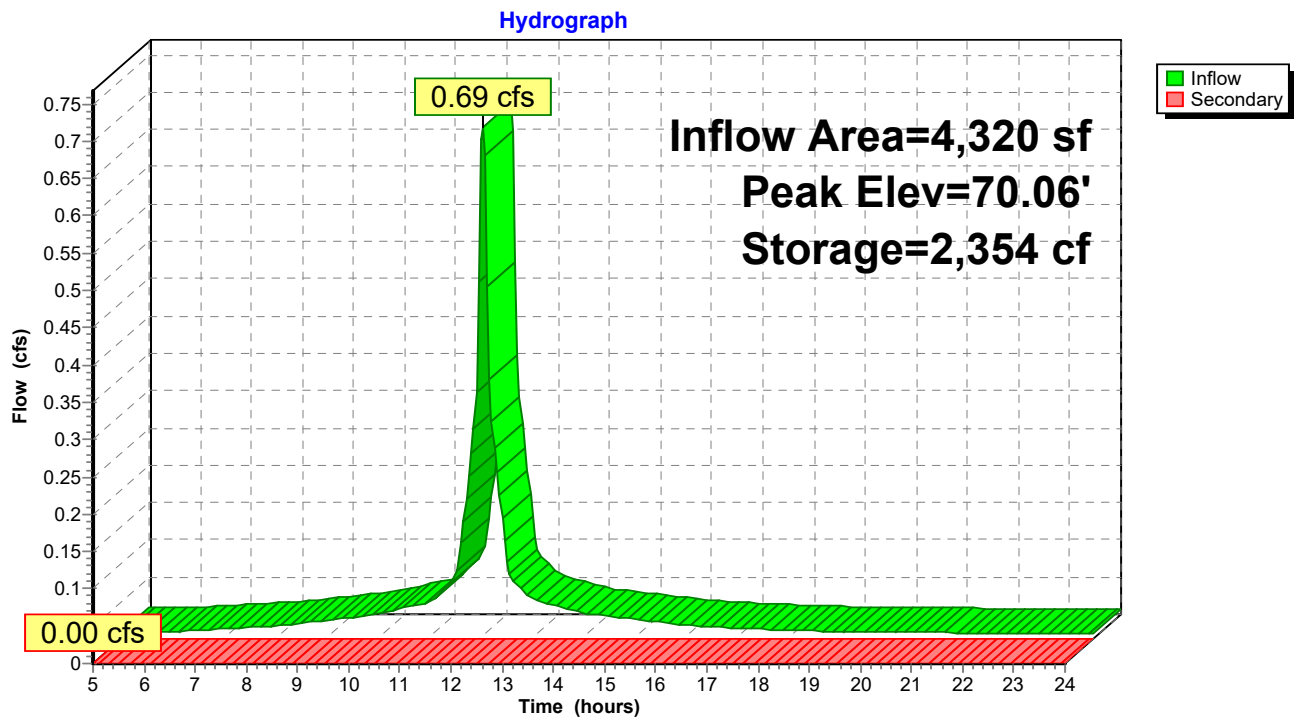
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Type III 24-hr 100-Year Rainfall=7.00"

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Pond 38P: DRYWELL UNIT 1



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)	Elevation (feet)	Secondary (cfs)
66.00	0.00	68.65	0.00	71.30	0.00
66.05	0.00	68.70	0.00	71.35	0.00
66.10	0.00	68.75	0.00	71.40	0.00
66.15	0.00	68.80	0.00	71.45	0.00
66.20	0.00	68.85	0.00	71.50	0.00
66.25	0.00	68.90	0.00	71.55	0.00
66.30	0.00	68.95	0.00	71.60	0.00
66.35	0.00	69.00	0.00	71.65	0.00
66.40	0.00	69.05	0.00	71.70	0.00
66.45	0.00	69.10	0.00	71.75	0.00
66.50	0.00	69.15	0.00	71.80	0.00
66.55	0.00	69.20	0.00	71.85	0.00
66.60	0.00	69.25	0.00	71.90	0.00
66.65	0.00	69.30	0.00	71.95	0.00
66.70	0.00	69.35	0.00	72.00	0.00
66.75	0.00	69.40	0.00		
66.80	0.00	69.45	0.00		
66.85	0.00	69.50	0.00		
66.90	0.00	69.55	0.00		
66.95	0.00	69.60	0.00		
67.00	0.00	69.65	0.00		
67.05	0.00	69.70	0.00		
67.10	0.00	69.75	0.00		
67.15	0.00	69.80	0.00		
67.20	0.00	69.85	0.00		
67.25	0.00	69.90	0.00		
67.30	0.00	69.95	0.00		
67.35	0.00	70.00	0.00		
67.40	0.00	70.05	0.00		
67.45	0.00	70.10	0.00		
67.50	0.00	70.15	0.00		
67.55	0.00	70.20	0.00		
67.60	0.00	70.25	0.00		
67.65	0.00	70.30	0.00		
67.70	0.00	70.35	0.00		
67.75	0.00	70.40	0.00		
67.80	0.00	70.45	0.00		
67.85	0.00	70.50	0.00		
67.90	0.00	70.55	0.00		
67.95	0.00	70.60	0.00		
68.00	0.00	70.65	0.00		
68.05	0.00	70.70	0.00		
68.10	0.00	70.75	0.00		
68.15	0.00	70.80	0.00		
68.20	0.00	70.85	0.00		
68.25	0.00	70.90	0.00		
68.30	0.00	70.95	0.00		
68.35	0.00	71.00	0.00		
68.40	0.00	71.05	0.00		
68.45	0.00	71.10	0.00		
68.50	0.00	71.15	0.00		
68.55	0.00	71.20	0.00		
68.60	0.00	71.25	0.00		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Stage-Area-Storage for Pond 38P: DRYWELL UNIT 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
66.00	0	68.65	1,494	71.30	2,579
66.05	17	68.70	1,525	71.35	2,579
66.10	34	68.75	1,555	71.40	2,579
66.15	51	68.80	1,586	71.45	2,579
66.20	68	68.85	1,616	71.50	2,579
66.25	85	68.90	1,647	71.55	2,579
66.30	102	68.95	1,678	71.60	2,579
66.35	119	69.00	1,708	71.65	2,579
66.40	136	69.05	1,739	71.70	2,579
66.45	154	69.10	1,769	71.75	2,579
66.50	171	69.15	1,800	71.80	2,579
66.55	200	69.20	1,830	71.85	2,579
66.60	230	69.25	1,861	71.90	2,579
66.65	260	69.30	1,891	71.95	2,579
66.70	290	69.35	1,922	72.00	2,579
66.75	321	69.40	1,952		
66.80	352	69.45	1,983		
66.85	383	69.50	2,013		
66.90	414	69.55	2,044		
66.95	445	69.60	2,074		
67.00	476	69.65	2,105		
67.05	507	69.70	2,135		
67.10	538	69.75	2,166		
67.15	569	69.80	2,196		
67.20	600	69.85	2,226		
67.25	631	69.90	2,257		
67.30	662	69.95	2,287		
67.35	693	70.00	2,317		
67.40	724	70.05	2,348		
67.45	755	70.10	2,368		
67.50	786	70.15	2,373		
67.55	817	70.20	2,378		
67.60	848	70.25	2,383		
67.65	878	70.30	2,388		
67.70	909	70.35	2,393		
67.75	940	70.40	2,398		
67.80	971	70.45	2,403		
67.85	1,002	70.50	2,408		
67.90	1,033	70.55	2,425		
67.95	1,064	70.60	2,443		
68.00	1,094	70.65	2,460		
68.05	1,125	70.70	2,477		
68.10	1,156	70.75	2,494		
68.15	1,187	70.80	2,511		
68.20	1,218	70.85	2,528		
68.25	1,248	70.90	2,545		
68.30	1,279	70.95	2,562		
68.35	1,310	71.00	2,579		
68.40	1,340	71.05	2,579		
68.45	1,371	71.10	2,579		
68.50	1,402	71.15	2,579		
68.55	1,433	71.20	2,579		
68.60	1,463	71.25	2,579		

Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 39P: CB 1

Inflow Area = 35,612 sf, 69.66% Impervious, Inflow Depth > 5.23" for 100-Year event
Inflow = 4.43 cfs @ 12.07 hrs, Volume= 15,524 cf
Outflow = 4.43 cfs @ 12.07 hrs, Volume= 15,524 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.43 cfs @ 12.07 hrs, Volume= 14,521 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.11 cfs @ 20.50 hrs, Volume= 1,003 cf
Routed to Reach DPBpost : DP-B

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 66.03' @ 20.50 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

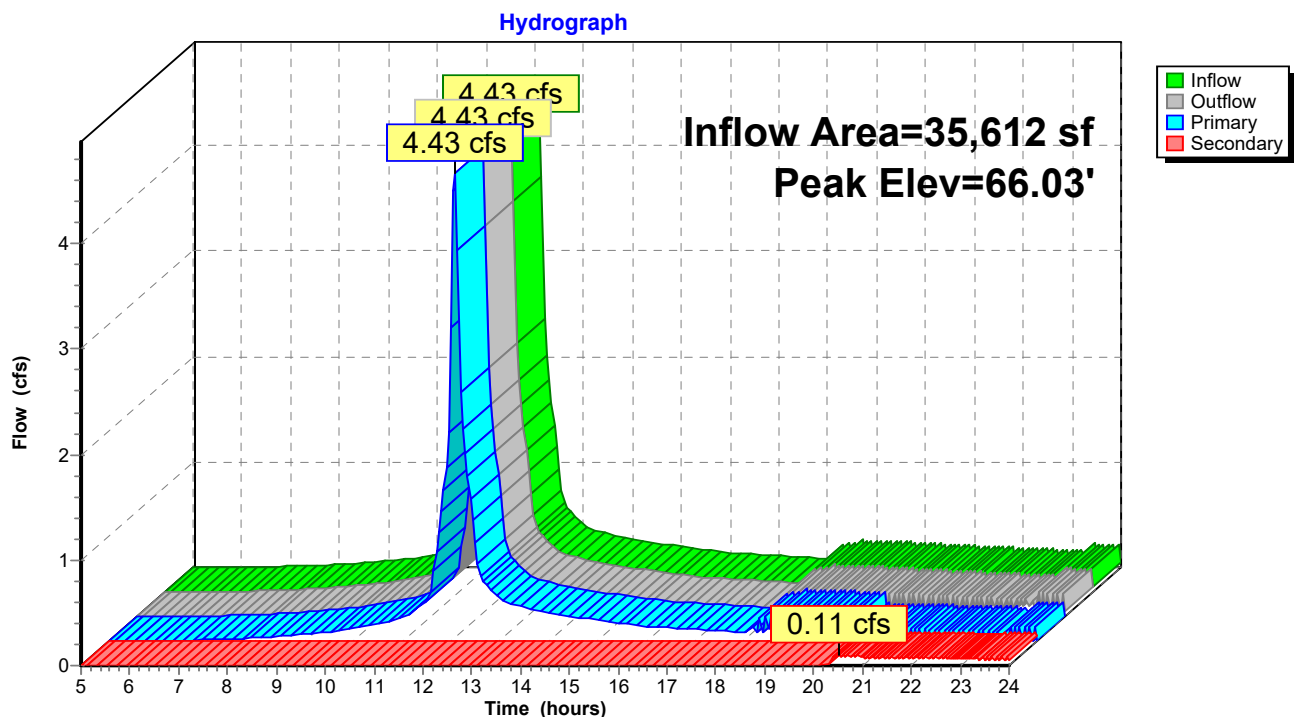
Primary OutFlow Max=4.27 cfs @ 12.07 hrs HW=64.64' TW=62.70' (Dynamic Tailwater)

↑**2=Culvert** (Inlet Controls 4.27 cfs @ 3.63 fps)

Secondary OutFlow Max=0.11 cfs @ 20.50 hrs HW=66.03' TW=0.00' (Dynamic Tailwater)

↑**1=Orifice/Grate** (Weir Controls 0.11 cfs @ 0.54 fps)

Pond 39P: CB 1



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 39P: CB 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00
66.05	8.05	7.78	0.27

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Pond 39P: CB 1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0	66.02	0
63.92	0	64.98	0	66.04	0
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 40P: CB 2

Inflow Area = 43,608 sf, 61.00% Impervious, Inflow Depth > 4.73" for 100-Year event
Inflow = 4.82 cfs @ 12.08 hrs, Volume= 17,174 cf
Outflow = 4.82 cfs @ 12.08 hrs, Volume= 17,174 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.82 cfs @ 12.08 hrs, Volume= 15,206 cf
Routed to Pond 10P : DRYWELL UNIT 5
Secondary = 0.21 cfs @ 20.46 hrs, Volume= 1,968 cf
Routed to Reach DPBpost : DP-B

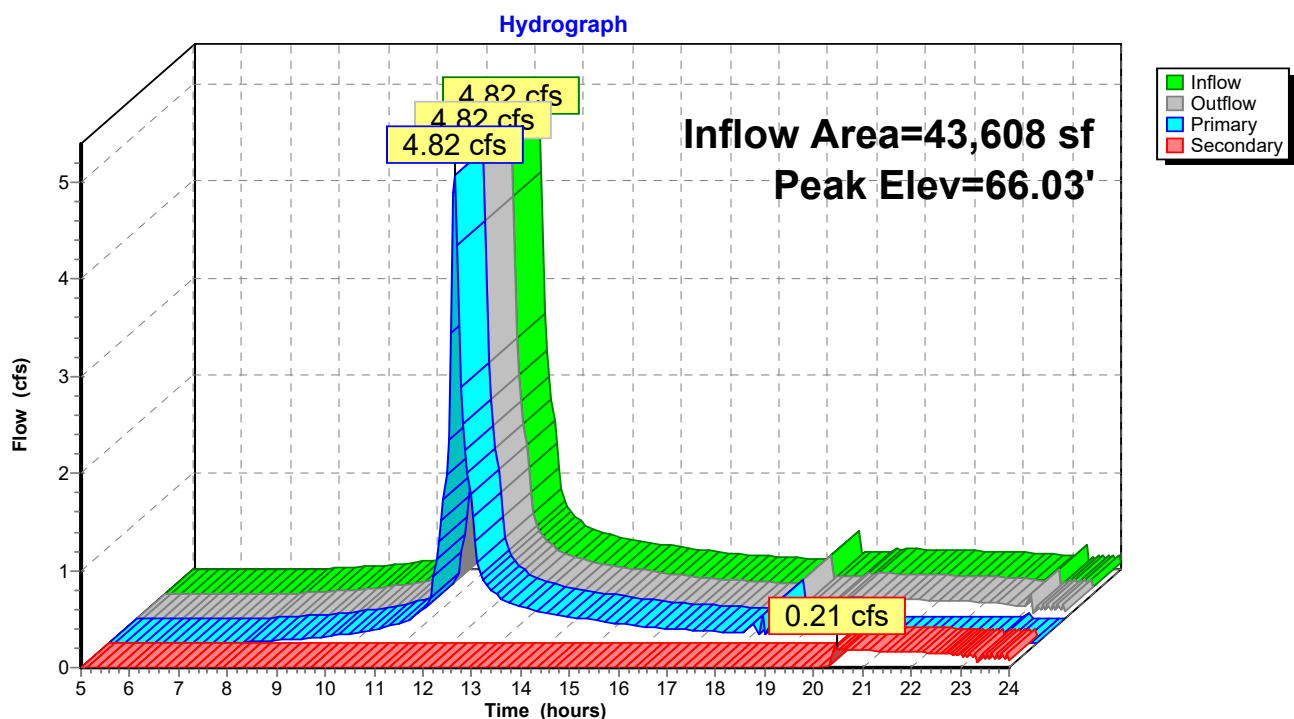
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 66.03' @ 20.46 hrs

Device	Routing	Invert	Outlet Devices
#1	Secondary	66.00'	22.0" x 22.0" Horiz. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#2	Primary	63.50'	15.0" Round Culvert L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.50' / 62.00' S= 0.0117 ' S= 0.0117 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.66 cfs @ 12.08 hrs HW=64.75' TW=62.71' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 4.66 cfs @ 3.80 fps)

Secondary OutFlow Max=0.21 cfs @ 20.46 hrs HW=66.03' TW=0.00' (Dynamic Tailwater)
↑**1=Orifice/Grate** (Weir Controls 0.21 cfs @ 0.53 fps)

Pond 40P: CB 2



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 40P: CB 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
63.50	0.00	0.00	0.00
63.55	0.01	0.01	0.00
63.60	0.05	0.05	0.00
63.65	0.11	0.11	0.00
63.70	0.19	0.19	0.00
63.75	0.30	0.30	0.00
63.80	0.42	0.42	0.00
63.85	0.57	0.57	0.00
63.90	0.73	0.73	0.00
63.95	0.91	0.91	0.00
64.00	1.10	1.10	0.00
64.05	1.31	1.31	0.00
64.10	1.54	1.54	0.00
64.15	1.77	1.77	0.00
64.20	2.01	2.01	0.00
64.25	2.27	2.27	0.00
64.30	2.53	2.53	0.00
64.35	2.79	2.79	0.00
64.40	3.06	3.06	0.00
64.45	3.32	3.32	0.00
64.50	3.58	3.58	0.00
64.55	3.84	3.84	0.00
64.60	4.08	4.08	0.00
64.65	4.31	4.31	0.00
64.70	4.52	4.52	0.00
64.75	4.67	4.67	0.00
64.80	4.85	4.85	0.00
64.85	5.03	5.03	0.00
64.90	5.20	5.20	0.00
64.95	5.37	5.37	0.00
65.00	5.53	5.53	0.00
65.05	5.68	5.68	0.00
65.10	5.83	5.83	0.00
65.15	5.98	5.98	0.00
65.20	6.13	6.13	0.00
65.25	6.27	6.27	0.00
65.30	6.41	6.41	0.00
65.35	6.54	6.54	0.00
65.40	6.67	6.67	0.00
65.45	6.80	6.80	0.00
65.50	6.93	6.93	0.00
65.55	7.05	7.05	0.00
65.60	7.13	7.13	0.00
65.65	7.20	7.20	0.00
65.70	7.28	7.28	0.00
65.75	7.35	7.35	0.00
65.80	7.43	7.43	0.00
65.85	7.50	7.50	0.00
65.90	7.57	7.57	0.00
65.95	7.64	7.64	0.00
66.00	7.71	7.71	0.00
66.05	8.32	7.78	0.54

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Pond 40P: CB 2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
63.50	0	64.56	0	65.62	0
63.52	0	64.58	0	65.64	0
63.54	0	64.60	0	65.66	0
63.56	0	64.62	0	65.68	0
63.58	0	64.64	0	65.70	0
63.60	0	64.66	0	65.72	0
63.62	0	64.68	0	65.74	0
63.64	0	64.70	0	65.76	0
63.66	0	64.72	0	65.78	0
63.68	0	64.74	0	65.80	0
63.70	0	64.76	0	65.82	0
63.72	0	64.78	0	65.84	0
63.74	0	64.80	0	65.86	0
63.76	0	64.82	0	65.88	0
63.78	0	64.84	0	65.90	0
63.80	0	64.86	0	65.92	0
63.82	0	64.88	0	65.94	0
63.84	0	64.90	0	65.96	0
63.86	0	64.92	0	65.98	0
63.88	0	64.94	0	66.00	0
63.90	0	64.96	0	66.02	0
63.92	0	64.98	0	66.04	0
63.94	0	65.00	0		
63.96	0	65.02	0		
63.98	0	65.04	0		
64.00	0	65.06	0		
64.02	0	65.08	0		
64.04	0	65.10	0		
64.06	0	65.12	0		
64.08	0	65.14	0		
64.10	0	65.16	0		
64.12	0	65.18	0		
64.14	0	65.20	0		
64.16	0	65.22	0		
64.18	0	65.24	0		
64.20	0	65.26	0		
64.22	0	65.28	0		
64.24	0	65.30	0		
64.26	0	65.32	0		
64.28	0	65.34	0		
64.30	0	65.36	0		
64.32	0	65.38	0		
64.34	0	65.40	0		
64.36	0	65.42	0		
64.38	0	65.44	0		
64.40	0	65.46	0		
64.42	0	65.48	0		
64.44	0	65.50	0		
64.46	0	65.52	0		
64.48	0	65.54	0		
64.50	0	65.56	0		
64.52	0	65.58	0		
64.54	0	65.60	0		

Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 41P: CB 3

Inflow Area = 37,941 sf, 67.91% Impervious, Inflow Depth > 4.78" for 100-Year event
Inflow = 4.67 cfs @ 12.07 hrs, Volume= 15,125 cf
Outflow = 4.67 cfs @ 12.07 hrs, Volume= 15,125 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.67 cfs @ 12.07 hrs, Volume= 15,125 cf
Routed to Pond 44P : (new Pond)

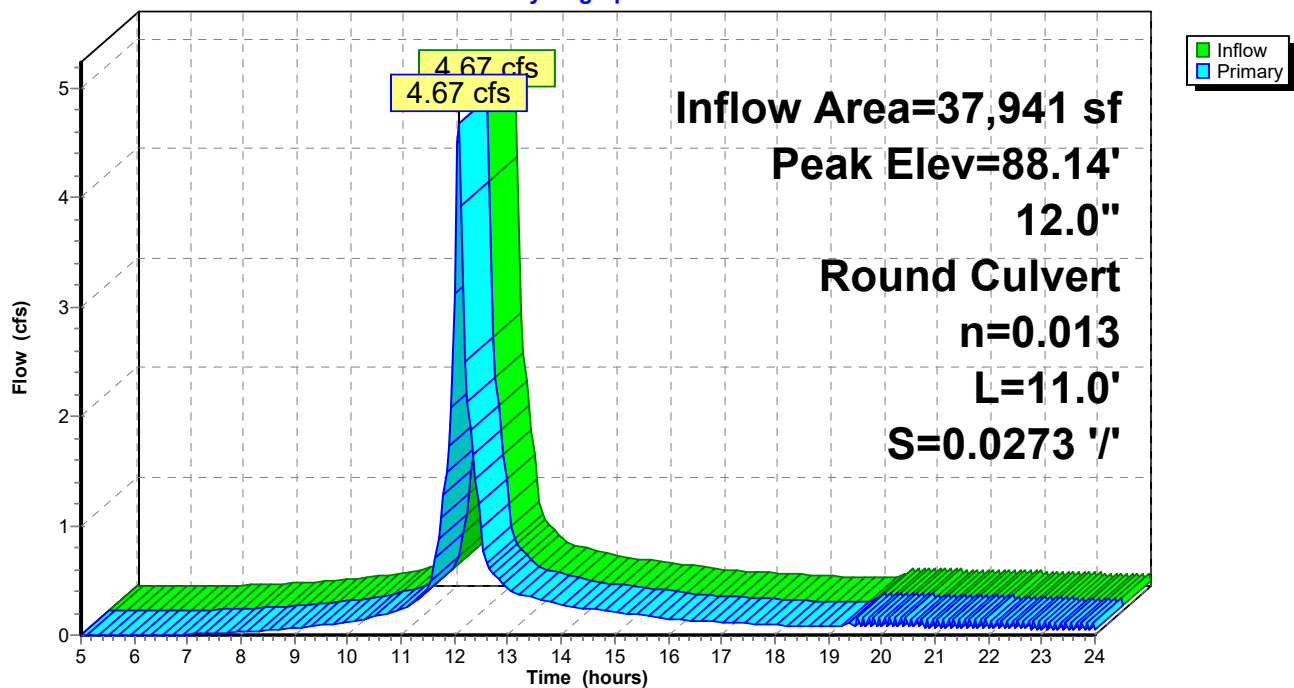
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 88.14' @ 18.65 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0273 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.78 cfs @ 12.07 hrs HW=82.33' TW=81.33' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 3.78 cfs @ 4.81 fps)

Pond 41P: CB 3

Hydrograph



Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Stage-Discharge for Pond 41P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	82.75	5.55	85.40	8.29	88.05	10.32
80.15	0.01	82.80	5.61	85.45	8.33	88.10	10.36
80.20	0.04	82.85	5.67	85.50	8.37	88.15	10.39
80.25	0.10	82.90	5.74	85.55	8.41		
80.30	0.17	82.95	5.80	85.60	8.46		
80.35	0.26	83.00	5.86	85.65	8.50		
80.40	0.37	83.05	5.92	85.70	8.54		
80.45	0.49	83.10	5.98	85.75	8.58		
80.50	0.63	83.15	6.04	85.80	8.62		
80.55	0.78	83.20	6.10	85.85	8.66		
80.60	0.95	83.25	6.16	85.90	8.71		
80.65	1.12	83.30	6.21	85.95	8.75		
80.70	1.30	83.35	6.27	86.00	8.79		
80.75	1.48	83.40	6.33	86.05	8.83		
80.80	1.67	83.45	6.38	86.10	8.87		
80.85	1.86	83.50	6.44	86.15	8.91		
80.90	2.05	83.55	6.50	86.20	8.95		
80.95	2.23	83.60	6.55	86.25	8.99		
81.00	2.40	83.65	6.60	86.30	9.03		
81.05	2.56	83.70	6.66	86.35	9.07		
81.10	2.67	83.75	6.71	86.40	9.11		
81.15	2.80	83.80	6.76	86.45	9.15		
81.20	2.93	83.85	6.82	86.50	9.19		
81.25	3.05	83.90	6.87	86.55	9.22		
81.30	3.16	83.95	6.92	86.60	9.26		
81.35	3.28	84.00	6.97	86.65	9.30		
81.40	3.38	84.05	7.02	86.70	9.34		
81.45	3.49	84.10	7.07	86.75	9.38		
81.50	3.59	84.15	7.13	86.80	9.42		
81.55	3.69	84.20	7.18	86.85	9.45		
81.60	3.78	84.25	7.22	86.90	9.49		
81.65	3.88	84.30	7.27	86.95	9.53		
81.70	3.97	84.35	7.32	87.00	9.57		
81.75	4.06	84.40	7.37	87.05	9.60		
81.80	4.14	84.45	7.42	87.10	9.64		
81.85	4.23	84.50	7.47	87.15	9.68		
81.90	4.31	84.55	7.52	87.20	9.72		
81.95	4.39	84.60	7.56	87.25	9.75		
82.00	4.47	84.65	7.61	87.30	9.79		
82.05	4.55	84.70	7.66	87.35	9.83		
82.10	4.63	84.75	7.70	87.40	9.86		
82.15	4.71	84.80	7.75	87.45	9.90		
82.20	4.78	84.85	7.80	87.50	9.93		
82.25	4.86	84.90	7.84	87.55	9.97		
82.30	4.93	84.95	7.89	87.60	10.01		
82.35	5.00	85.00	7.93	87.65	10.04		
82.40	5.07	85.05	7.98	87.70	10.08		
82.45	5.14	85.10	8.02	87.75	10.11		
82.50	5.21	85.15	8.07	87.80	10.15		
82.55	5.28	85.20	8.11	87.85	10.18		
82.60	5.35	85.25	8.15	87.90	10.22		
82.65	5.41	85.30	8.20	87.95	10.25		
82.70	5.48	85.35	8.24	88.00	10.29		

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Pond 41P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	85.40	0
80.20	0	85.50	0
80.30	0	85.60	0
80.40	0	85.70	0
80.50	0	85.80	0
80.60	0	85.90	0
80.70	0	86.00	0
80.80	0	86.10	0
80.90	0	86.20	0
81.00	0	86.30	0
81.10	0	86.40	0
81.20	0	86.50	0
81.30	0	86.60	0
81.40	0	86.70	0
81.50	0	86.80	0
81.60	0	86.90	0
81.70	0	87.00	0
81.80	0	87.10	0
81.90	0	87.20	0
82.00	0	87.30	0
82.10	0	87.40	0
82.20	0	87.50	0
82.30	0	87.60	0
82.40	0	87.70	0
82.50	0	87.80	0
82.60	0	87.90	0
82.70	0	88.00	0
82.80	0	88.10	0
82.90	0		
83.00	0		
83.10	0		
83.20	0		
83.30	0		
83.40	0		
83.50	0		
83.60	0		
83.70	0		
83.80	0		
83.90	0		
84.00	0		
84.10	0		
84.20	0		
84.30	0		
84.40	0		
84.50	0		
84.60	0		
84.70	0		
84.80	0		
84.90	0		
85.00	0		
85.10	0		
85.20	0		
85.30	0		

Bridal Path Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 42P: CB 3

Inflow Area = 39,906 sf, 57.74% Impervious, Inflow Depth > 3.93" for 100-Year event
Inflow = 4.23 cfs @ 12.08 hrs, Volume= 13,078 cf
Outflow = 4.23 cfs @ 12.08 hrs, Volume= 13,078 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.23 cfs @ 12.08 hrs, Volume= 13,078 cf
Routed to Pond 44P : (new Pond)

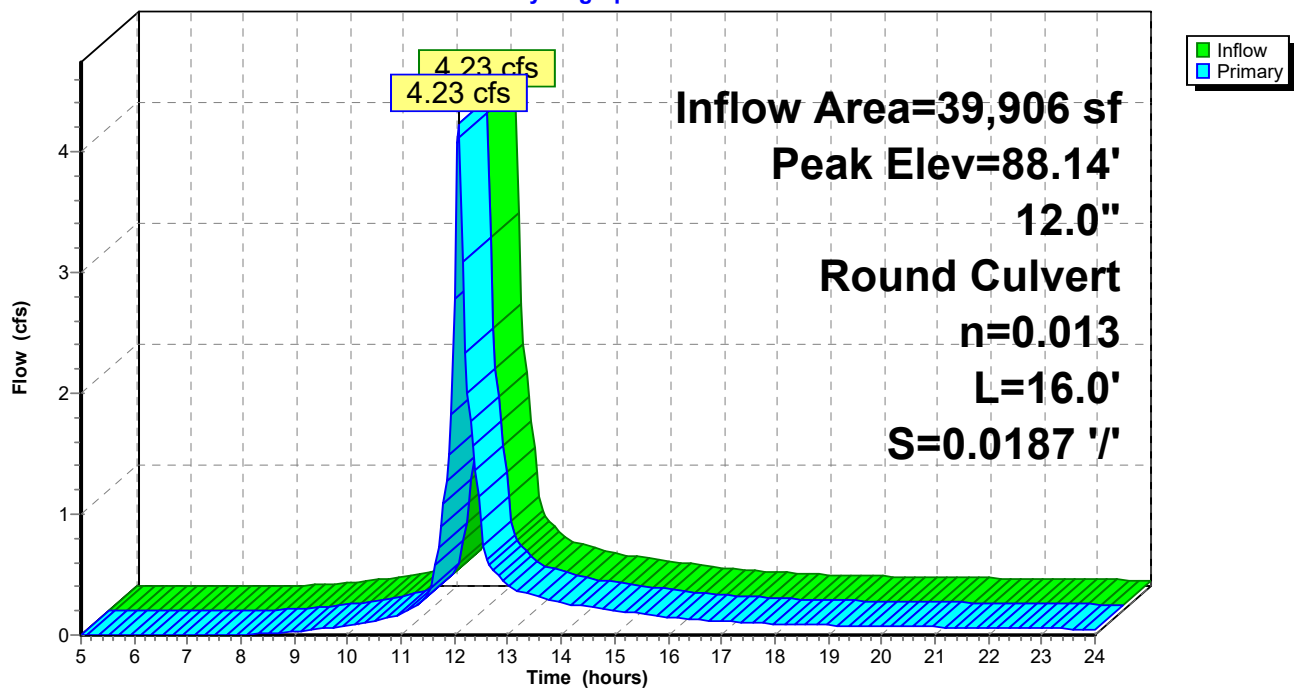
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 88.14' @ 18.65 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	80.10'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 80.10' / 79.80' S= 0.0187 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.34 cfs @ 12.08 hrs HW=82.12' TW=81.34' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 3.34 cfs @ 4.25 fps)

Pond 42P: CB 3

Hydrograph



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 42P: CB 3

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
80.10	0.00	82.75	5.55	85.40	8.29	88.05	10.32
80.15	0.01	82.80	5.61	85.45	8.33	88.10	10.36
80.20	0.04	82.85	5.67	85.50	8.37	88.15	10.39
80.25	0.10	82.90	5.74	85.55	8.41		
80.30	0.17	82.95	5.80	85.60	8.46		
80.35	0.26	83.00	5.86	85.65	8.50		
80.40	0.37	83.05	5.92	85.70	8.54		
80.45	0.49	83.10	5.98	85.75	8.58		
80.50	0.63	83.15	6.04	85.80	8.62		
80.55	0.78	83.20	6.10	85.85	8.66		
80.60	0.95	83.25	6.16	85.90	8.71		
80.65	1.12	83.30	6.21	85.95	8.75		
80.70	1.29	83.35	6.27	86.00	8.79		
80.75	1.46	83.40	6.33	86.05	8.83		
80.80	1.64	83.45	6.38	86.10	8.87		
80.85	1.82	83.50	6.44	86.15	8.91		
80.90	2.01	83.55	6.50	86.20	8.95		
80.95	2.19	83.60	6.55	86.25	8.99		
81.00	2.37	83.65	6.60	86.30	9.03		
81.05	2.56	83.70	6.66	86.35	9.07		
81.10	2.67	83.75	6.71	86.40	9.11		
81.15	2.80	83.80	6.76	86.45	9.15		
81.20	2.93	83.85	6.82	86.50	9.19		
81.25	3.05	83.90	6.87	86.55	9.22		
81.30	3.16	83.95	6.92	86.60	9.26		
81.35	3.28	84.00	6.97	86.65	9.30		
81.40	3.38	84.05	7.02	86.70	9.34		
81.45	3.49	84.10	7.07	86.75	9.38		
81.50	3.59	84.15	7.13	86.80	9.42		
81.55	3.69	84.20	7.18	86.85	9.45		
81.60	3.78	84.25	7.22	86.90	9.49		
81.65	3.88	84.30	7.27	86.95	9.53		
81.70	3.97	84.35	7.32	87.00	9.57		
81.75	4.06	84.40	7.37	87.05	9.60		
81.80	4.14	84.45	7.42	87.10	9.64		
81.85	4.23	84.50	7.47	87.15	9.68		
81.90	4.31	84.55	7.52	87.20	9.72		
81.95	4.39	84.60	7.56	87.25	9.75		
82.00	4.47	84.65	7.61	87.30	9.79		
82.05	4.55	84.70	7.66	87.35	9.83		
82.10	4.63	84.75	7.70	87.40	9.86		
82.15	4.71	84.80	7.75	87.45	9.90		
82.20	4.78	84.85	7.80	87.50	9.93		
82.25	4.86	84.90	7.84	87.55	9.97		
82.30	4.93	84.95	7.89	87.60	10.01		
82.35	5.00	85.00	7.93	87.65	10.04		
82.40	5.07	85.05	7.98	87.70	10.08		
82.45	5.14	85.10	8.02	87.75	10.11		
82.50	5.21	85.15	8.07	87.80	10.15		
82.55	5.28	85.20	8.11	87.85	10.18		
82.60	5.35	85.25	8.15	87.90	10.22		
82.65	5.41	85.30	8.20	87.95	10.25		
82.70	5.48	85.35	8.24	88.00	10.29		

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Pond 42P: CB 3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
80.10	0	85.40	0
80.20	0	85.50	0
80.30	0	85.60	0
80.40	0	85.70	0
80.50	0	85.80	0
80.60	0	85.90	0
80.70	0	86.00	0
80.80	0	86.10	0
80.90	0	86.20	0
81.00	0	86.30	0
81.10	0	86.40	0
81.20	0	86.50	0
81.30	0	86.60	0
81.40	0	86.70	0
81.50	0	86.80	0
81.60	0	86.90	0
81.70	0	87.00	0
81.80	0	87.10	0
81.90	0	87.20	0
82.00	0	87.30	0
82.10	0	87.40	0
82.20	0	87.50	0
82.30	0	87.60	0
82.40	0	87.70	0
82.50	0	87.80	0
82.60	0	87.90	0
82.70	0	88.00	0
82.80	0	88.10	0
82.90	0		
83.00	0		
83.10	0		
83.20	0		
83.30	0		
83.40	0		
83.50	0		
83.60	0		
83.70	0		
83.80	0		
83.90	0		
84.00	0		
84.10	0		
84.20	0		
84.30	0		
84.40	0		
84.50	0		
84.60	0		
84.70	0		
84.80	0		
84.90	0		
85.00	0		
85.10	0		
85.20	0		
85.30	0		

Bridal Path Post

Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Pond 44P: (new Pond)

Inflow Area = 77,847 sf, 62.69% Impervious, Inflow Depth > 4.35" for 100-Year event
 Inflow = 8.87 cfs @ 12.08 hrs, Volume= 28,203 cf
 Outflow = 8.87 cfs @ 12.08 hrs, Volume= 28,203 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.35 cfs @ 12.07 hrs, Volume= 12,920 cf
 Routed to Pond 2P : DRYWELL UNIT 2
 Secondary = 4.55 cfs @ 12.08 hrs, Volume= 15,282 cf
 Routed to Pond 36P : DRYWELL UNIT 4

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 88.13' @ 18.60 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	79.20'	12.0" Round Culvert L= 86.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	79.20'	12.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 79.20' / 78.30' S= 0.0113 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.90 cfs @ 12.07 hrs HW=81.32' TW=79.71' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 3.90 cfs @ 4.97 fps)

Secondary OutFlow Max=4.18 cfs @ 12.08 hrs HW=81.34' TW=79.57' (Dynamic Tailwater)
 ↑**2=Culvert** (Outlet Controls 4.18 cfs @ 5.32 fps)

Bridal Path Post

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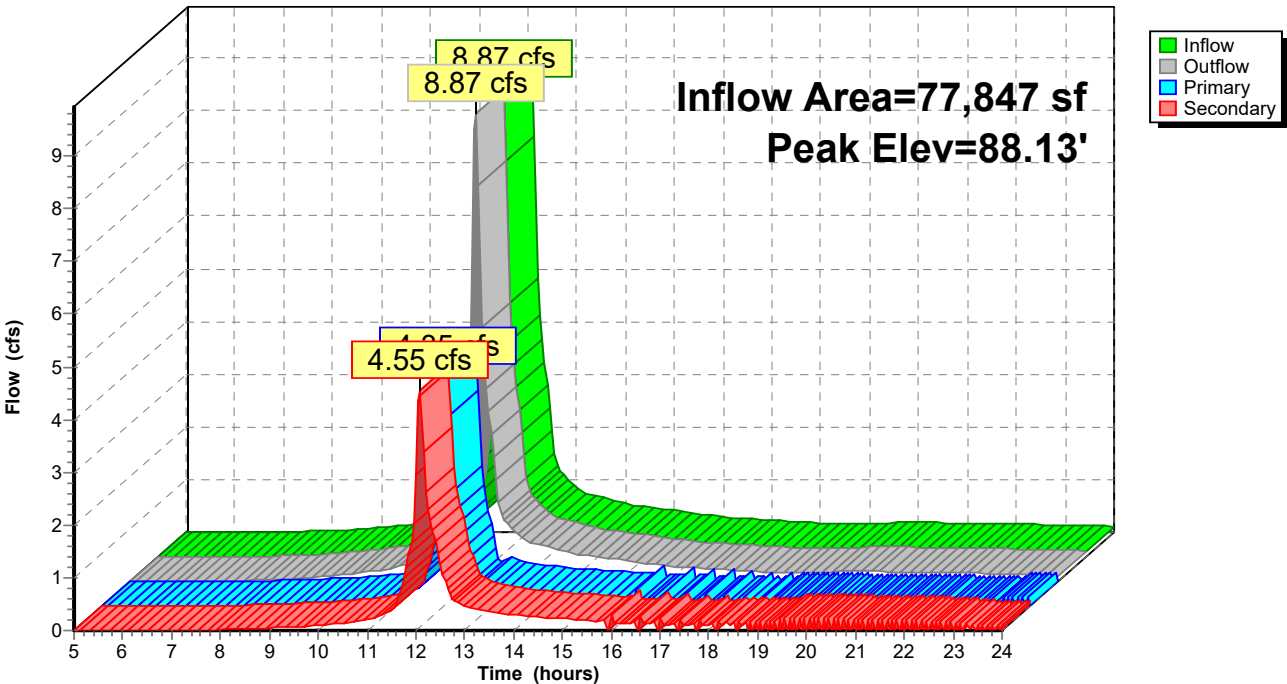
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Type III 24-hr 100-Year Rainfall=7.00"

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Pond 44P: (new Pond)

Hydrograph



Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Pond 44P: (new Pond)

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
79.20	0.00	0.00	0.00	84.50	14.19	7.01	7.18
79.30	0.08	0.04	0.04	84.60	14.32	7.08	7.24
79.40	0.34	0.17	0.17	84.70	14.46	7.15	7.31
79.50	0.74	0.37	0.37	84.80	14.59	7.21	7.38
79.60	1.26	0.63	0.63	84.90	14.72	7.28	7.45
79.70	1.89	0.95	0.95	85.00	14.86	7.34	7.51
79.80	2.60	1.30	1.30	85.10	14.98	7.41	7.58
79.90	3.35	1.67	1.67	85.20	15.11	7.47	7.64
80.00	4.10	2.05	2.05	85.30	15.24	7.53	7.71
80.10	4.81	2.40	2.40	85.40	15.37	7.60	7.77
80.20	5.35	2.67	2.67	85.50	15.49	7.66	7.84
80.30	5.86	2.93	2.93	85.60	15.62	7.72	7.90
80.40	6.33	3.16	3.16	85.70	15.74	7.78	7.96
80.50	6.76	3.38	3.38	85.80	15.86	7.84	8.02
80.60	7.09	3.51	3.59	85.90	15.98	7.90	8.08
80.70	7.36	3.64	3.72	86.00	16.11	7.96	8.15
80.80	7.62	3.77	3.85	86.10	16.23	8.02	8.21
80.90	7.87	3.89	3.98	86.20	16.34	8.08	8.27
81.00	8.11	4.01	4.10	86.30	16.46	8.14	8.33
81.10	8.35	4.13	4.22	86.40	16.58	8.19	8.38
81.20	8.58	4.24	4.34	86.50	16.70	8.25	8.44
81.30	8.80	4.35	4.45	86.60	16.81	8.31	8.50
81.40	9.02	4.46	4.56	86.70	16.93	8.37	8.56
81.50	9.23	4.56	4.67	86.80	17.04	8.42	8.62
81.60	9.44	4.66	4.77	86.90	17.15	8.48	8.68
81.70	9.64	4.76	4.87	87.00	17.27	8.53	8.73
81.80	9.84	4.86	4.98	87.10	17.38	8.59	8.79
81.90	10.03	4.96	5.07	87.20	17.49	8.64	8.84
82.00	10.22	5.05	5.17	87.30	17.60	8.70	8.90
82.10	10.41	5.15	5.27	87.40	17.71	8.75	8.96
82.20	10.60	5.24	5.36	87.50	17.82	8.81	9.01
82.30	10.78	5.33	5.45	87.60	17.93	8.86	9.07
82.40	10.96	5.41	5.54	87.70	18.03	8.91	9.12
82.50	11.13	5.50	5.63	87.80	18.14	8.97	9.17
82.60	11.30	5.59	5.72	87.90	18.25	9.02	9.23
82.70	11.47	5.67	5.80	88.00	18.35	9.07	9.28
82.80	11.64	5.75	5.89	88.10	18.46	9.12	9.33
82.90	11.81	5.84	5.97				
83.00	11.97	5.92	6.05				
83.10	12.13	6.00	6.13				
83.20	12.29	6.07	6.21				
83.30	12.44	6.15	6.29				
83.40	12.60	6.23	6.37				
83.50	12.75	6.30	6.45				
83.60	12.90	6.38	6.53				
83.70	13.05	6.45	6.60				
83.80	13.20	6.52	6.68				
83.90	13.34	6.60	6.75				
84.00	13.49	6.67	6.82				
84.10	13.63	6.74	6.89				
84.20	13.77	6.81	6.97				
84.30	13.91	6.88	7.04				
84.40	14.05	6.95	7.11				

Bridal Path Post*Type III 24-hr 100-Year Rainfall=7.00"*

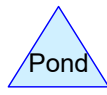
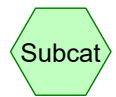
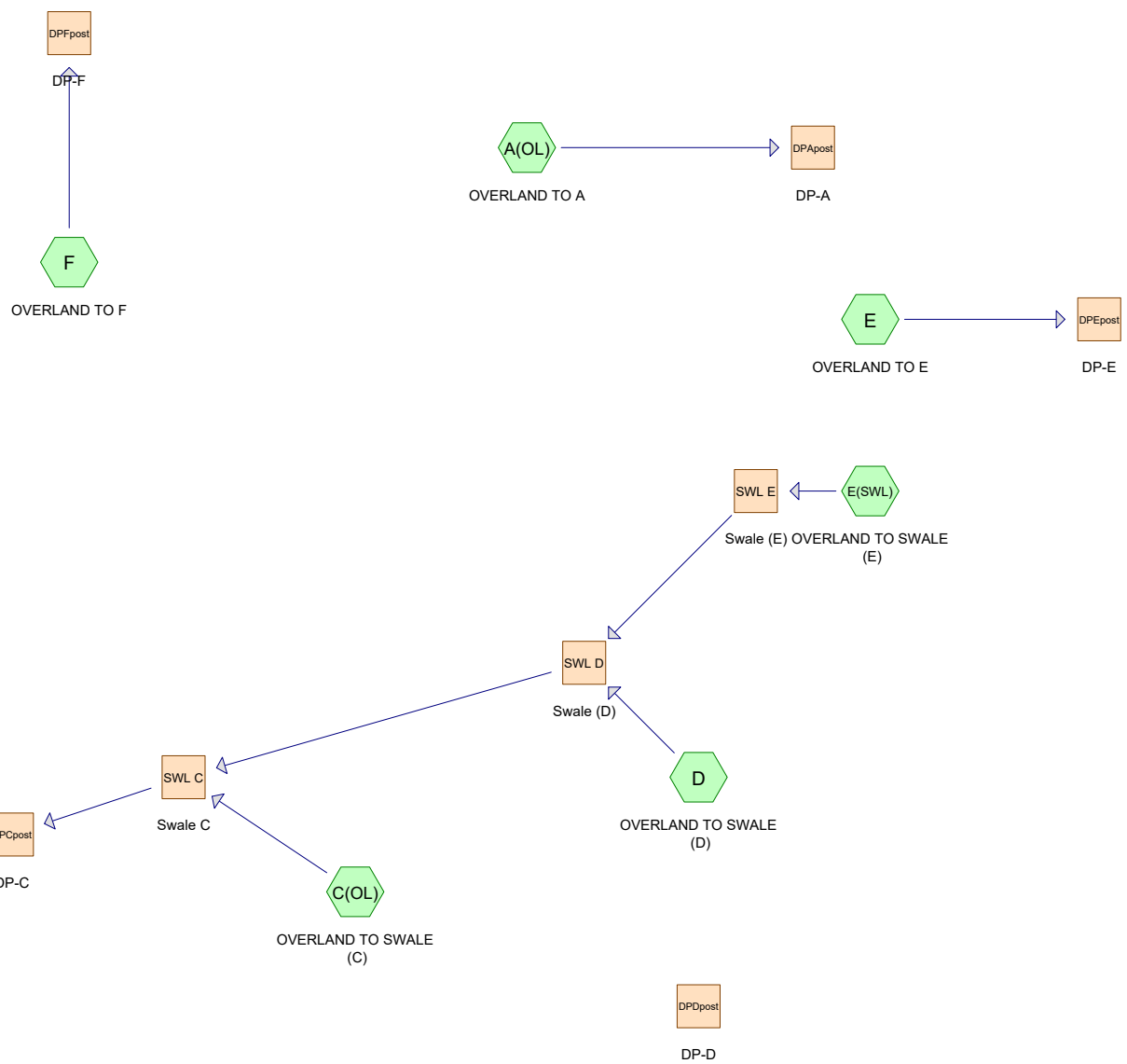
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Stage-Area-Storage for Pond 44P: (new Pond)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
79.20	0	84.50	0
79.30	0	84.60	0
79.40	0	84.70	0
79.50	0	84.80	0
79.60	0	84.90	0
79.70	0	85.00	0
79.80	0	85.10	0
79.90	0	85.20	0
80.00	0	85.30	0
80.10	0	85.40	0
80.20	0	85.50	0
80.30	0	85.60	0
80.40	0	85.70	0
80.50	0	85.80	0
80.60	0	85.90	0
80.70	0	86.00	0
80.80	0	86.10	0
80.90	0	86.20	0
81.00	0	86.30	0
81.10	0	86.40	0
81.20	0	86.50	0
81.30	0	86.60	0
81.40	0	86.70	0
81.50	0	86.80	0
81.60	0	86.90	0
81.70	0	87.00	0
81.80	0	87.10	0
81.90	0	87.20	0
82.00	0	87.30	0
82.10	0	87.40	0
82.20	0	87.50	0
82.30	0	87.60	0
82.40	0	87.70	0
82.50	0	87.80	0
82.60	0	87.90	0
82.70	0	88.00	0
82.80	0	88.10	0
82.90	0		
83.00	0		
83.10	0		
83.20	0		
83.30	0		
83.40	0		
83.50	0		
83.60	0		
83.70	0		
83.80	0		
83.90	0		
84.00	0		
84.10	0		
84.20	0		
84.30	0		
84.40	0		



Routing Diagram for Bridal Path Perimeter Post
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Bridal Path Perimeter Post

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
163,765	39	>75% Grass cover, Good, HSG A (A(OL), C(OL), D, E(SWL), F)
3,156	98	Paved parking, HSG A (Walkways) (A(OL), D, E, E(SWL))
168,078	30	Woods, Good, HSG A (A(OL), C(OL), D, E, E(SWL))
334,999	35	TOTAL AREA

Bridal Path Perimeter Post

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
334,999	HSG A	A(OL), C(OL), D, E, E(SWL), F
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
334,999		TOTAL AREA

Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A(OL): OVERLAND TO A	Runoff Area=91,778 sf 1.81% Impervious Tc=5.0 min CN=35	Runoff Depth=0.00" Runoff=0.00 cfs 0 cf
Subcatchment C(OL): OVERLAND TO	Runoff Area=55,197 sf 0.00% Impervious Tc=5.0 min CN=34	Runoff Depth=0.00" Runoff=0.00 cfs 0 cf
Subcatchment D: OVERLAND TO SWALE	Runoff Area=81,122 sf 0.26% Impervious Tc=5.0 min CN=34	Runoff Depth=0.00" Runoff=0.00 cfs 0 cf
Subcatchment E: OVERLAND TO E	Runoff Area=18,011 sf 4.19% Impervious Flow Length=50' Slope=0.0200 '/' Tc=21.0 min CN=33	Runoff Depth=0.00" Runoff=0.00 cfs 0 cf
Subcatchment E(SWL): OVERLAND TO	Runoff Area=86,855 sf 0.60% Impervious Flow Length=688' Tc=20.5 min CN=37	Runoff Depth=0.00" Runoff=0.00 cfs 0 cf
Subcatchment F: OVERLAND TO F	Runoff Area=2,036 sf 0.00% Impervious Tc=5.0 min CN=39	Runoff Depth>0.00" Runoff=0.00 cfs 0 cf
Reach DPApost: DP-A		Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPCpost: DP-C		Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPDpost: DP-D		Outflow=0.00 cfs 0 cf
Reach DPEpost: DP-E		Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach DPFpost: DP-F		Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach SWL C: Swale C	Avg. Flow Depth=0.00' Max Vel=0.00 fps n=0.030 L=472.0' S=0.0233 '/' Capacity=3.28 cfs	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach SWL D: Swale (D)	Avg. Flow Depth=0.00' Max Vel=0.00 fps n=0.030 L=308.0' S=0.0211 '/' Capacity=3.12 cfs	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf
Reach SWL E: Swale (E)	Avg. Flow Depth=0.00' Max Vel=0.00 fps n=0.030 L=790.0' S=0.0082 '/' Capacity=1.95 cfs	Inflow=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf

Total Runoff Area = 334,999 sf Runoff Volume = 0 cf Average Runoff Depth = 0.00"
99.06% Pervious = 331,843 sf 0.94% Impervious = 3,156 sf

Bridal Path Perimeter Post

Type III 24-hr 2-Year Rainfall=3.30"

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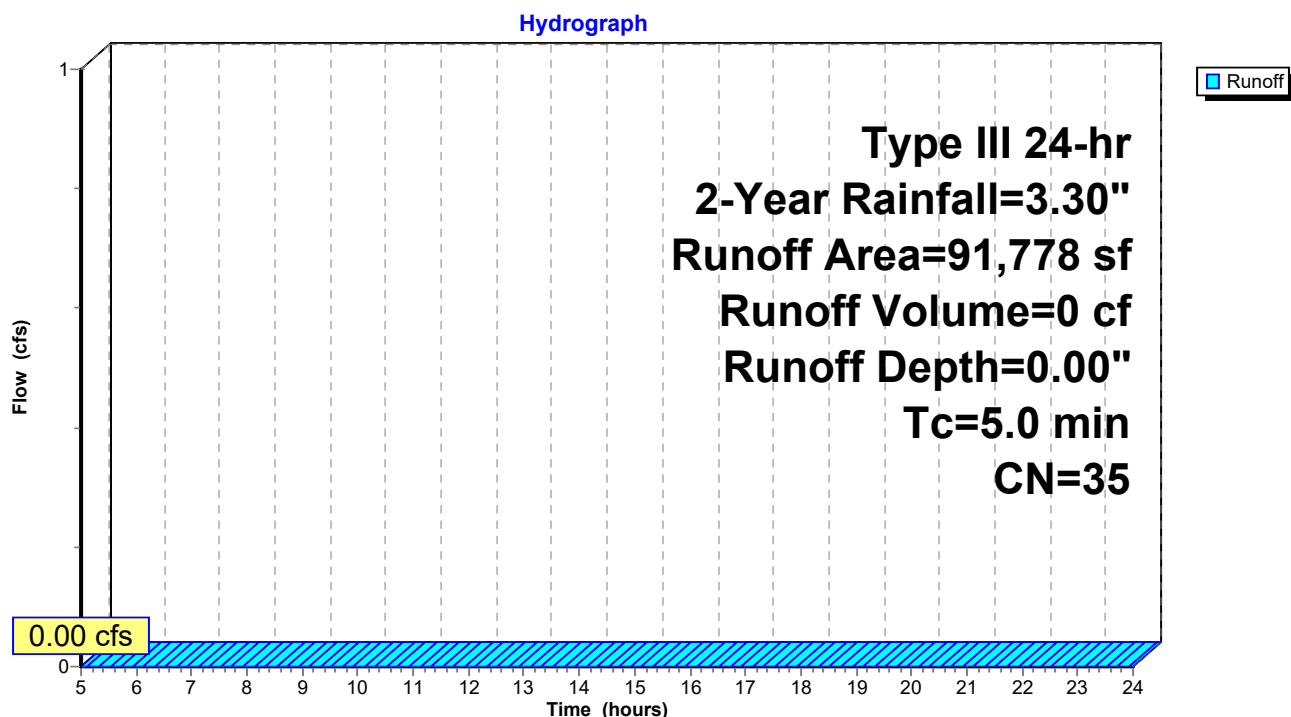
Summary for Subcatchment A(OL): OVERLAND TO A

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
Routed to Reach DPApost : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
	54,562	30	Woods, Good, HSG A
*	1,665	98	Paved parking, HSG A (Walkways)
	35,551	39	>75% Grass cover, Good, HSG A
	91,778	35	Weighted Average
	90,113		98.19% Pervious Area
	1,665		1.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment A(OL): OVERLAND TO A

Bridal Path Perimeter Post

Type III 24-hr 2-Year Rainfall=3.30"

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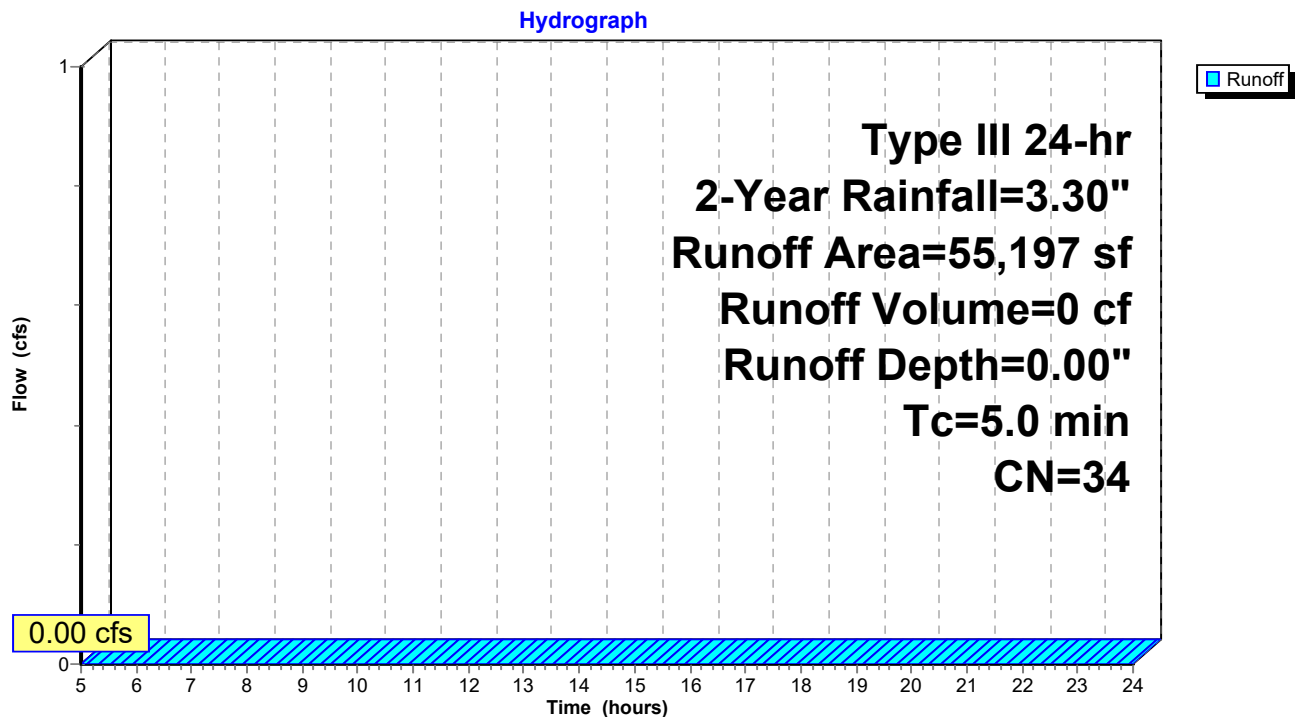
Summary for Subcatchment C(OL): OVERLAND TO SWALE (C)

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
Routed to Reach SWL C : Swale C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
	29,501	30	Woods, Good, HSG A
*	0	98	Paved parking, HSG A (Walkways)
	25,696	39	>75% Grass cover, Good, HSG A
	55,197	34	Weighted Average
	55,197		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment C(OL): OVERLAND TO SWALE (C)

Bridal Path Perimeter Post

Type III 24-hr 2-Year Rainfall=3.30"

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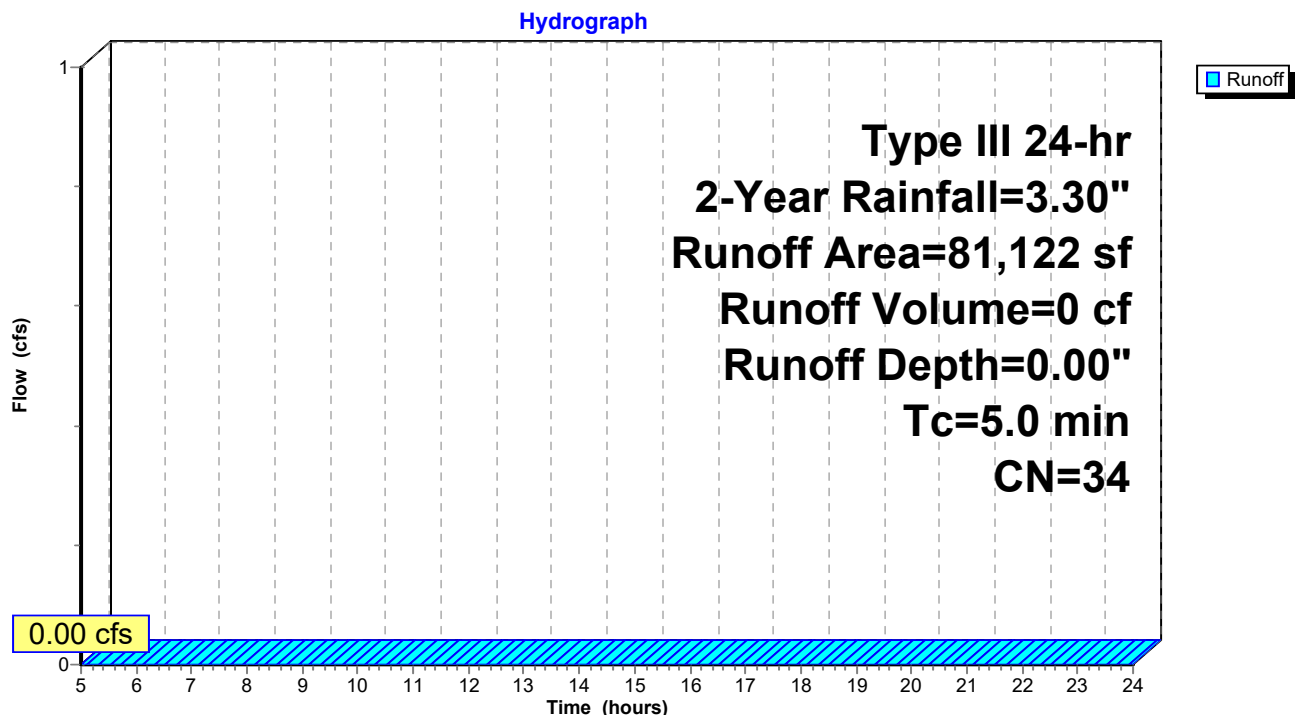
Summary for Subcatchment D: OVERLAND TO SWALE (D)

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
Routed to Reach SWL D : Swale (D)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
	46,762	30	Woods, Good, HSG A
*	213	98	Paved parking, HSG A (Walkways)
	34,147	39	>75% Grass cover, Good, HSG A
	81,122	34	Weighted Average
	80,909		99.74% Pervious Area
	213		0.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment D: OVERLAND TO SWALE (D)

Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

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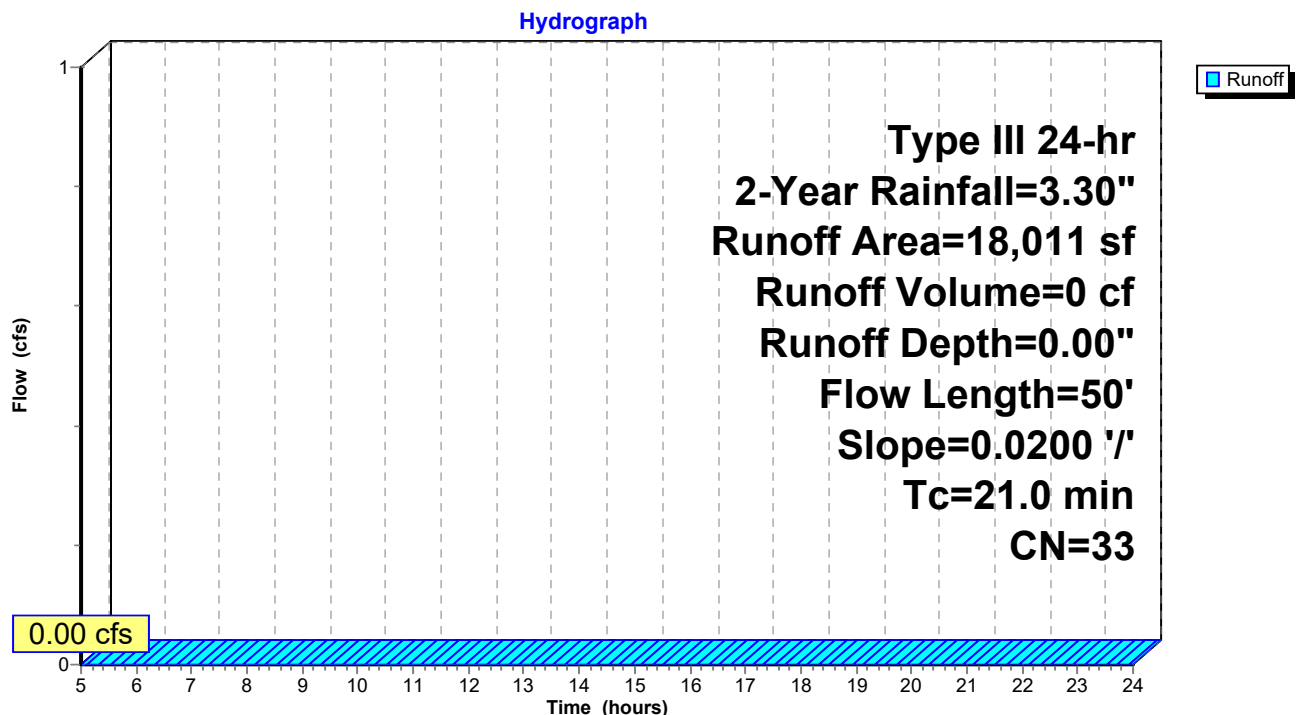
Summary for Subcatchment E: OVERLAND TO E

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
 Routed to Reach DPEpost : DP-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
17,256	30	Woods, Good, HSG A
* 755	98	Paved parking, HSG A (Walkways)
18,011	33	Weighted Average
17,256		95.81% Pervious Area
755		4.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"

Subcatchment E: OVERLAND TO E

Bridal Path Perimeter Post

Type III 24-hr 2-Year Rainfall=3.30"

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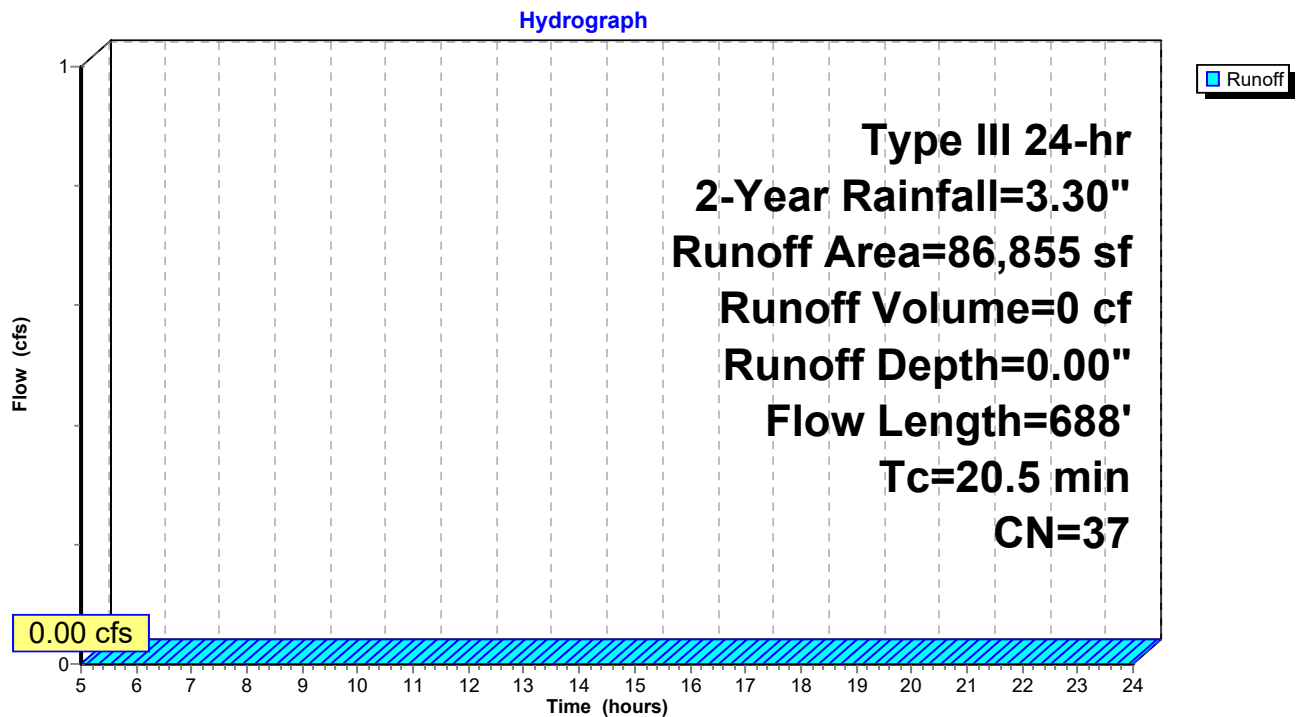
Summary for Subcatchment E(SWL): OVERLAND TO SWALE (E)

Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Depth= 0.00"
Routed to Reach SWL E : Swale (E)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
19,997	30	Woods, Good, HSG A
* 523	98	Paved parking, HSG A (Walkways)
66,335	39	>75% Grass cover, Good, HSG A
86,855	37	Weighted Average
86,332		99.40% Pervious Area
523		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2500	0.19		Sheet Flow, SLOPED LAWN Grass: Bermuda n= 0.410 P2= 3.35"
16.0	638	0.0090	0.66		Shallow Concentrated Flow, SWALE Short Grass Pasture Kv= 7.0 fps
20.5	688	Total			

Subcatchment E(SWL): OVERLAND TO SWALE (E)

Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Subcatchment F: OVERLAND TO F

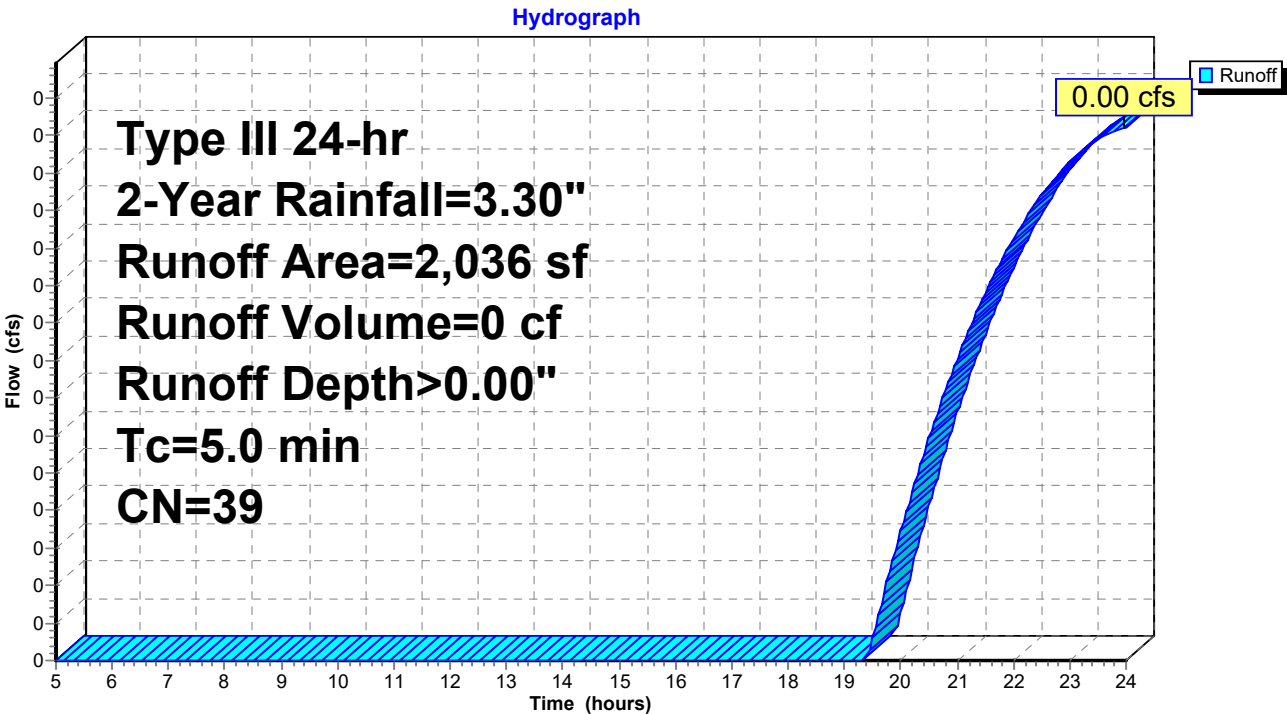
Runoff = 0.00 cfs @ 23.95 hrs, Volume= 0 cf, Depth> 0.00"
Routed to Reach DPFpost : DP-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (sf)	CN	Description
2,036	39	>75% Grass cover, Good, HSG A
2,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment F: OVERLAND TO F



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Type III 24-hr 2-Year Rainfall=3.30"

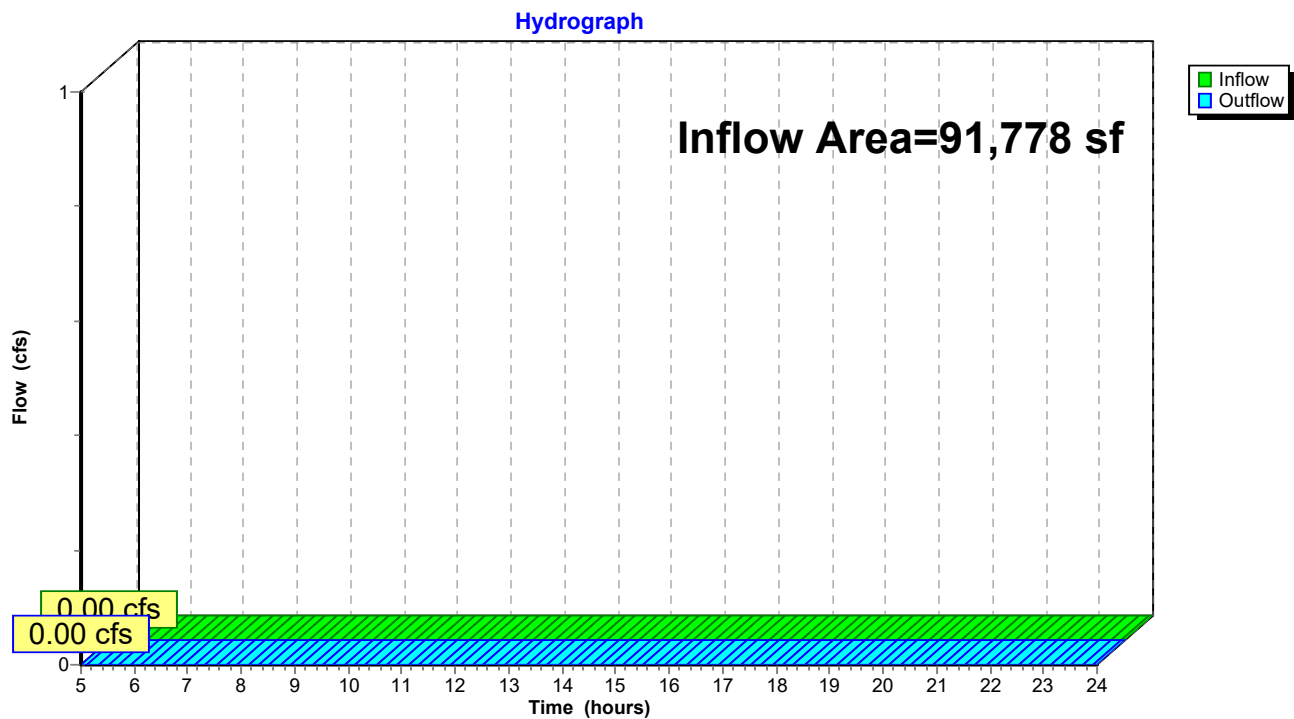
Page 11

Summary for Reach DPApost: DP-A

Inflow Area = 91,778 sf, 1.81% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPApost: DP-A



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Type III 24-hr 2-Year Rainfall=3.30"

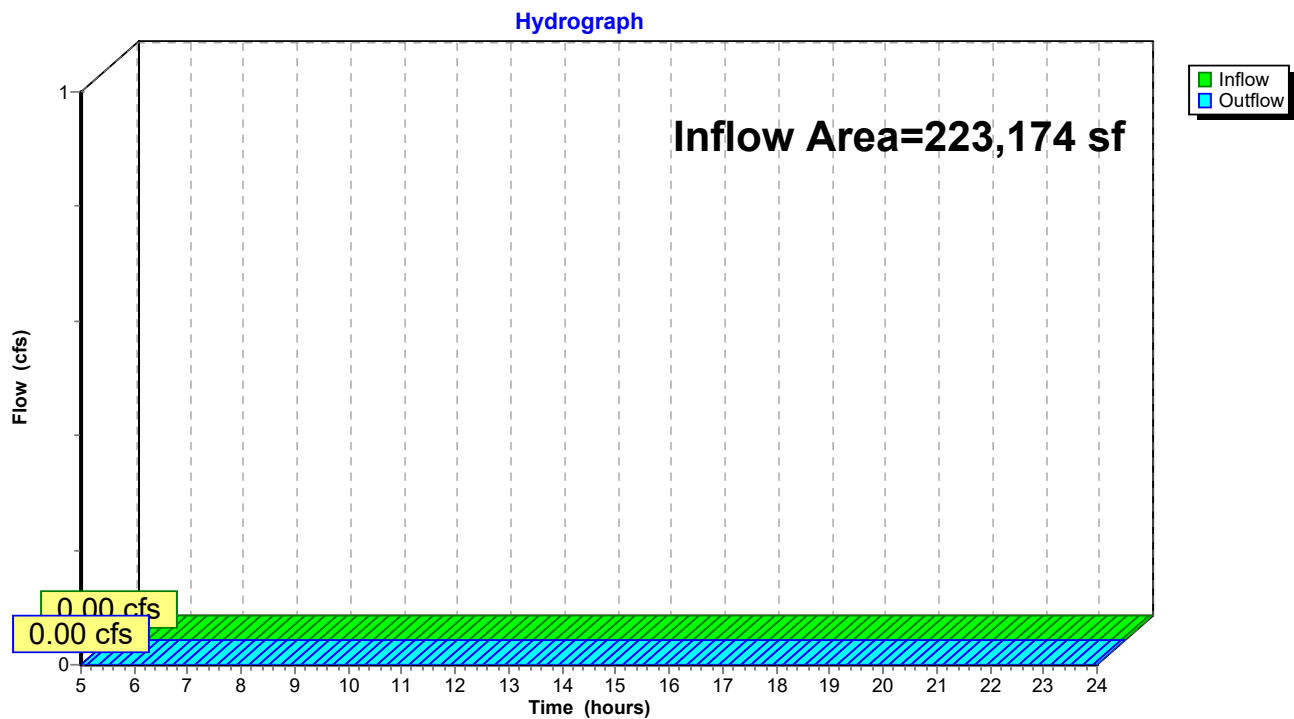
Page 12

Summary for Reach DPCpost: DP-C

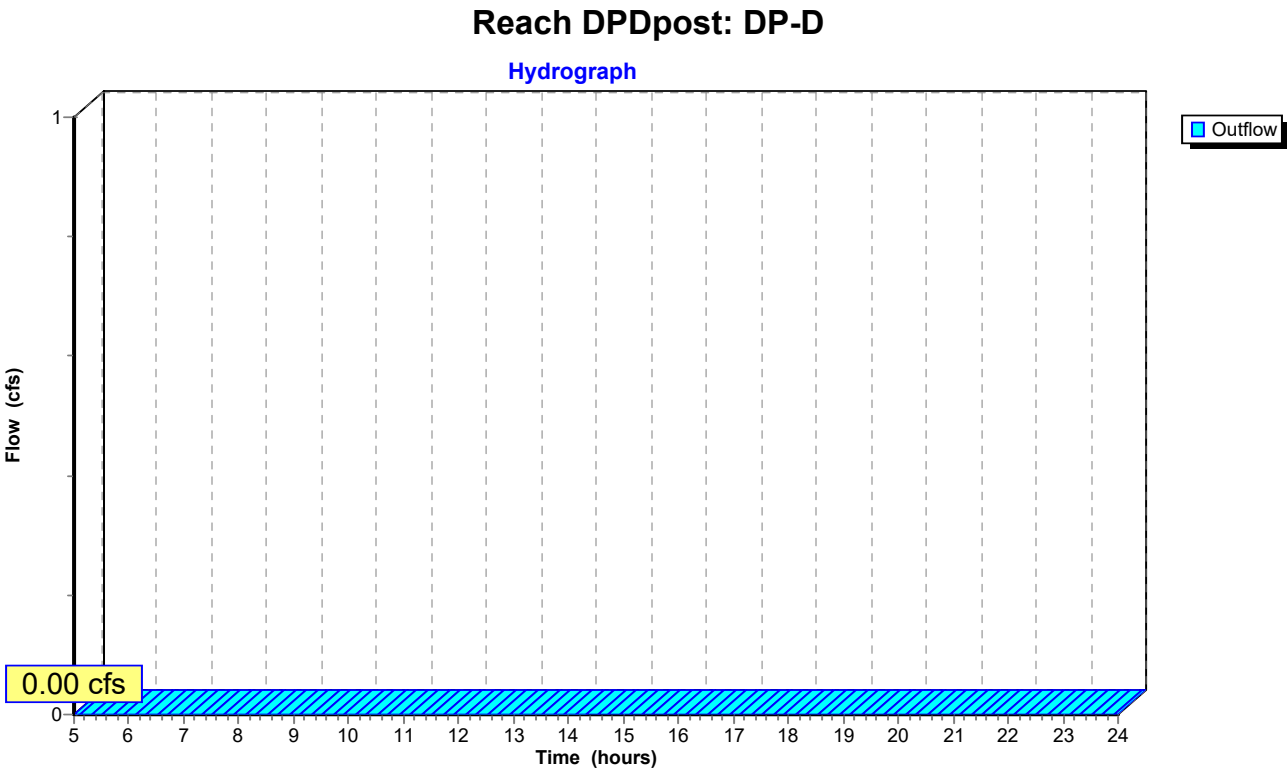
Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPCpost: DP-C



Summary for Reach DPDpost: DP-D



Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

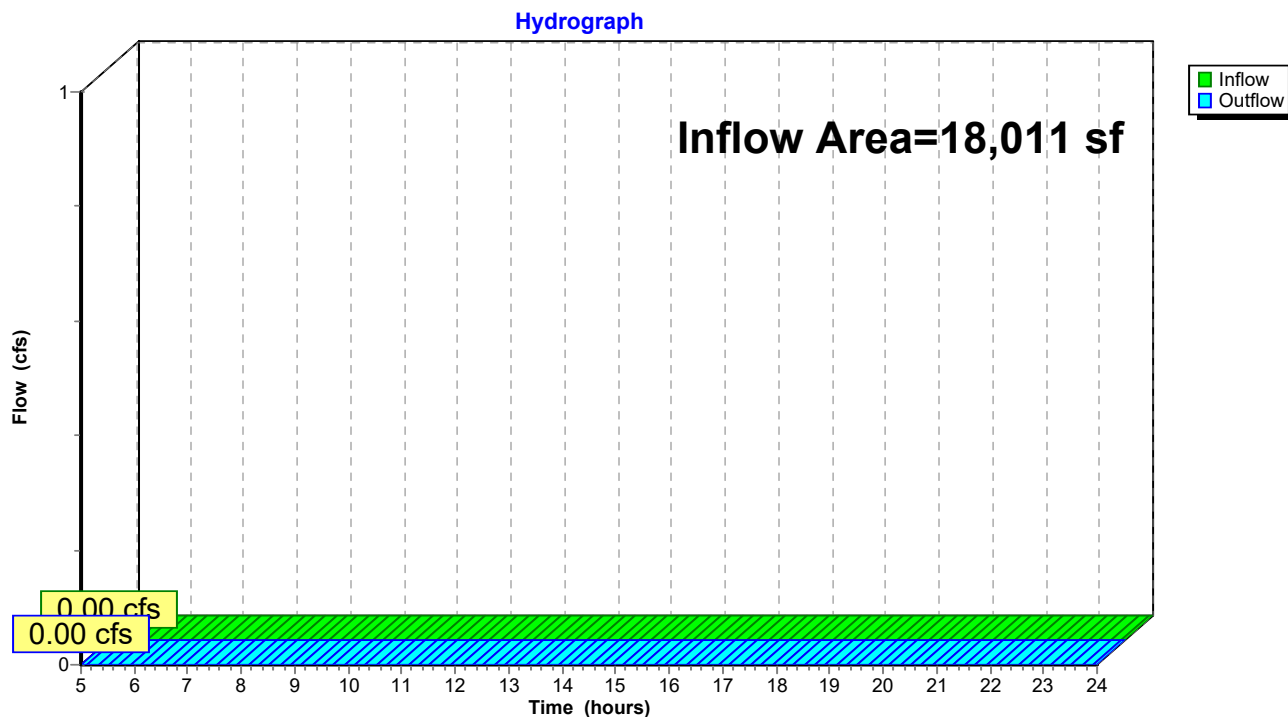
Page 14

Summary for Reach DPEpost: DP-E

Inflow Area = 18,011 sf, 4.19% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPEpost: DP-E



Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

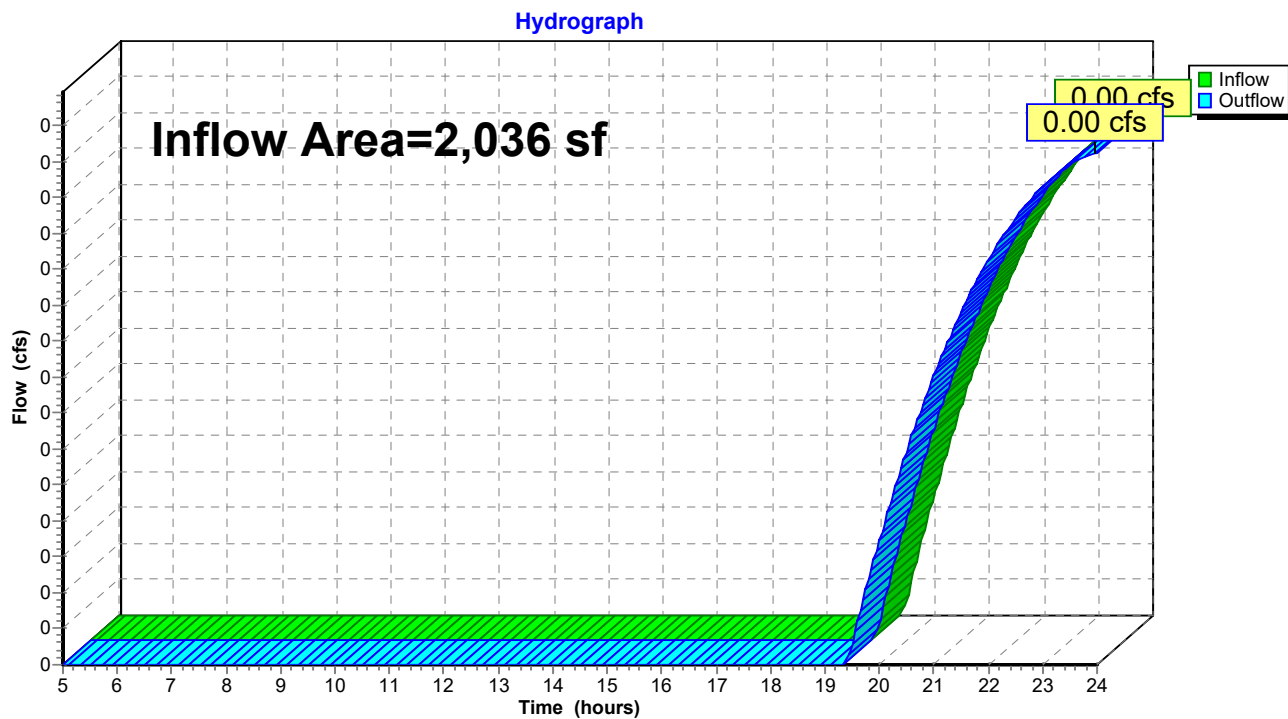
Page 15

Summary for Reach DPFpost: DP-F

Inflow Area = 2,036 sf, 0.00% Impervious, Inflow Depth > 0.00" for 2-Year event
Inflow = 0.00 cfs @ 23.95 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 23.95 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPFpost: DP-F



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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Reach SWL C: Swale C

Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach DPCpost : DP-C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

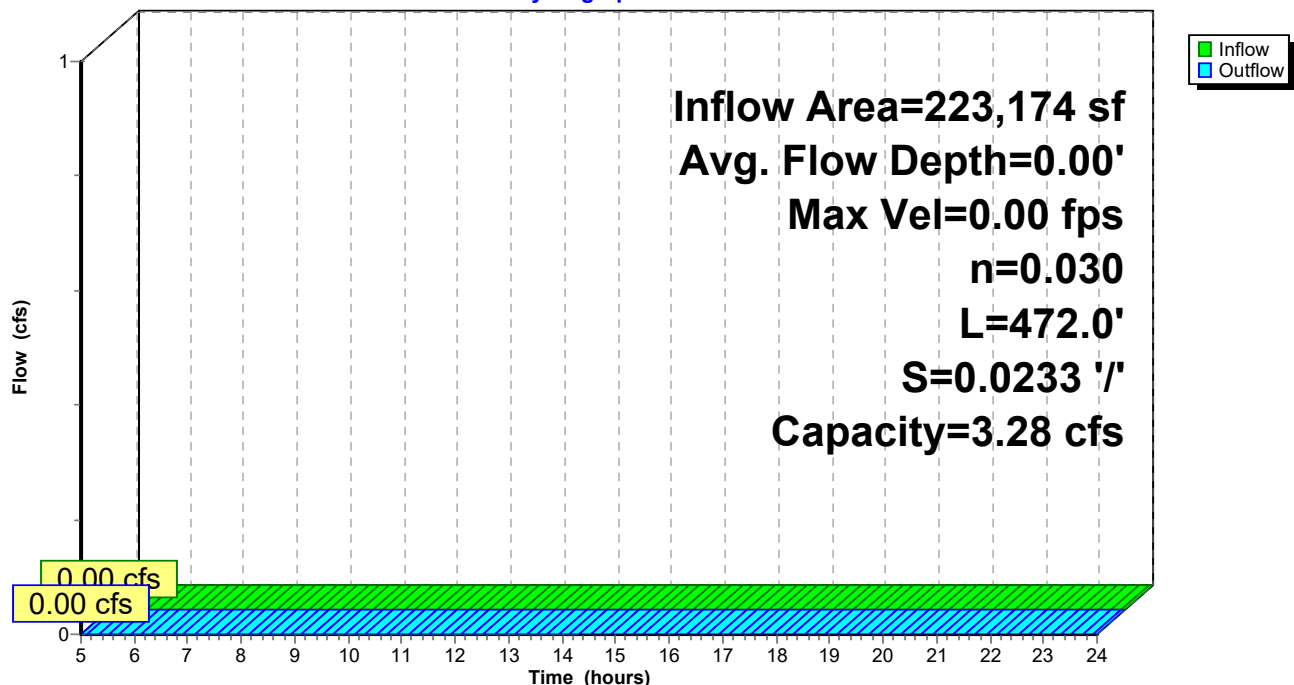
Peak Storage= 0 cf @ 5.00 hrs
Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.28 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 472.0' Slope= 0.0233 '/'
Inlet Invert= 77.00', Outlet Invert= 66.00'



Reach SWL C: Swale C

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Reach SWL C: Swale C

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
77.00	0.00	0.00
77.01	0.35	0.07
77.02	0.56	0.22
77.03	0.73	0.44
77.04	0.88	0.71
77.05	1.02	1.03
77.06	1.15	1.40
77.07	1.27	1.81
77.08	1.39	2.26
77.09	1.50	2.75
77.10	1.61	3.28

Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Reach SWL C: Swale C

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
77.00	0.0	0
77.01	0.2	95
77.02	0.4	190
77.03	0.6	285
77.04	0.8	381
77.05	1.0	477
77.06	1.2	573
77.07	1.4	670
77.08	1.6	767
77.09	1.8	865
77.10	2.0	963

Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Reach SWL D: Swale (D)

Inflow Area = 167,977 sf, 0.44% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach SWL C : Swale C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

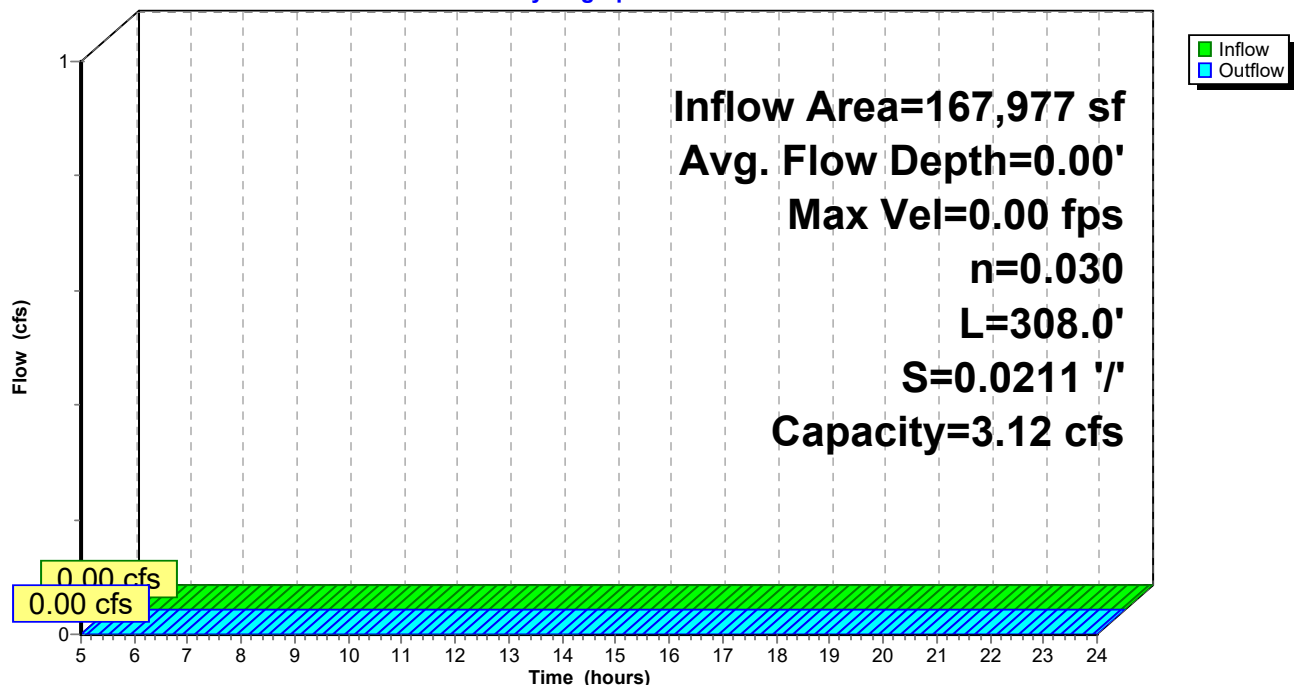
Peak Storage= 0 cf @ 5.00 hrs
Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.12 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 308.0' Slope= 0.0211 '/'
Inlet Invert= 83.50', Outlet Invert= 77.00'



Reach SWL D: Swale (D)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Reach SWL D: Swale (D)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
83.50	0.00	0.00
83.51	0.33	0.07
83.52	0.53	0.21
83.53	0.69	0.42
83.54	0.84	0.67
83.55	0.97	0.98
83.56	1.09	1.33
83.57	1.21	1.72
83.58	1.32	2.15
83.59	1.43	2.62
83.60	1.53	3.12

Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Reach SWL D: Swale (D)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
83.50	0.0	0
83.51	0.2	62
83.52	0.4	124
83.53	0.6	186
83.54	0.8	248
83.55	1.0	311
83.56	1.2	374
83.57	1.4	437
83.58	1.6	501
83.59	1.8	564
83.60	2.0	628

Bridal Path Perimeter Post

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Type III 24-hr 2-Year Rainfall=3.30"

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Summary for Reach SWL E: Swale (E)

Inflow Area = 86,855 sf, 0.60% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach SWL D : Swale (D)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

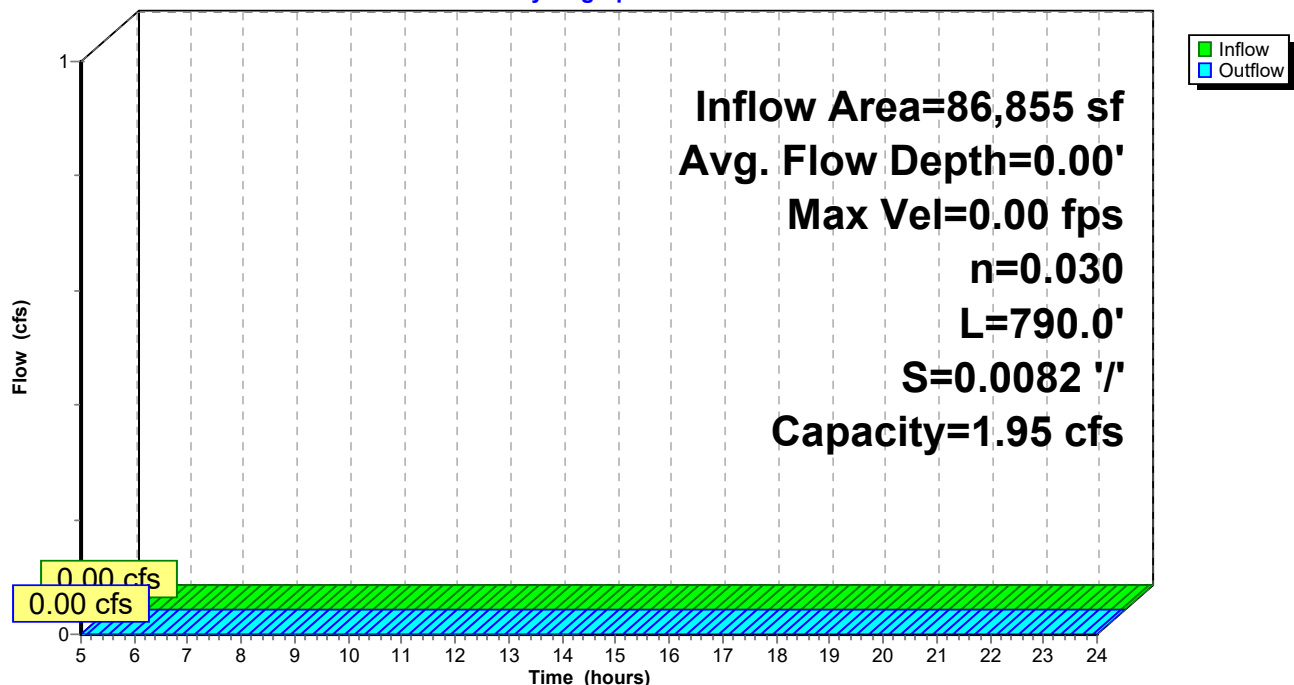
Peak Storage= 0 cf @ 5.00 hrs
Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 1.95 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 790.0' Slope= 0.0082 '/'
Inlet Invert= 90.00', Outlet Invert= 83.50'



Reach SWL E: Swale (E)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Discharge for Reach SWL E: Swale (E)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
90.00	0.00	0.00
90.01	0.21	0.04
90.02	0.33	0.13
90.03	0.43	0.26
90.04	0.52	0.42
90.05	0.61	0.61
90.06	0.68	0.83
90.07	0.76	1.07
90.08	0.83	1.34
90.09	0.89	1.63
90.10	0.95	1.95

Bridal Path Perimeter Post*Type III 24-hr 2-Year Rainfall=3.30"*

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Stage-Area-Storage for Reach SWL E: Swale (E)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
90.00	0.0	0
90.01	0.2	158
90.02	0.4	317
90.03	0.6	477
90.04	0.8	637
90.05	1.0	798
90.06	1.2	959
90.07	1.4	1,121
90.08	1.6	1,284
90.09	1.8	1,448
90.10	2.0	1,612

Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A(OL): OVERLAND TO A	Runoff Area=91,778 sf 1.81% Impervious Runoff Depth>0.05" Tc=5.0 min CN=35 Runoff=0.01 cfs 378 cf
Subcatchment C(OL): OVERLAND TO	Runoff Area=55,197 sf 0.00% Impervious Runoff Depth>0.03" Tc=5.0 min CN=34 Runoff=0.00 cfs 151 cf
Subcatchment D: OVERLAND TO SWALE	Runoff Area=81,122 sf 0.26% Impervious Runoff Depth>0.03" Tc=5.0 min CN=34 Runoff=0.01 cfs 222 cf
Subcatchment E: OVERLAND TO E	Runoff Area=18,011 sf 4.19% Impervious Runoff Depth>0.02" Flow Length=50' Slope=0.0200 '/' Tc=21.0 min CN=33 Runoff=0.00 cfs 28 cf
Subcatchment E(SWL): OVERLAND TO	Runoff Area=86,855 sf 0.60% Impervious Runoff Depth>0.09" Flow Length=688' Tc=20.5 min CN=37 Runoff=0.02 cfs 650 cf
Subcatchment F: OVERLAND TO F	Runoff Area=2,036 sf 0.00% Impervious Runoff Depth>0.14" Tc=5.0 min CN=39 Runoff=0.00 cfs 24 cf
Reach DPApost: DP-A	Inflow=0.01 cfs 378 cf Outflow=0.01 cfs 378 cf
Reach DPCpost: DP-C	Inflow=0.03 cfs 871 cf Outflow=0.03 cfs 871 cf
Reach DPDpost: DP-D	Outflow=0.00 cfs 0 cf
Reach DPEpost: DP-E	Inflow=0.00 cfs 28 cf Outflow=0.00 cfs 28 cf
Reach DPFpost: DP-F	Inflow=0.00 cfs 24 cf Outflow=0.00 cfs 24 cf
Reach SWL C: Swale C	Avg. Flow Depth=0.01' Max Vel=0.26 fps Inflow=0.03 cfs 920 cf n=0.030 L=472.0' S=0.0233 '/' Capacity=3.28 cfs Outflow=0.03 cfs 871 cf
Reach SWL D: Swale (D)	Avg. Flow Depth=0.01' Max Vel=0.24 fps Inflow=0.03 cfs 797 cf n=0.030 L=308.0' S=0.0211 '/' Capacity=3.12 cfs Outflow=0.03 cfs 768 cf
Reach SWL E: Swale (E)	Avg. Flow Depth=0.01' Max Vel=0.16 fps Inflow=0.02 cfs 650 cf n=0.030 L=790.0' S=0.0082 '/' Capacity=1.95 cfs Outflow=0.02 cfs 575 cf
Total Runoff Area = 334,999 sf Runoff Volume = 1,455 cf Average Runoff Depth = 0.05"	
99.06% Pervious = 331,843 sf 0.94% Impervious = 3,156 sf	

Bridal Path Perimeter Post

Type III 24-hr 10-Year Rainfall=4.70"

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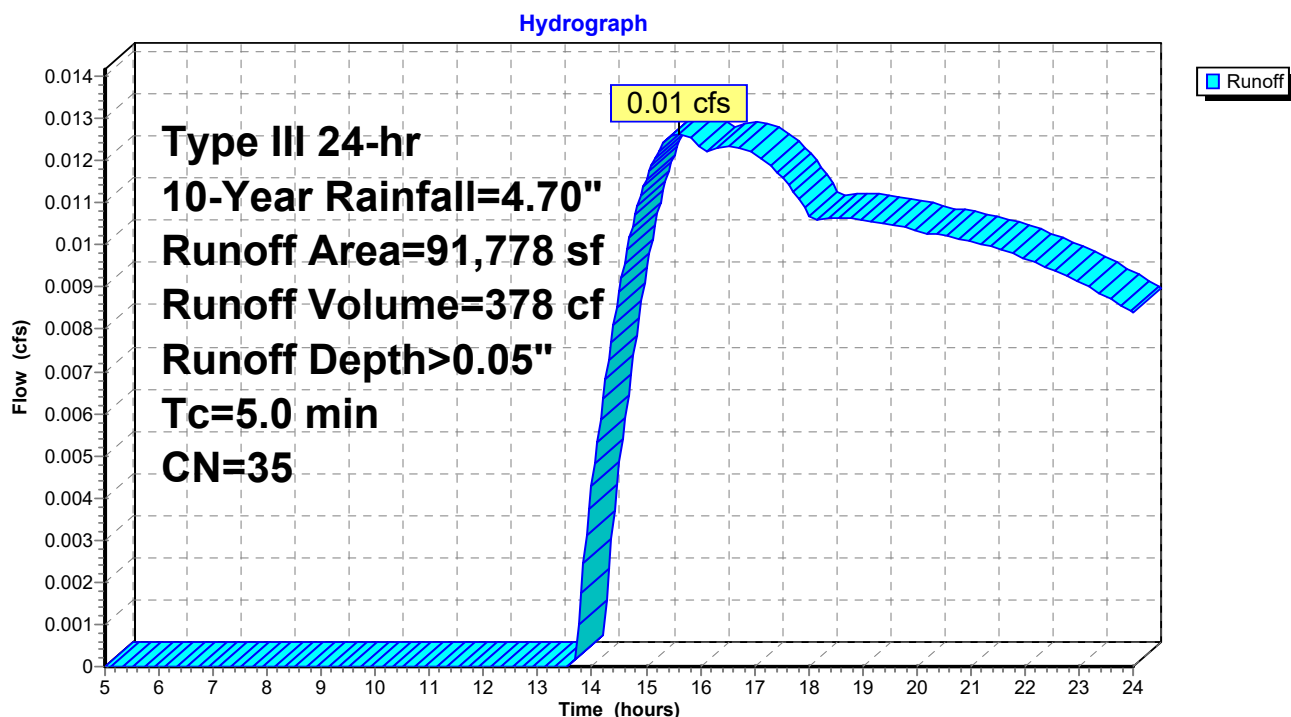
Summary for Subcatchment A(OL): OVERLAND TO A

Runoff = 0.01 cfs @ 15.62 hrs, Volume= 378 cf, Depth> 0.05"
Routed to Reach DPApost : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	54,562	30	Woods, Good, HSG A
*	1,665	98	Paved parking, HSG A (Walkways)
	35,551	39	>75% Grass cover, Good, HSG A
	91,778	35	Weighted Average
	90,113		98.19% Pervious Area
	1,665		1.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment A(OL): OVERLAND TO A

Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment C(OL): OVERLAND TO SWALE (C)

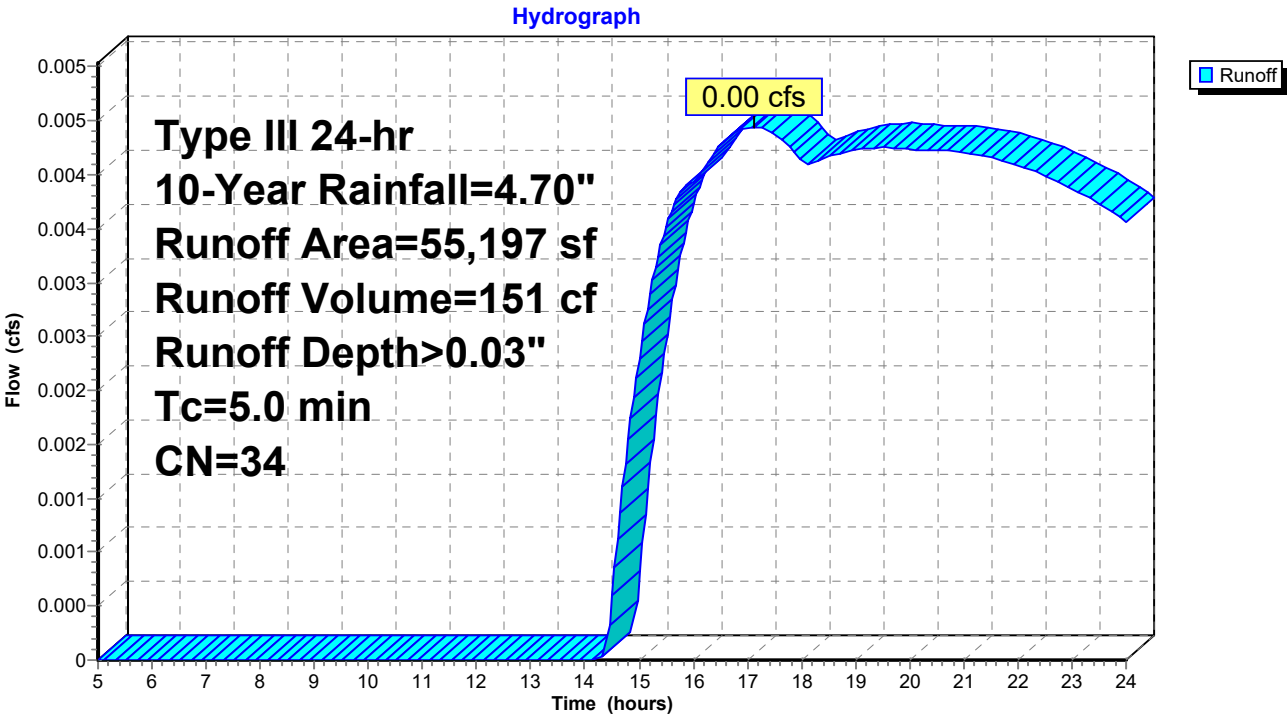
Runoff = 0.00 cfs @ 17.12 hrs, Volume= 151 cf, Depth> 0.03"
Routed to Reach SWL C : Swale C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	29,501	30	Woods, Good, HSG A
*	0	98	Paved parking, HSG A (Walkways)
	25,696	39	>75% Grass cover, Good, HSG A
	55,197	34	Weighted Average
	55,197		100.00% Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.0					Direct Entry, MIN

Subcatchment C(OL): OVERLAND TO SWALE (C)



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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Subcatchment D: OVERLAND TO SWALE (D)

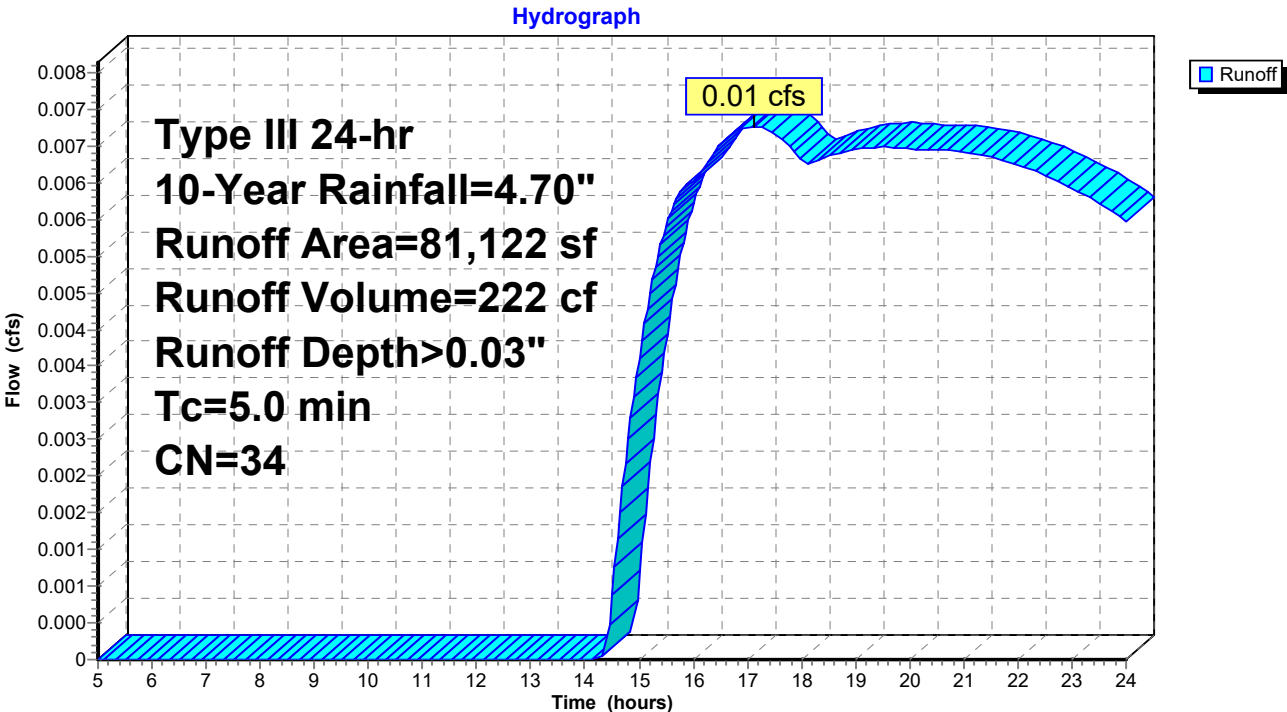
Runoff = 0.01 cfs @ 17.12 hrs, Volume= 222 cf, Depth> 0.03"
Routed to Reach SWL D : Swale (D)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

	Area (sf)	CN	Description
	46,762	30	Woods, Good, HSG A
*	213	98	Paved parking, HSG A (Walkways)
	34,147	39	>75% Grass cover, Good, HSG A
	81,122	34	Weighted Average
	80,909		99.74% Pervious Area
	213		0.26% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.0					Direct Entry, MIN

Subcatchment D: OVERLAND TO SWALE (D)



Bridal Path Perimeter Post

Type III 24-hr 10-Year Rainfall=4.70"

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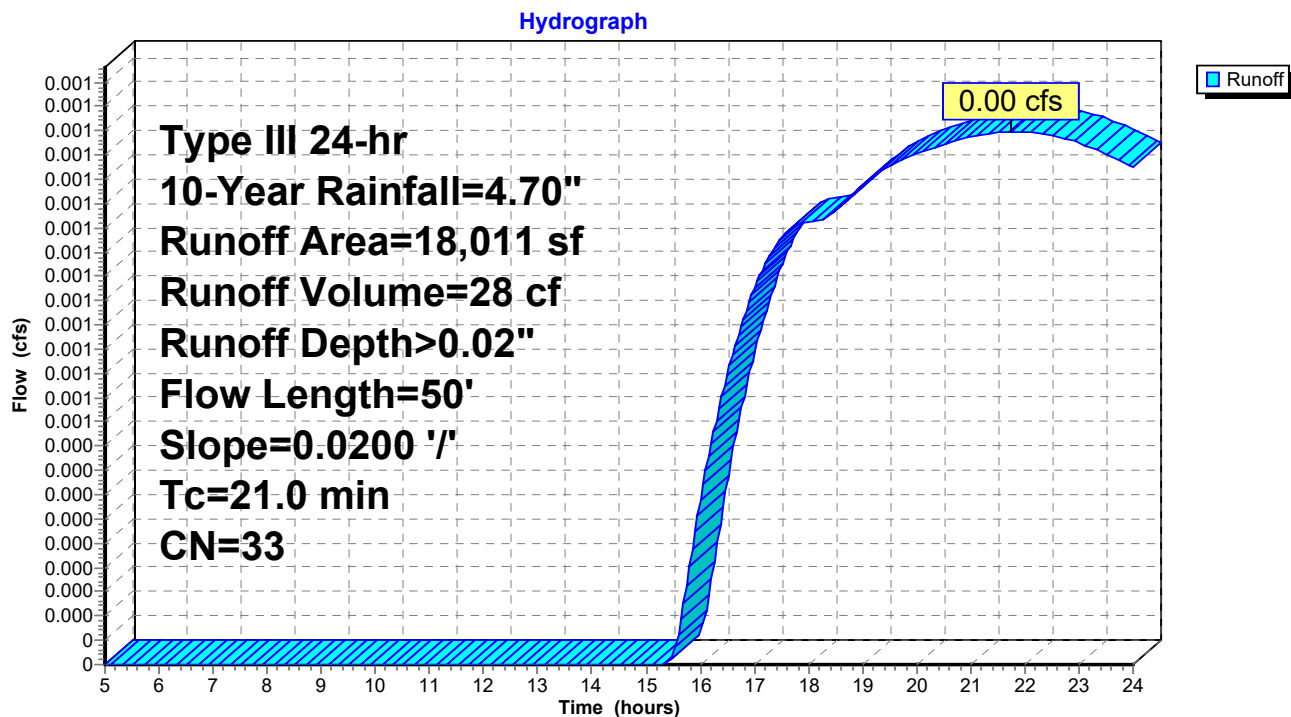
Summary for Subcatchment E: OVERLAND TO E

Runoff = 0.00 cfs @ 21.76 hrs, Volume= 28 cf, Depth> 0.02"
Routed to Reach DPEpost : DP-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
17,256	30	Woods, Good, HSG A
* 755	98	Paved parking, HSG A (Walkways)
18,011	33	Weighted Average
17,256		95.81% Pervious Area
755		4.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"

Subcatchment E: OVERLAND TO E

Bridal Path Perimeter Post

Type III 24-hr 10-Year Rainfall=4.70"

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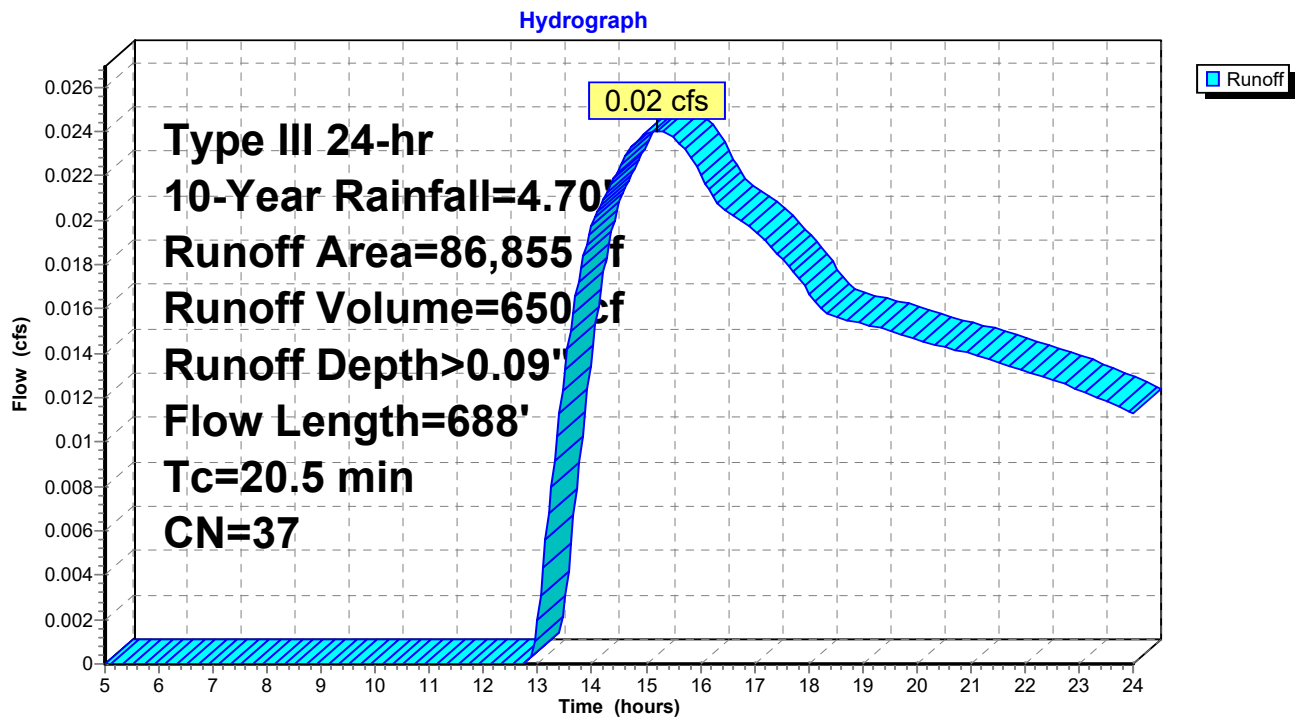
Summary for Subcatchment E(SWL): OVERLAND TO SWALE (E)

Runoff = 0.02 cfs @ 15.20 hrs, Volume= 650 cf, Depth> 0.09"
Routed to Reach SWL E : Swale (E)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
19,997	30	Woods, Good, HSG A
* 523	98	Paved parking, HSG A (Walkways)
66,335	39	>75% Grass cover, Good, HSG A
86,855	37	Weighted Average
86,332		99.40% Pervious Area
523		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2500	0.19		Sheet Flow, SLOPED LAWN Grass: Bermuda n= 0.410 P2= 3.35"
16.0	638	0.0090	0.66		Shallow Concentrated Flow, SWALE Short Grass Pasture Kv= 7.0 fps
20.5	688	Total			

Subcatchment E(SWL): OVERLAND TO SWALE (E)

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Type III 24-hr 10-Year Rainfall=4.70"

Summary for Subcatchment F: OVERLAND TO F

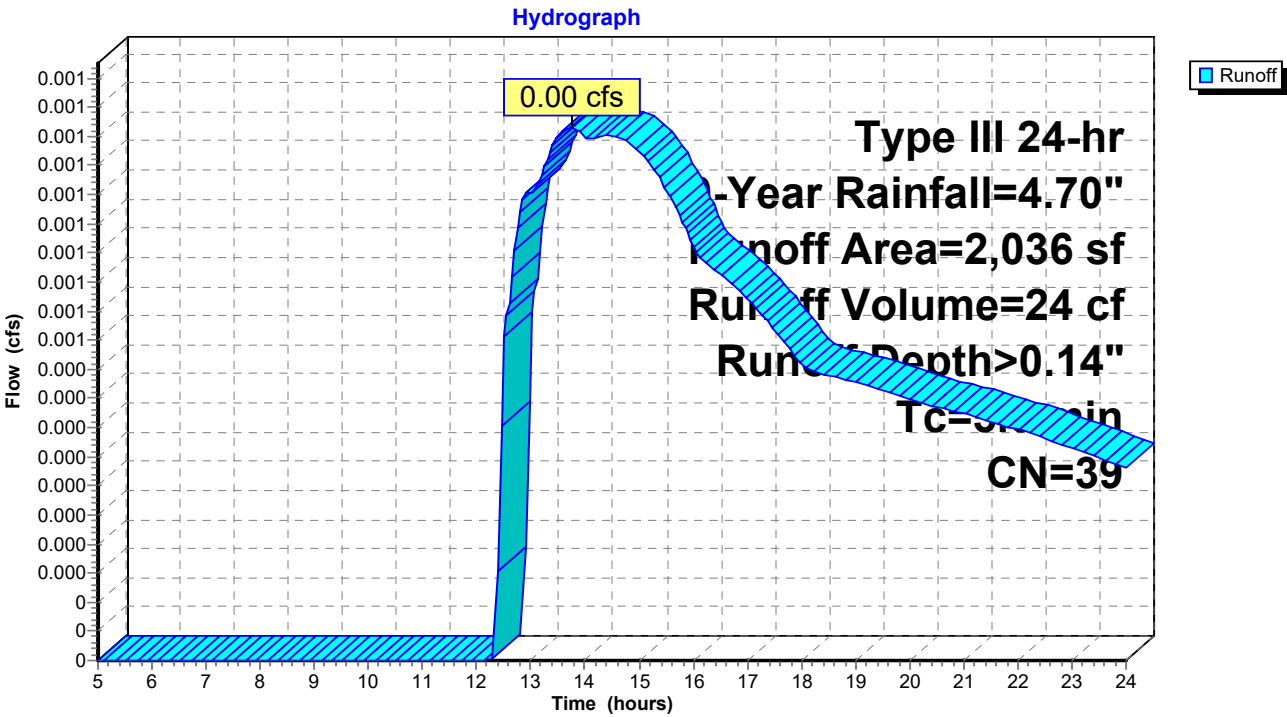
Runoff = 0.00 cfs @ 13.75 hrs, Volume= 24 cf, Depth> 0.14"
Routed to Reach DPFpost : DP-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (sf)	CN	Description
2,036	39	>75% Grass cover, Good, HSG A
2,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment F: OVERLAND TO F



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Type III 24-hr 10-Year Rainfall=4.70"

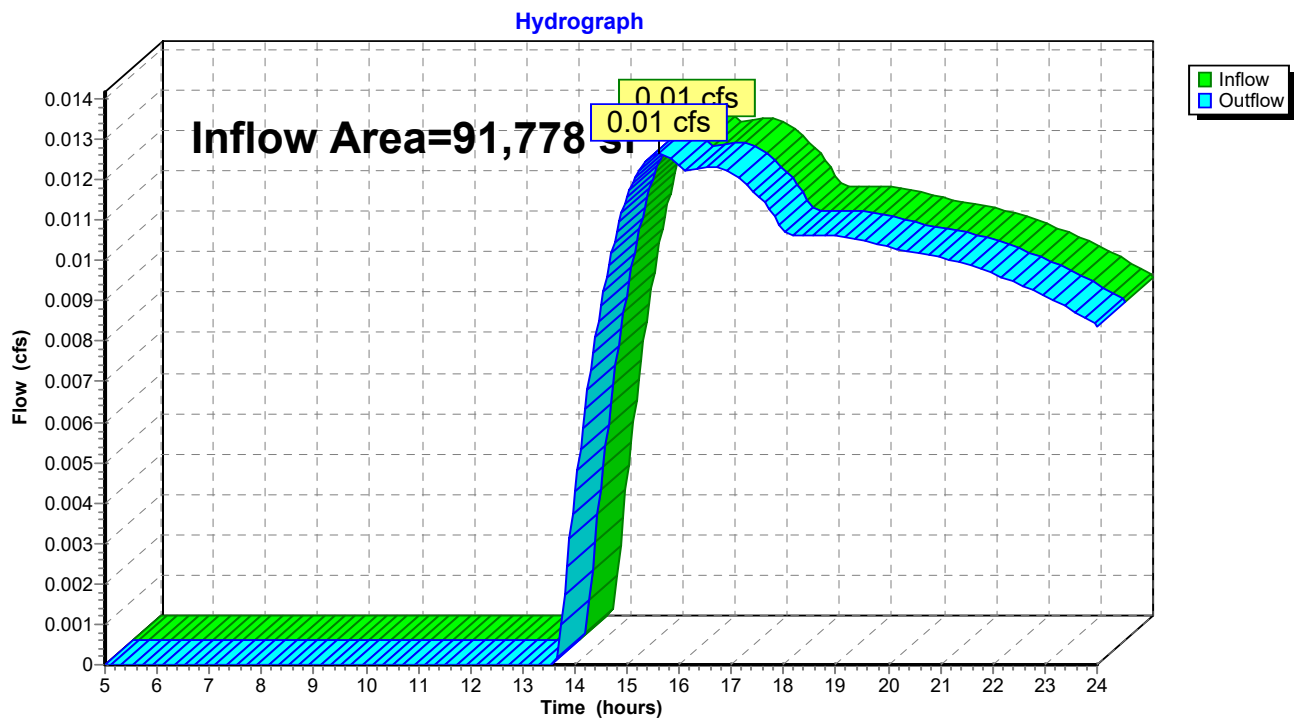
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Summary for Reach DPapost: DP-A

Inflow Area = 91,778 sf, 1.81% Impervious, Inflow Depth > 0.05" for 10-Year event
Inflow = 0.01 cfs @ 15.62 hrs, Volume= 378 cf
Outflow = 0.01 cfs @ 15.62 hrs, Volume= 378 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPapost: DP-A



Bridal Path Perimeter Post

Type III 24-hr 10-Year Rainfall=4.70"

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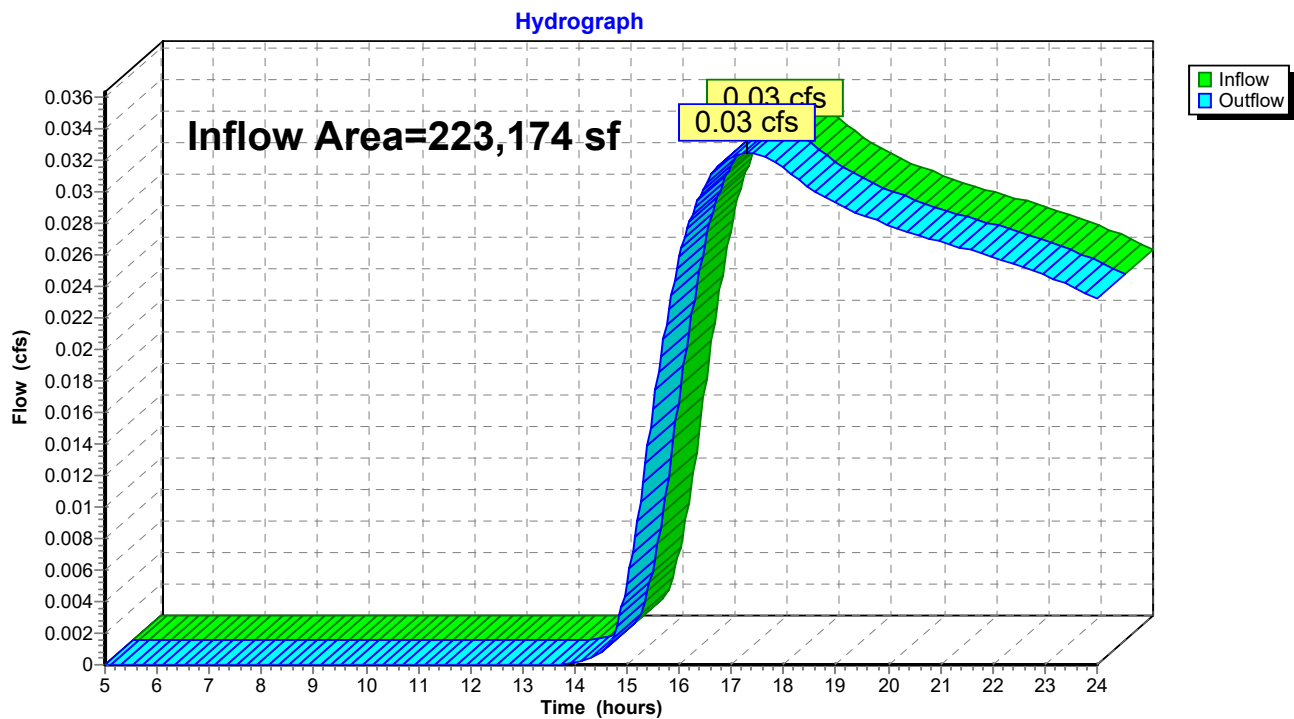
Page 33

Summary for Reach DPCpost: DP-C

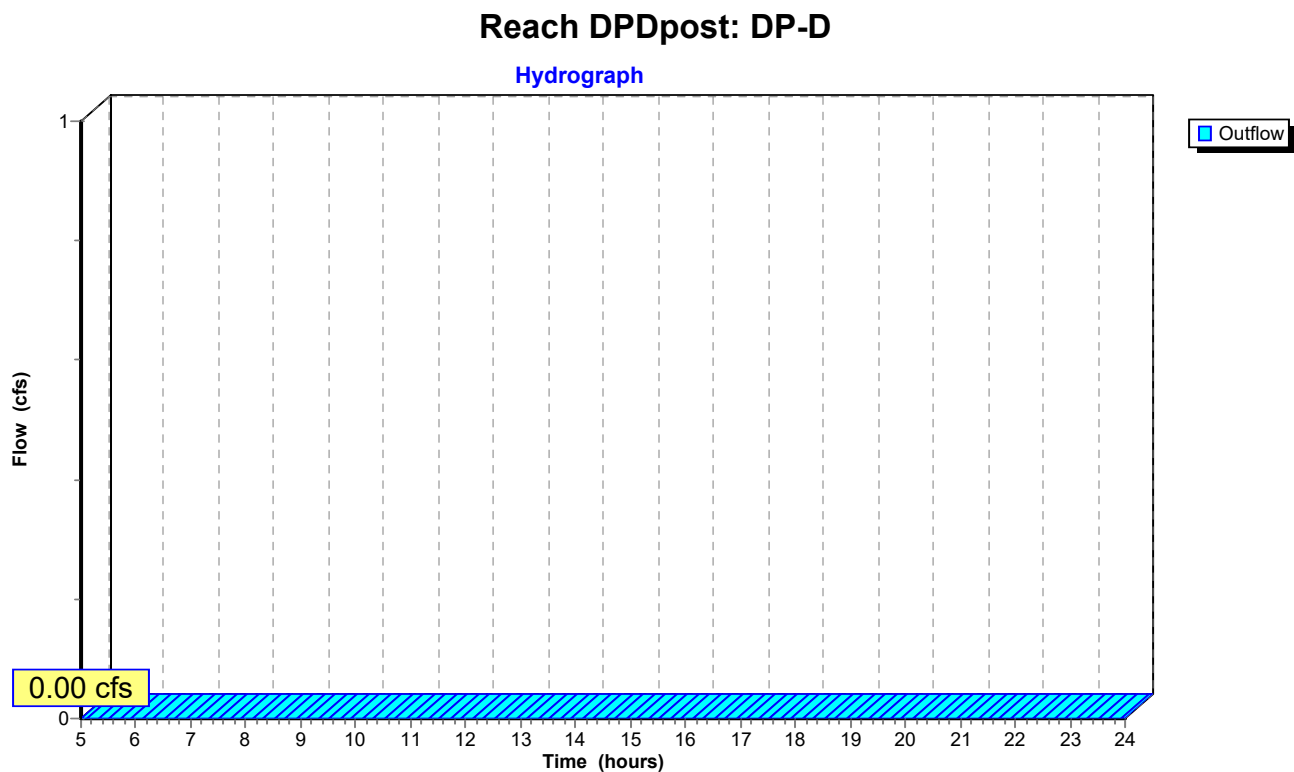
Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.05" for 10-Year event
Inflow = 0.03 cfs @ 17.31 hrs, Volume= 871 cf
Outflow = 0.03 cfs @ 17.31 hrs, Volume= 871 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPCpost: DP-C



Summary for Reach DPDpost: DP-D



Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

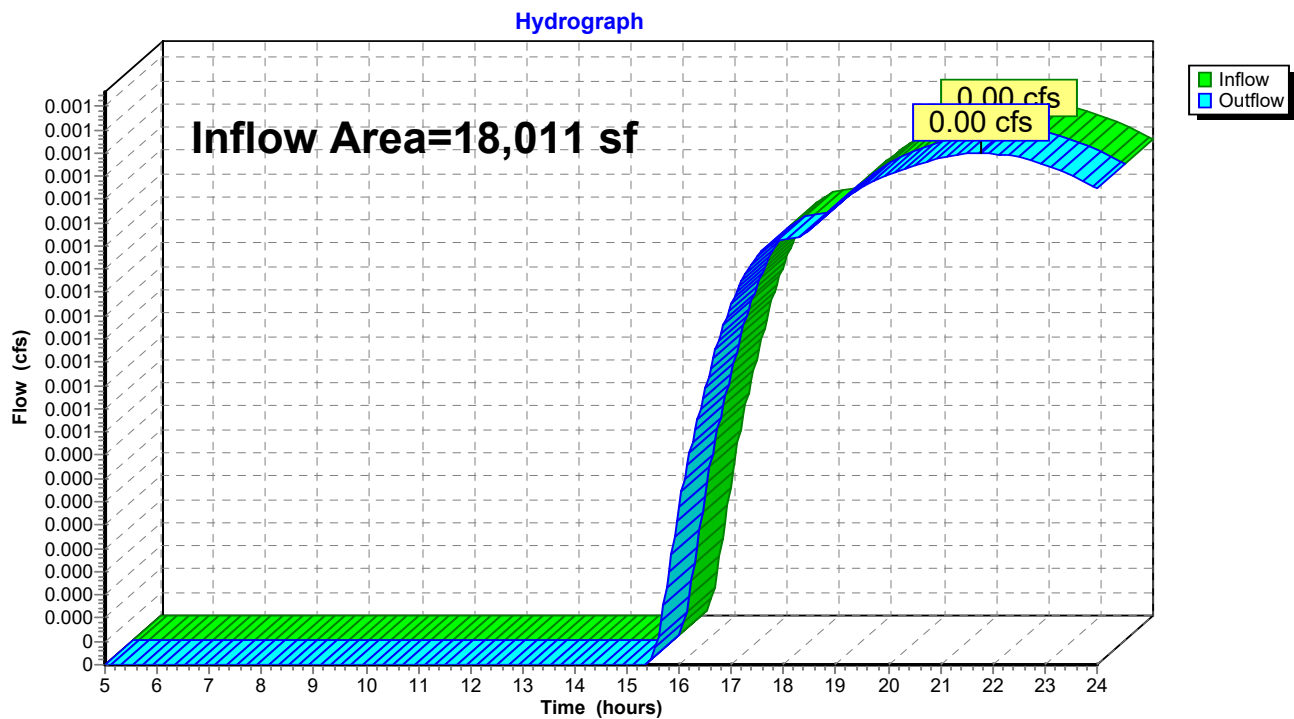
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Summary for Reach DPEpost: DP-E

Inflow Area = 18,011 sf, 4.19% Impervious, Inflow Depth > 0.02" for 10-Year event
Inflow = 0.00 cfs @ 21.76 hrs, Volume= 28 cf
Outflow = 0.00 cfs @ 21.76 hrs, Volume= 28 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPEpost: DP-E



Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

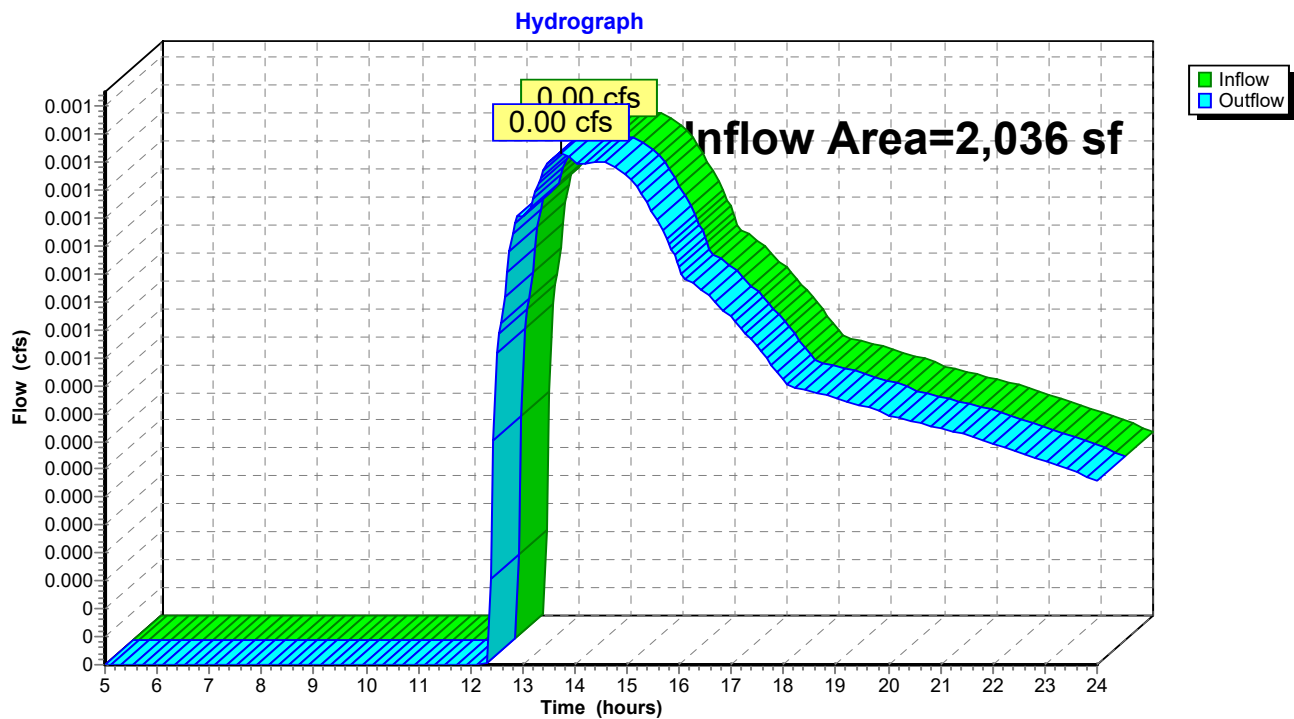
Page 36

Summary for Reach DPFpost: DP-F

Inflow Area = 2,036 sf, 0.00% Impervious, Inflow Depth > 0.14" for 10-Year event
Inflow = 0.00 cfs @ 13.75 hrs, Volume= 24 cf
Outflow = 0.00 cfs @ 13.75 hrs, Volume= 24 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPFpost: DP-F



Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Reach SWL C: Swale C

Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.05" for 10-Year event
Inflow = 0.03 cfs @ 16.95 hrs, Volume= 920 cf
Outflow = 0.03 cfs @ 17.31 hrs, Volume= 871 cf, Atten= 1%, Lag= 22.2 min
Routed to Reach DPCpost : DP-C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.26 fps, Min. Travel Time= 30.5 min
Avg. Velocity= 0.21 fps, Avg. Travel Time= 36.7 min

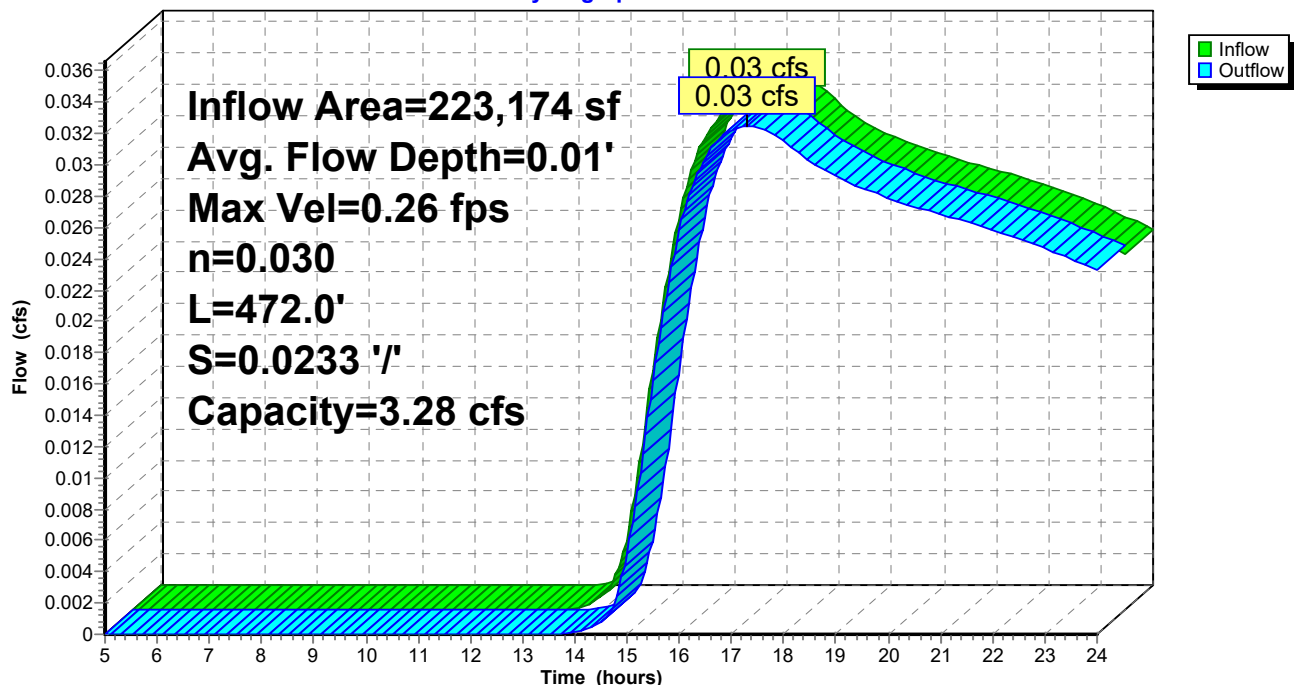
Peak Storage= 59 cf @ 17.31 hrs
Average Depth at Peak Storage= 0.01', Surface Width= 20.05'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.28 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 472.0' Slope= 0.0233 '/'
Inlet Invert= 77.00', Outlet Invert= 66.00'



Reach SWL C: Swale C

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Reach SWL C: Swale C

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
77.00	0.00	0.00
77.01	0.35	0.07
77.02	0.56	0.22
77.03	0.73	0.44
77.04	0.88	0.71
77.05	1.02	1.03
77.06	1.15	1.40
77.07	1.27	1.81
77.08	1.39	2.26
77.09	1.50	2.75
77.10	1.61	3.28

Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Reach SWL C: Swale C

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
77.00	0.0	0
77.01	0.2	95
77.02	0.4	190
77.03	0.6	285
77.04	0.8	381
77.05	1.0	477
77.06	1.2	573
77.07	1.4	670
77.08	1.6	767
77.09	1.8	865
77.10	2.0	963

Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

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Summary for Reach SWL D: Swale (D)

Inflow Area = 167,977 sf, 0.44% Impervious, Inflow Depth > 0.06" for 10-Year event
Inflow = 0.03 cfs @ 16.63 hrs, Volume= 797 cf
Outflow = 0.03 cfs @ 16.89 hrs, Volume= 768 cf, Atten= 0%, Lag= 16.0 min
Routed to Reach SWL C : Swale C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.24 fps, Min. Travel Time= 21.8 min
Avg. Velocity= 0.20 fps, Avg. Travel Time= 26.1 min

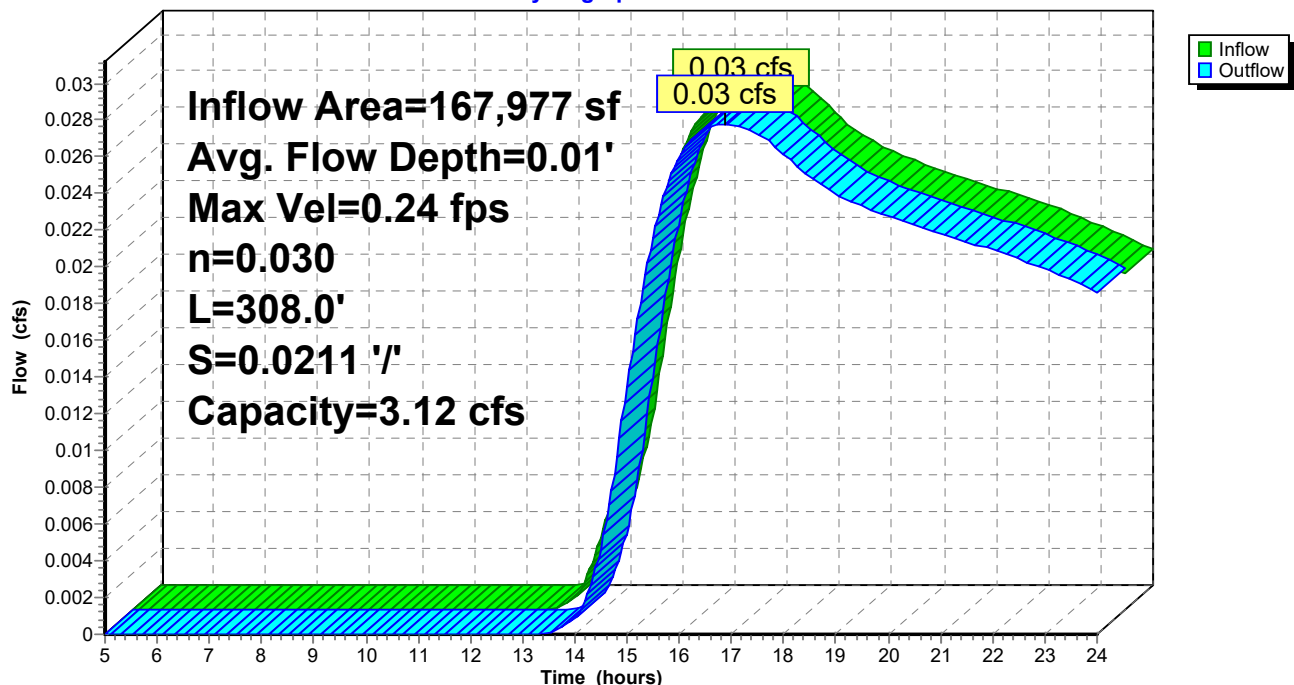
Peak Storage= 36 cf @ 16.89 hrs
Average Depth at Peak Storage= 0.01', Surface Width= 20.05'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.12 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 308.0' Slope= 0.0211 '/'
Inlet Invert= 83.50', Outlet Invert= 77.00'



Reach SWL D: Swale (D)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Reach SWL D: Swale (D)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
83.50	0.00	0.00
83.51	0.33	0.07
83.52	0.53	0.21
83.53	0.69	0.42
83.54	0.84	0.67
83.55	0.97	0.98
83.56	1.09	1.33
83.57	1.21	1.72
83.58	1.32	2.15
83.59	1.43	2.62
83.60	1.53	3.12

Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Reach SWL D: Swale (D)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
83.50	0.0	0
83.51	0.2	62
83.52	0.4	124
83.53	0.6	186
83.54	0.8	248
83.55	1.0	311
83.56	1.2	374
83.57	1.4	437
83.58	1.6	501
83.59	1.8	564
83.60	2.0	628

Bridal Path Perimeter Post

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Type III 24-hr 10-Year Rainfall=4.70"

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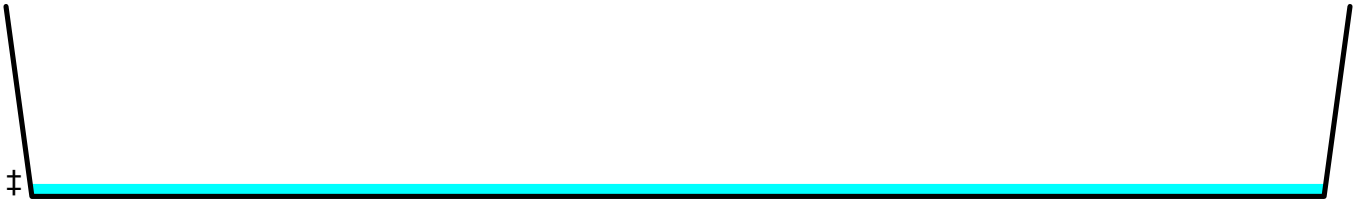
Summary for Reach SWL E: Swale (E)

Inflow Area = 86,855 sf, 0.60% Impervious, Inflow Depth > 0.09" for 10-Year event
Inflow = 0.02 cfs @ 15.20 hrs, Volume= 650 cf
Outflow = 0.02 cfs @ 16.28 hrs, Volume= 575 cf, Atten= 13%, Lag= 64.9 min
Routed to Reach SWL D : Swale (D)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.16 fps, Min. Travel Time= 83.2 min
Avg. Velocity= 0.13 fps, Avg. Travel Time= 99.5 min

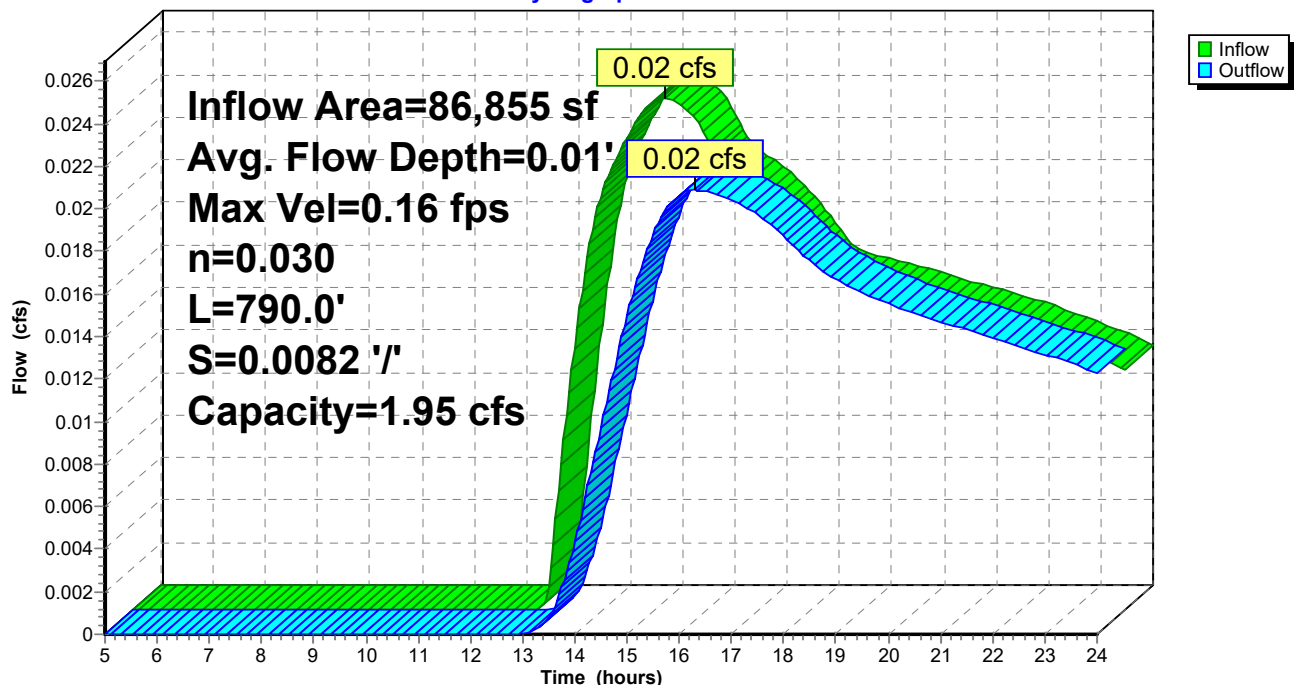
Peak Storage= 104 cf @ 16.28 hrs
Average Depth at Peak Storage= 0.01', Surface Width= 20.05'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 1.95 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 790.0' Slope= 0.0082 '/'
Inlet Invert= 90.00', Outlet Invert= 83.50'



Reach SWL E: Swale (E)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Discharge for Reach SWL E: Swale (E)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
90.00	0.00	0.00
90.01	0.21	0.04
90.02	0.33	0.13
90.03	0.43	0.26
90.04	0.52	0.42
90.05	0.61	0.61
90.06	0.68	0.83
90.07	0.76	1.07
90.08	0.83	1.34
90.09	0.89	1.63
90.10	0.95	1.95

Bridal Path Perimeter Post*Type III 24-hr 10-Year Rainfall=4.70"*

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Stage-Area-Storage for Reach SWL E: Swale (E)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
90.00	0.0	0
90.01	0.2	158
90.02	0.4	317
90.03	0.6	477
90.04	0.8	637
90.05	1.0	798
90.06	1.2	959
90.07	1.4	1,121
90.08	1.6	1,284
90.09	1.8	1,448
90.10	2.0	1,612

Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A(OL): OVERLAND TO A	Runoff Area=91,778 sf 1.81% Impervious Runoff Depth>0.16" Tc=5.0 min CN=35 Runoff=0.05 cfs 1,260 cf
Subcatchment C(OL): OVERLAND TO	Runoff Area=55,197 sf 0.00% Impervious Runoff Depth>0.13" Tc=5.0 min CN=34 Runoff=0.02 cfs 605 cf
Subcatchment D: OVERLAND TO SWALE	Runoff Area=81,122 sf 0.26% Impervious Runoff Depth>0.13" Tc=5.0 min CN=34 Runoff=0.03 cfs 889 cf
Subcatchment E: OVERLAND TO E	Runoff Area=18,011 sf 4.19% Impervious Runoff Depth>0.10" Flow Length=50' Slope=0.0200 '/' Tc=21.0 min CN=33 Runoff=0.01 cfs 150 cf
Subcatchment E(SWL): OVERLAND TO	Runoff Area=86,855 sf 0.60% Impervious Runoff Depth>0.24" Flow Length=688' Tc=20.5 min CN=37 Runoff=0.08 cfs 1,715 cf
Subcatchment F: OVERLAND TO F	Runoff Area=2,036 sf 0.00% Impervious Runoff Depth>0.32" Tc=5.0 min CN=39 Runoff=0.00 cfs 55 cf
Reach DPApost: DP-A	Inflow=0.05 cfs 1,260 cf Outflow=0.05 cfs 1,260 cf
Reach DPCpost: DP-C	Inflow=0.12 cfs 2,984 cf Outflow=0.12 cfs 2,984 cf
Reach DPDpost: DP-D	Outflow=0.00 cfs 0 cf
Reach DPEpost: DP-E	Inflow=0.01 cfs 150 cf Outflow=0.01 cfs 150 cf
Reach DPFpost: DP-F	Inflow=0.00 cfs 55 cf Outflow=0.00 cfs 55 cf
Reach SWL C: Swale C	Avg. Flow Depth=0.01' Max Vel=0.43 fps Inflow=0.12 cfs 3,058 cf n=0.030 L=472.0' S=0.0233 '/' Capacity=3.28 cfs Outflow=0.12 cfs 2,984 cf
Reach SWL D: Swale (D)	Avg. Flow Depth=0.01' Max Vel=0.39 fps Inflow=0.10 cfs 2,495 cf n=0.030 L=308.0' S=0.0211 '/' Capacity=3.12 cfs Outflow=0.10 cfs 2,453 cf
Reach SWL E: Swale (E)	Avg. Flow Depth=0.01' Max Vel=0.25 fps Inflow=0.08 cfs 1,715 cf n=0.030 L=790.0' S=0.0082 '/' Capacity=1.95 cfs Outflow=0.06 cfs 1,606 cf

Total Runoff Area = 334,999 sf Runoff Volume = 4,674 cf Average Runoff Depth = 0.17"
99.06% Pervious = 331,843 sf 0.94% Impervious = 3,156 sf

Bridal Path Perimeter Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment A(OL): OVERLAND TO A

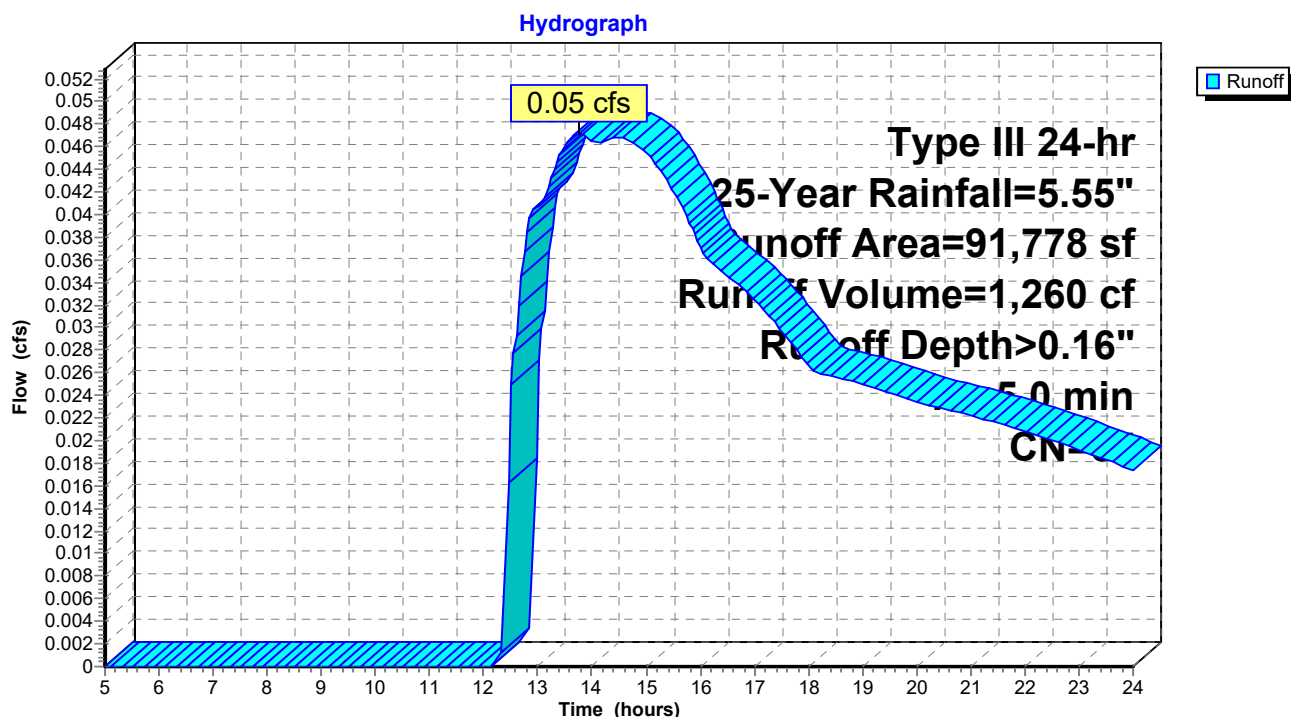
Runoff = 0.05 cfs @ 13.77 hrs, Volume= 1,260 cf, Depth> 0.16"
Routed to Reach DPapost : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	54,562	30	Woods, Good, HSG A
*	1,665	98	Paved parking, HSG A (Walkways)
	35,551	39	>75% Grass cover, Good, HSG A
	91,778	35	Weighted Average
	90,113		98.19% Pervious Area
	1,665		1.81% Impervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.0					Direct Entry, MIN

Subcatchment A(OL): OVERLAND TO A



Bridal Path Perimeter Post

Type III 24-hr 25-Year Rainfall=5.55"

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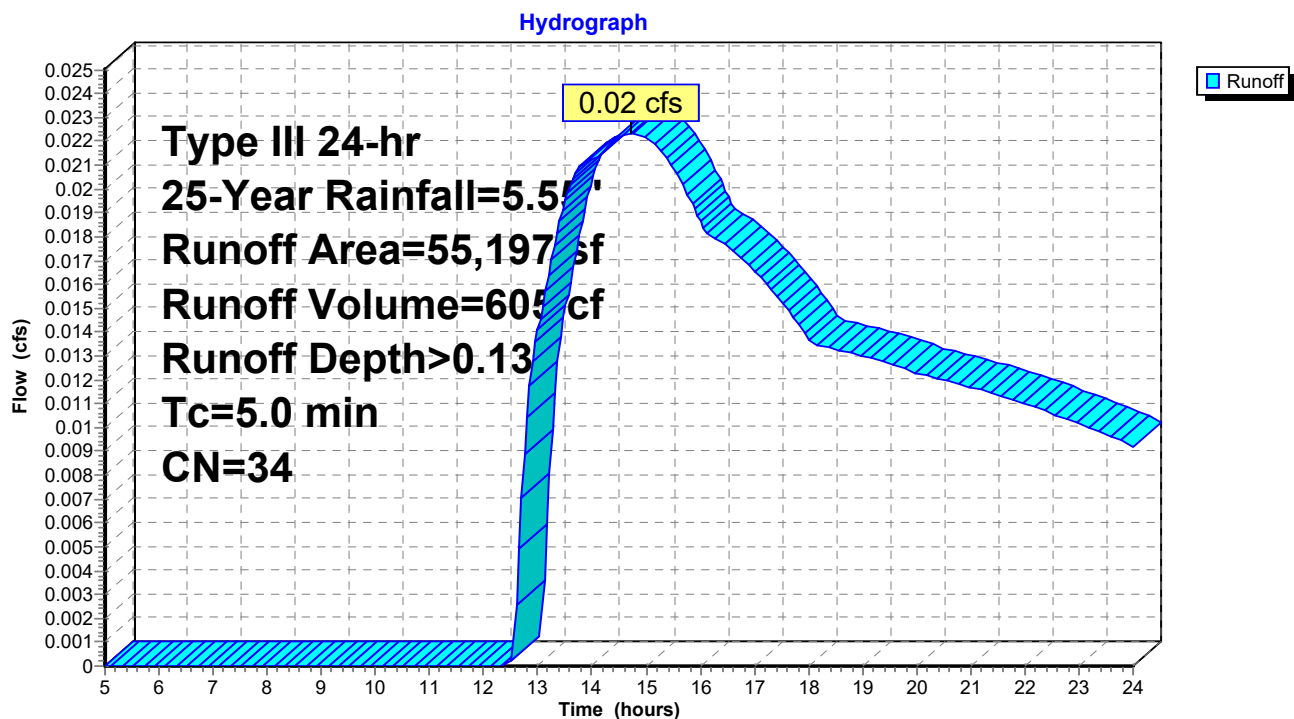
Summary for Subcatchment C(OL): OVERLAND TO SWALE (C)

Runoff = 0.02 cfs @ 14.74 hrs, Volume= 605 cf, Depth> 0.13"
Routed to Reach SWL C : Swale C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	29,501	30	Woods, Good, HSG A
*	0	98	Paved parking, HSG A (Walkways)
	25,696	39	>75% Grass cover, Good, HSG A
	55,197	34	Weighted Average
	55,197		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment C(OL): OVERLAND TO SWALE (C)

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment D: OVERLAND TO SWALE (D)

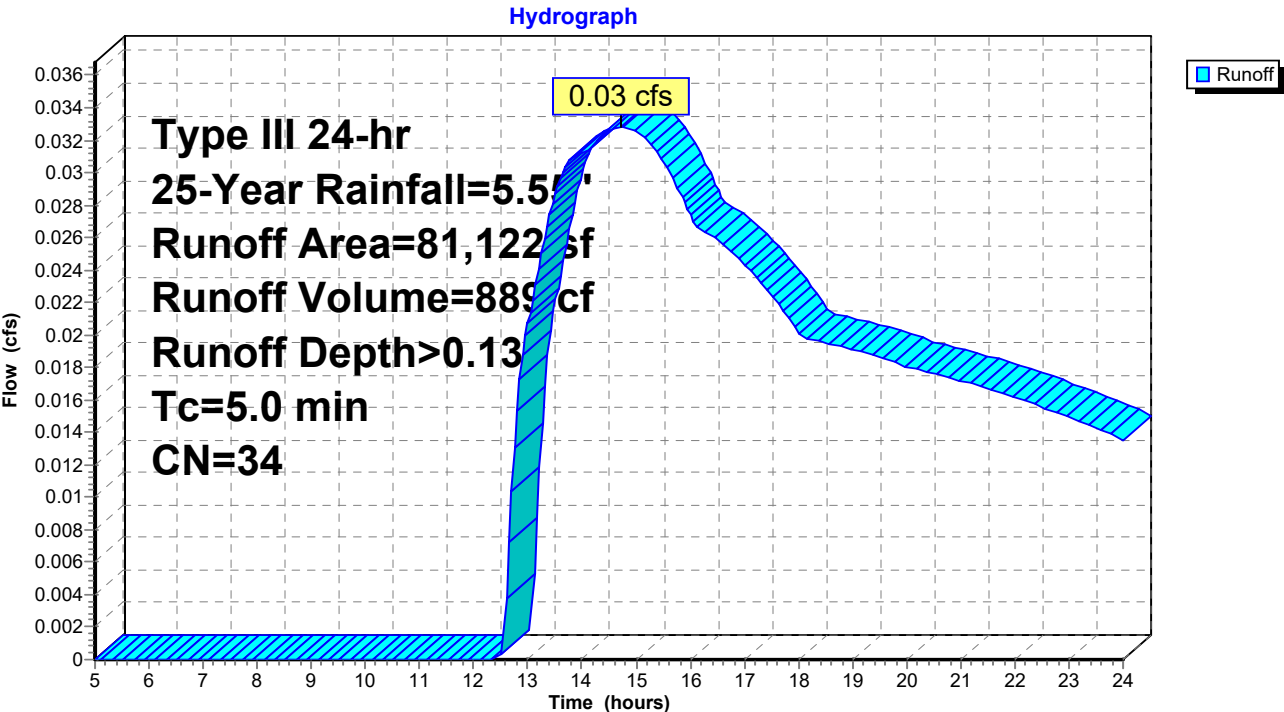
Runoff = 0.03 cfs @ 14.74 hrs, Volume= 889 cf, Depth> 0.13"
Routed to Reach SWL D : Swale (D)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

	Area (sf)	CN	Description
	46,762	30	Woods, Good, HSG A
*	213	98	Paved parking, HSG A (Walkways)
	34,147	39	>75% Grass cover, Good, HSG A
	81,122	34	Weighted Average
	80,909		99.74% Pervious Area
	213		0.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment D: OVERLAND TO SWALE (D)



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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment E: OVERLAND TO E

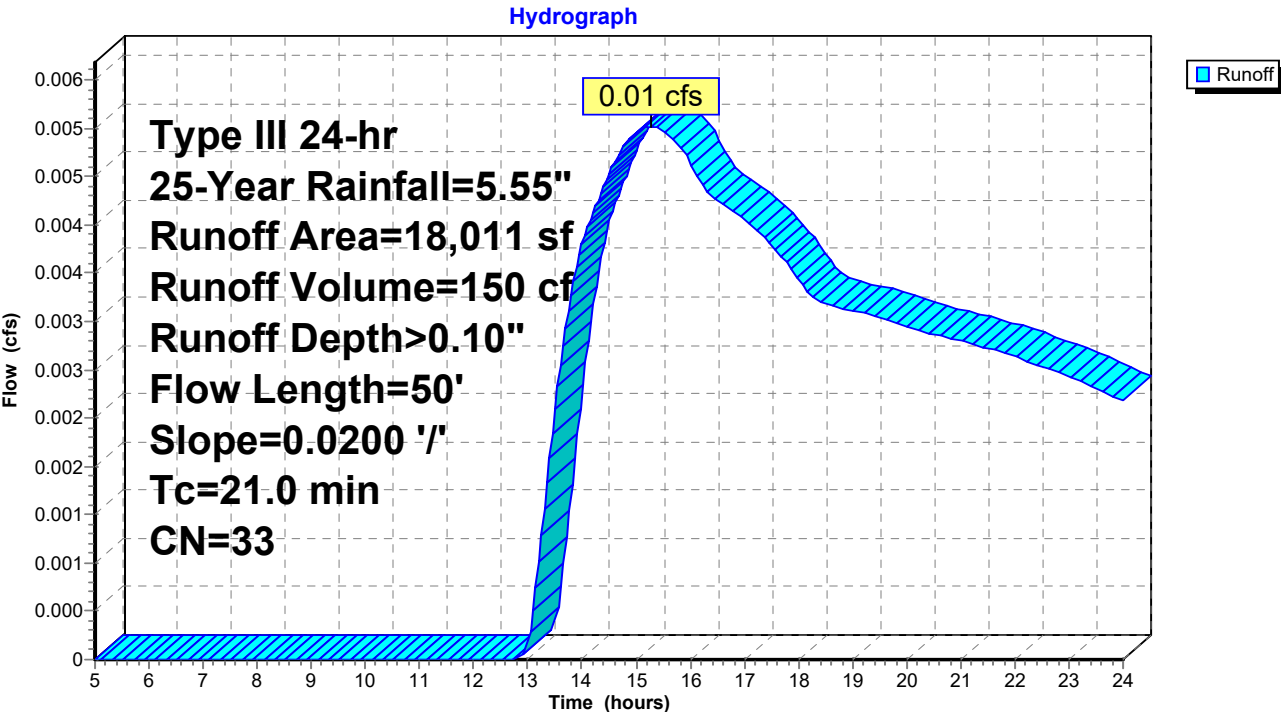
Runoff = 0.01 cfs @ 15.27 hrs, Volume= 150 cf, Depth> 0.10"
Routed to Reach DPEpost : DP-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
17,256	30	Woods, Good, HSG A
* 755	98	Paved parking, HSG A (Walkways)
18,011	33	Weighted Average
17,256		95.81% Pervious Area
755		4.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS Woods: Dense underbrush n= 0.800 P2= 3.35"

Subcatchment E: OVERLAND TO E



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Type III 24-hr 25-Year Rainfall=5.55"

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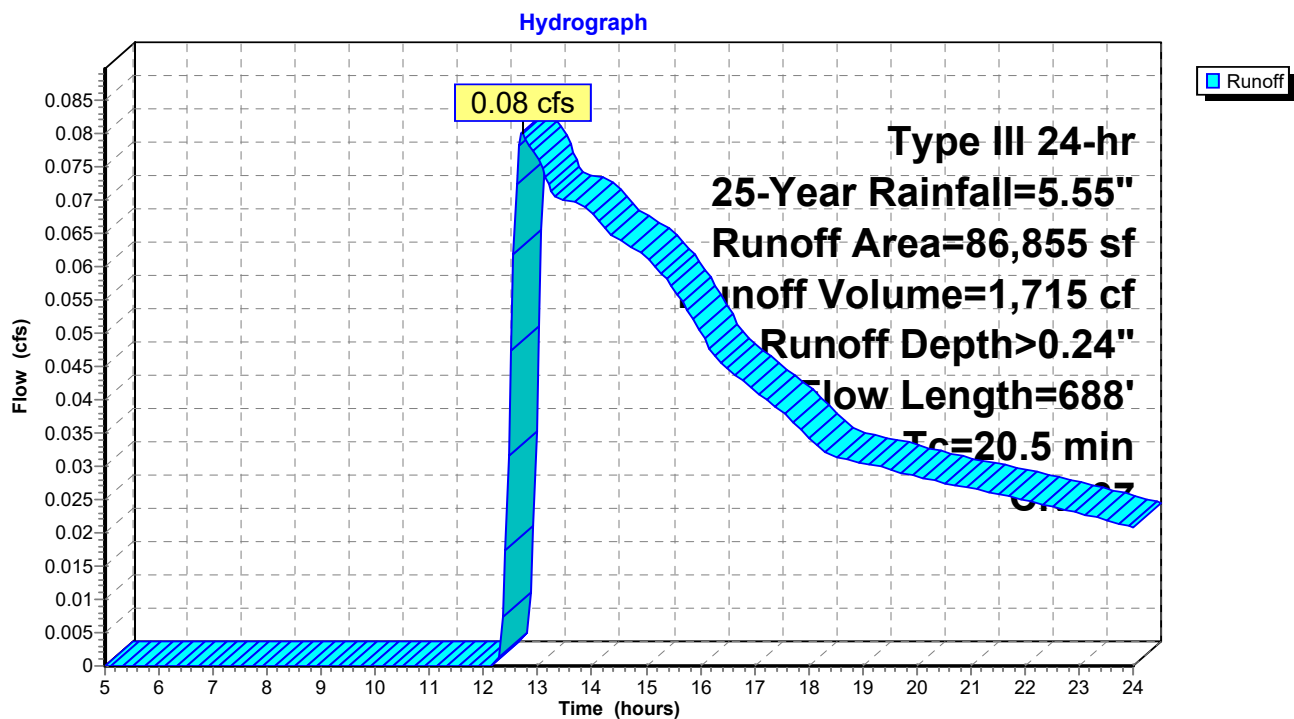
Summary for Subcatchment E(SWL): OVERLAND TO SWALE (E)

Runoff = 0.08 cfs @ 12.72 hrs, Volume= 1,715 cf, Depth> 0.24"
Routed to Reach SWL E : Swale (E)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
19,997	30	Woods, Good, HSG A
* 523	98	Paved parking, HSG A (Walkways)
66,335	39	>75% Grass cover, Good, HSG A
86,855	37	Weighted Average
86,332		99.40% Pervious Area
523		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2500	0.19		Sheet Flow, SLOPED LAWN Grass: Bermuda n= 0.410 P2= 3.35"
16.0	638	0.0090	0.66		Shallow Concentrated Flow, SWALE Short Grass Pasture Kv= 7.0 fps
20.5	688	Total			

Subcatchment E(SWL): OVERLAND TO SWALE (E)

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Subcatchment F: OVERLAND TO F

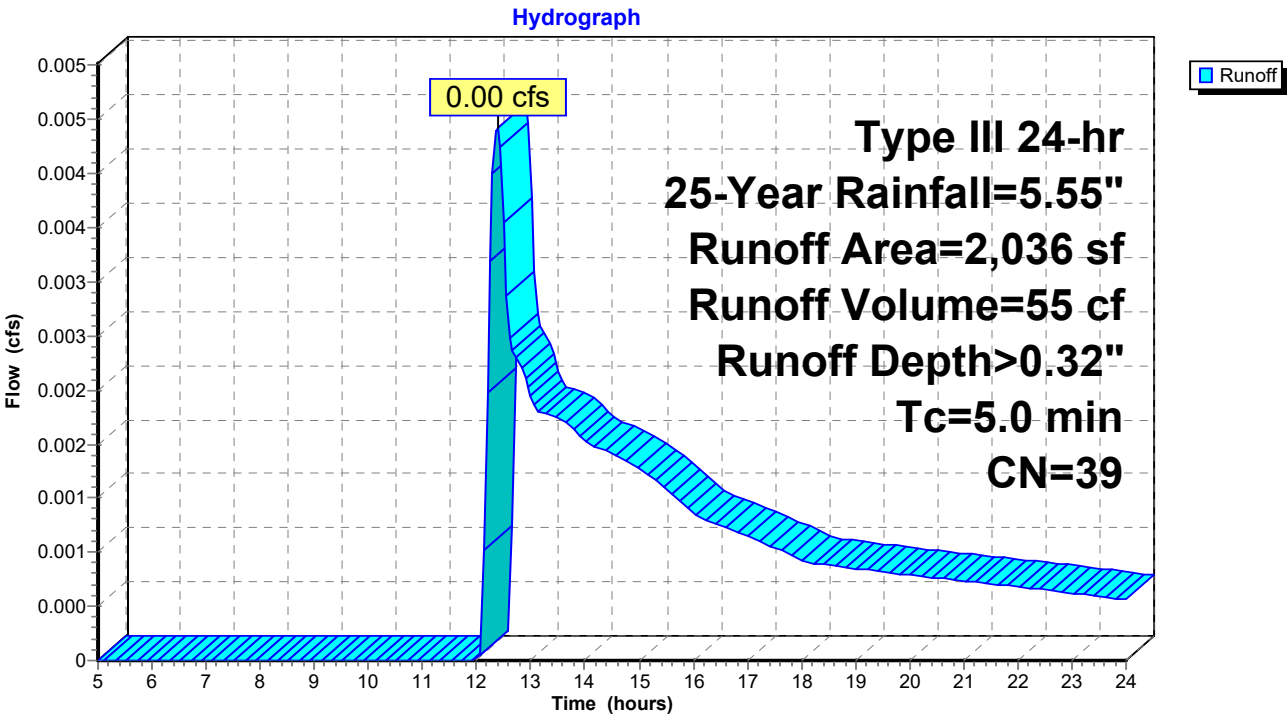
Runoff = 0.00 cfs @ 12.38 hrs, Volume= 55 cf, Depth> 0.32"
Routed to Reach DPFpost : DP-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.55"

Area (sf)	CN	Description
2,036	39	>75% Grass cover, Good, HSG A
2,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment F: OVERLAND TO F



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Type III 24-hr 25-Year Rainfall=5.55"

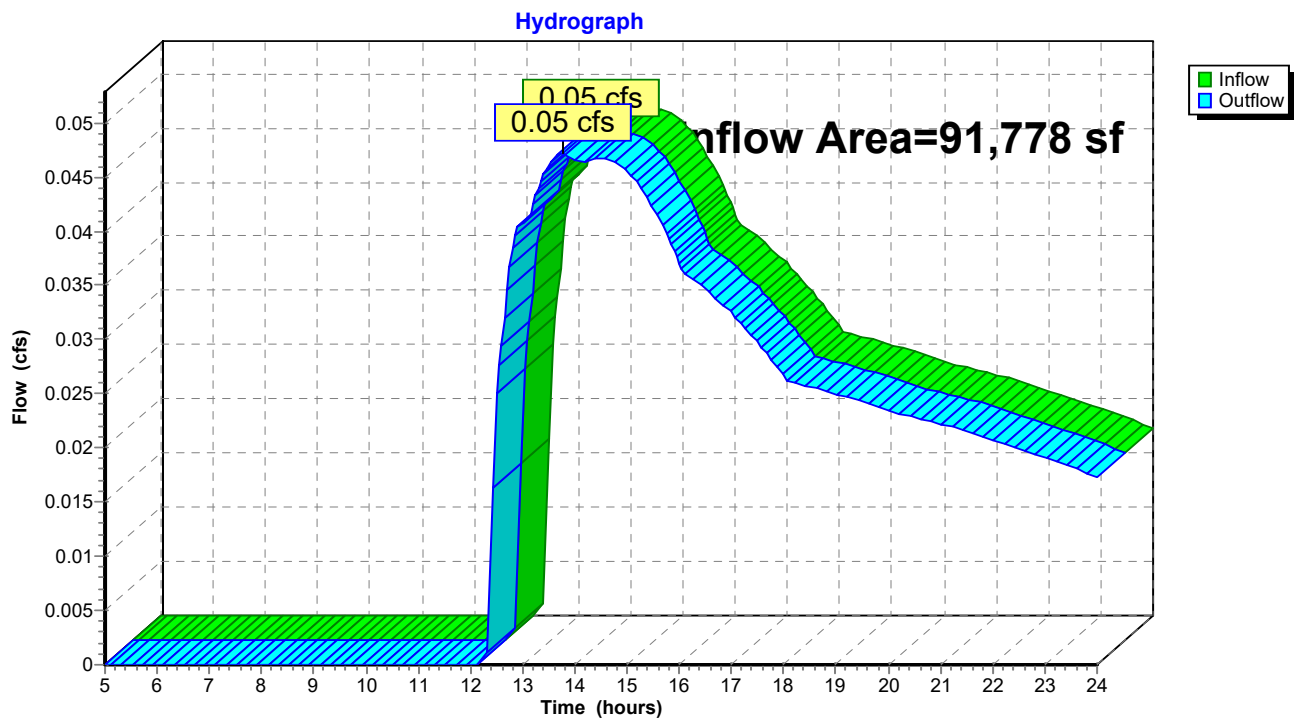
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Summary for Reach DPapost: DP-A

Inflow Area = 91,778 sf, 1.81% Impervious, Inflow Depth > 0.16" for 25-Year event
Inflow = 0.05 cfs @ 13.77 hrs, Volume= 1,260 cf
Outflow = 0.05 cfs @ 13.77 hrs, Volume= 1,260 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPapost: DP-A



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Type III 24-hr 25-Year Rainfall=5.55"

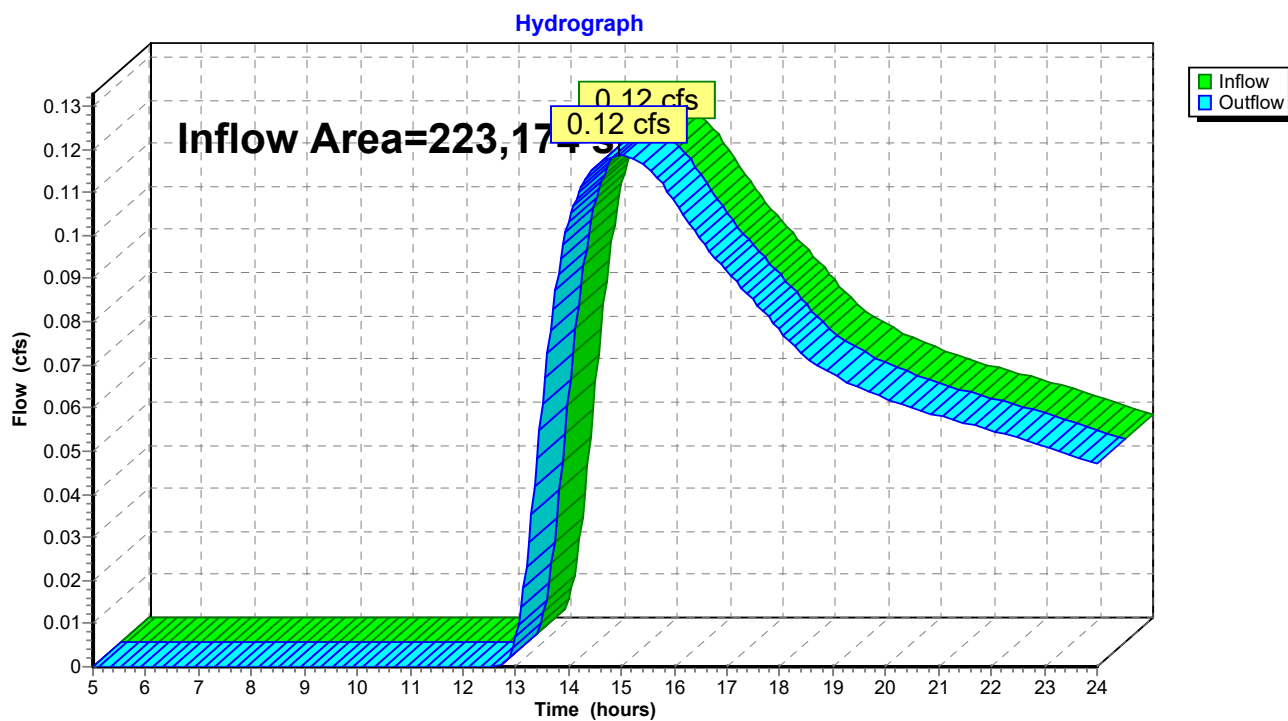
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Summary for Reach DPCpost: DP-C

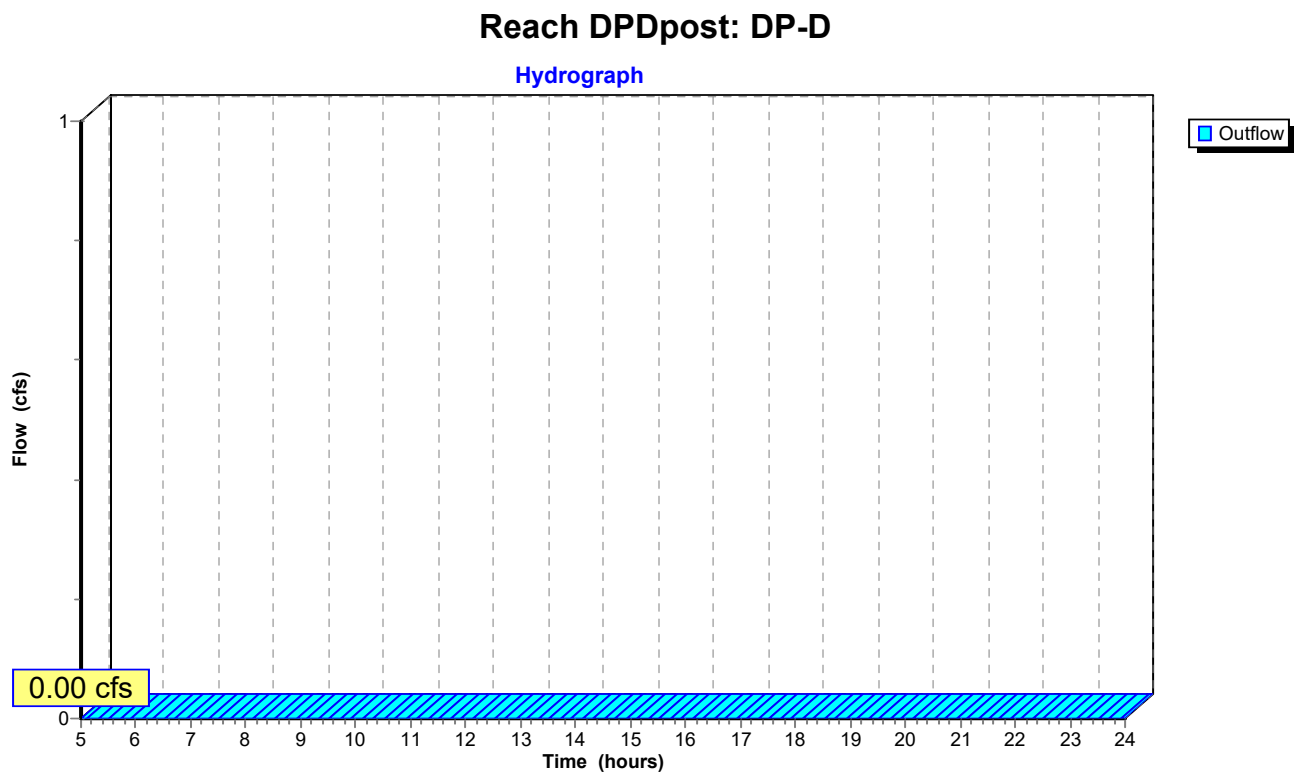
Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.16" for 25-Year event
Inflow = 0.12 cfs @ 14.95 hrs, Volume= 2,984 cf
Outflow = 0.12 cfs @ 14.95 hrs, Volume= 2,984 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPCpost: DP-C



Summary for Reach DPDpost: DP-D



Bridal Path Perimeter Post

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Type III 24-hr 25-Year Rainfall=5.55"

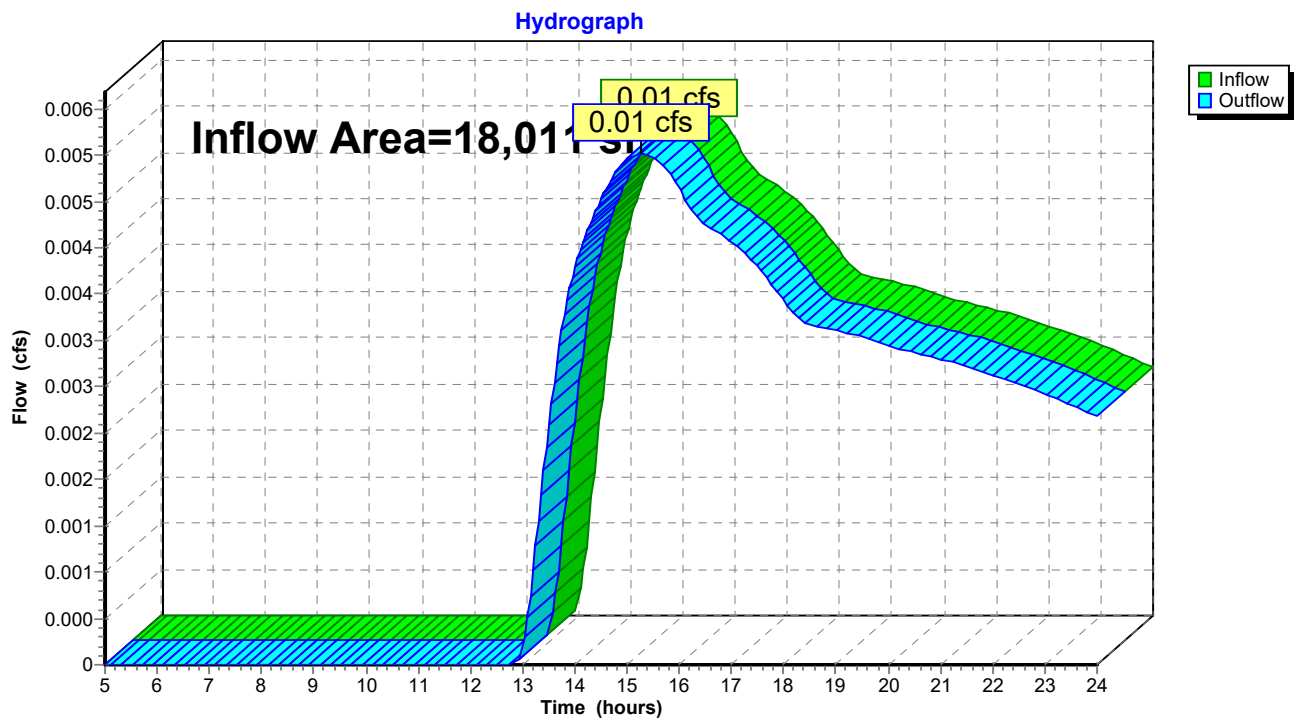
Page 56

Summary for Reach DPEpost: DP-E

Inflow Area = 18,011 sf, 4.19% Impervious, Inflow Depth > 0.10" for 25-Year event
Inflow = 0.01 cfs @ 15.27 hrs, Volume= 150 cf
Outflow = 0.01 cfs @ 15.27 hrs, Volume= 150 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPEpost: DP-E



Bridal Path Perimeter Post

Type III 24-hr 25-Year Rainfall=5.55"

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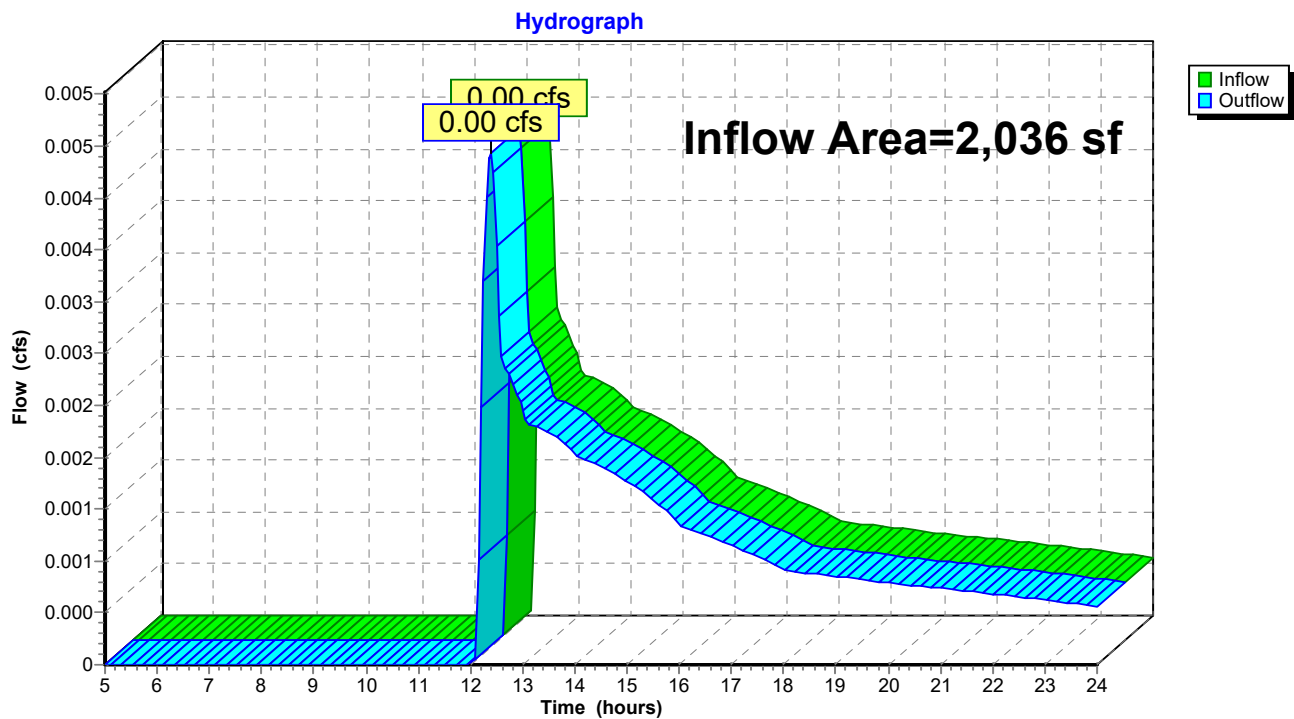
Page 57

Summary for Reach DPFpost: DP-F

Inflow Area = 2,036 sf, 0.00% Impervious, Inflow Depth > 0.32" for 25-Year event
Inflow = 0.00 cfs @ 12.38 hrs, Volume= 55 cf
Outflow = 0.00 cfs @ 12.38 hrs, Volume= 55 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPFpost: DP-F



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Type III 24-hr 25-Year Rainfall=5.55"

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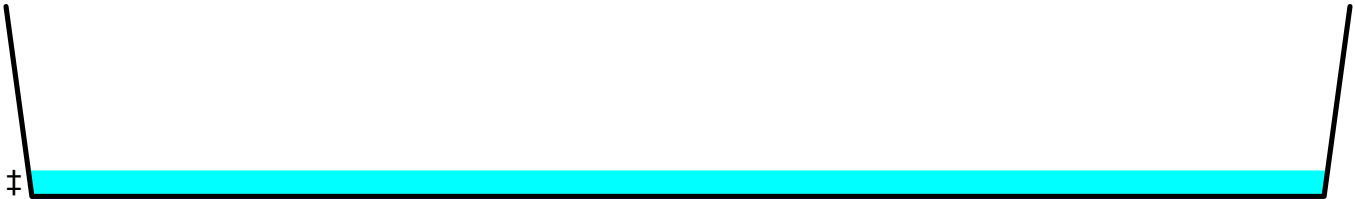
Summary for Reach SWL C: Swale C

Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.16" for 25-Year event
Inflow = 0.12 cfs @ 14.75 hrs, Volume= 3,058 cf
Outflow = 0.12 cfs @ 14.95 hrs, Volume= 2,984 cf, Atten= 0%, Lag= 12.2 min
Routed to Reach DPCpost : DP-C

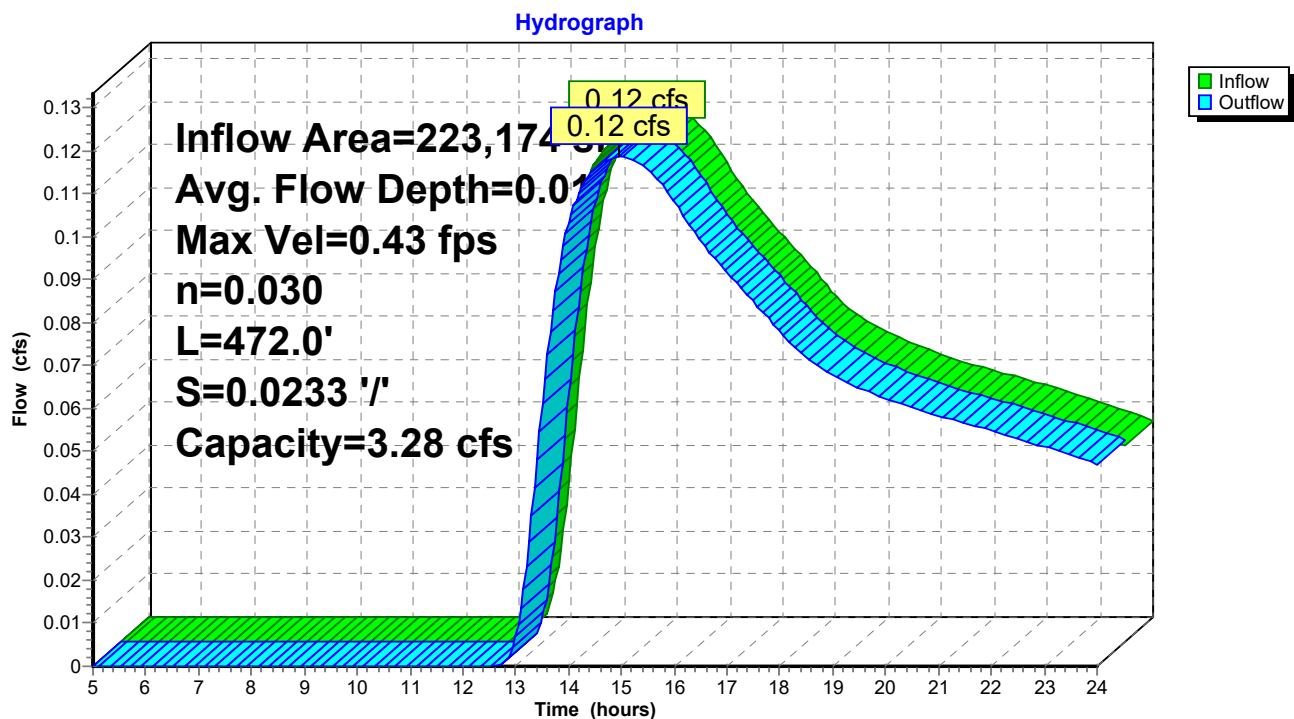
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.43 fps, Min. Travel Time= 18.2 min
Avg. Velocity= 0.34 fps, Avg. Travel Time= 22.9 min

Peak Storage= 130 cf @ 14.95 hrs
Average Depth at Peak Storage= 0.01', Surface Width= 20.11'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.28 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 472.0' Slope= 0.0233 '/'
Inlet Invert= 77.00', Outlet Invert= 66.00'



Reach SWL C: Swale C



Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Reach SWL C: Swale C

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
77.00	0.00	0.00
77.01	0.35	0.07
77.02	0.56	0.22
77.03	0.73	0.44
77.04	0.88	0.71
77.05	1.02	1.03
77.06	1.15	1.40
77.07	1.27	1.81
77.08	1.39	2.26
77.09	1.50	2.75
77.10	1.61	3.28

Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Reach SWL C: Swale C

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
77.00	0.0	0
77.01	0.2	95
77.02	0.4	190
77.03	0.6	285
77.04	0.8	381
77.05	1.0	477
77.06	1.2	573
77.07	1.4	670
77.08	1.6	767
77.09	1.8	865
77.10	2.0	963

Bridal Path Perimeter Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Reach SWL D: Swale (D)

Inflow Area = 167,977 sf, 0.44% Impervious, Inflow Depth > 0.18" for 25-Year event
Inflow = 0.10 cfs @ 14.62 hrs, Volume= 2,495 cf
Outflow = 0.10 cfs @ 14.76 hrs, Volume= 2,453 cf, Atten= 0%, Lag= 8.4 min
Routed to Reach SWL C : Swale C

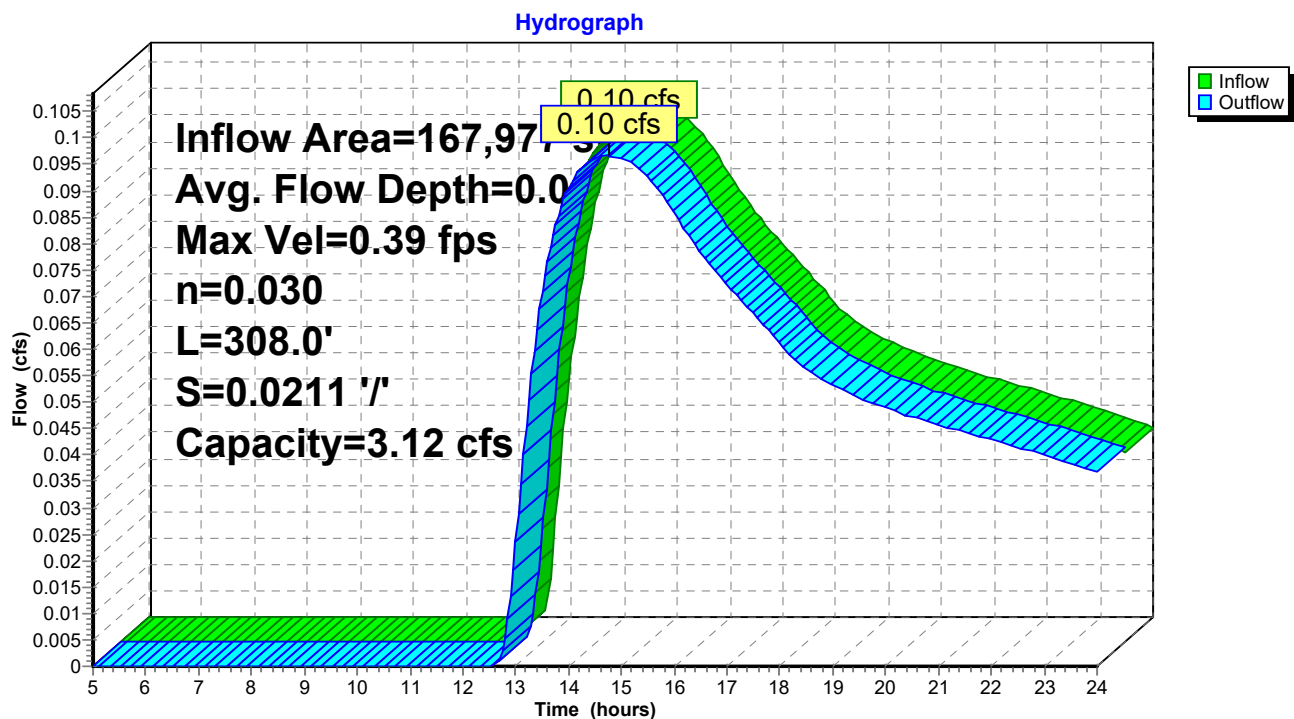
Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.39 fps, Min. Travel Time= 13.3 min
Avg. Velocity = 0.31 fps, Avg. Travel Time= 16.6 min

Peak Storage= 77 cf @ 14.76 hrs
Average Depth at Peak Storage= 0.01' , Surface Width= 20.10'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.12 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 308.0' Slope= 0.0211 '/'
Inlet Invert= 83.50', Outlet Invert= 77.00'



Reach SWL D: Swale (D)



Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Reach SWL D: Swale (D)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
83.50	0.00	0.00
83.51	0.33	0.07
83.52	0.53	0.21
83.53	0.69	0.42
83.54	0.84	0.67
83.55	0.97	0.98
83.56	1.09	1.33
83.57	1.21	1.72
83.58	1.32	2.15
83.59	1.43	2.62
83.60	1.53	3.12

Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Reach SWL D: Swale (D)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
83.50	0.0	0
83.51	0.2	62
83.52	0.4	124
83.53	0.6	186
83.54	0.8	248
83.55	1.0	311
83.56	1.2	374
83.57	1.4	437
83.58	1.6	501
83.59	1.8	564
83.60	2.0	628

Bridal Path Perimeter Post

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Type III 24-hr 25-Year Rainfall=5.55"

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Summary for Reach SWL E: Swale (E)

Inflow Area = 86,855 sf, 0.60% Impervious, Inflow Depth > 0.24" for 25-Year event
Inflow = 0.08 cfs @ 12.72 hrs, Volume= 1,715 cf
Outflow = 0.06 cfs @ 14.47 hrs, Volume= 1,606 cf, Atten= 20%, Lag= 105.2 min
Routed to Reach SWL D : Swale (D)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.25 fps, Min. Travel Time= 53.3 min
Avg. Velocity= 0.20 fps, Avg. Travel Time= 67.4 min

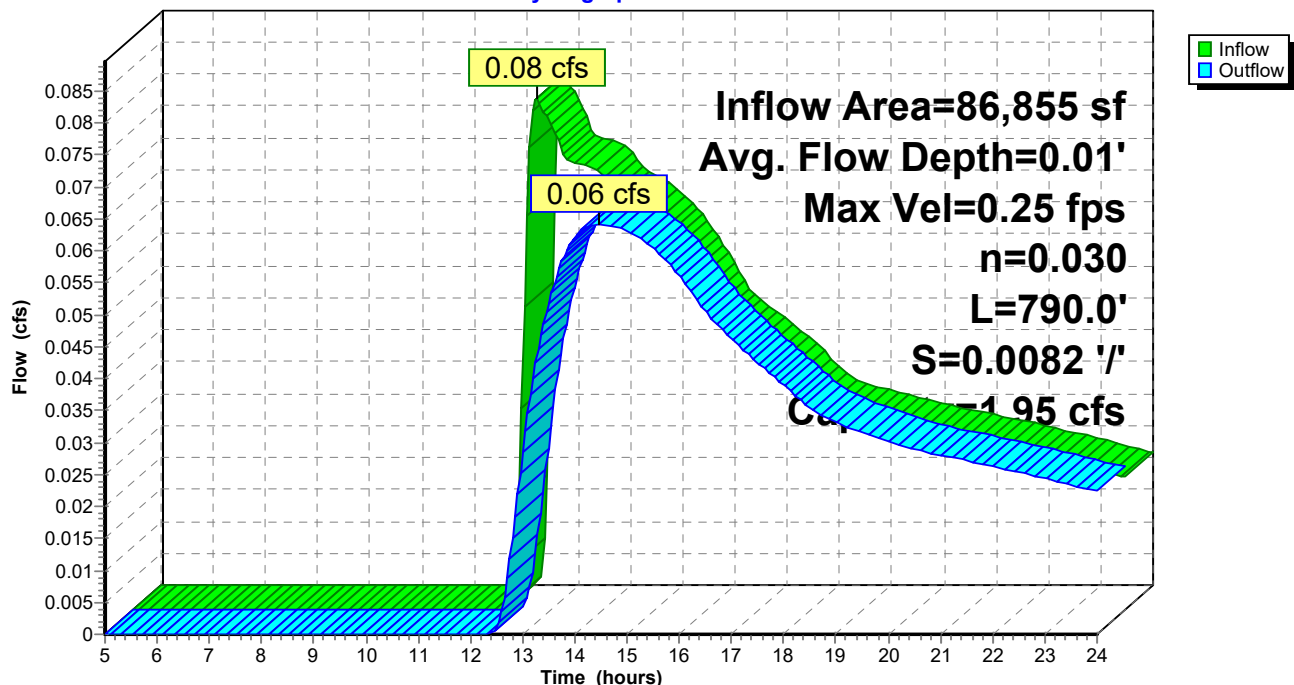
Peak Storage= 205 cf @ 14.47 hrs
Average Depth at Peak Storage= 0.01', Surface Width= 20.10'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 1.95 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 790.0' Slope= 0.0082 '/'
Inlet Invert= 90.00', Outlet Invert= 83.50'



Reach SWL E: Swale (E)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Discharge for Reach SWL E: Swale (E)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
90.00	0.00	0.00
90.01	0.21	0.04
90.02	0.33	0.13
90.03	0.43	0.26
90.04	0.52	0.42
90.05	0.61	0.61
90.06	0.68	0.83
90.07	0.76	1.07
90.08	0.83	1.34
90.09	0.89	1.63
90.10	0.95	1.95

Bridal Path Perimeter Post*Type III 24-hr 25-Year Rainfall=5.55"*

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Stage-Area-Storage for Reach SWL E: Swale (E)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
90.00	0.0	0
90.01	0.2	158
90.02	0.4	317
90.03	0.6	477
90.04	0.8	637
90.05	1.0	798
90.06	1.2	959
90.07	1.4	1,121
90.08	1.6	1,284
90.09	1.8	1,448
90.10	2.0	1,612

Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A(OL): OVERLAND TO A	Runoff Area=91,778 sf 1.81% Impervious Runoff Depth>0.49" Tc=5.0 min CN=35 Runoff=0.40 cfs 3,771 cf
Subcatchment C(OL): OVERLAND TO	Runoff Area=55,197 sf 0.00% Impervious Runoff Depth>0.43" Tc=5.0 min CN=34 Runoff=0.19 cfs 1,981 cf
Subcatchment D: OVERLAND TO SWALE	Runoff Area=81,122 sf 0.26% Impervious Runoff Depth>0.43" Tc=5.0 min CN=34 Runoff=0.28 cfs 2,911 cf
Subcatchment E: OVERLAND TO E	Runoff Area=18,011 sf 4.19% Impervious Runoff Depth>0.37" Flow Length=50' Slope=0.0200 '/' Tc=21.0 min CN=33 Runoff=0.03 cfs 551 cf
Subcatchment E(SWL): OVERLAND TO	Runoff Area=86,855 sf 0.60% Impervious Runoff Depth>0.62" Flow Length=688' Tc=20.5 min CN=37 Runoff=0.48 cfs 4,494 cf
Subcatchment F: OVERLAND TO F	Runoff Area=2,036 sf 0.00% Impervious Runoff Depth>0.77" Tc=5.0 min CN=39 Runoff=0.02 cfs 130 cf
Reach DPApost: DP-A	Inflow=0.40 cfs 3,771 cf Outflow=0.40 cfs 3,771 cf
Reach DPCpost: DP-C	Inflow=0.53 cfs 9,050 cf Outflow=0.53 cfs 9,050 cf
Reach DPDpost: DP-D	Outflow=0.00 cfs 0 cf
Reach DPEpost: DP-E	Inflow=0.03 cfs 551 cf Outflow=0.03 cfs 551 cf
Reach DPFpost: DP-F	Inflow=0.02 cfs 130 cf Outflow=0.02 cfs 130 cf
Reach SWL C: Swale C	Avg. Flow Depth=0.03' Max Vel=0.78 fps Inflow=0.54 cfs 9,162 cf n=0.030 L=472.0' S=0.0233 '/' Capacity=3.28 cfs Outflow=0.53 cfs 9,050 cf
Reach SWL D: Swale (D)	Avg. Flow Depth=0.03' Max Vel=0.71 fps Inflow=0.45 cfs 7,246 cf n=0.030 L=308.0' S=0.0211 '/' Capacity=3.12 cfs Outflow=0.44 cfs 7,182 cf
Reach SWL E: Swale (E)	Avg. Flow Depth=0.03' Max Vel=0.46 fps Inflow=0.48 cfs 4,494 cf n=0.030 L=790.0' S=0.0082 '/' Capacity=1.95 cfs Outflow=0.30 cfs 4,335 cf

Total Runoff Area = 334,999 sf Runoff Volume = 13,839 cf Average Runoff Depth = 0.50"
99.06% Pervious = 331,843 sf 0.94% Impervious = 3,156 sf

Bridal Path Perimeter Post

Type III 24-hr 100-Year Rainfall=7.00"

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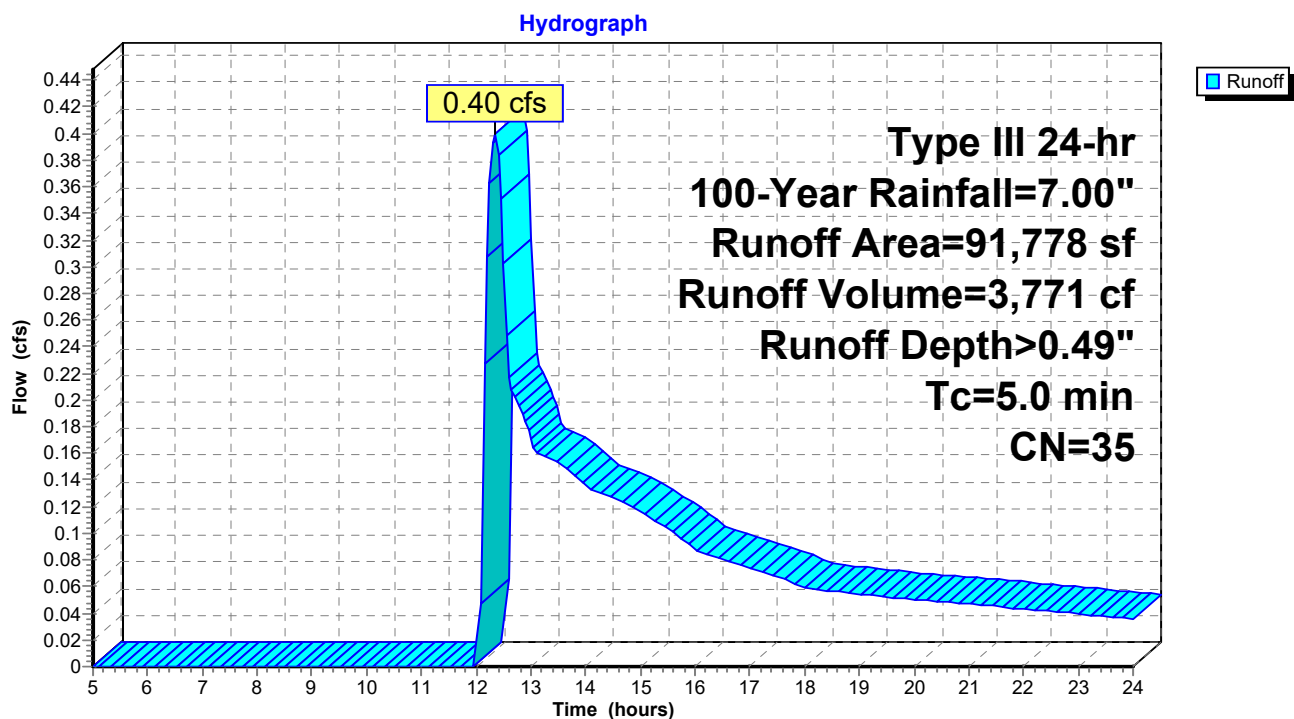
Summary for Subcatchment A(OL): OVERLAND TO A

Runoff = 0.40 cfs @ 12.34 hrs, Volume= 3,771 cf, Depth> 0.49"
Routed to Reach DPapost : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

	Area (sf)	CN	Description
	54,562	30	Woods, Good, HSG A
*	1,665	98	Paved parking, HSG A (Walkways)
	35,551	39	>75% Grass cover, Good, HSG A
	91,778	35	Weighted Average
	90,113		98.19% Pervious Area
	1,665		1.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment A(OL): OVERLAND TO A

Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment C(OL): OVERLAND TO SWALE (C)

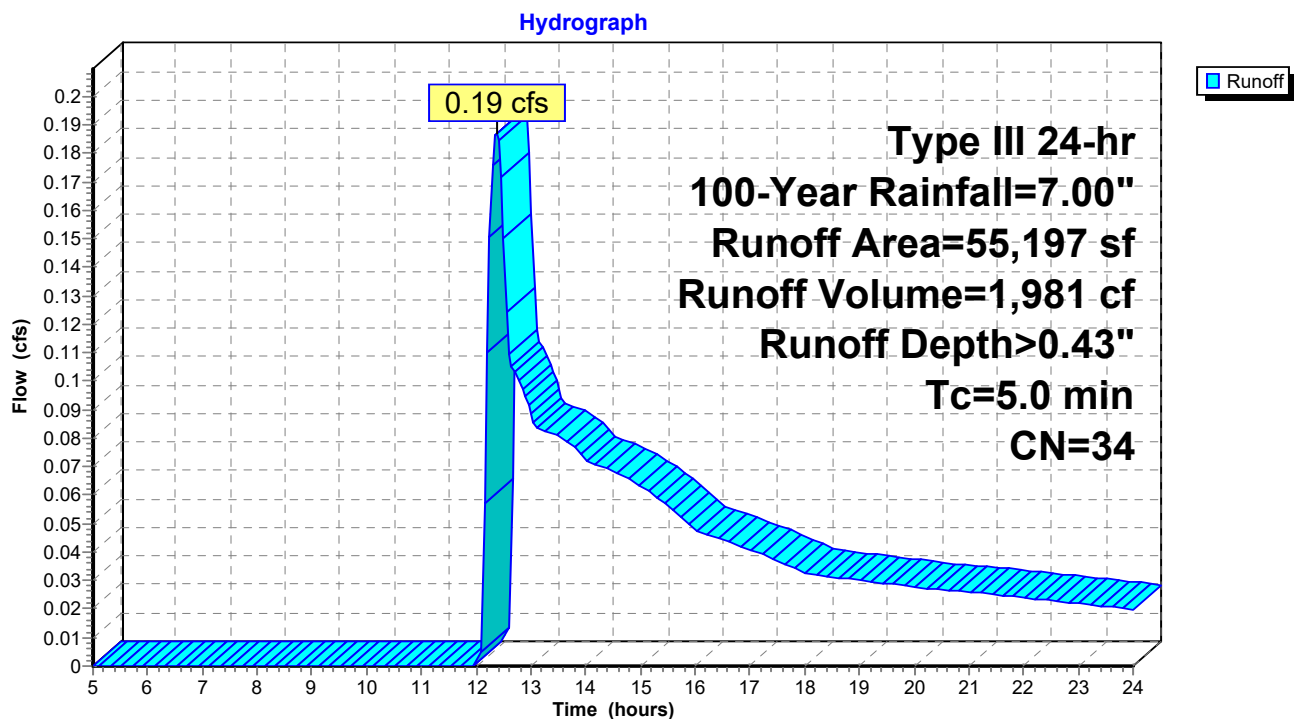
Runoff = 0.19 cfs @ 12.37 hrs, Volume= 1,981 cf, Depth> 0.43"
Routed to Reach SWL C : Swale C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

	Area (sf)	CN	Description
	29,501	30	Woods, Good, HSG A
*	0	98	Paved parking, HSG A (Walkways)
	25,696	39	>75% Grass cover, Good, HSG A
	55,197	34	Weighted Average
	55,197		100.00% Pervious Area

Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
5.0					Direct Entry, MIN

Subcatchment C(OL): OVERLAND TO SWALE (C)



Bridal Path Perimeter Post

Type III 24-hr 100-Year Rainfall=7.00"

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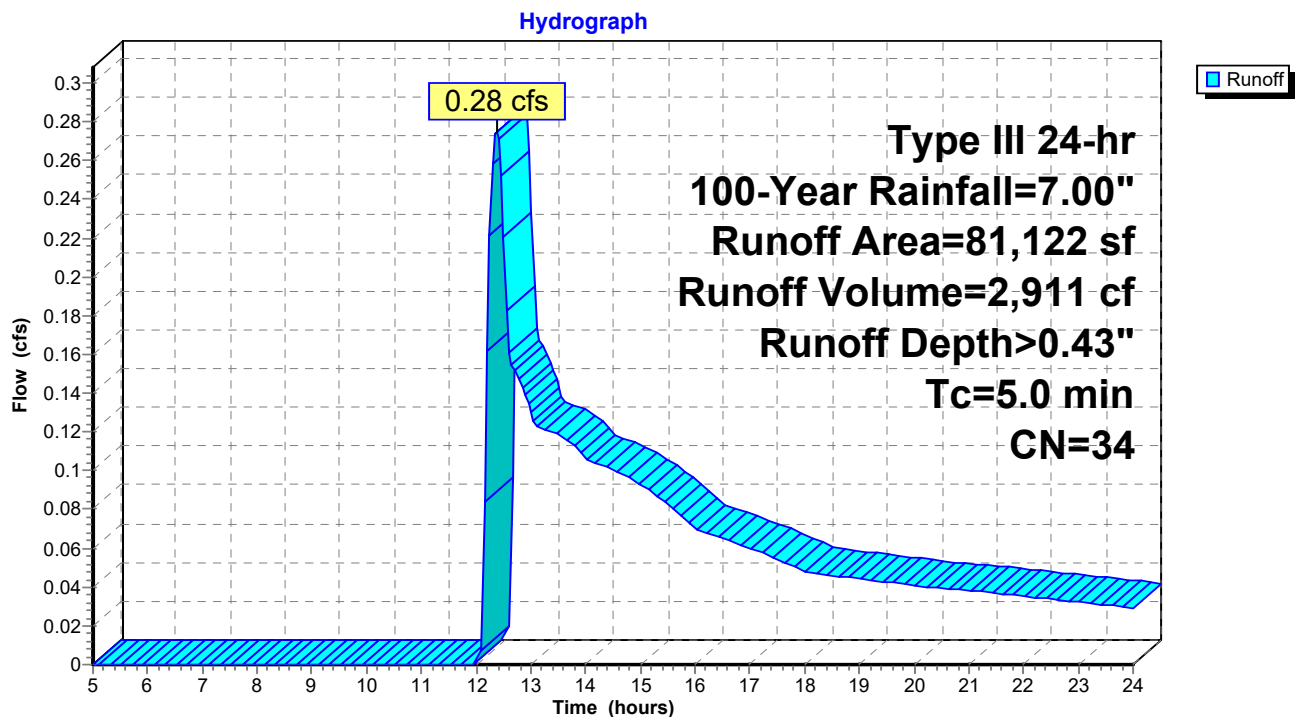
Summary for Subcatchment D: OVERLAND TO SWALE (D)

Runoff = 0.28 cfs @ 12.37 hrs, Volume= 2,911 cf, Depth> 0.43"
Routed to Reach SWL D : Swale (D)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
46,762	30	Woods, Good, HSG A
* 213	98	Paved parking, HSG A (Walkways)
34,147	39	>75% Grass cover, Good, HSG A
81,122	34	Weighted Average
80,909		99.74% Pervious Area
213		0.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment D: OVERLAND TO SWALE (D)

Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment E: OVERLAND TO E

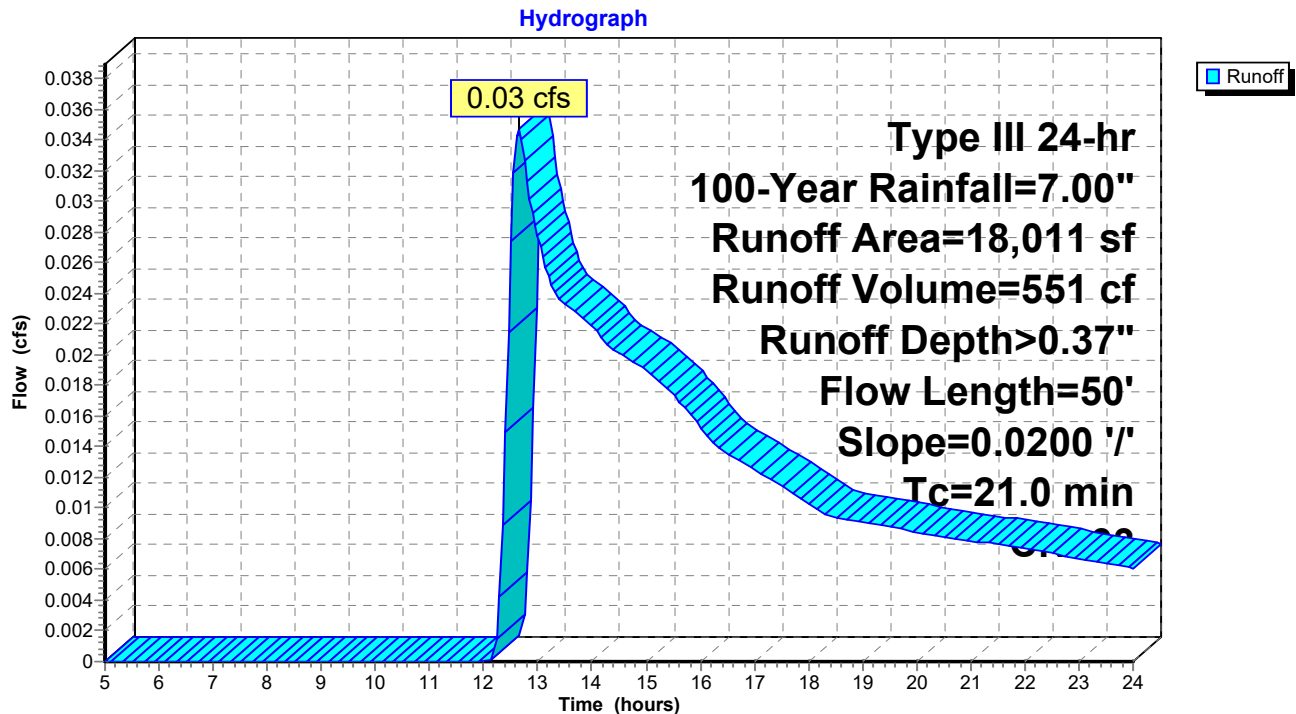
Runoff = 0.03 cfs @ 12.65 hrs, Volume= 551 cf, Depth> 0.37"
Routed to Reach DPEpost : DP-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
17,256	30	Woods, Good, HSG A
* 755	98	Paved parking, HSG A (Walkways)
18,011	33	Weighted Average
17,256		95.81% Pervious Area
755		4.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.0	50	0.0200	0.04		Sheet Flow, WOODS
Woods: Dense underbrush n= 0.800 P2= 3.35"					

Subcatchment E: OVERLAND TO E



Bridal Path Perimeter Post

Type III 24-hr 100-Year Rainfall=7.00"

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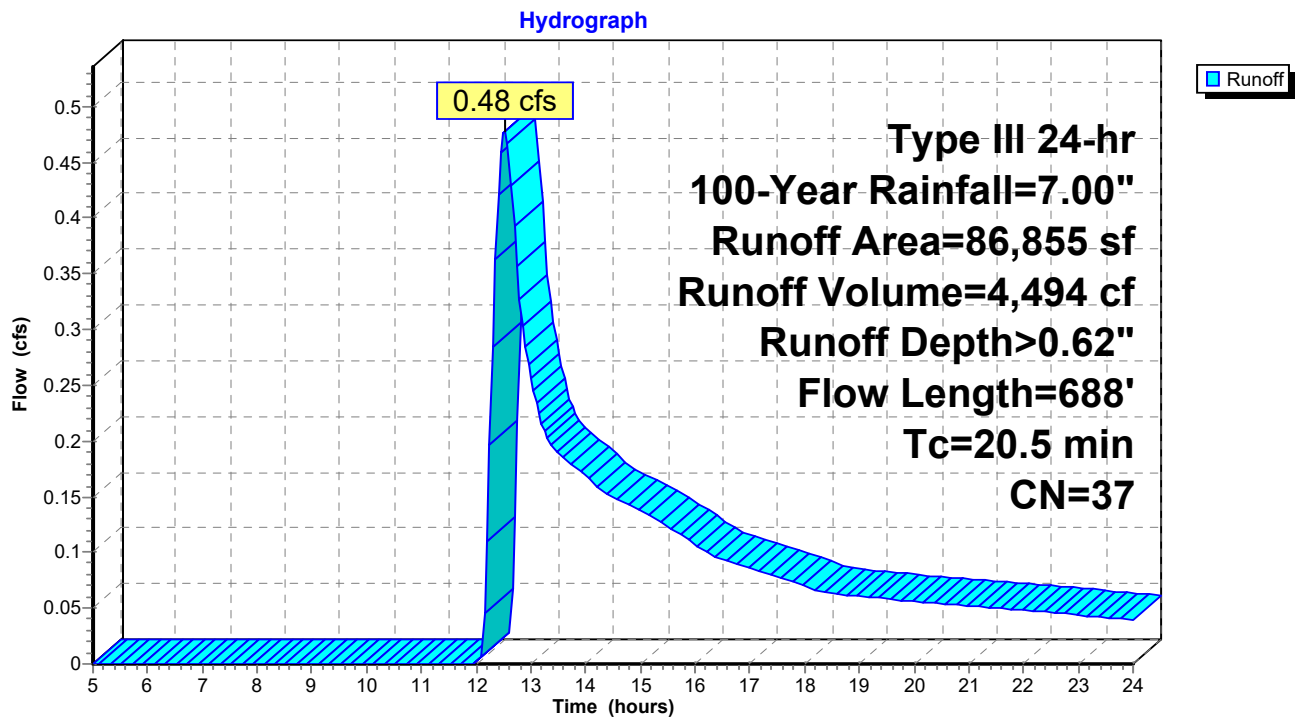
Summary for Subcatchment E(SWL): OVERLAND TO SWALE (E)

Runoff = 0.48 cfs @ 12.52 hrs, Volume= 4,494 cf, Depth> 0.62"
Routed to Reach SWL E : Swale (E)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
19,997	30	Woods, Good, HSG A
* 523	98	Paved parking, HSG A (Walkways)
66,335	39	>75% Grass cover, Good, HSG A
86,855	37	Weighted Average
86,332		99.40% Pervious Area
523		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	50	0.2500	0.19		Sheet Flow, SLOPED LAWN Grass: Bermuda n= 0.410 P2= 3.35"
16.0	638	0.0090	0.66		Shallow Concentrated Flow, SWALE Short Grass Pasture Kv= 7.0 fps
20.5	688	Total			

Subcatchment E(SWL): OVERLAND TO SWALE (E)

Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Subcatchment F: OVERLAND TO F

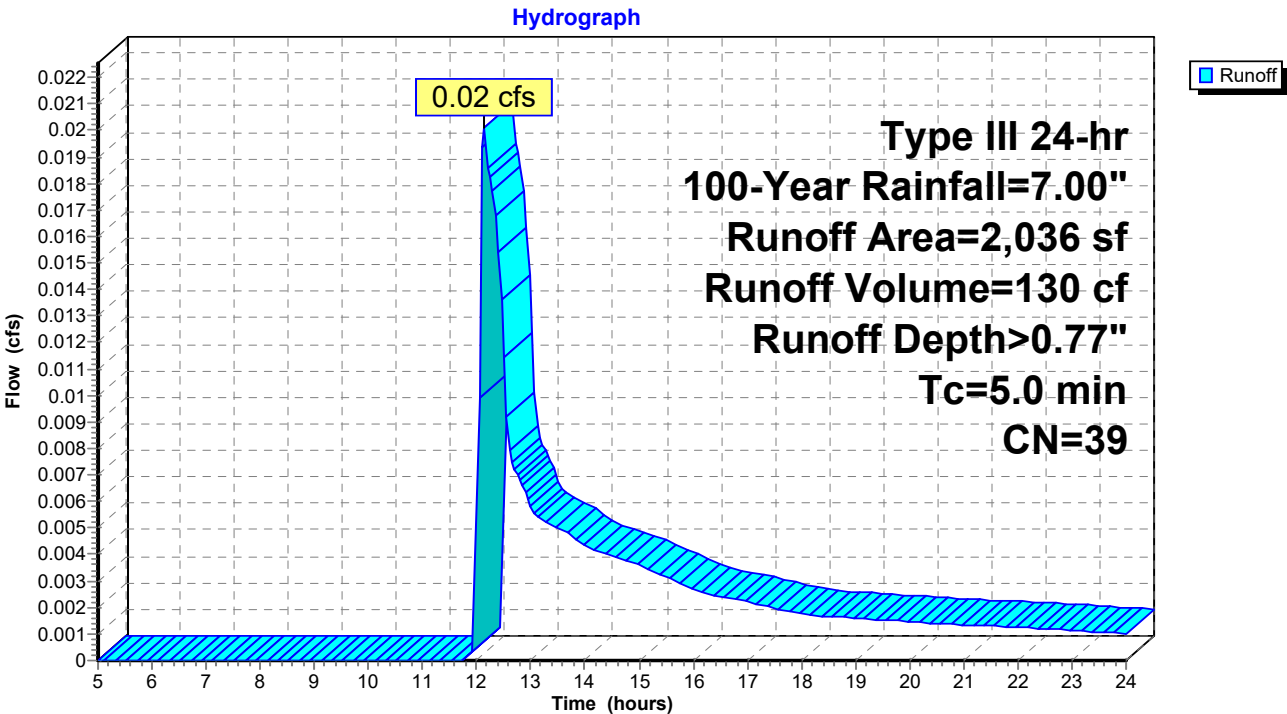
Runoff = 0.02 cfs @ 12.14 hrs, Volume= 130 cf, Depth> 0.77"
Routed to Reach DPFpost : DP-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=7.00"

Area (sf)	CN	Description
2,036	39	>75% Grass cover, Good, HSG A
2,036		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN

Subcatchment F: OVERLAND TO F



Bridal Path Perimeter Post

Type III 24-hr 100-Year Rainfall=7.00"

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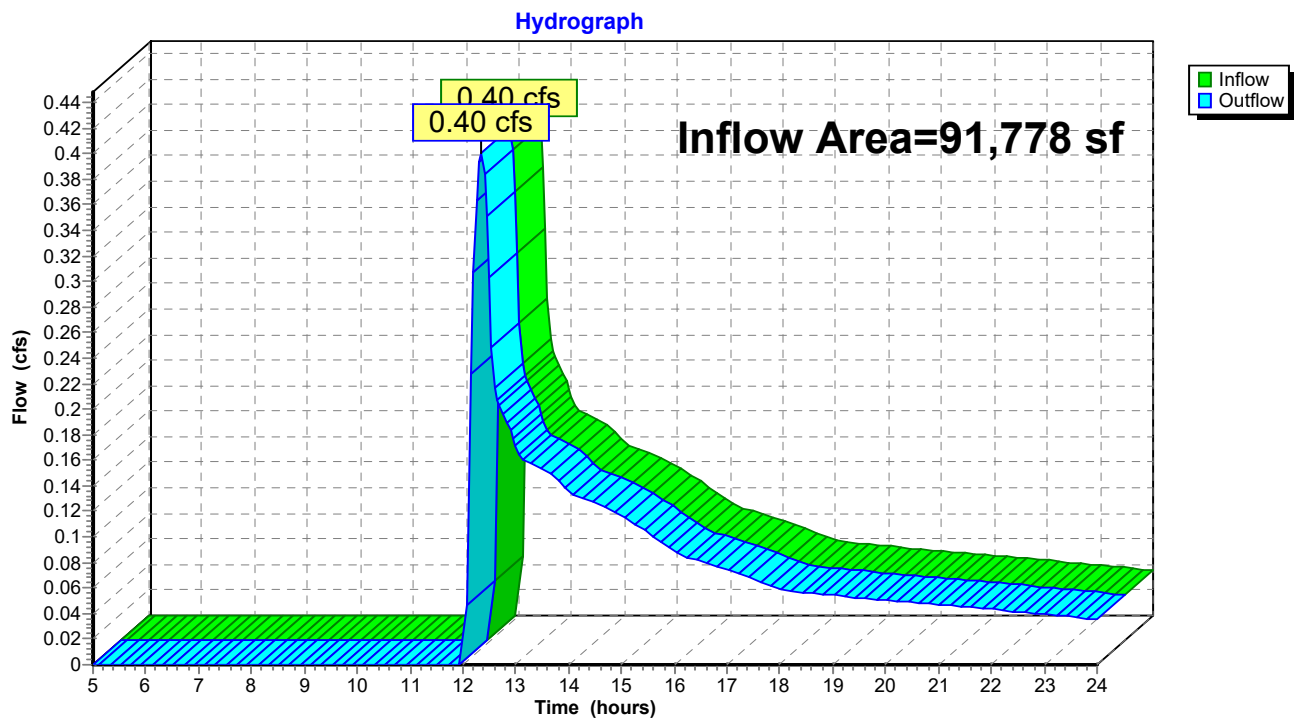
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Summary for Reach DPApost: DP-A

Inflow Area = 91,778 sf, 1.81% Impervious, Inflow Depth > 0.49" for 100-Year event
Inflow = 0.40 cfs @ 12.34 hrs, Volume= 3,771 cf
Outflow = 0.40 cfs @ 12.34 hrs, Volume= 3,771 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPApost: DP-A



Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

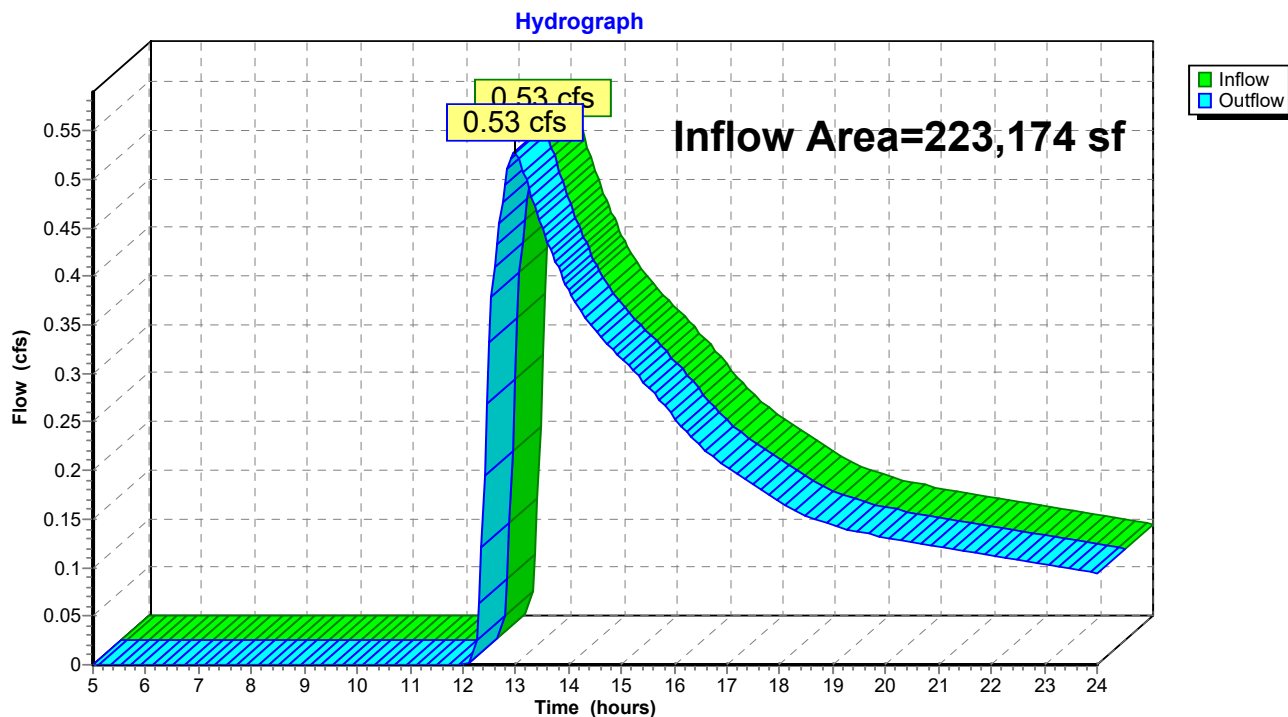
Page 75

Summary for Reach DPCpost: DP-C

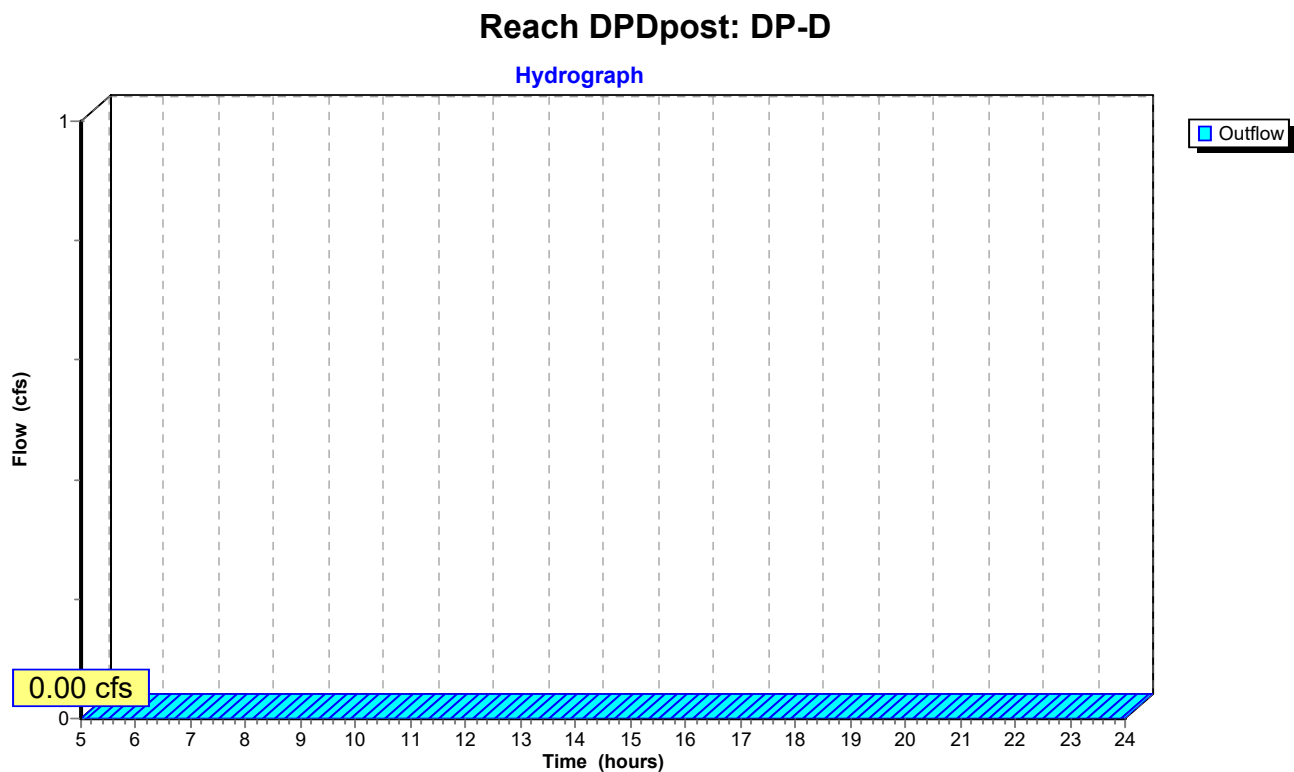
Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.49" for 100-Year event
Inflow = 0.53 cfs @ 12.98 hrs, Volume= 9,050 cf
Outflow = 0.53 cfs @ 12.98 hrs, Volume= 9,050 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPCpost: DP-C



Summary for Reach DPDpost: DP-D



Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

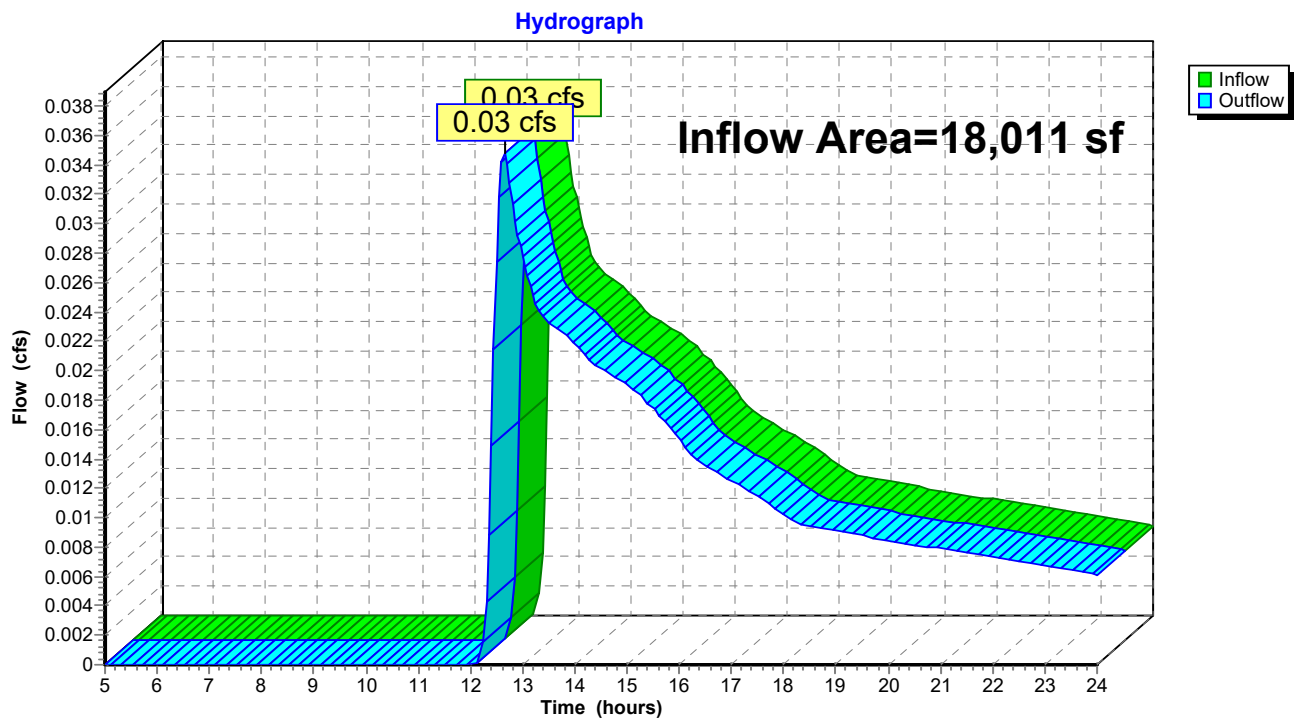
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Summary for Reach DPEpost: DP-E

Inflow Area = 18,011 sf, 4.19% Impervious, Inflow Depth > 0.37" for 100-Year event
Inflow = 0.03 cfs @ 12.65 hrs, Volume= 551 cf
Outflow = 0.03 cfs @ 12.65 hrs, Volume= 551 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPEpost: DP-E



Bridal Path Perimeter Post

Type III 24-hr 100-Year Rainfall=7.00"

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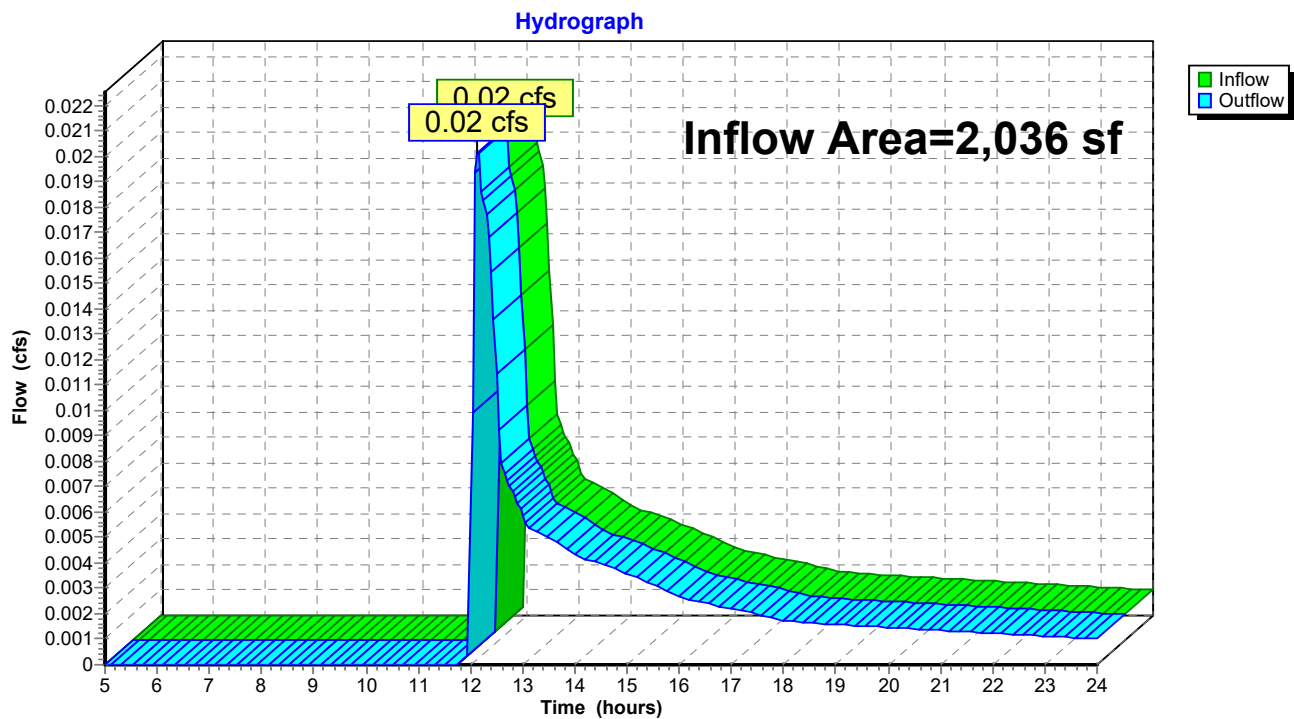
Page 78

Summary for Reach DPFpost: DP-F

Inflow Area = 2,036 sf, 0.00% Impervious, Inflow Depth > 0.77" for 100-Year event
Inflow = 0.02 cfs @ 12.14 hrs, Volume= 130 cf
Outflow = 0.02 cfs @ 12.14 hrs, Volume= 130 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach DPFpost: DP-F



Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Reach SWL C: Swale C

Inflow Area = 223,174 sf, 0.33% Impervious, Inflow Depth > 0.49" for 100-Year event
Inflow = 0.54 cfs @ 12.87 hrs, Volume= 9,162 cf
Outflow = 0.53 cfs @ 12.98 hrs, Volume= 9,050 cf, Atten= 2%, Lag= 6.4 min
Routed to Reach DPCpost : DP-C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.78 fps, Min. Travel Time= 10.1 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 15.1 min

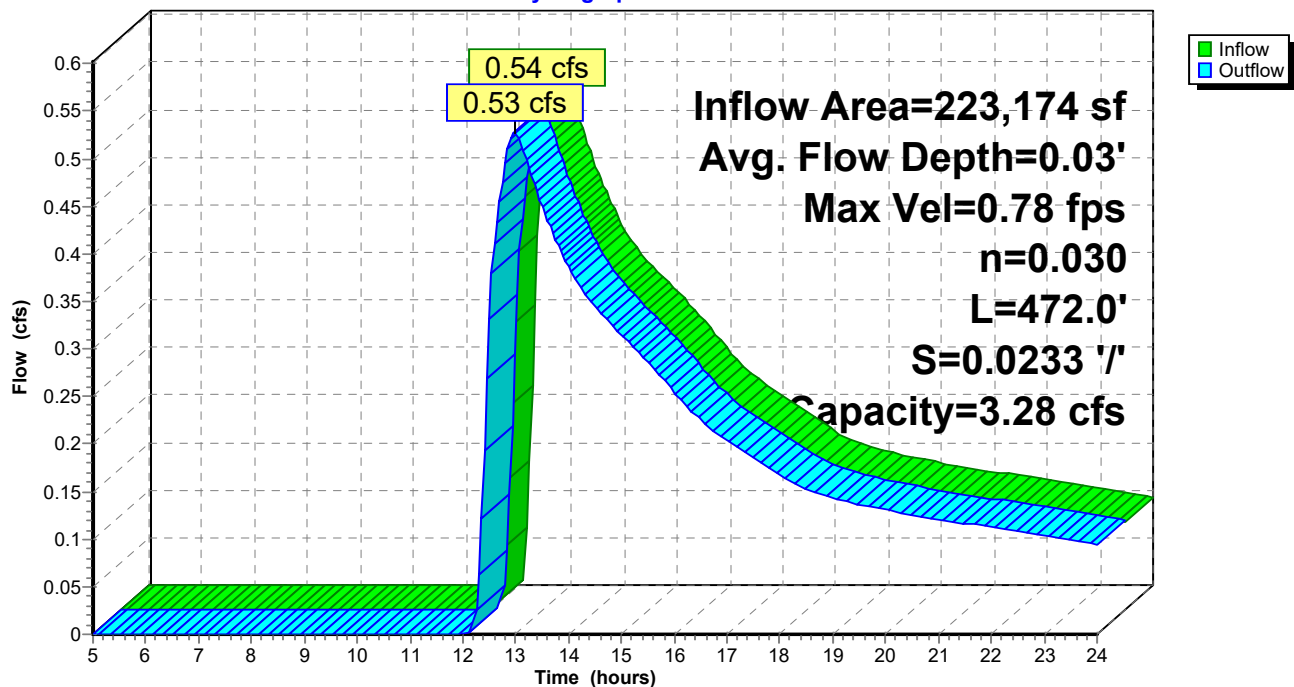
Peak Storage= 318 cf @ 12.98 hrs
Average Depth at Peak Storage= 0.03' , Surface Width= 20.27'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.28 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 472.0' Slope= 0.0233 '/'
Inlet Invert= 77.00', Outlet Invert= 66.00'



Reach SWL C: Swale C

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Reach SWL C: Swale C

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
77.00	0.00	0.00
77.01	0.35	0.07
77.02	0.56	0.22
77.03	0.73	0.44
77.04	0.88	0.71
77.05	1.02	1.03
77.06	1.15	1.40
77.07	1.27	1.81
77.08	1.39	2.26
77.09	1.50	2.75
77.10	1.61	3.28

Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Area-Storage for Reach SWL C: Swale C

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
77.00	0.0	0
77.01	0.2	95
77.02	0.4	190
77.03	0.6	285
77.04	0.8	381
77.05	1.0	477
77.06	1.2	573
77.07	1.4	670
77.08	1.6	767
77.09	1.8	865
77.10	2.0	963

Bridal Path Perimeter Post

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Reach SWL D: Swale (D)

Inflow Area = 167,977 sf, 0.44% Impervious, Inflow Depth > 0.52" for 100-Year event
Inflow = 0.45 cfs @ 12.82 hrs, Volume= 7,246 cf
Outflow = 0.44 cfs @ 12.90 hrs, Volume= 7,182 cf, Atten= 1%, Lag= 5.1 min
Routed to Reach SWL C : Swale C

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.71 fps, Min. Travel Time= 7.3 min
Avg. Velocity = 0.46 fps, Avg. Travel Time= 11.1 min

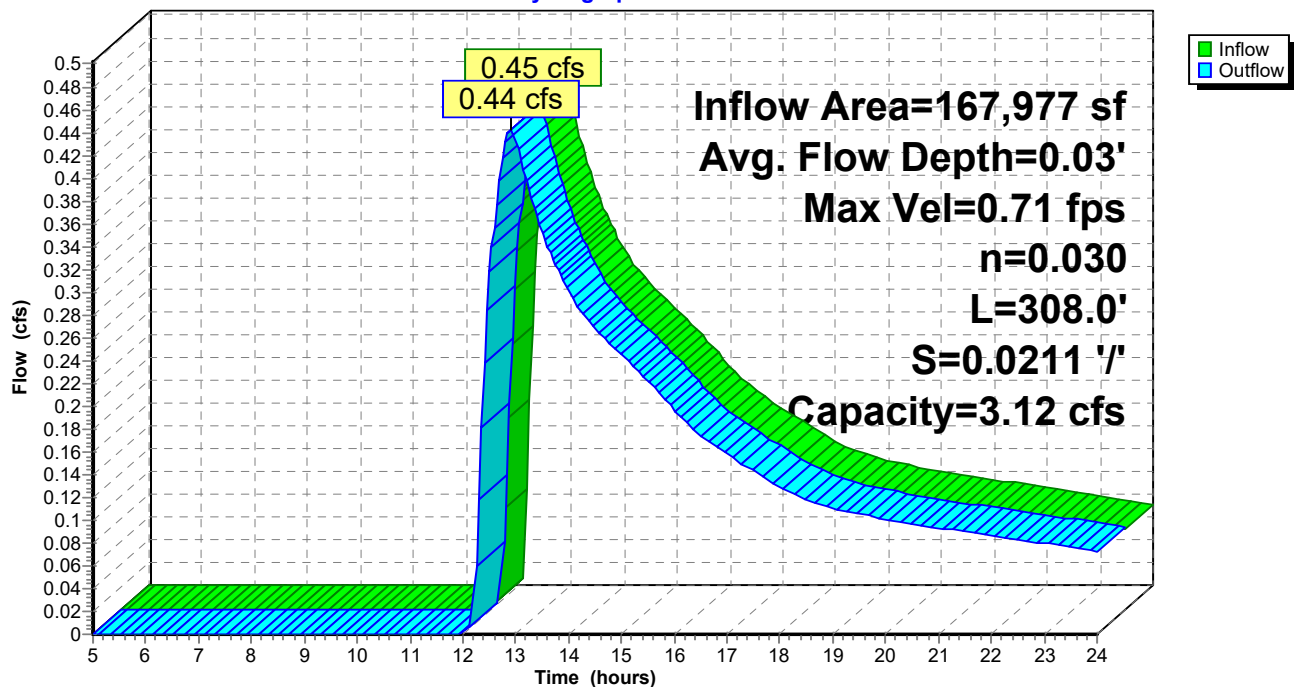
Peak Storage= 192 cf @ 12.90 hrs
Average Depth at Peak Storage= 0.03' , Surface Width= 20.25'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 3.12 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 308.0' Slope= 0.0211 '/'
Inlet Invert= 83.50', Outlet Invert= 77.00'



Reach SWL D: Swale (D)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

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Stage-Discharge for Reach SWL D: Swale (D)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
83.50	0.00	0.00
83.51	0.33	0.07
83.52	0.53	0.21
83.53	0.69	0.42
83.54	0.84	0.67
83.55	0.97	0.98
83.56	1.09	1.33
83.57	1.21	1.72
83.58	1.32	2.15
83.59	1.43	2.62
83.60	1.53	3.12

Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

Prepared by Grady Consulting LLC

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Stage-Area-Storage for Reach SWL D: Swale (D)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
83.50	0.0	0
83.51	0.2	62
83.52	0.4	124
83.53	0.6	186
83.54	0.8	248
83.55	1.0	311
83.56	1.2	374
83.57	1.4	437
83.58	1.6	501
83.59	1.8	564
83.60	2.0	628

Bridal Path Perimeter Post

Prepared by Grady Consulting LLC

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Type III 24-hr 100-Year Rainfall=7.00"

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Summary for Reach SWL E: Swale (E)

Inflow Area = 86,855 sf, 0.60% Impervious, Inflow Depth > 0.62" for 100-Year event
Inflow = 0.48 cfs @ 12.52 hrs, Volume= 4,494 cf
Outflow = 0.30 cfs @ 12.85 hrs, Volume= 4,335 cf, Atten= 36%, Lag= 19.7 min
Routed to Reach SWL D : Swale (D)

Routing by Dyn-Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.46 fps, Min. Travel Time= 28.7 min
Avg. Velocity = 0.28 fps, Avg. Travel Time= 46.9 min

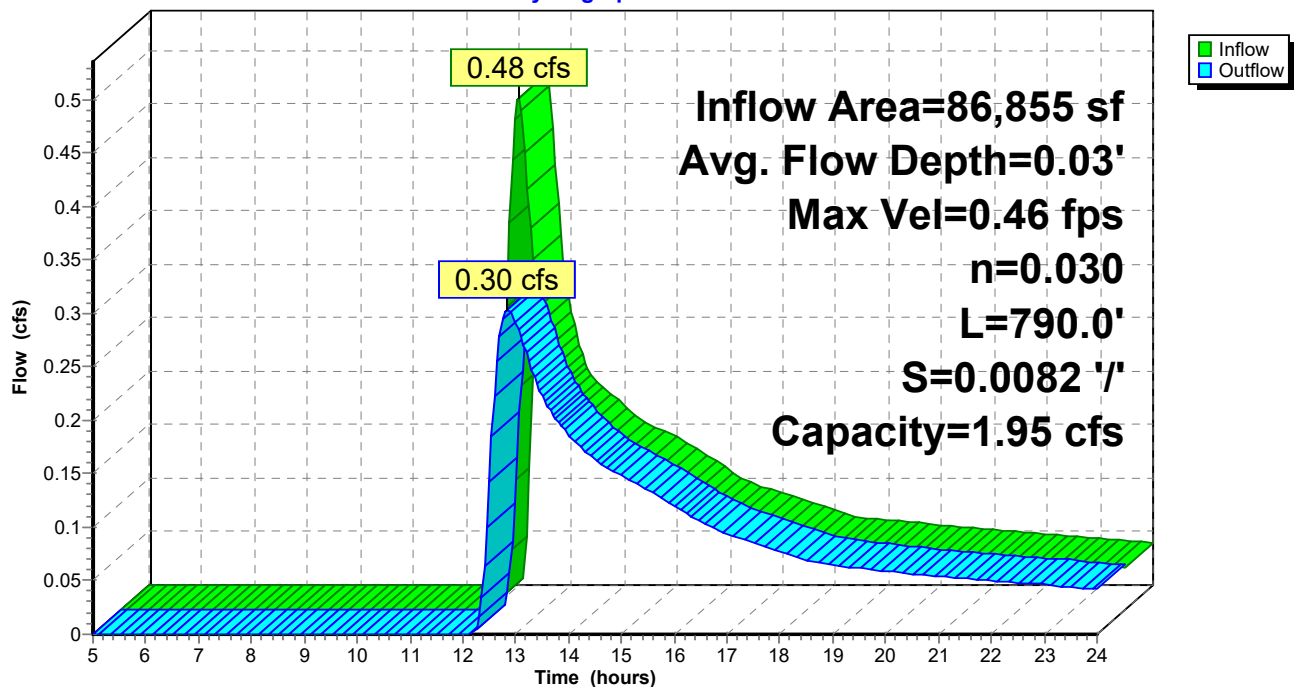
Peak Storage= 523 cf @ 12.85 hrs
Average Depth at Peak Storage= 0.03' , Surface Width= 20.26'
Bank-Full Depth= 0.10' Flow Area= 2.0 sf, Capacity= 1.95 cfs

20.00' x 0.10' deep channel, n= 0.030 Short grass
Side Slope Z-value= 4.0 '/' Top Width= 20.80'
Length= 790.0' Slope= 0.0082 '/'
Inlet Invert= 90.00', Outlet Invert= 83.50'



Reach SWL E: Swale (E)

Hydrograph



Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

Prepared by Grady Consulting LLC

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Stage-Discharge for Reach SWL E: Swale (E)

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
90.00	0.00	0.00
90.01	0.21	0.04
90.02	0.33	0.13
90.03	0.43	0.26
90.04	0.52	0.42
90.05	0.61	0.61
90.06	0.68	0.83
90.07	0.76	1.07
90.08	0.83	1.34
90.09	0.89	1.63
90.10	0.95	1.95

Bridal Path Perimeter Post*Type III 24-hr 100-Year Rainfall=7.00"*

Prepared by Grady Consulting LLC

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Stage-Area-Storage for Reach SWL E: Swale (E)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
90.00	0.0	0
90.01	0.2	158
90.02	0.4	317
90.03	0.6	477
90.04	0.8	637
90.05	1.0	798
90.06	1.2	959
90.07	1.4	1,121
90.08	1.6	1,284
90.09	1.8	1,448
90.10	2.0	1,612

Section II

Stormwater Management

◆ **STANDARD #1 No New Stormwater Conveyances**

The proposed development proposes no new stormwater conveyances that discharge untreated stormwater off-site or cause down gradient erosion.

◆ **STANDARD #2 Post Development Peak Discharge**

The overall site analysis demonstrates that the stormwater management system has been designed so that the post-development peak discharge rates do not exceed the pre-development discharge rate for the 2yr, 10 yr, 25yr & 100 yr 24 hr storm events.

◆ **STANDARD #3 RECHARGE TO GROUNDWATER**

Total impervious areas:

Pavement = 84,174 SF

Roof = 42,888 SF

Walkways = 17,516 SF

Soil group = A

$1'' \times 144,578 \text{ SF} \times 0.60 \times 1' / 12'' = 7,229 \text{ CF}$

Proposed total infiltration = 75,329 CF

Proposed infiltration Drywell Unit 1 = 2,579 CF

Proposed infiltration Drywell Unit 2 = 14,371 CF

Proposed infiltration Drywell Unit 3 = 10,986 CF

Proposed infiltration Drywell Unit 4 = 16,262 CF

Proposed infiltration Drywell Unit 5 = 31,131 CF

◆ **STANDARD #4 WATER QUALITY**

Total non-roof impervious areas:

Pavement = 84,174 SF

$1'' \times 84,174 \text{ SF} \times 1' / 12'' = 7,015 \text{ CF}$

Proposed total water quality volume = 75,329 CF

Proposed water quality volume Drywell Unit 1 = 2,579 CF

Proposed water quality volume Drywell Unit 2 = 14,371 CF

Proposed water quality volume Drywell Unit 3 = 10,986 CF

Proposed water quality volume Drywell Unit 4 = 16,262 CF

Proposed water quality volume Drywell Unit 5 = 31,131 CF

◆ **STANDARD #5 Land Uses With Higher Potential Pollutant Loads**

This site will not produce a higher potential pollutant load.

◆ **STANDARD #6 Critical Areas**

The site is located within a Zone II of a public well. 44% TSS removal at pretreatment is being provided with a catch basin and an oil/grit separator.

◆ **STANDARD #7 Redevelopment**

The project is not a redevelopment.

◆ **STANDARD #8 Erosion & Sediment Control Plan**

Erosion and sediment controls are detailed within the erosion control plan.

◆ **STANDARD #9 Operation & Maintenance Plan**

See O&M plan attached hereto.

◆ **STANDARD #10 Illicit Discharge Statement**

“All illicit discharges to the stormwater management system are prohibited.”

This statement is intended to meet Standard #10 of the Stormwater Management requirements

Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater.

Except for the potential for deliberate criminal act of discharge by an unauthorized entity for which the property owner has no control, there are to be no illicit discharges into the stormwater system.

Applicant\Owner

INSTRUCTIONS:

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location:

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
	Oil Grit Separator	0.25	0.75	0.19	0.56
		0.00	0.56	0.00	0.56
		0.00	0.56	0.00	0.56
		0.00	0.56	0.00	0.56

Total TSS Removal =

44%

Separate Form Needs to
be Completed for Each
Outlet or BMP Train

Project:
 Prepared By:
 Date:

*Equals remaining load from previous BMP (E)
which enters the BMP

INSTRUCTIONS:

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location:

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
	Oil Grit Separator	0.25	0.75	0.19	0.56
	Subsurface Infiltration Structure	0.80	0.56	0.45	0.11
		0.00	0.11	0.00	0.11
		0.00	0.11	0.00	0.11

Total TSS Removal =

89%

Separate Form Needs to
be Completed for Each
Outlet or BMP Train

Project: Prepared By: Date:

*Equals remaining load from previous BMP (E)
which enters the BMP

Non-automated TSS Calculation Sheet
must be used if Proprietary BMP Proposed

1. From MassDEP Stormwater Handbook Vol. 1



Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

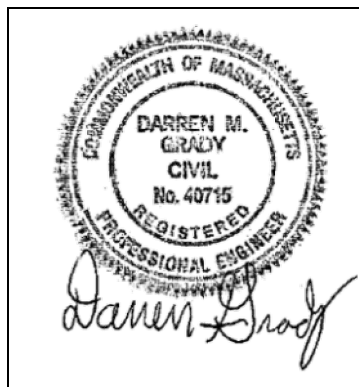
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



January 4, 2024

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- ☒ New development
- ☐ Redevelopment
- ☐ Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☒ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
 - ☐ Credit 1
 - ☐ Credit 2
 - ☐ Credit 3
- ☒ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☒ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☒ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☒ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- ☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- ☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- ☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- ☐ Soil Analysis provided.
- ☒ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - ☒ Static
 - ☐ Simple Dynamic
 - ☐ Dynamic Field¹
- ☒ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
 - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
 - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- ☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- ☒ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- ☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - ☒ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - ☐ is within the Zone II or Interim Wellhead Protection Area
 - ☒ is near or to other critical areas
 - ☒ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - ☐ involves runoff from land uses with higher potential pollutant loads.
 - ☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - ☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- ☒ The BMP is sized (and calculations provided) based on:
 - ☒ The ½" or 1" Water Quality Volume or
 - ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☒ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- ☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- ☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- ☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- ☒ The NPDES Multi-Sector General Permit does **not** cover the land use.
- ☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- ☐ All exposure has been eliminated.
- ☐ All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- ☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- ☒ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- ☒ Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- ☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - ☐ Limited Project
 - ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - ☐ Bike Path and/or Foot Path
 - ☐ Redevelopment Project
 - ☐ Redevelopment portion of mix of new and redevelopment.
- ☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- ☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- ☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- ☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- ☐ The project is **not** covered by a NPDES Construction General Permit.
- ☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- ☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- ☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - ☒ Name of the stormwater management system owners;
 - ☒ Party responsible for operation and maintenance;
 - ☒ Schedule for implementation of routine and non-routine maintenance tasks;
 - ☒ Plan showing the location of all stormwater BMPs maintenance access areas;
 - ☒ Description and delineation of public safety features;
 - ☒ Estimated operation and maintenance budget; and
 - ☒ Operation and Maintenance Log Form.
- ☐ The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- ☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- ☒ An Illicit Discharge Compliance Statement is attached;
- ☐ NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.

OPERATION AND MAINTENANCE PLAN
PROPOSED SITE WORK – DURING CONSTRUCTION
G12-29-02
Bridle Crossing off Ferry St.
Marshfield, Massachusetts

Owner:

Matlin LLC c/o
Kevin Sealund & Matthew Dacey
794 Washington Street
Pembroke, MA 02359

Party Responsible for Operation and Maintenance:

Matlin LLC c/o
Kevin Sealund & Matthew Dacey
794 Washington Street
Pembroke, MA 02359

Source of Funding:

Operation and Maintenance of this stormwater management system will be the responsibility of the property owner to include its successor and/or assigns, as the same may appear on record with the appropriate register of deeds.

During Construction:

Construction activities shall follow the Construction Sequence shown on the approved plans. During periods of active construction the stormwater management system shall be inspected on a weekly basis and within 24 hours of a storm event of greater than ½". Maintenance tasks shall be performed monthly or after significant rainfall events of 1" of rain or greater. During construction, silt-laden runoff shall be prevented from entering the drainage system and off-site properties. Temporary swales shall be constructed as needed during construction to direct runoff to sediment traps. Infiltration systems and subsurface storage systems shall not be placed in service until after the installation of base course pavement and vegetative stabilization of the areas contributing to the systems.

During dewatering operations, all water pumped from the dewatering shall be directed to a "dirt bag" pumped sediment removal system (or approved equal) as manufactured by ACF Environmental. Water from construction dewatering activities should not be directed into any of the existing or proposed stormwater management facilities system unless it is fully treated prior to discharge. The unit shall be placed on a crushed stone blanket. Disposal of such "dirt bag" shall occur when the device is full and can no longer effectively filter sediment or allow water to pass at a reasonable flow rate. Disposal of this unit shall be the responsibility of the contractor and shall be as directed by the owner in accordance with applicable local, state, and federal guidelines and regulations.

Stabilized construction entrances shall be placed at the entrances and shall consist of 1½" to 2" stone and be constructed as shown on the approved plans.

All erosion and sedimentation control measures shall be in place prior to the commencement of any site work or earthwork operations, and shall be maintained during construction, and shall remain in place until all site work is complete and ground cover is established.

Heavy equipment shall not be used on basin bottoms.

All exposed soils not to be paved shall be stabilized as soon as practical. Seed mixes shall only be applied during appropriate periods as recommended by the seed supplier, typically May 1 to October 15. Any exposed soils that cannot be stabilized by vegetation during these dates shall be stabilized with hay bales, hay mulch, check dams, jute netting or other acceptable means.

Once each structure is in place, it should be maintained in accordance with the procedures described in the post-construction Operations and Maintenance Plan.

During dry periods where dust is created by construction activities the following control measures should be implemented.

- Sprinkling – The contractor may sprinkle the ground along haul roads and traffic areas until moist.
- Vegetative cover – Areas that are not expected to be disturbed regularly may be stabilized with vegetative cover.
- Mulch – Mulching can be used as a quick and effective means of dust control in recently disturbed areas.
- Spray on chemical soil treatments may be utilized. Application rates shall conform to manufacturers recommendations.

Illicit Discharges

Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. Illicit discharges are prohibited from the stormwater management system and the stormwater management system shall be inspected for illicit discharges annually.

The following is a list of discharges that are allowed under the EPA Construction General Permit (CGP) provided that appropriate stormwater controls are designed, installed, and maintained:

- a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR §122.26(b)(14) or § 122.26(b)(15)(i);
- b. Stormwater discharges designated by EPA as needing a permit under 40 CFR § 122.26(a)(1)(v) or §122.26(b)(15)(ii);
- c. Stormwater discharges from construction support activities (*e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas*) provided:
 - i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;
 - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction projects;
 - iii. The support activity does not continue to operate beyond the completion of the construction activity at the project it supports; and
 - iv. Stormwater controls are implemented in accordance with Part 2 of the CGP and, if applicable, Part 3 of the CGP, for discharges from the support activity areas.

The following non-stormwater discharges from your construction activity, provided that, with the exception of water used to control dust and to irrigate areas to be

vegetatively stabilized, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Part 2 of the CGP:

- i. Discharges from emergency fire-fighting activities;
- ii. Fire hydrant flushings;
- iii. Landscape irrigation;
- iv. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
- v. Water used to control dust;
- vi. Potable water including uncontaminated water line flushings;
- vii. Routine external building washdown that does not use detergents;
- viii. Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used. You are prohibited from directing pavement wash waters directly into any surface water, storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
- ix. Uncontaminated air conditioning or compressor condensate;
- x. Uncontaminated, non-turbid discharges of ground water or spring water;
- xi. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
- xii. Construction dewatering water that has been treated by an appropriate control under Part 2.1.3.4 of the CGP; and
- e. Discharges of stormwater listed above in Parts a, b, and c, or authorized nonstormwater discharges in Part d above, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

For additional information, refer to Performance, Standards and Guidelines for Stormwater Management in Massachusetts, published by the Department of Environmental Protection.

STORMWATER MANAGEMENT
BEST MANAGEMENT PRACTICES
INSPECTION SCHEDULE AND EVALUATION CHECKLIST – CONSTRUCTION PHASE

PROJECT LOCATION: Bridle Crossing off Ferry St.

Latest Revision: November, 13 2023

Stormwater Control Manager: _____

Stamp

Best Management Practice	Inspection Frequency (1)	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed yes/no List items	Date of Cleaning/Repair	Performed By	Water Level in Detention System
Silt socks & swales and silt traps	After every major storm event							
Dewatering Operations	Daily-during actual dewatering							
Temporary Construction Entrance	Daily or as needed.							

(1) Refer to the Massachusetts Stormwater Management, Volume Two: Stormwater Technical Handbook for recommendations regarding frequency for inspection and maintenance of specific BMPs.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. Slow release fertilizer recommended.

Other notes:(Include deviations from: Con Com Order of Conditions, PB Approval, Construction Sequence and Approved Plan)

OPERATION AND MAINTENANCE PLAN
PROPOSED DRAINAGE SYSTEM – POST CONSTRUCTION
G12-29-02
Bridle Crossing off Ferry St.
Marshfield, Massachusetts

Owner:

Matlin LLC c/o
Kevin Sealund & Matthew Dacey
794 Washington Street
Pembroke, MA 02359

Party Responsible for Operation and Maintenance:

After construction is complete the owner will be the party responsible for operation and maintenance of the drainage system. When the property is conveyed, the new owner will be the party responsible for operation and maintenance.

Source of Funding:

Operation and Maintenance of this stormwater management system will be the responsibility of the owner. The estimated annual budget for the operation and maintenance of the stormwater system is \$1,000.

Schedule for Inspection and Maintenance:

Deep Sump Catch Basins

Deep sump catch basins shall become part of the roadway system and shall be inspected after every major storm event during construction and cleaned when sediment exceeds 24" depth. After construction when all slopes have been stabilized, basins shall be cleaned a minimum of 4 times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert (2 ft). Disposal of the accumulated sediment shall be in accordance with applicable local, state, and federal guidelines and regulations.

Oil & Grit Separators

Oil and Grit Separators should be inspected monthly and cleaned out at least twice a year. Maintenance Sediments and associated pollutants and trash are removed only when inlets or sumps are cleaned out, so regular maintenance is essential. Cleaning includes removal of accumulated oil and grease and sediment using a vacuum truck or other ordinary catch basin cleaning device. In areas of high sediment loading, inspect and clean inlets after every major storm. Polluted water or sediments removed from an oil grit separator should be disposed of in accordance with all applicable local, state and federal laws and regulations including M.G.L.c. 21C and 310 CMR 30.

Subsurface Drainage Systems Maintenance Schedule (Dry Wells)

Inspect Inlets and access manholes twice per year. Remove any debris that might clog the system.

After construction, the systems should be inspected for standing water 1-2 days after any significant rainfall exceeding 1" of rainfall in 24 hours or major storm event. If the system is continuing to hold standing water after 2 days the owner should have it inspected and repaired. The systems should also be inspected to verify whether infiltration function has been lost. If infiltration capacity has become degraded, it should be restored under the direction of a qualified professional.

The subsurface systems should be inspected twice per year and at least once per year by a drainage system professional to ensure that the system is operating as intended. The owner shall implement and pay for the inspector's recommendations.

Grass Swale

Inspect semi-annually the first year, and at least once a year thereafter. Inspect the grass for growth and the side slopes for signs of erosion and formation of rills and gullies. Plant an alternative grass species if the original grass cover is not successfully established. If grass growth is impaired by winter road salt or other deicer use, re-establish the grass in the spring.

Trash/Debris Removal: Remove accumulated trash and debris prior to mowing. Sediment Removal: Check on a yearly basis and clean as needed. Use hand methods (i.e., a person with a shovel) when cleaning to minimize disturbance to vegetation and underlying soils. Sediment build-up in the grass channel reduces its capacity to treat and convey the water quality event, 2-year and 10-year 24-hour storm. Set the mower blades no lower than 3 to 4 inches above the ground. Do not mow beneath the depth of the design flow during the storm associated with the water quality event (e.g., if the design flow is no more than 4 inches, do not cut the grass shorter than 4 inches). Mow on an as-needed basis during the growing season so that the grass height does not exceed 6 inches.

Lawn Fertilization

Lawn fertilizer shall be slow release and limited to 3 lbs per 1000 s.f. per year.

Stormwater Contamination Prevention

Exterior storage of hazardous materials including deicing chemicals, fertilizers, herbicides, pesticides, and other hazardous materials is prohibited. All materials are to be stored inside of the buildings no exterior storage of materials is allowed. No fueling of equipment is allowed on the premises and is prohibited.

Individual storage unit users shall be notified of the prohibition of illicit discharges to the stormwater management system.

Snow Removal and De-icing

Snow removal will be the responsibility of the Owner. Snow will be plowed from Parking areas and driveways and shoveled or removed with a snow blower from walkways. Snow will be stored along roadways and walkways as shown on the Site Plan. If additional stockpiling area is needed, excess snow will be removed from the site with proper off-site disposal. Snow shall be stockpiled in areas where melting will be directed through the drainage systems and not directly to the wetlands. Stockpiling within any rain garden and infiltration areas is prohibited.

Pet Waste Management

Individual dog owners shall pick up after their dogs on their own lawns and dispose of the waste either in the trash or in some cases flushing it down the toilet.

Inspections

Yearly inspections of the stormwater management system shall be performed and an Inspection Schedule and Evaluation Checklist shall be maintained by the Owner and made available to regulatory officials if requested. Copies of the receipts for cleaning of the systems shall also be maintained.

The Owner shall be responsible to secure the services of a Licensed Engineer on an on-going basis. The inspector shall review the project with respect to the following:

- Proper installation and performance of the Stormwater Management System.
- Review of the controls to determine any damaged or ineffective controls.
- Corrective actions.

The Engineer shall prepare, stamp and submit, to the Owner, a report documenting the findings and should request the required maintenance or repair for the pollution prevention controls when the inspector finds that it is necessary for the control to be effective (see attached Inspection Schedule and Evaluation Checklist). The inspector shall notify the Owner to make the changes.

The owner and/or their employees responsible for the O&M of the stormwater management system shall be trained annually. Records of trained individuals shall be kept and submitted to the town with the check list. The records shall indicate the latest training date.

The attached inspection form shall be retained and kept available for a minimum of three years.

For additional information, refer to Performance, Standards and Guidelines for Stormwater Management in Massachusetts, published by the Department of Environmental Protection

Definition of Major Storm Event

For the purposes of this operation and maintenance plan a major storm event should be defined as a rainfall of such intensity or duration that causes observable movement of sediment on the roadway or site. It is the intent of this plan to prevent this sediment from entering the drainage system. Prior to stabilization of the site this may occur more frequently with less intense storms. As the site is stabilized with ground cover the movement of sediment will only occur during more severe storms.

Illicit Discharges

Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. Illicit discharges are prohibited from the stormwater management system and the stormwater management system shall be inspected for illicit discharges annually.

This Standard prohibits illicit discharges to stormwater management systems. The stormwater management system is the system for conveying, treating, and infiltrating stormwater on-site, including stormwater best management practices and any pipes intended to transport stormwater to the groundwater, a surface water, or municipal separate storm sewer system. Illicit discharges to the stormwater management system are discharges that are not entirely comprised of

stormwater. Notwithstanding the foregoing, an illicit discharge does not include discharges from the following activities or facilities: firefighting, water line flushing, landscape irrigation, uncontaminated groundwater, potable water sources, foundation drains, air conditioning condensation, footing drains, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated water from swimming pools, water used for street washing and water used to clean residential buildings without detergents.

For additional information, refer to Performance Standards and Guidelines for Stormwater Management in Massachusetts, published by the Department of Environmental Protection.

STORMWATER MANAGEMENT
BEST MANAGEMENT PRACTICES

INSPECTION SCHEDULE AND EVALUATION CHECKLIST – POST CONSTRUCTION PHASE

PROJECT LOCATION: Bridle Crossing off Ferry St.
Latest Revision November 10, 2023

Best Management Practice	Inspection Frequency (1)	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed yes/no List items	Date of Cleaning/Repair	Performed By	Water Level in Drainage System
Deep Sump Hooded Catch Basins	4 times per year							
Oil & Grit Separators	Monthly							
Subsurface Dry Well	Twice per year							
Grass Swale	Semi-Annually 1st Year Annually Thereafter							

- (1) Refer to the Massachusetts Stormwater Management, Volume Two: Stormwater Technical Handbook for recommendations regarding frequency for inspection and maintenance of specific BMPs.
(2) records shall be kept for a minimum of three years.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. Slow release fertilizer recommended.
Other notes:(Include deviations from: Con Com Order of Conditions, PB Approval, Construction Sequence and Approved Plan)

Stormwater Control Manager: _____

Stamp

Deep Sump Catch Basin



Description: Deep sump catch basins, also known as oil and grease or hooded catch basins, are underground retention systems designed to remove trash, debris, and coarse sediment from stormwater runoff, and serve as temporary spill containment devices for floatables such as oils and greases.

Ability to meet specific standards

Standard	Description
2 - Peak Flow	Provides no peak flow attenuation
3 - Recharge	Provides no groundwater recharge
4 - TSS Removal	25% TSS removal credit when used for pretreatment. Because of their limited effectiveness and storage capacity, deep sump catch basins receive credit for removing TSS only if they are used for pretreatment and designed as off-line systems.
5 - Higher Pollutant Loading	Recommended as pretreatment BMP. Although provides some spill control capability, a deep sump catch basin may not be used in place of an oil grit separator or sand filter for land uses that have the potential to generate runoff with high concentrations of oil and grease such as: high-intensity-use parking lots, gas stations, fleet storage areas, vehicle and/or equipment maintenance and service areas.
6 - Discharges near or to Critical Areas	May be used as pretreatment BMP. not an adequate spill control device for discharges near or to critical areas.
7 - Redevelopment	Highly suitable.

Advantages/Benefits:

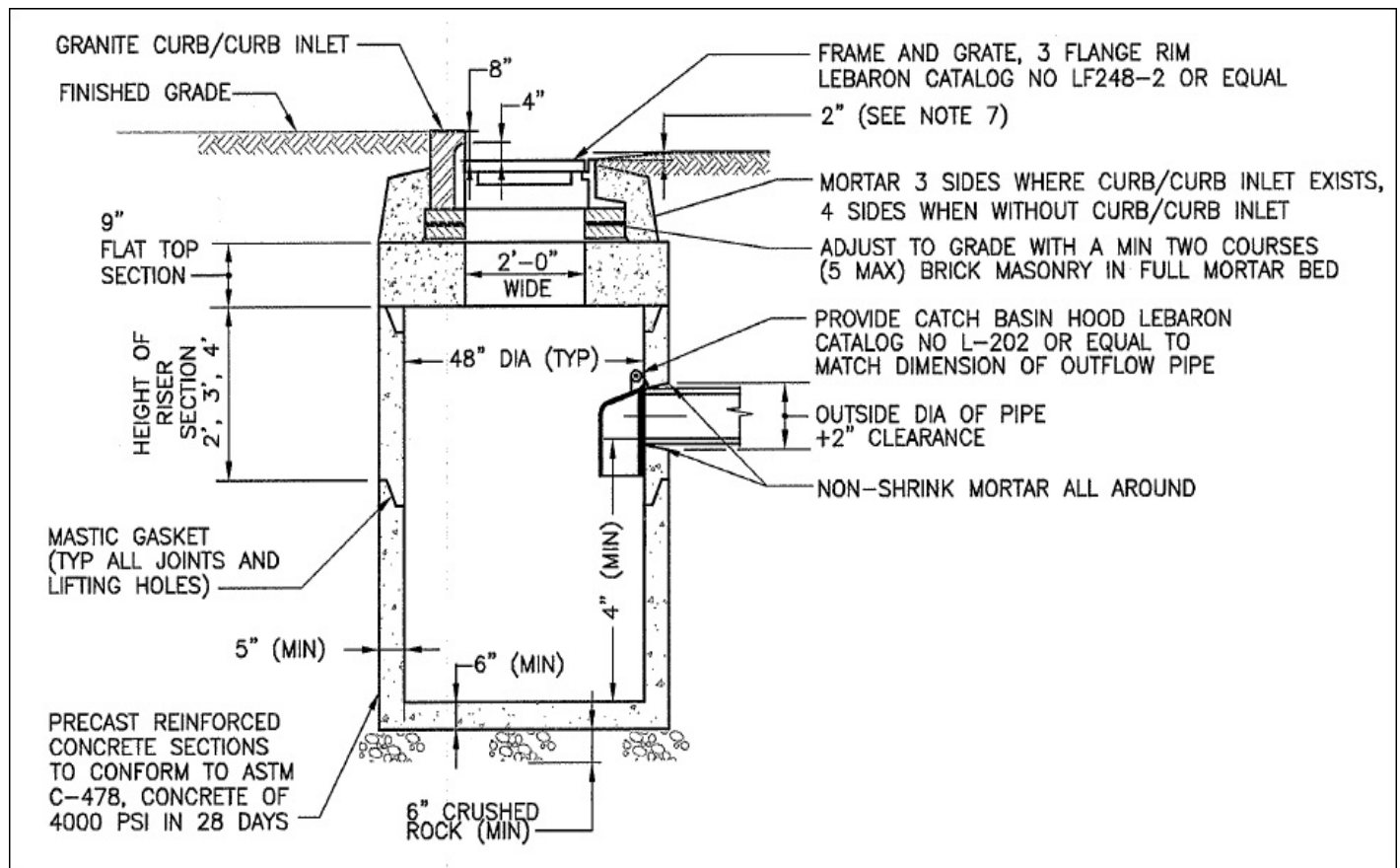
- Located underground, so limited lot size is not a deterrent.
- Compatible with subsurface storm drain systems.
- Can be used for retrofitting small urban lots where larger BMPs are not feasible.
- Provide pretreatment of runoff before it is delivered to other BMPs.
- Easily accessed for maintenance.
- Longevity is high with proper maintenance.

Disadvantages/Limitations:

- Limited pollutant removal.
- Expensive to install and maintain, resulting in high cost per unit area treated.
- No ability to control volume of stormwater
- Frequent maintenance is essential
- Requires proper disposal of trapped sediment and oil and grease
- Entrapment hazard for amphibians and other small animals

Pollutant Removal Efficiencies

- Total Suspended Solids (TSS) - 25% (for regulatory purposes)
- Nutrients (Nitrogen, phosphorus) - Insufficient data
- Metals (copper, lead, zinc, cadmium) - Insufficient data
- Pathogens (coliform, e coli) - Insufficient data



adapted from the University of New Hampshire

Maintenance

Activity	Frequency
Inspect units	Four times per year
Clean units	Four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin.

Special Features

All deep sump catch basins must include hoods. For MassHighway projects, consult the Stormwater Handbook for Highways and Bridges for hood requirements.

LID Alternative

Reduce Impervious Surface

Disconnect rooftop and non-rooftop runoff

Vegetated Filter Strip

Deep Sump Catch Basin

Suitable Applications

- Pretreatment
- Residential subdivisions
- Office
- Retail

Design Considerations

- The contributing drainage area to any deep sump catch basin should not exceed $\frac{1}{4}$ acre of impervious cover.
 - Design and construct deep sump catch basins as off-line systems.
 - Size the drainage area so that the flow rate does not exceed the capacity of the inlet grate.
 - Divert excess flows to another BMP intended to meet the water quantity requirements (peak rate attenuation) or to a storm drain system.
- An off-line design enhances pollutant removal efficiency, because it prevents the resuspension of sediments in large storms.

Make the sump depth (distance from the bottom of the outlet pipe to the bottom of the basin) at least four feet times the diameter of the outlet pipe and more if the contributing drainage area has a high sediment load. The minimum sump depth is 4 feet. Double catch basins, those with 2 inlet grates, may require deeper sumps. Install the invert of the outlet pipe at least 4 feet from the bottom of the catch basin grate.

The inlet grate serves to prevent larger debris from entering the sump. To be effective, the grate must have a separation between the grates of one square inch or less. The inlet openings must not allow flows greater than 3 cfs to enter the deep sump catch basin. If the inlet grate is designed with a curb cut, the grate must reach the back of the curb cut to prevent bypassing. The inlet grate must be constructed of a durable material and fit tightly into the frame so it won't be dislodged by automobile traffic. The inlet grate must not be welded to the frame so that sediments may be easily removed. To facilitate maintenance, the inlet grate must be placed along the road shoulder or curb line rather than a traffic lane.

Note that within parking garages, the State Plumbing Code regulates inlet grates and other stormwater

management controls. Inlet grates inside parking garages are currently required to have much smaller openings than those described herein.

To receive the 25% removal credit, hoods must be used in deep sump catch basins. Hoods also help contain oil spills. MassHighway may install catch basins without hoods provided they are designed, constructed, operated, and maintained in accordance with the Mass Highway Stormwater Handbook.

Install the weep hole above the outlet pipe. Never install the weep hole in the bottom of the catch basin barrel.

Site Constraints

A proponent may not be able to install a deep sump catch basin because of:

- Depth to bedrock;
- High groundwater;
- Presence of utilities; or
- Other site conditions that limit depth of excavation because of stability.

Maintenance

Regular maintenance is essential. Deep sump catch basins remain effective at removing pollutants only if they are cleaned out frequently. One study found that once 50% of the sump volume is filled, the catch basin is not able to retain additional sediments.

Inspect or clean deep sump basins at least four times per year and at the end of the foliage and snow-removal seasons. Sediments must also be removed four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin. If handling runoff from land uses with higher potential pollutant loads or discharging runoff near or to a critical area, more frequent cleaning may be necessary.

Clamshell buckets are typically used to remove sediment in Massachusetts. However, vacuum trucks are preferable, because they remove more trapped sediment and supernatant than clamshells. Vacuuming is also a speedier process and is less likely to snap the cast iron hood within the deep sump catch basin.

Always consider the safety of the staff cleaning deep sump catch basins. Cleaning a deep sump catch basin within a road with active traffic or even within a parking lot is dangerous, and a police detail may be necessary to safeguard workers.

Although catch basin debris often contains concentrations of oil and hazardous materials such as petroleum hydrocarbons and metals, MassDEP classifies them as solid waste. Unless there is evidence that they have been contaminated by a spill or other means, MassDEP does not routinely require catch basin cleanings to be tested before disposal. Contaminated catch basin cleanings must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste.

In the absence of evidence of contamination, catch basin cleanings may be taken to a landfill or other facility permitted by MassDEP to accept solid waste, without any prior approval by MassDEP. However, some landfills require catch basin cleanings to be tested before they are accepted.

With prior MassDEP approval, catch basin cleanings may be used as grading and shaping materials at landfills undergoing closure (see Revised Guidelines for Determining Closure Activities at Inactive Unlined Landfill Sites) or as daily cover at active landfills. MassDEP also encourages the beneficial reuse of catch basin cleanings whenever possible. A Beneficial Reuse Determination is required for such use.

MassDEP regulations prohibit landfills from accepting materials that contain free-draining liquids. One way to remove liquids is to use a hydraulic lift truck during cleaning operations so that the material can be decanted at the site. After loading material from several catch basins into a truck, elevate the truck so that any free-draining liquid can flow back into the structure. If there is no free water in the truck, the material may be deemed to be sufficiently dry. Otherwise the catch basin cleanings must undergo a Paint Filter Liquids Test. Go to www.Mass.gov/dep/recycle/laws/cafacts.doc for information on all of the MassDEP requirements pertaining to the disposal of catch basin cleanings.

Oil/Grit Separators



Description: Oil/grit separators are underground storage tanks with three chambers designed to remove heavy particulates, floating debris and hydrocarbons from stormwater.

Stormwater enters the first chamber where heavy sediments and solids drop out. The flow moves into the second chamber where oils and greases are removed and further settling of suspended solids takes place. Oil and grease are stored in this second chamber for future removal. After moving into the third outlet chamber, the clarified stormwater runoff is then discharged to a pipe and another BMP. There are other separators that may be used for spill control.

Ability to meet specific standards

Standard	Description
2 - Peak Flow	Provides no peak flow attenuation
3 - Recharge	Provides no groundwater recharge
4 - TSS Removal	25% TSS removal credit when used for pretreatment and placed off-line.
5 - Higher Pollutant Loading	MassDEP requires a pretreatment BMP, such as an oil/grit separator that is capable of removing oil and grease, for land uses with higher potential pollutant loads where there is a risk of petroleum spills such as: high intensity use parking lots, gas stations, fleet storage areas, vehicle and/or equipment maintenance and service areas.
6 - Discharges near or to Critical Areas	May be a pretreatment BMP when combined with other practices. May serve as a spill control device.
7 - Redevelopment	Highly suitable.

Advantages/Benefits:

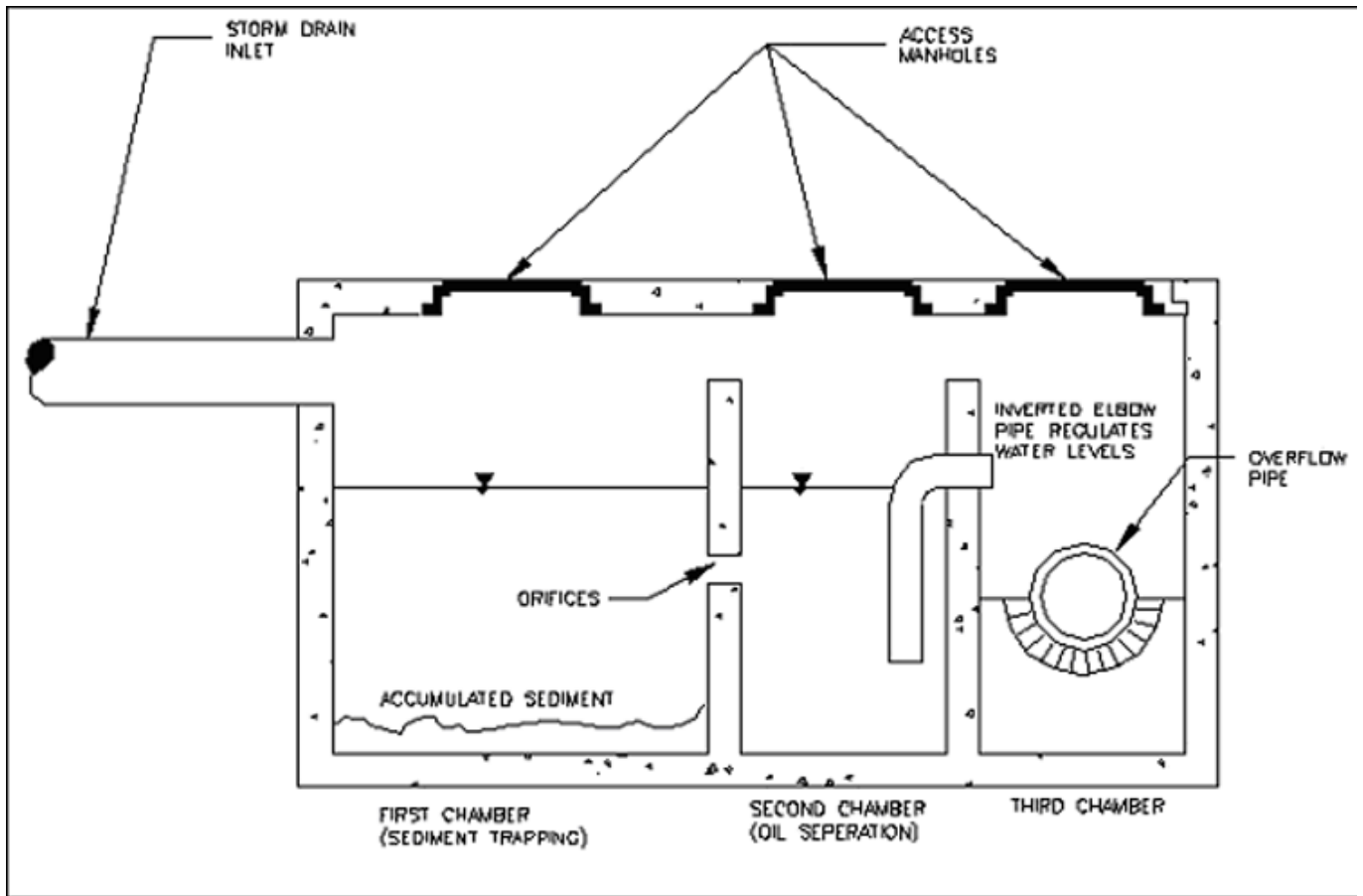
- Located underground so limited lot size not a deterrent in urban areas with small lots
- Can be used for retrofits
- Can be installed in any soil or terrain.
- Public safety risks are low.

Disadvantages/Limitations:

- Limited pollutant removal; cannot effectively remove soluble pollutants, fine particles, or bacteria
- Can become a source of pollutants due to resuspension of sediment unless properly maintained
- Susceptible to flushing during large storms
- Limited to relatively small contributing drainage areas
- Requires proper disposal of trapped sediments and oils
- May be expensive to construct and maintain
- Entrapment hazard for amphibians and other small animals

Pollutant Removal Efficiencies

- Total Suspended Solids (TSS) - 25% for oil grit separator, only when placed off-line and only when used for pretreatment
- Nutrients (Nitrogen, phosphorus) - Insufficient data
- Metals (copper, lead, zinc, cadmium) - Insufficient data
- Pathogens (coliform, e coli) - Insufficient data



MassHighway 2004

Maintenance

Activity	Frequency
Inspect units	After every major storm but at least monthly
Clean units	Twice a year

Oil/Grit Separators

Applicability

Oil grit separators must be used to manage runoff from land uses with higher potential pollutant loads where there is a risk that the stormwater is contaminated with oil or grease. These uses include the following:

- High-Intensity-Use Parking Lots
- Gas Fueling Stations
- Vehicles (including boats, buses, cars, and trucks) and Equipment Service and Maintenance Areas
- Fleet Storage Areas

Design Considerations

- Dovetail design practices, source controls and pollution prevention measures with separator design.
- Place separators before all other structural stormwater treatment practices (except for structures associated with source control/pollution prevention such as drip pans and structural treatment practices such as deep sump catch basins that double as inlets).
- Limit the contributing drainage area to the oil/grit separator to one acre or less of impervious cover.
- Use oil grit separators only in off-line configurations to treat the required water quality volume.
- Provide pool storage in the first chamber to accommodate the required water quality volume or 400 cubic feet per acre of impervious surface. Confirm that the oil/grit separator is designed to treat the required water quality volume.
- Make the permanent pool at least 4 feet deep.
- Design the device to pass the 2-year 24-hour storm without interference and provide a bypass for larger storms to prevent resuspension of solids.
- Make oil/grit separator units watertight to prevent possible groundwater contamination.
- Use a trash rack or screen to cover the discharge outlet and orifices between chambers.
- Provide each chamber with manholes and access stepladders to facilitate maintenance and allow cleaning without confined space entry.
- Seal potential mosquito entry points.
- Install any pump mechanism downstream of the separator to prevent oil emulsification.
- Locate an inverted elbow pipe between the second and third chambers and with the bottom

of the elbow pipe at least 3 feet below the second chamber's permanent pool.

- Provide appropriate removal covers that allow access for observation and maintenance.
- Where the structure is located below the seasonal high groundwater table, design the structure to prevent flotation.
- For gas stations, automobile maintenance and service areas, and other areas where large volumes of petroleum and oil are handled, consider adding coalescing plates to increase the effectiveness of the device and reduce the size of the units. A series of coalescing plates constructed of oil-attracting materials such as polypropylene typically spaced one inch apart attracts small droplets of oil, which begin to concentrate until they are large enough to float to the surface.

Maintenance

Sediments and associated pollutants and trash are removed only when inlets or sumps are cleaned out, so regular maintenance is essential. Most studies have linked the failure of oil grit separators to the lack of regular maintenance. The more frequent the cleaning, the less likely sediments will be resuspended and subsequently discharged. In addition, frequent cleaning also makes more volume available for future storms and enhances overall performance. Cleaning includes removal of accumulated oil and grease and sediment using a vacuum truck or other ordinary catch basin cleaning device. In areas of high sediment loading, inspect and clean inlets after every major storm. At a minimum, inspect oil grit separators monthly, and clean them out at least twice per year. Polluted water or sediments removed from an oil grit separator should be disposed of in accordance with all applicable local, state and federal laws and regulations including M.G.L.c. 21C and 310 CMR 30.00.

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Subsurface Structures



Description: Subsurface structures are underground systems that capture runoff, and gradually infiltrate it into the groundwater through rock and gravel. There are a number of underground infiltration systems that can be installed to enhance groundwater recharge. The most common types include pre-cast concrete or plastic pits, chambers (manufactured pipes), perforated pipes, and galleys.

Ability to meet specific standards

Standard	Description
2 - Peak Flow	N/A
3 - Recharge	Provides groundwater recharge
4 - TSS Removal	80%
5 - Higher Pollutant Loading	May be used if 44% of TSS is removed with a pretreatment BMP prior to infiltration. Land uses with the potential to generate runoff with high concentrations of oil and grease require an oil grit separator or equivalent prior to discharge to the infiltration structure. Infiltration must be done in accordance with 314 CMR 5.00.
6 - Discharges near or to Critical Areas	Highly recommended
7 - Redevelopment	Suitable with pretreatment

Advantages/Benefits:

- Provides groundwater recharge
- Reduces downstream flooding
- Preserves the natural water balance of the site
- Can remove other pollutants besides TSS
- Can be installed on properties with limited space
- Useful in stormwater retrofit applications

Disadvantages/Limitations:

- Limited data on field performance
- Susceptible to clogging by sediment
- Potential for mosquito breeding due to standing water if system fails

Pollutant Removal Efficiencies

- | | |
|--|-------------------|
| • Total Suspended Solids (TSS) | 80% |
| • Nutrients (Nitrogen, phosphorus) | Insufficient data |
| • Metals (copper, lead, zinc, cadmium) | Insufficient data |
| • Pathogens (coliform, e coli) | Insufficient data |

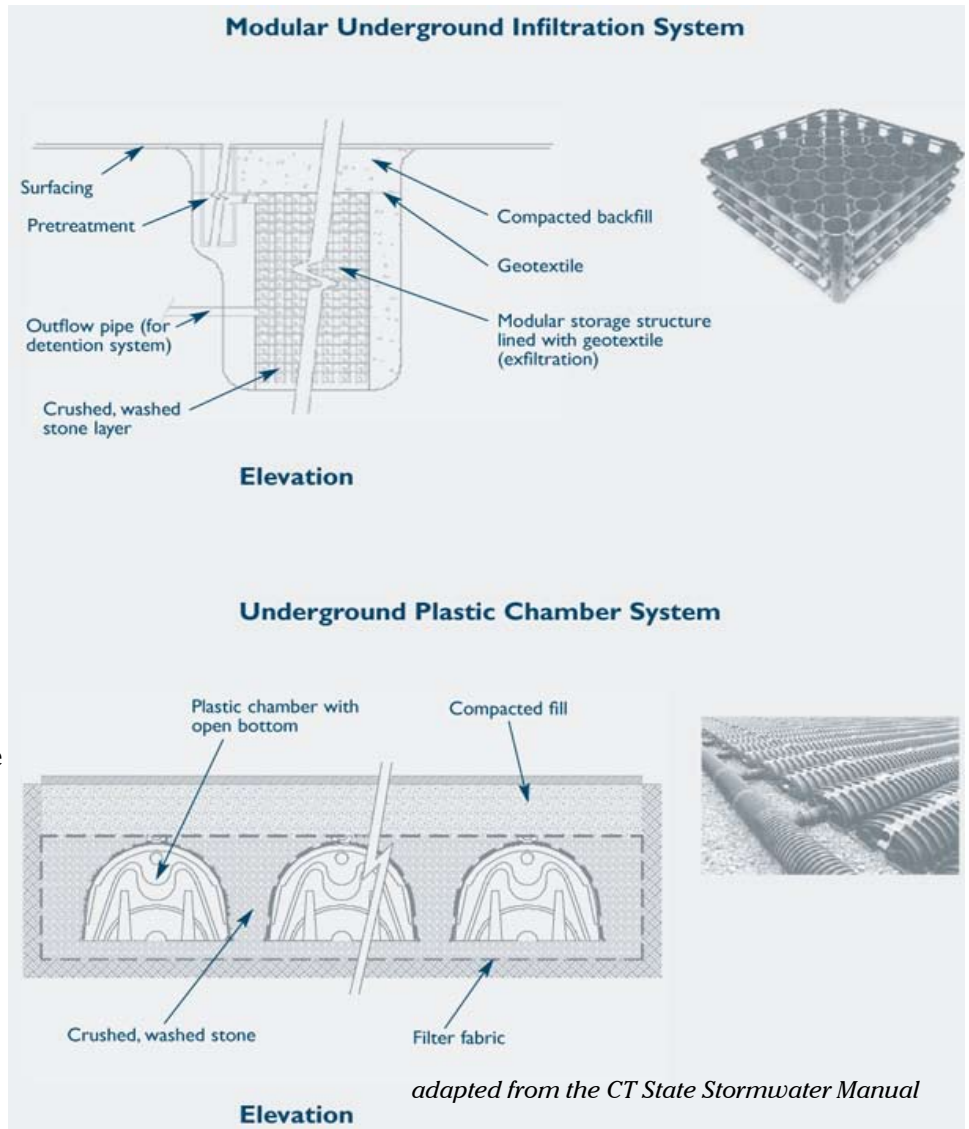
Subsurface Structures

There are different types of subsurface structures:

Infiltration Pit: A pre-cast concrete or plastic barrel with uniform perforations. The bottom of the pit should be closed with the lowest row of perforations at least 6 inches above the bottom, to serve as a sump. Infiltration pits typically include an observation well. The pits may be placed linearly, so that as the infiltrative surfaces in the first pit clog, the overflow moves to the second pit for exfiltration. Place an outlet near the top of the infiltration pit to accommodate emergency overflows. MassDEP provides recharge credit for storage below the emergency outflow invert. To make an infiltration pit, excavate the pit, wrap fabric around the barrel, place stone in the bottom of the pit, place the barrel in the pit, and then backfill stone around the barrel. Take a boring or dig an observation trench at the site of each proposed pit.

Chambers: These are typically manufactured pipes containing open bottoms and sometimes perforations. The chambers are placed atop a stone bed. Take the same number of borings or observation pits as for infiltration trenches. Do not confuse these systems with underground detention systems (UDS) that use similar chambers. UDS are designed to attenuate peak rates of runoff—not to recharge groundwater.

Perforated Pipes: In this system, pipes containing perforations are placed in a leaching bed, similar to a Title 5 soil absorption system (SAS). The pipes dose the leaching bed. Take the same number of borings or observation pits as for infiltration trenches. Perforated pipes by themselves do not constitute a stormwater recharge system and receive no credit pursuant to Stormwater Standard No. 3. Do not confuse recharge systems that use perforated pipes with perforated pipes installed to lower the water table or divert groundwater flows.



Galleys: Similar to infiltration pits. Some designs consist of concrete perforated rectangular vaults. Others are modular systems usually placed under parking lots. When the galley design consists of a single rectangular perforated vault, conduct one boring or observation trench per galley. When the galleys consist of interlocking modular units, take the same number of borings or observation pits as for infiltration trenches. Do not confuse these galleys with vaults storing water for purposes of underground detention, which do not contain perforations.

Applicability

Subsurface structures are constructed to store stormwater temporarily and let it percolate into the underlying soil. These structures are used for small drainage areas (typically less than 2 acres). They are feasible only where the soil is adequately permeable and the maximum water table and/or bedrock

elevation is sufficiently low. They can be used to control the quantity as well as quality of stormwater runoff, if properly designed and constructed. The structures serve as storage chambers for captured stormwater, while the soil matrix provides treatment.

Without adequate pretreatment, subsurface structures are not suitable for stormwater runoff from land uses or activities with the potential for high sediment or pollutant loads. Structural pretreatment BMPs for these systems include, but are not limited to, deep sump catch basins, proprietary separators, and oil/grit separators. They are suitable alternatives to traditional infiltration trenches and basins for space-limited sites. These systems can be installed beneath parking lots and other developed areas provided the systems can be accessed for routine maintenance.

Subsurface systems are highly prone to clogging. Pretreatment is always required unless the runoff is strictly from residential rooftops.

Effectiveness

Performance of subsurface systems varies by manufacturer and system design. Although there are limited field performance data, pollutant removal efficiency is expected to be similar to those of infiltration trenches and basins (i.e., up to 80% of TSS removal). MassDEP awards a TSS removal credit of 80% for systems designed in accordance with the specifications in this handbook.

Planning Considerations

Subsurface structures are excellent groundwater recharge alternatives where space is limited. Because infiltration systems discharge runoff to groundwater, they are inappropriate for use in areas with potentially higher pollutant loads (such as gas stations), unless adequate pretreatment is provided. In that event, oil grit separators, sand filters or equivalent BMPs must be used to remove sediment, floatables and grease prior to discharge to the subsurface structure.

Design

Unlike infiltration basins, widely accepted design standards and procedures for designing subsurface structures are not available. Generally, a subsurface structure is designed to store a “capture volume” of runoff for a specified period of “storage time.” The definition of capture volume differs depending on the

purpose of the subsurface structure and the stormwater management program being used. Subsurface structures should infiltrate good quality runoff only. Pretreatment prior to infiltration is essential.

The composition, configuration and layout of subsurface structures varies considerably depending on the manufacturer. Follow the design criteria specified by vendors or system manufacturers. Install subsurface structures in areas that are easily accessible for routine and non-routine maintenance.

As with infiltration trenches and basins, install subsurface structures only in soils having suitable infiltration capacities as determined through field testing. Determine the infiltrative capacity of the underlying native soil through the soil evaluation set forth in Volume 3. Never use a standard septic system percolation test to determine soil permeability because this test tends to greatly overestimate the infiltration capacity of soils.

Subsurface structures are typically designed to function off-line. Place a flow bypass structure upgradient of the infiltration structure to convey high flows around the structure during large storms.

Design the subsurface structure so that it drains within 72 hours after the storm event and completely dewater between storms. Use a minimum draining time of 6 hours to ensure adequate pollutant removal. Design all ports to be mosquito-proof, i.e., to inhibit or reduce the number of mosquitoes able to breed within the BMP.

The minimum acceptable field infiltration rate is 0.17 inches per hour. Subsurface structures must be sized in accordance with the procedures set forth in Volume 3. Manufactured structures must also be sized in accordance with the manufacturers’ specifications. Design the system to totally exfiltrate within 72 hours.

Design the subsurface structure for live and dead loads appropriate for their location. Provide measures to dissipate inlet flow velocities and prevent channeling of the stone media. Generally, design the system so that inflow velocities are less than 2 feet per second (fps).

All of these devices must have an appropriate number of observation wells, to monitor the water surface elevation within the well, and to serve as a sampling port.

Each of these different types of structures, with the exception of perforated pipes in leaching fields similar to Title 5 systems, must have entry ports to allow worker access for maintenance, in accordance with OSHA requirements.

Adapted from:
Connecticut Department of Environmental Conservation.
Connecticut Stormwater Quality Manual. 2004.
MassHighway. Storm Water Handbook for Highways and Bridges. May 2004.

Construction

Stabilize the site prior to installing the subsurface structure. Do not allow runoff from any disturbed areas on the site to flow to the structure. Rope off the area where the subsurface structures are to be placed. Accomplish any required excavation with equipment placed just outside of this area. If the size of the area intended for exfiltration is too large to accommodate this approach, use trucks with low-pressure tires to minimize compaction. Do not allow any other vehicles within the area to be excavated. Keep the area above and immediately surrounding the subsurface structure roped off to all construction vehicles until the final top surface is installed (either paving or landscaping). This prevents additional compaction. When installing the final top surface, work from the edges to minimize compaction of the underlying soils.

Before installing the top surface, implement erosion and sediment controls to prevent sheet flow or wind blown sediment from entering the leach field. This includes, but is not limited to, minimizing land disturbances at any one time, placing stockpiles away from the area intended for infiltration, stabilizing any stockpiles through use of vegetation or tarps, and placing sediment fences around the perimeter of the infiltration field.

Provide an access port, man-way, and observation well to enable inspection of water levels within the system. Make the observation well pipe visible at grade (i.e., not buried).

Maintenance

Because subsurface structures are installed underground, they are extremely difficult to maintain. Inspect inlets at least twice a year. Remove any debris that might clog the system. Include mosquito controls in the Operation and Maintenance Plan.



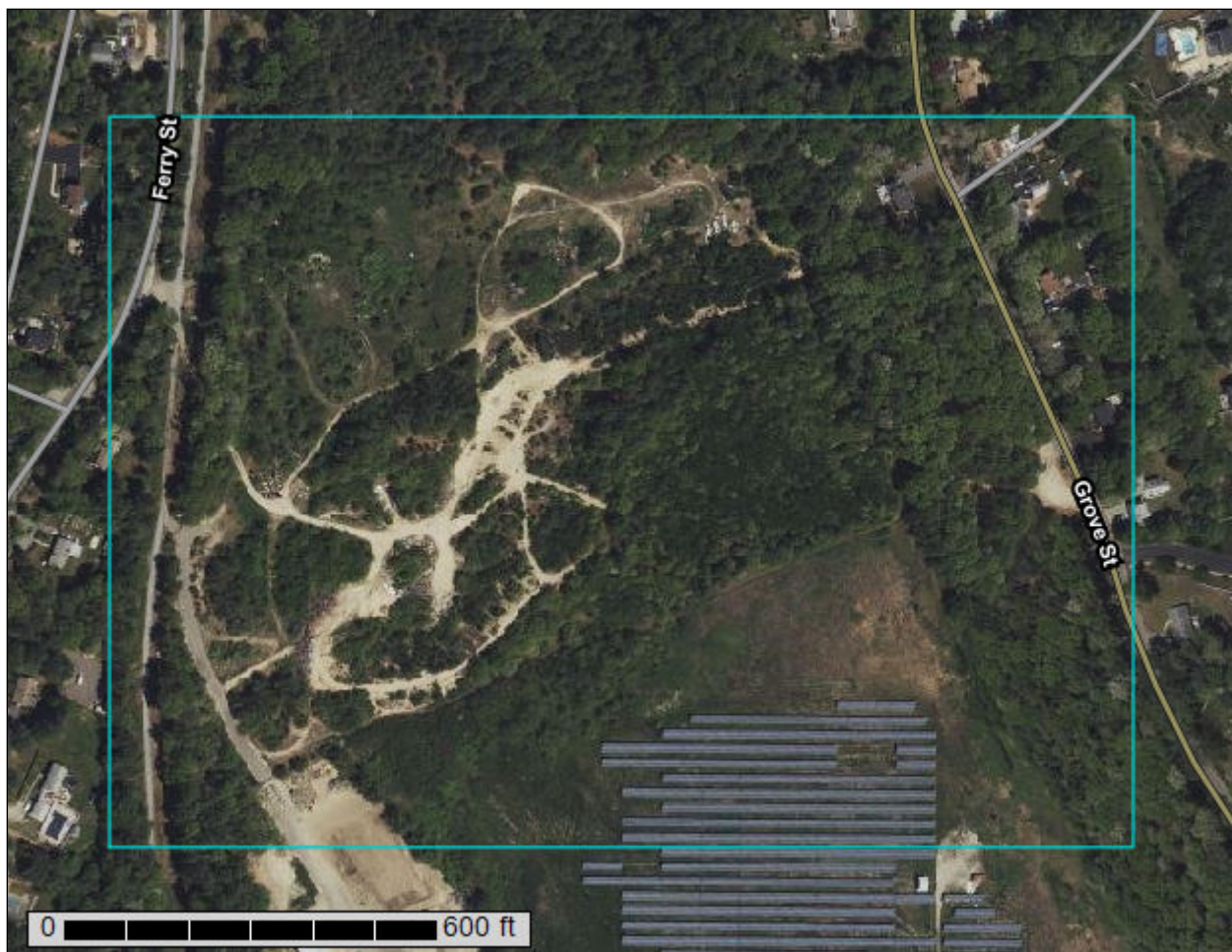
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Plymouth County, Massachusetts



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report

Soil Map




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Plymouth County, Massachusetts
Survey Area Data: Version 16, Sep 10, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
253B	Hinckley loamy sand, 3 to 8 percent slopes	15.6	34.9%
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	4.3	9.6%
438E	Plymouth loamy coarse sand, 15 to 35 percent slopes, extremely bouldery	0.6	1.4%
600	Pits, gravel	9.8	22.0%
652E	Udorthents, refuse substratum, 8 to 35 percent slopes	9.3	20.9%
700A	Udipsamments, wet substratum, 0 to 3 percent slopes	5.0	11.3%
Totals for Area of Interest		44.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not

mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Plymouth County, Massachusetts

253B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8

Elevation: 0 to 1,430 feet

Mean annual precipitation: 36 to 53 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 250 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, outwash terraces, kames, kame terraces, moraines, eskers, outwash plains

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Custom Soil Resource Report

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent

Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent

Landform: Outwash deltas, outwash terraces, moraines, outwash plains, kame terraces

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Head slope, side slope, base slope, tread

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Hydric soil rating: No

Agawam

Percent of map unit: 2 percent

Landform: Outwash deltas, outwash terraces, moraines, eskers, kames, outwash plains, kame terraces

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

254B—Merrimac fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyqs

Elevation: 0 to 1,290 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Merrimac and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Merrimac

Setting

Landform: Outwash plains, outwash terraces, moraines, eskers, kames

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Side slope, crest, riser, tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam

Bw1 - 10 to 22 inches: fine sandy loam

Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand

2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 2 percent

Maximum salinity: Nonsaline (0.0 to 1.4 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Ecological site: F145XY008MA - Dry Outwash

Hydric soil rating: No

Minor Components

Sudbury

Percent of map unit: 5 percent

Landform: Deltas, terraces, outwash plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Hinckley

Percent of map unit: 5 percent

Landform: Deltas, kames, eskers, outwash plains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Head slope, nose slope, side slope, crest, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Windsor

Percent of map unit: 3 percent
Landform: Outwash terraces, dunes, deltas, outwash plains
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Agawam

Percent of map unit: 2 percent
Landform: Outwash plains, outwash terraces, moraines, stream terraces, eskers, kames
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

438E—Plymouth loamy coarse sand, 15 to 35 percent slopes, extremely bouldery

Map Unit Setting

National map unit symbol: bcyt
Elevation: 0 to 400 feet
Mean annual precipitation: 41 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Plymouth, extremely bouldery, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Plymouth, Extremely Bouldery

Setting

Landform: Moraines, outwash plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, riser
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Sandy and gravelly supraglacial meltout till over sandy and gravelly glaciofluvial deposits

Typical profile

Oi - 0 to 4 inches: slightly decomposed plant material
Oe - 4 to 6 inches: moderately decomposed plant material
A - 6 to 7 inches: loamy coarse sand
E - 7 to 11 inches: coarse sand
Bs - 11 to 15 inches: loamy coarse sand
Bw - 15 to 20 inches: coarse sand
BC - 20 to 29 inches: coarse sand
C - 29 to 64 inches: gravelly coarse sand

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: F149BY005MA - Dry Outwash
Hydric soil rating: No

Minor Components

Carver, bouldery

Percent of map unit: 5 percent
Landform: Pitted outwash plains, outwash plains, moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Gloucester, extremely bouldery

Percent of map unit: 5 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Barnstable, extremely bouldery

Percent of map unit: 5 percent
Landform: Moraines
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Poquonock, extremely bouldery

Percent of map unit: 5 percent

Landform: Till plains, ground moraines, drumlins

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

600—Pits, gravel

Map Unit Composition

Pits, gravel: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

652E—Udorthents, refuse substratum, 8 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2pr8l

Elevation: 0 to 390 feet

Mean annual precipitation: 41 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, refuse substratum, and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Refuse Substratum

Setting

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Excavated and filled loamy land over made land, refuse

Typical profile

^A - 0 to 5 inches: loam

^C1 - 5 to 21 inches: gravelly loam

^C2 - 21 to 80 inches: gravelly sandy loam

Properties and qualities

Slope: 8 to 35 percent

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Depth to restrictive feature: 20 to 39 inches to manufactured layer
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.01 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F149BY100NY - Urban Site Complex
Hydric soil rating: No

Minor Components

Udorthents, loamy

Percent of map unit: 5 percent
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

700A—Udipsamments, wet substratum, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: bd02
Elevation: 0 to 390 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 195 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Udipsamments, wet substratum, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udipsamments, Wet Substratum

Setting

Landform: Dikes
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear, convex
Across-slope shape: Linear

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Parent material: Sandy human transported material over sandy and gravelly glaciofluvial deposits

Typical profile

^Ap - 0 to 3 inches: loamy fine sand
^C1 - 3 to 20 inches: fine sand
Ab - 20 to 24 inches: loamy fine sand
Bwb - 24 to 31 inches: fine sand
BC - 31 to 44 inches: fine sand
C2 - 44 to 51 inches: fine sand
C3 - 51 to 72 inches: very fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 14.17 in/hr)
Depth to water table: About 20 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: R149BY002MA - Coastal Dunes
Hydric soil rating: No

Minor Components

Tihonet

Percent of map unit: 10 percent
Landform: Bogs
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F144AY028MA - Wet Outwash
Hydric soil rating: Yes

Udipsamments

Percent of map unit: 5 percent
Landform: Dikes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: R149BY002MA - Coastal Dunes
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread

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Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

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