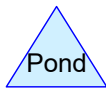
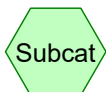
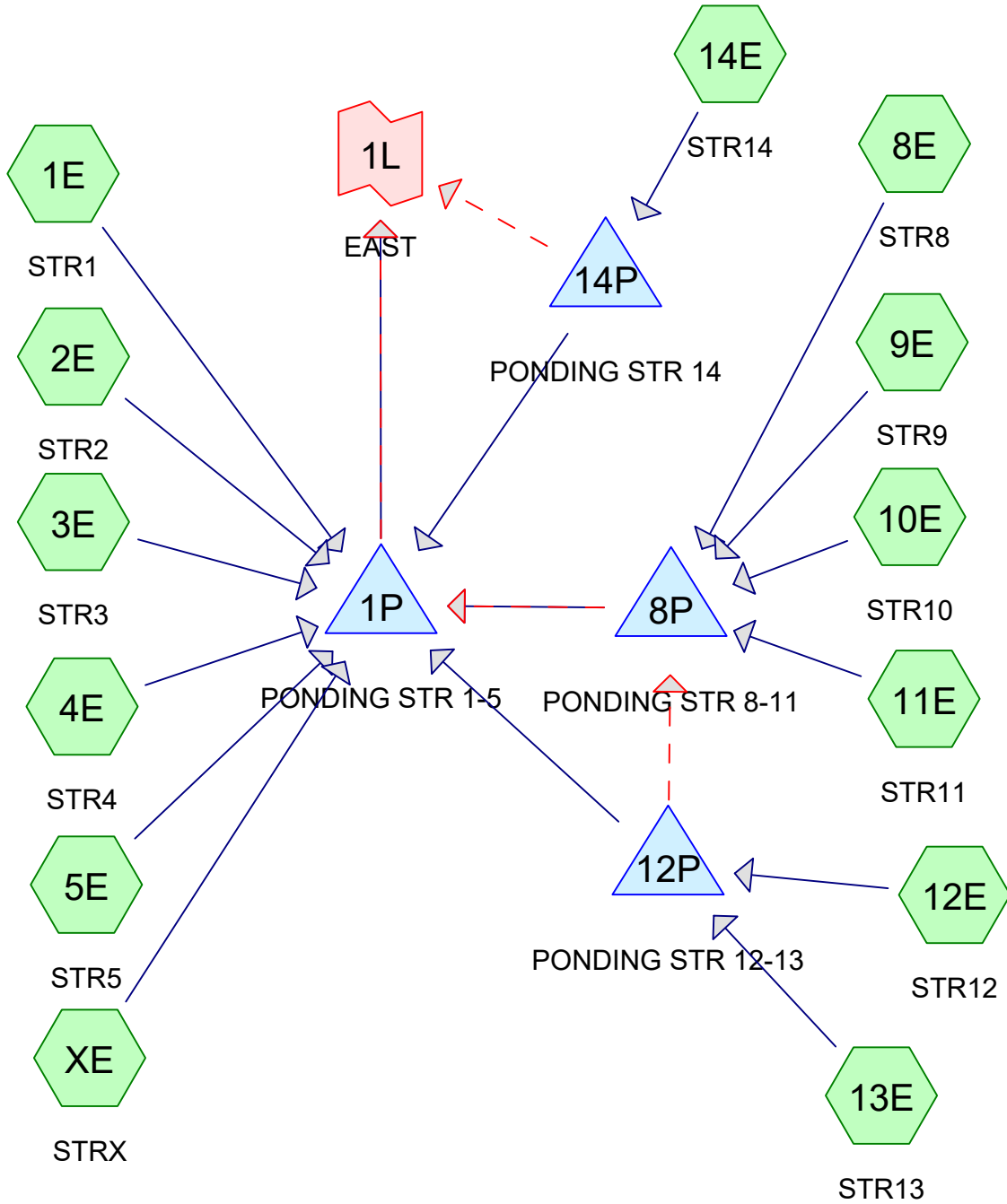


Project Name: MAG Porsche
 Project No.: 3481
 Design Year: 2
 Mannings "n": 0.013

M.H. No.	Sta.	Drainage Area		Time		Rainfall Intens. I in./hr.	Runoff Coeff. C	Discharge Q c.f.s.	Pipe Length feet	Pipe Size inches	Pipe Slope %	Mean Velocity in Pipe ft./sec.	Pipe Full Capacity c.f.s.	Pipe Invert In	Pipe Invert Out	Top Casting Elev.	5 Year Storm Sewer Check					Remarks								
		Δ Acres	Σ Acre	Δ Min.	Σ Min.												Δ C*A	Σ C*A	S _f %	S _f L feet	TW or 0.8 D		HGL Elevation	T.C. or Pavt. Elevation						
3	01+07.00	0.36	0.36		10.00	0.36	0.36	3.52	0.99							909.00	911.80			909.48	909.80	909.80	911.80	OK						
CB				0.4				1.26		85.90	12	0.50	3.22	2.53					0.12	0.11										
2	00+21.10	0.21	0.57		10.45	0.21	0.56	3.46	0.99							908.57	908.57	912.45			909.33	909.37	909.37	912.45	OK					
CB				0.1				1.98		21.10	12	0.50	3.22	2.53					0.31	0.06										
1	00+00.00	0.00	0.57		10.55	0.00	0.56	3.45	0.99							908.47	908.47	911.95			0.00	909.27	909.27	911.95	OK					
MH								1.98			12								0.31	0.00										
M.H. No.	Sta.	Drainage Area		Time		Rainfall Intens. I in./hr.	Runoff Coeff. C	Discharge h Q c.f.s.	Pipe Length feet	Pipe Size inches	Pipe Slope %	Mean Velocity in Pipe ft./sec.	Pipe Full Capacity c.f.s.	Pipe Invert In	Pipe Invert Out	Top Casting Elev.	5 Year Storm Sewer Check					Remarks								
Δ Acres	Σ Acre	Δ Min.	Σ Min.	Δ C*A	Σ C*A												S _f %	S _f L feet	TW or 0.8 D	HGL Elevation	T.C. or Pavt. Elevation									
6	00+69.80	Discharge for this section of pipe is per subgrade detention release rate as modeled in HydroCAD (5-Year storm event)							HDPE								908.28	912.87			908.78	909.08	909.08	912.87	OK					
MH								0.36	69.80	12	0.44	3.02	2.37											0.01	0.01					
X3	00+00.00																					907.97	907.97	910.92			0.00	908.77	908.77	910.92
CB								0.36			12								0.01	0.00										
M.H. No.	Sta.	Drainage Area		Time		Rainfall Intens. I in./hr.	Runoff Coeff. C	Discharge Q c.f.s.	Pipe Length feet	Pipe Size inches	Pipe Slope %	Mean Velocity in Pipe ft./sec.	Pipe Full Capacity c.f.s.	Pipe Invert In	Pipe Invert Out	Top Casting Elev.	5 Year Storm Sewer Check					Remarks								
Δ Acres	Σ Acre	Δ Min.	Σ Min.	Δ C*A	Σ C*A												S _f %	S _f L feet	TW or 0.8 D	HGL Elevation	T.C. or Pavt. Elevation									
X13	00+74.40	0.73	0.73		10.00	0.72	0.72	3.52	0.99							909.01	911.44			909.68	909.81	909.81	911.44	OK						
CB				0.3				2.55		74.40	12	0.69	3.78	2.97					0.51	0.38										
7	00+00.00	0.00	0.73		10.33	0.00	0.72	3.48	0.99							908.50	908.50	912.40			0.00	909.30	909.30	912.40	OK					
AS-4								2.55			12								0.51	0.00										
M.H. No.	Sta.	Drainage Area		Time		Rainfall Intens. I in./hr.	Runoff Coeff. C	Discharge Q c.f.s.	Pipe Length feet	Pipe Size inches	Pipe Slope %	Mean Velocity in Pipe ft./sec.	Pipe Full Capacity c.f.s.	Pipe Invert In	Pipe Invert Out	Top Casting Elev.	5 Year Storm Sewer Check					Remarks								
Δ Acres	Σ Acre	Δ Min.	Σ Min.	Δ C*A	Σ C*A												S _f %	S _f L feet	TW or 0.8 D	HGL Elevation	T.C. or Pavt. Elevation									
10	01+52.00	Discharge through these sections of pipe is per retention basin release rate as modeled in HydroCAD (5-Year storm event)							PVC								910.07	913.32			911.07	911.07	911.07	913.32	OK					
CB								5.98	2.00	15	0.98	5.23	6.41											0.86	0.02					
9	01+50.00													5.98		53.50	15	0.98	5.23	6.41			910.05	910.05	914.36			910.98	911.05	911.05
CB								5.98			15	0.98	5.23	6.41			909.53	909.53	914.01			910.41	910.53	910.53	914.01	OK				
8	00+96.50	These pipes are functionally part of the existing detention system because the orifice plate will be remaining on the downstream side of structure X15.							HDPE									909.53	909.53	914.01			910.41	910.53	910.53	914.01	OK			
CB								5.98	96.50	15	0.98	5.23	6.41											0.86	0.83					
X15	00+00.00													5.98			15					908.58	908.58	911.75			0.00	909.58	909.58	911.75
CB								5.98			15								0.86	0.00										

EXISTING EAST TRIB



Routing Diagram for 3481 MAG PORSCHE - EXISTING
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EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Page 2

Summary for Subcatchment 1E: STR1

Runoff = 0.50 cfs @ 12.02 hrs, Volume= 0.027 af, Depth= 0.78"

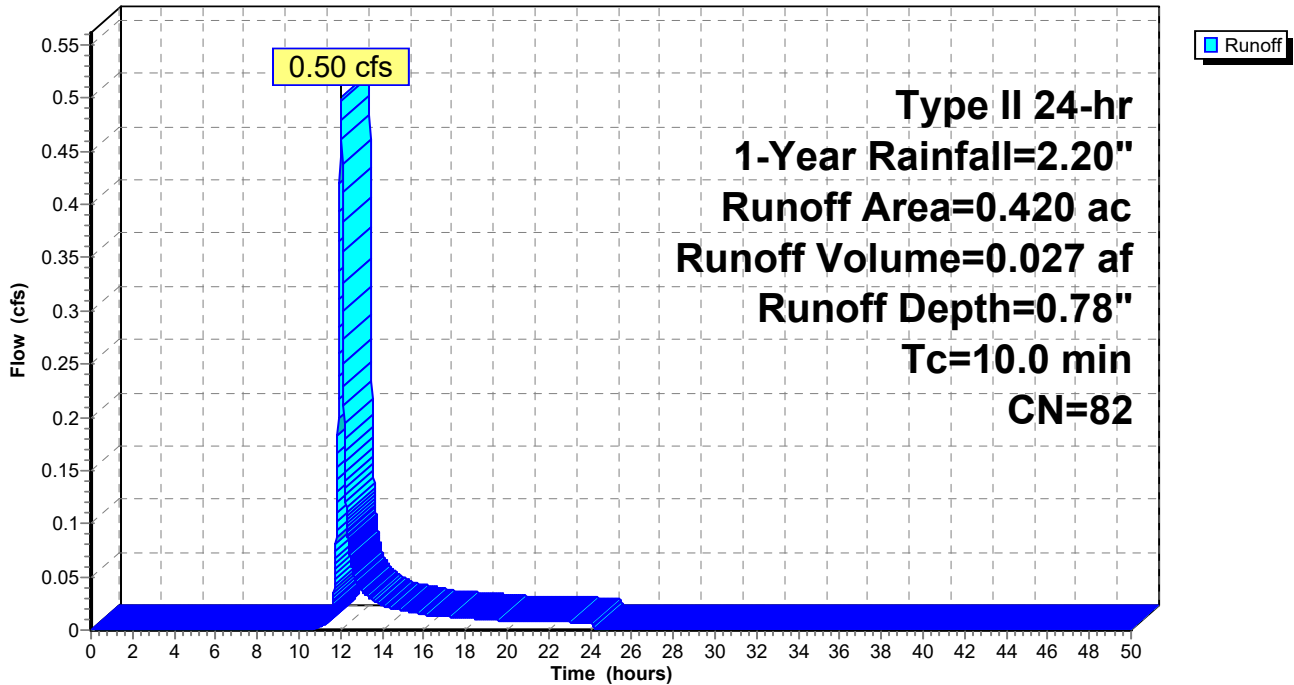
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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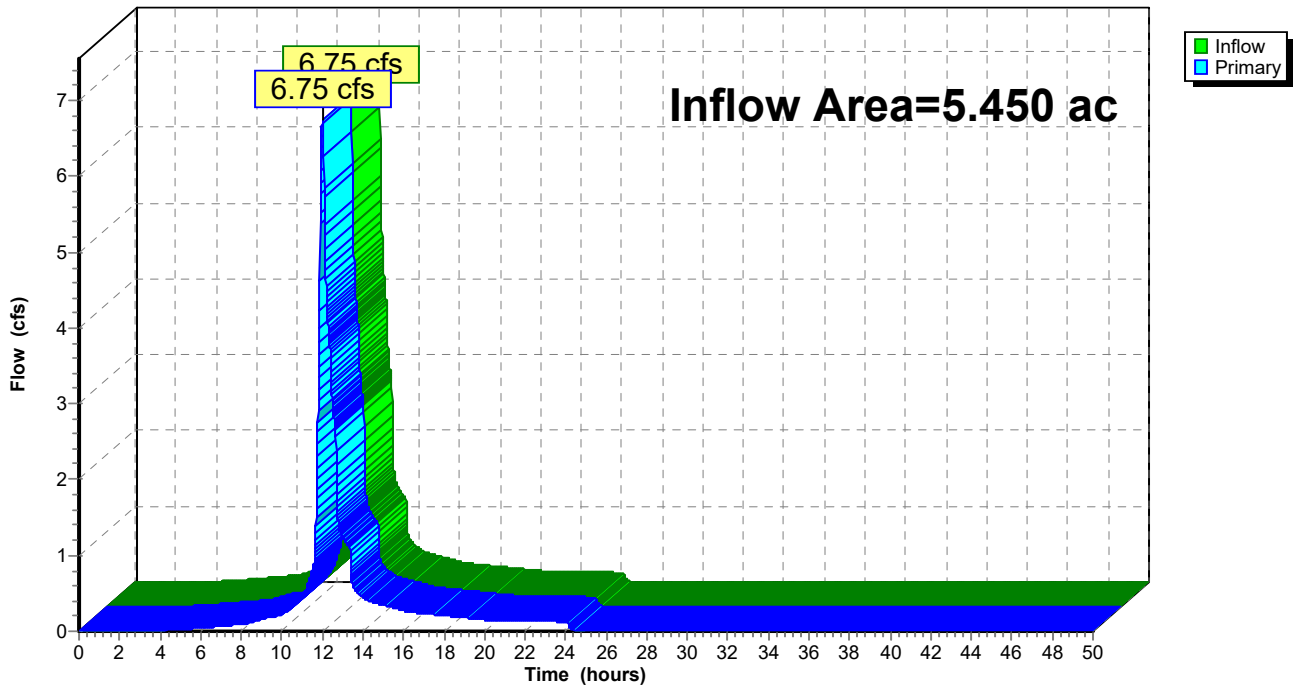
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.58" for 1-Year event
Inflow = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af
Primary = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.58" for 1-Year event
 Inflow = 6.98 cfs @ 12.01 hrs, Volume= 0.718 af
 Outflow = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af, Atten= 3%, Lag= 1.7 min
 Primary = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.00' @ 12.04 hrs Surf.Area= 1,240 sf Storage= 690 cf

Plug-Flow detention time= 2.0 min calculated for 0.718 af (100% of inflow)
 Center-of-Mass det. time= 1.9 min (802.9 - 801.0)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 ''
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 ''
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=6.75 cfs @ 12.04 hrs HW=910.99' TW=0.00' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 6.75 cfs @ 8.59 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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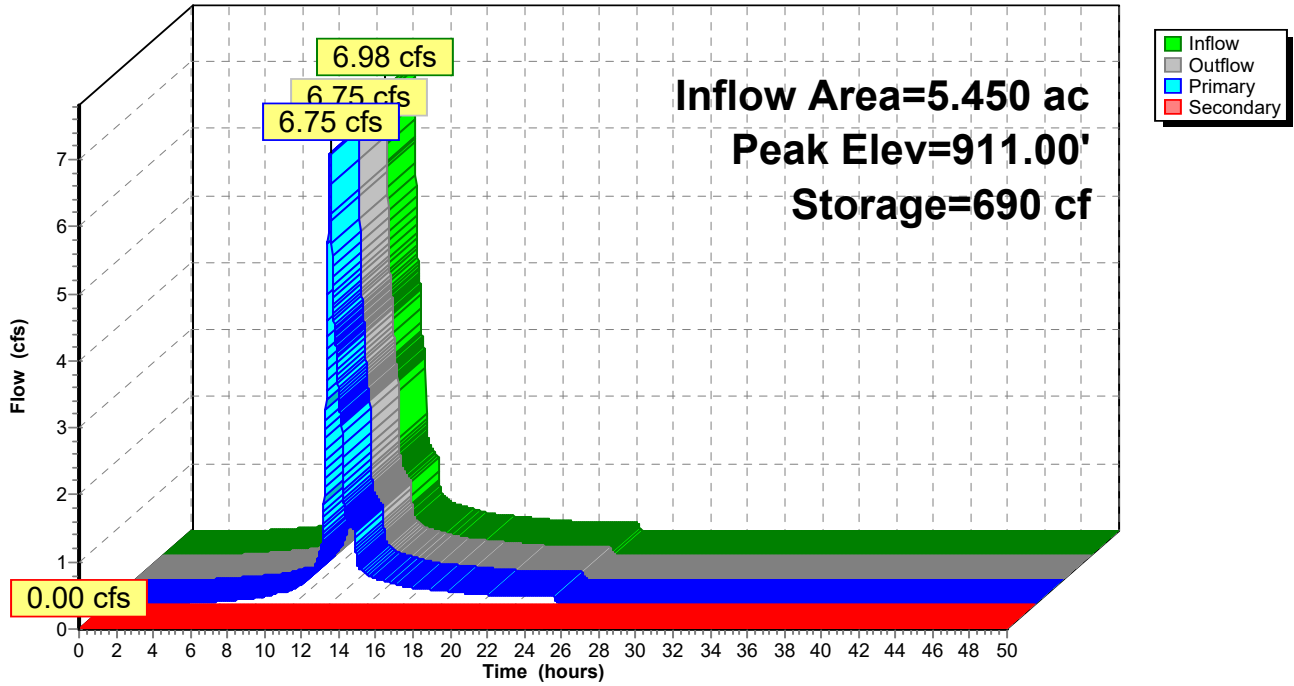
Type II 24-hr 1-Year Rainfall=2.20"

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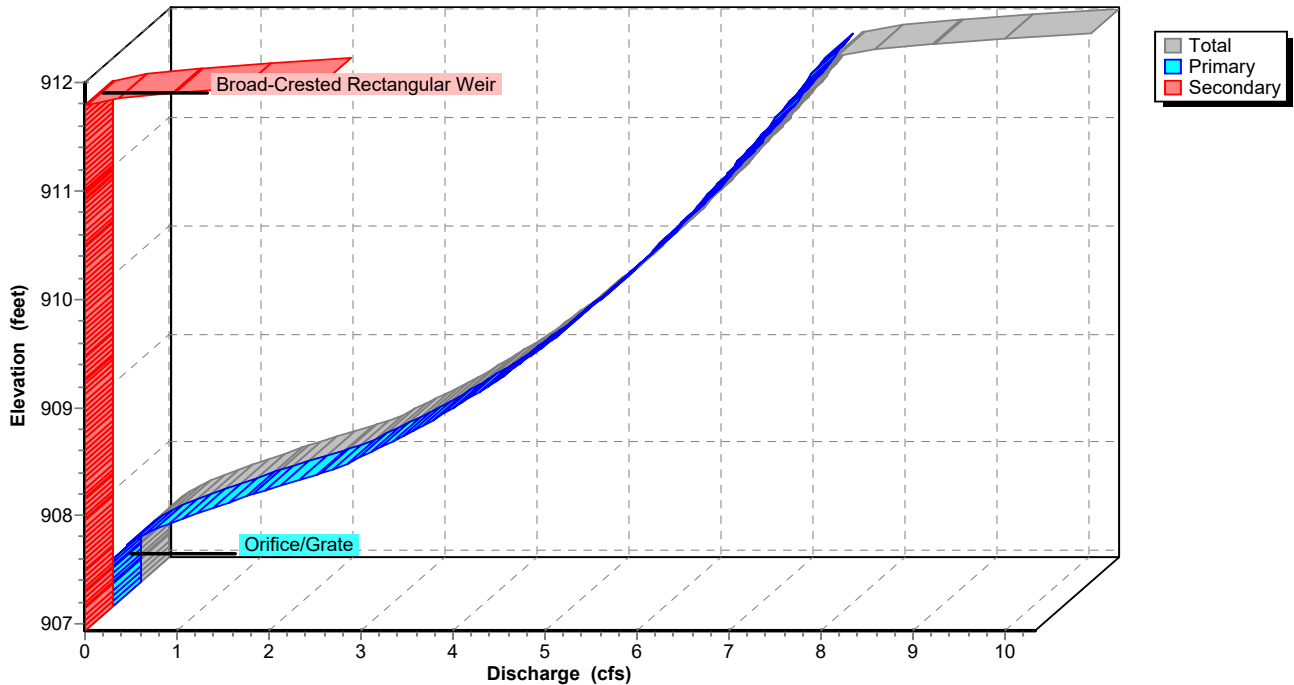
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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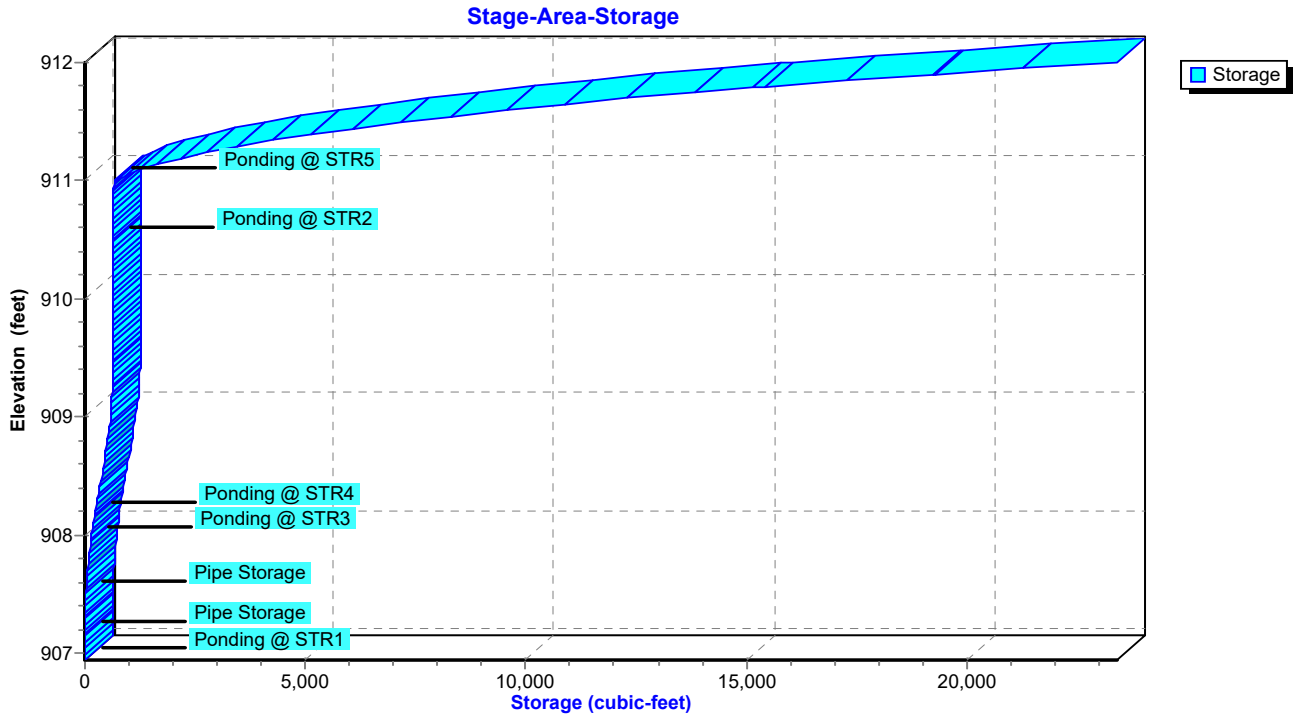
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Type II 24-hr 1-Year Rainfall=2.20"

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Pond 1P: PONDING STR 1-5



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 2E: STR2

Runoff = 1.52 cfs @ 12.01 hrs, Volume= 0.086 af, Depth= 1.67"

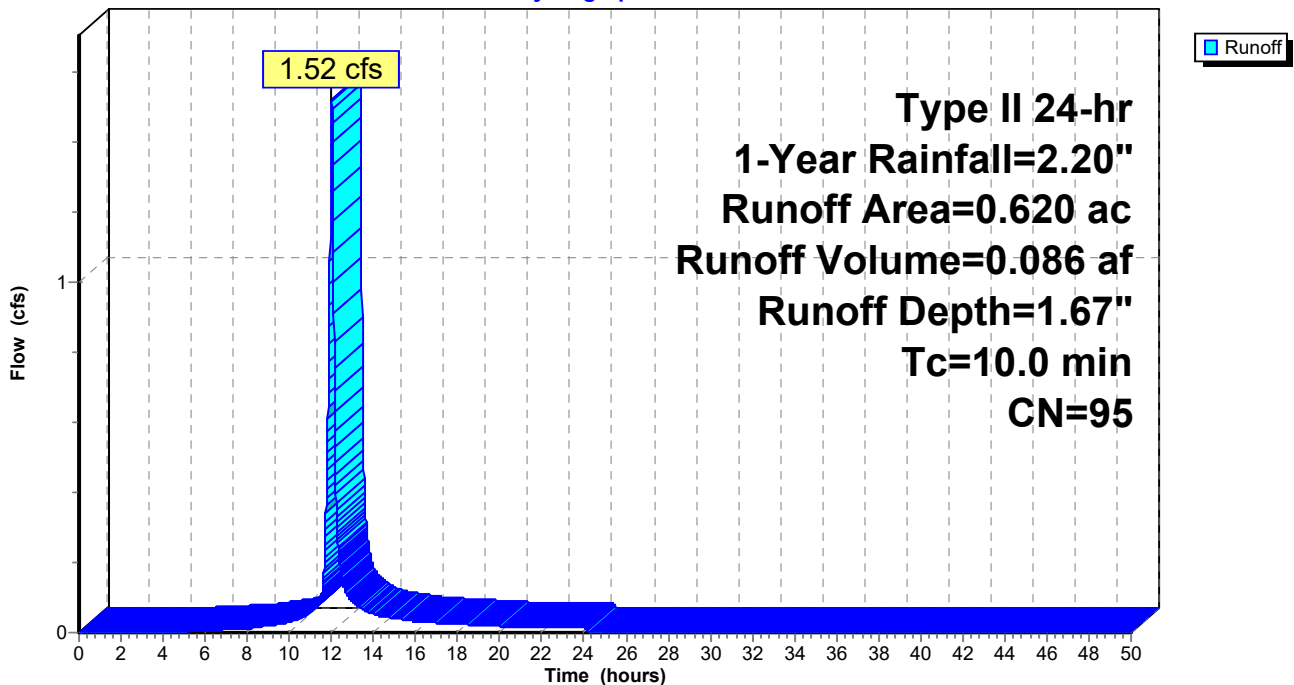
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 3E: STR3

Runoff = 0.98 cfs @ 12.01 hrs, Volume= 0.056 af, Depth= 1.67"

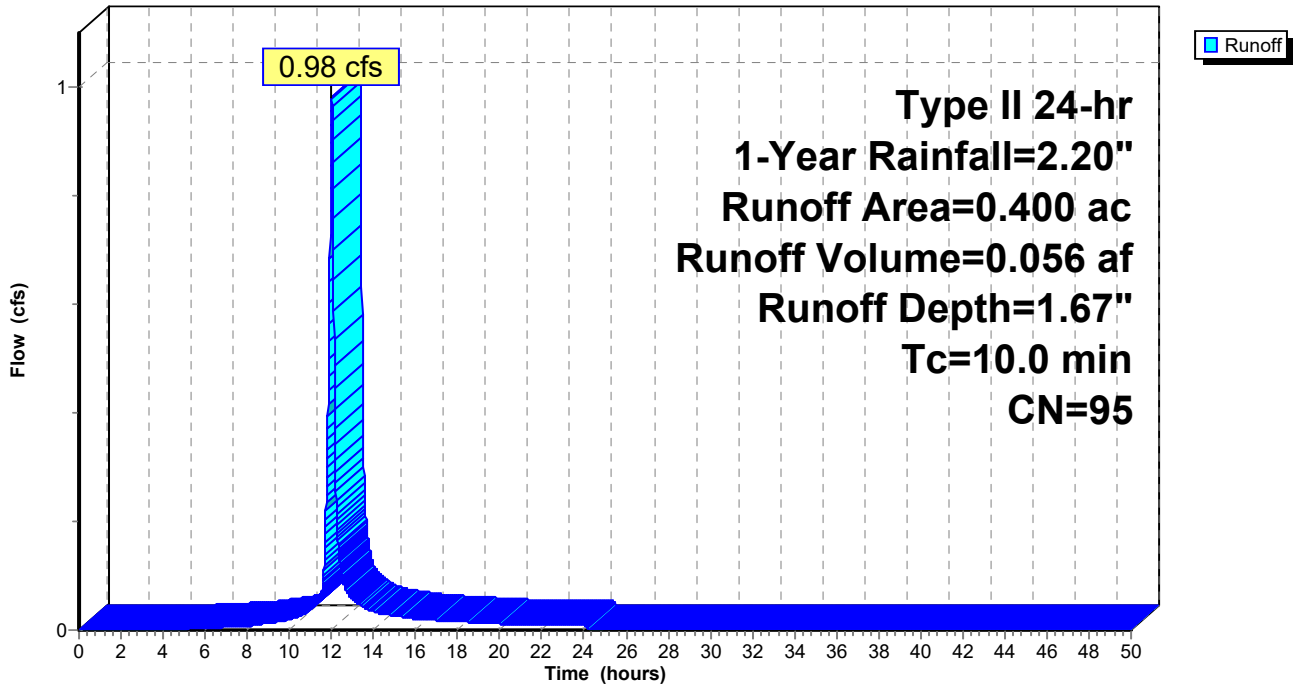
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 4E: STR4

Runoff = 0.97 cfs @ 12.01 hrs, Volume= 0.054 af, Depth= 1.50"

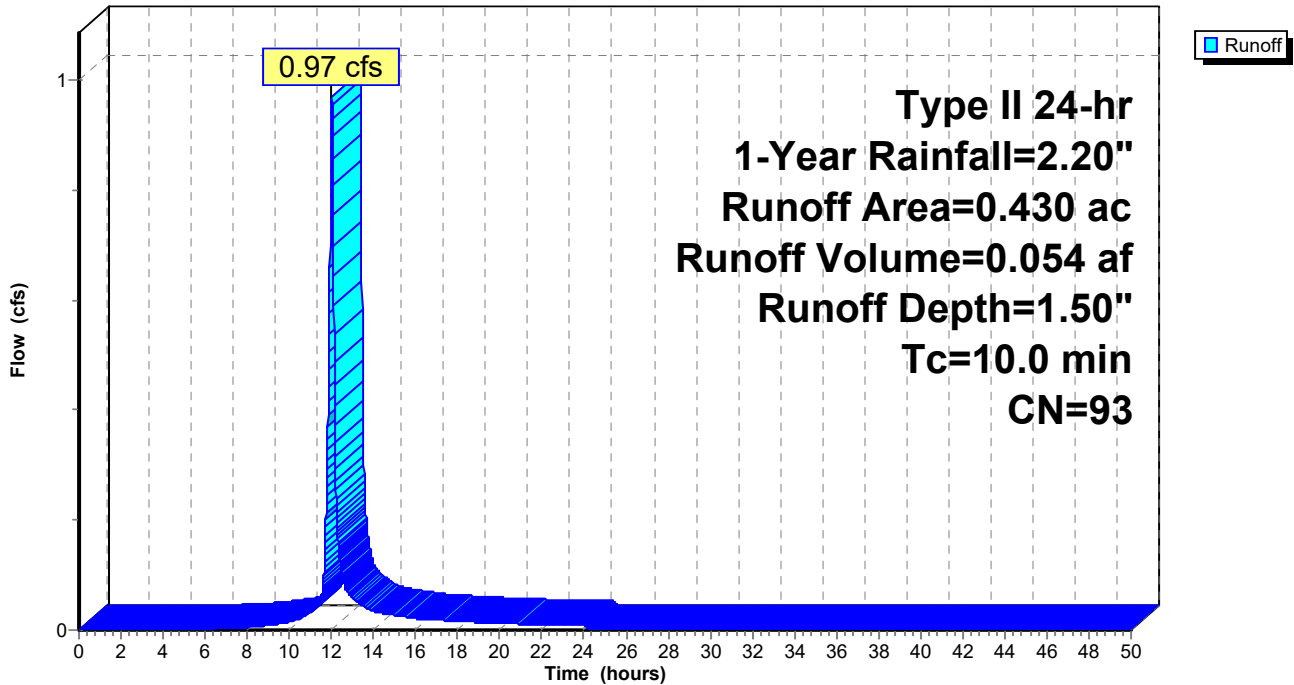
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Summary for Subcatchment 5E: STR5

Runoff = 1.13 cfs @ 12.02 hrs, Volume= 0.061 af, Depth= 1.27"

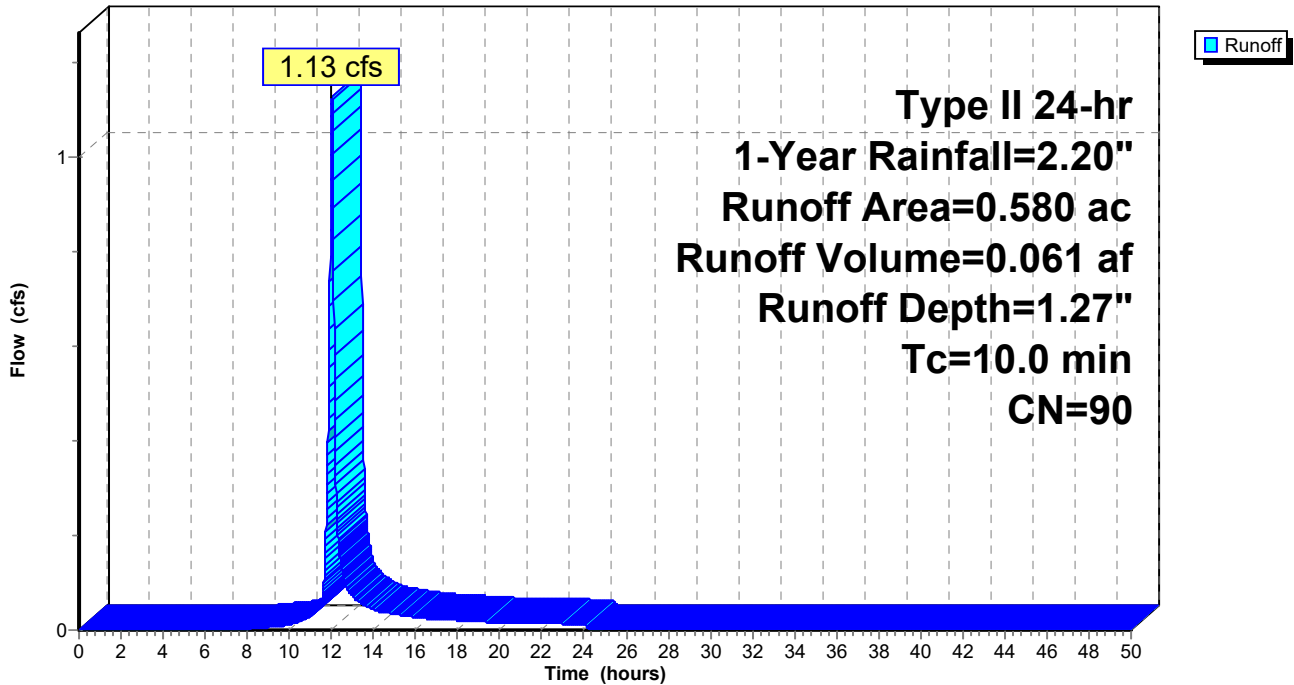
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 8E: STR8

Runoff = 0.81 cfs @ 12.01 hrs, Volume= 0.046 af, Depth= 1.67"

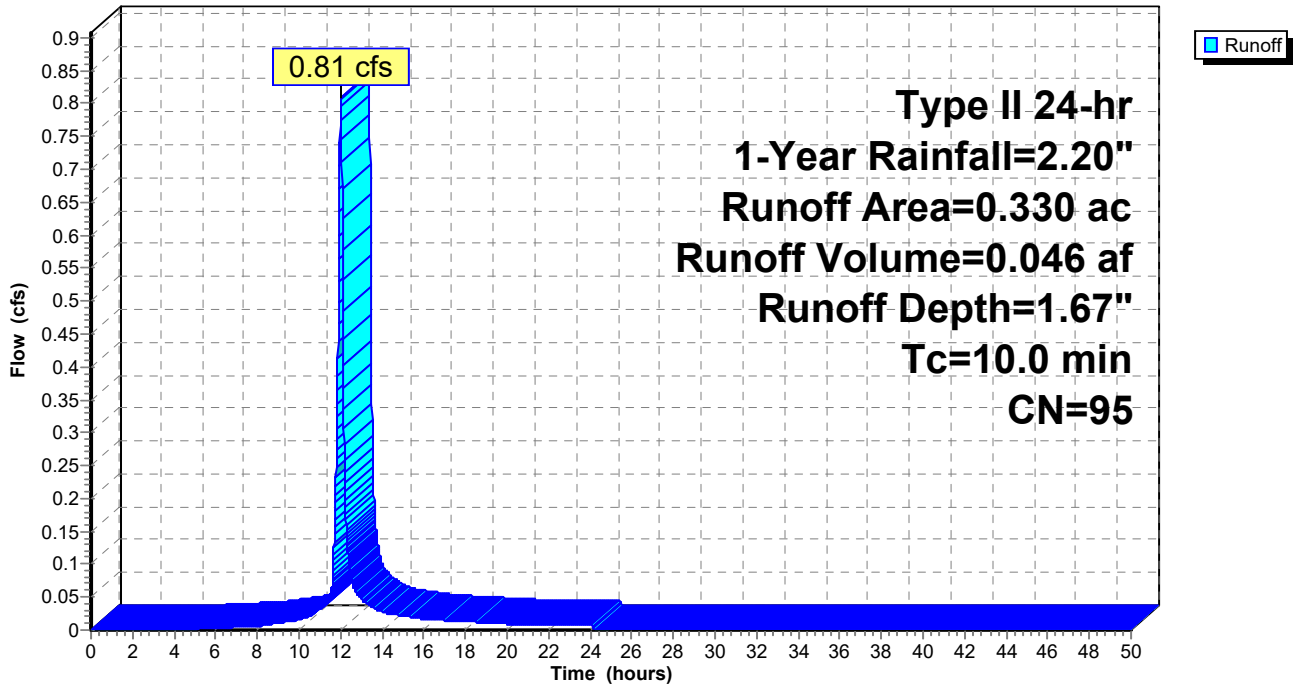
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 1.71" for 1-Year event
 Inflow = 3.55 cfs @ 12.01 hrs, Volume= 0.205 af
 Outflow = 1.52 cfs @ 12.31 hrs, Volume= 0.205 af, Atten= 57%, Lag= 18.2 min
 Primary = 1.52 cfs @ 12.31 hrs, Volume= 0.205 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.99' @ 12.16 hrs Surf.Area= 8,515 sf Storage= 1,852 cf

Plug-Flow detention time= 9.5 min calculated for 0.205 af (100% of inflow)
 Center-of-Mass det. time= 8.8 min (795.5 - 786.8)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.52 cfs @ 12.31 hrs HW=911.95' TW=908.88' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.52 cfs @ 8.41 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=906.94' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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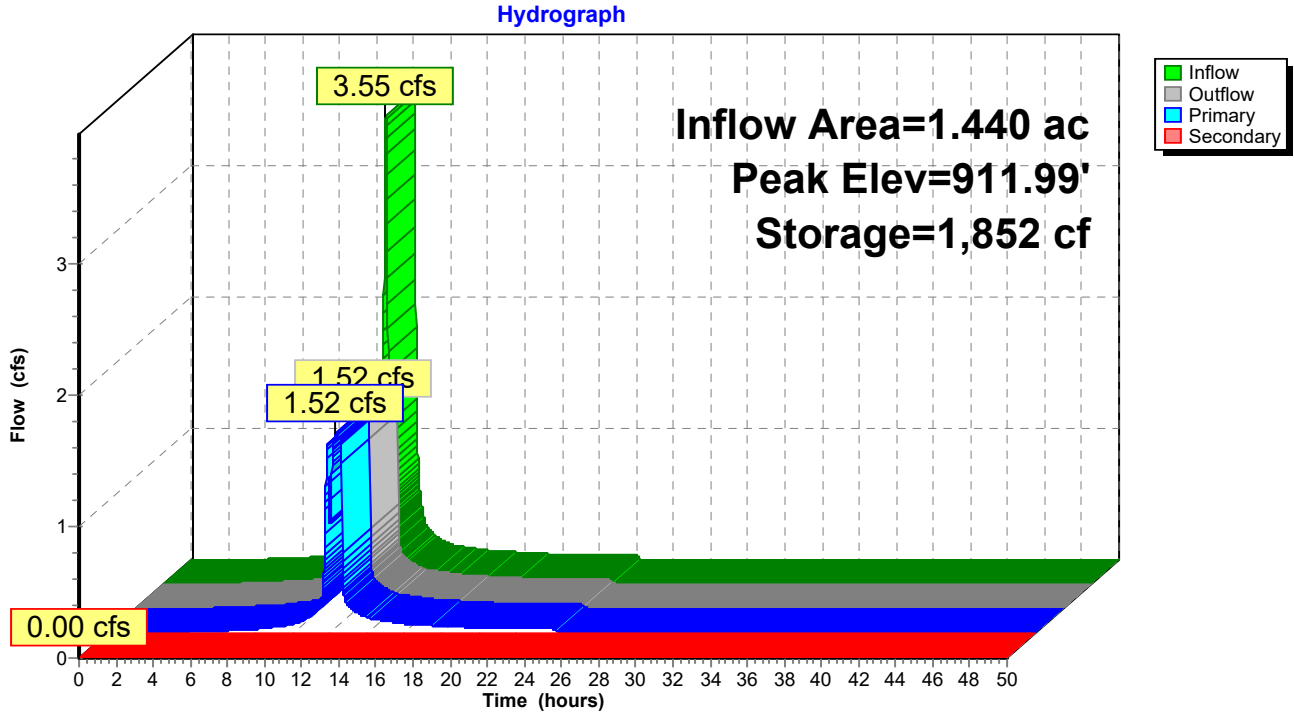
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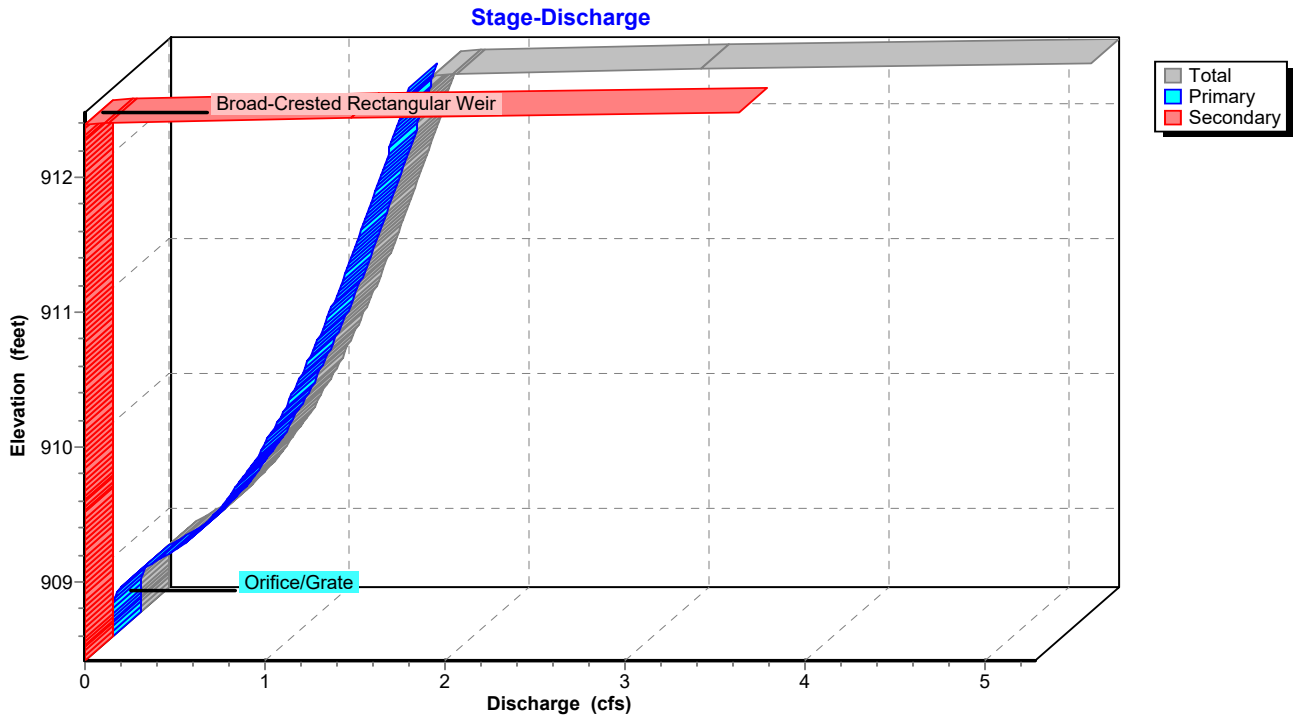
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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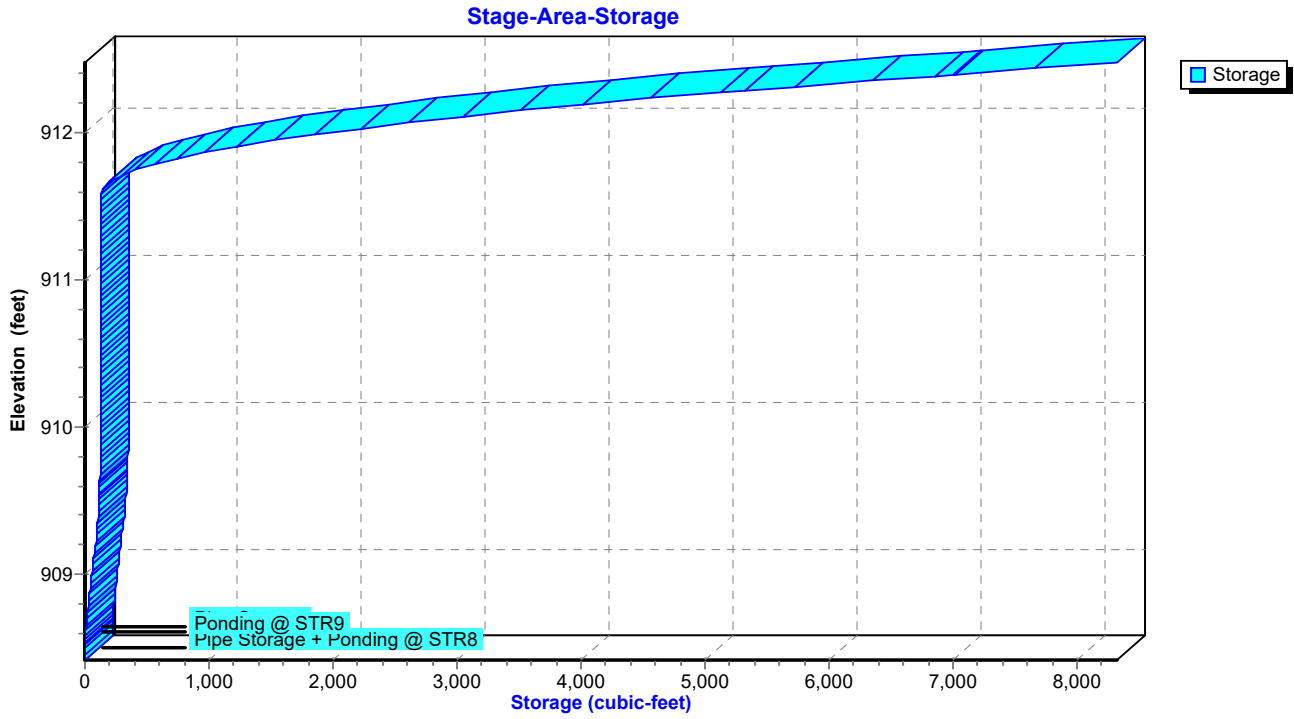
EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Pond 8P: PONDING STR 8-11



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EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 9E: STR9

Runoff = 1.04 cfs @ 12.01 hrs, Volume= 0.058 af, Depth= 1.58"

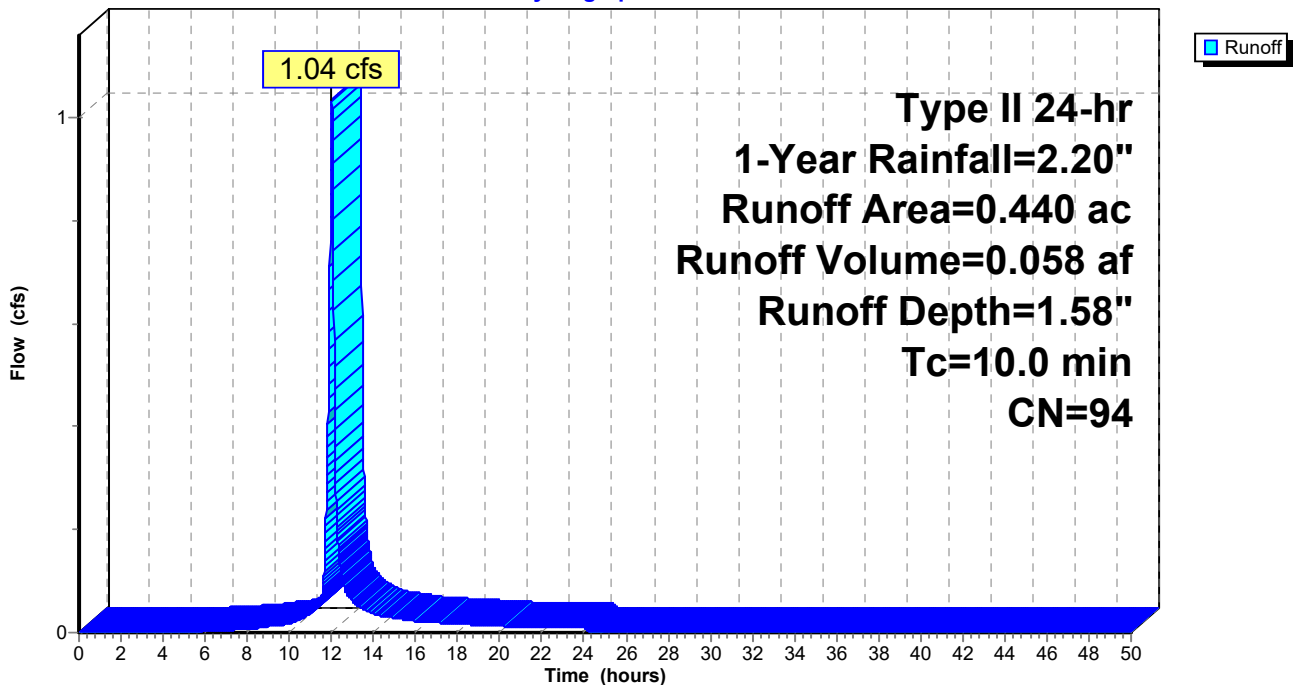
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 10E: STR10

Runoff = 1.30 cfs @ 12.01 hrs, Volume= 0.079 af, Depth= 1.97"

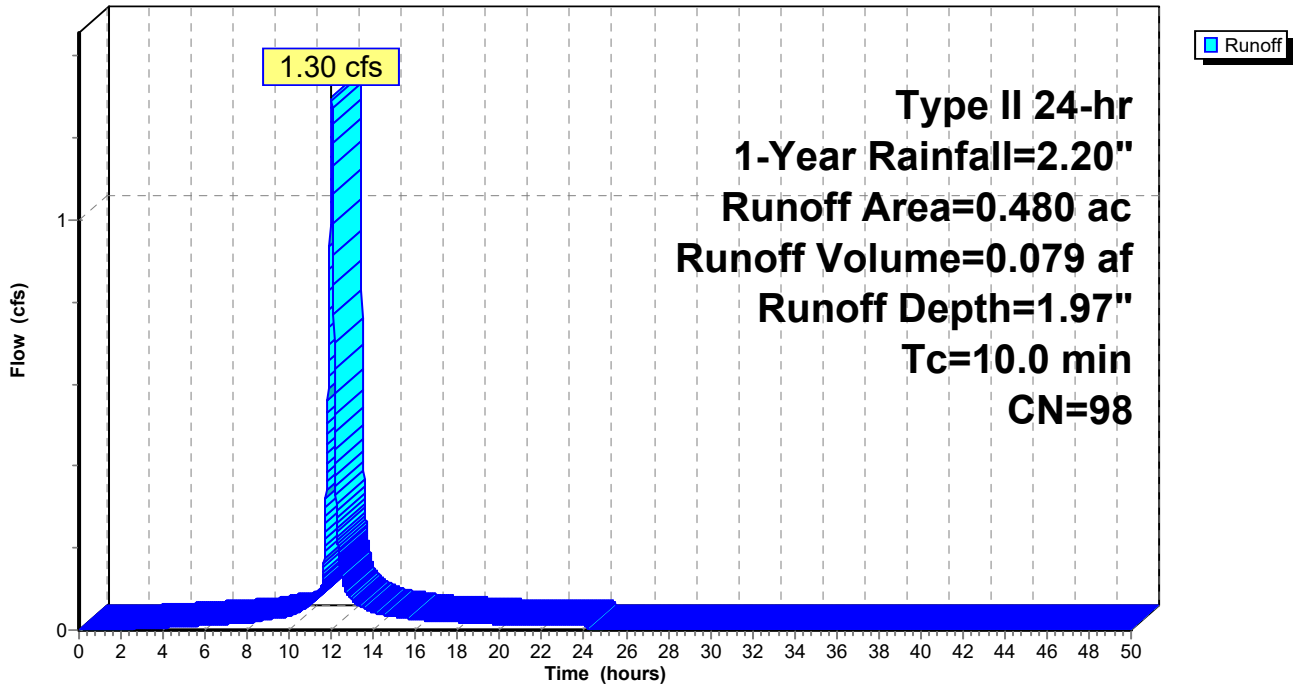
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 11E: STR11

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.022 af, Depth= 1.42"

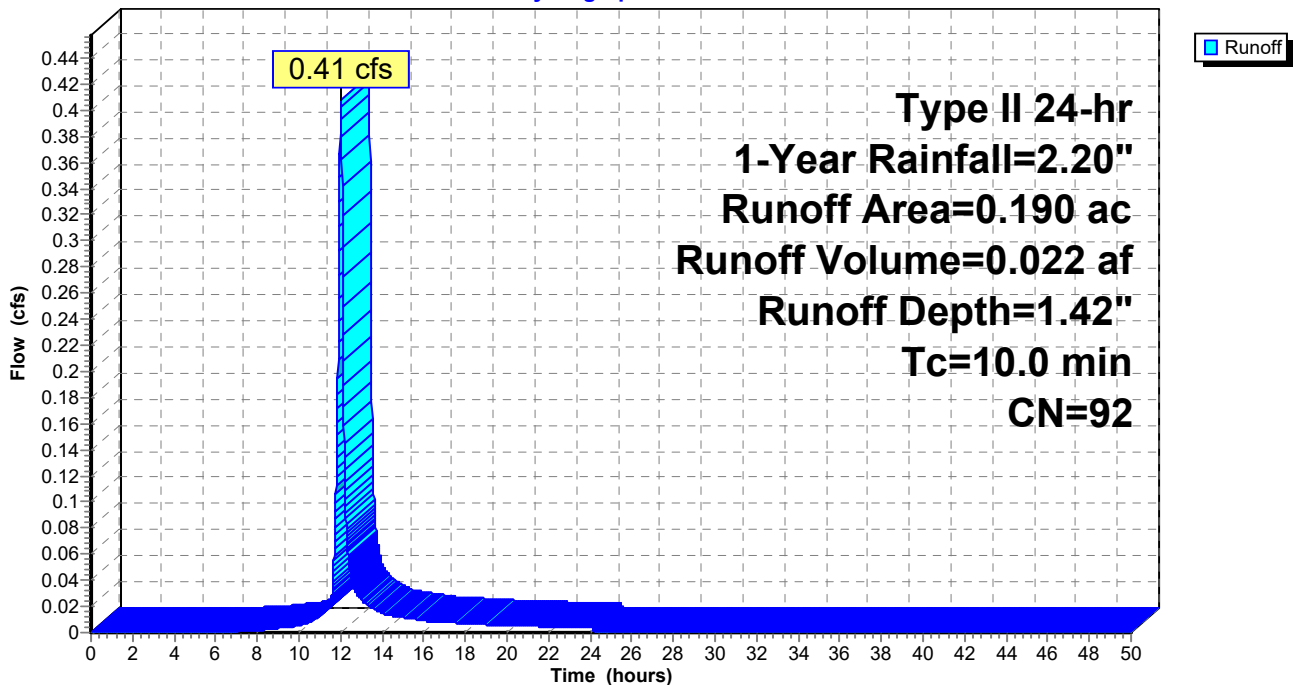
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Summary for Subcatchment 12E: STR12

Runoff = 1.30 cfs @ 12.01 hrs, Volume= 0.074 af, Depth= 1.67"

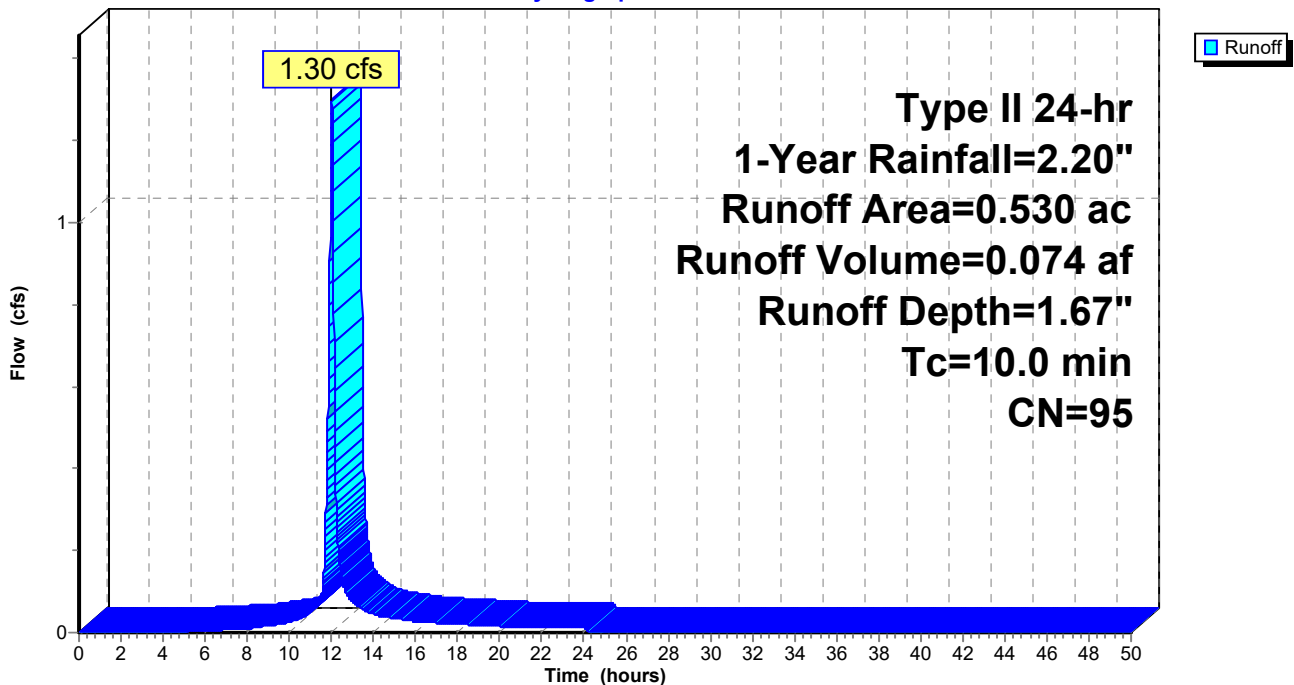
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 1.76" for 1-Year event
 Inflow = 2.51 cfs @ 12.01 hrs, Volume= 0.146 af
 Outflow = 0.63 cfs @ 12.27 hrs, Volume= 0.146 af, Atten= 75%, Lag= 15.5 min
 Primary = 0.63 cfs @ 12.27 hrs, Volume= 0.146 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.95' @ 12.22 hrs Surf.Area= 9,394 sf Storage= 1,747 cf

Plug-Flow detention time= 15.6 min calculated for 0.146 af (100% of inflow)
 Center-of-Mass det. time= 15.4 min (800.7 - 785.3)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.63 cfs @ 12.27 hrs HW=911.95' TW=908.96' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.63 cfs @ 8.27 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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EXISTING EAST TRIB

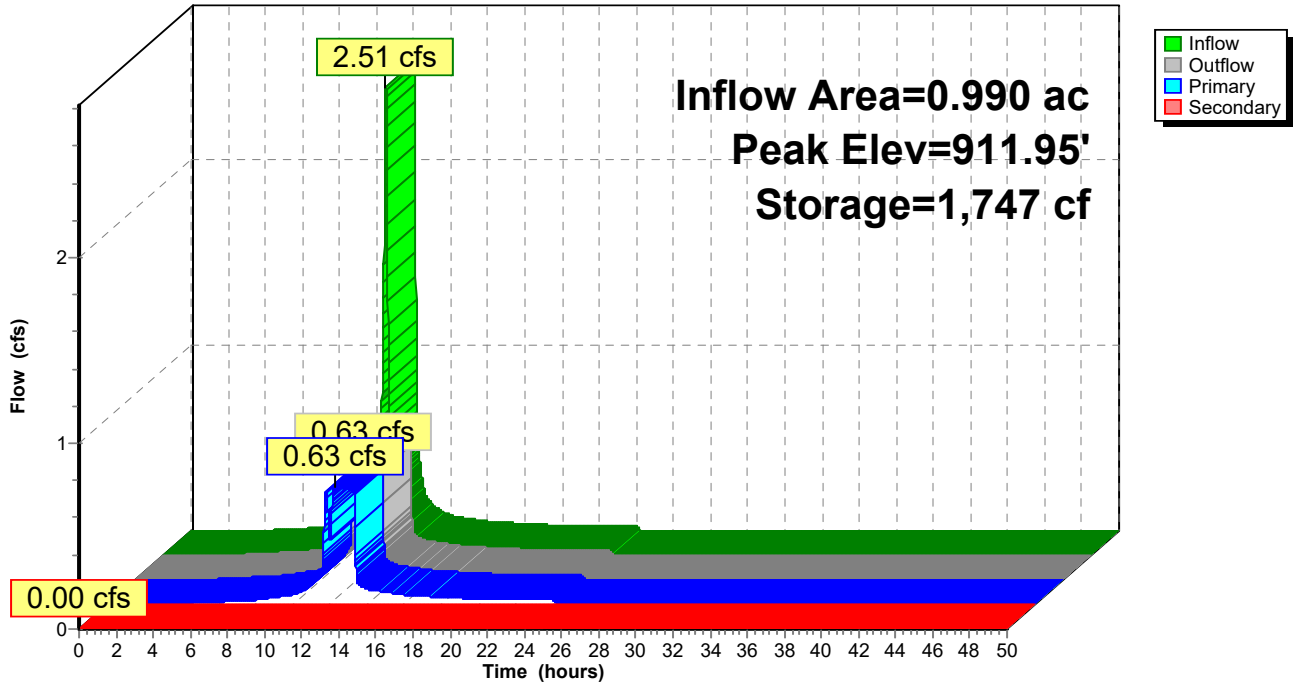
Type II 24-hr 1-Year Rainfall=2.20"

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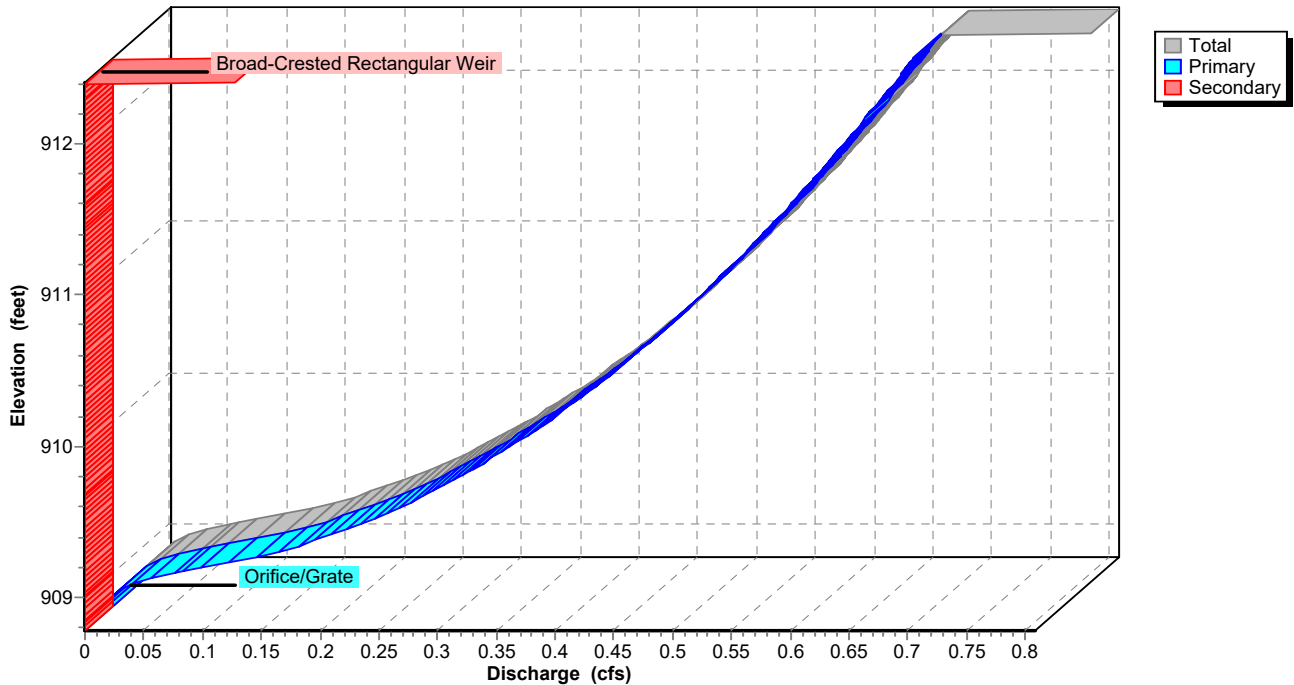
Pond 12P: PONDING STR 12-13

Hydrograph



Pond 12P: PONDING STR 12-13

Stage-Discharge



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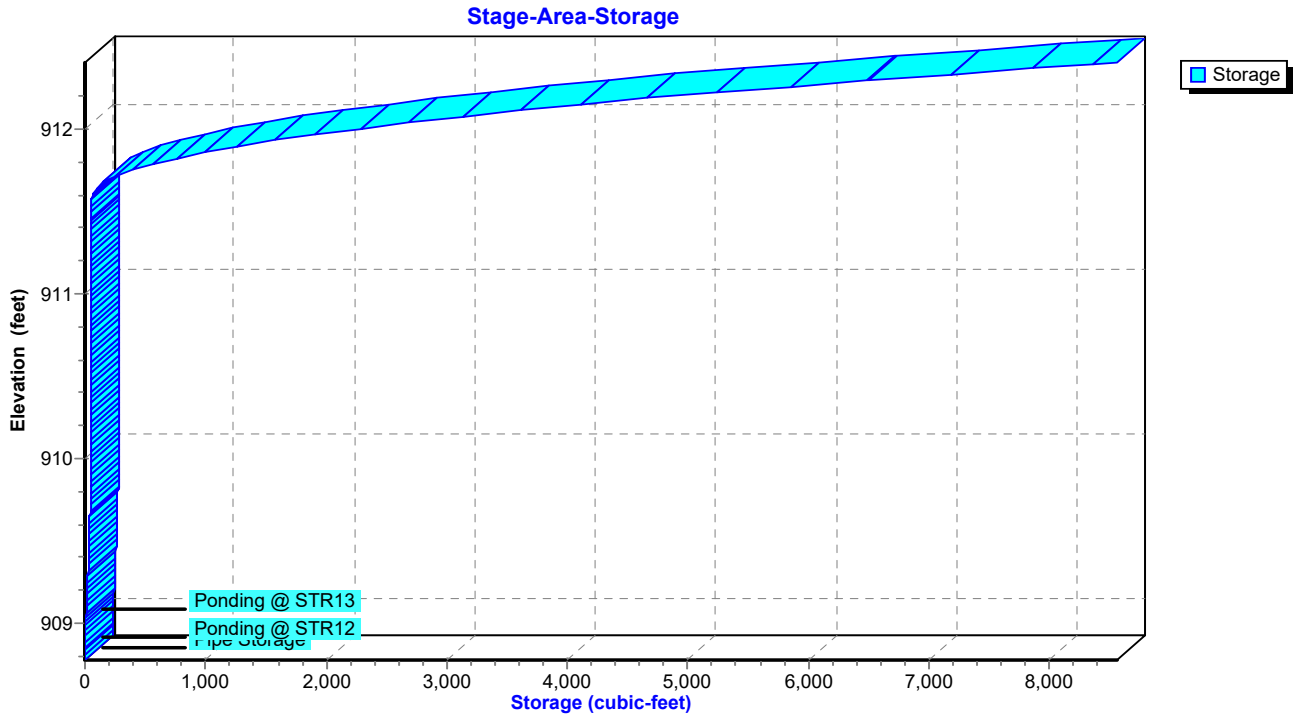
EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Pond 12P: PONDING STR 12-13



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EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 13E: STR13

Runoff = 1.21 cfs @ 12.01 hrs, Volume= 0.072 af, Depth= 1.87"

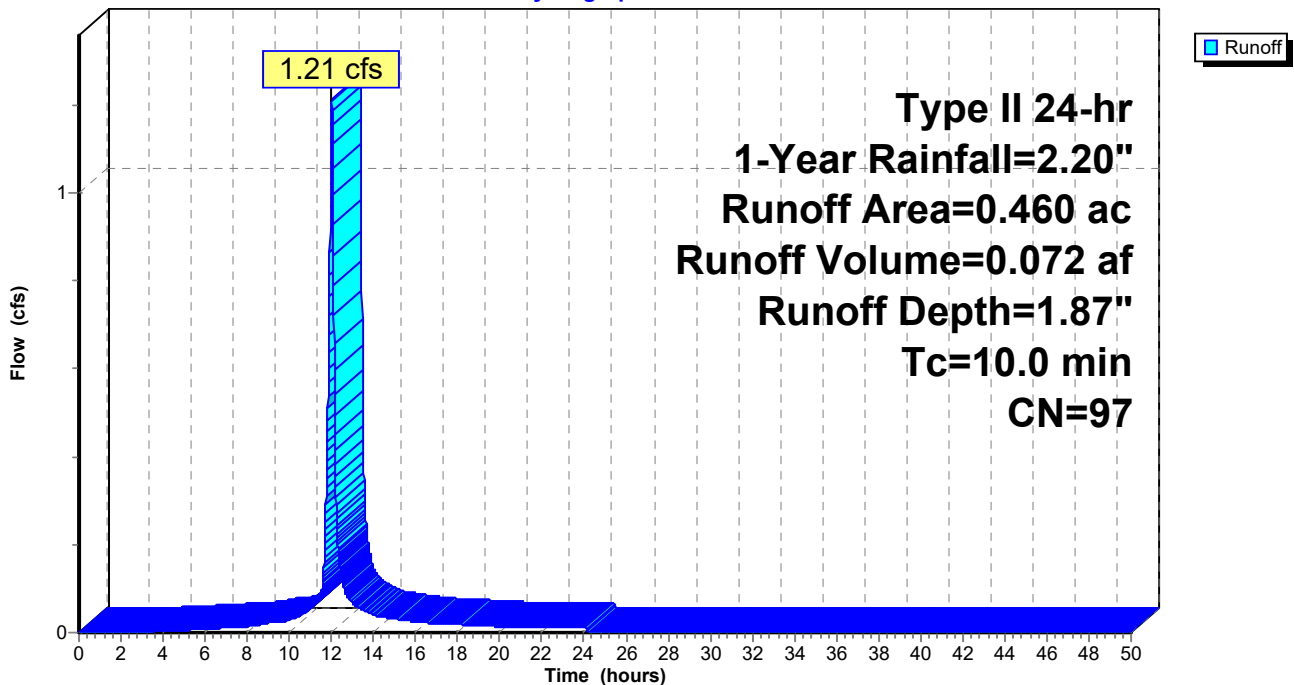
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

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EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 14E: STR14

Runoff = 1.11 cfs @ 12.01 hrs, Volume= 0.063 af, Depth= 1.67"

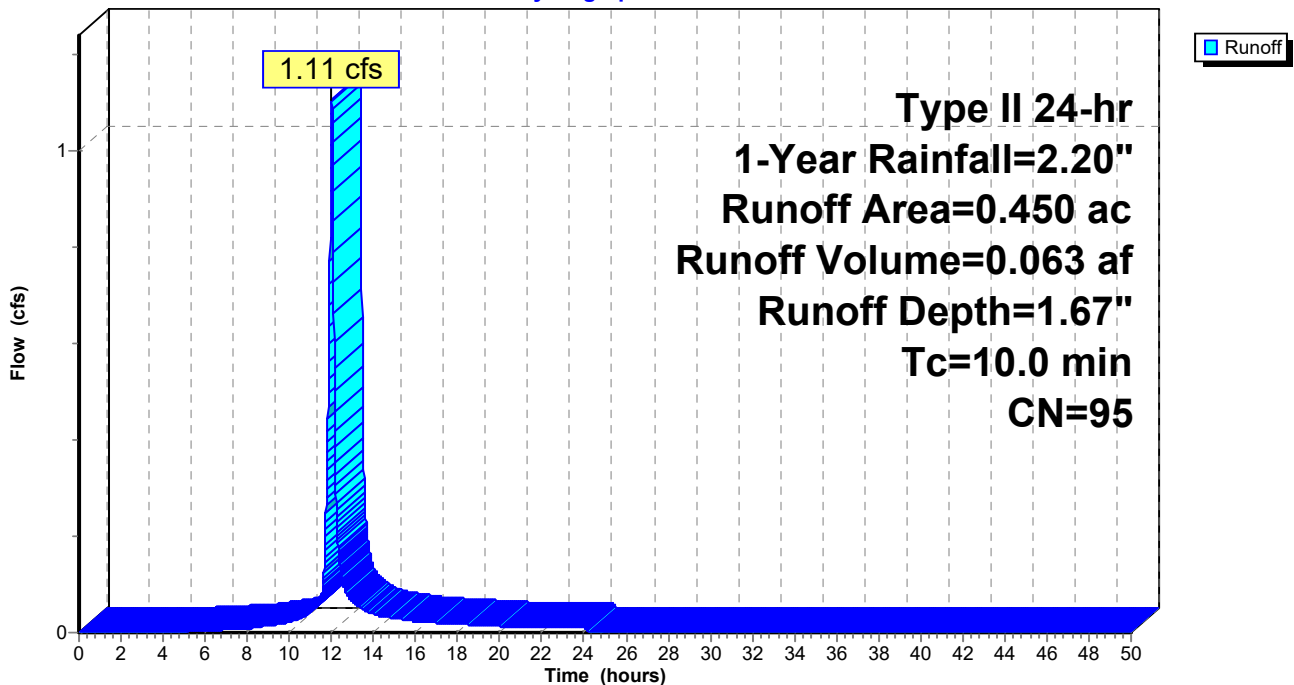
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 1.67" for 1-Year event
 Inflow = 1.11 cfs @ 12.01 hrs, Volume= 0.063 af
 Outflow = 0.70 cfs @ 12.31 hrs, Volume= 0.063 af, Atten= 36%, Lag= 17.9 min
 Primary = 0.70 cfs @ 12.31 hrs, Volume= 0.063 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.88' @ 12.12 hrs Surf.Area= 1,829 sf Storage= 408 cf

Plug-Flow detention time= 3.0 min calculated for 0.063 af (100% of inflow)
 Center-of-Mass det. time= 2.8 min (796.6 - 793.8)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.71 cfs @ 12.31 hrs HW=911.70' TW=908.88' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.71 cfs @ 8.09 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.09' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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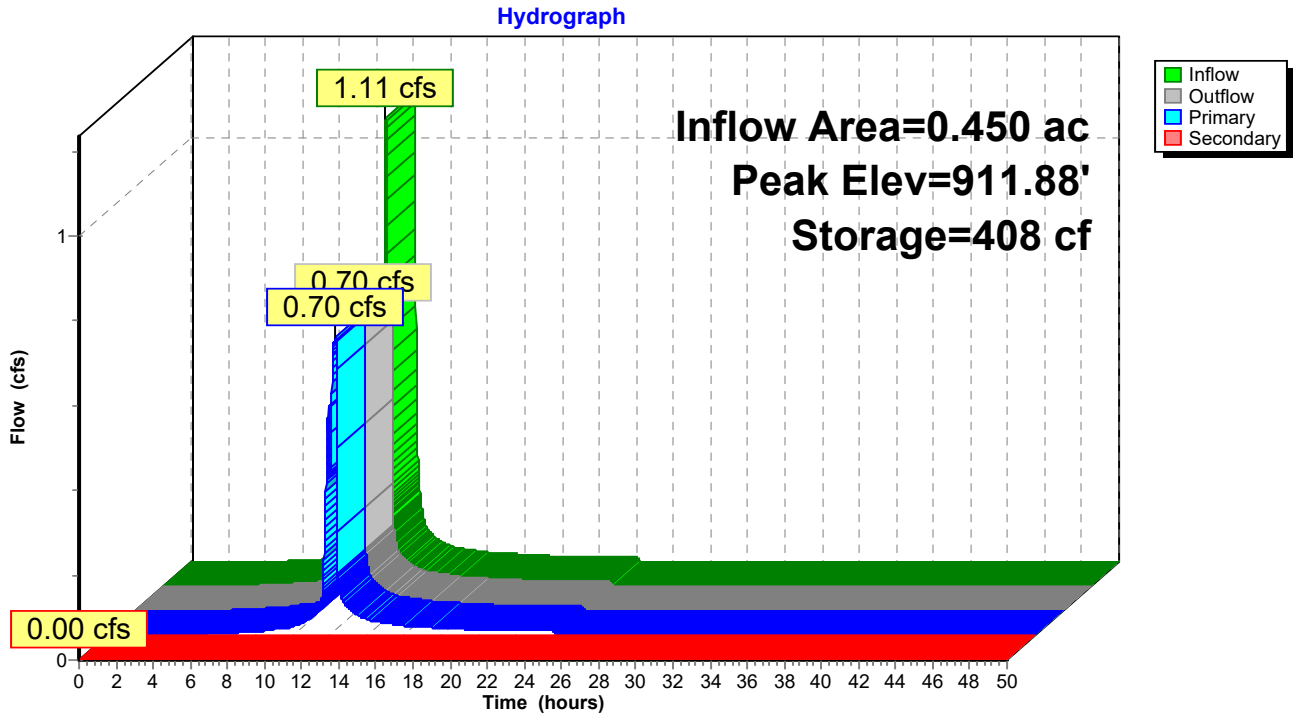
EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

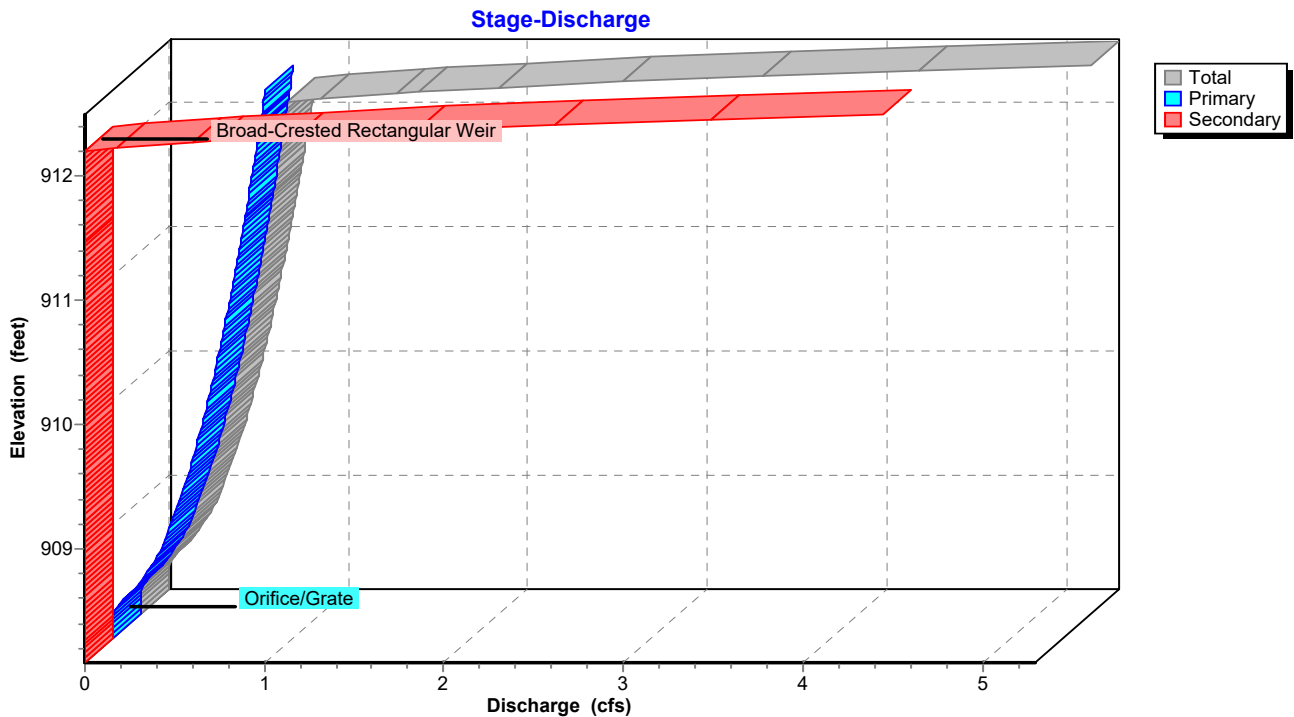
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Pond 14P: PONDING STR 14



Pond 14P: PONDING STR 14



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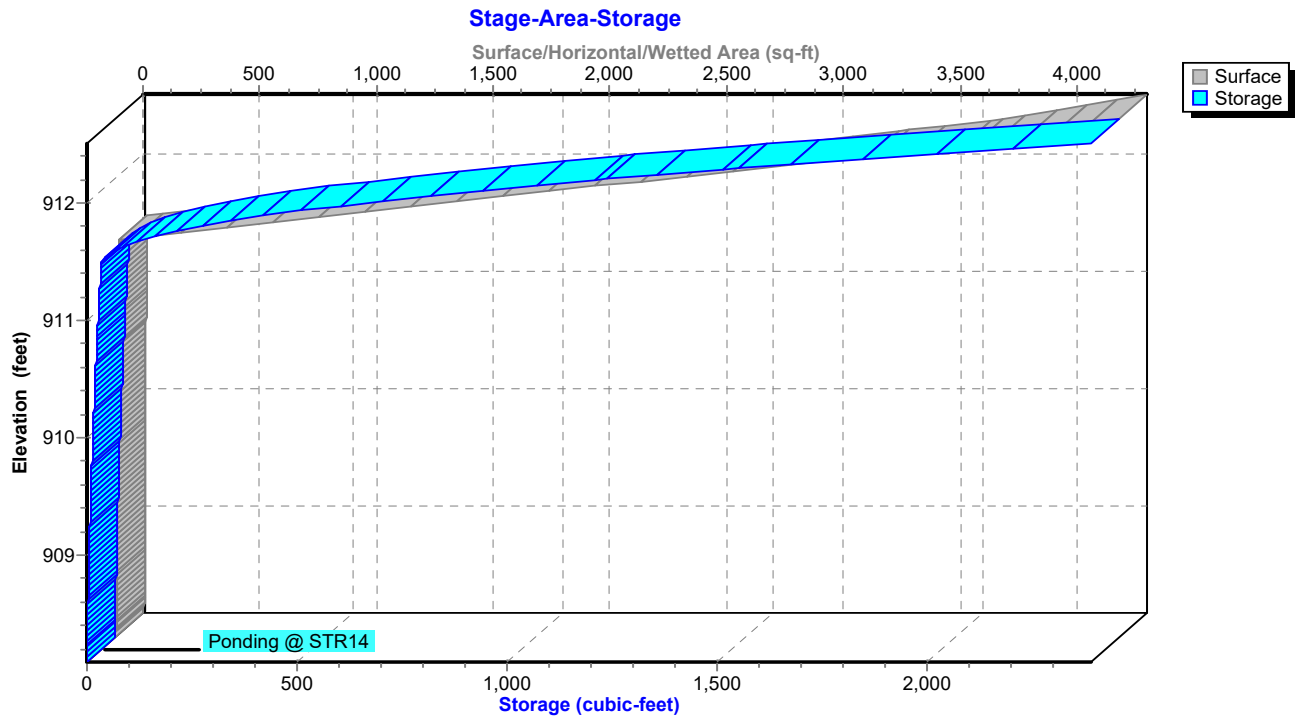
EXISTING EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Pond 14P: PONDING STR 14



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Summary for Subcatchment XE: STRX

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.020 af, Depth= 1.97"

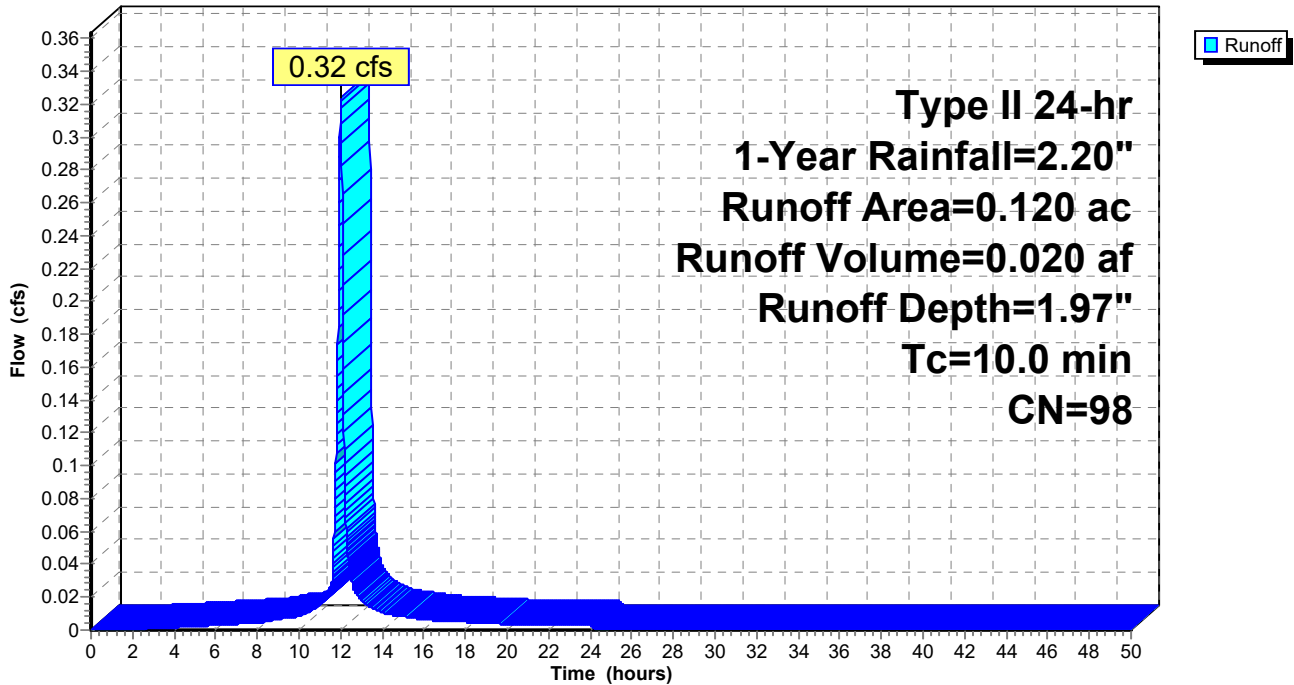
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 1E: STR1

Runoff = 0.71 cfs @ 12.02 hrs, Volume= 0.038 af, Depth= 1.09"

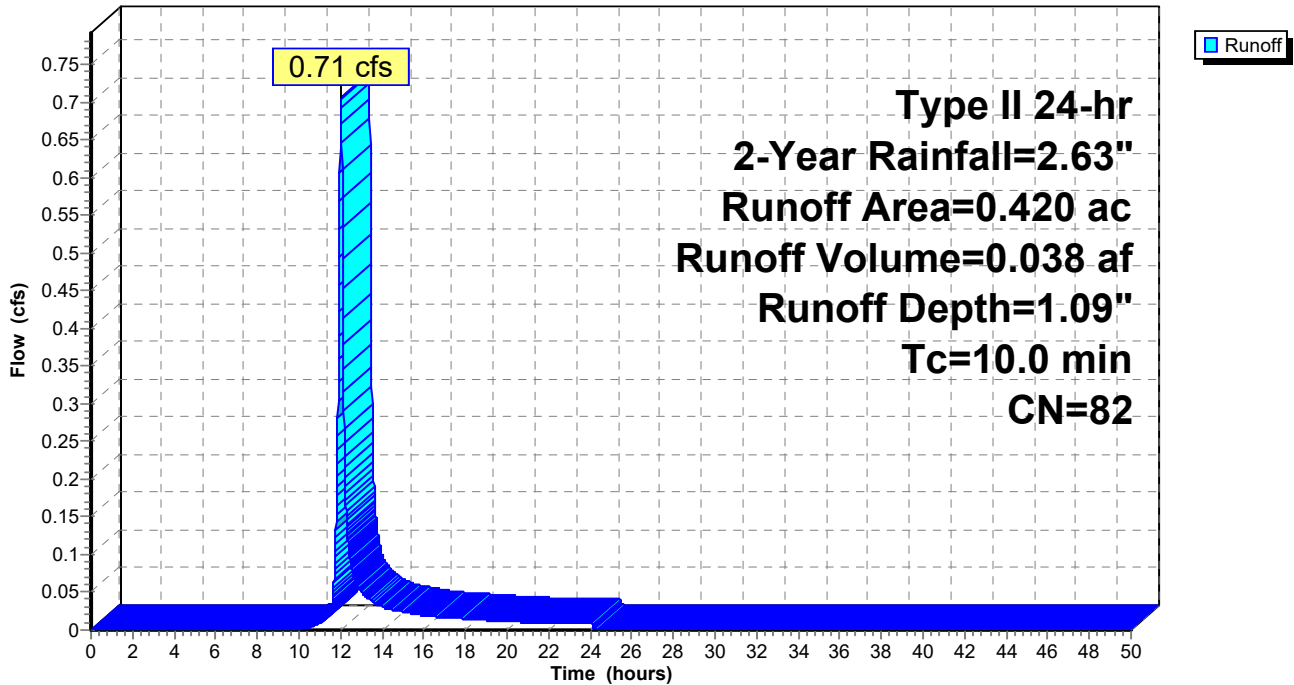
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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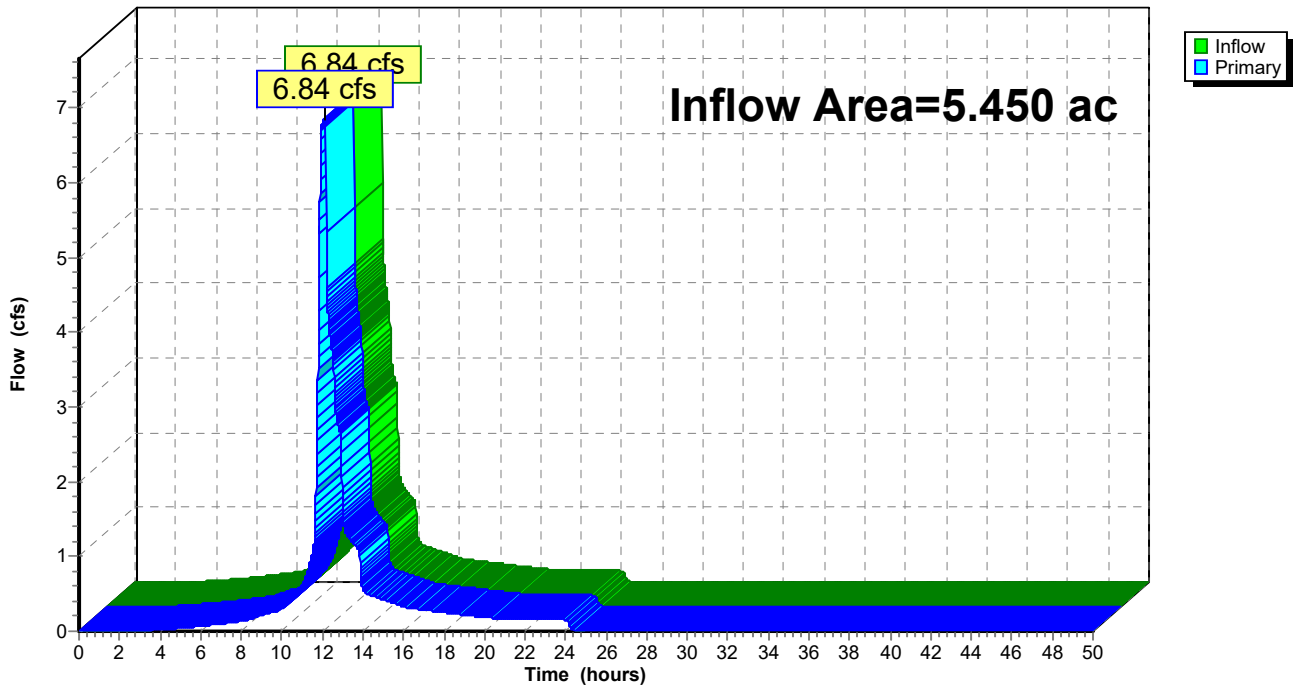
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.98" for 2-Year event
Inflow = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af
Primary = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.98" for 2-Year event
 Inflow = 8.41 cfs @ 12.01 hrs, Volume= 0.901 af
 Outflow = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af, Atten= 19%, Lag= 4.1 min
 Primary = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.08' @ 12.08 hrs Surf.Area= 4,969 sf Storage= 1,186 cf

Plug-Flow detention time= 2.2 min calculated for 0.901 af (100% of inflow)
 Center-of-Mass det. time= 2.0 min (799.8 - 797.8)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 '/'
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 '/'
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=6.84 cfs @ 12.08 hrs HW=911.08' TW=0.00' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 6.84 cfs @ 8.71 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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EXISTING EAST TRIB

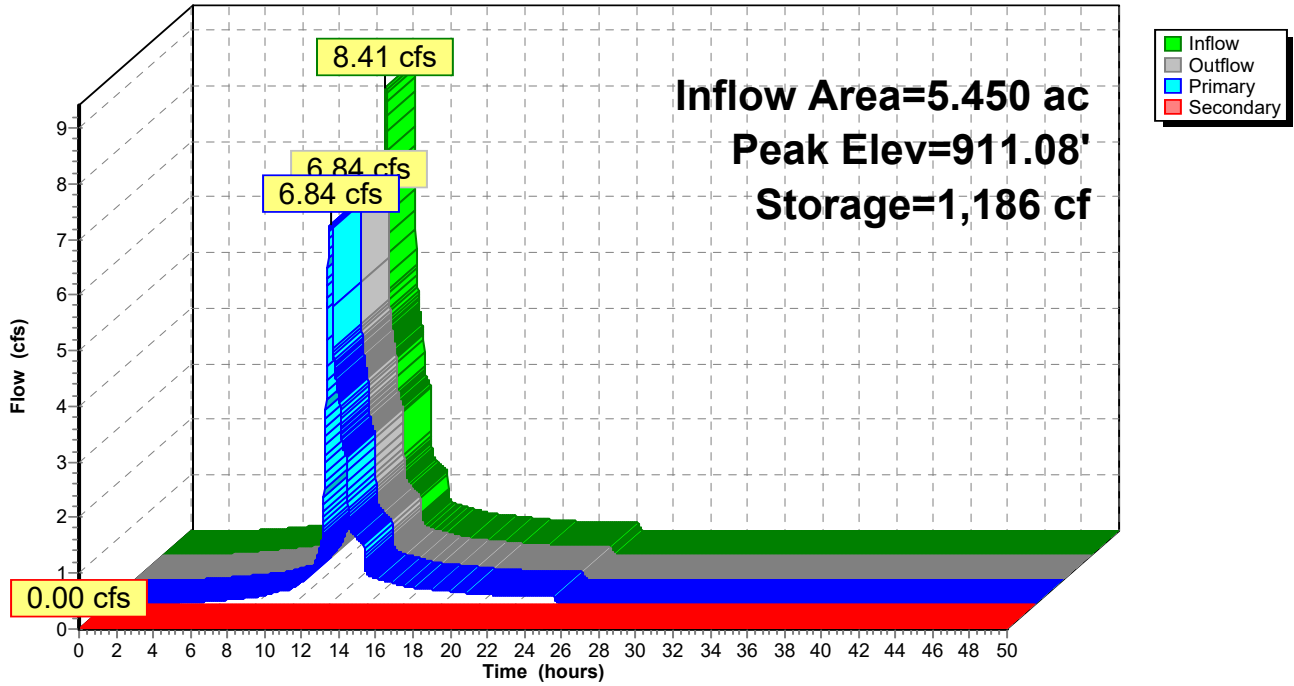
Type II 24-hr 2-Year Rainfall=2.63"

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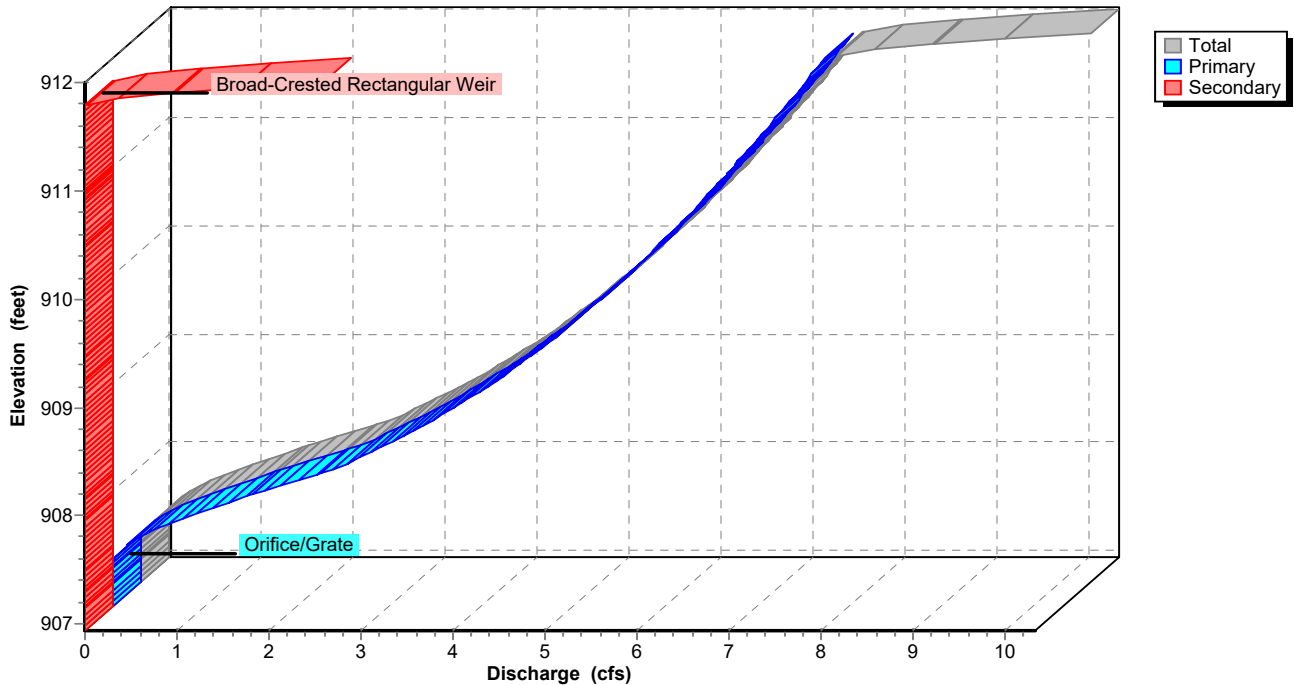
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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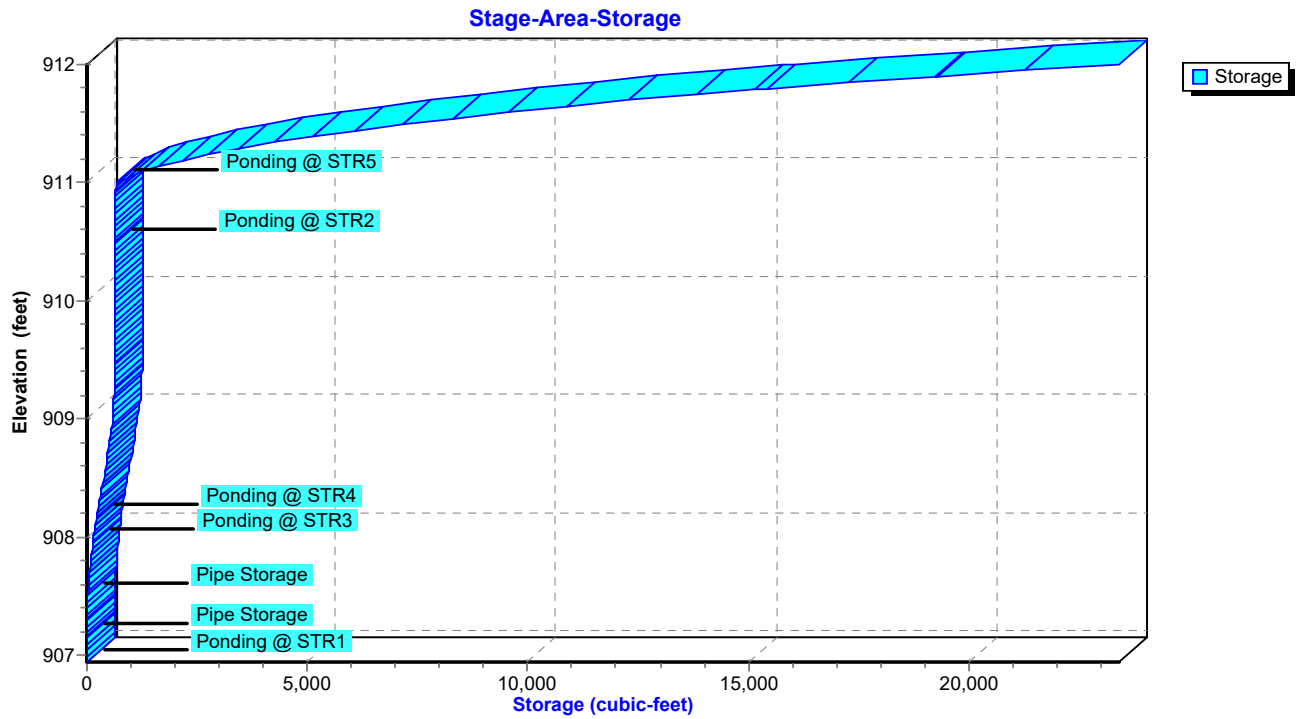
EXISTING EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond 1P: PONDING STR 1-5



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Summary for Subcatchment 2E: STR2

Runoff = 1.88 cfs @ 12.01 hrs, Volume= 0.108 af, Depth= 2.09"

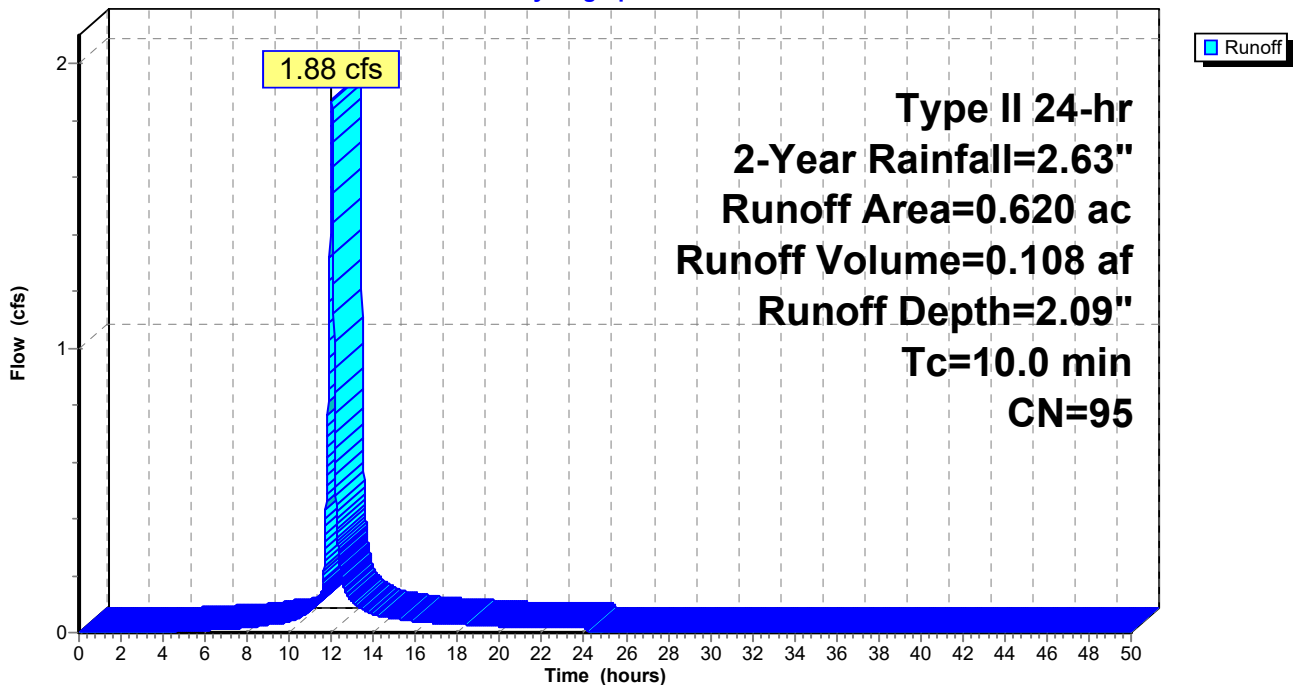
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 3E: STR3

Runoff = 1.21 cfs @ 12.01 hrs, Volume= 0.070 af, Depth= 2.09"

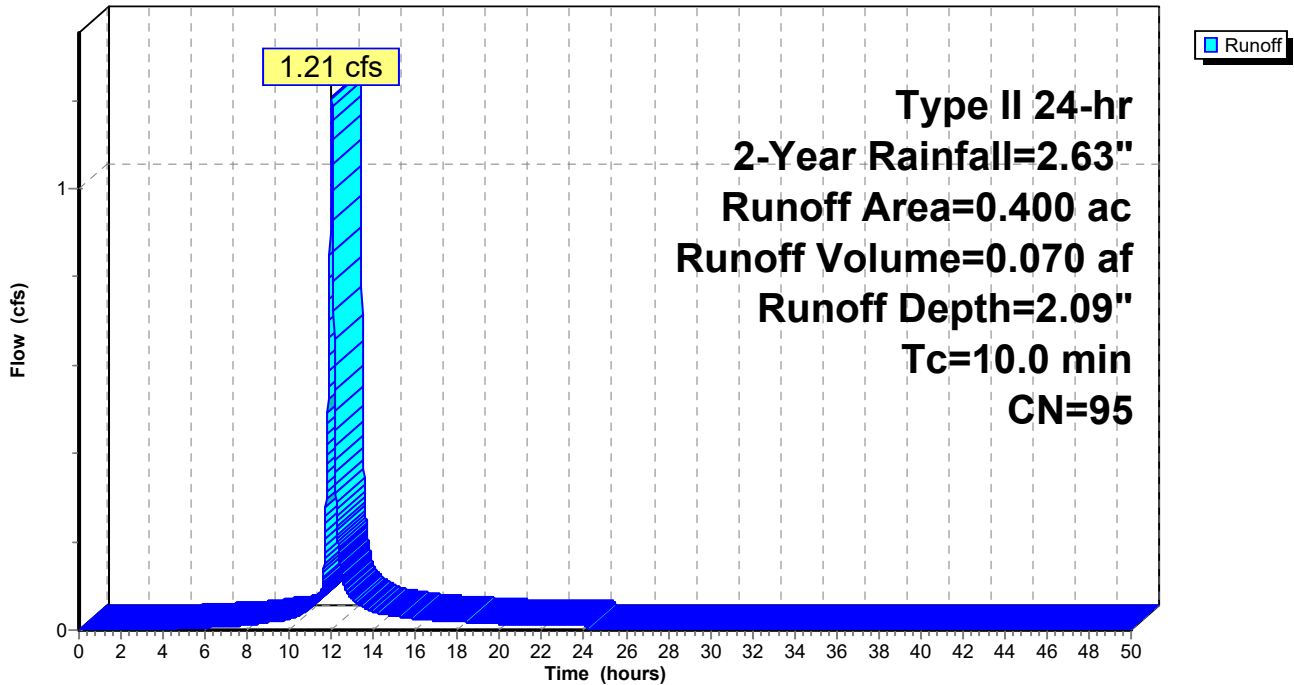
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Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 4E: STR4

Runoff = 1.22 cfs @ 12.01 hrs, Volume= 0.068 af, Depth= 1.90"

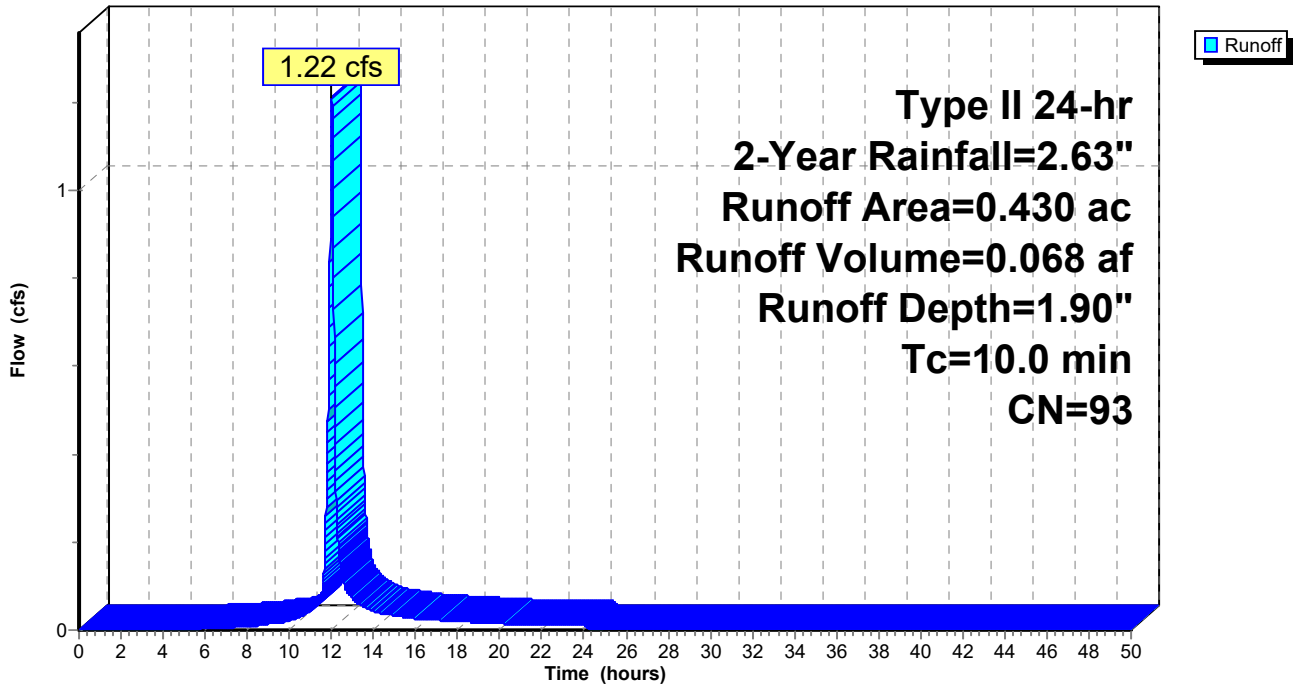
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 5E: STR5

Runoff = 1.45 cfs @ 12.01 hrs, Volume= 0.080 af, Depth= 1.65"

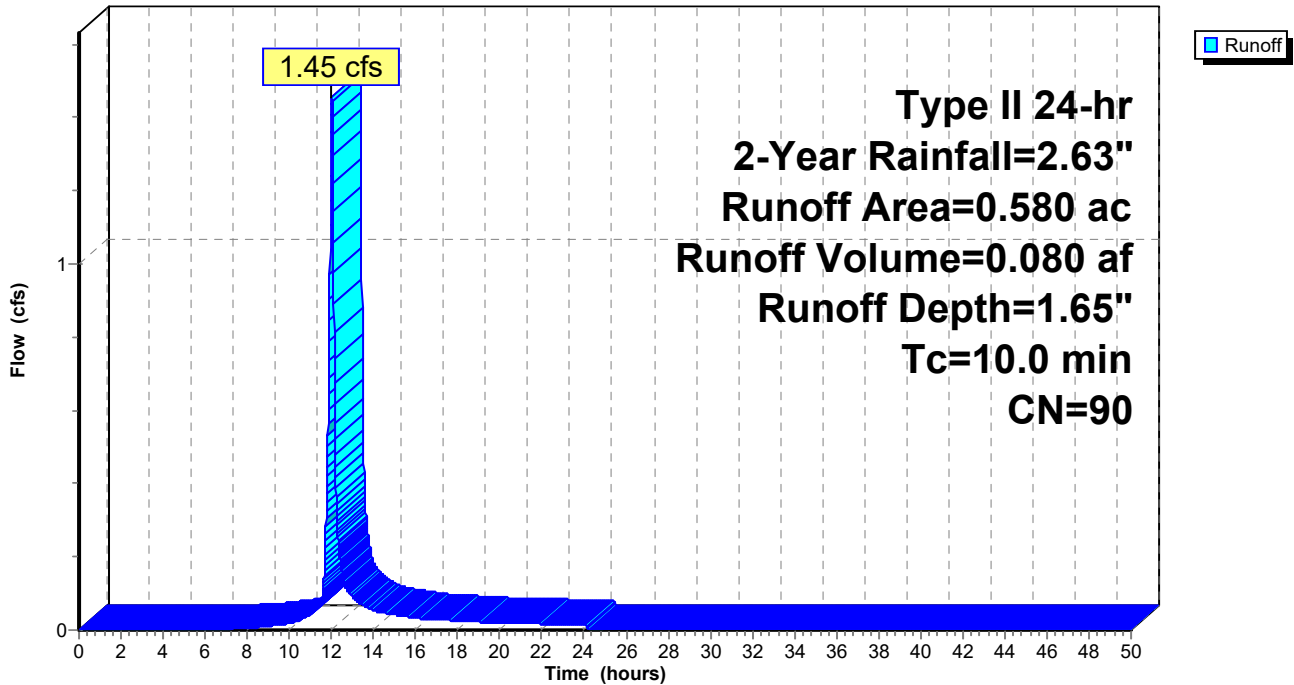
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 8E: STR8

Runoff = 1.00 cfs @ 12.01 hrs, Volume= 0.057 af, Depth= 2.09"

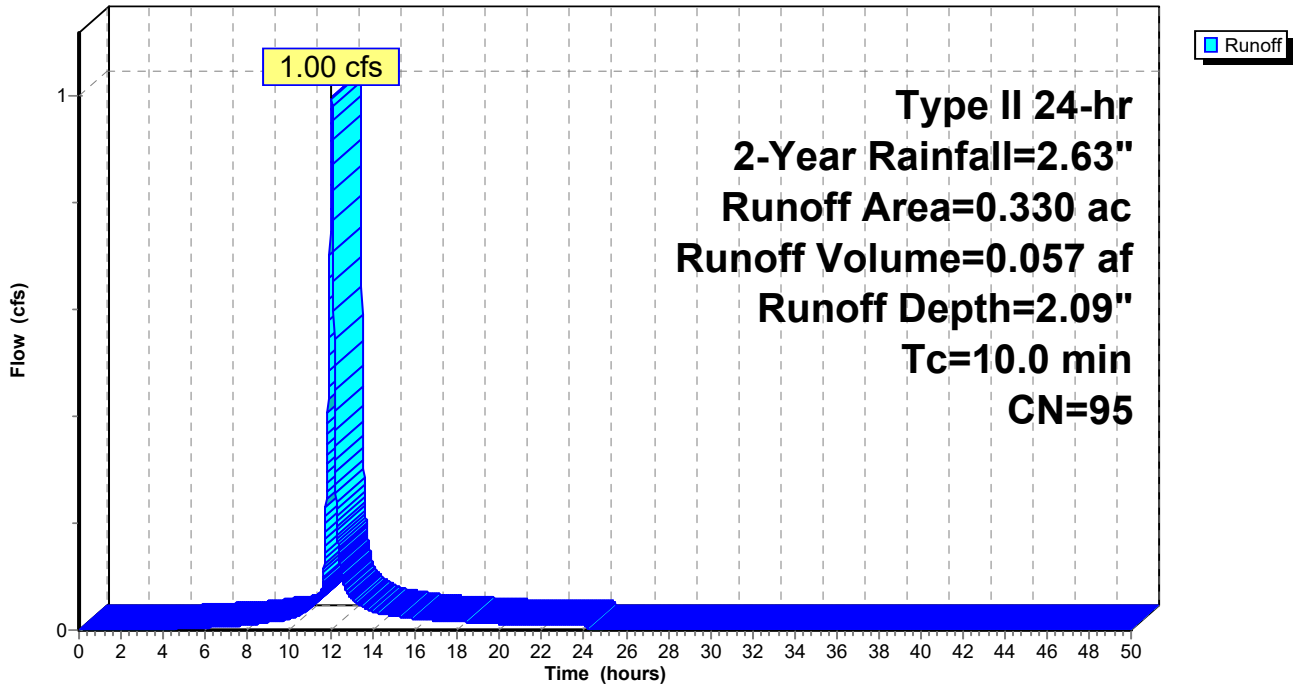
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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EXISTING EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 2.13" for 2-Year event
 Inflow = 4.37 cfs @ 12.01 hrs, Volume= 0.255 af
 Outflow = 1.54 cfs @ 12.39 hrs, Volume= 0.255 af, Atten= 65%, Lag= 22.9 min
 Primary = 1.54 cfs @ 12.39 hrs, Volume= 0.255 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.09' @ 12.19 hrs Surf.Area= 10,643 sf Storage= 2,816 cf

Plug-Flow detention time= 12.8 min calculated for 0.255 af (100% of inflow)
 Center-of-Mass det. time= 12.0 min (793.4 - 781.4)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.54 cfs @ 12.39 hrs HW=912.04' TW=908.89' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.54 cfs @ 8.54 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=906.94' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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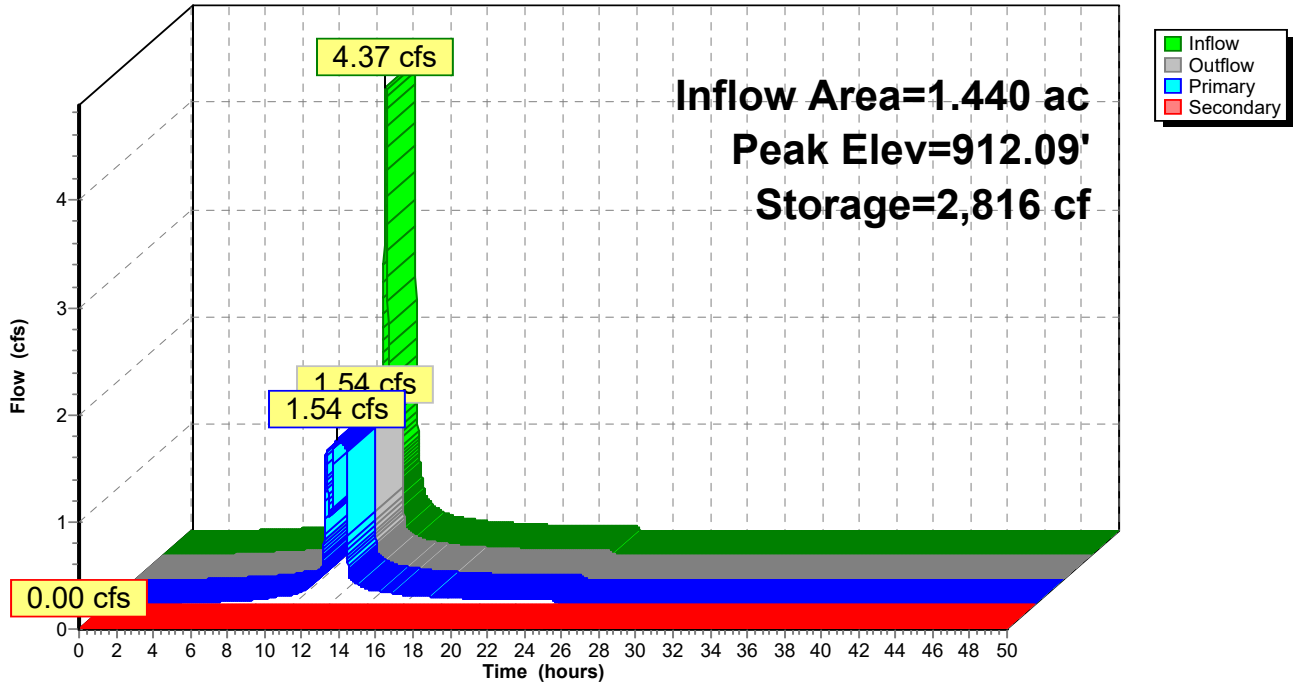
Type II 24-hr 2-Year Rainfall=2.63"

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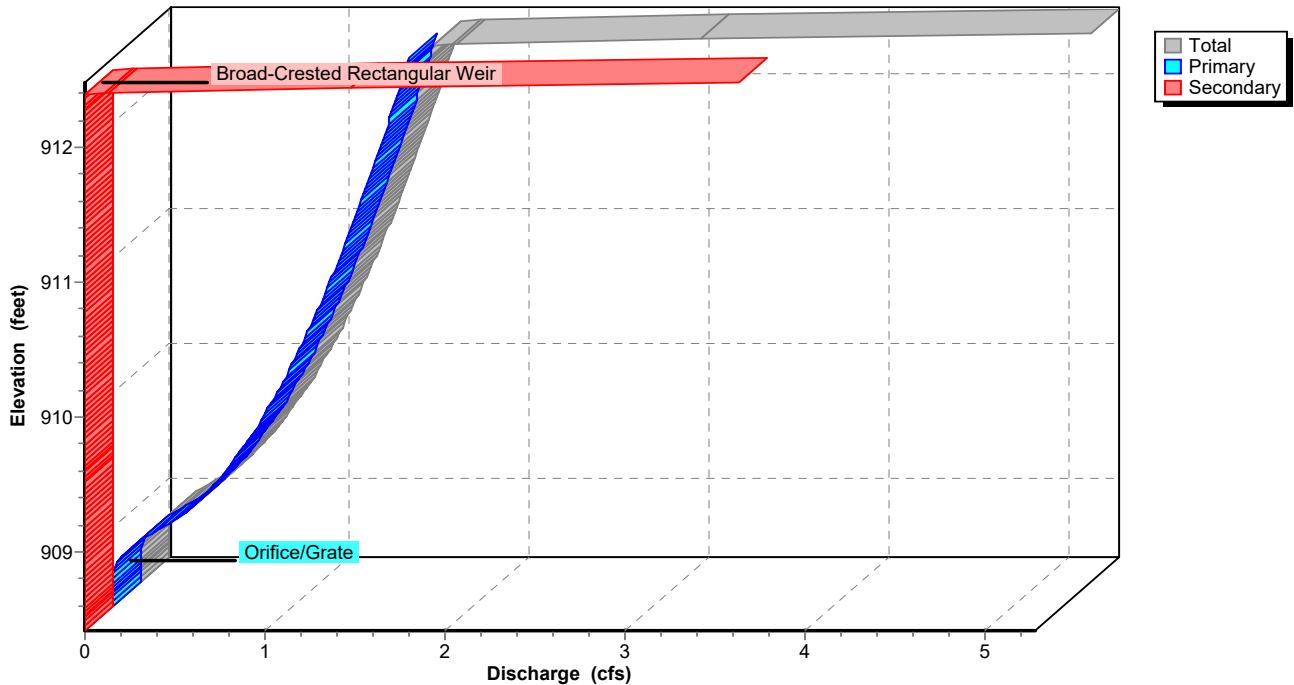
Pond 8P: PONDING STR 8-11

Hydrograph



Pond 8P: PONDING STR 8-11

Stage-Discharge



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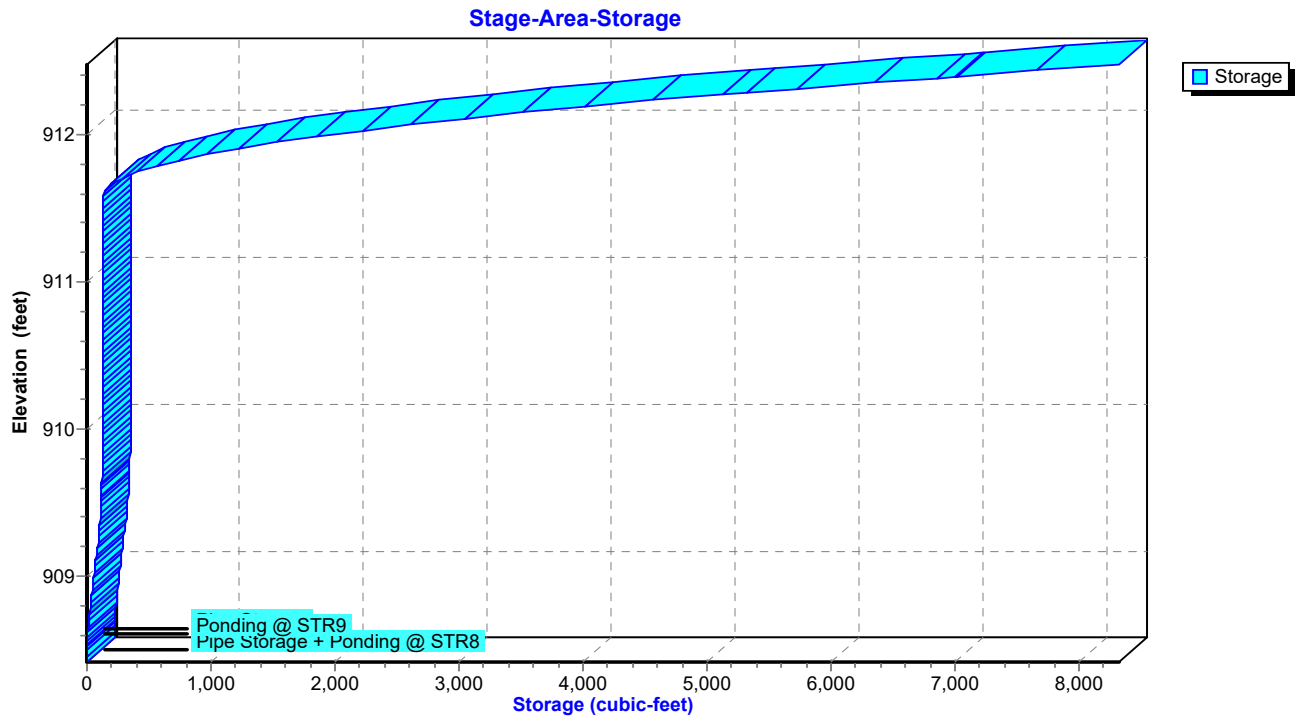
EXISTING EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 9E: STR9

Runoff = 1.29 cfs @ 12.01 hrs, Volume= 0.073 af, Depth= 1.99"

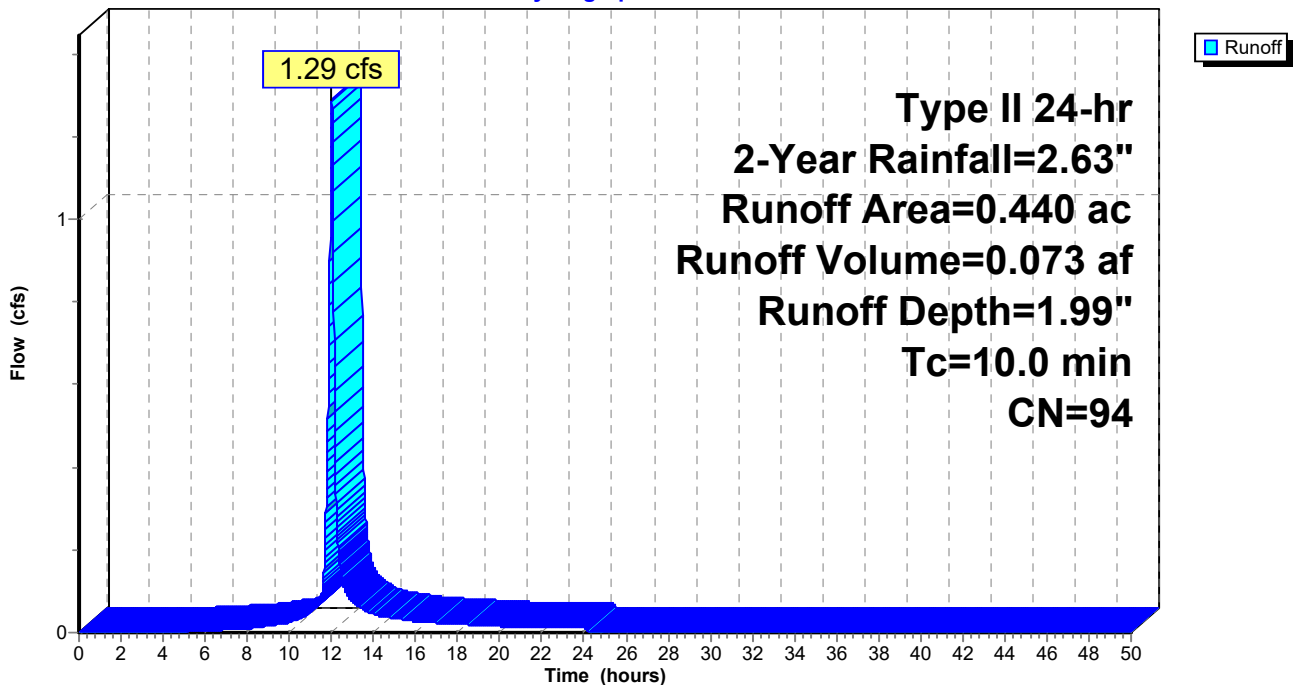
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 10E: STR10

Runoff = 1.56 cfs @ 12.01 hrs, Volume= 0.096 af, Depth= 2.40"

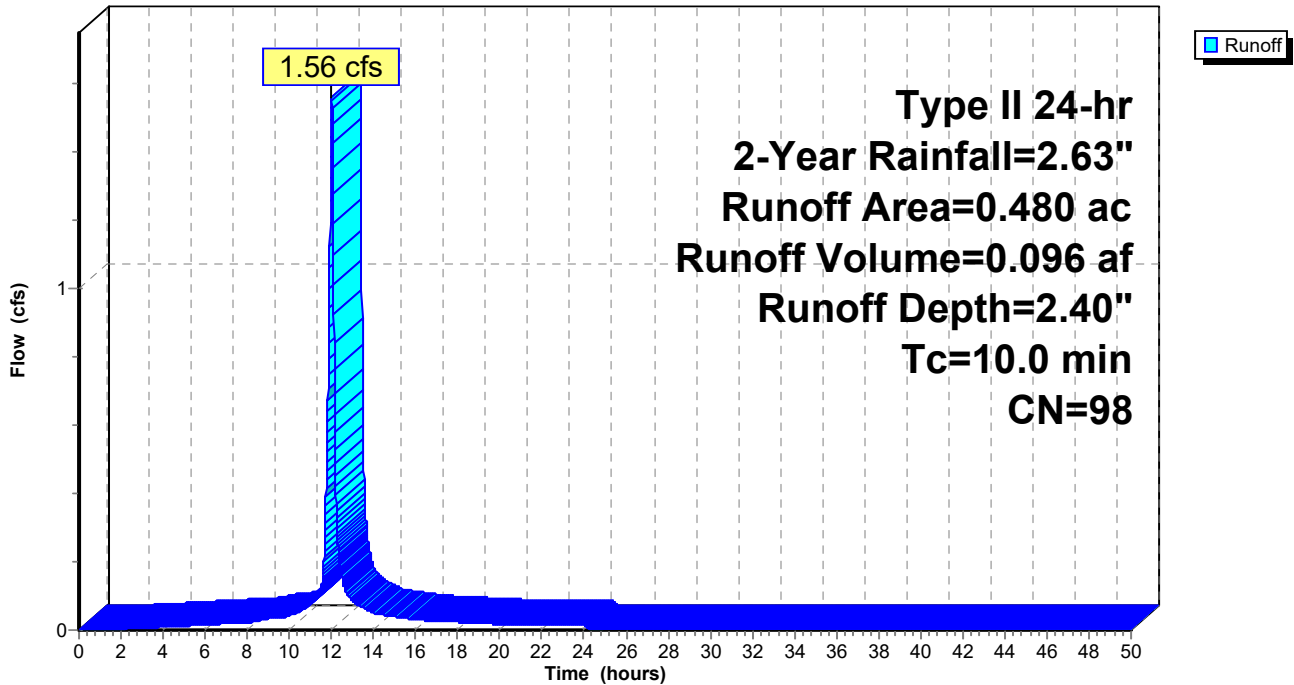
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 11E: STR11

Runoff = 0.52 cfs @ 12.01 hrs, Volume= 0.029 af, Depth= 1.81"

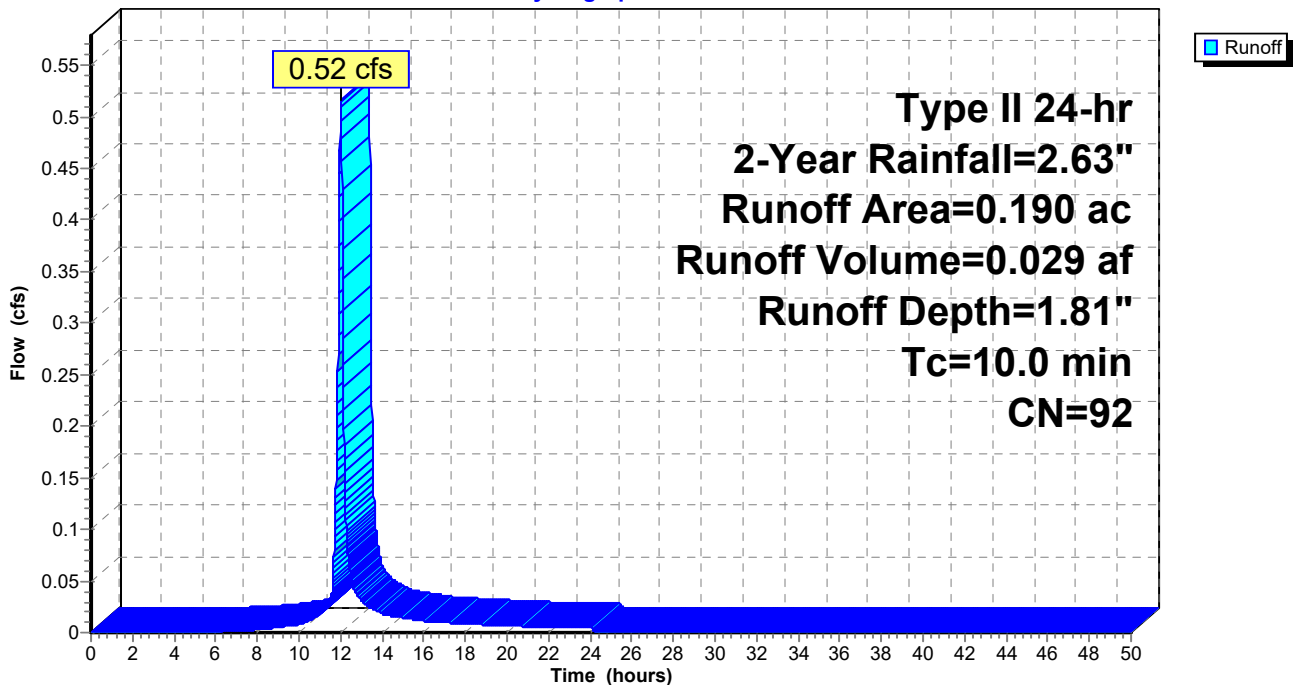
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Summary for Subcatchment 12E: STR12

Runoff = 1.60 cfs @ 12.01 hrs, Volume= 0.092 af, Depth= 2.09"

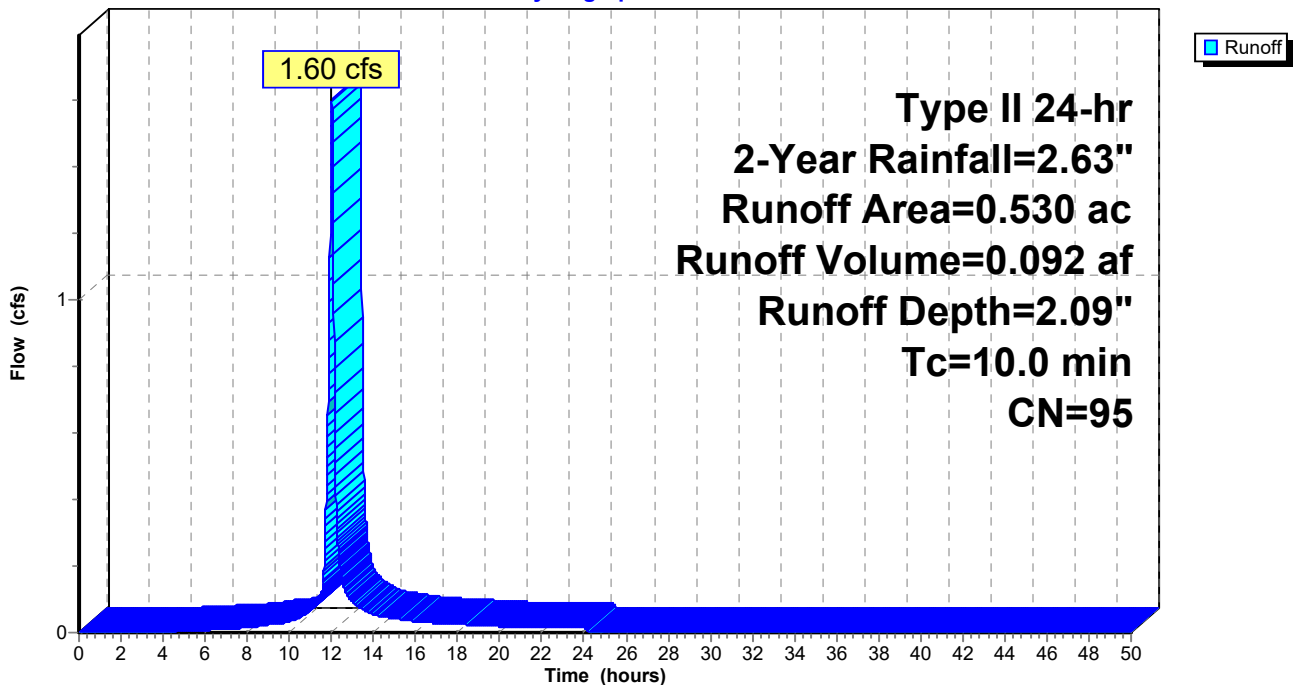
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

Hydrograph



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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 2.18" for 2-Year event
 Inflow = 3.07 cfs @ 12.01 hrs, Volume= 0.180 af
 Outflow = 0.64 cfs @ 12.33 hrs, Volume= 0.180 af, Atten= 79%, Lag= 19.4 min
 Primary = 0.64 cfs @ 12.33 hrs, Volume= 0.180 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.02' @ 12.25 hrs Surf.Area= 11,177 sf Storage= 2,449 cf

Plug-Flow detention time= 22.4 min calculated for 0.180 af (100% of inflow)
 Center-of-Mass det. time= 22.4 min (802.1 - 779.7)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.64 cfs @ 12.33 hrs HW=912.01' TW=908.96' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.64 cfs @ 8.36 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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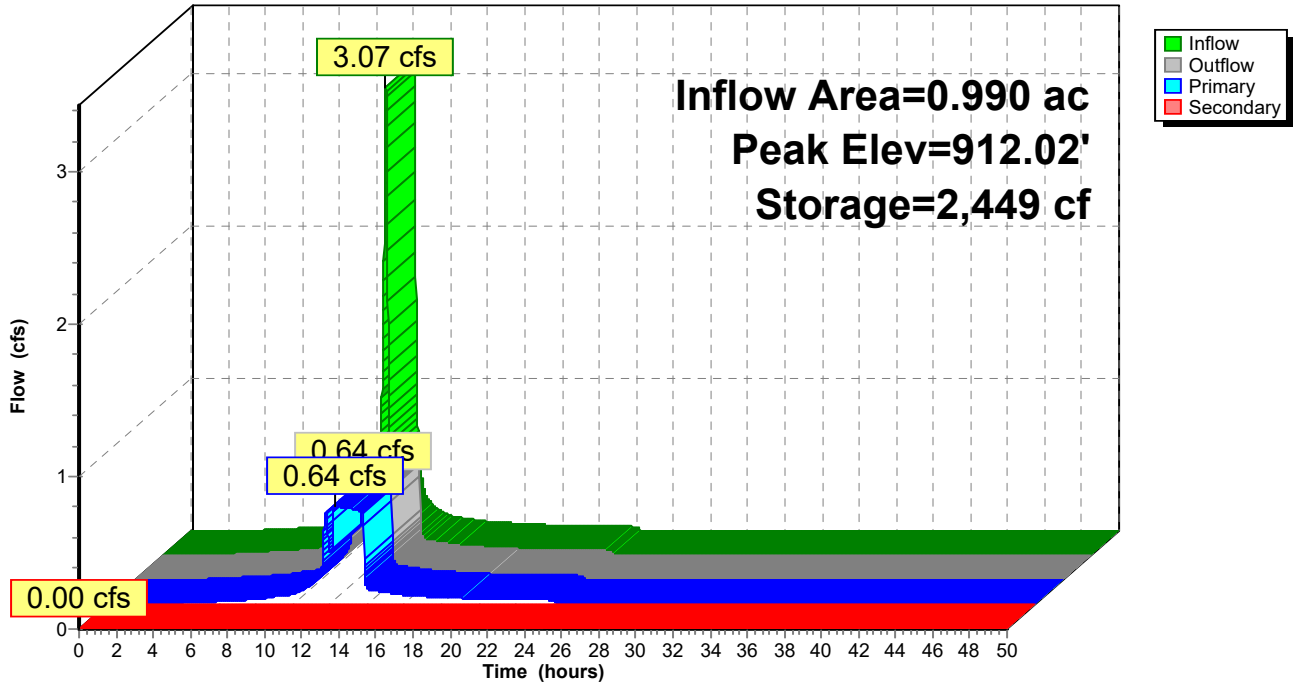
Type II 24-hr 2-Year Rainfall=2.63"

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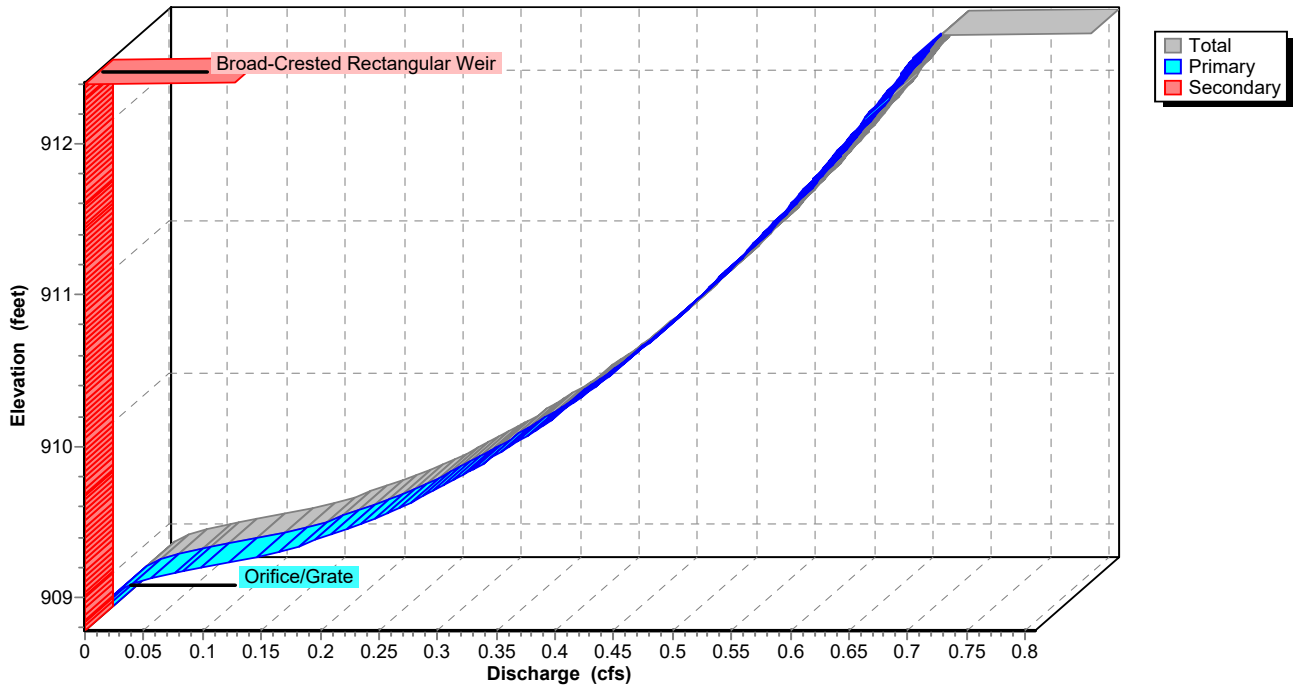
Pond 12P: PONDING STR 12-13

Hydrograph



Pond 12P: PONDING STR 12-13

Stage-Discharge



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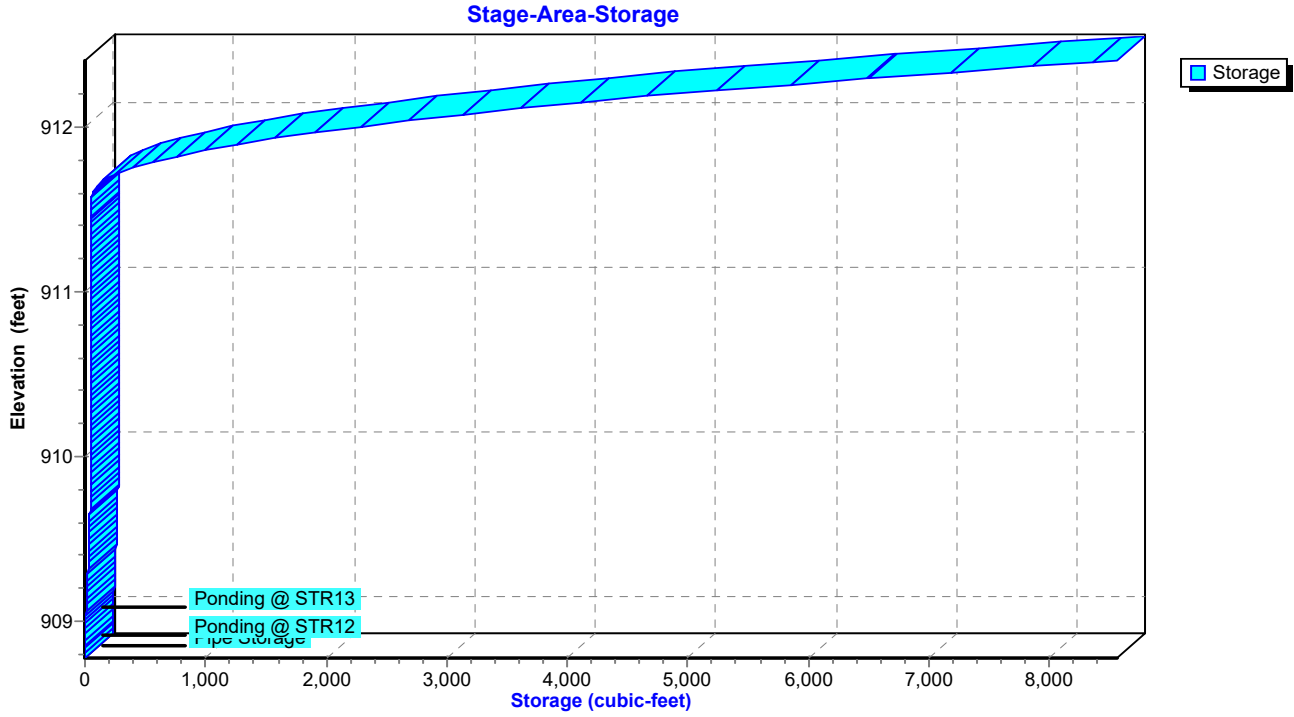
EXISTING EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond 12P: PONDING STR 12-13



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Summary for Subcatchment 13E: STR13

Runoff = 1.47 cfs @ 12.01 hrs, Volume= 0.088 af, Depth= 2.29"

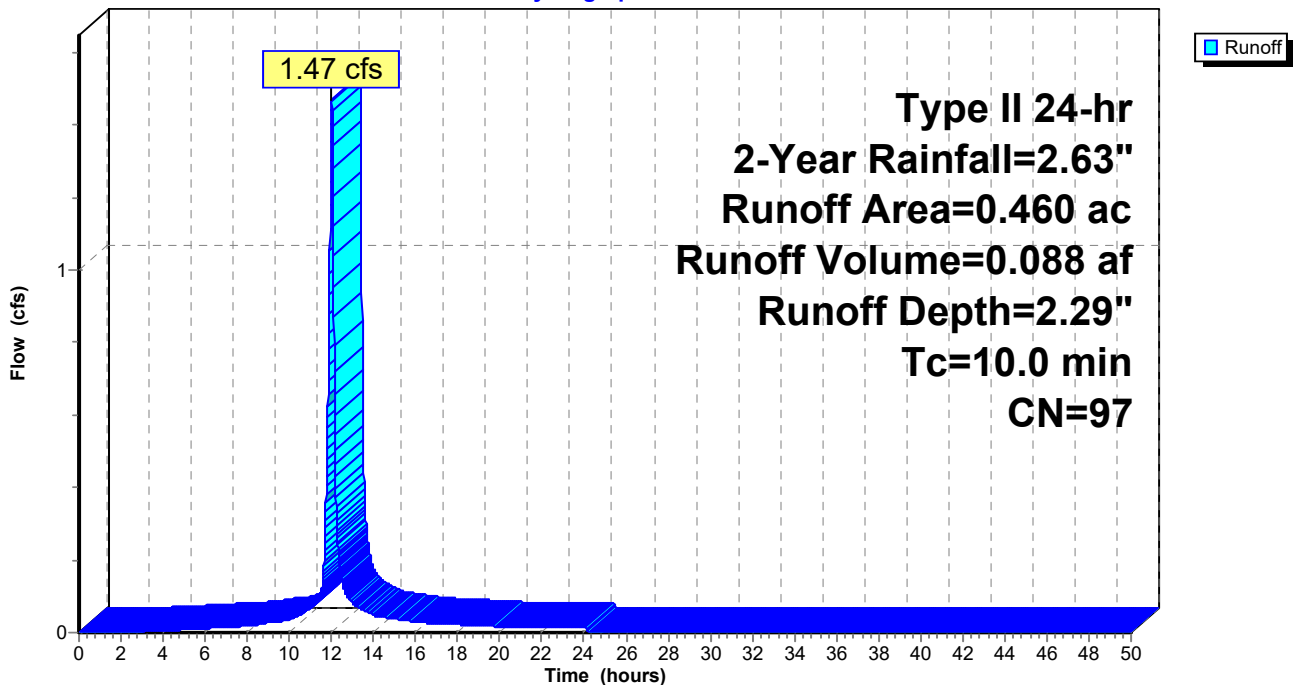
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

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Summary for Subcatchment 14E: STR14

Runoff = 1.36 cfs @ 12.01 hrs, Volume= 0.078 af, Depth= 2.09"

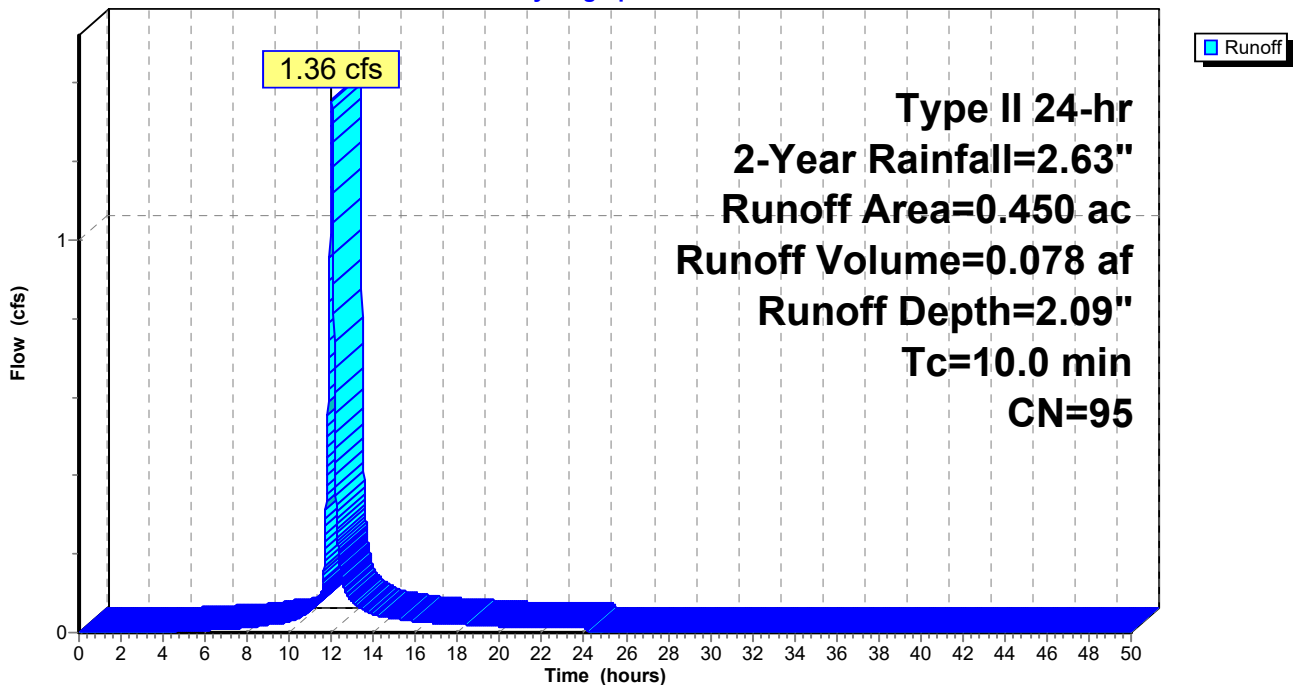
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 2.09" for 2-Year event
 Inflow = 1.36 cfs @ 12.01 hrs, Volume= 0.078 af
 Outflow = 0.72 cfs @ 12.39 hrs, Volume= 0.078 af, Atten= 47%, Lag= 23.0 min
 Primary = 0.72 cfs @ 12.39 hrs, Volume= 0.078 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.00' @ 12.18 hrs Surf.Area= 2,407 sf Storage= 682 cf

Plug-Flow detention time= 5.2 min calculated for 0.078 af (100% of inflow)
 Center-of-Mass det. time= 4.9 min (792.6 - 787.7)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.72 cfs @ 12.39 hrs HW=911.84' TW=908.88' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.72 cfs @ 8.27 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.09' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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EXISTING EAST TRIB

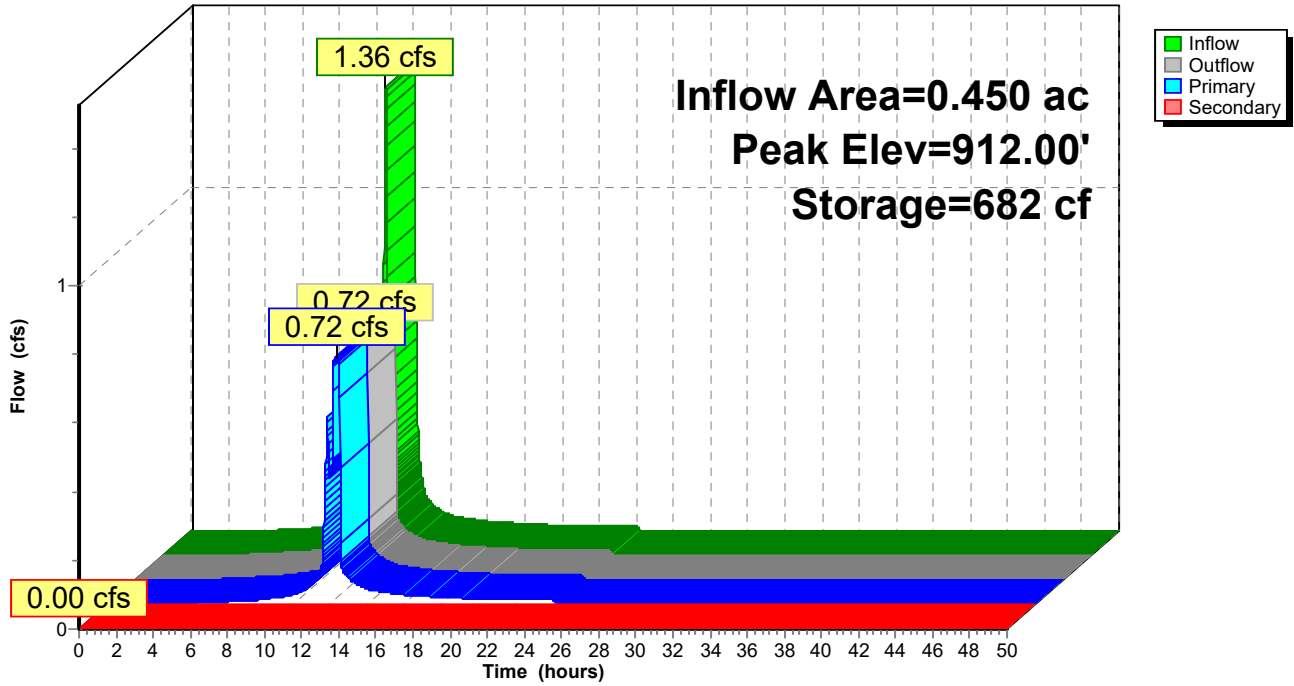
Type II 24-hr 2-Year Rainfall=2.63"

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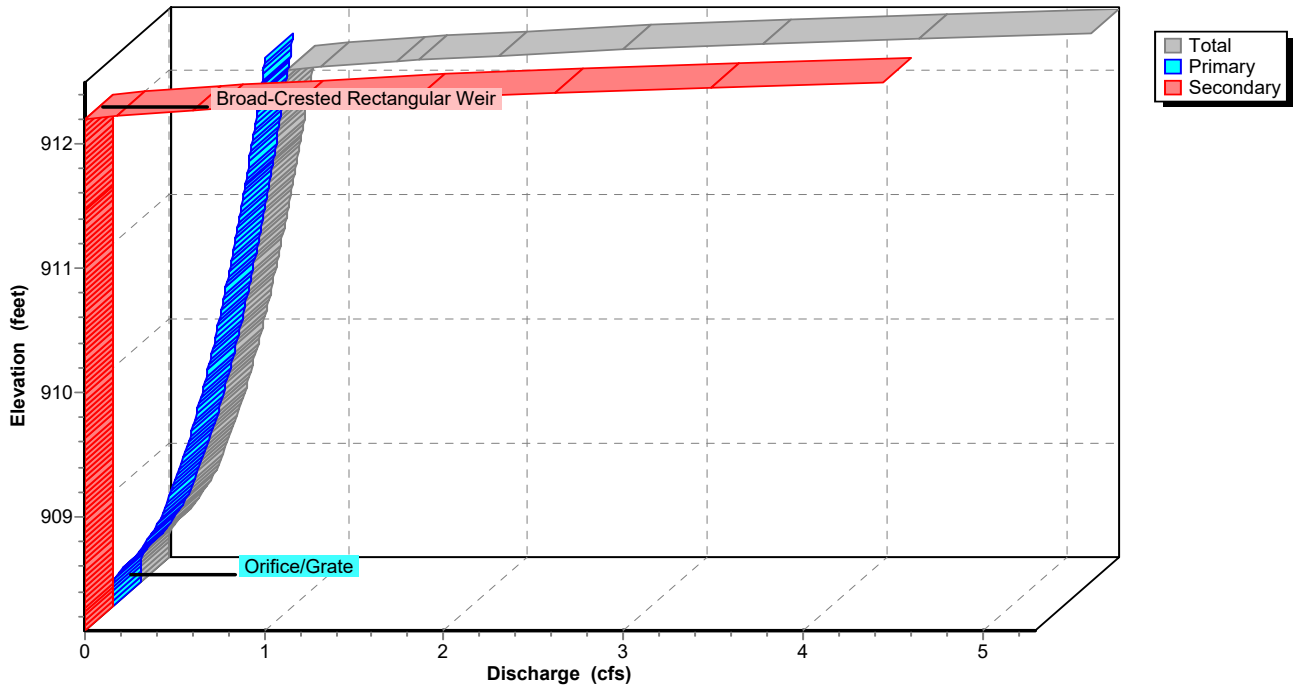
Pond 14P: PONDING STR 14

Hydrograph



Pond 14P: PONDING STR 14

Stage-Discharge



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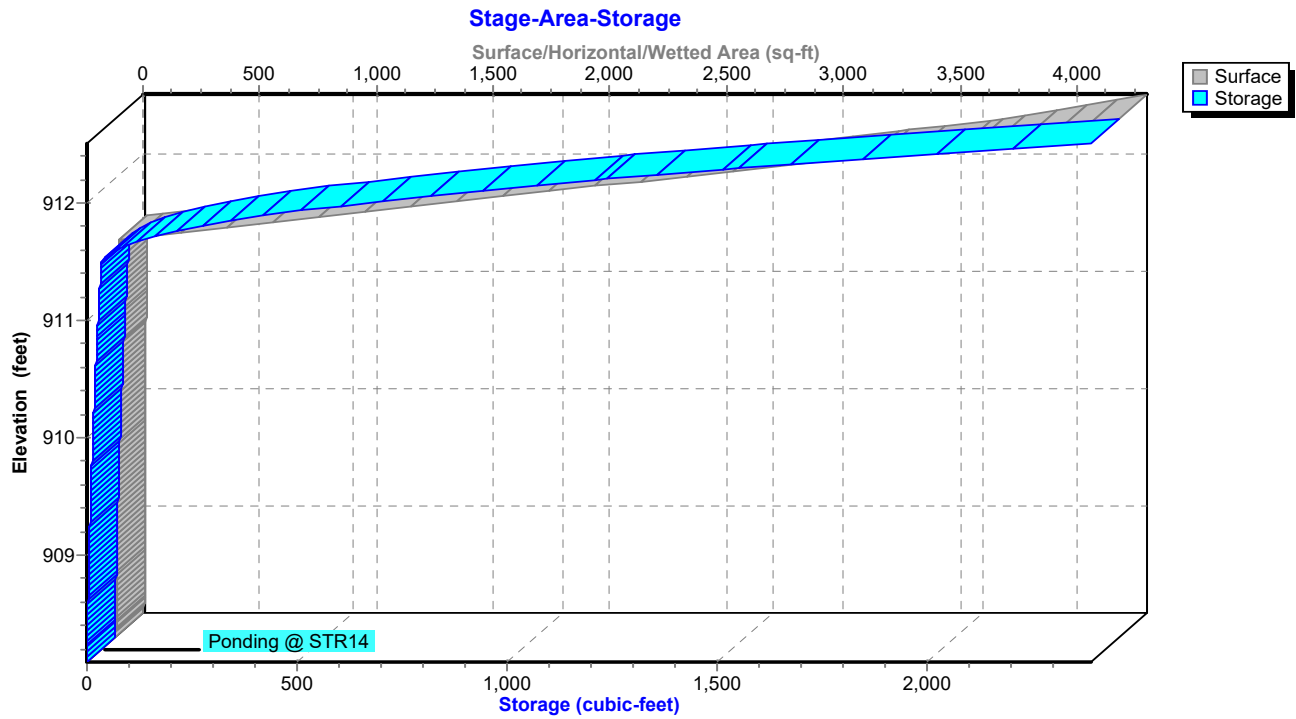
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Type II 24-hr 2-Year Rainfall=2.63"

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Pond 14P: PONDING STR 14



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment XE: STRX

Runoff = 0.39 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.40"

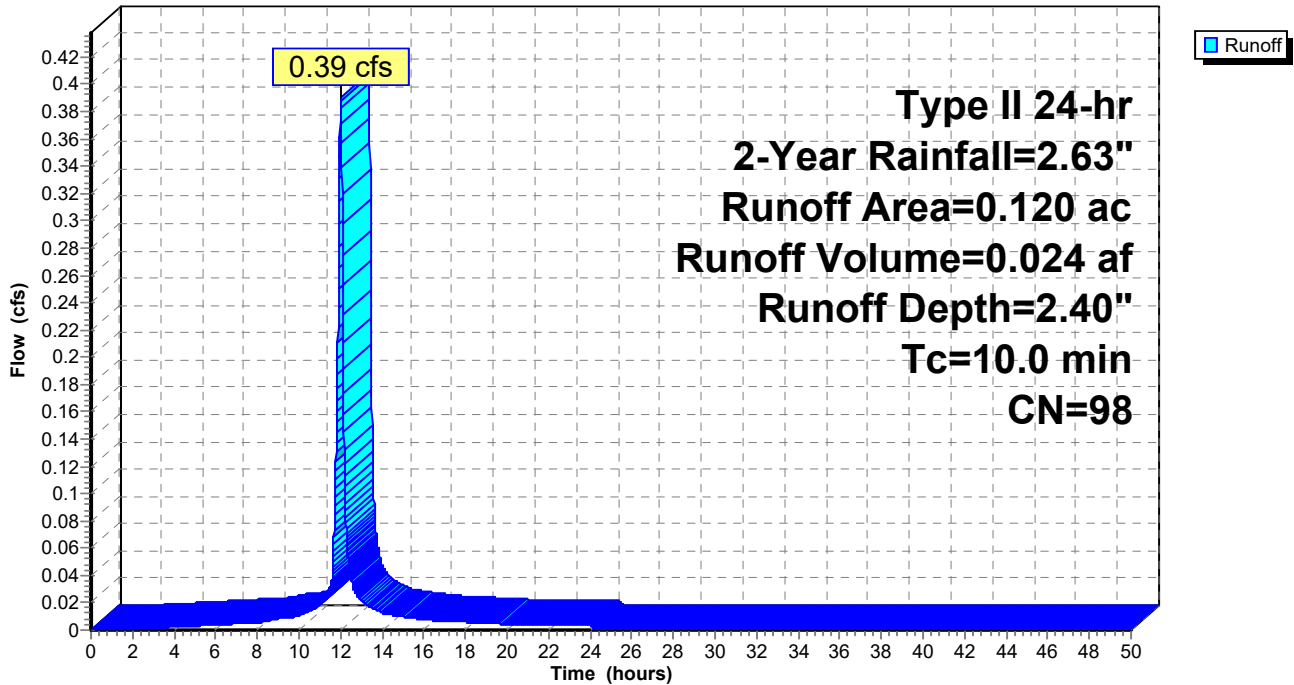
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 1E: STR1

Runoff = 1.02 cfs @ 12.02 hrs, Volume= 0.055 af, Depth= 1.57"

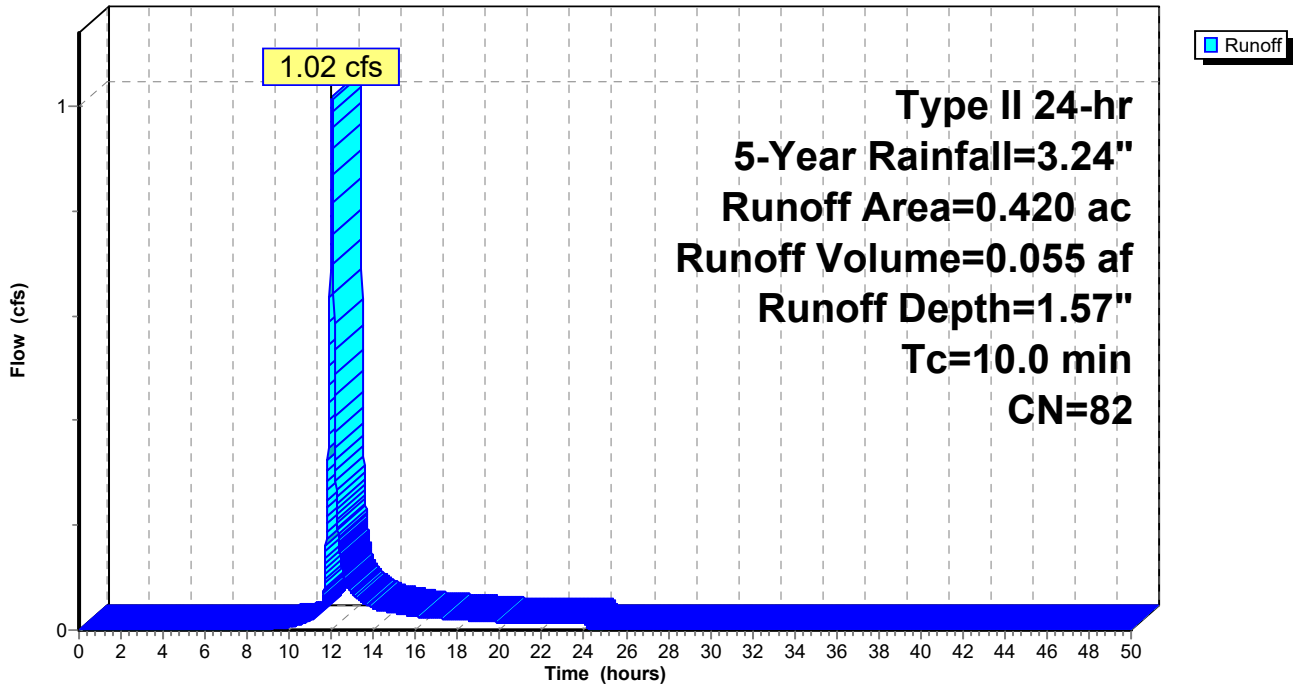
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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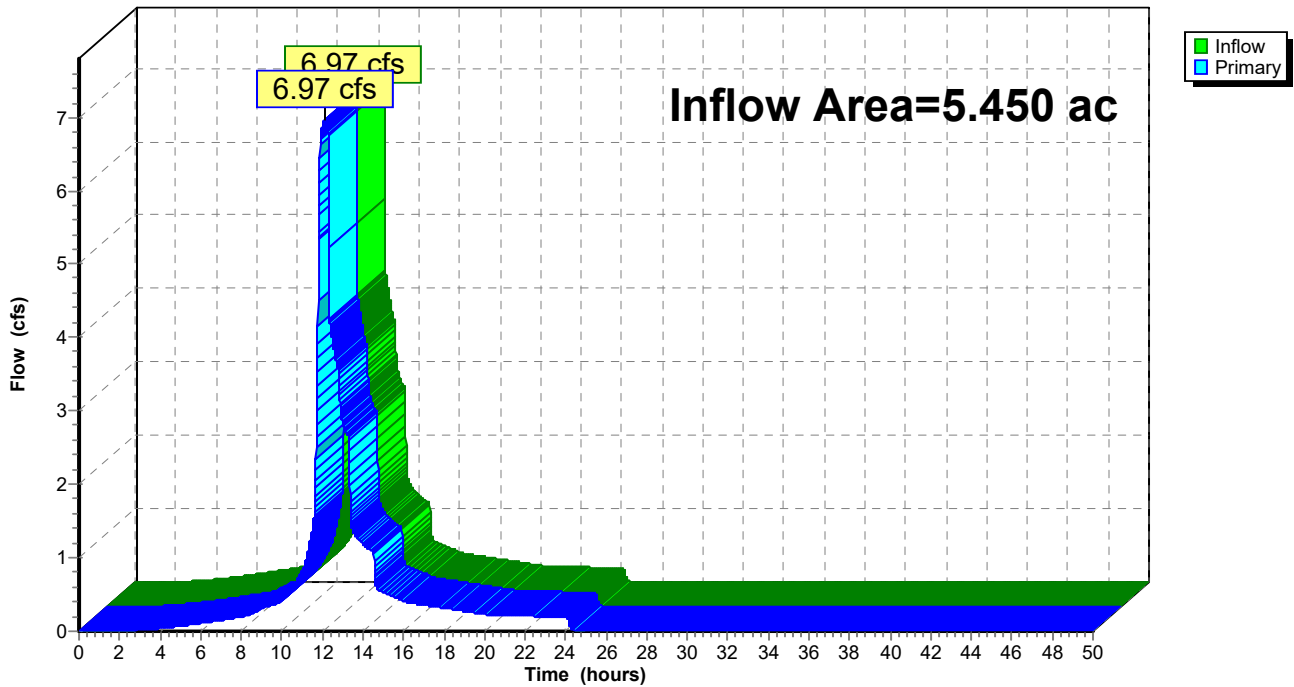
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 2.57" for 5-Year event
Inflow = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af
Primary = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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EXISTING EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 2.57" for 5-Year event
 Inflow = 10.45 cfs @ 12.01 hrs, Volume= 1.165 af
 Outflow = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af, Atten= 33%, Lag= 5.8 min
 Primary = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.20' @ 12.11 hrs Surf.Area= 10,087 sf Storage= 2,309 cf

Plug-Flow detention time= 2.3 min calculated for 1.165 af (100% of inflow)
 Center-of-Mass det. time= 2.2 min (797.6 - 795.4)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 ''
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 ''
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=6.97 cfs @ 12.11 hrs HW=911.20' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Orifice Controls 6.97 cfs @ 8.87 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)

↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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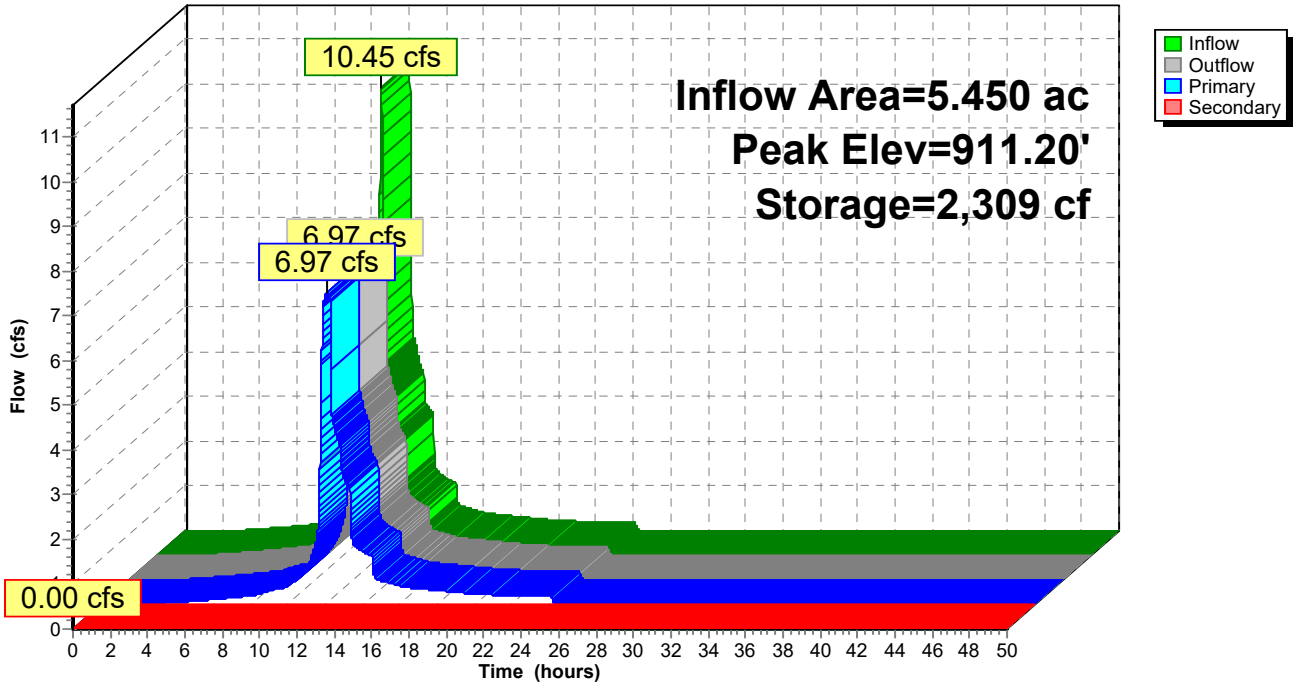
Type II 24-hr 5-Year Rainfall=3.24"

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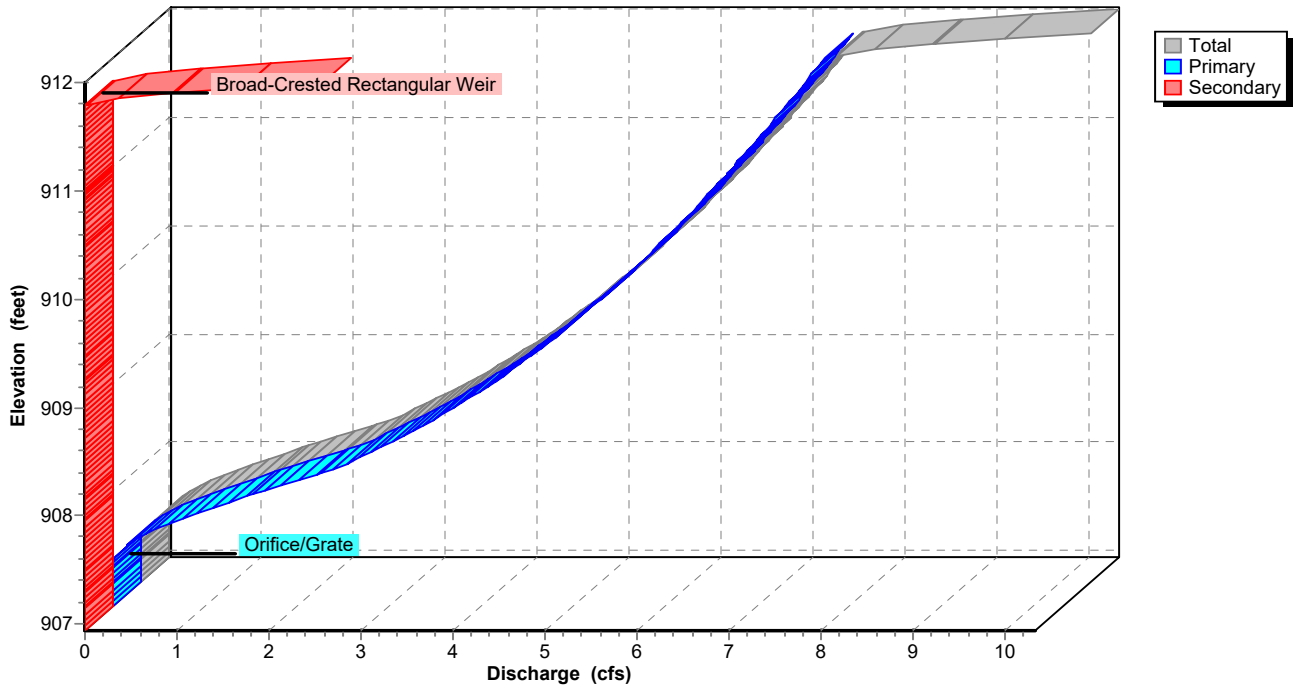
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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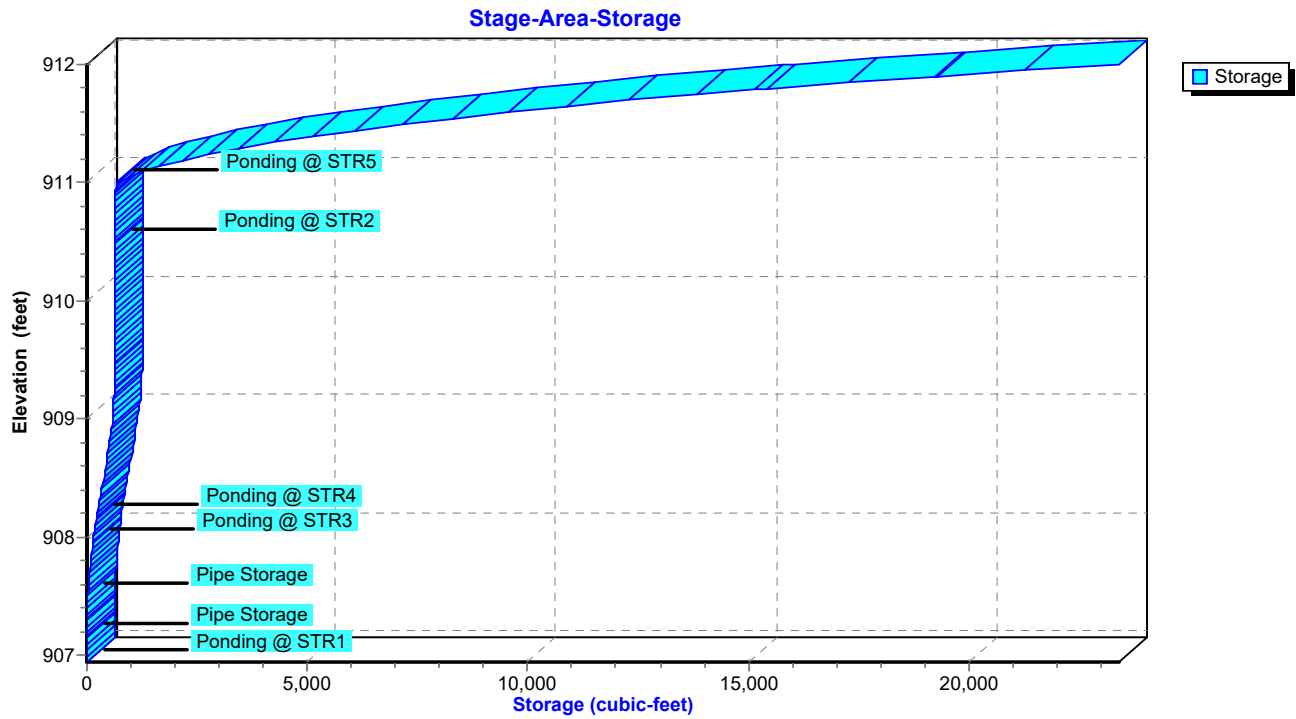
EXISTING EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond 1P: PONDING STR 1-5



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 2E: STR2

Runoff = 2.37 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 2.68"

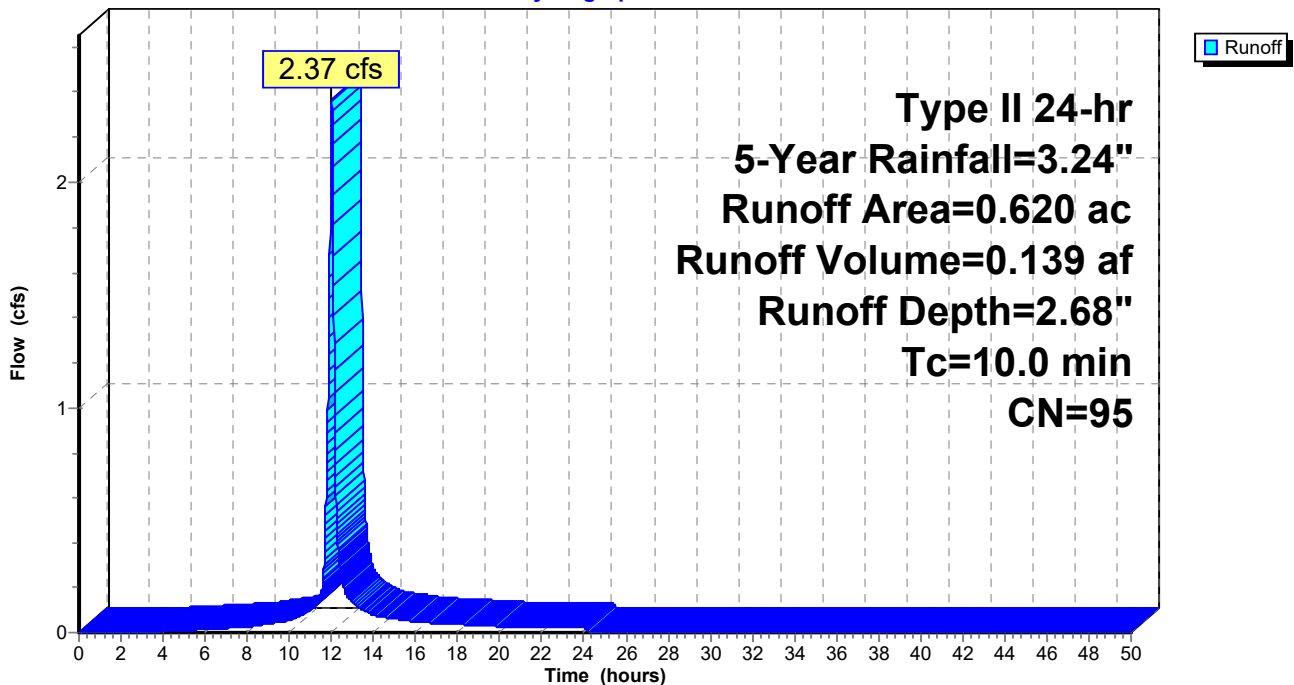
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 3E: STR3

Runoff = 1.53 cfs @ 12.01 hrs, Volume= 0.089 af, Depth= 2.68"

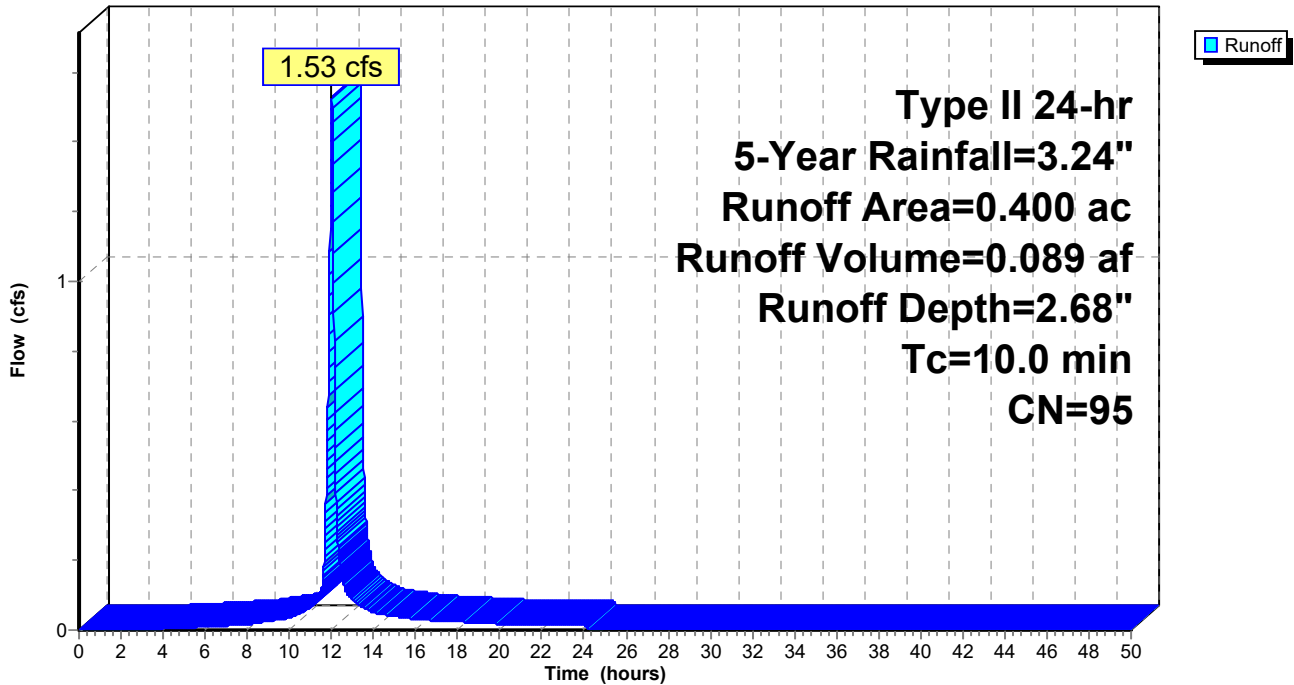
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 4E: STR4

Runoff = 1.56 cfs @ 12.01 hrs, Volume= 0.089 af, Depth= 2.48"

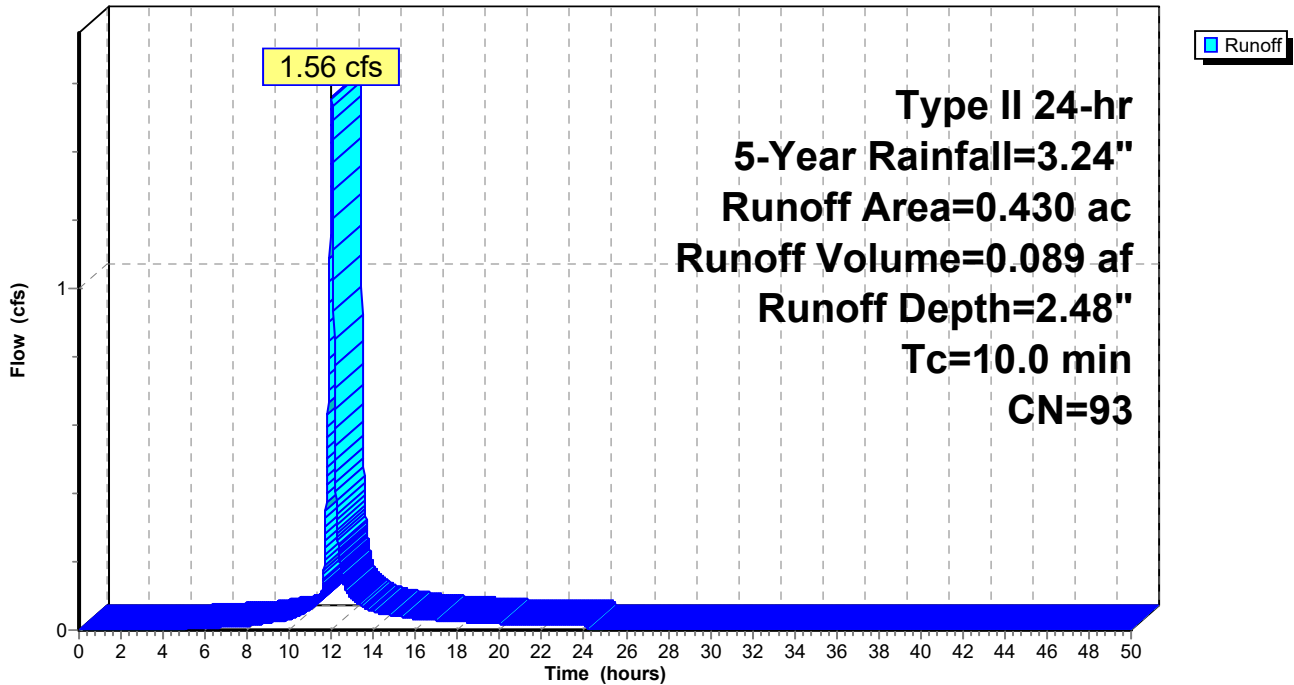
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 5E: STR5

Runoff = 1.92 cfs @ 12.01 hrs, Volume= 0.107 af, Depth= 2.21"

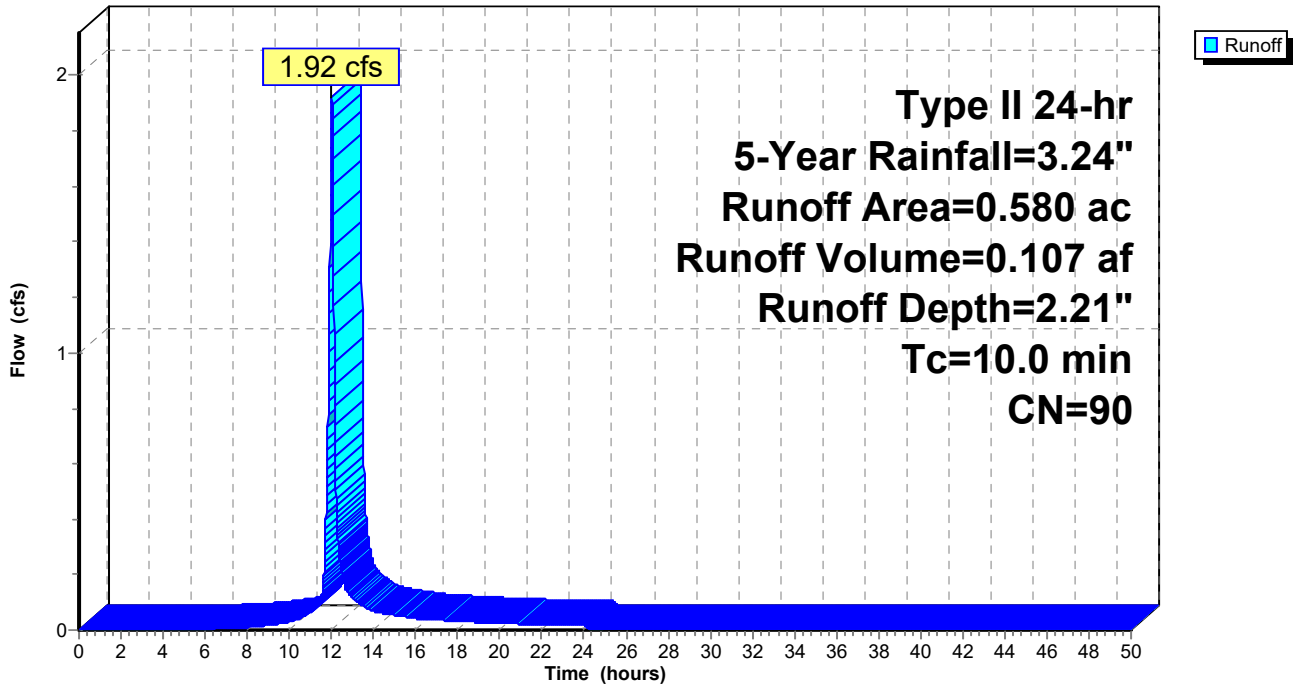
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Summary for Subcatchment 8E: STR8

Runoff = 1.26 cfs @ 12.01 hrs, Volume= 0.074 af, Depth= 2.68"

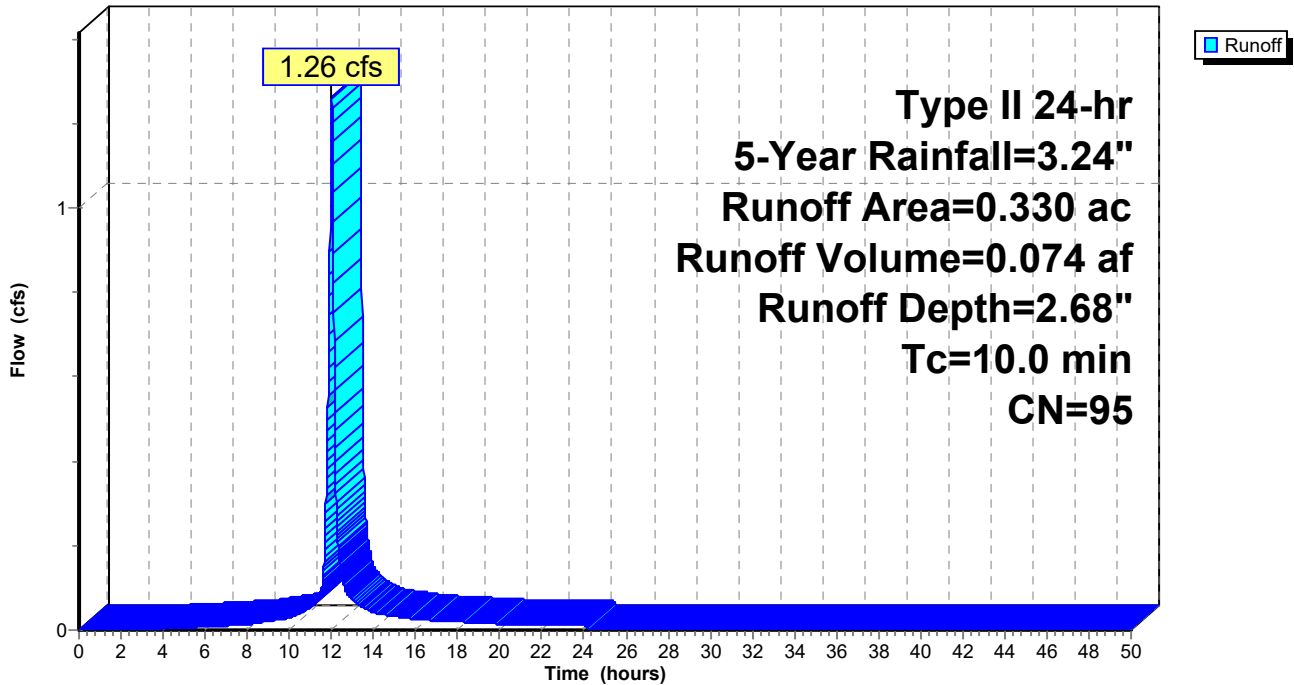
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 2.72" for 5-Year event
 Inflow = 5.51 cfs @ 12.01 hrs, Volume= 0.327 af
 Outflow = 1.57 cfs @ 12.52 hrs, Volume= 0.326 af, Atten= 72%, Lag= 30.6 min
 Primary = 1.57 cfs @ 12.52 hrs, Volume= 0.326 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.21' @ 12.29 hrs Surf.Area= 13,052 sf Storage= 4,167 cf

Plug-Flow detention time= 18.0 min calculated for 0.326 af (100% of inflow)
 Center-of-Mass det. time= 17.4 min (792.9 - 775.5)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.57 cfs @ 12.52 hrs HW=912.15' TW=908.89' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.57 cfs @ 8.69 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=906.94' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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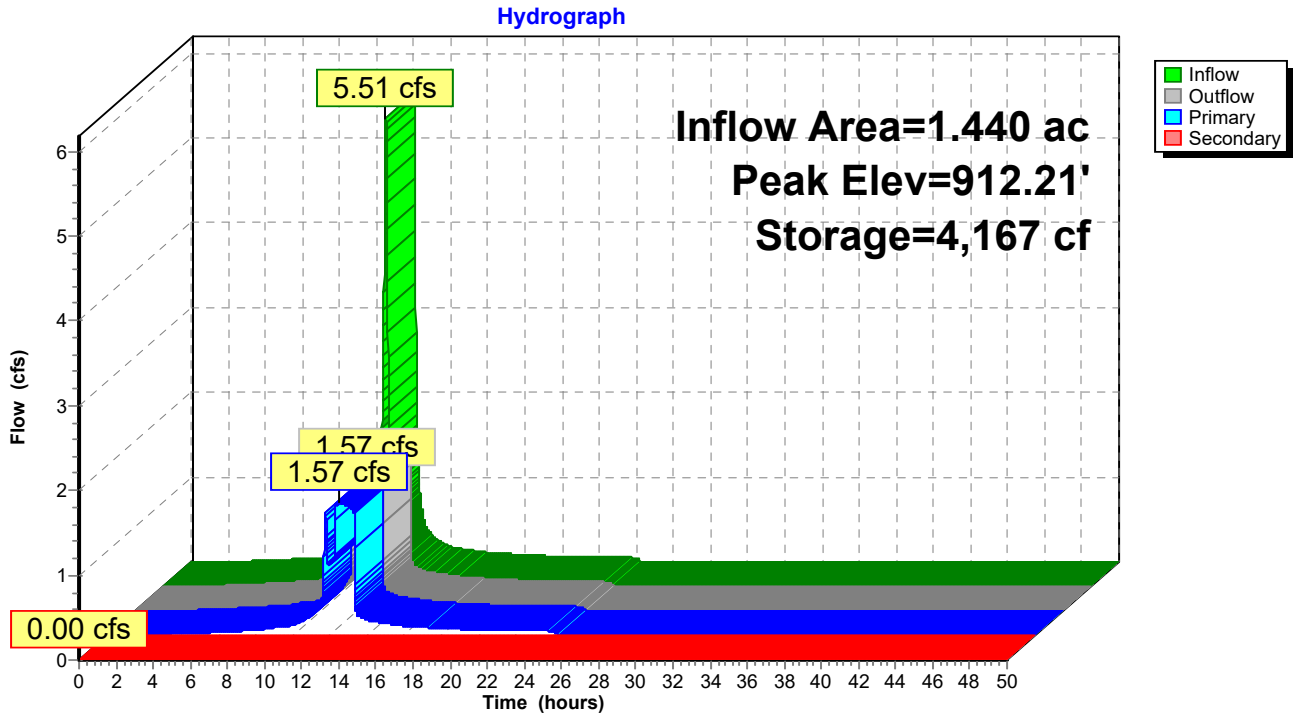
EXISTING EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

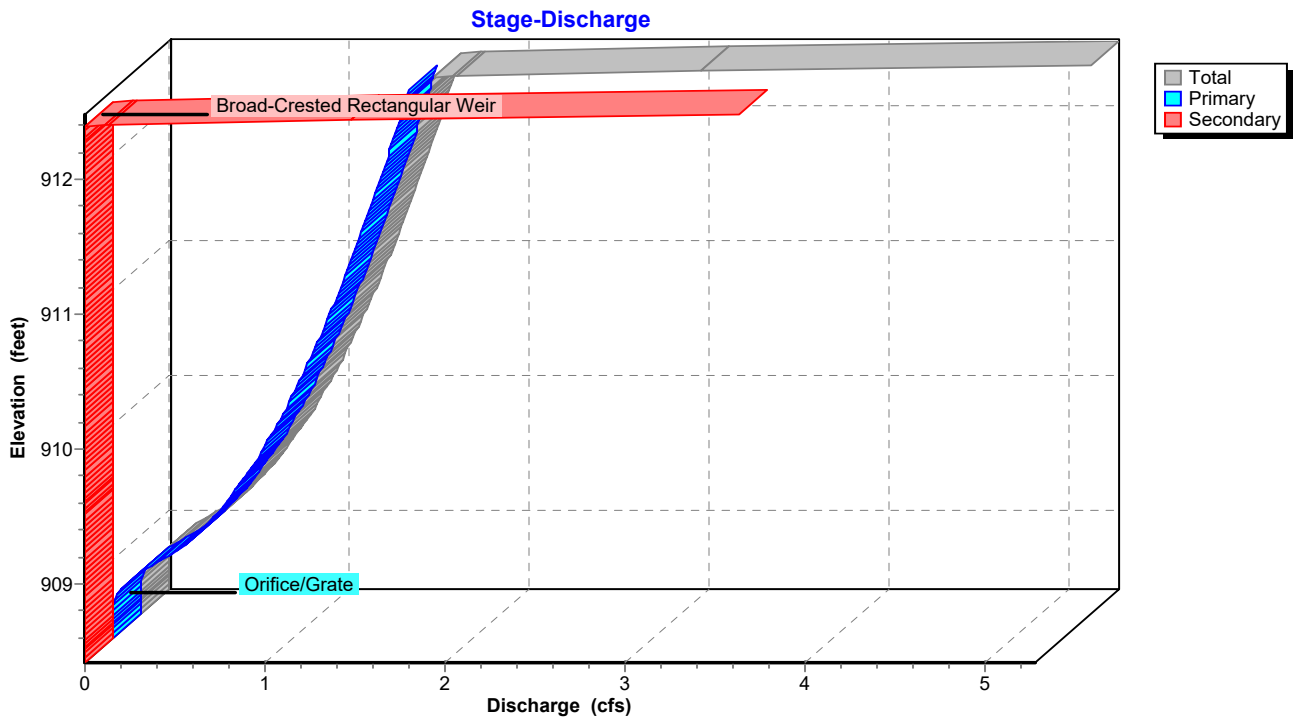
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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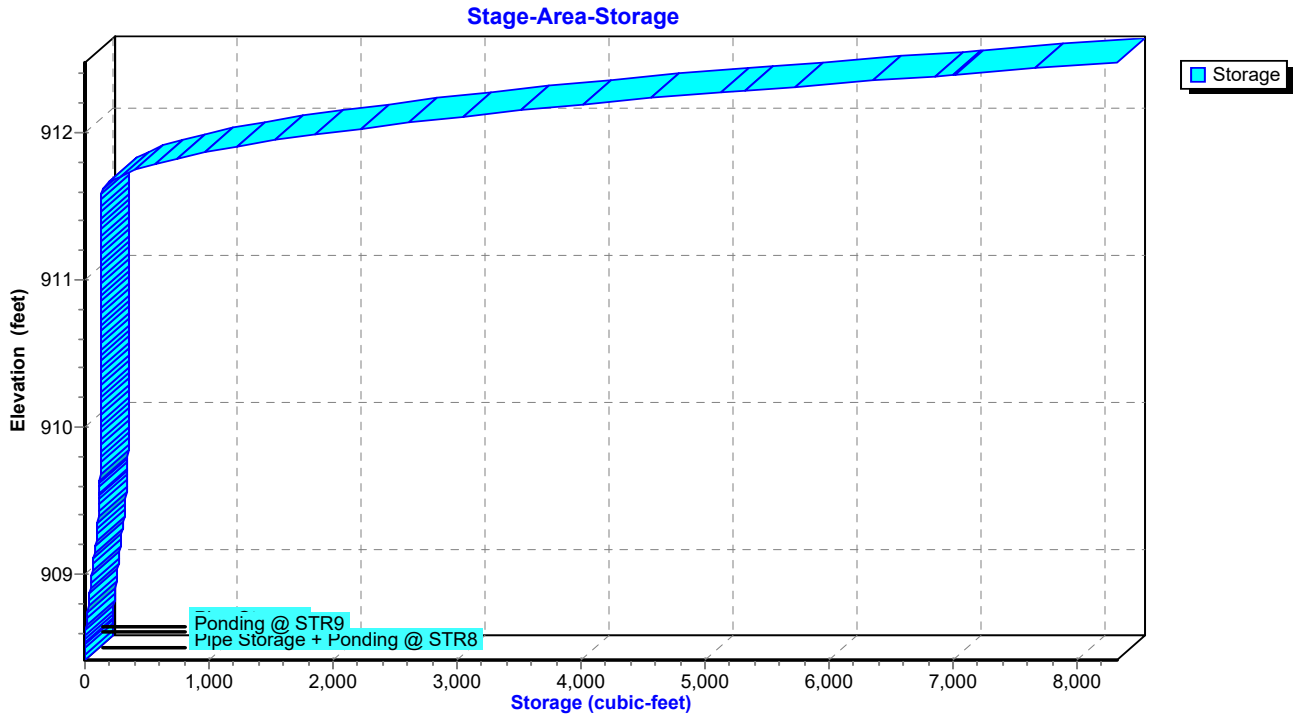
EXISTING EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 9E: STR9

Runoff = 1.64 cfs @ 12.01 hrs, Volume= 0.095 af, Depth= 2.58"

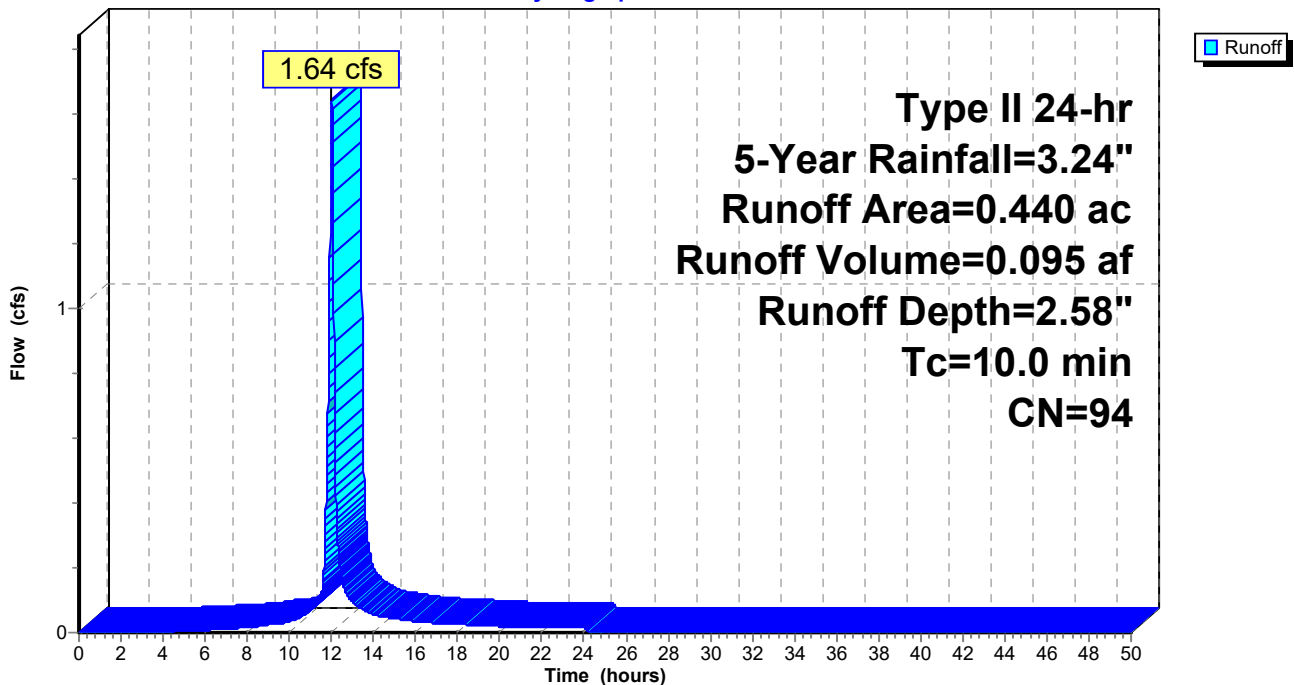
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 10E: STR10

Runoff = 1.94 cfs @ 12.01 hrs, Volume= 0.120 af, Depth= 3.01"

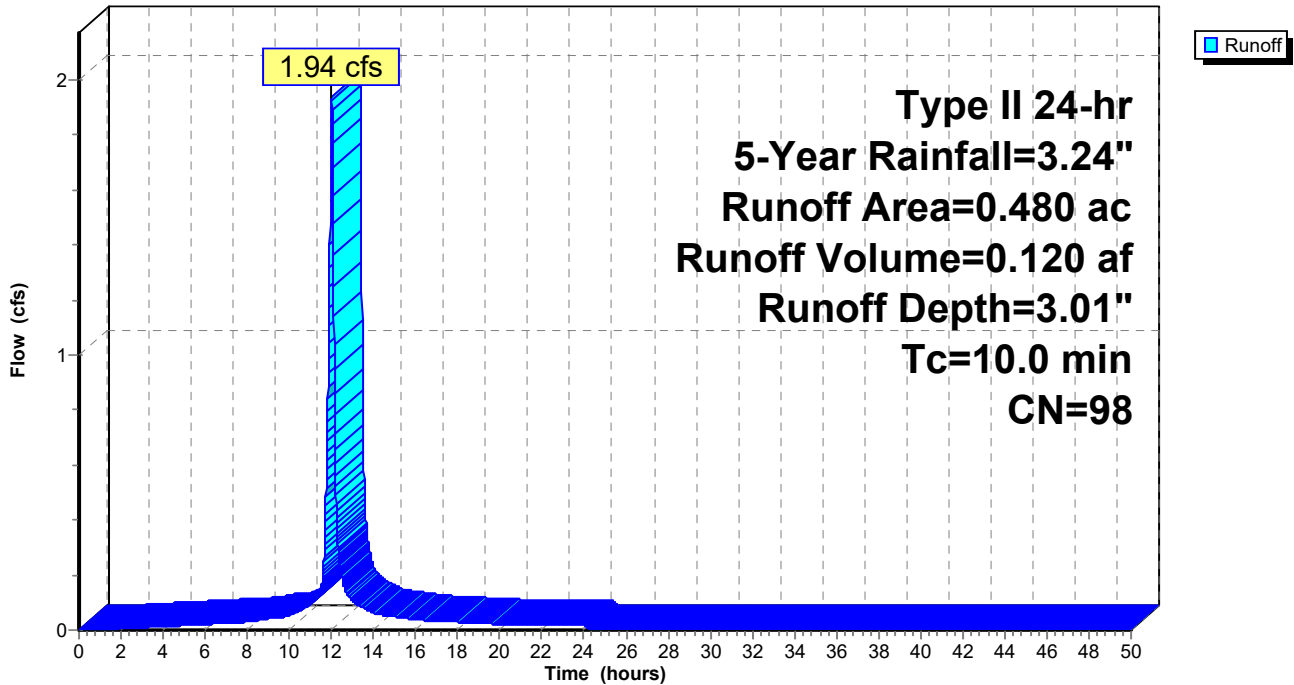
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 11E: STR11

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.038 af, Depth= 2.39"

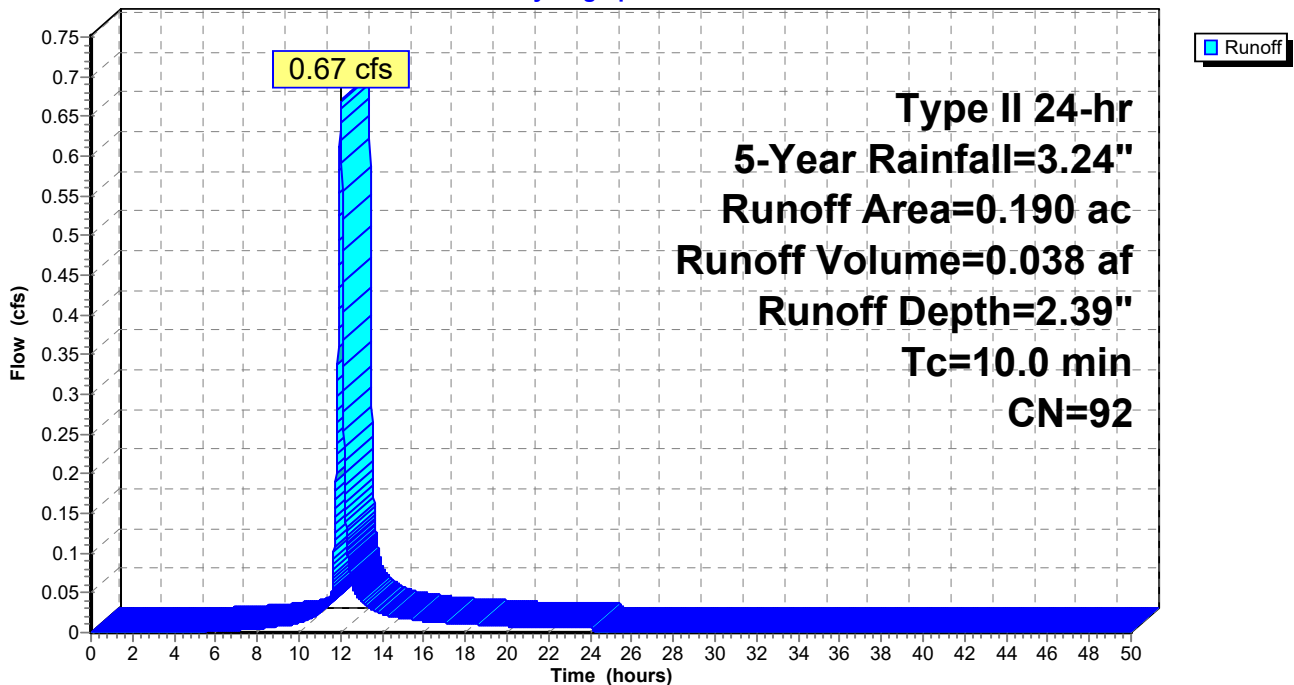
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 12E: STR12

Runoff = 2.03 cfs @ 12.01 hrs, Volume= 0.119 af, Depth= 2.68"

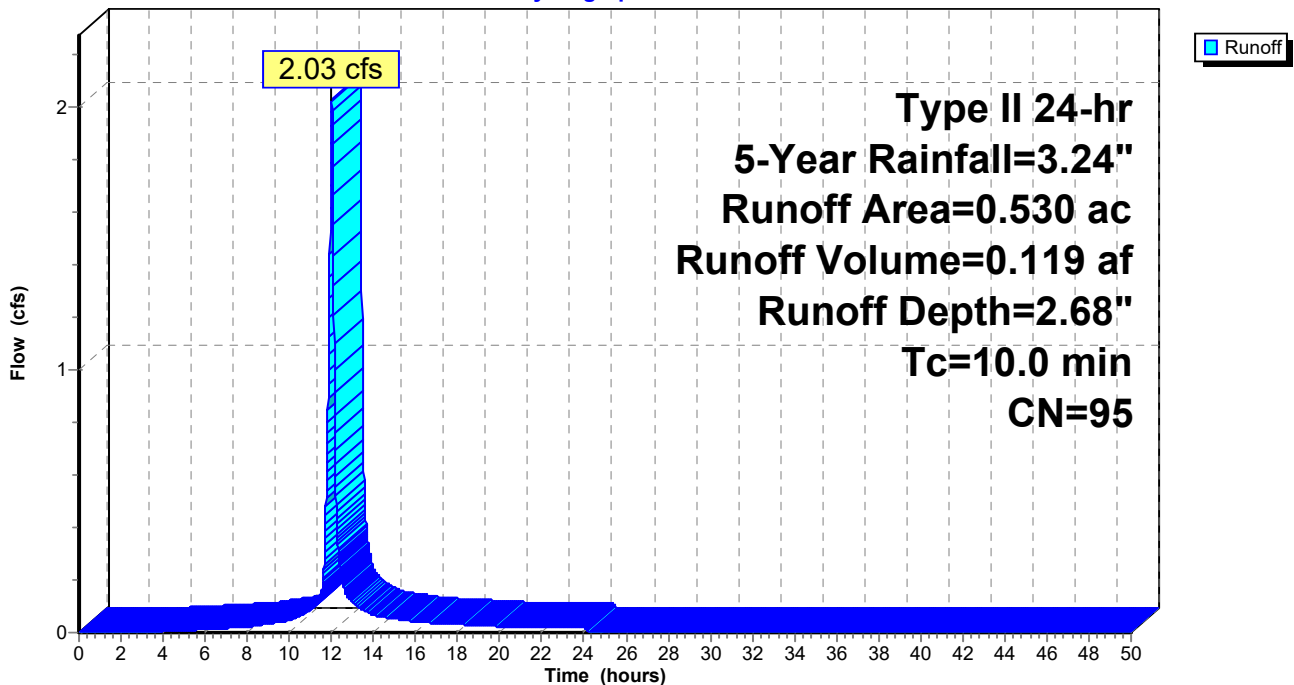
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

Hydrograph



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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 2.78" for 5-Year event
 Inflow = 3.86 cfs @ 12.01 hrs, Volume= 0.230 af
 Outflow = 0.65 cfs @ 12.43 hrs, Volume= 0.230 af, Atten= 83%, Lag= 25.4 min
 Primary = 0.65 cfs @ 12.43 hrs, Volume= 0.230 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.10' @ 12.31 hrs Surf.Area= 13,394 sf Storage= 3,491 cf

Plug-Flow detention time= 33.4 min calculated for 0.230 af (100% of inflow)
 Center-of-Mass det. time= 33.4 min (807.0 - 773.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.65 cfs @ 12.43 hrs HW=912.10' TW=908.97' (Dynamic Tailwater)

←1=**Orifice/Grate** (Orifice Controls 0.65 cfs @ 8.48 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

←2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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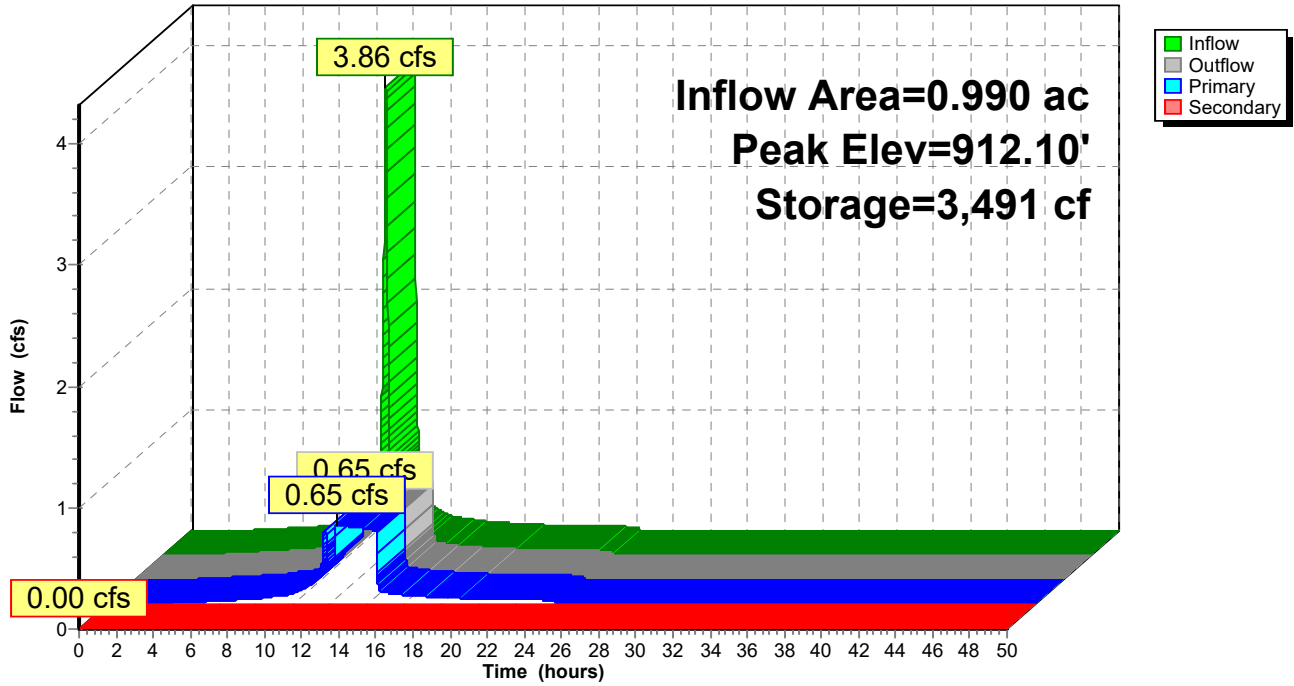
Type II 24-hr 5-Year Rainfall=3.24"

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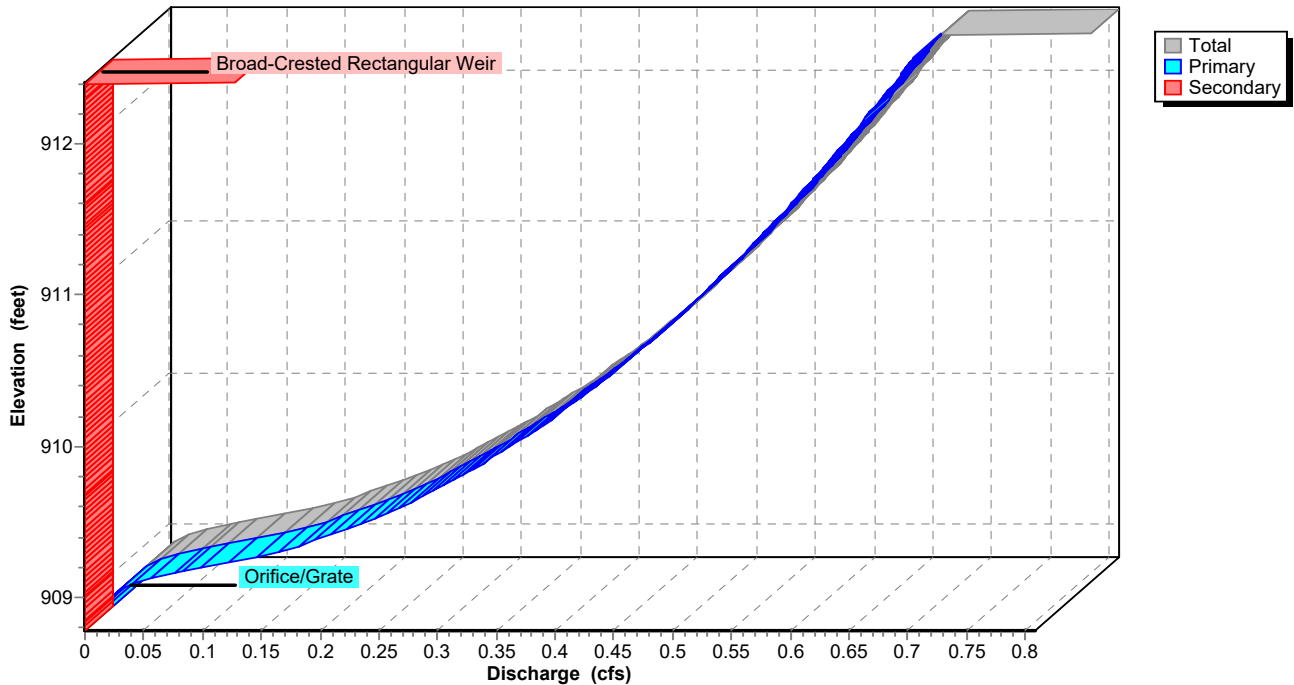
Pond 12P: PONDING STR 12-13

Hydrograph



Pond 12P: PONDING STR 12-13

Stage-Discharge



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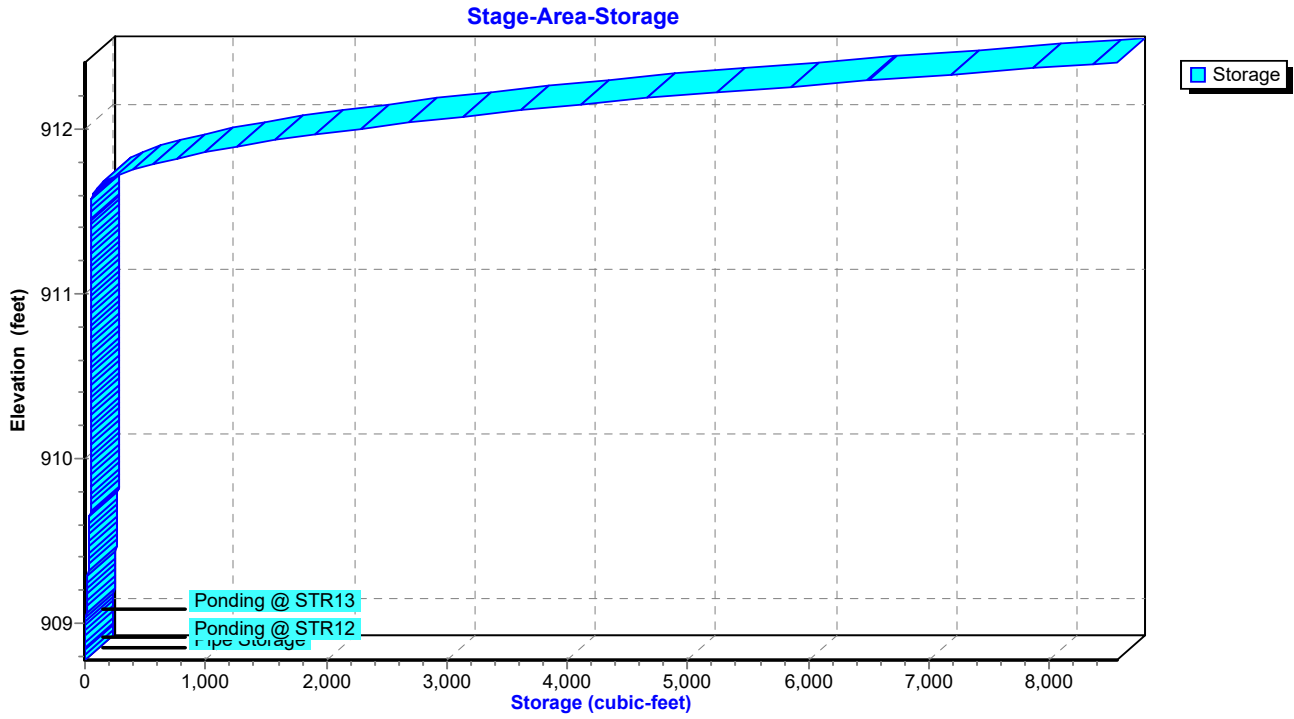
EXISTING EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond 12P: PONDING STR 12-13



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 13E: STR13

Runoff = 1.83 cfs @ 12.01 hrs, Volume= 0.111 af, Depth= 2.90"

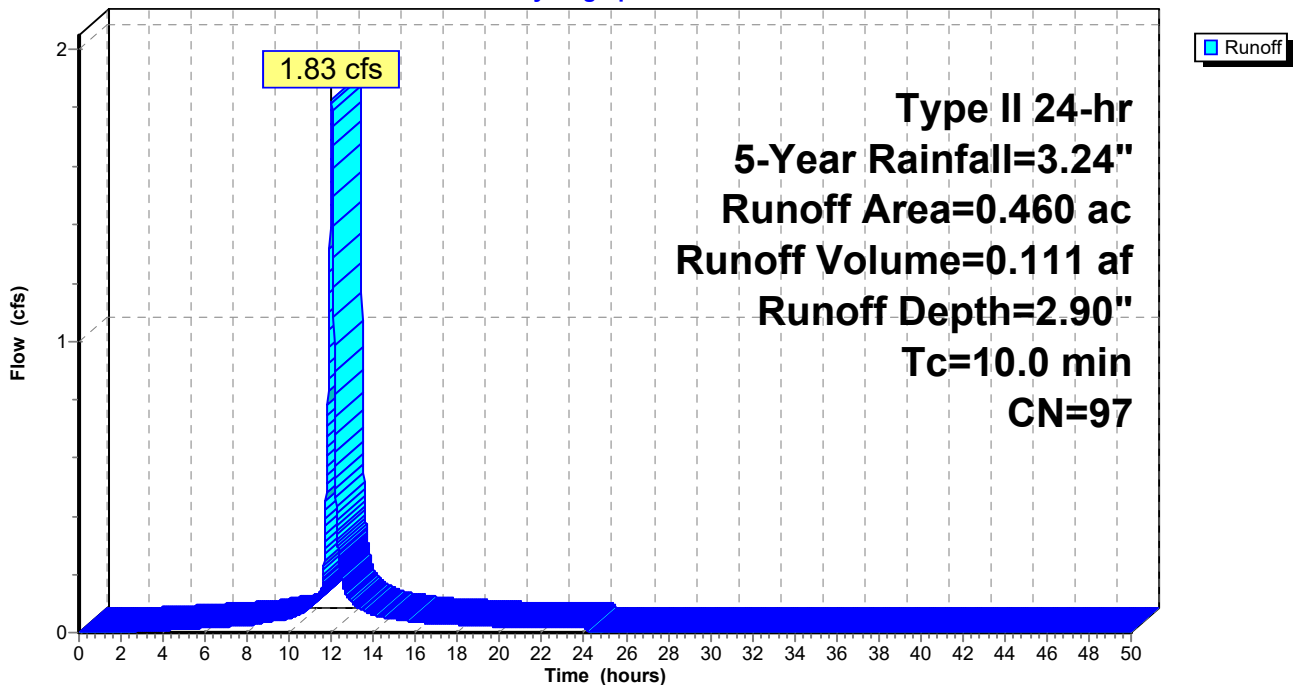
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 14E: STR14

Runoff = 1.72 cfs @ 12.01 hrs, Volume= 0.101 af, Depth= 2.68"

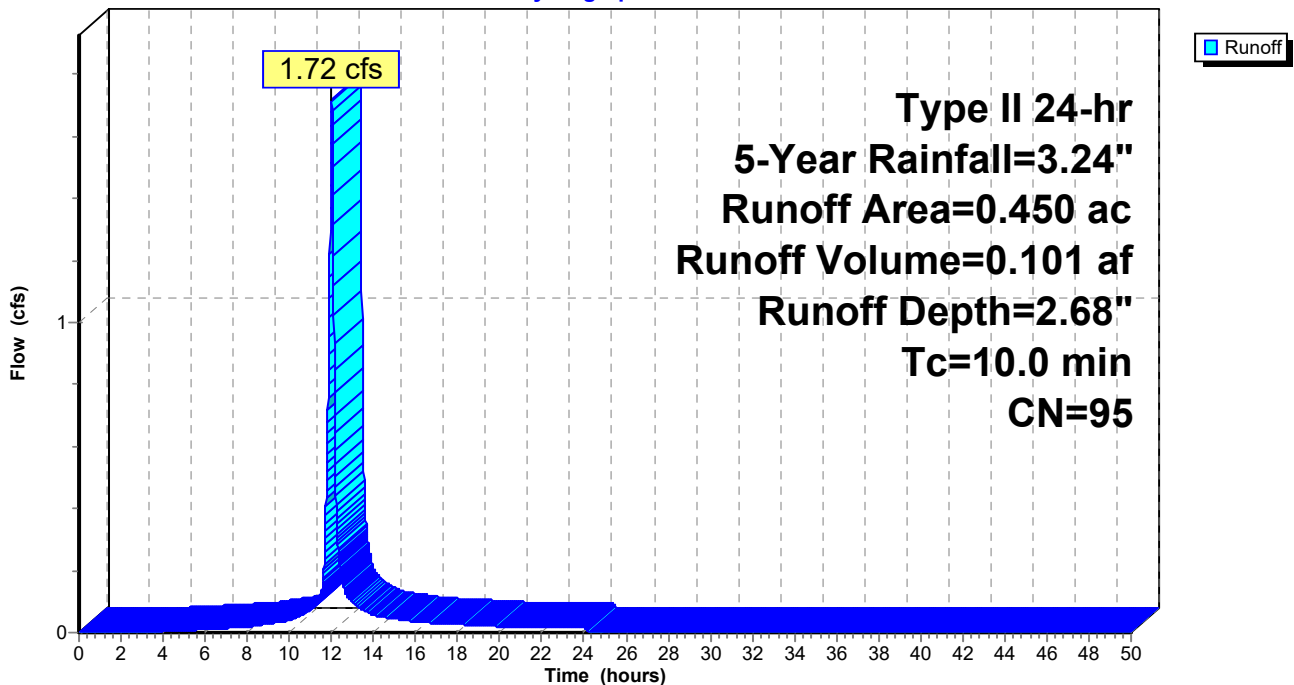
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 2.68" for 5-Year event
 Inflow = 1.72 cfs @ 12.01 hrs, Volume= 0.101 af
 Outflow = 0.74 cfs @ 12.53 hrs, Volume= 0.101 af, Atten= 57%, Lag= 30.9 min
 Primary = 0.74 cfs @ 12.53 hrs, Volume= 0.101 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.14' @ 12.22 hrs Surf.Area= 3,015 sf Storage= 1,050 cf

Plug-Flow detention time= 8.4 min calculated for 0.101 af (100% of inflow)
 Center-of-Mass det. time= 8.3 min (789.2 - 780.9)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.74 cfs @ 12.53 hrs HW=911.97' TW=908.89' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.74 cfs @ 8.46 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.09' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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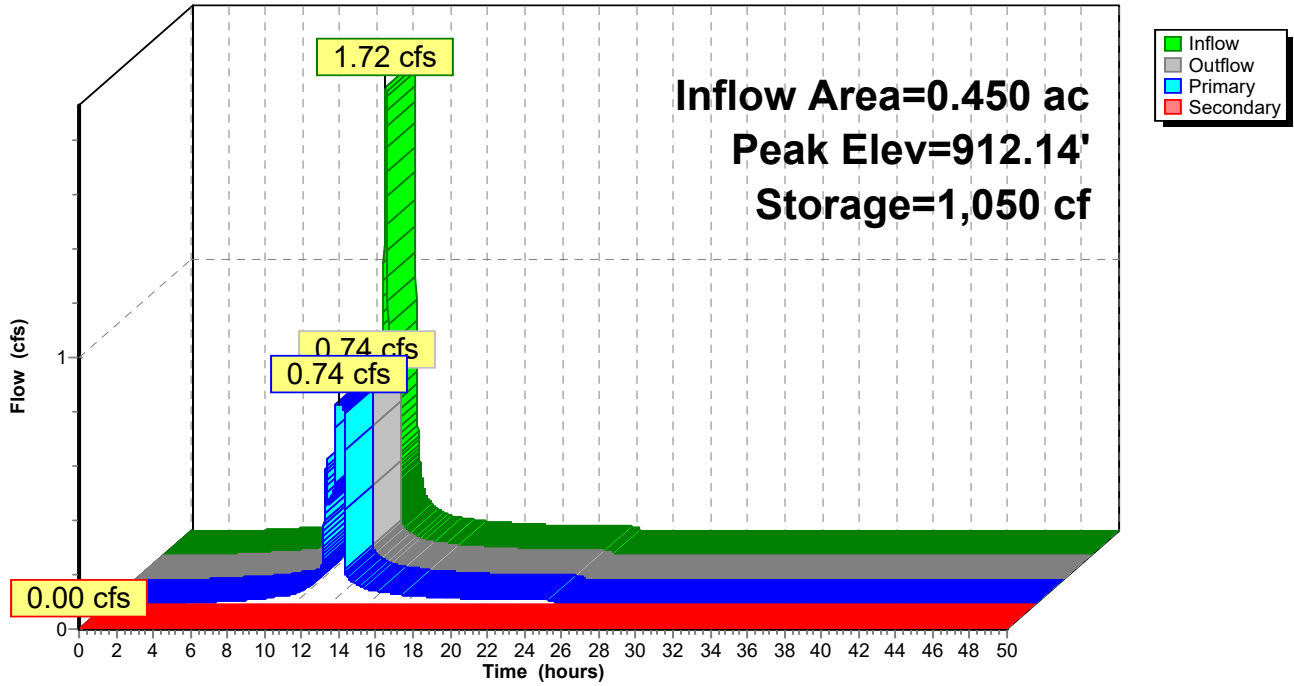
Type II 24-hr 5-Year Rainfall=3.24"

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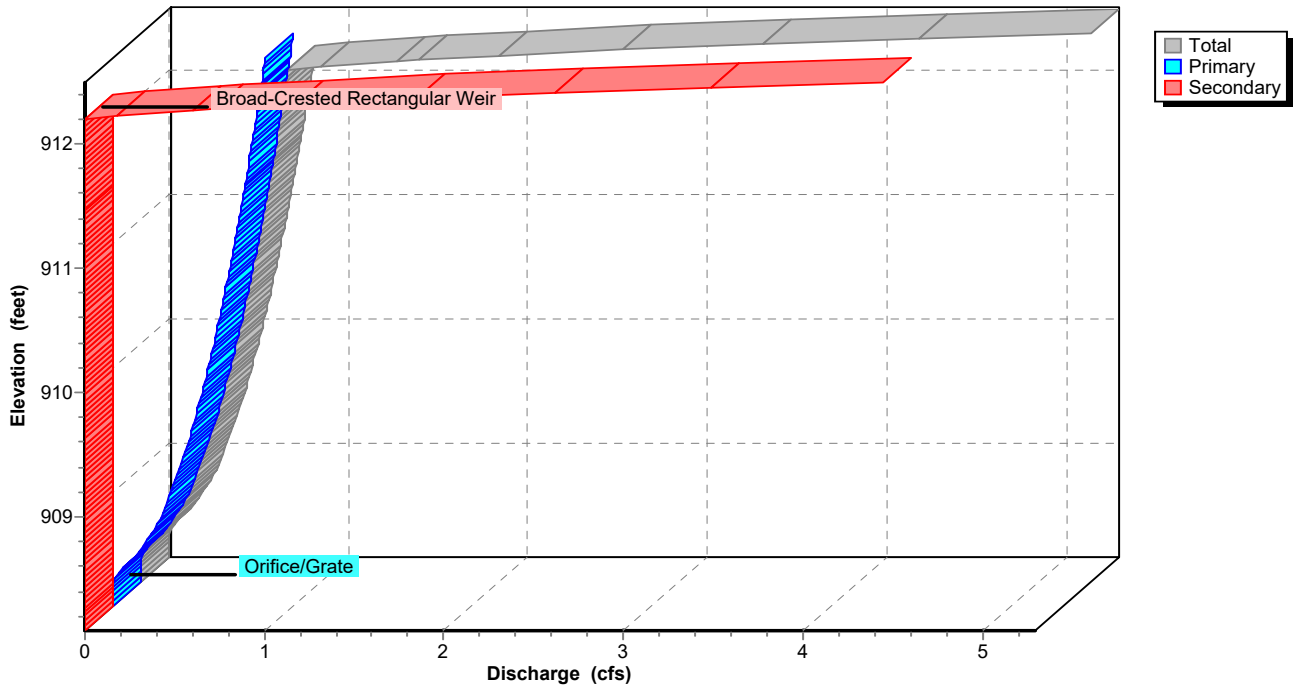
Pond 14P: PONDING STR 14

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Pond 14P: PONDING STR 14

Stage-Discharge



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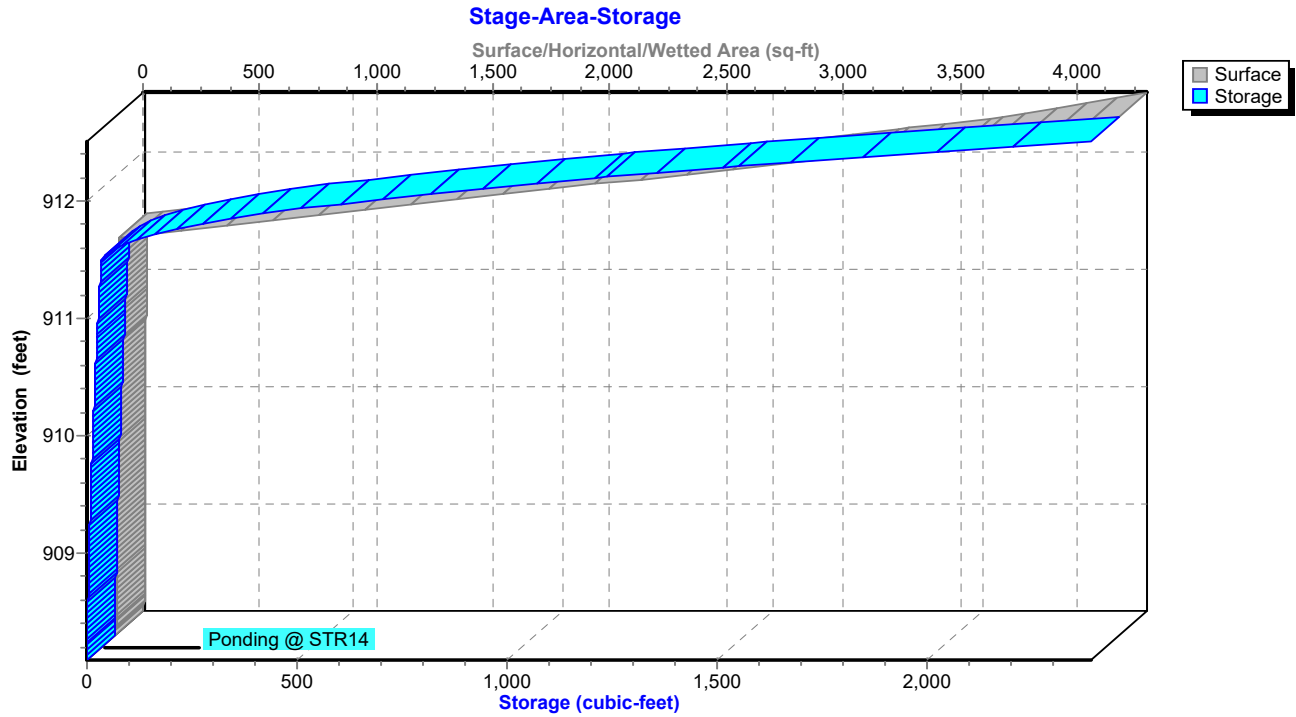
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Pond 14P: PONDING STR 14



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Summary for Subcatchment XE: STRX

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.030 af, Depth= 3.01"

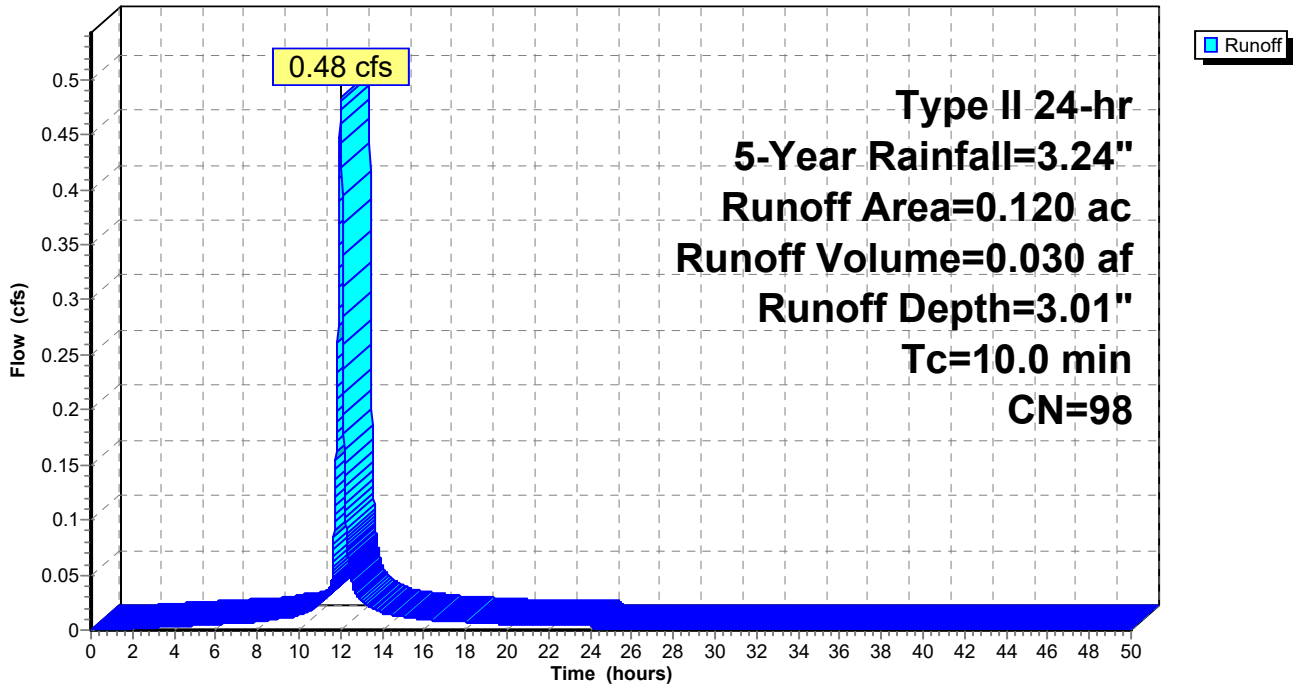
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 1E: STR1

Runoff = 1.28 cfs @ 12.02 hrs, Volume= 0.069 af, Depth= 1.98"

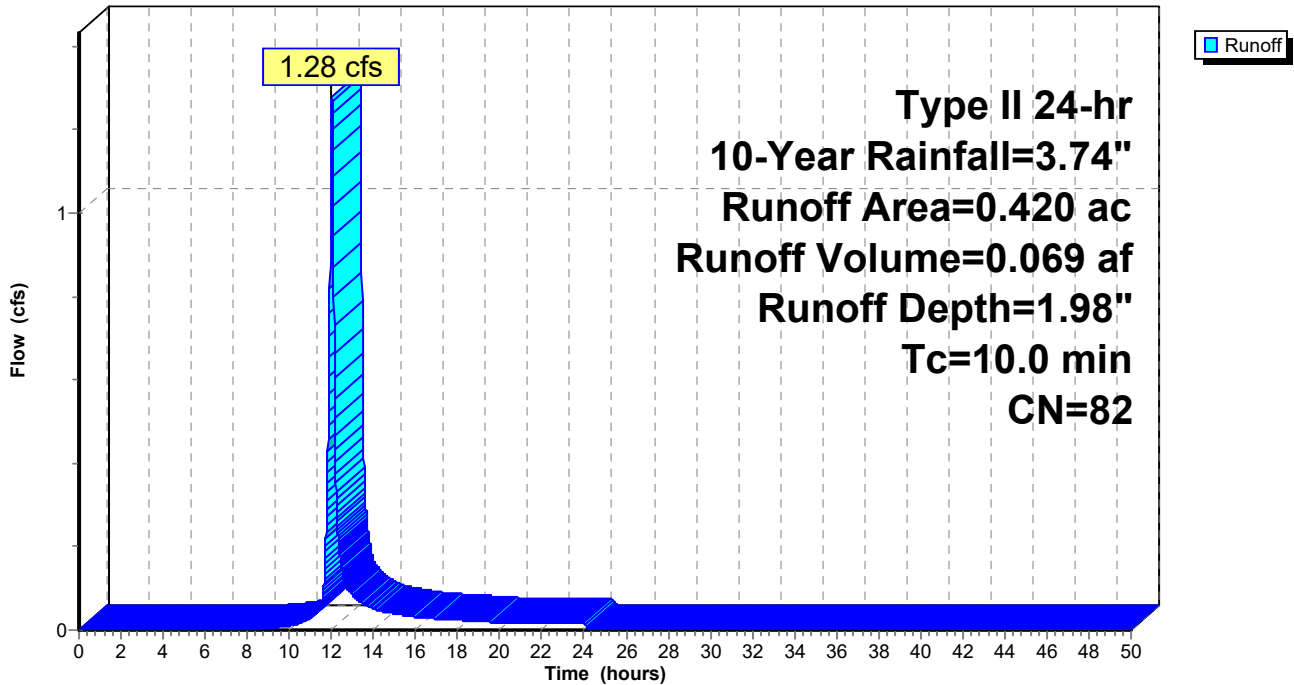
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

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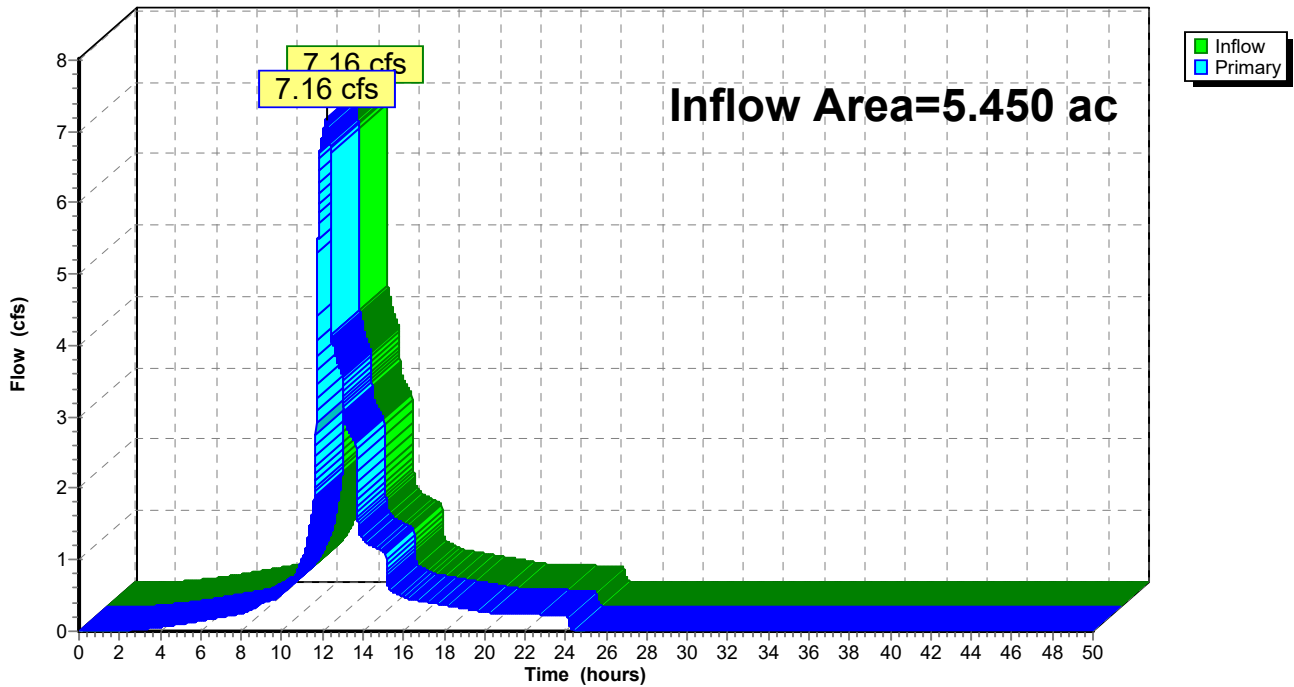
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.05" for 10-Year event
Inflow = 7.16 cfs @ 12.18 hrs, Volume= 1.384 af
Primary = 7.16 cfs @ 12.18 hrs, Volume= 1.384 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.04" for 10-Year event
 Inflow = 12.13 cfs @ 12.01 hrs, Volume= 1.383 af
 Outflow = 7.05 cfs @ 12.13 hrs, Volume= 1.383 af, Atten= 42%, Lag= 6.9 min
 Primary = 7.05 cfs @ 12.13 hrs, Volume= 1.383 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.29' @ 12.13 hrs Surf.Area= 13,803 sf Storage= 3,438 cf

Plug-Flow detention time= 2.6 min calculated for 1.382 af (100% of inflow)
 Center-of-Mass det. time= 2.6 min (797.3 - 794.7)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 ''
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 ''
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=7.05 cfs @ 12.13 hrs HW=911.29' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Orifice Controls 7.05 cfs @ 8.98 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)

↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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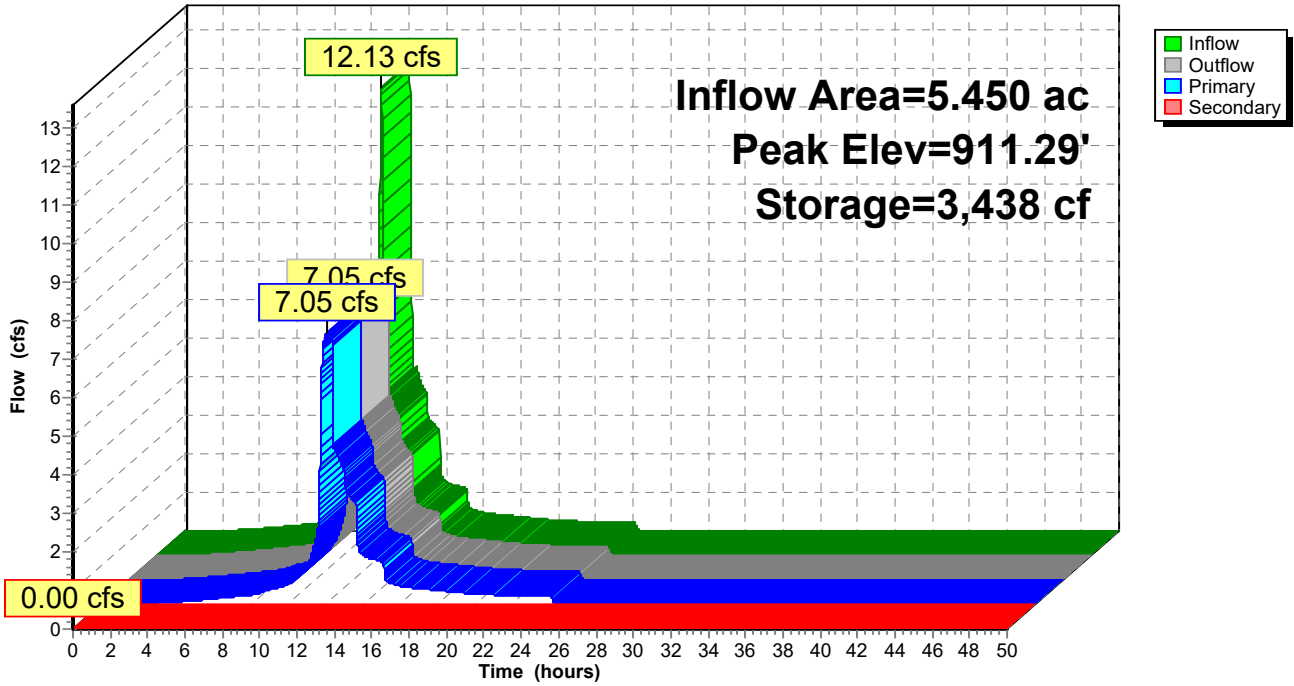
Type II 24-hr 10-Year Rainfall=3.74"

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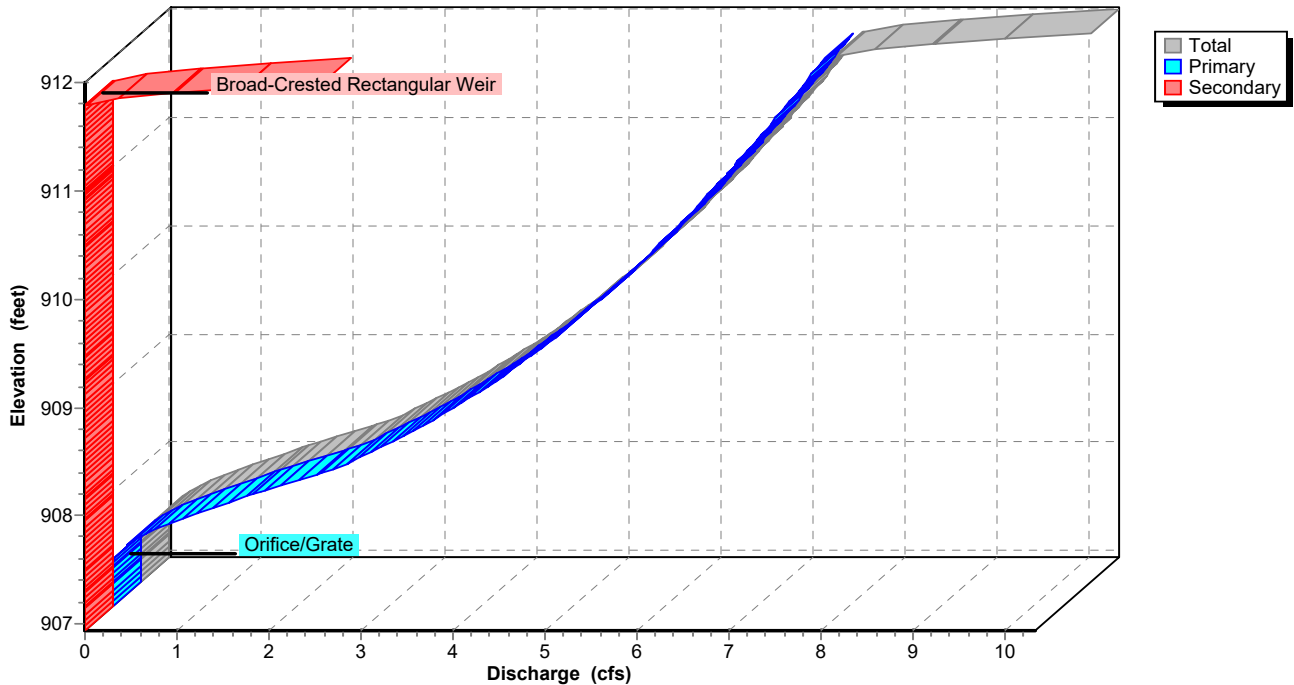
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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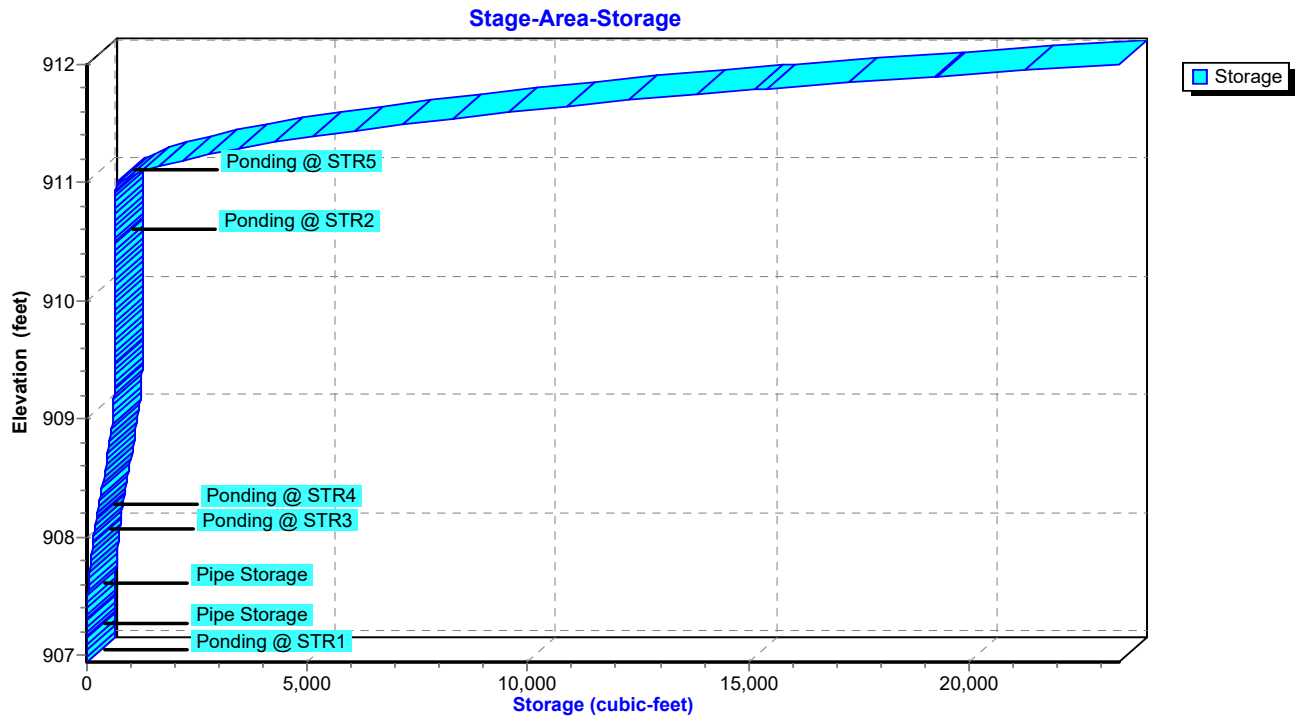
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Pond 1P: PONDING STR 1-5



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Summary for Subcatchment 2E: STR2

Runoff = 2.78 cfs @ 12.01 hrs, Volume= 0.164 af, Depth= 3.17"

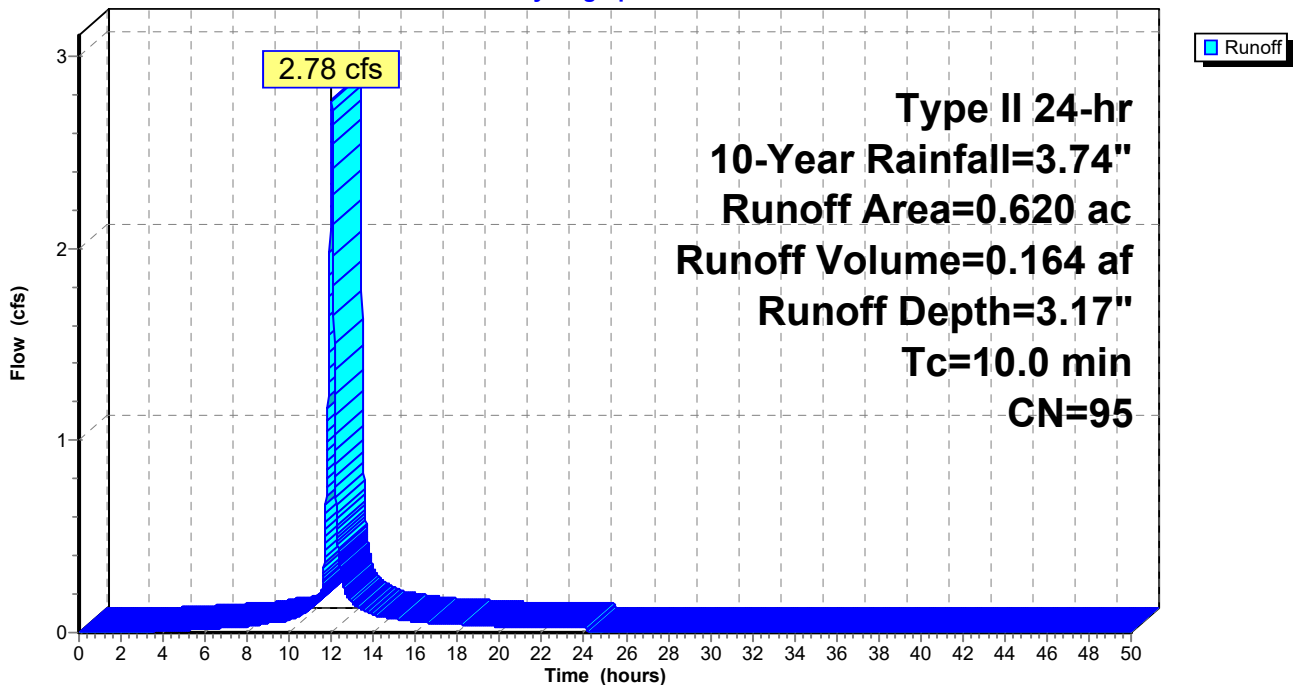
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 3E: STR3

Runoff = 1.79 cfs @ 12.01 hrs, Volume= 0.106 af, Depth= 3.17"

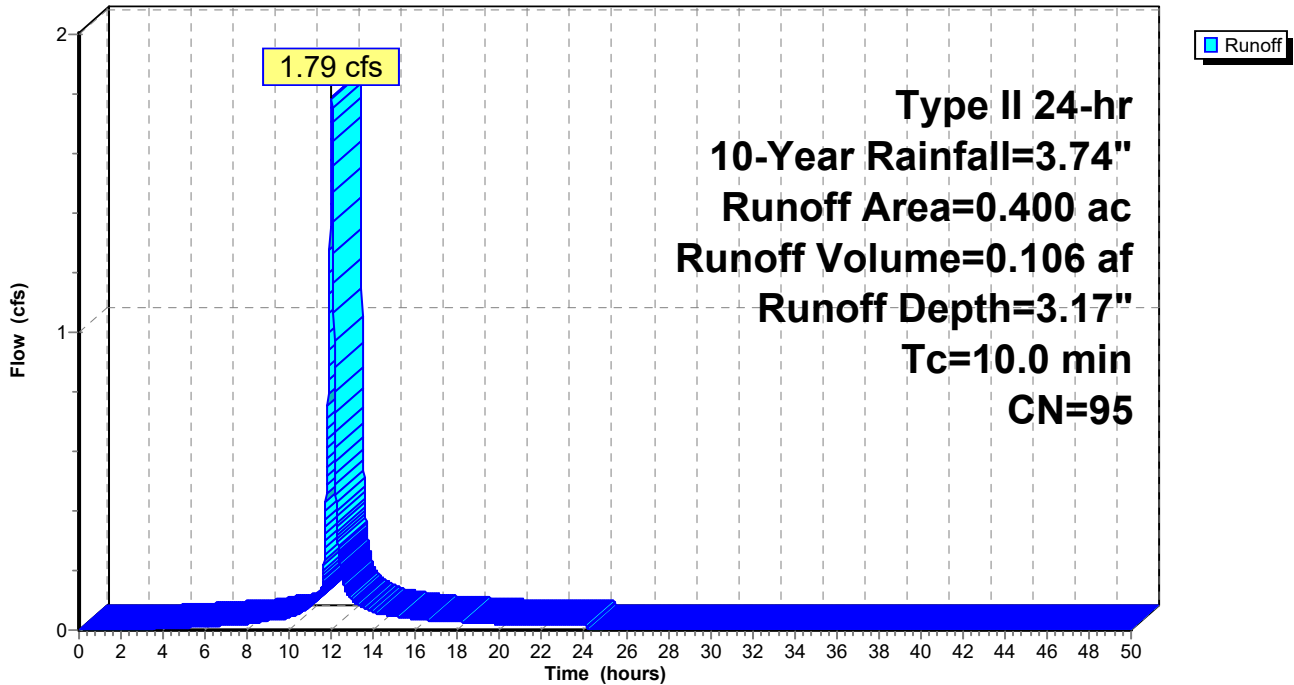
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 4E: STR4

Runoff = 1.85 cfs @ 12.01 hrs, Volume= 0.106 af, Depth= 2.97"

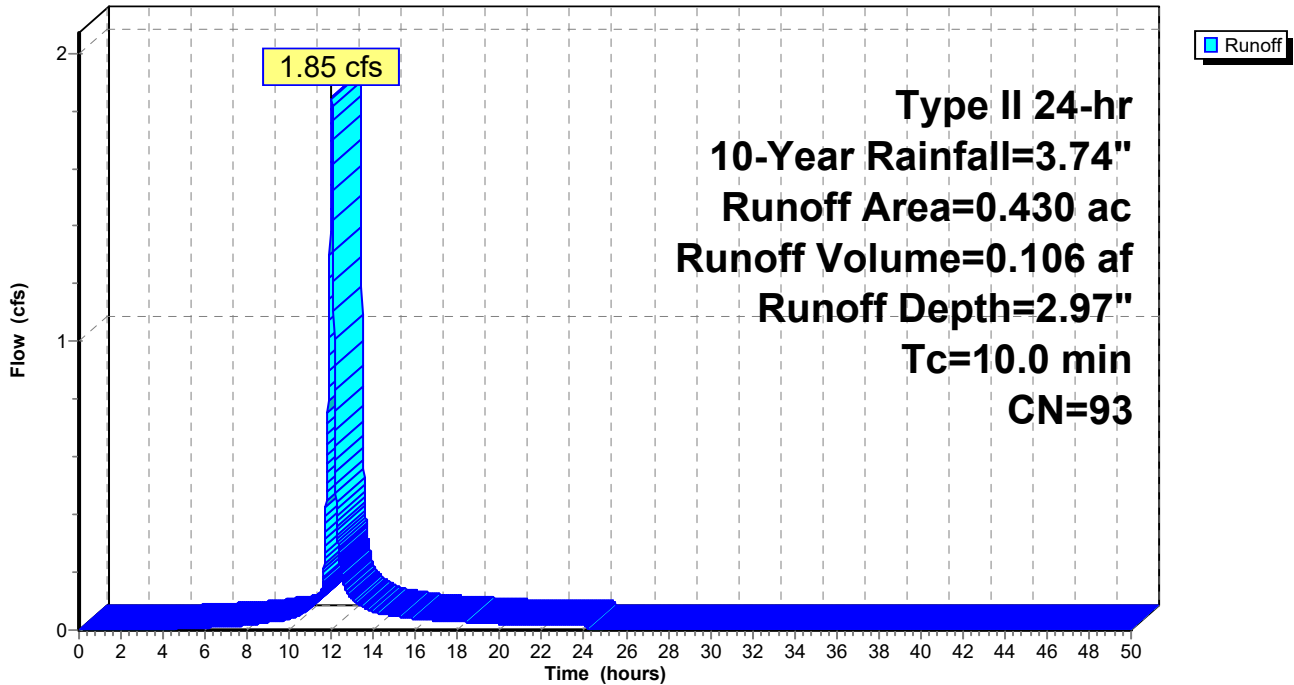
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 5E: STR5

Runoff = 2.31 cfs @ 12.01 hrs, Volume= 0.129 af, Depth= 2.67"

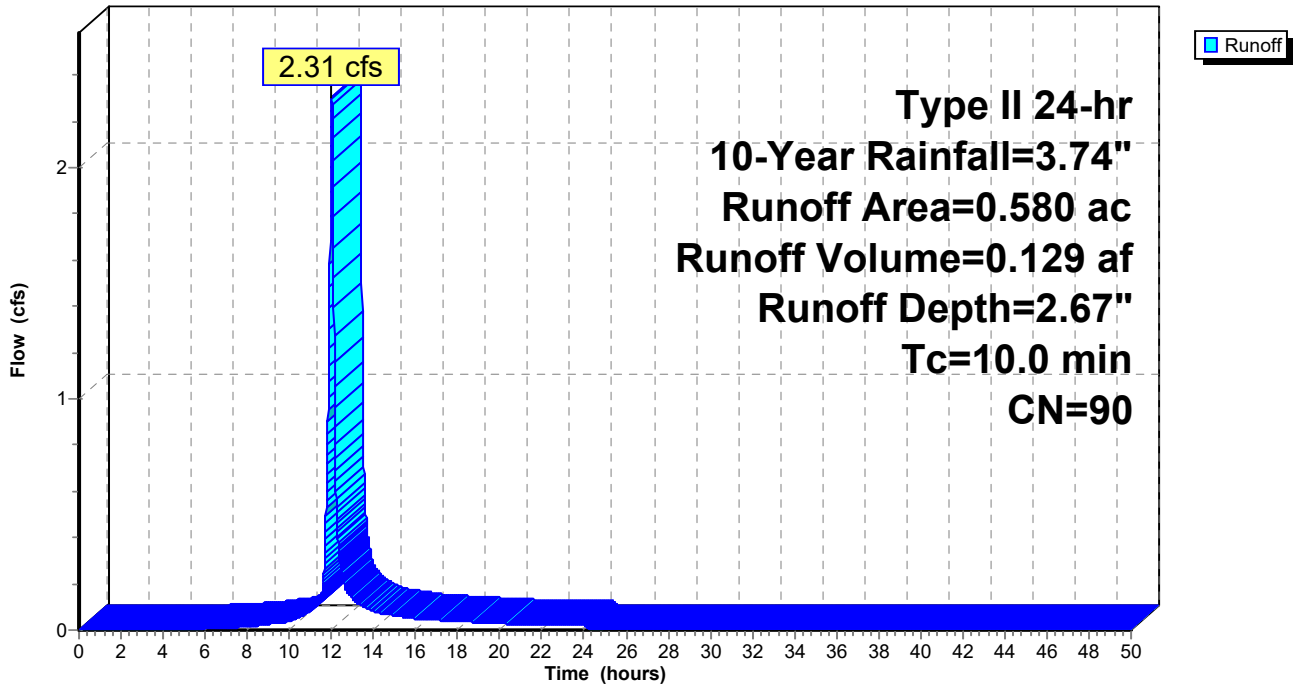
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 8E: STR8

Runoff = 1.48 cfs @ 12.01 hrs, Volume= 0.087 af, Depth= 3.17"

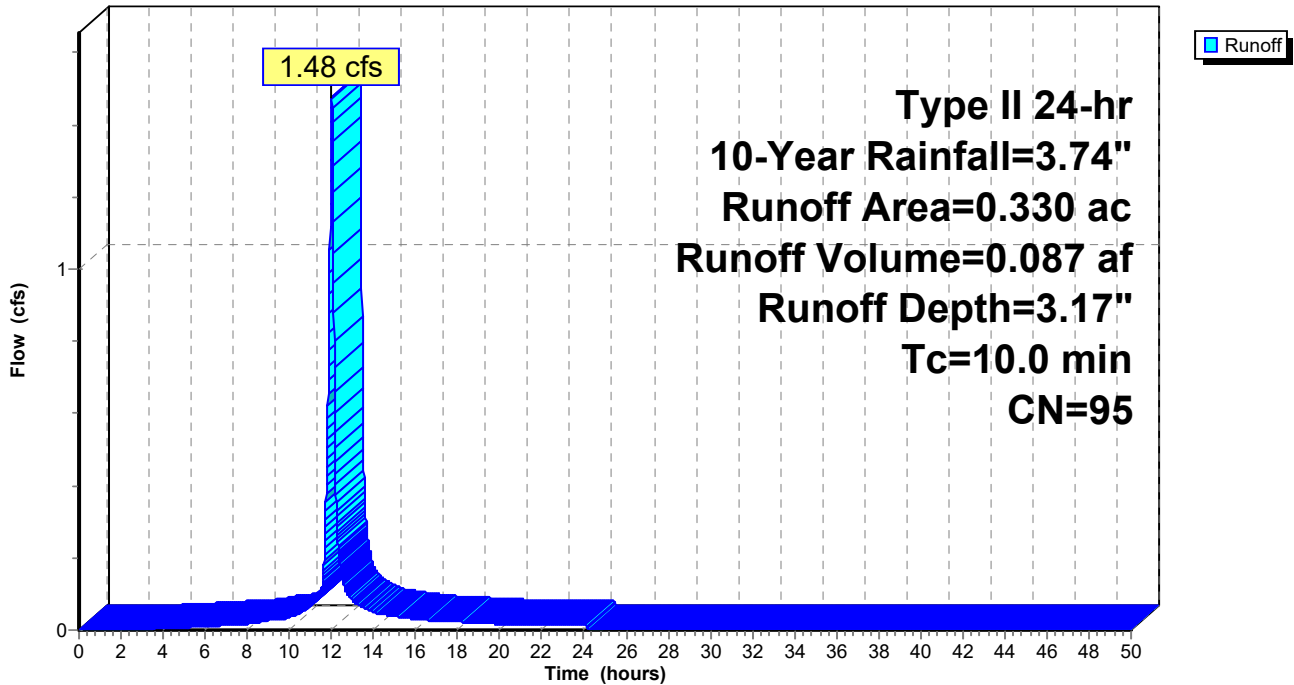
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 3.21" for 10-Year event
 Inflow = 6.45 cfs @ 12.01 hrs, Volume= 0.385 af
 Outflow = 1.59 cfs @ 12.62 hrs, Volume= 0.385 af, Atten= 75%, Lag= 36.6 min
 Primary = 1.59 cfs @ 12.62 hrs, Volume= 0.385 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.29' @ 12.34 hrs Surf.Area= 14,755 sf Storage= 5,287 cf

Plug-Flow detention time= 22.9 min calculated for 0.385 af (100% of inflow)
 Center-of-Mass det. time= 22.4 min (794.0 - 771.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.59 cfs @ 12.62 hrs HW=912.24' TW=908.89' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.59 cfs @ 8.80 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=906.94' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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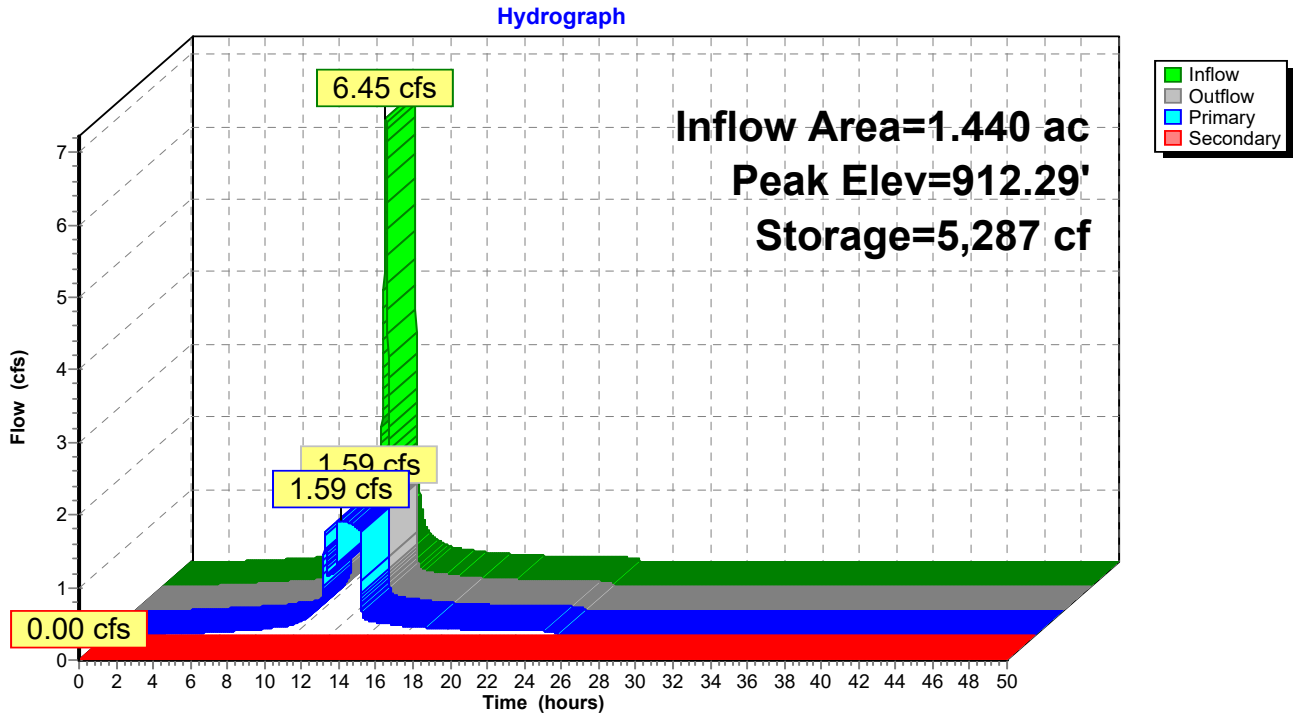
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Type II 24-hr 10-Year Rainfall=3.74"

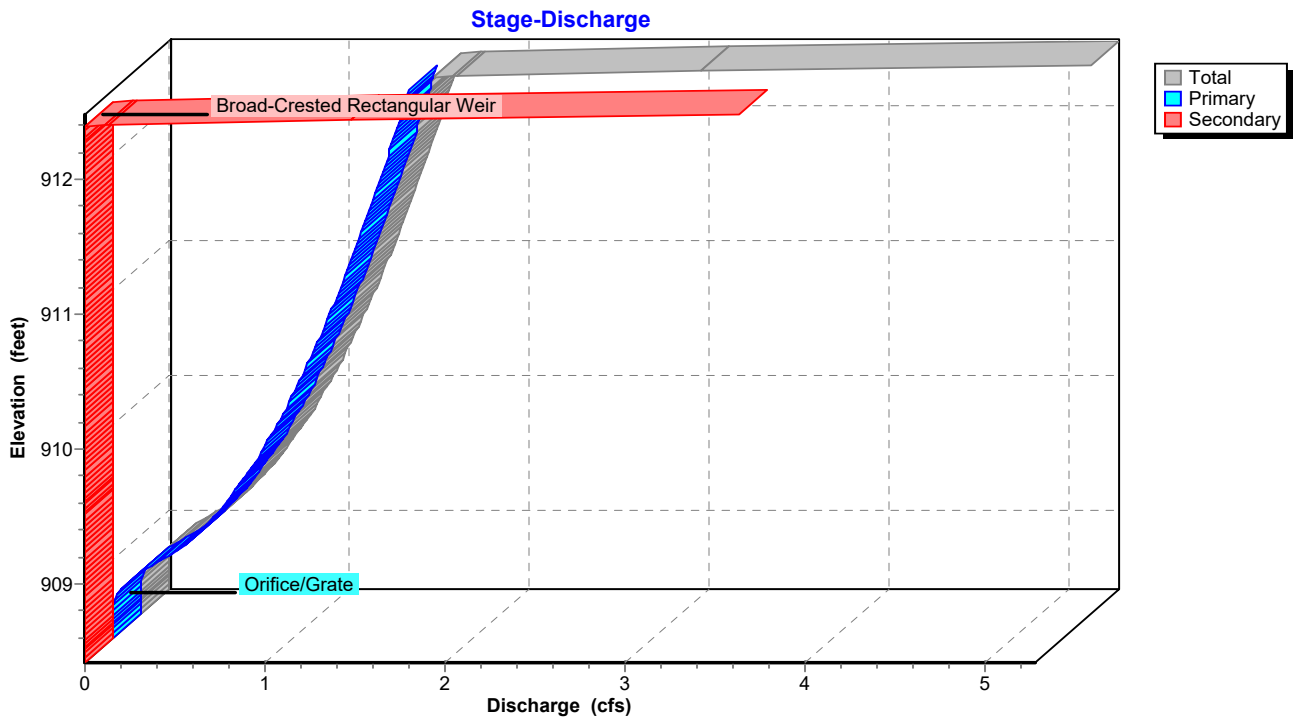
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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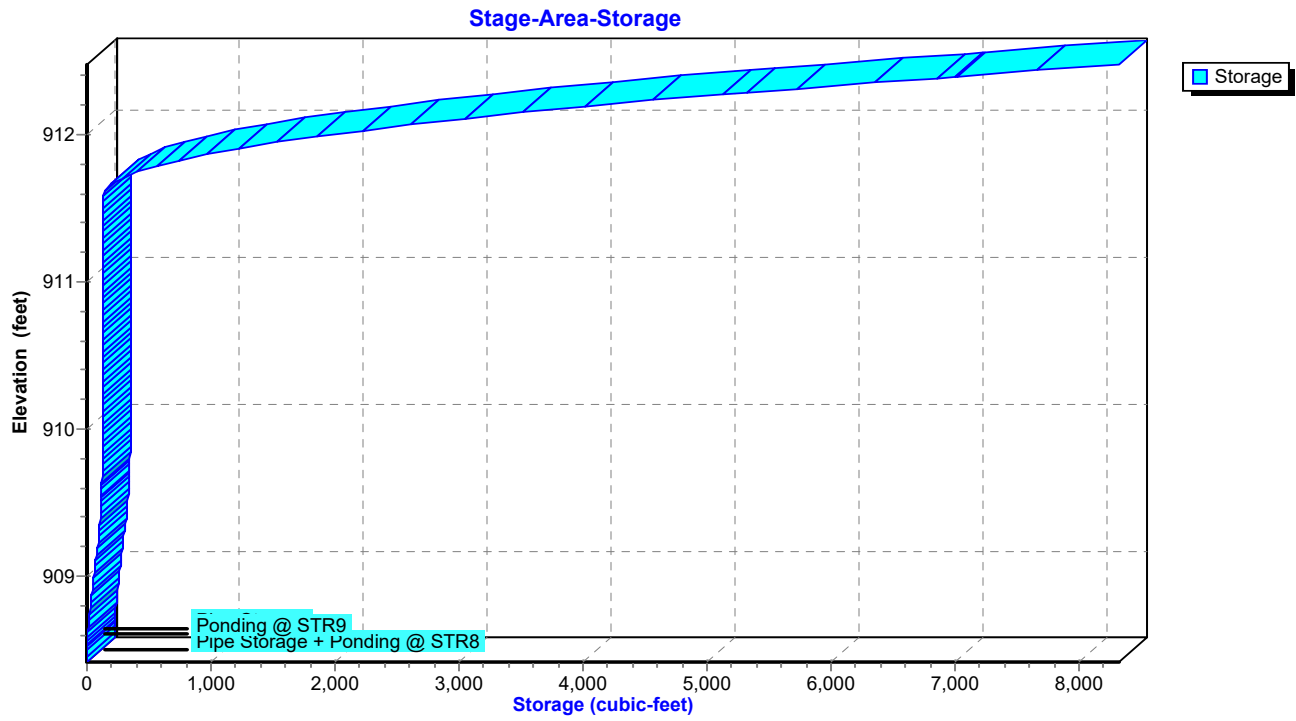
EXISTING EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 9E: STR9

Runoff = 1.93 cfs @ 12.01 hrs, Volume= 0.113 af, Depth= 3.07"

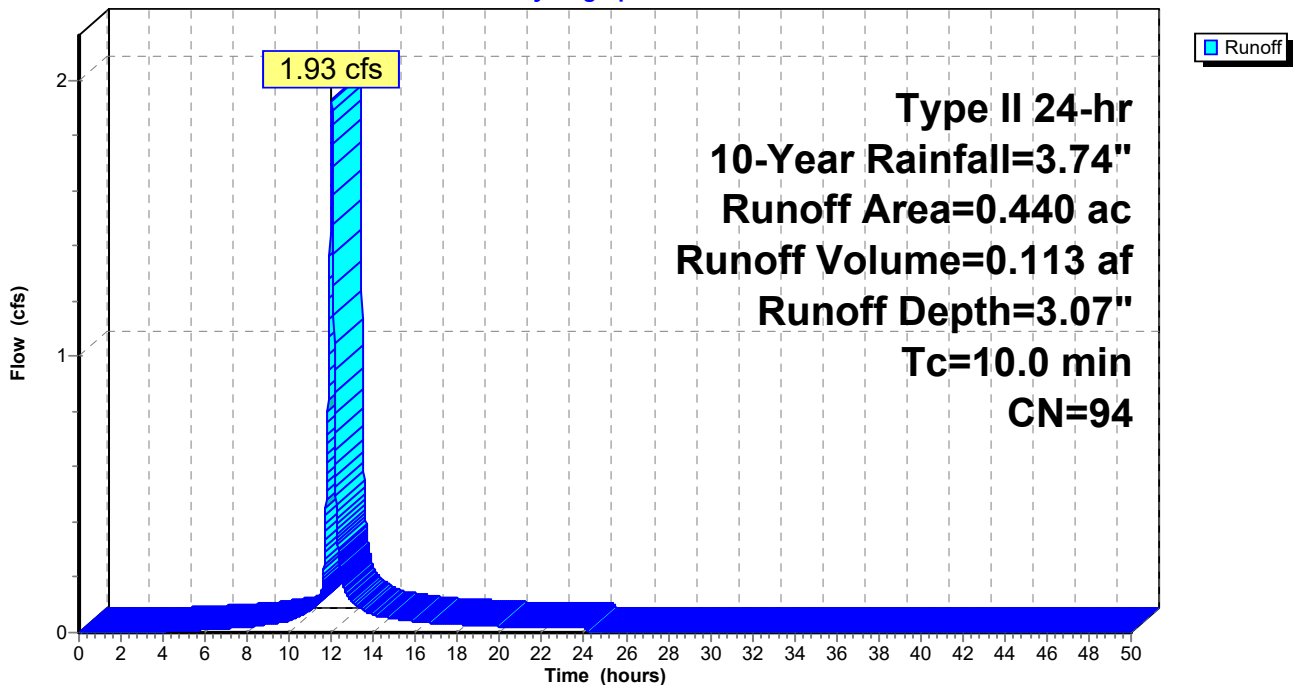
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 10E: STR10

Runoff = 2.24 cfs @ 12.01 hrs, Volume= 0.140 af, Depth= 3.51"

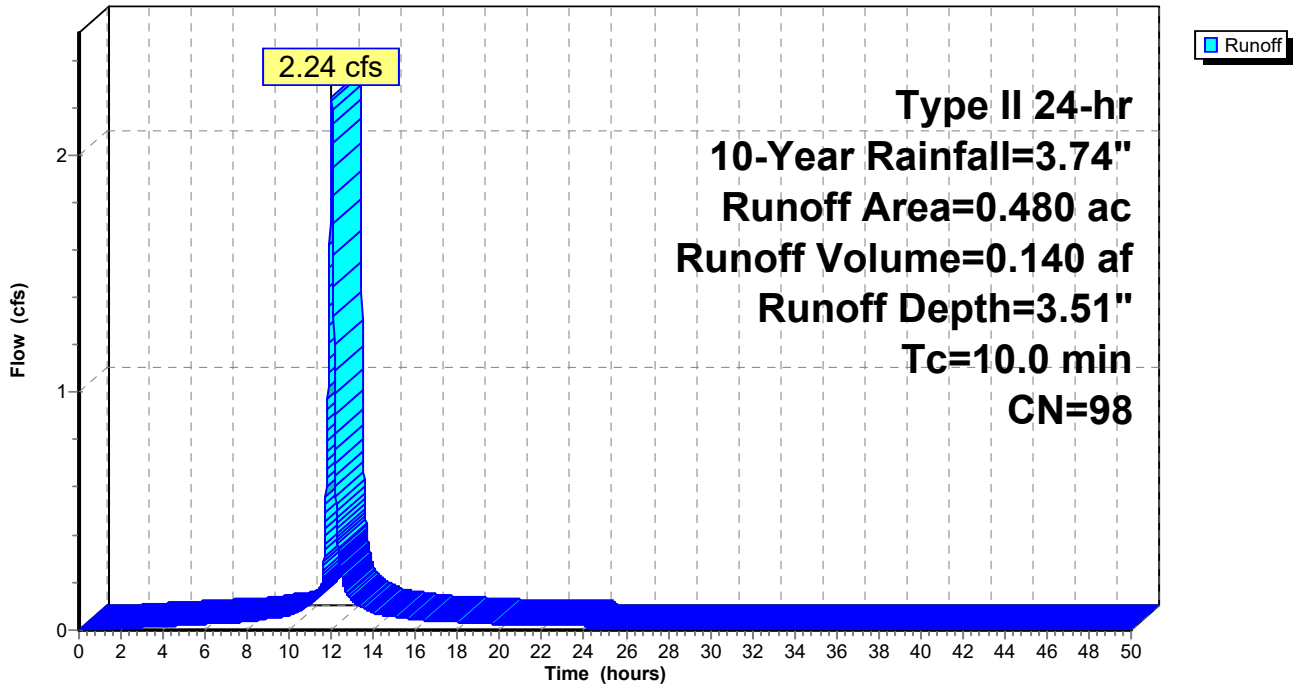
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 11E: STR11

Runoff = 0.80 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 2.87"

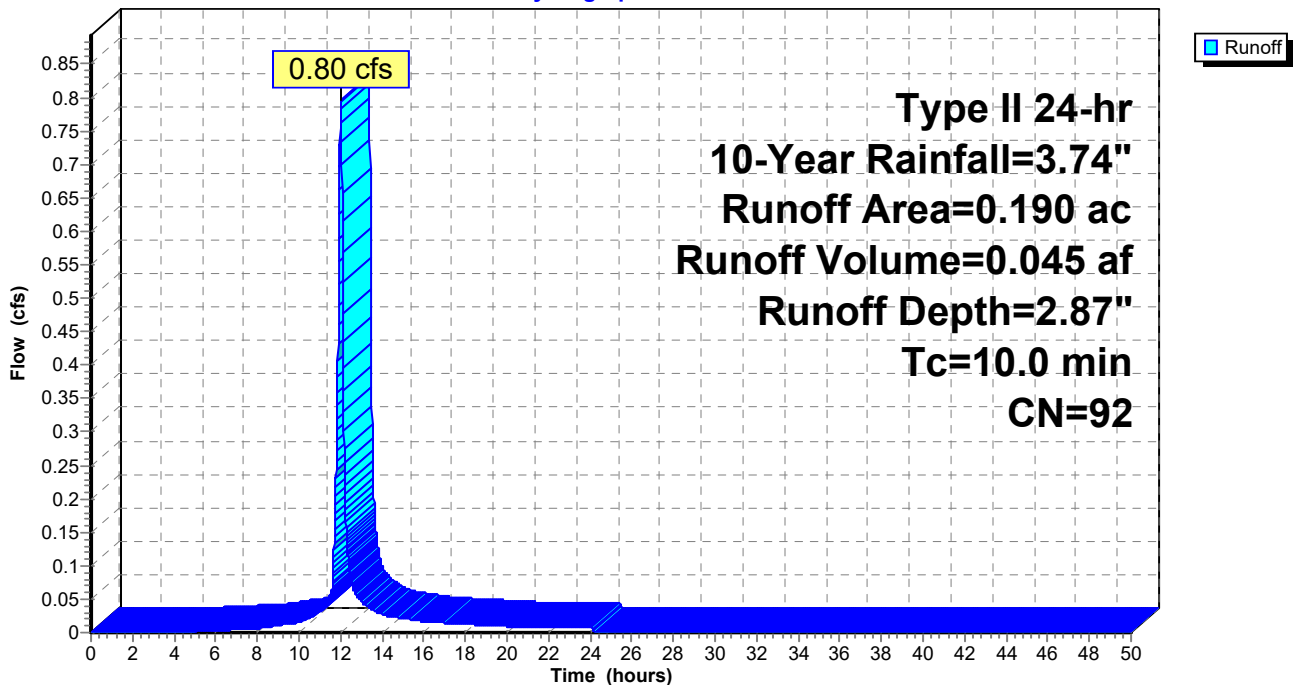
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

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Summary for Subcatchment 12E: STR12

Runoff = 2.37 cfs @ 12.01 hrs, Volume= 0.140 af, Depth= 3.17"

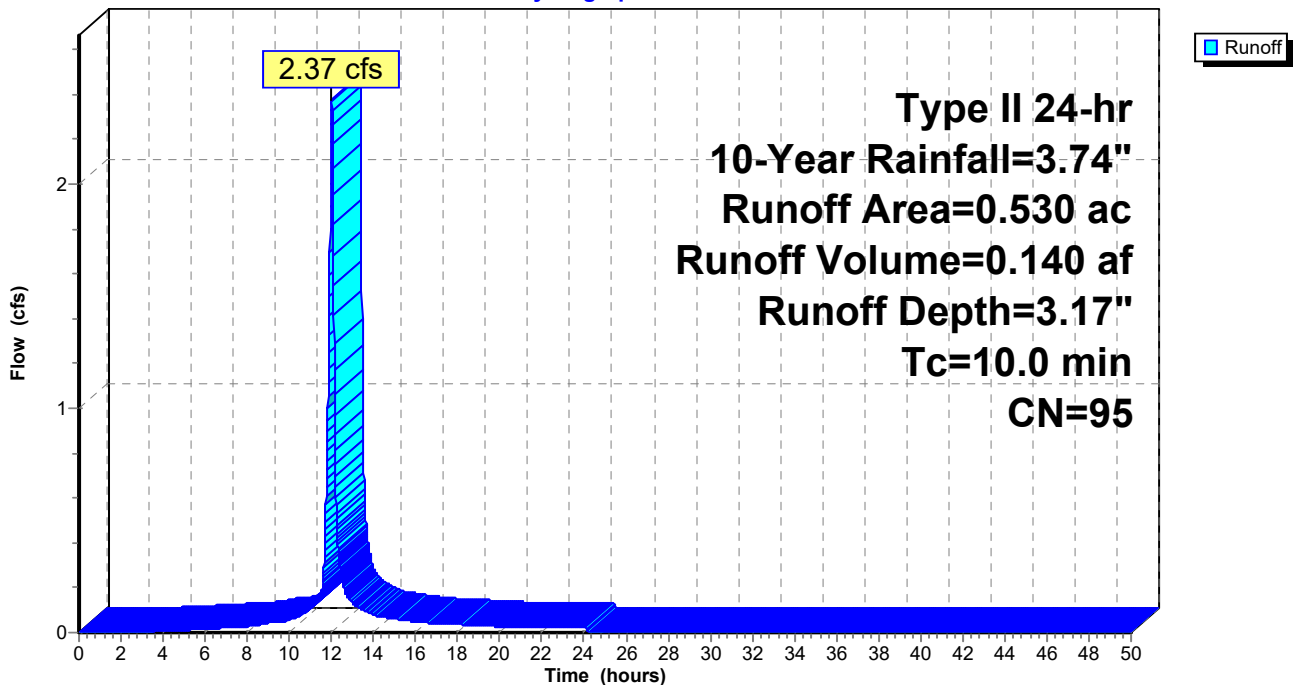
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

Hydrograph



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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 3.28" for 10-Year event
 Inflow = 4.50 cfs @ 12.01 hrs, Volume= 0.270 af
 Outflow = 0.66 cfs @ 12.43 hrs, Volume= 0.270 af, Atten= 85%, Lag= 25.2 min
 Primary = 0.66 cfs @ 12.43 hrs, Volume= 0.270 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.16' @ 12.42 hrs Surf.Area= 15,001 sf Storage= 4,364 cf

Plug-Flow detention time= 43.1 min calculated for 0.270 af (100% of inflow)
 Center-of-Mass det. time= 43.0 min (812.7 - 769.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.66 cfs @ 12.43 hrs HW=912.16' TW=908.98' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.66 cfs @ 8.57 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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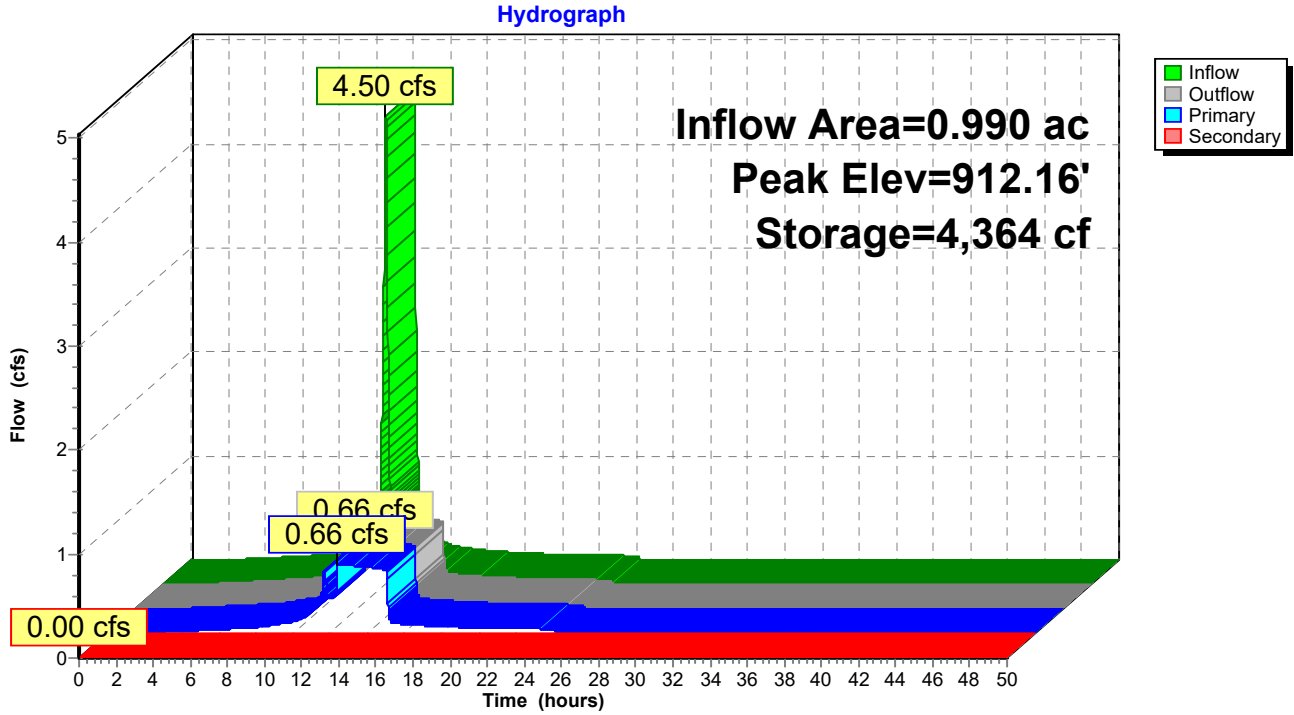
EXISTING EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

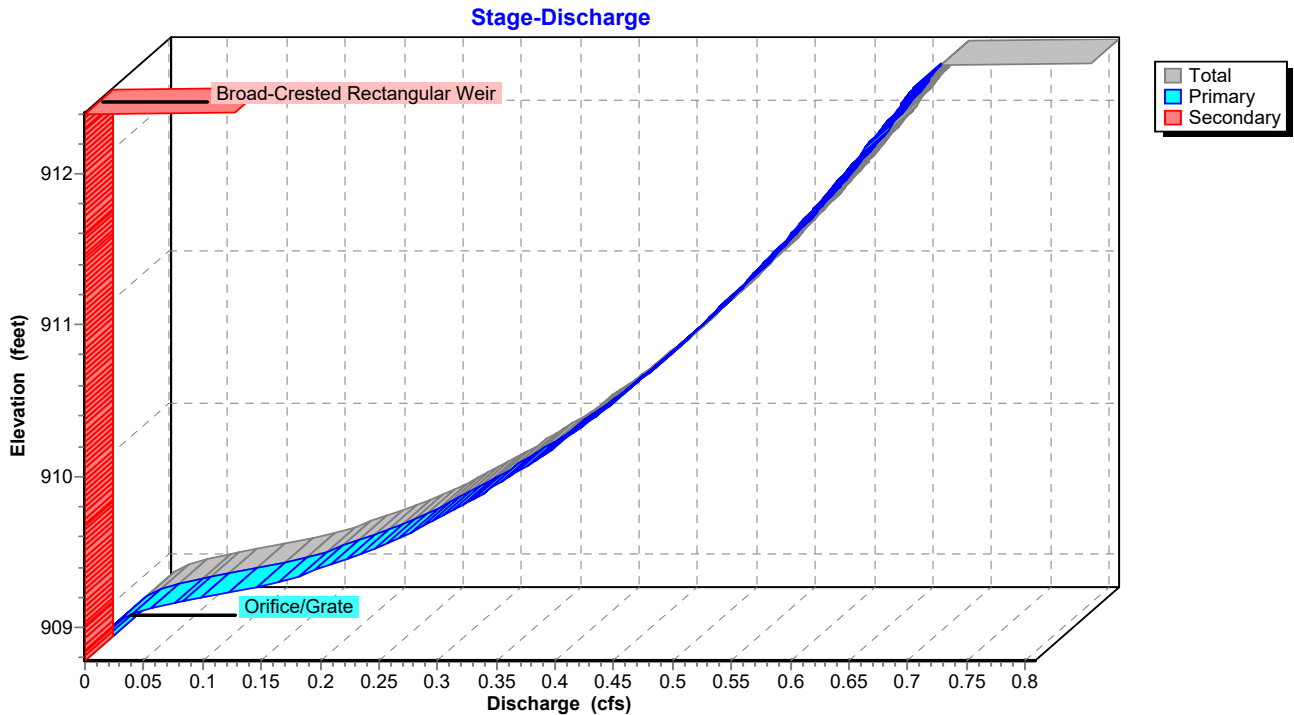
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Pond 12P: PONDING STR 12-13



Pond 12P: PONDING STR 12-13



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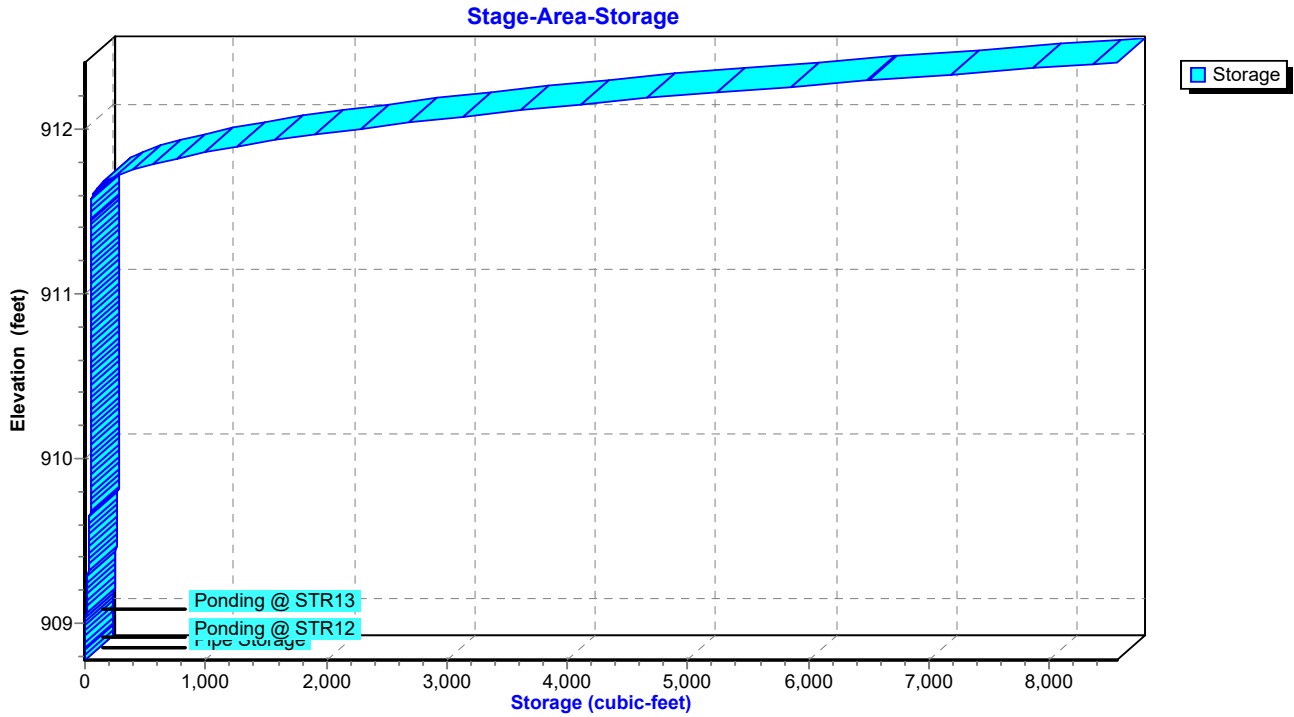
EXISTING EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond 12P: PONDING STR 12-13



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 13E: STR13

Runoff = 2.13 cfs @ 12.01 hrs, Volume= 0.130 af, Depth= 3.39"

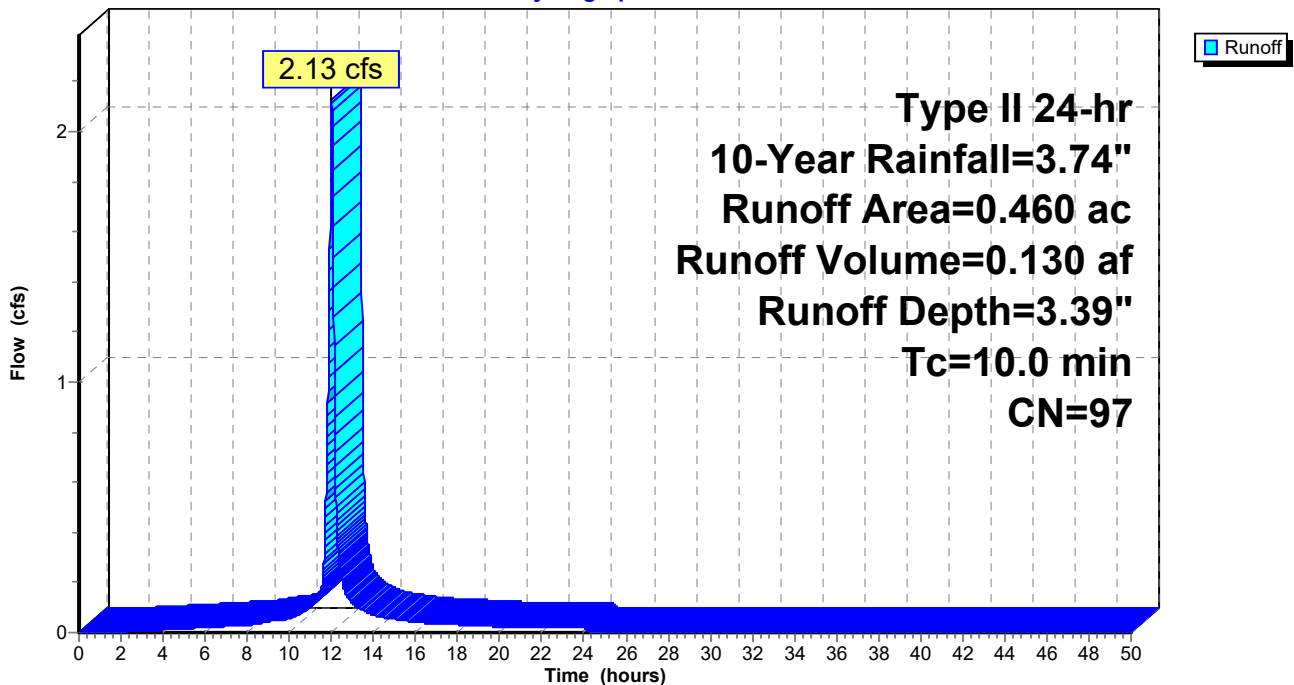
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

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Summary for Subcatchment 14E: STR14

Runoff = 2.02 cfs @ 12.01 hrs, Volume= 0.119 af, Depth= 3.17"

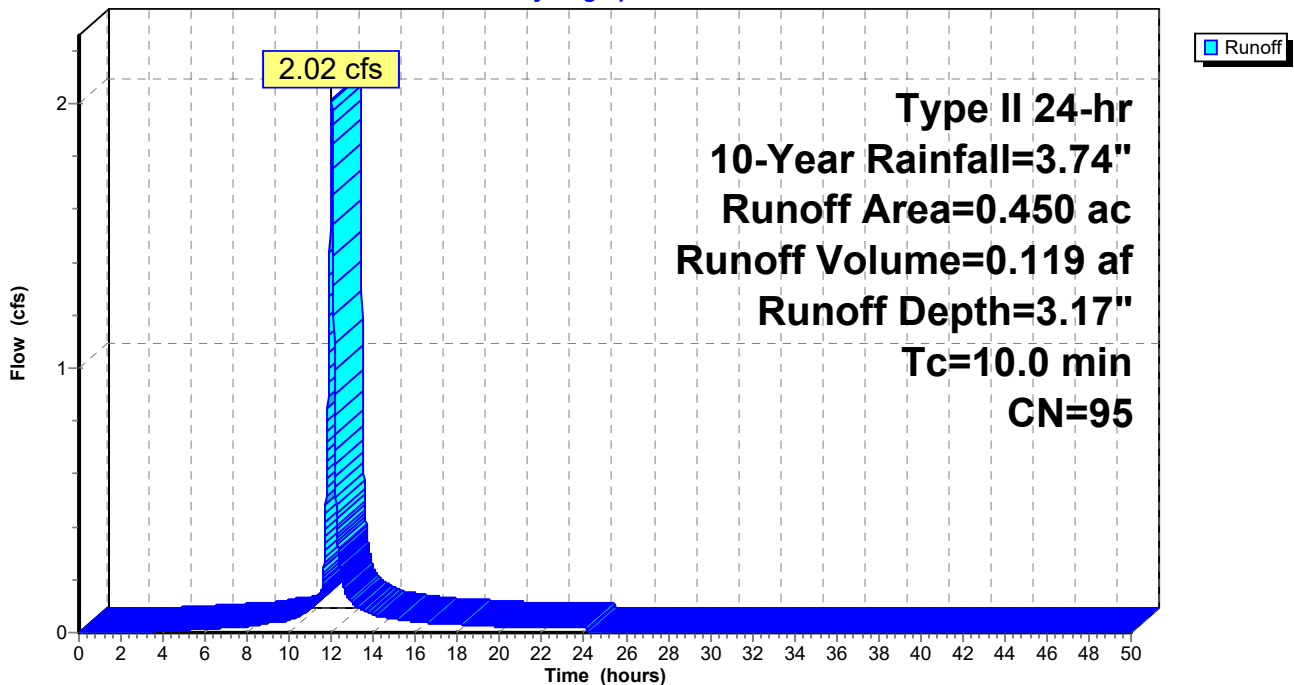
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 3.17" for 10-Year event
 Inflow = 2.02 cfs @ 12.01 hrs, Volume= 0.119 af
 Outflow = 0.75 cfs @ 12.43 hrs, Volume= 0.119 af, Atten= 63%, Lag= 25.2 min
 Primary = 0.75 cfs @ 12.43 hrs, Volume= 0.117 af
 Secondary = 0.13 cfs @ 12.20 hrs, Volume= 0.002 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.23' @ 12.20 hrs Surf.Area= 3,409 sf Storage= 1,333 cf

Plug-Flow detention time= 10.9 min calculated for 0.119 af (100% of inflow)
 Center-of-Mass det. time= 10.9 min (787.4 - 776.5)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.75 cfs @ 12.43 hrs HW=912.19' TW=908.98' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.62 fps)

Secondary OutFlow Max=0.13 cfs @ 12.20 hrs HW=912.23' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Weir Controls 0.13 cfs @ 0.46 fps)

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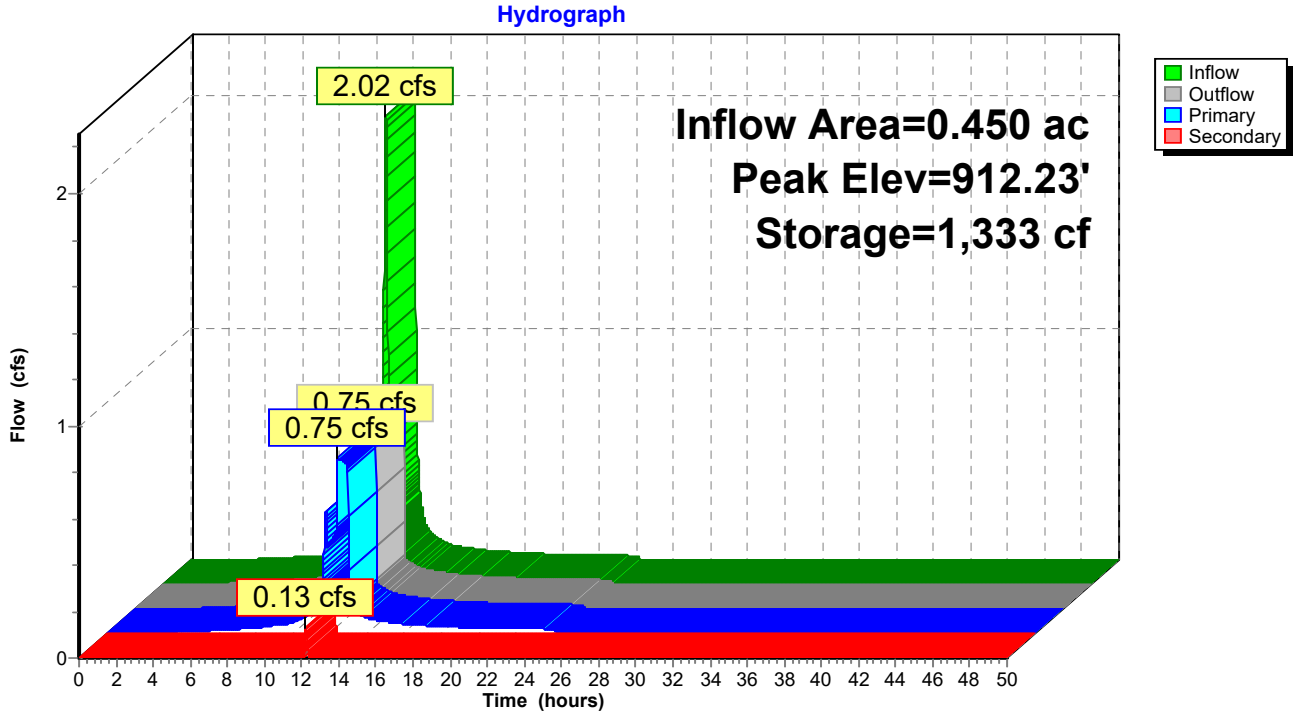
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Type II 24-hr 10-Year Rainfall=3.74"

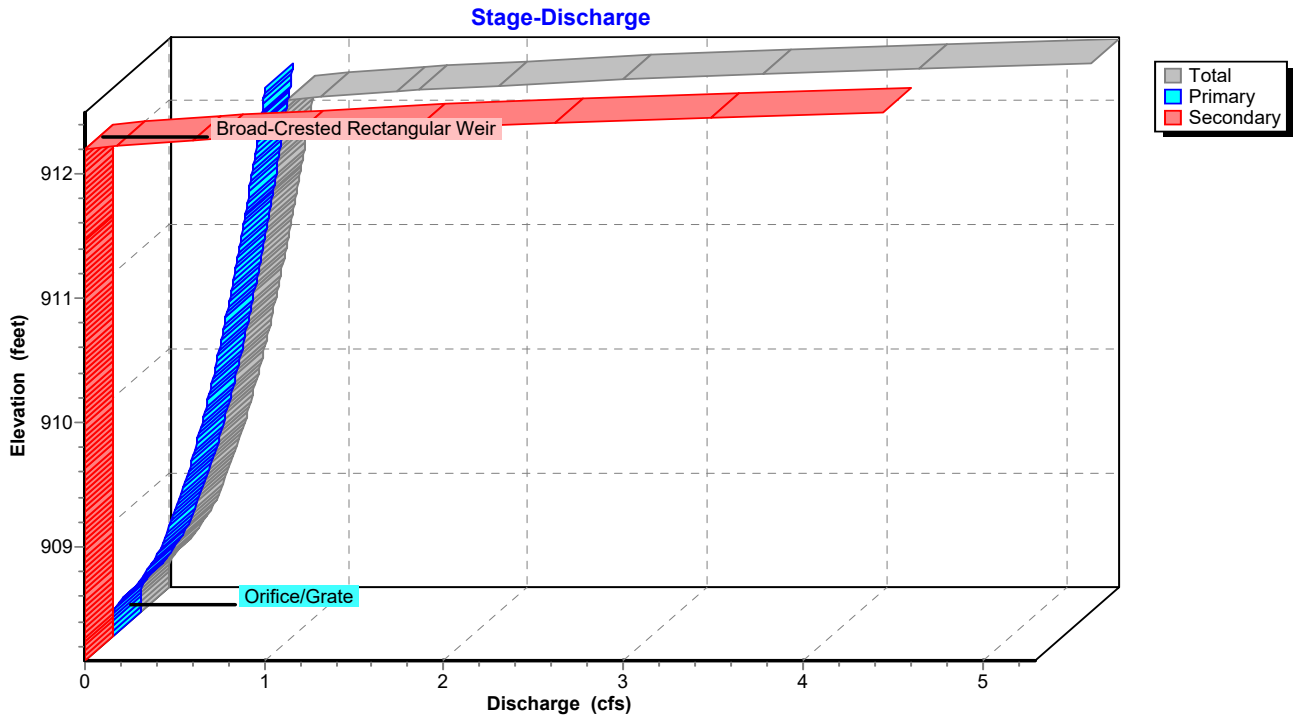
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Pond 14P: PONDING STR 14



Pond 14P: PONDING STR 14



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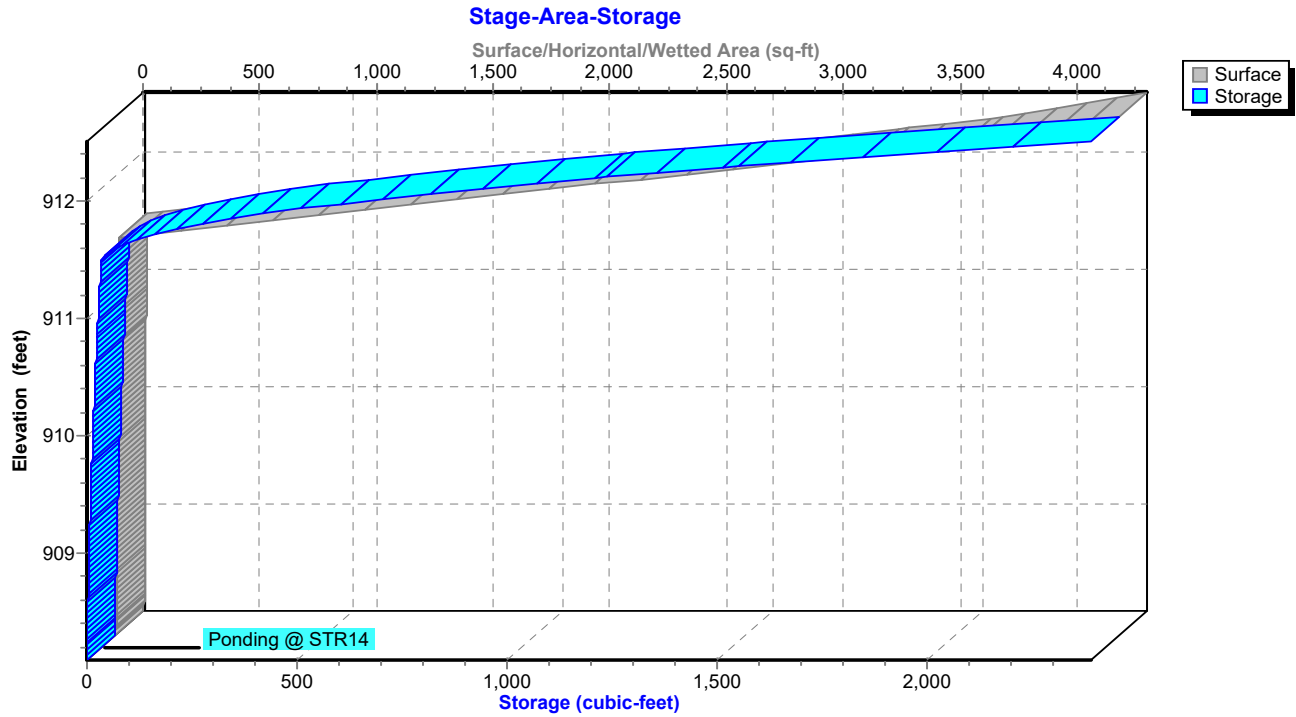
EXISTING EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond 14P: PONDING STR 14



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment XE: STRX

Runoff = 0.56 cfs @ 12.01 hrs, Volume= 0.035 af, Depth= 3.51"

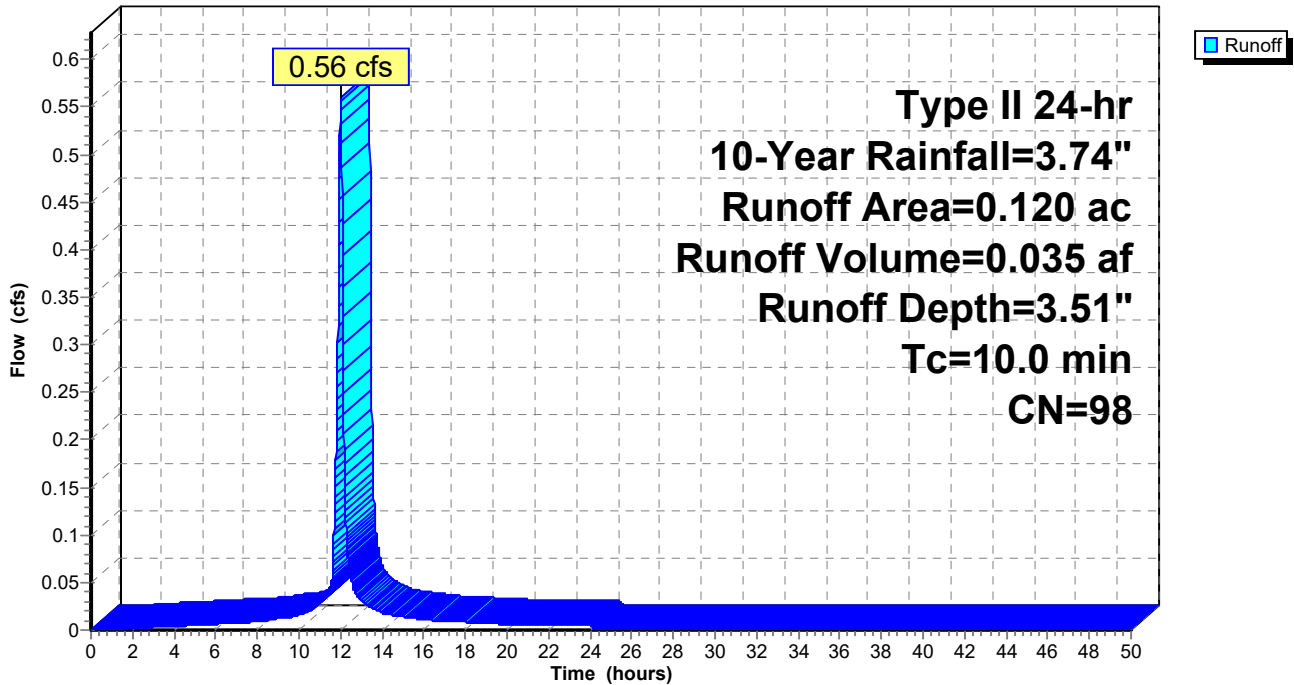
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 1E: STR1

Runoff = 1.66 cfs @ 12.02 hrs, Volume= 0.090 af, Depth= 2.58"

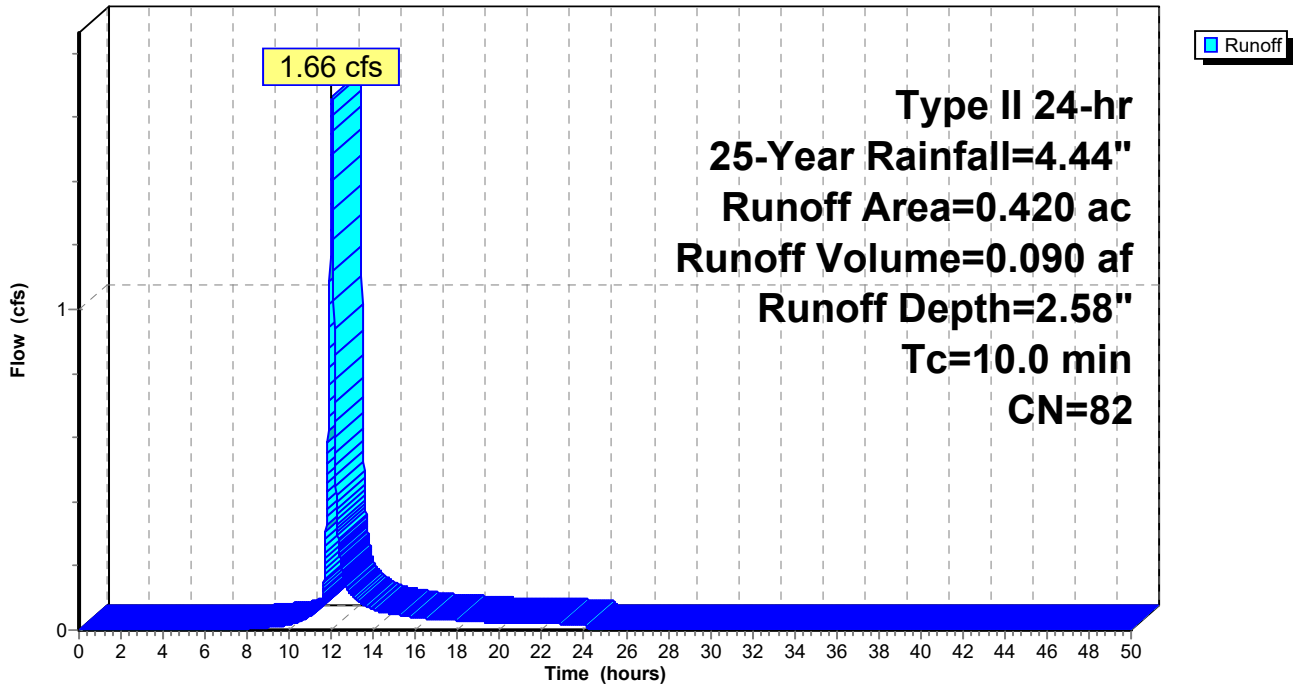
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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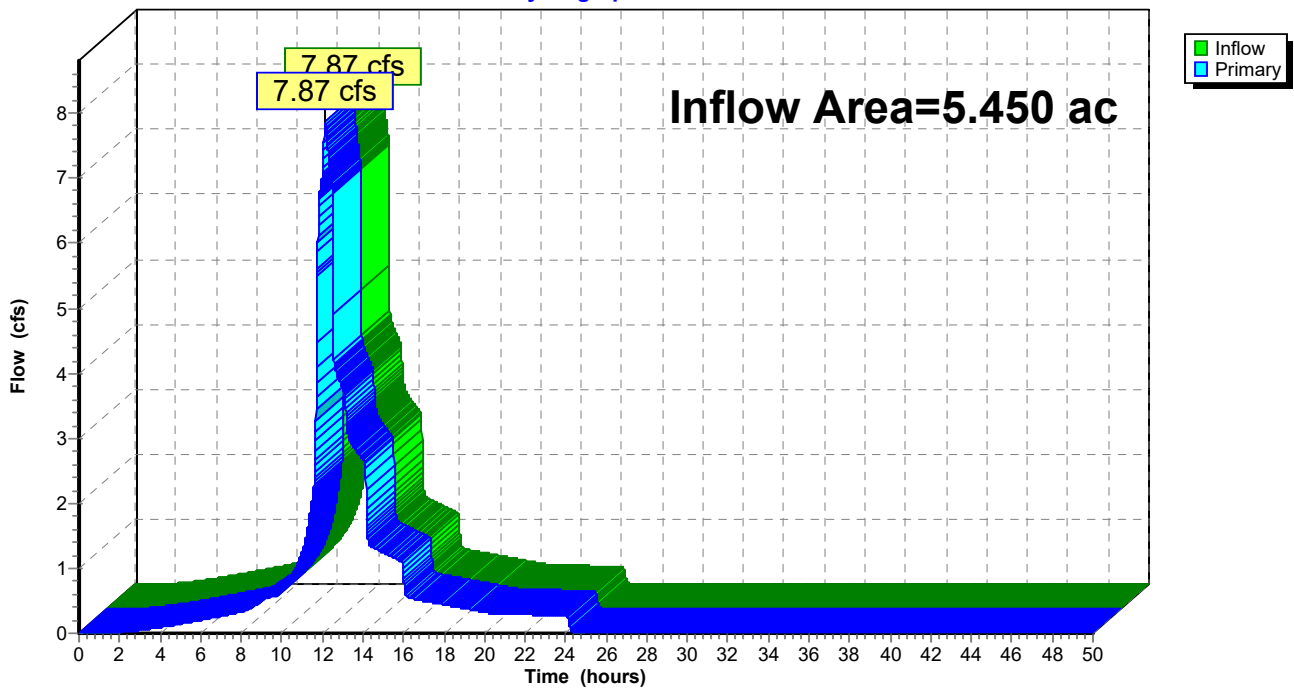
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.73" for 25-Year event
Inflow = 7.87 cfs @ 12.14 hrs, Volume= 1.693 af
Primary = 7.87 cfs @ 12.14 hrs, Volume= 1.693 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.70" for 25-Year event
 Inflow = 14.48 cfs @ 12.01 hrs, Volume= 1.682 af
 Outflow = 7.16 cfs @ 12.14 hrs, Volume= 1.682 af, Atten= 51%, Lag= 8.0 min
 Primary = 7.16 cfs @ 12.14 hrs, Volume= 1.682 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.40' @ 12.14 hrs Surf.Area= 18,469 sf Storage= 5,233 cf

Plug-Flow detention time= 3.4 min calculated for 1.682 af (100% of inflow)
 Center-of-Mass det. time= 3.2 min (798.3 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 '/'
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 '/'
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=7.16 cfs @ 12.14 hrs HW=911.40' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Orifice Controls 7.16 cfs @ 9.12 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)

↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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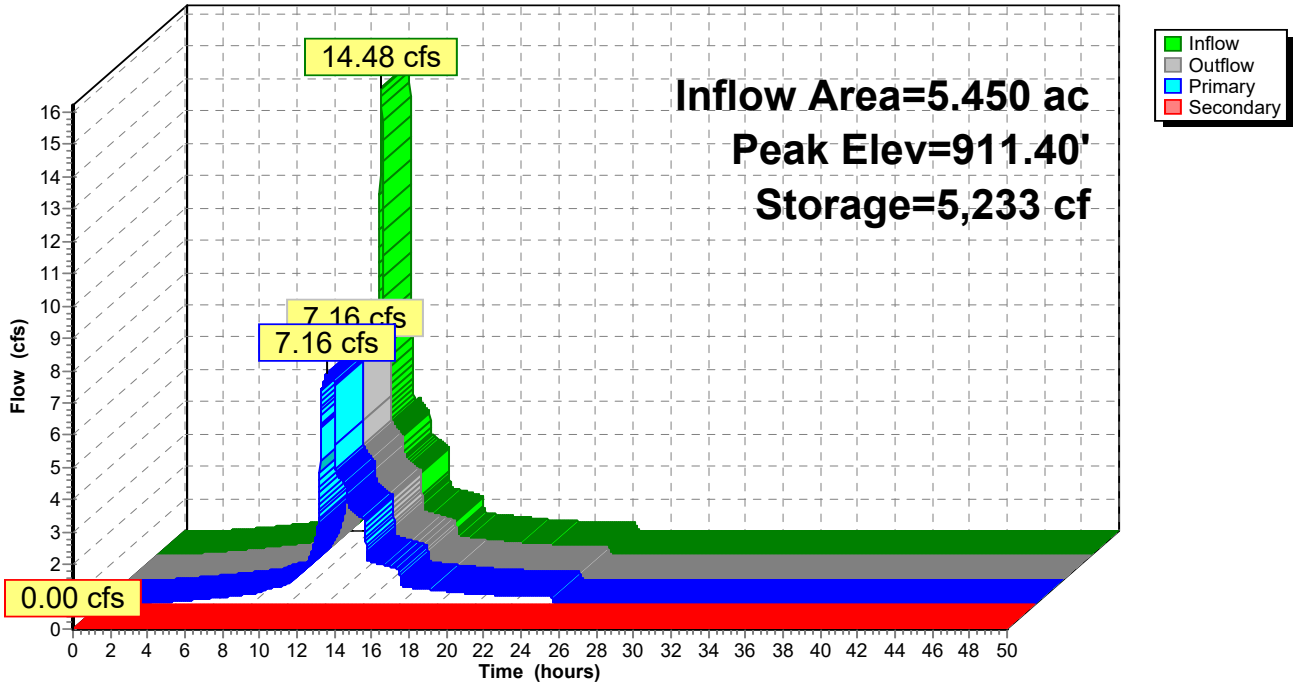
Type II 24-hr 25-Year Rainfall=4.44"

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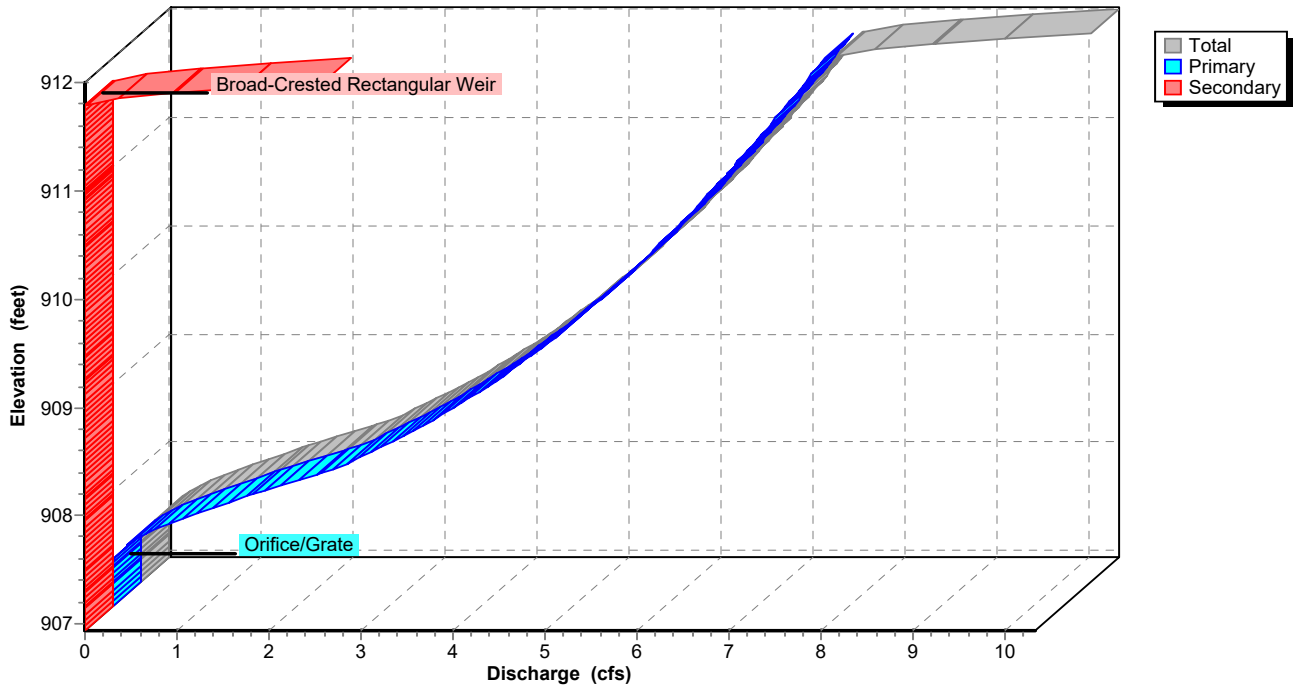
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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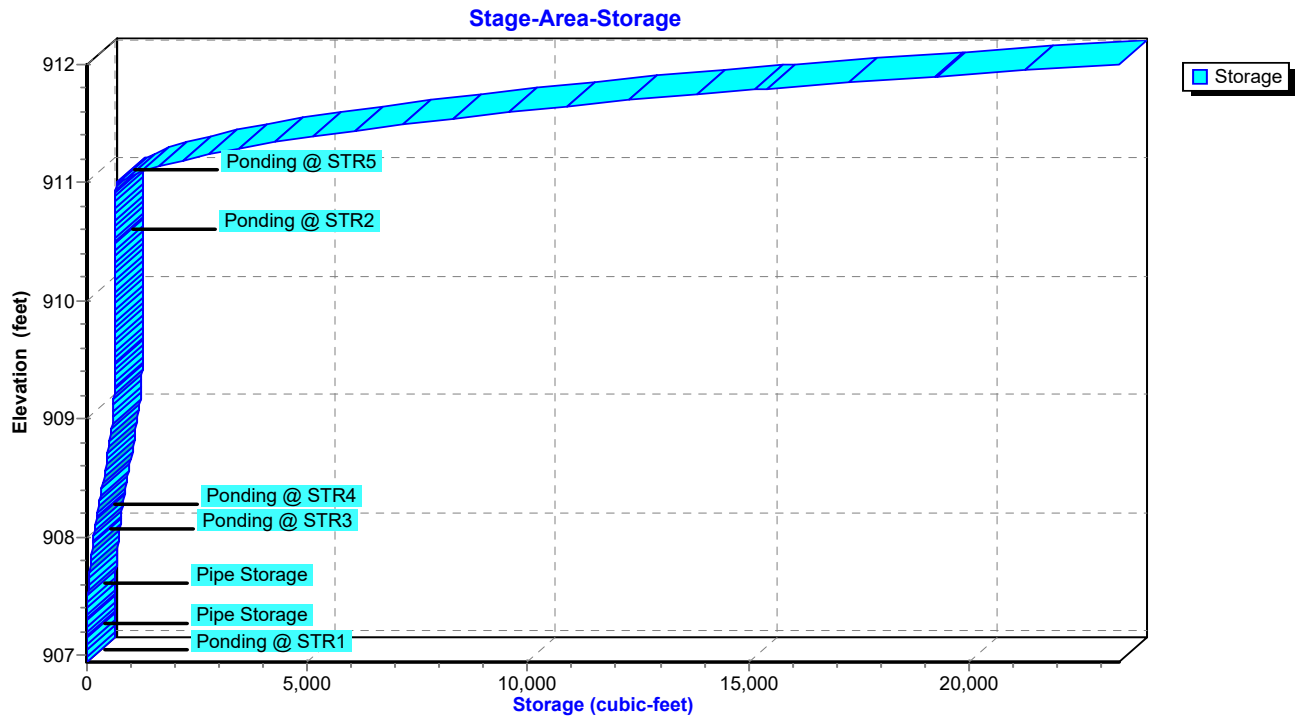
EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Pond 1P: PONDING STR 1-5



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 2E: STR2

Runoff = 3.34 cfs @ 12.01 hrs, Volume= 0.200 af, Depth= 3.87"

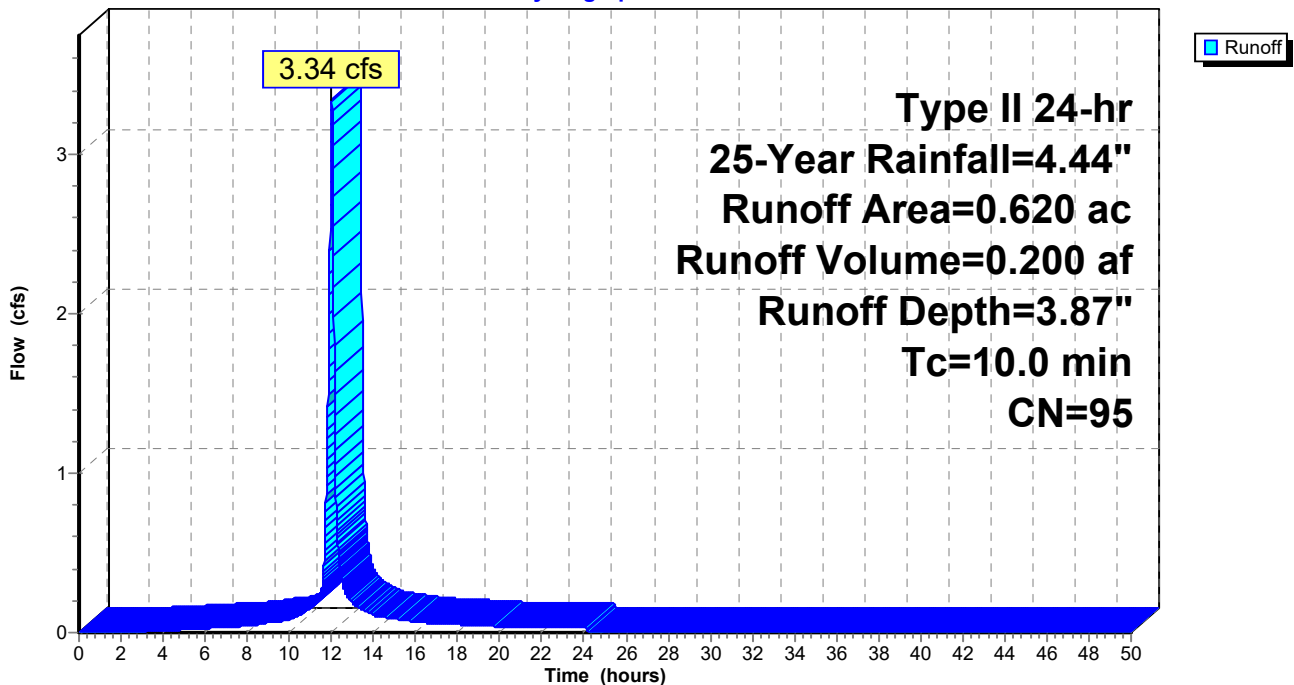
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 3E: STR3

Runoff = 2.16 cfs @ 12.01 hrs, Volume= 0.129 af, Depth= 3.87"

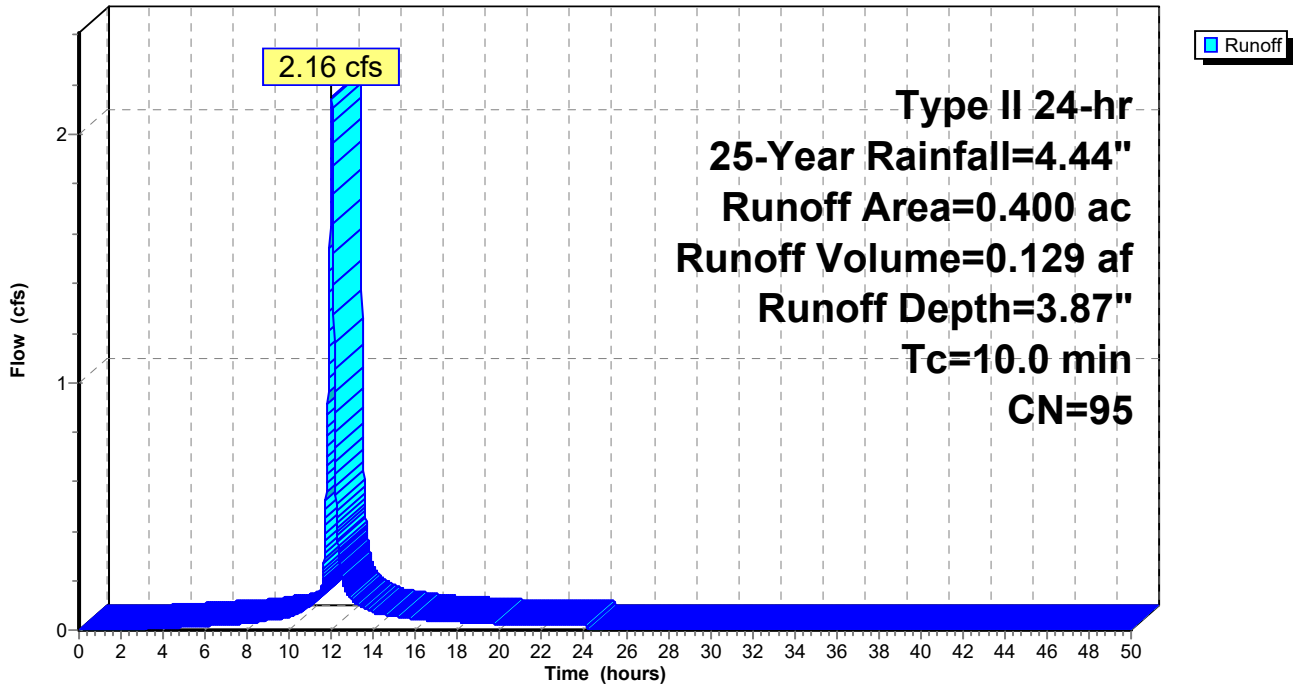
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 4E: STR4

Runoff = 2.24 cfs @ 12.01 hrs, Volume= 0.131 af, Depth= 3.65"

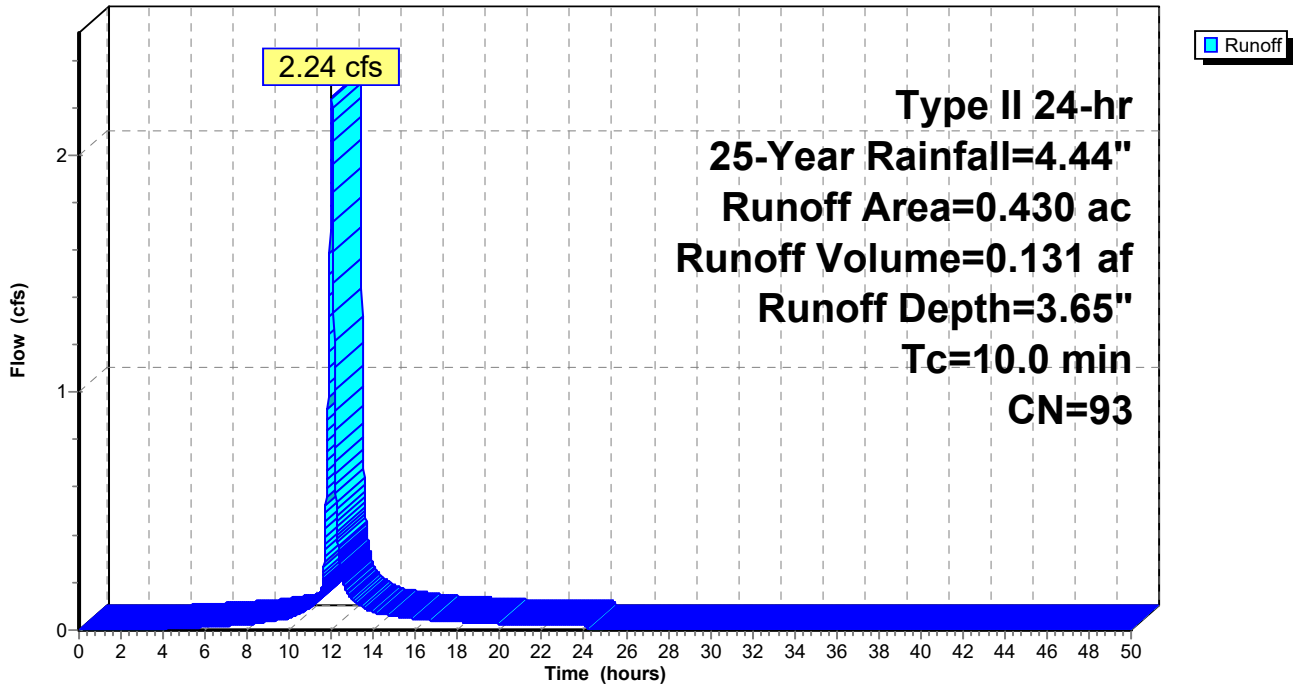
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 5E: STR5

Runoff = 2.85 cfs @ 12.01 hrs, Volume= 0.161 af, Depth= 3.34"

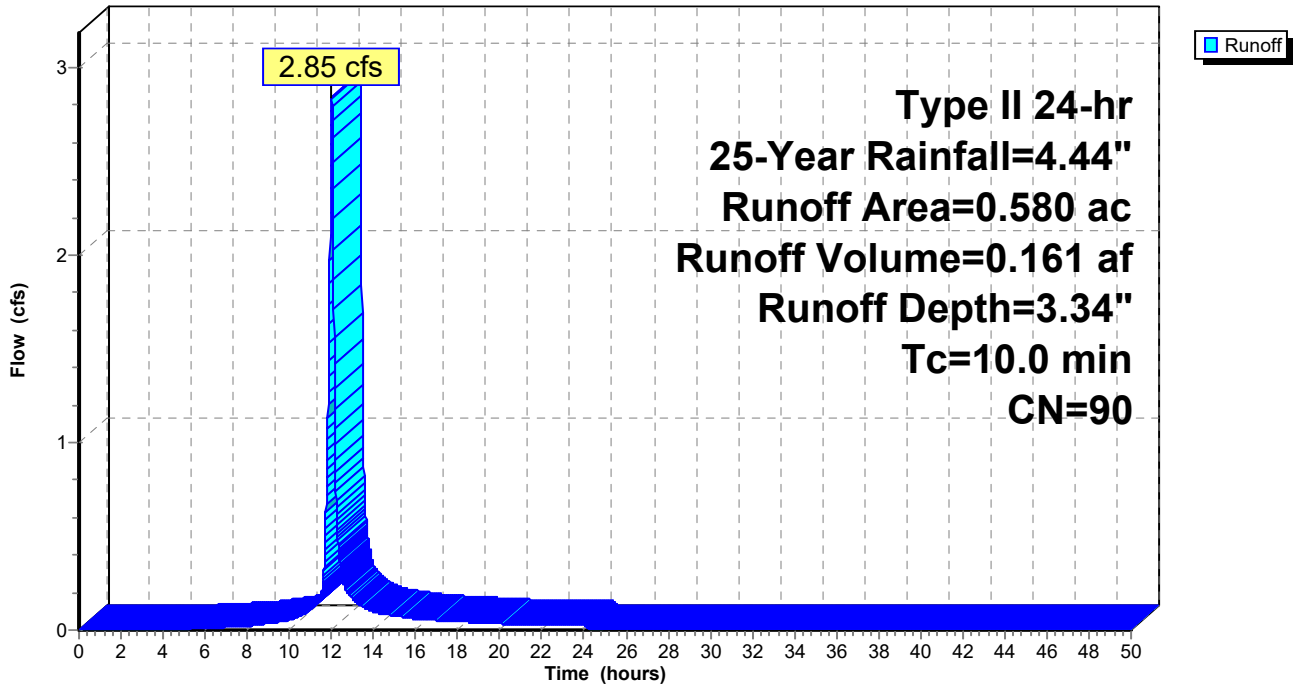
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 8E: STR8

Runoff = 1.78 cfs @ 12.01 hrs, Volume= 0.106 af, Depth= 3.87"

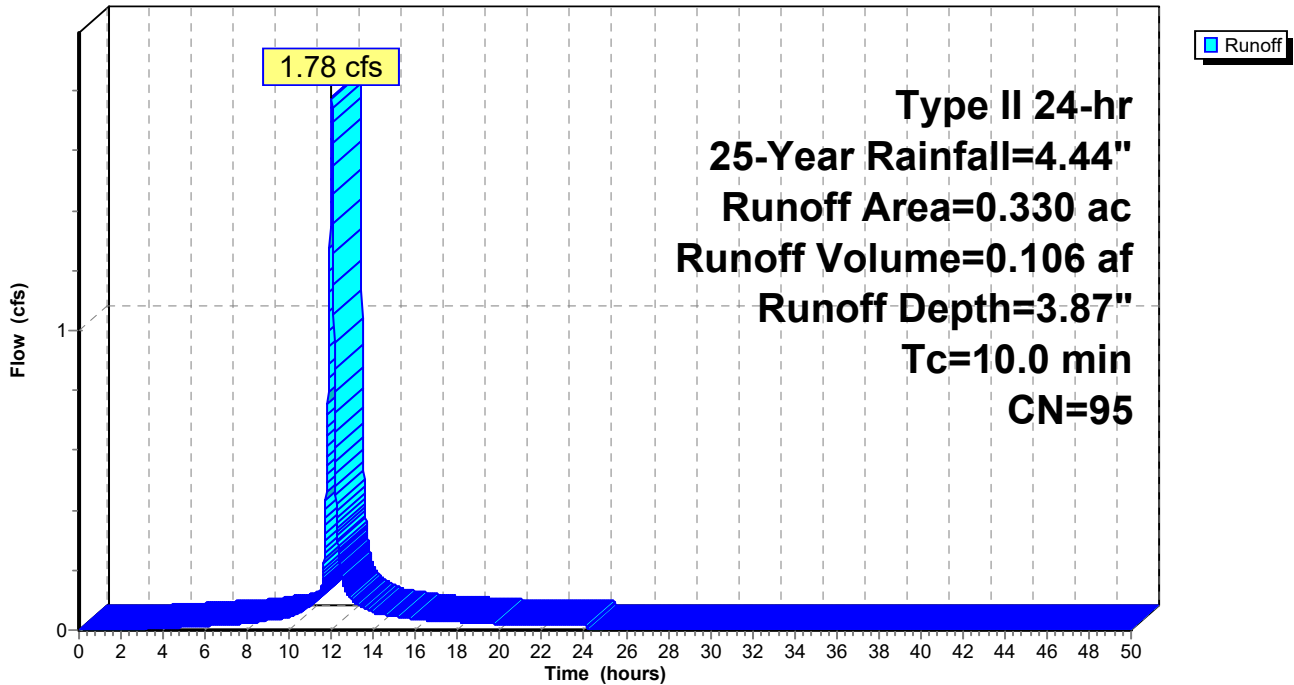
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 3.90" for 25-Year event
 Inflow = 7.76 cfs @ 12.01 hrs, Volume= 0.468 af
 Outflow = 1.61 cfs @ 12.77 hrs, Volume= 0.468 af, Atten= 79%, Lag= 45.9 min
 Primary = 1.61 cfs @ 12.77 hrs, Volume= 0.468 af
 Secondary = 0.02 cfs @ 12.40 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.39' @ 12.40 hrs Surf.Area= 15,988 sf Storage= 6,898 cf

Plug-Flow detention time= 30.2 min calculated for 0.468 af (100% of inflow)
 Center-of-Mass det. time= 29.9 min (797.1 - 767.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.61 cfs @ 12.77 hrs HW=912.34' TW=908.90' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.61 cfs @ 8.93 fps)

Secondary OutFlow Max=0.02 cfs @ 12.40 hrs HW=912.39' TW=911.23' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Weir Controls 0.02 cfs @ 0.14 fps)

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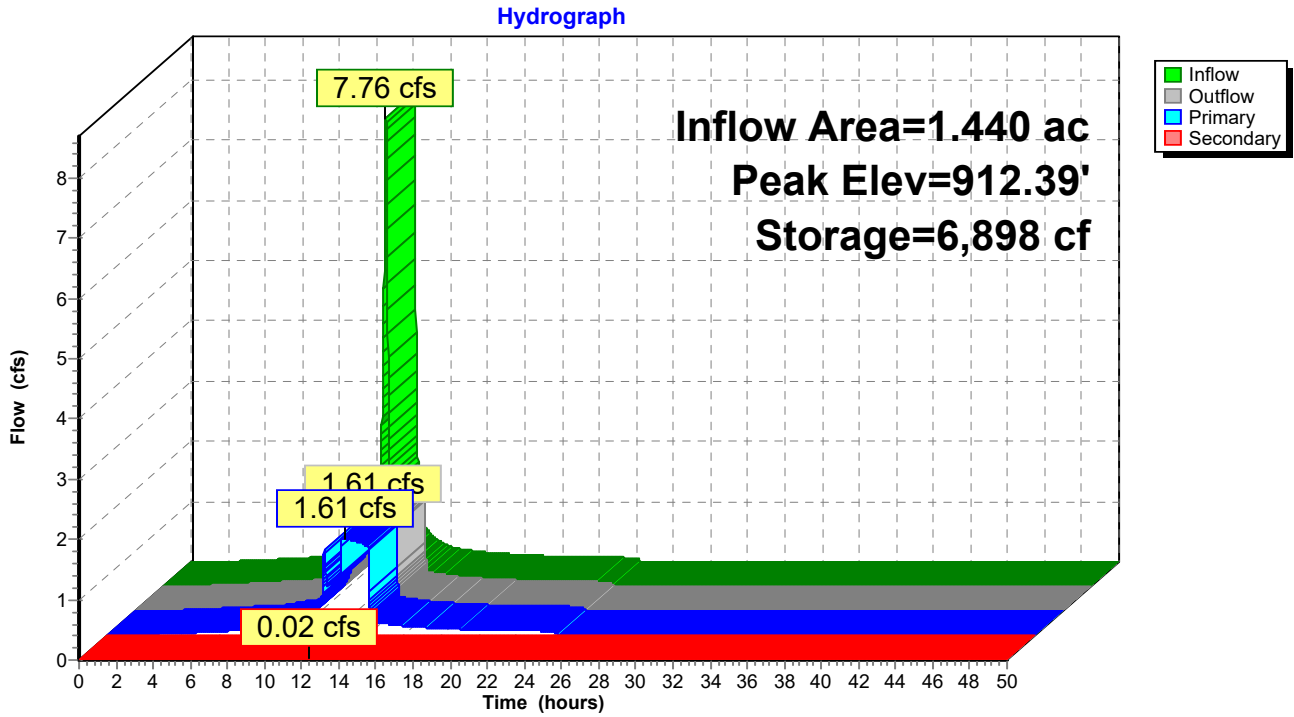
EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

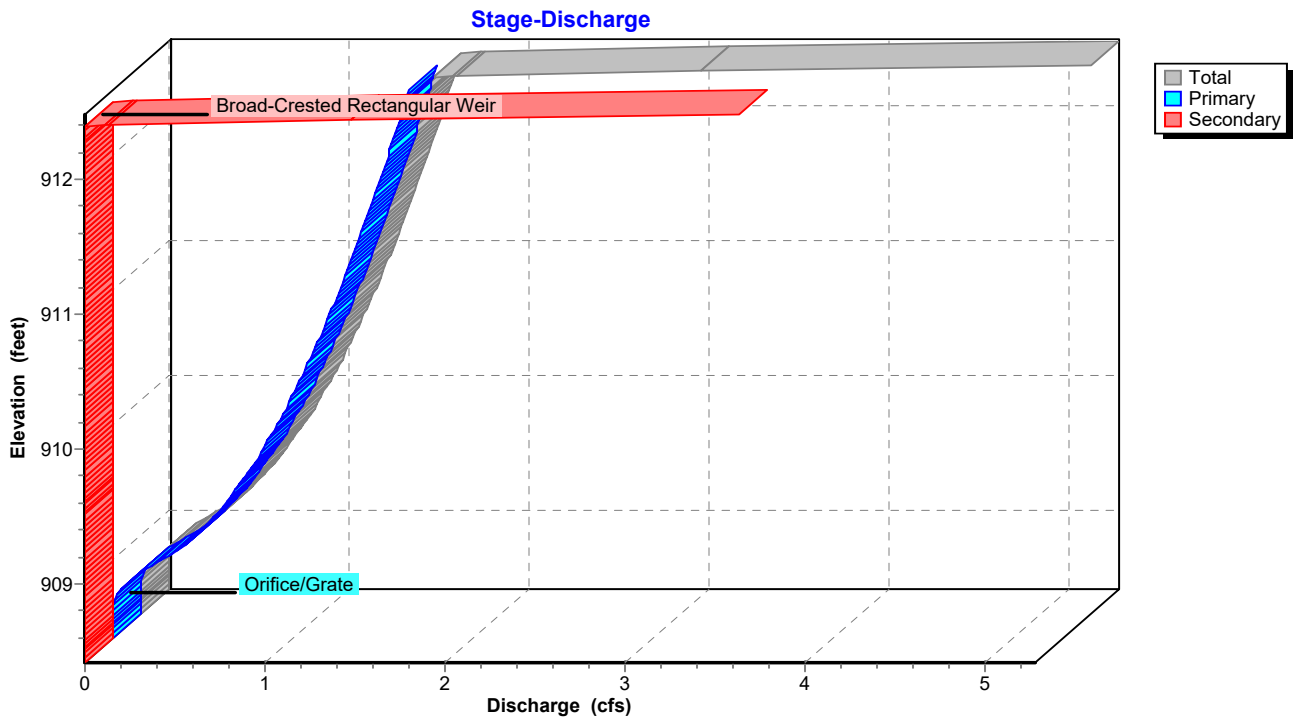
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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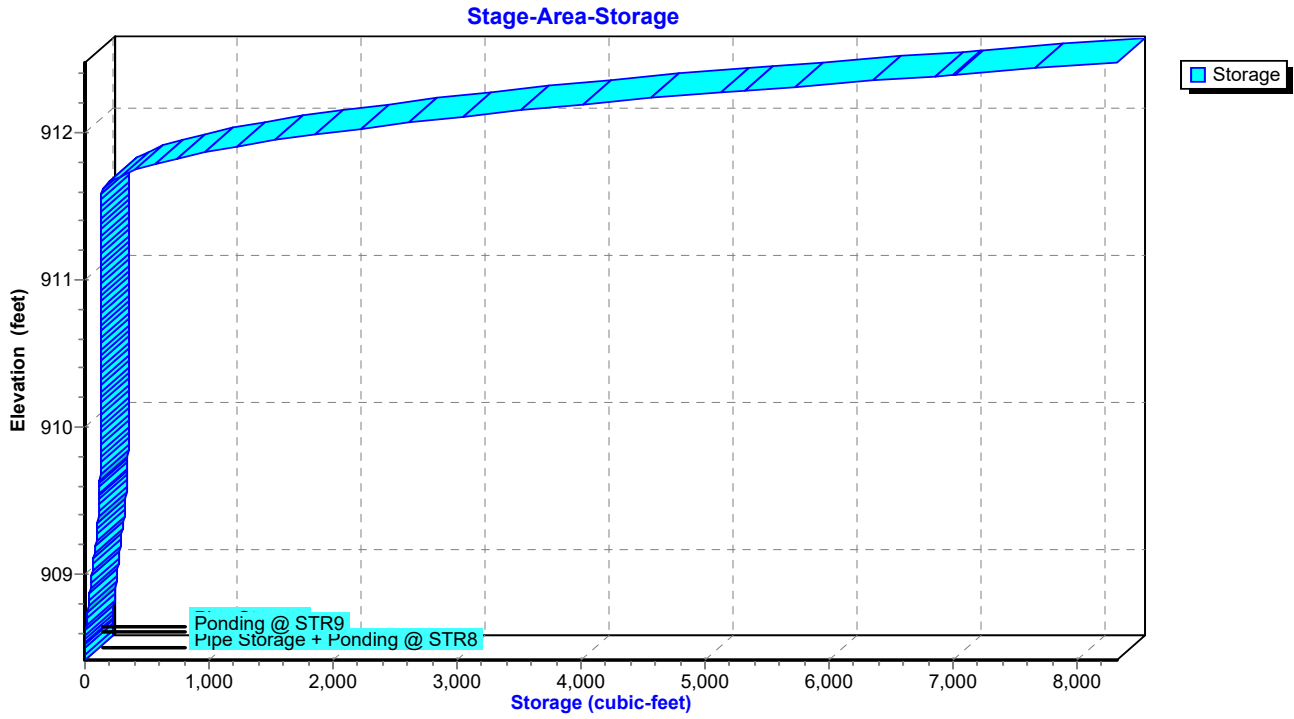
EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 9E: STR9

Runoff = 2.34 cfs @ 12.01 hrs, Volume= 0.138 af, Depth= 3.76"

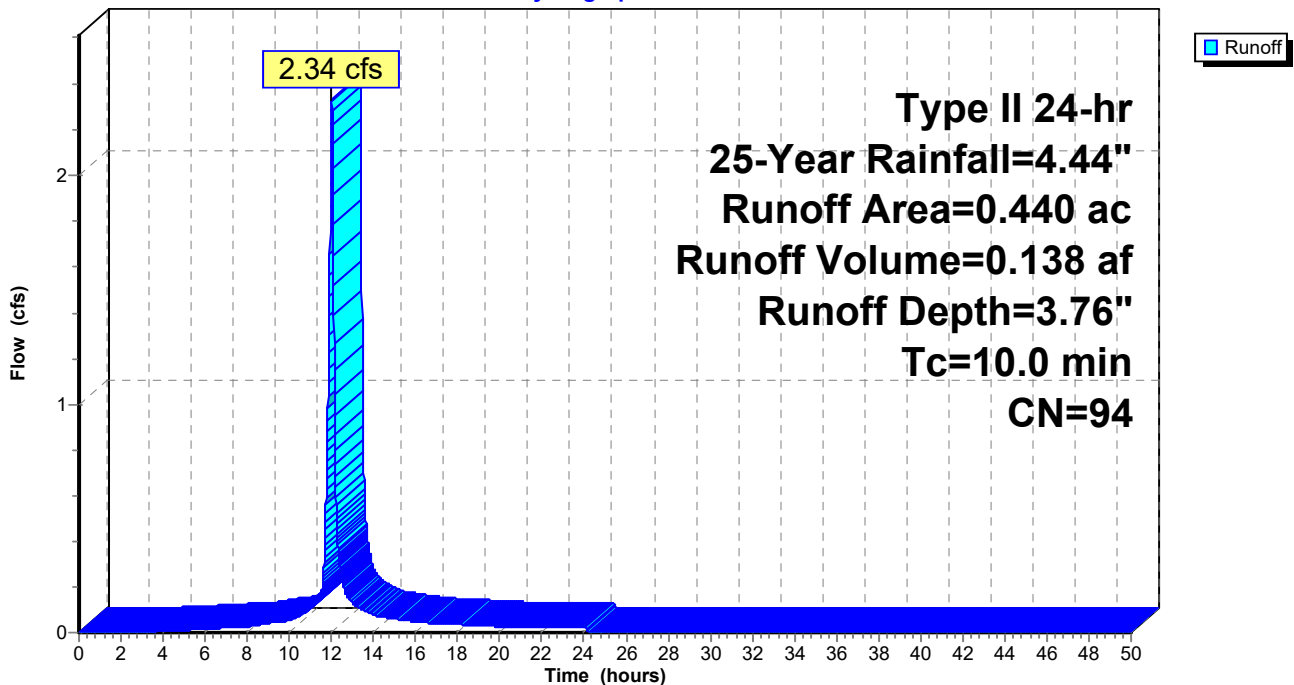
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 10E: STR10

Runoff = 2.67 cfs @ 12.01 hrs, Volume= 0.168 af, Depth= 4.20"

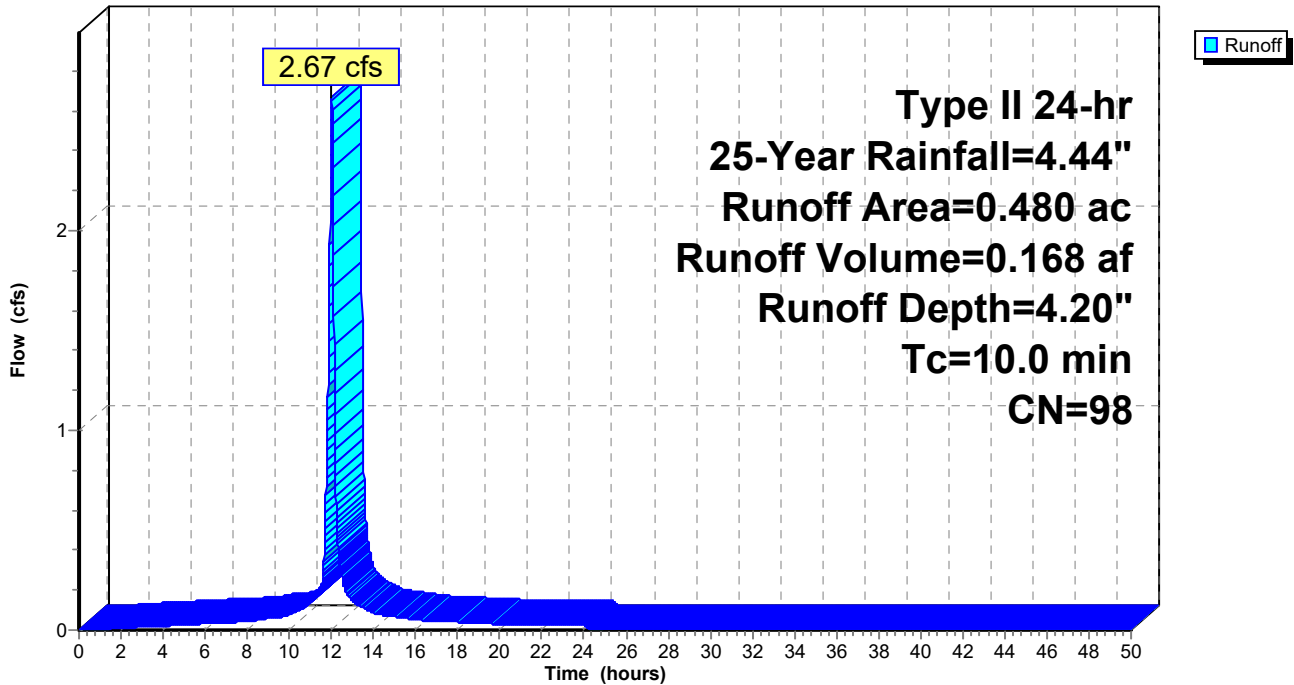
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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Summary for Subcatchment 11E: STR11

Runoff = 0.97 cfs @ 12.01 hrs, Volume= 0.056 af, Depth= 3.54"

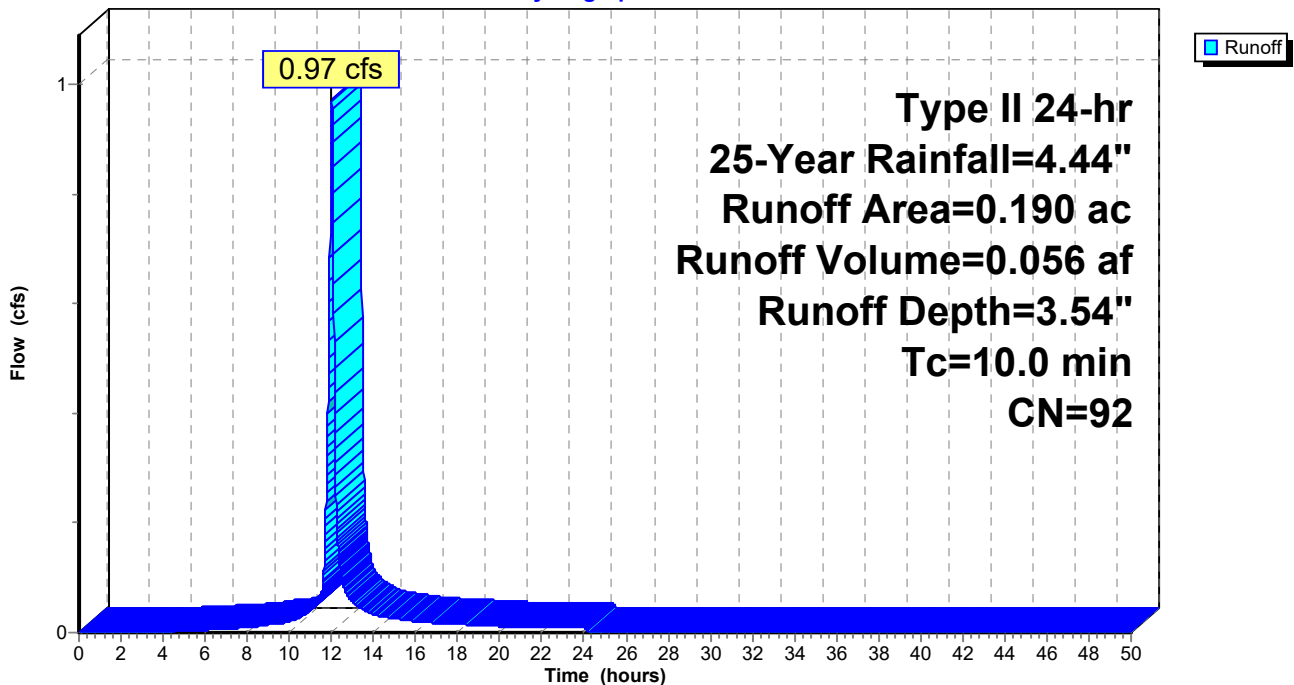
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

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Summary for Subcatchment 12E: STR12

Runoff = 2.86 cfs @ 12.01 hrs, Volume= 0.171 af, Depth= 3.87"

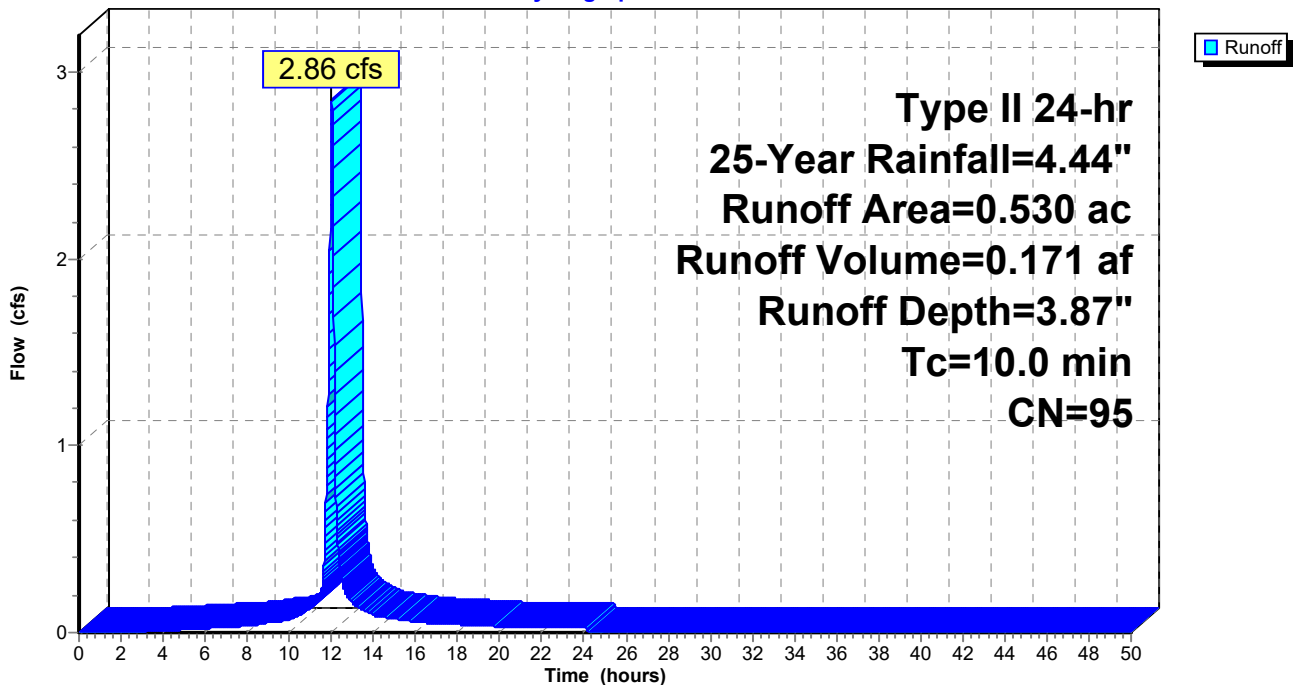
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 3.97" for 25-Year event
 Inflow = 5.39 cfs @ 12.01 hrs, Volume= 0.327 af
 Outflow = 0.66 cfs @ 12.63 hrs, Volume= 0.327 af, Atten= 88%, Lag= 37.3 min
 Primary = 0.66 cfs @ 12.63 hrs, Volume= 0.327 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.24' @ 12.56 hrs Surf.Area= 17,021 sf Storage= 5,602 cf

Plug-Flow detention time= 57.4 min calculated for 0.327 af (100% of inflow)
 Center-of-Mass det. time= 57.4 min (822.5 - 765.1)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.66 cfs @ 12.63 hrs HW=912.24' TW=908.98' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.66 cfs @ 8.67 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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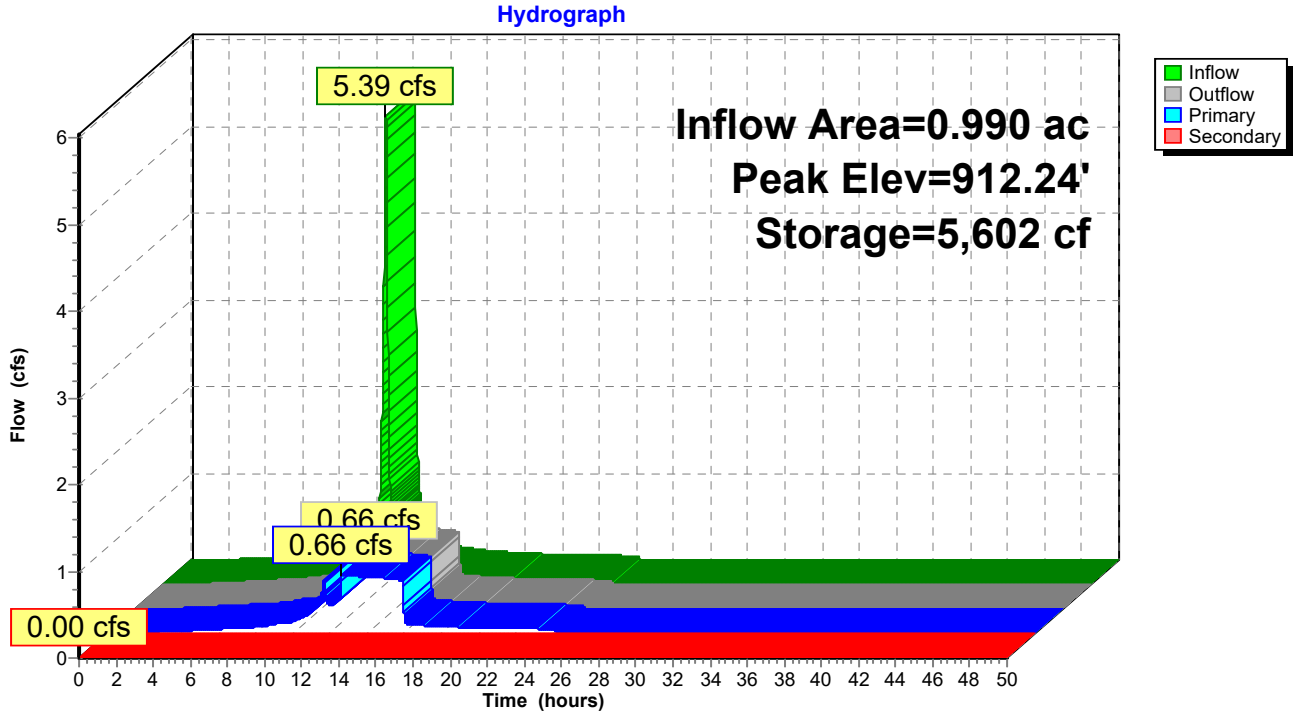
EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

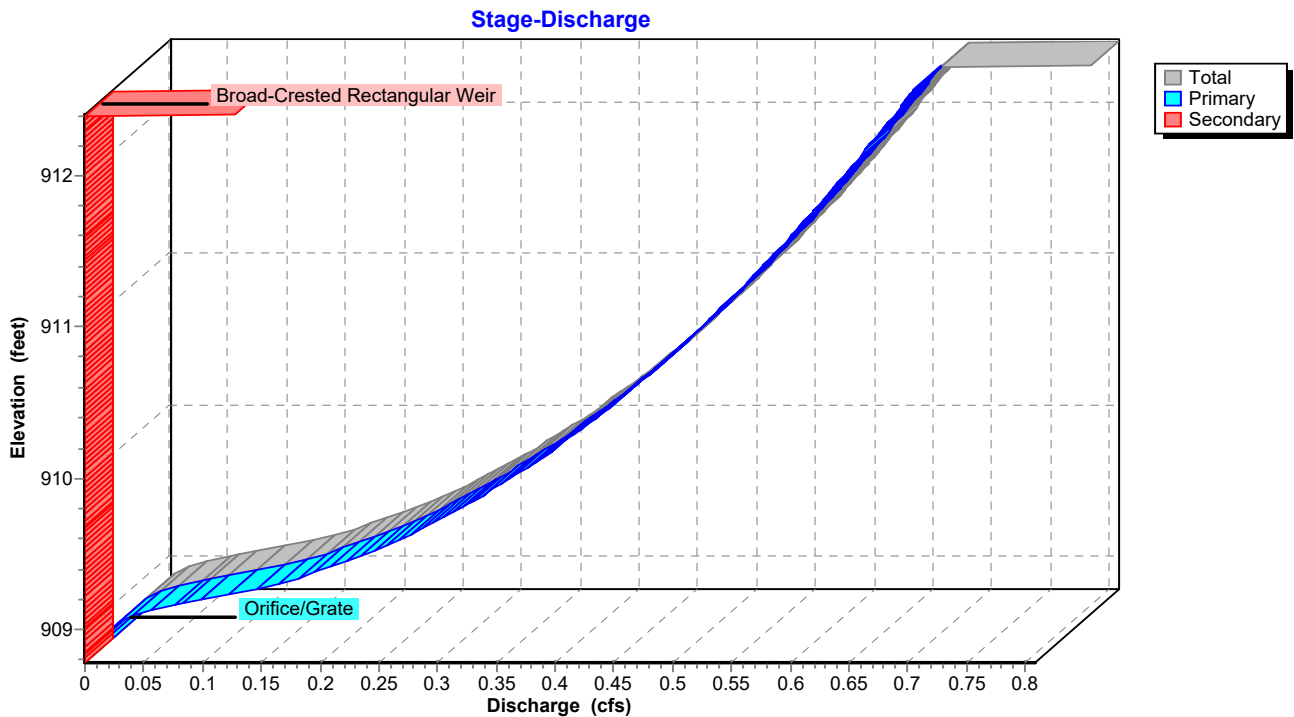
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Pond 12P: PONDING STR 12-13



Pond 12P: PONDING STR 12-13



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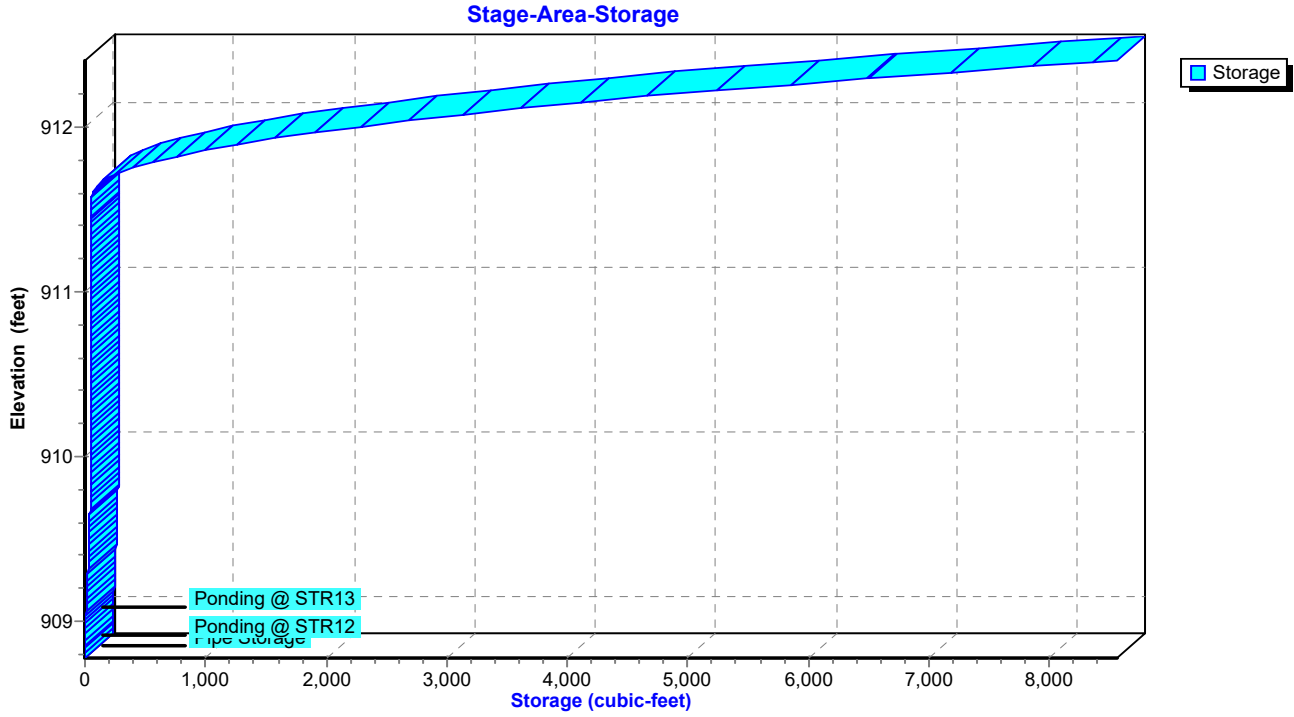
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Type II 24-hr 25-Year Rainfall=4.44"

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Pond 12P: PONDING STR 12-13



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 13E: STR13

Runoff = 2.54 cfs @ 12.01 hrs, Volume= 0.157 af, Depth= 4.09"

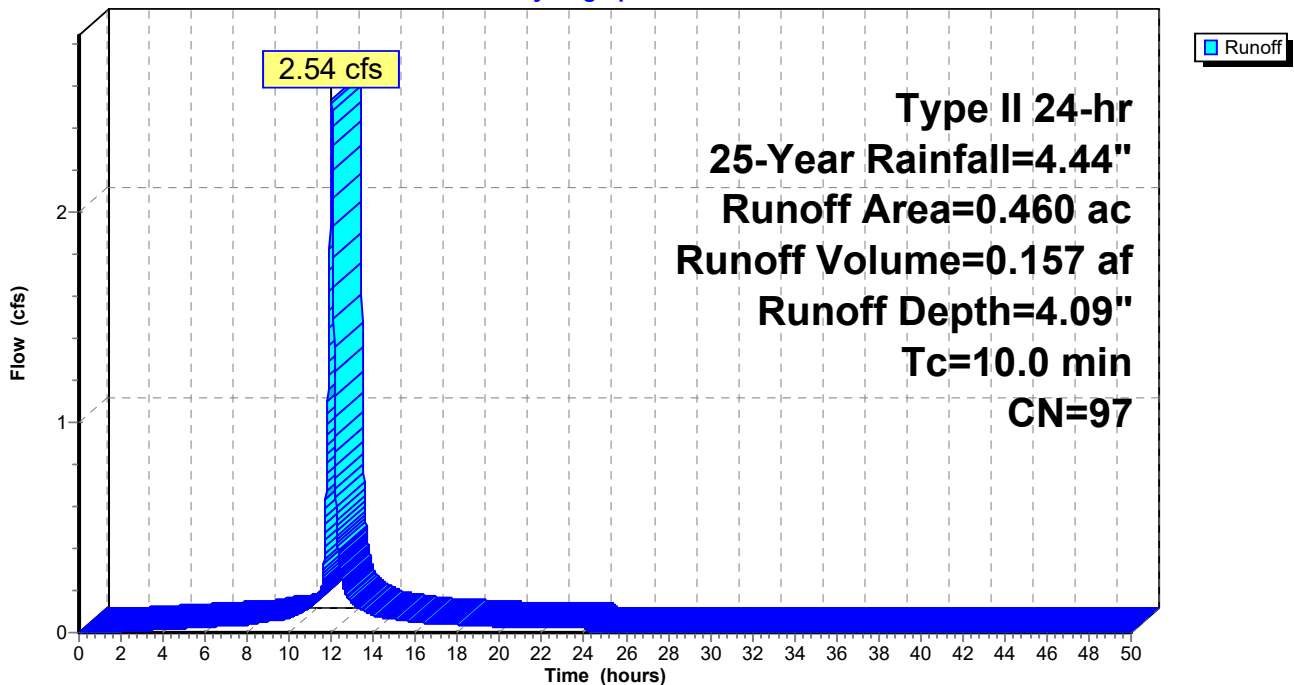
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

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EXISTING EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 14E: STR14

Runoff = 2.42 cfs @ 12.01 hrs, Volume= 0.145 af, Depth= 3.87"

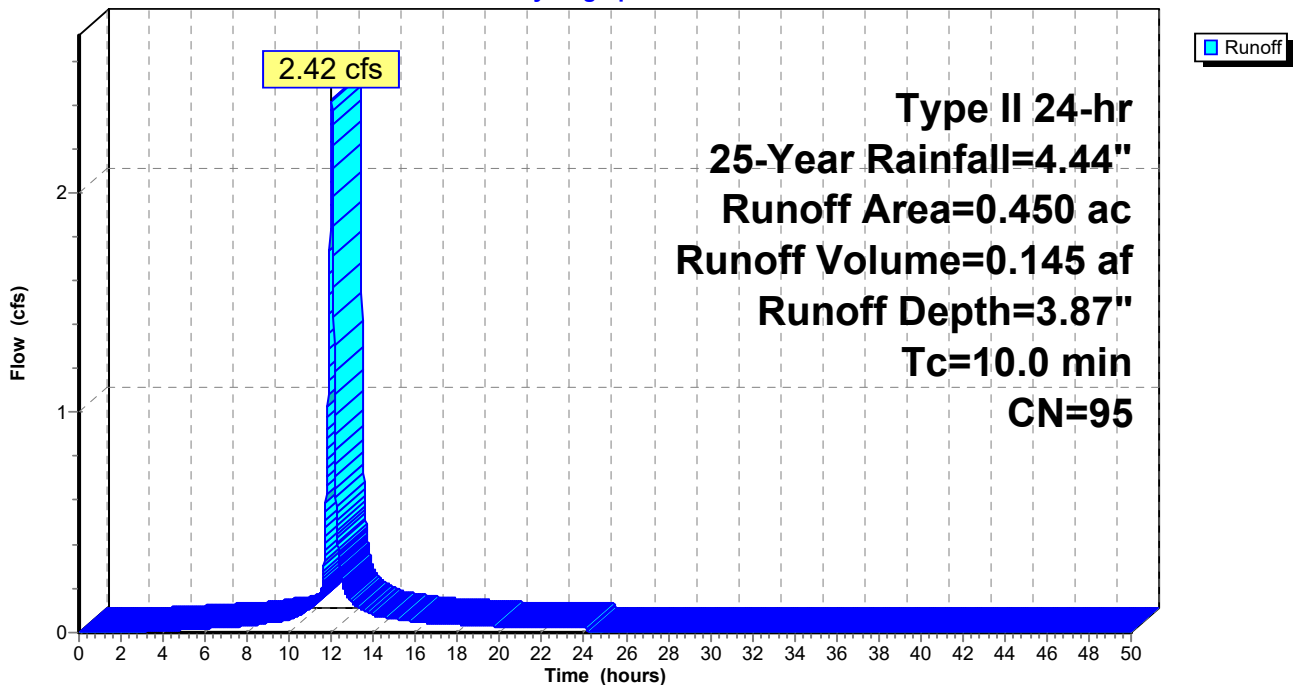
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 3.87" for 25-Year event
 Inflow = 2.42 cfs @ 12.01 hrs, Volume= 0.145 af
 Outflow = 1.11 cfs @ 12.14 hrs, Volume= 0.145 af, Atten= 54%, Lag= 7.7 min
 Primary = 0.75 cfs @ 12.67 hrs, Volume= 0.133 af
 Secondary = 0.71 cfs @ 12.14 hrs, Volume= 0.012 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.29' @ 12.14 hrs Surf.Area= 3,677 sf Storage= 1,545 cf

Plug-Flow detention time= 11.7 min calculated for 0.145 af (100% of inflow)
 Center-of-Mass det. time= 11.5 min (783.1 - 771.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.75 cfs @ 12.67 hrs HW=912.11' TW=908.95' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.57 fps)

Secondary OutFlow Max=0.71 cfs @ 12.14 hrs HW=912.29' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Weir Controls 0.71 cfs @ 0.80 fps)

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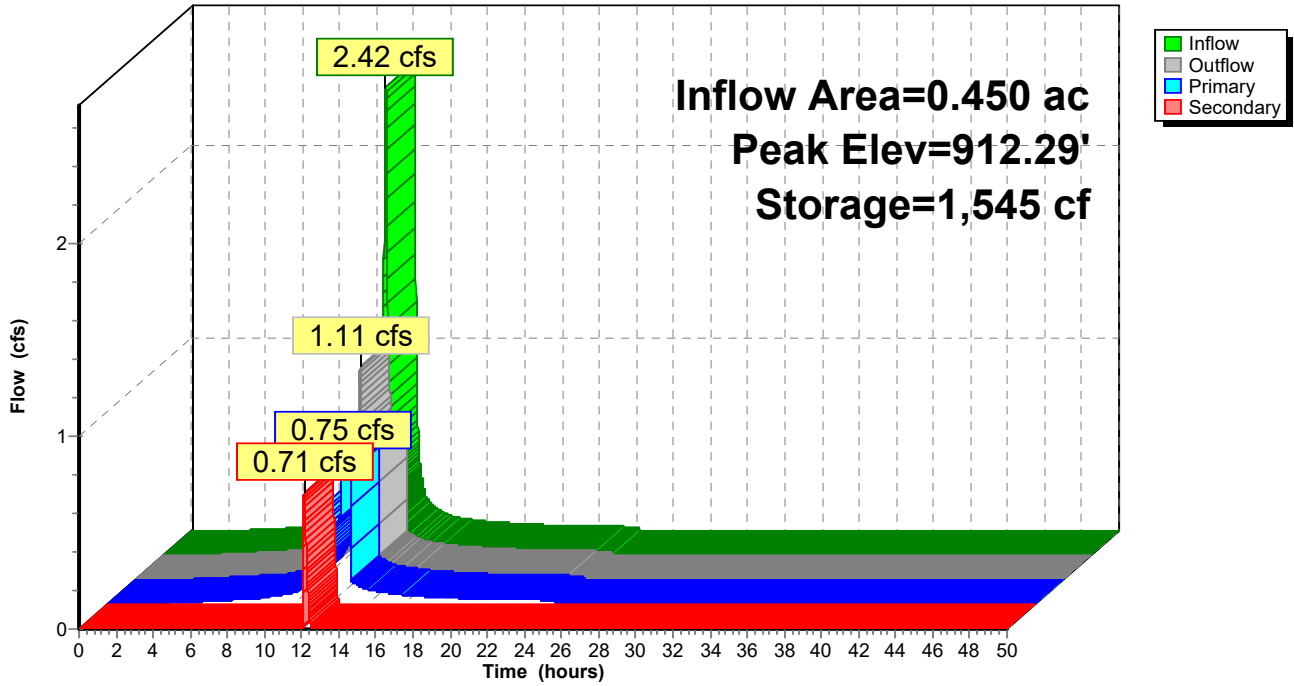
Type II 24-hr 25-Year Rainfall=4.44"

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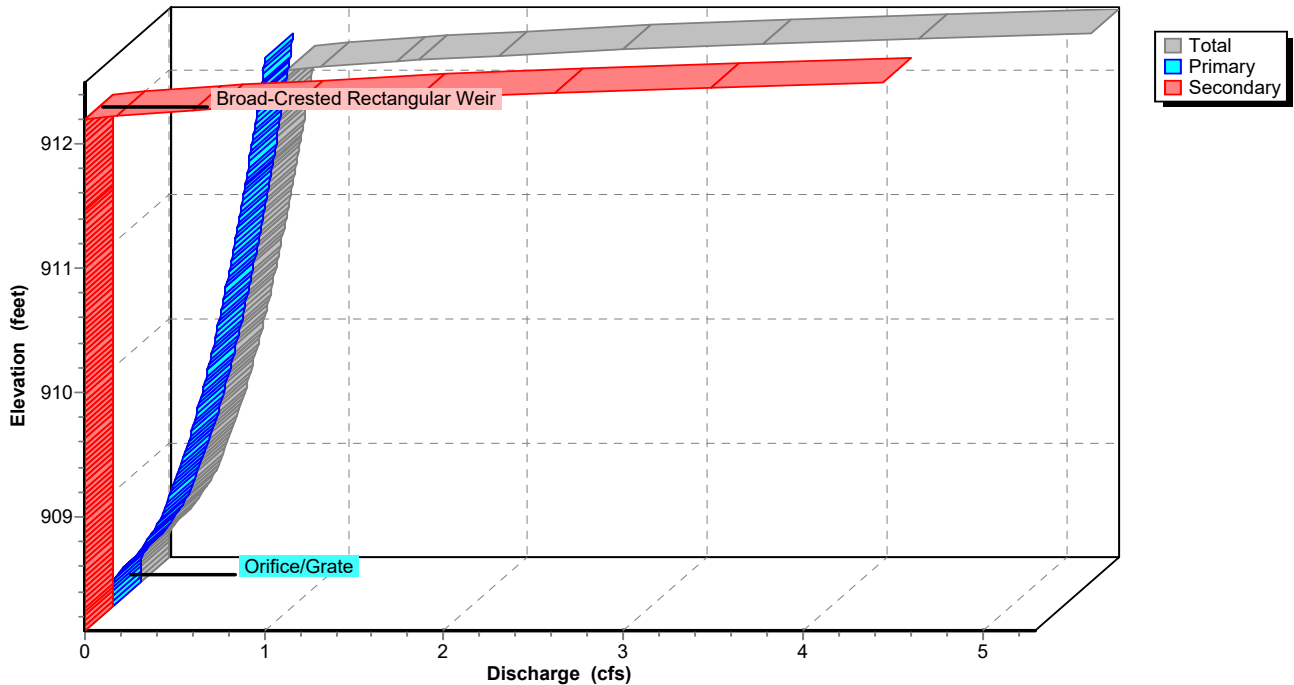
Pond 14P: PONDING STR 14

Hydrograph



Pond 14P: PONDING STR 14

Stage-Discharge



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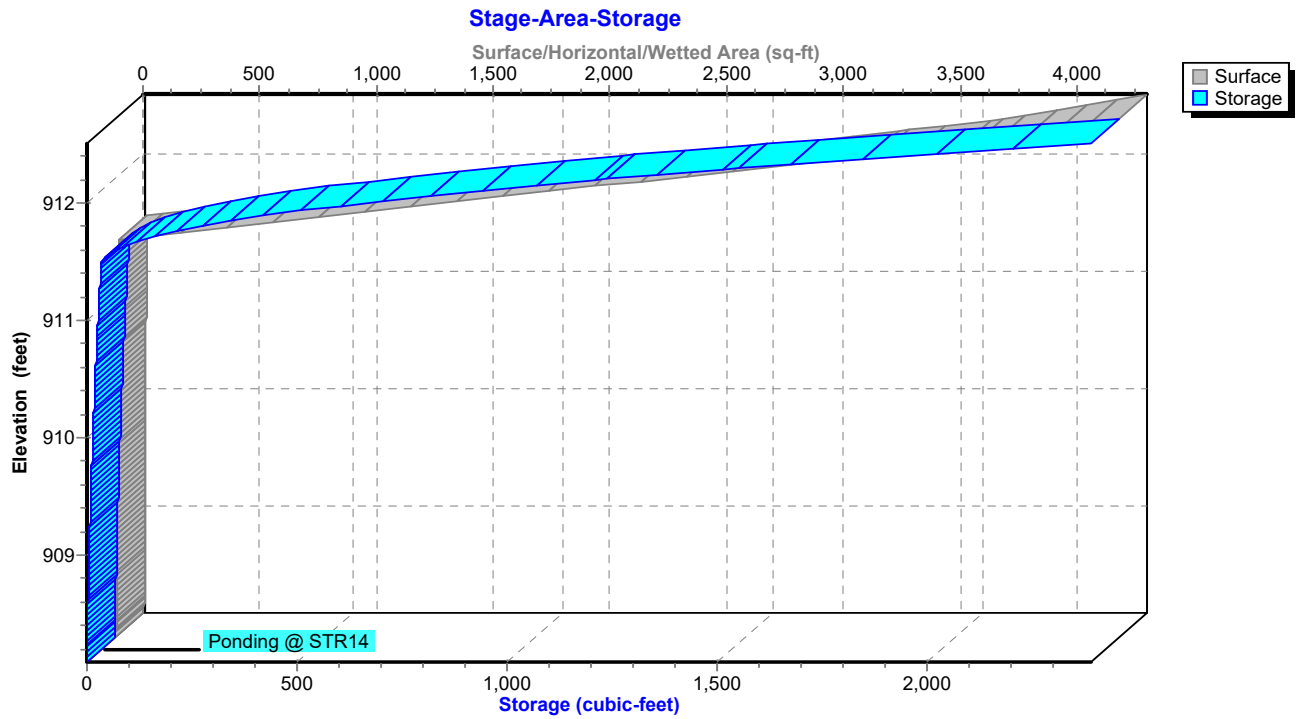
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Type II 24-hr 25-Year Rainfall=4.44"

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Pond 14P: PONDING STR 14



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment XE: STRX

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.042 af, Depth= 4.20"

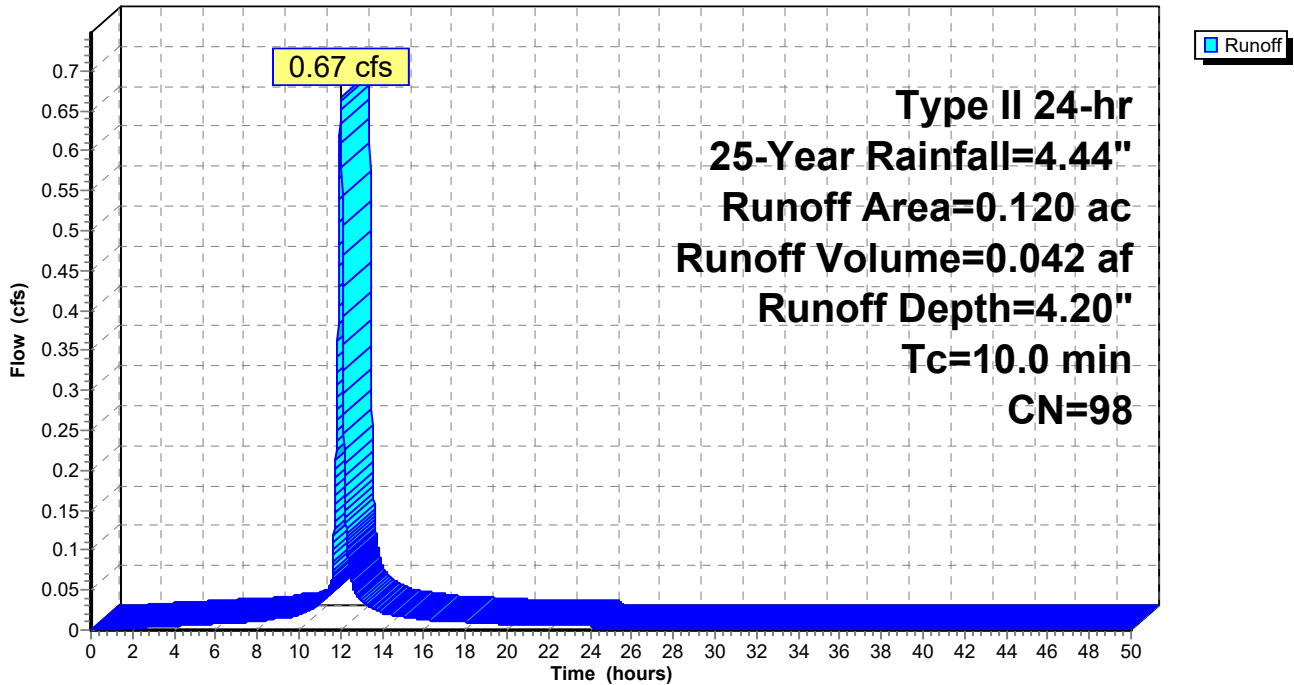
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 1E: STR1

Runoff = 1.98 cfs @ 12.01 hrs, Volume= 0.108 af, Depth= 3.10"

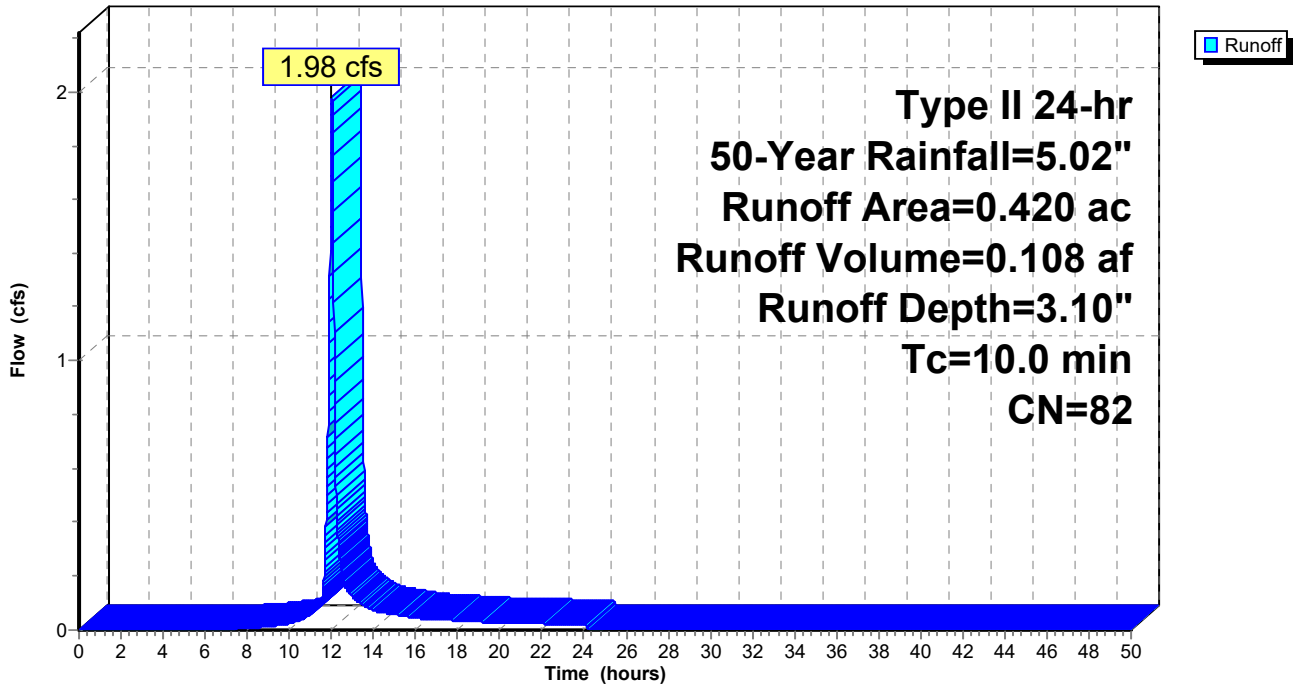
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

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Type II 24-hr 50-Year Rainfall=5.02"

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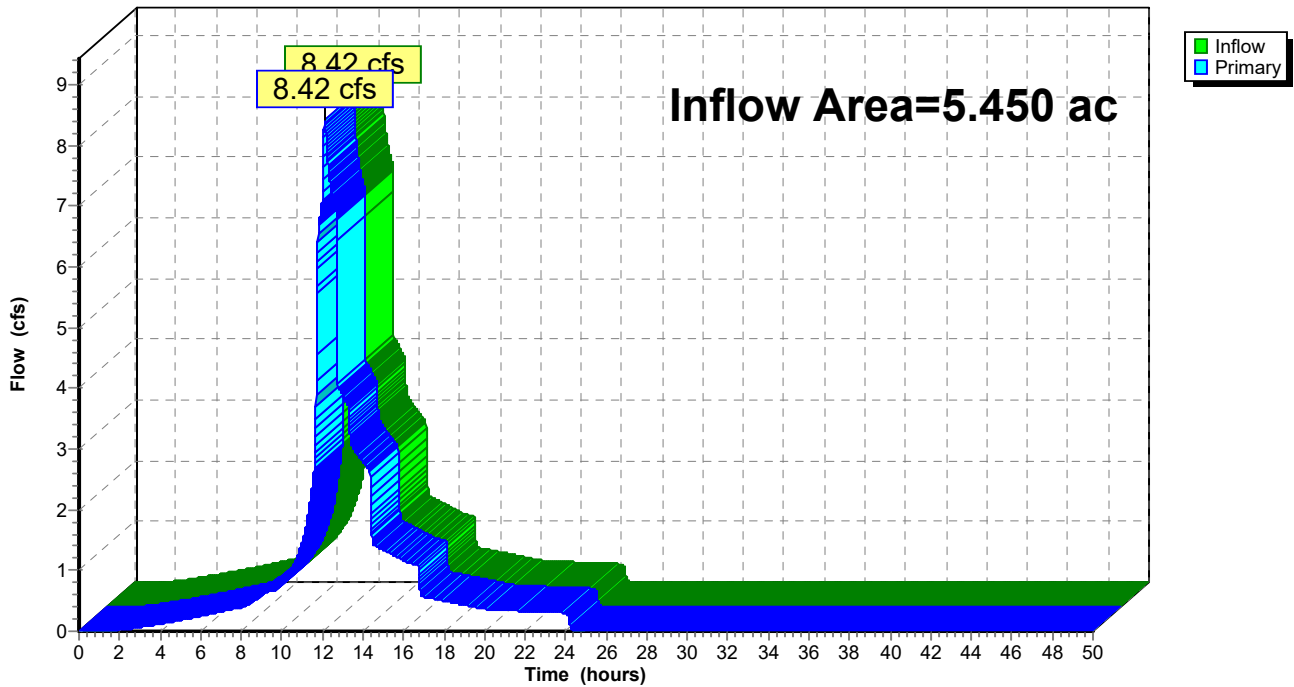
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.30" for 50-Year event
Inflow = 8.42 cfs @ 12.12 hrs, Volume= 1.951 af
Primary = 8.42 cfs @ 12.12 hrs, Volume= 1.951 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.25" for 50-Year event
 Inflow = 16.42 cfs @ 12.01 hrs, Volume= 1.930 af
 Outflow = 7.25 cfs @ 12.18 hrs, Volume= 1.930 af, Atten= 56%, Lag= 10.3 min
 Primary = 7.25 cfs @ 12.18 hrs, Volume= 1.930 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.49' @ 12.18 hrs Surf.Area= 22,206 sf Storage= 6,970 cf

Plug-Flow detention time= 4.3 min calculated for 1.930 af (100% of inflow)
 Center-of-Mass det. time= 4.1 min (799.2 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 ''
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 ''
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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Type II 24-hr 50-Year Rainfall=5.02"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=7.25 cfs @ 12.18 hrs HW=911.49' TW=0.00' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 7.25 cfs @ 9.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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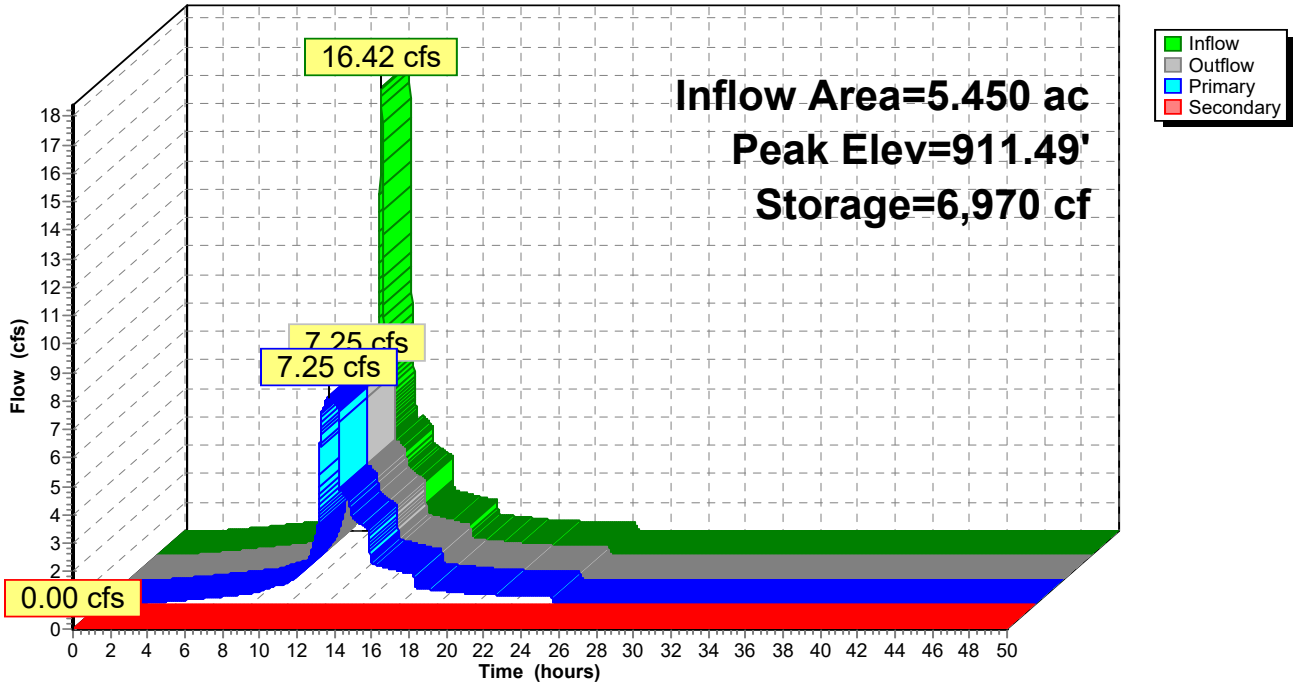
Type II 24-hr 50-Year Rainfall=5.02"

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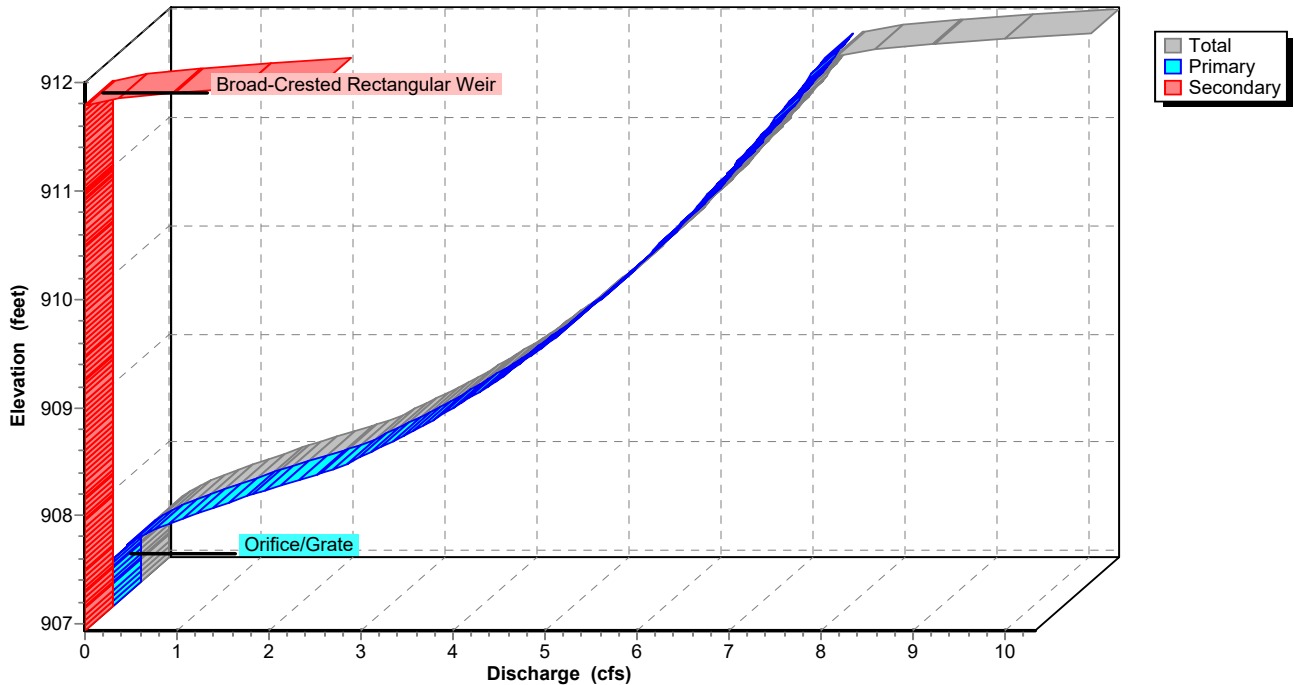
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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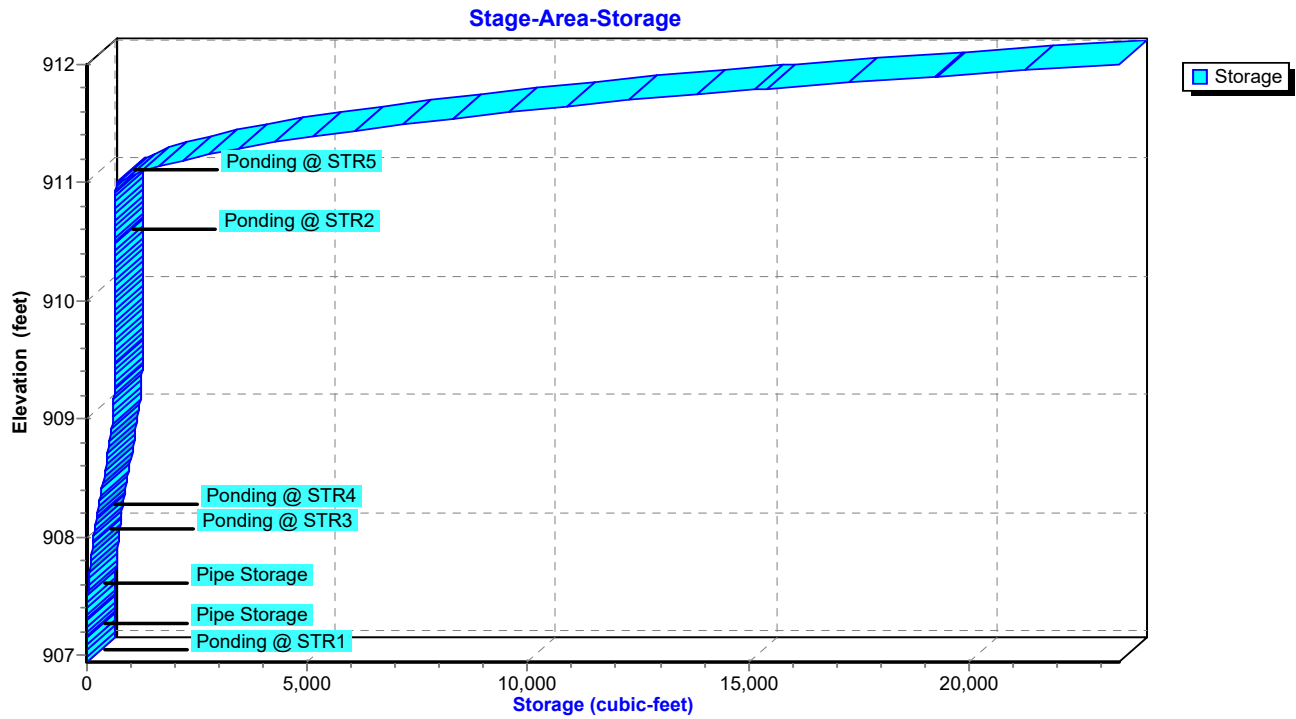
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Type II 24-hr 50-Year Rainfall=5.02"

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Pond 1P: PONDING STR 1-5



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 2E: STR2

Runoff = 3.81 cfs @ 12.01 hrs, Volume= 0.229 af, Depth= 4.44"

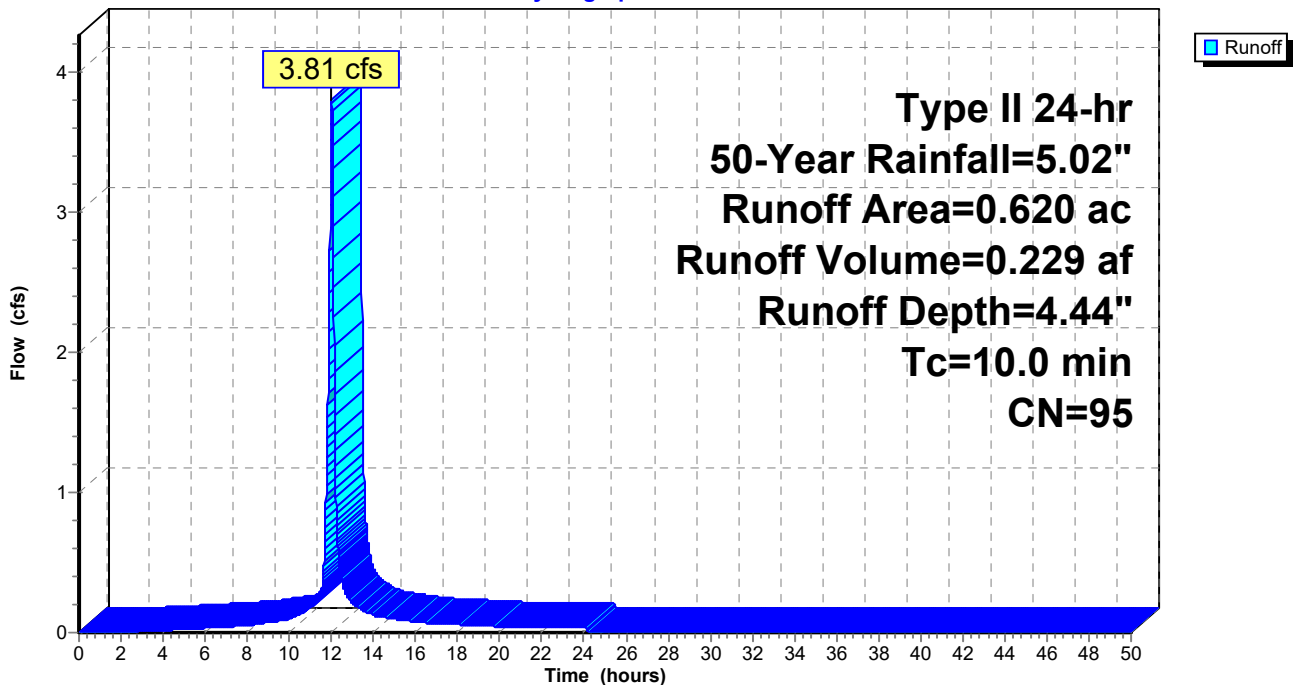
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 3E: STR3

Runoff = 2.46 cfs @ 12.01 hrs, Volume= 0.148 af, Depth= 4.44"

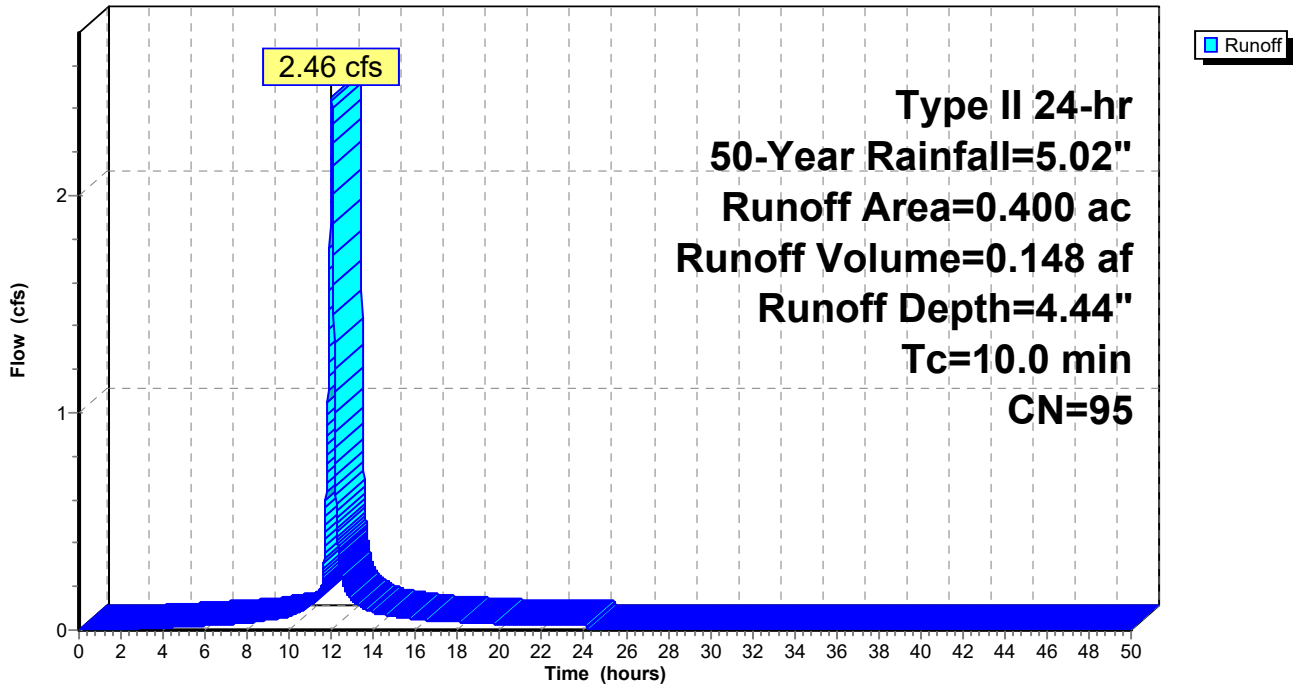
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 4E: STR4

Runoff = 2.57 cfs @ 12.01 hrs, Volume= 0.151 af, Depth= 4.22"

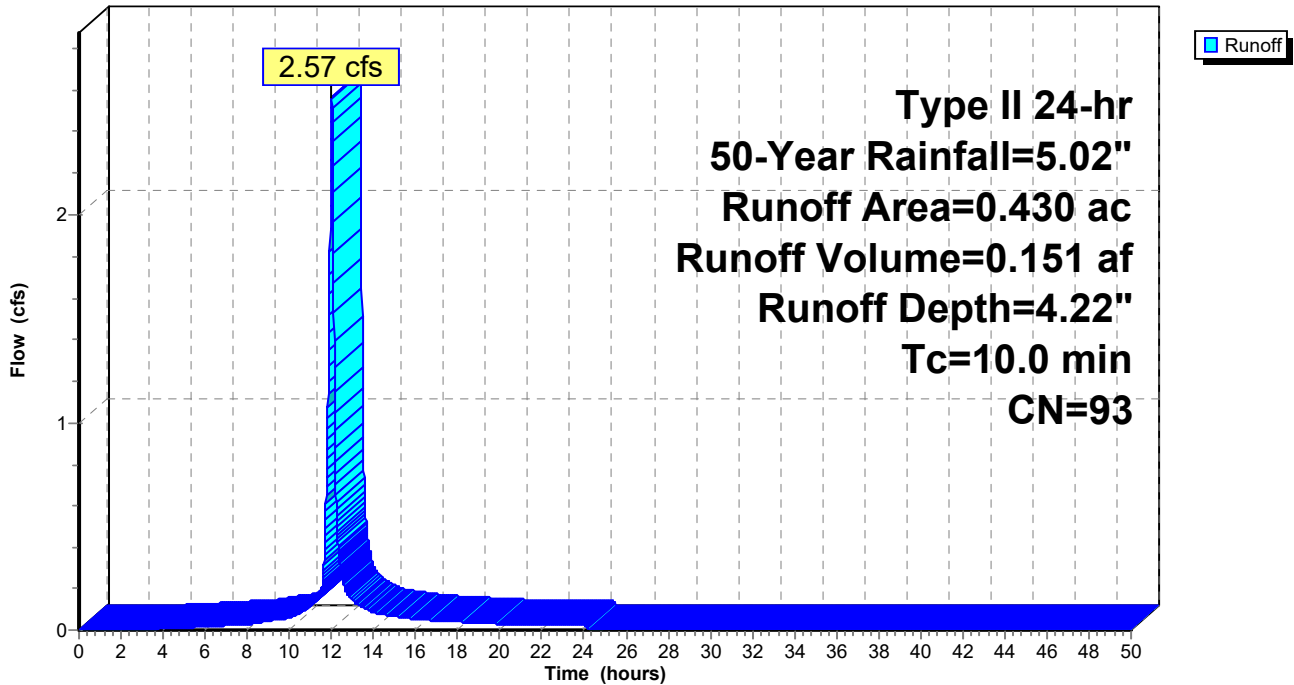
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 5E: STR5

Runoff = 3.30 cfs @ 12.01 hrs, Volume= 0.188 af, Depth= 3.90"

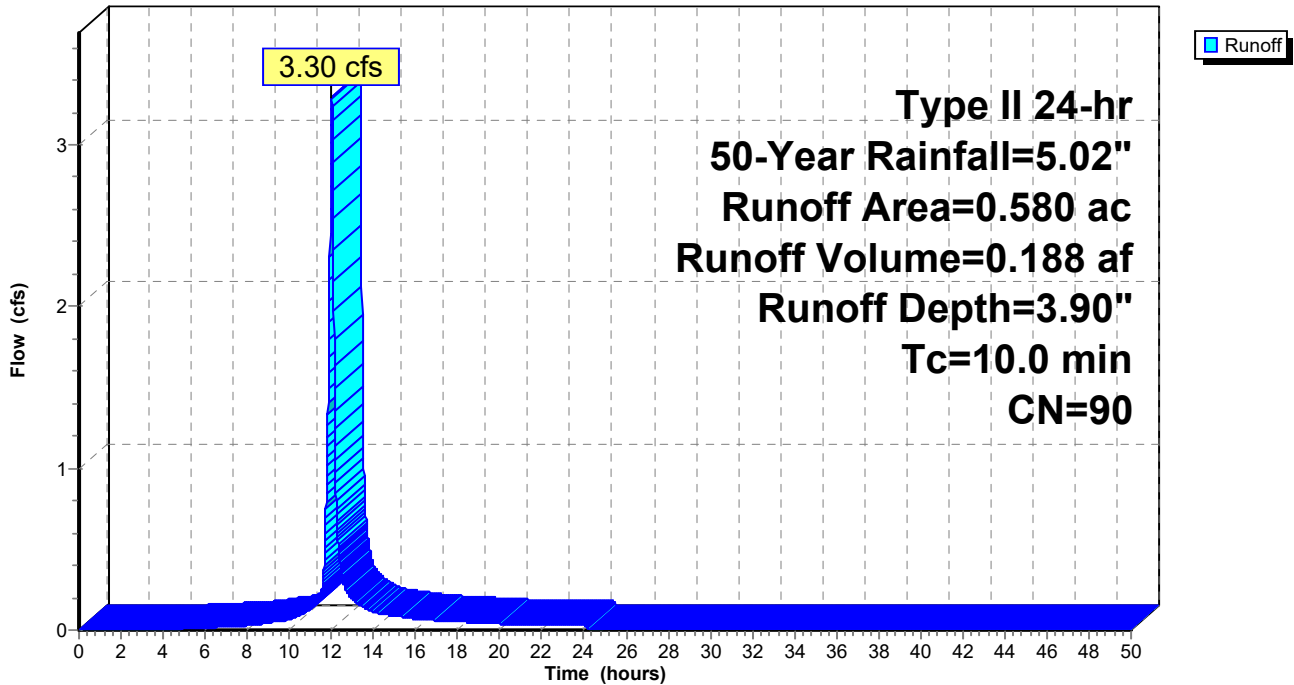
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 8E: STR8

Runoff = 2.03 cfs @ 12.01 hrs, Volume= 0.122 af, Depth= 4.44"

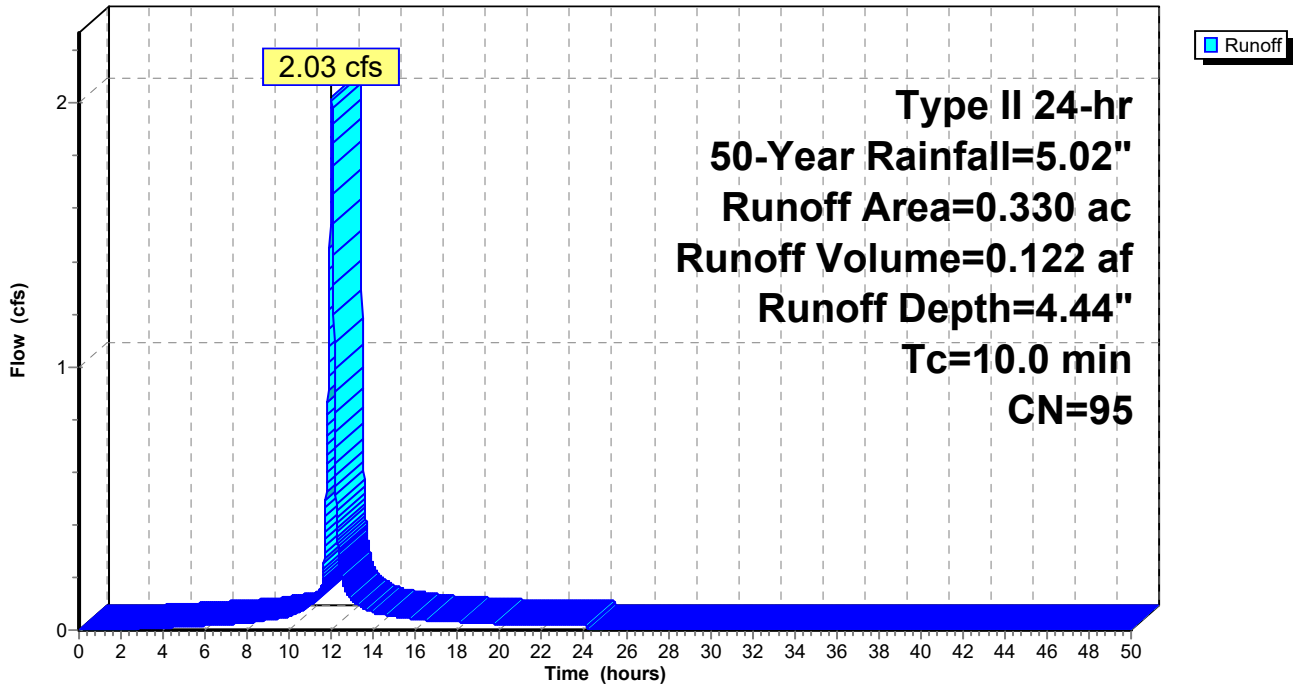
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 4.48" for 50-Year event
 Inflow = 8.83 cfs @ 12.01 hrs, Volume= 0.537 af
 Outflow = 2.07 cfs @ 12.22 hrs, Volume= 0.537 af, Atten= 77%, Lag= 12.8 min
 Primary = 1.62 cfs @ 12.79 hrs, Volume= 0.508 af
 Secondary = 1.22 cfs @ 12.22 hrs, Volume= 0.029 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.43' @ 12.22 hrs Surf.Area= 16,253 sf Storage= 7,561 cf

Plug-Flow detention time= 31.4 min calculated for 0.537 af (100% of inflow)
 Center-of-Mass det. time= 30.9 min (795.1 - 764.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.62 cfs @ 12.79 hrs HW=912.38' TW=908.92' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.62 cfs @ 8.96 fps)

Secondary OutFlow Max=1.22 cfs @ 12.22 hrs HW=912.43' TW=911.48' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Weir Controls 1.22 cfs @ 0.56 fps)

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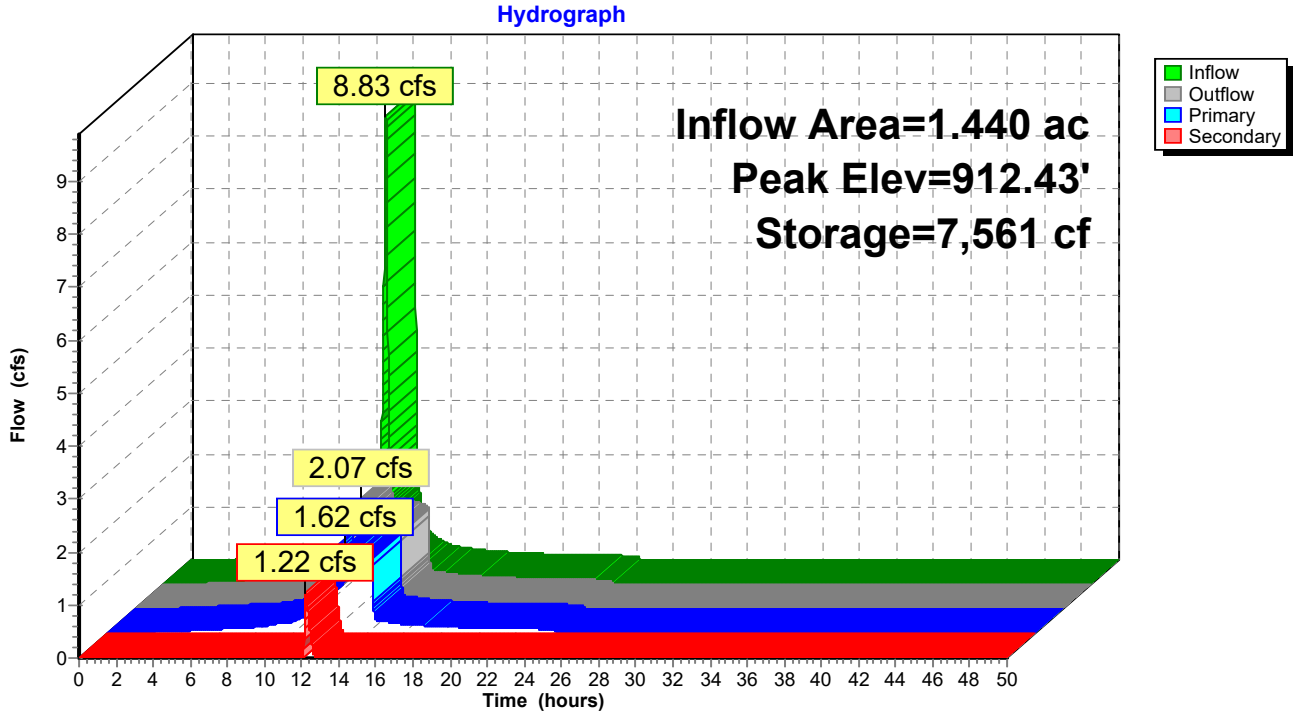
EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

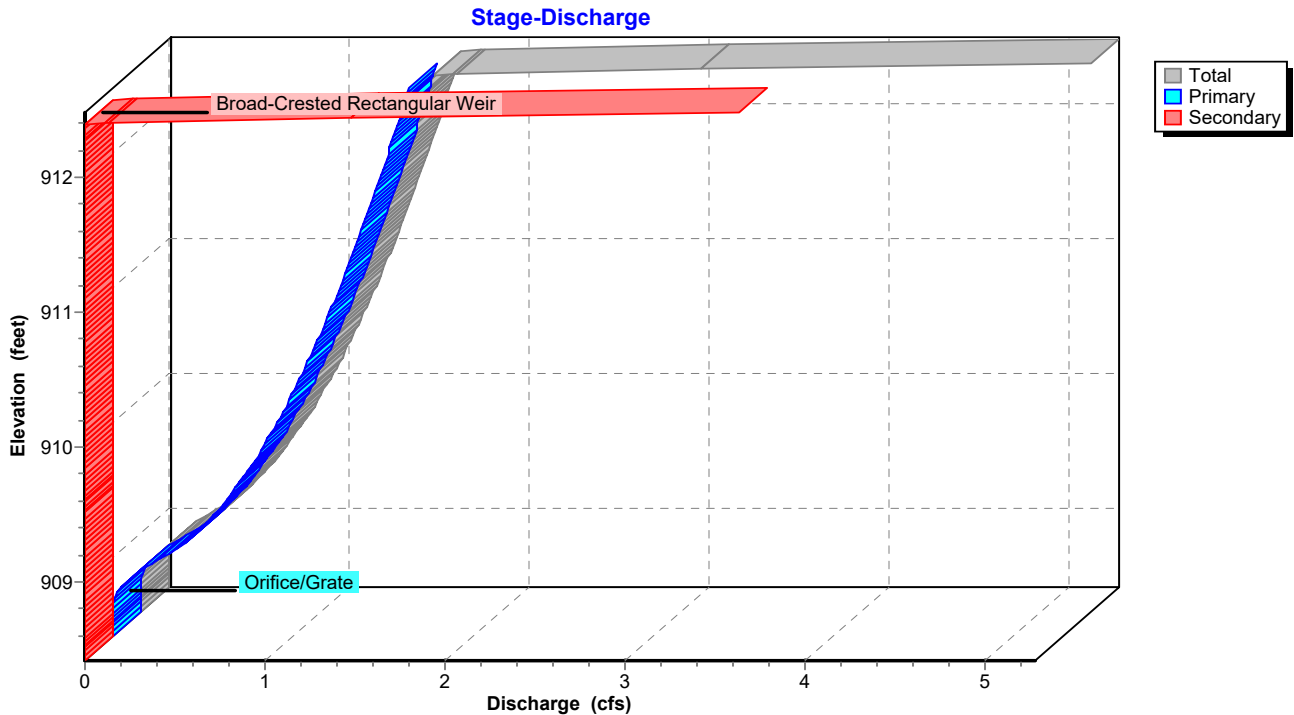
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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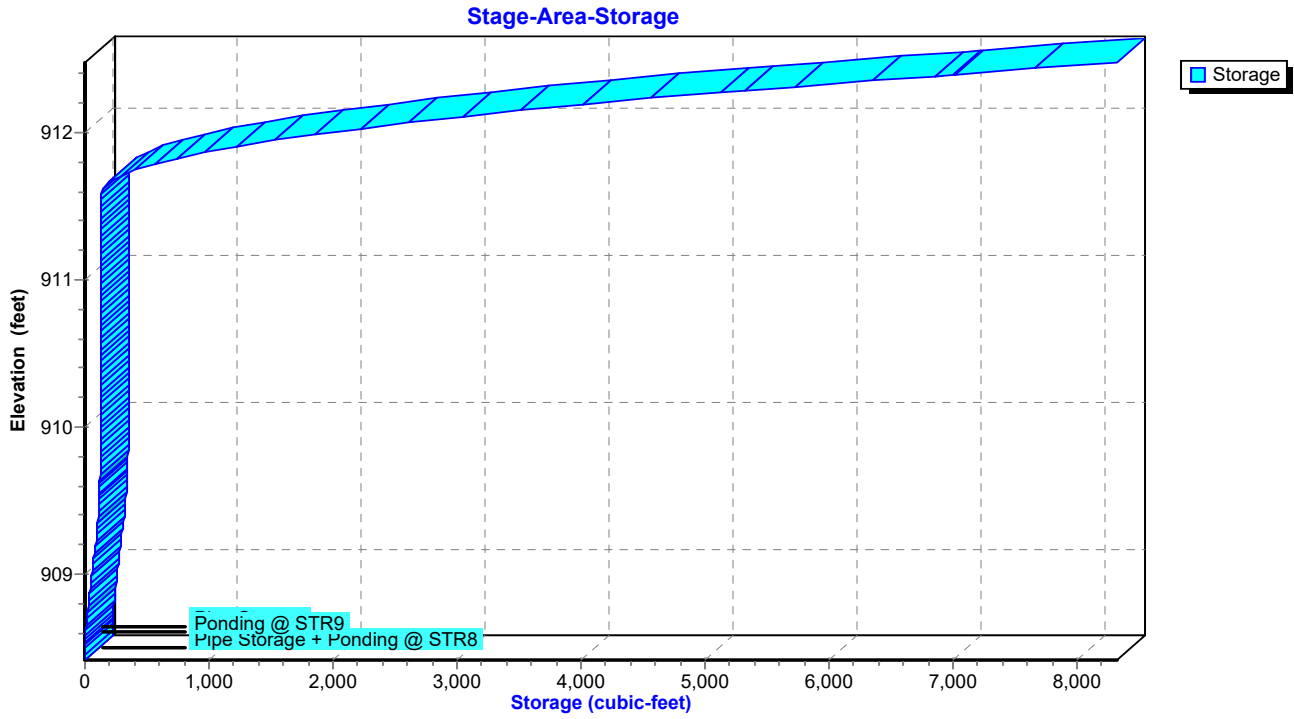
EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Pond 8P: PONDING STR 8-11



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EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 9E: STR9

Runoff = 2.67 cfs @ 12.01 hrs, Volume= 0.159 af, Depth= 4.33"

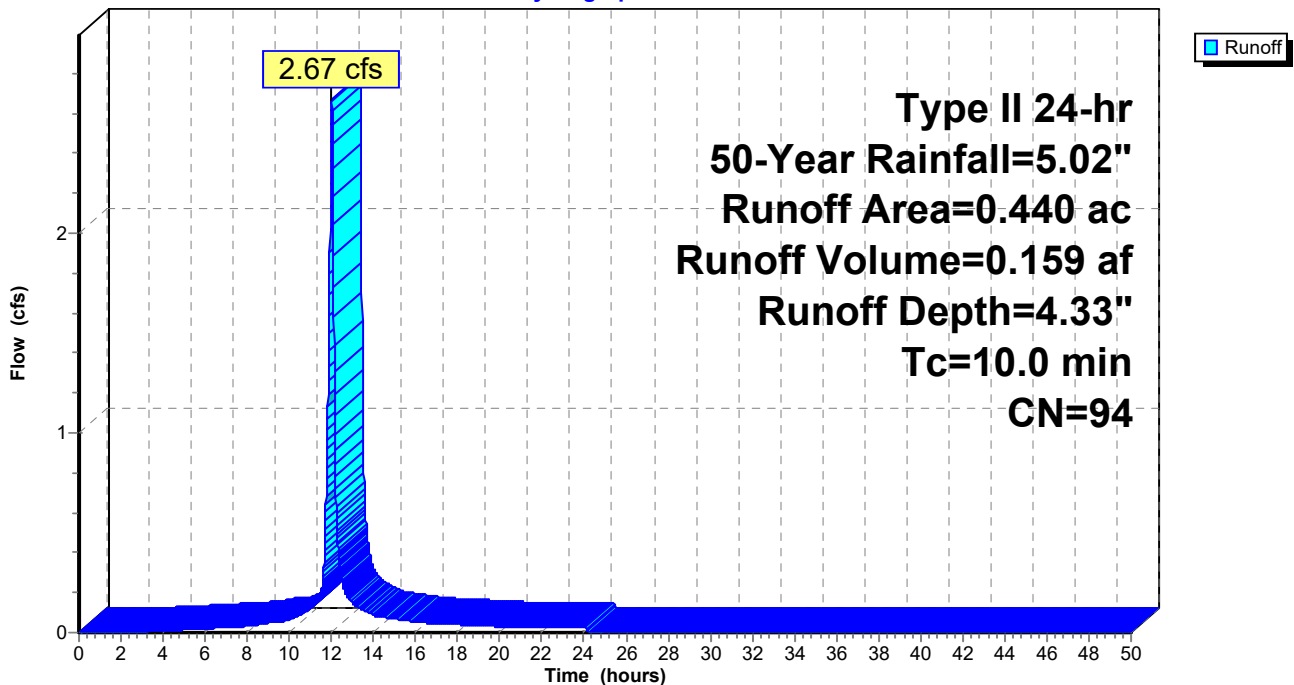
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 10E: STR10

Runoff = 3.02 cfs @ 12.01 hrs, Volume= 0.191 af, Depth= 4.78"

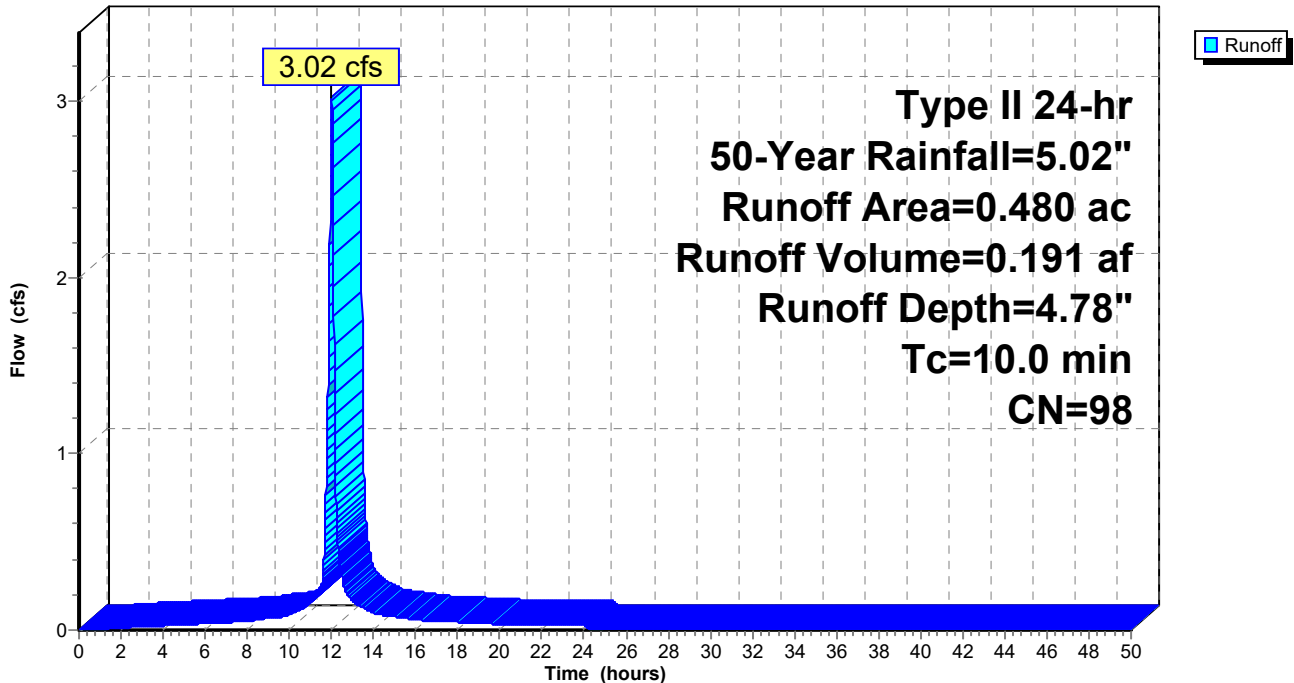
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 11E: STR11

Runoff = 1.12 cfs @ 12.01 hrs, Volume= 0.065 af, Depth= 4.11"

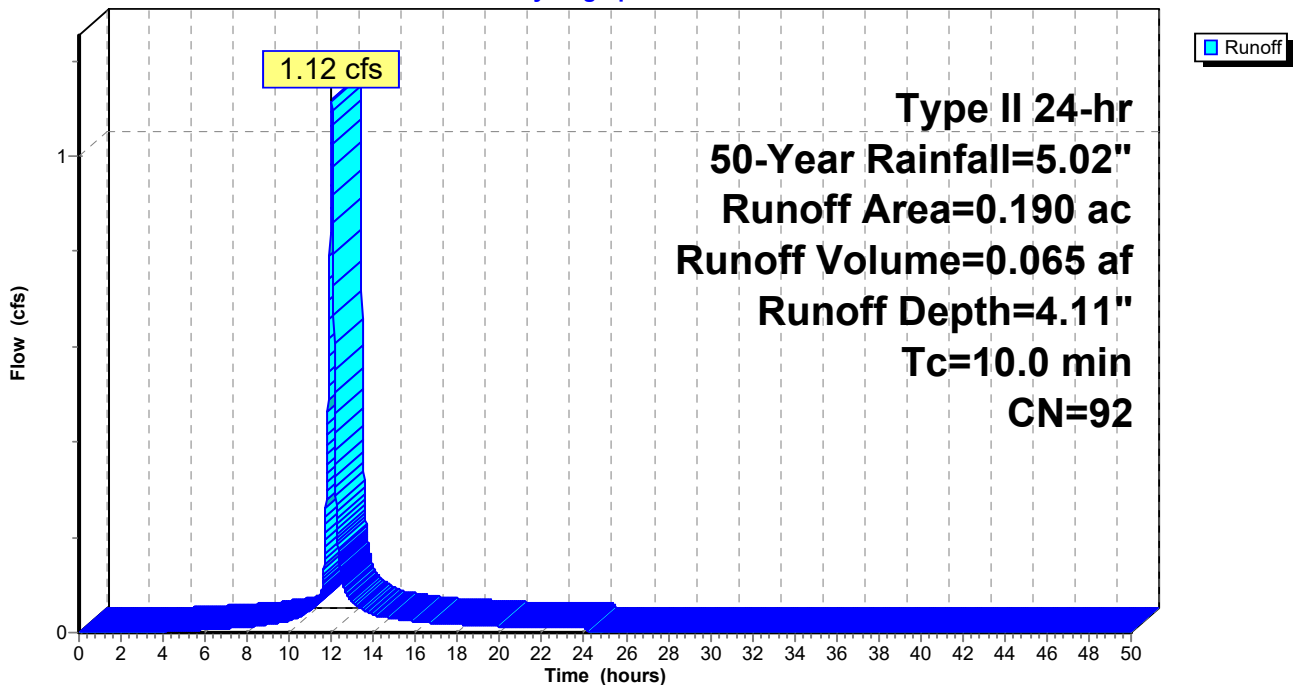
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 12E: STR12

Runoff = 3.25 cfs @ 12.01 hrs, Volume= 0.196 af, Depth= 4.44"

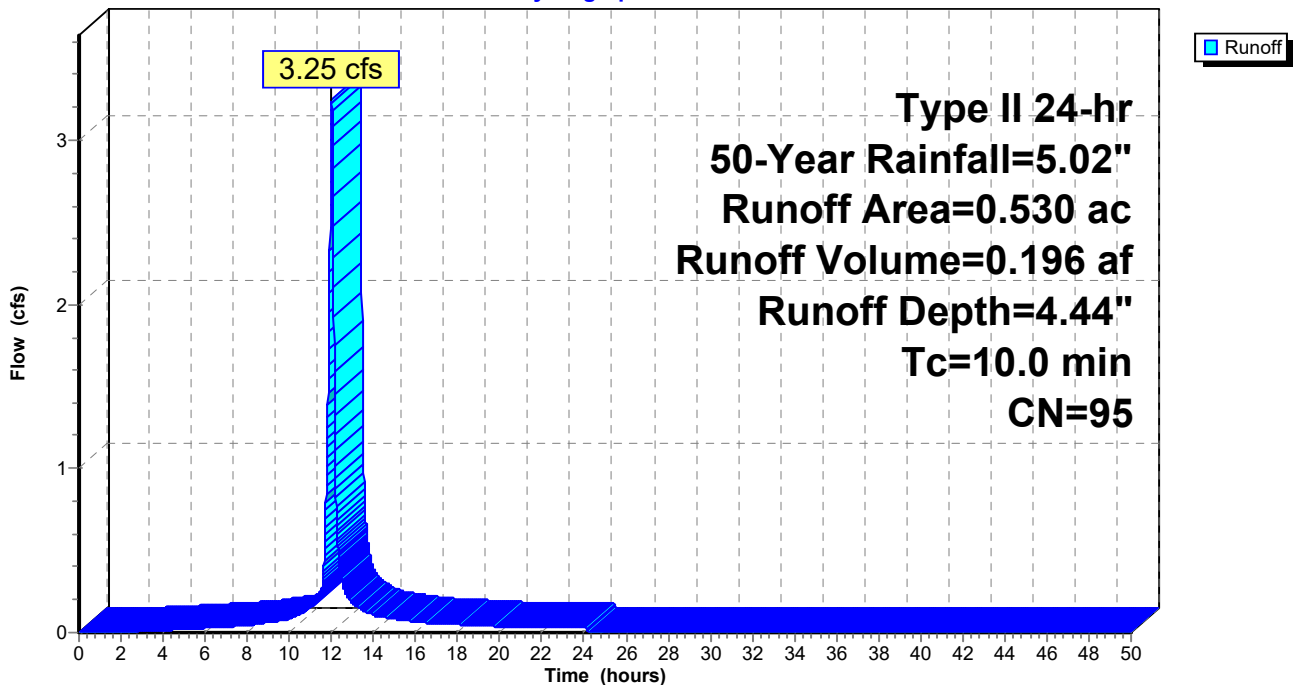
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 4.55" for 50-Year event
 Inflow = 6.13 cfs @ 12.01 hrs, Volume= 0.375 af
 Outflow = 0.67 cfs @ 12.78 hrs, Volume= 0.375 af, Atten= 89%, Lag= 46.2 min
 Primary = 0.67 cfs @ 12.78 hrs, Volume= 0.375 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.30' @ 12.75 hrs Surf.Area= 18,427 sf Storage= 6,659 cf

Plug-Flow detention time= 71.3 min calculated for 0.375 af (100% of inflow)
 Center-of-Mass det. time= 71.1 min (833.3 - 762.1)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.67 cfs @ 12.78 hrs HW=912.30' TW=908.91' (Dynamic Tailwater)
 ↑1=Orifice/Grate (Orifice Controls 0.67 cfs @ 8.75 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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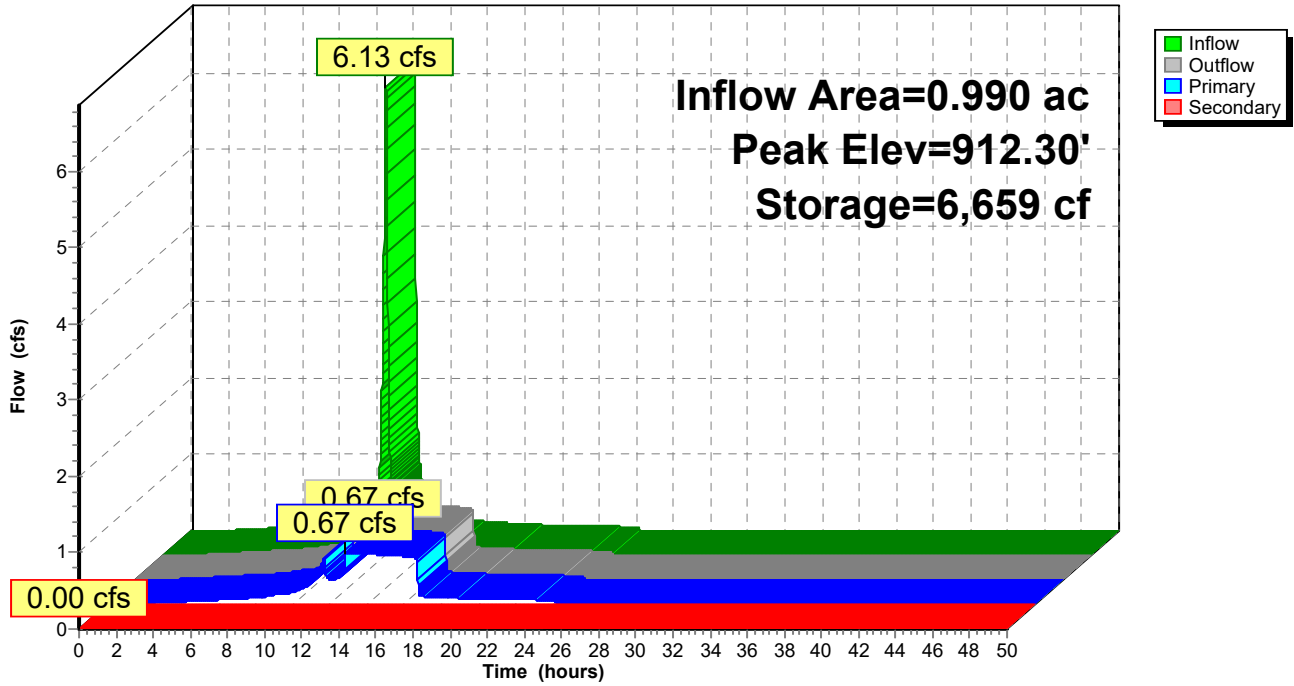
Type II 24-hr 50-Year Rainfall=5.02"

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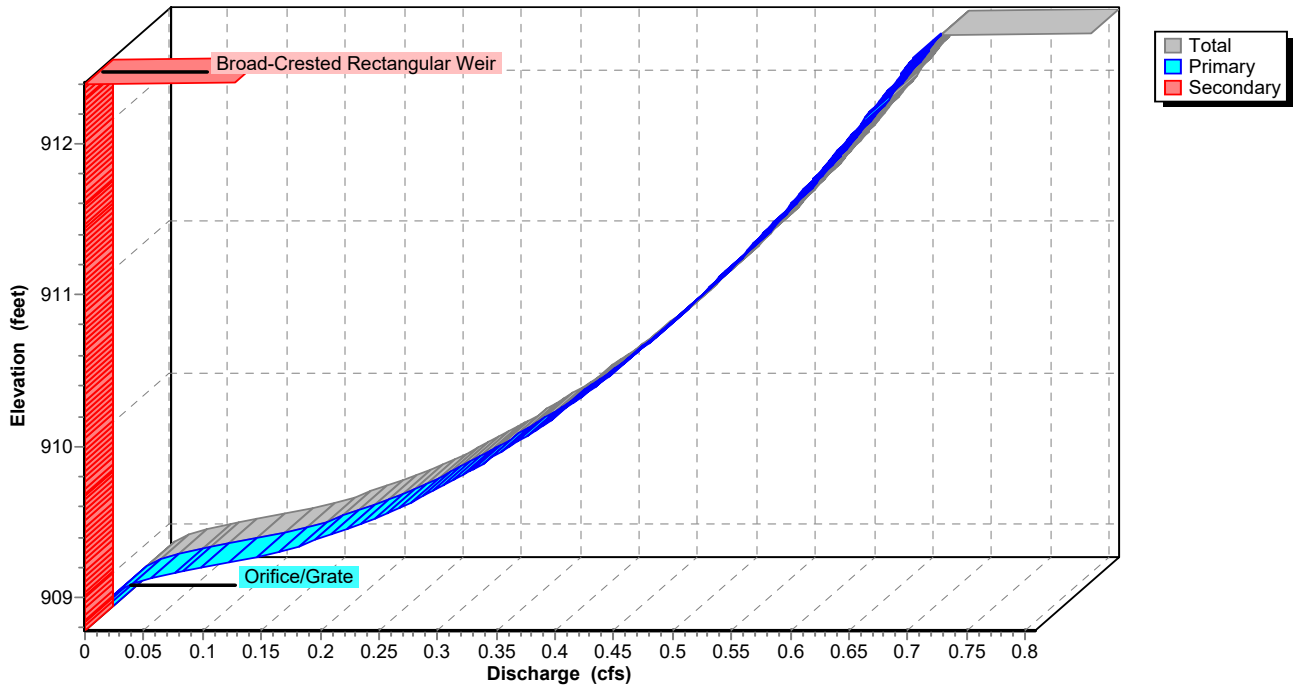
Pond 12P: PONDING STR 12-13

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Pond 12P: PONDING STR 12-13

Stage-Discharge



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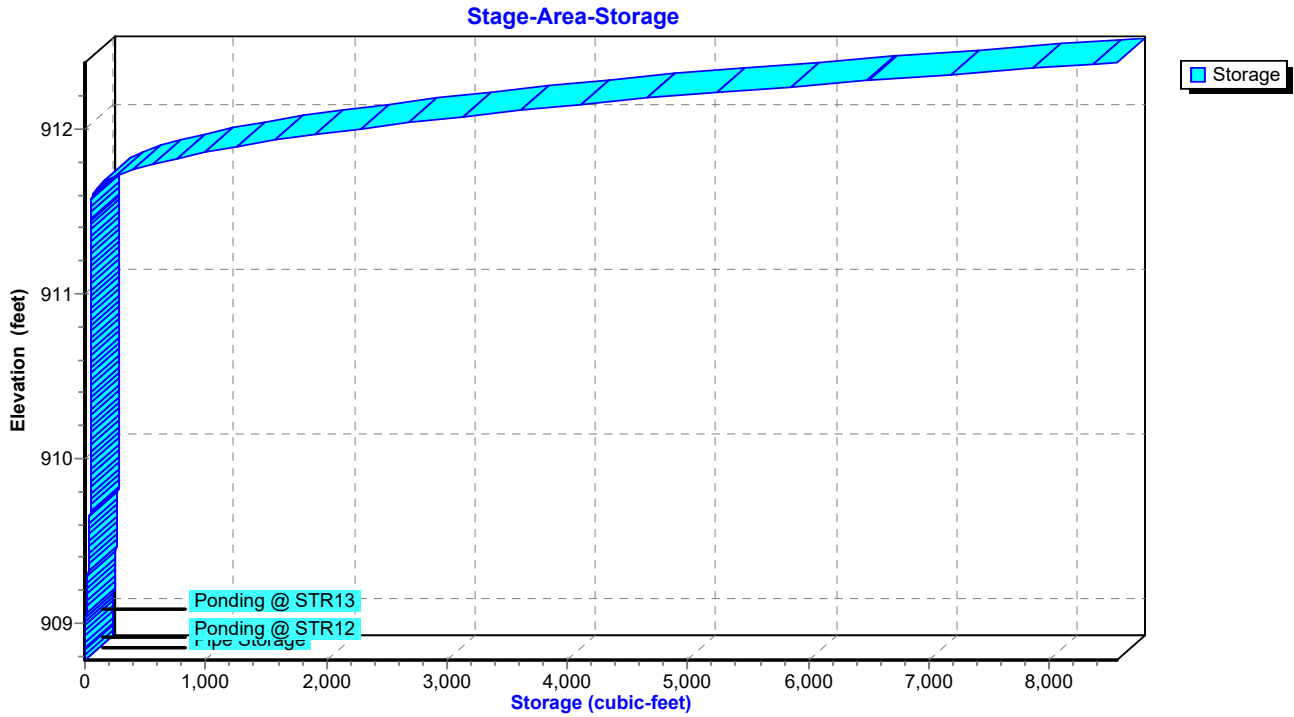
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Type II 24-hr 50-Year Rainfall=5.02"

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Pond 12P: PONDING STR 12-13



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 13E: STR13

Runoff = 2.88 cfs @ 12.01 hrs, Volume= 0.179 af, Depth= 4.67"

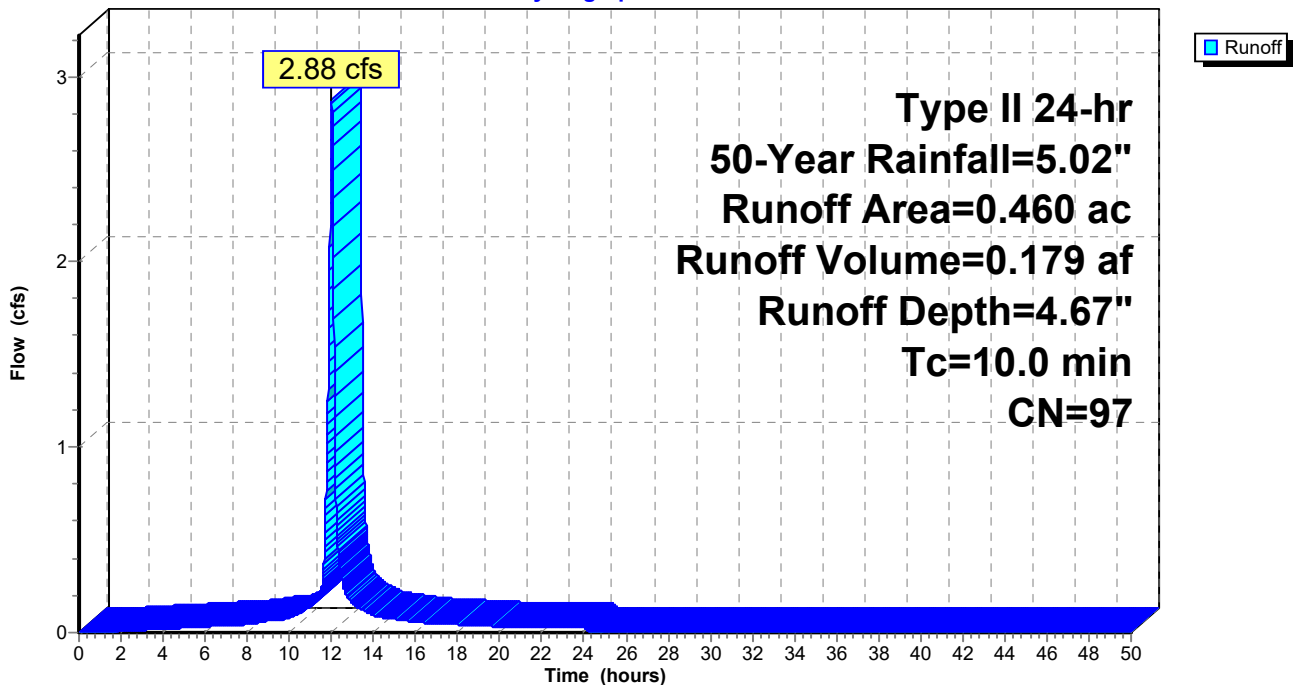
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 14E: STR14

Runoff = 2.76 cfs @ 12.01 hrs, Volume= 0.166 af, Depth= 4.44"

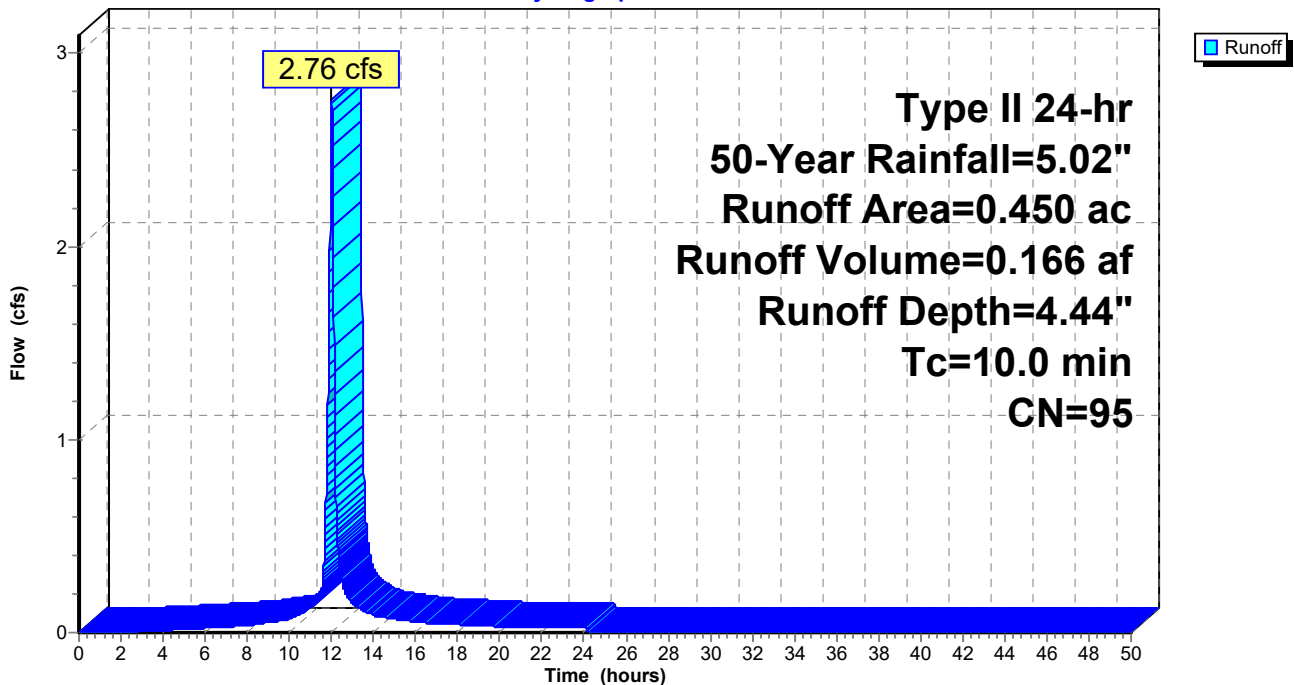
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 4.44" for 50-Year event
 Inflow = 2.76 cfs @ 12.01 hrs, Volume= 0.166 af
 Outflow = 1.58 cfs @ 12.11 hrs, Volume= 0.166 af, Atten= 43%, Lag= 6.2 min
 Primary = 0.76 cfs @ 12.79 hrs, Volume= 0.145 af
 Secondary = 1.19 cfs @ 12.11 hrs, Volume= 0.022 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.32' @ 12.11 hrs Surf.Area= 3,786 sf Storage= 1,681 cf

Plug-Flow detention time= 12.4 min calculated for 0.166 af (100% of inflow)
 Center-of-Mass det. time= 12.2 min (780.4 - 768.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.75 cfs @ 12.79 hrs HW=912.14' TW=908.92' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.64 fps)

Secondary OutFlow Max=1.19 cfs @ 12.11 hrs HW=912.32' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Weir Controls 1.19 cfs @ 0.95 fps)

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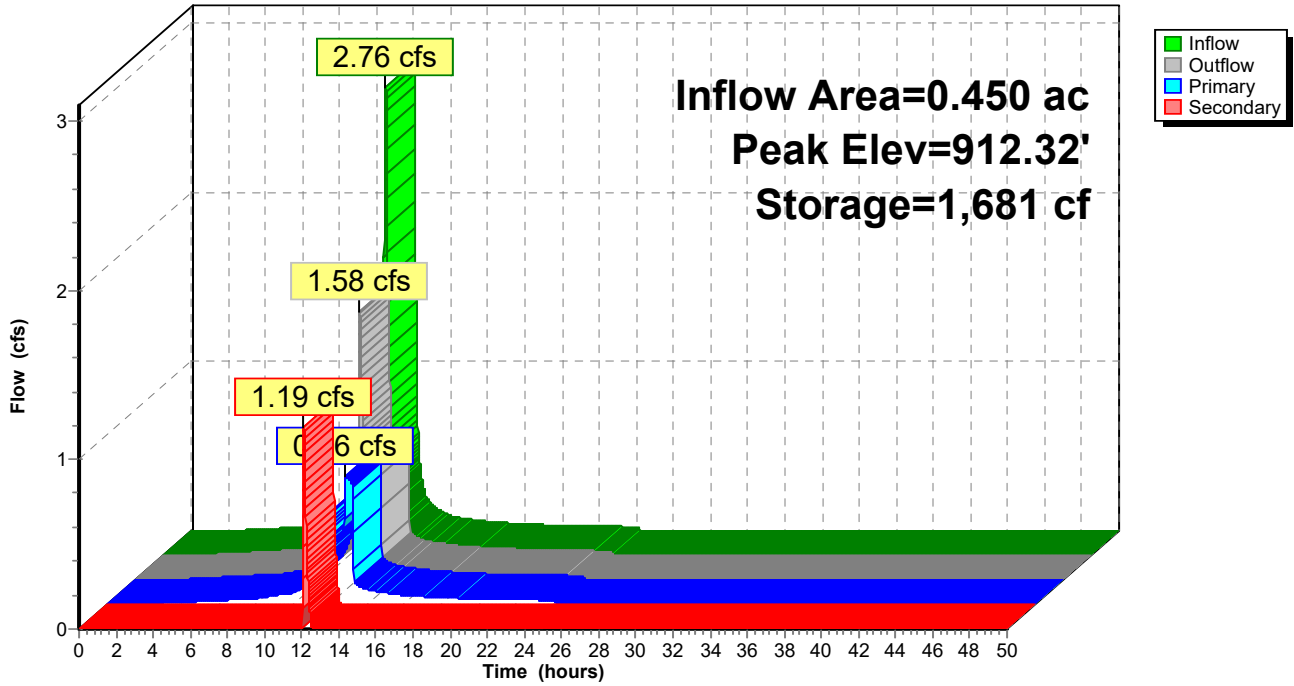
Type II 24-hr 50-Year Rainfall=5.02"

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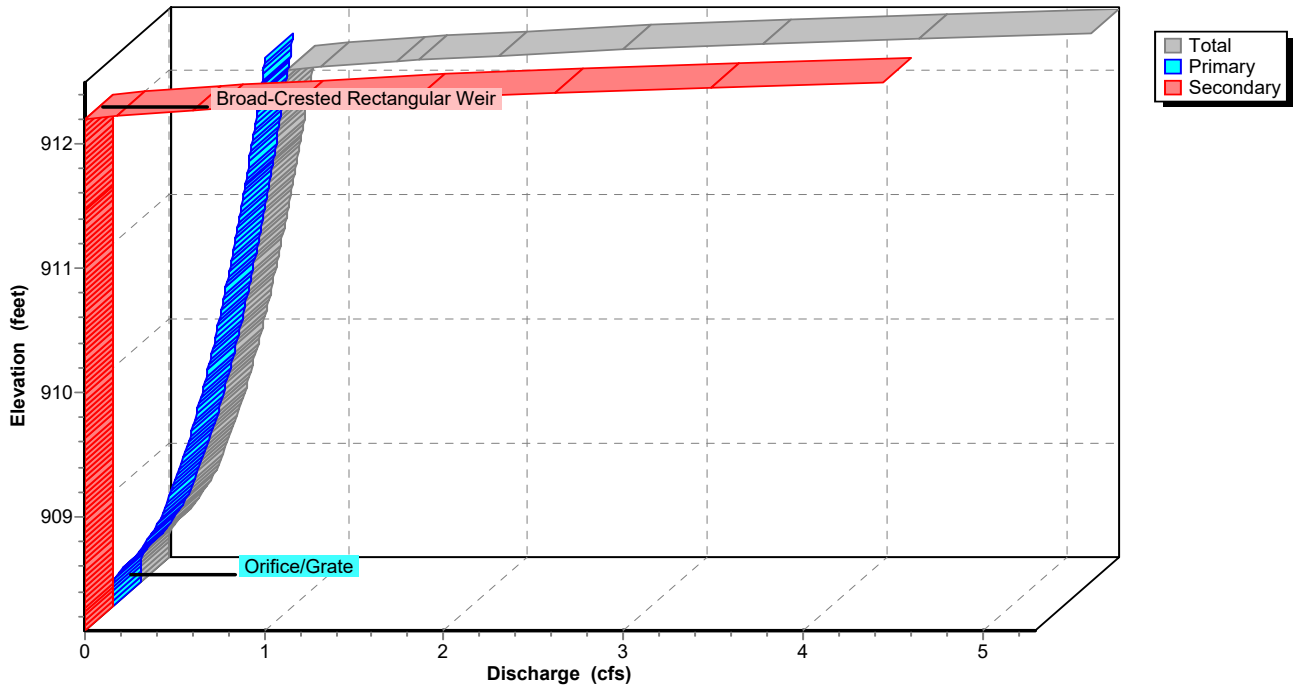
Pond 14P: PONDING STR 14

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Pond 14P: PONDING STR 14

Stage-Discharge



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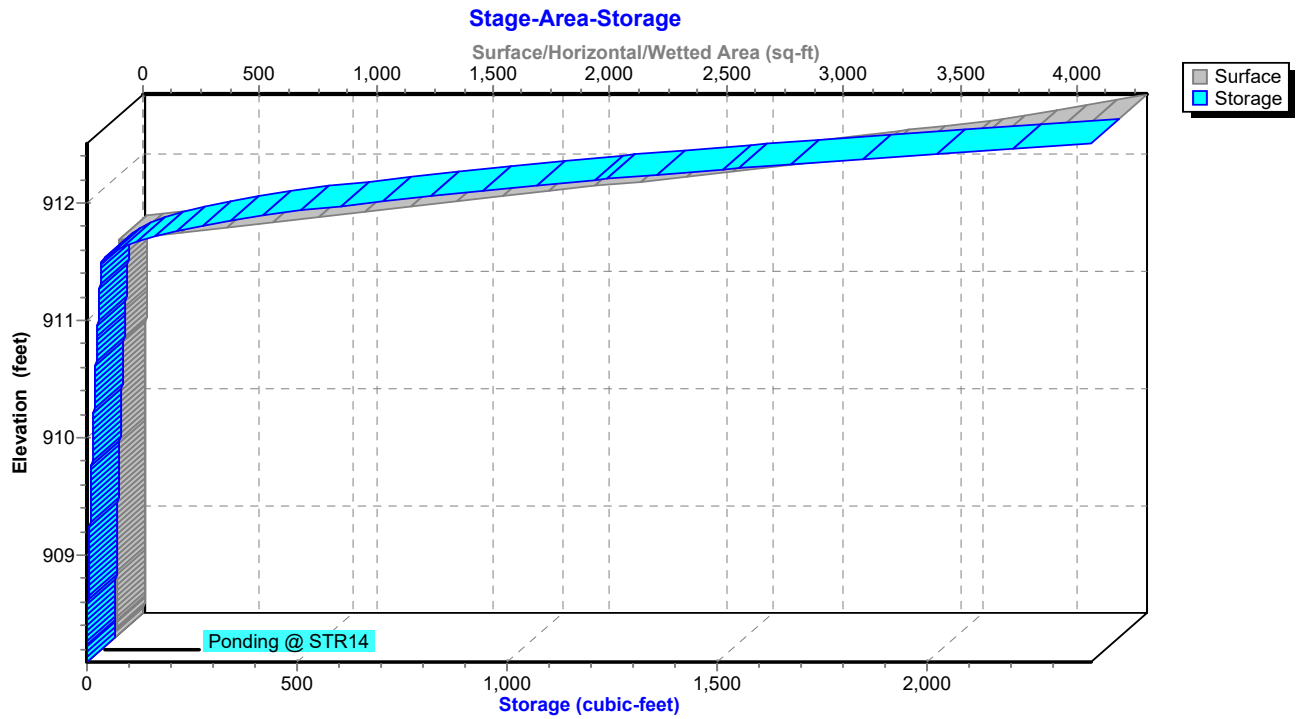
EXISTING EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Pond 14P: PONDING STR 14



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment XE: STRX

Runoff = 0.76 cfs @ 12.01 hrs, Volume= 0.048 af, Depth= 4.78"

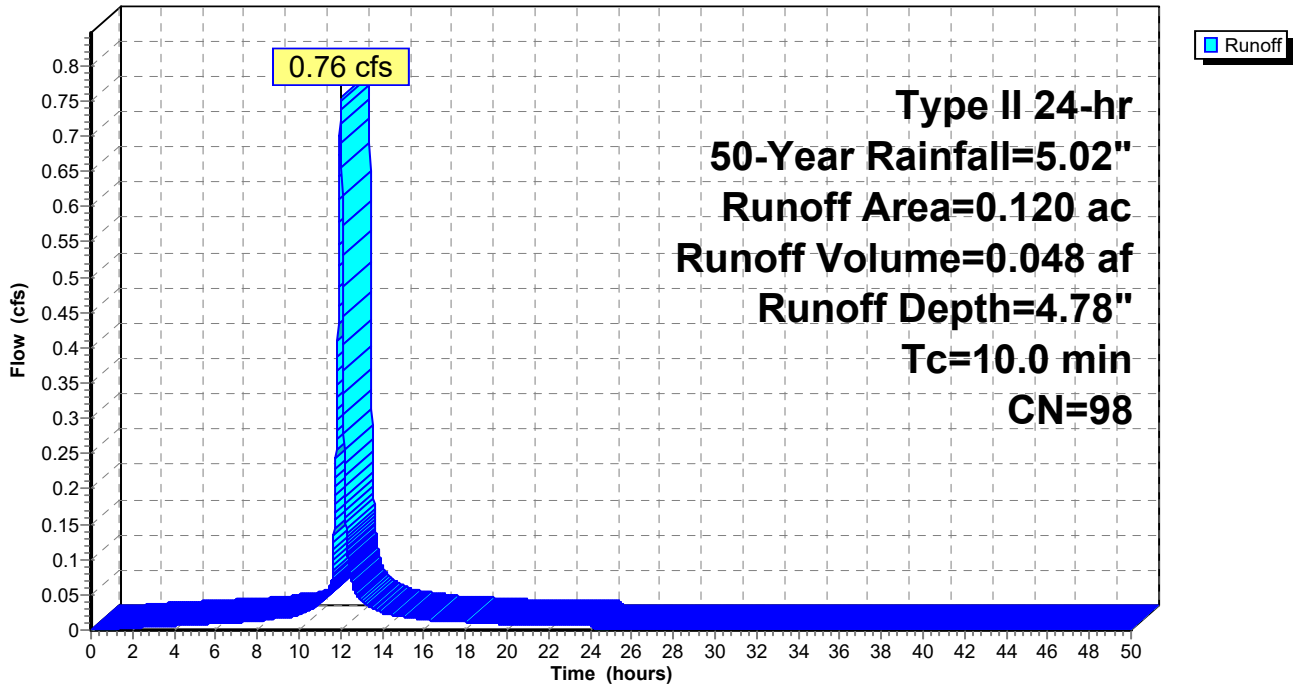
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 1E: STR1

Runoff = 2.32 cfs @ 12.01 hrs, Volume= 0.128 af, Depth= 3.65"

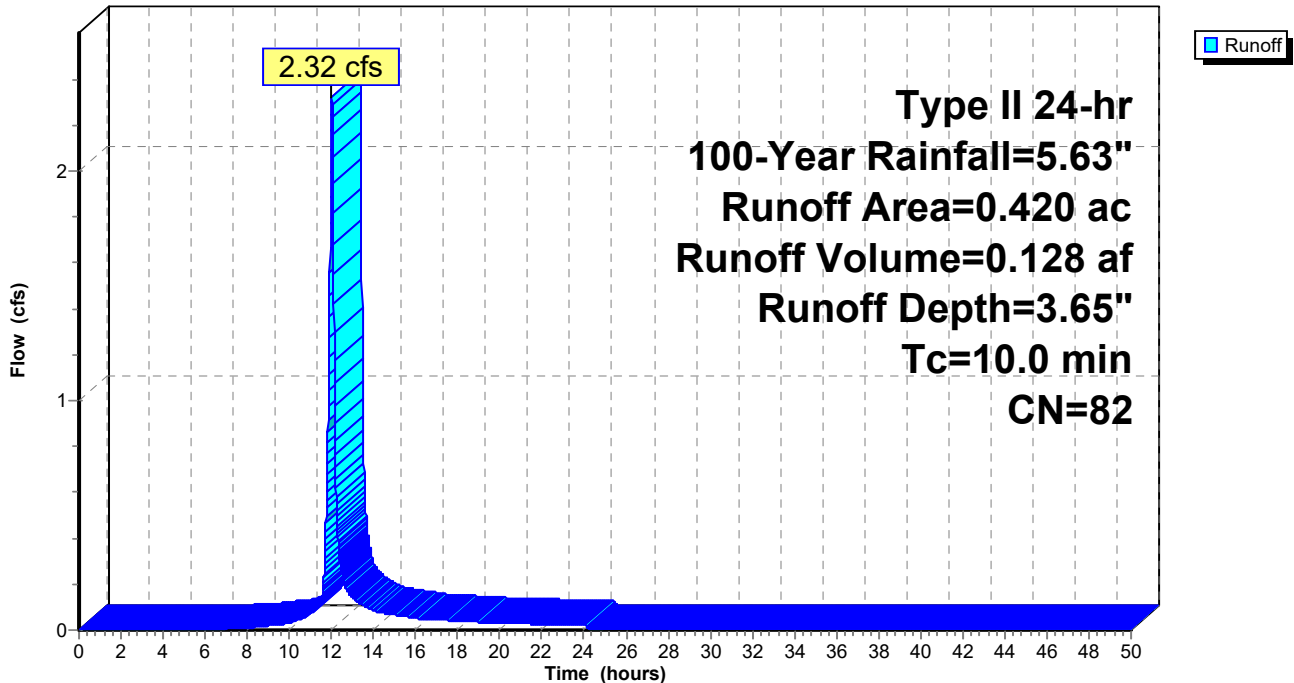
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.420	82	Weighted Average
0.330		78.57% Pervious Area
0.090		21.43% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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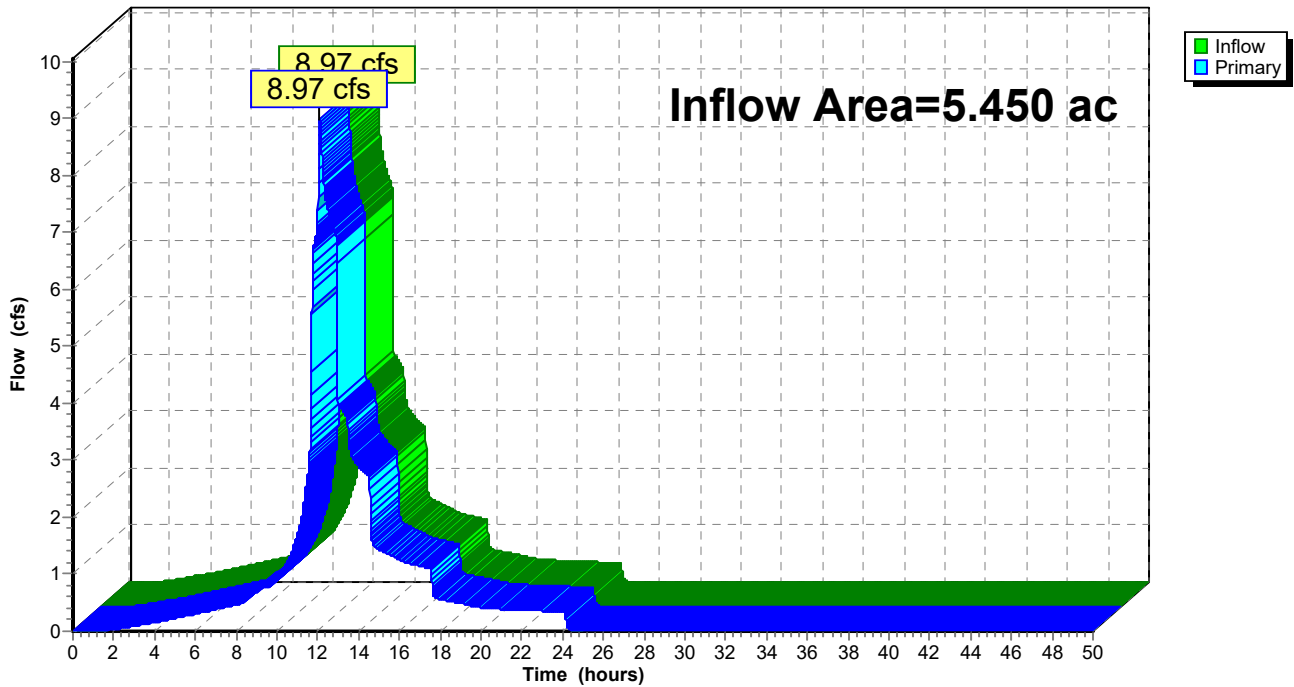
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.90" for 100-Year event
Inflow = 8.97 cfs @ 12.10 hrs, Volume= 2.223 af
Primary = 8.97 cfs @ 12.10 hrs, Volume= 2.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Summary for Pond 1P: PONDING STR 1-5

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.82" for 100-Year event
 Inflow = 18.46 cfs @ 12.01 hrs, Volume= 2.191 af
 Outflow = 7.36 cfs @ 12.24 hrs, Volume= 2.191 af, Atten= 60%, Lag= 13.6 min
 Primary = 7.36 cfs @ 12.24 hrs, Volume= 2.191 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.60' @ 12.24 hrs Surf.Area= 27,188 sf Storage= 9,704 cf

Plug-Flow detention time= 5.6 min calculated for 2.191 af (100% of inflow)
 Center-of-Mass det. time= 5.4 min (800.7 - 795.3)

Volume	Invert	Avail.Storage	Storage Description
#1	907.16'	313 cf	21.00" Round Pipe Storage L= 130.0' S= 0.0026 '/'
#2	907.50'	279 cf	18.00" Round Pipe Storage L= 158.0' S= 0.0030 '/'
#3	906.94'	1,857 cf	Ponding @ STR1 (Prismatic) Listed below (Recalc)
#4	910.50'	5,665 cf	Ponding @ STR2 (Prismatic) Listed below (Recalc)
#5	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#6	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#7	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		23,418 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
906.94	9	0	0
911.01	9	37	37
911.90	3,252	1,451	1,488
912.00	4,133	369	1,857

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	9	0	0
910.98	9	4	4
911.79	8,469	3,434	3,438
911.90	10,702	1,054	4,492
912.00	12,742	1,172	5,665

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	12.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=7.36 cfs @ 12.24 hrs HW=911.60' TW=0.00' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 7.36 cfs @ 9.38 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=906.94' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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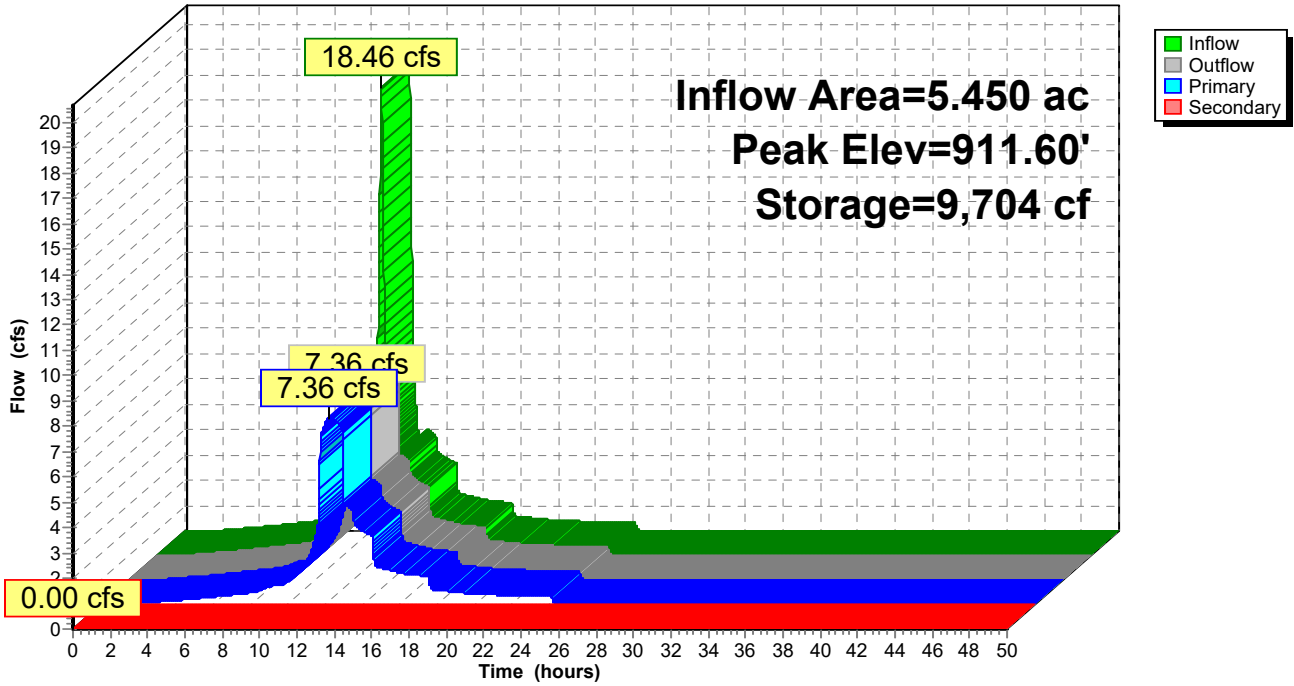
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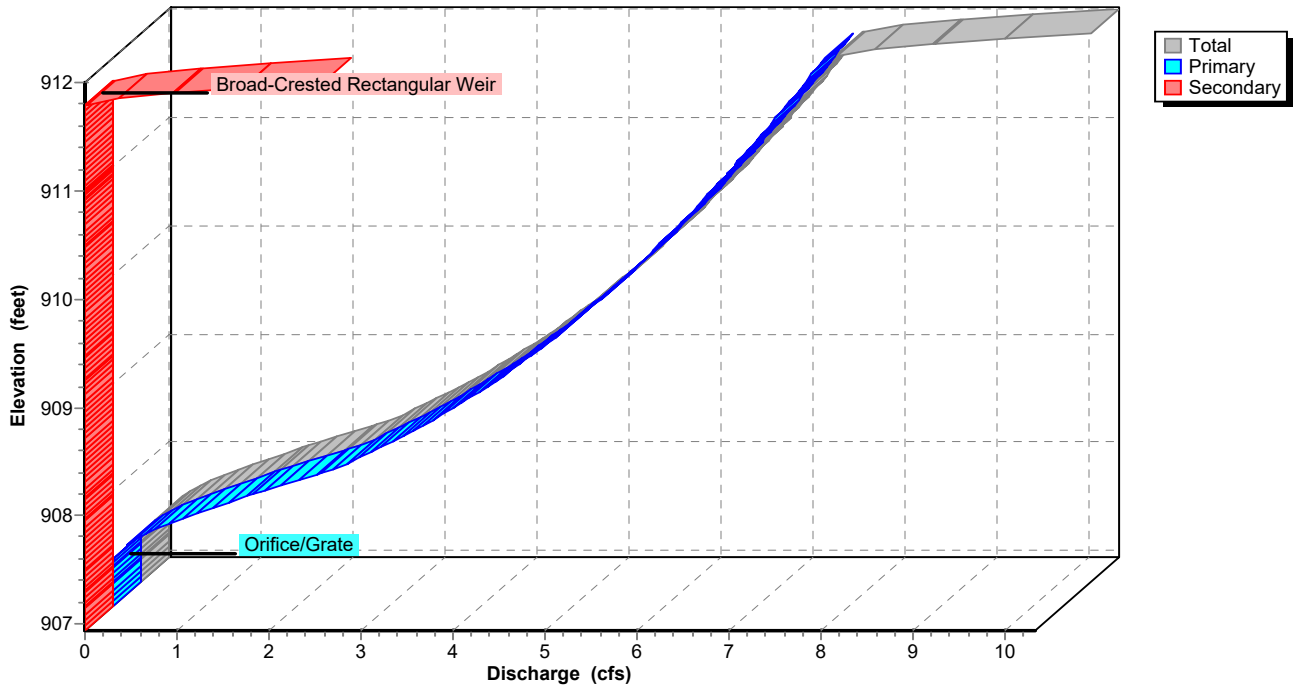
Pond 1P: PONDING STR 1-5

Hydrograph



Pond 1P: PONDING STR 1-5

Stage-Discharge



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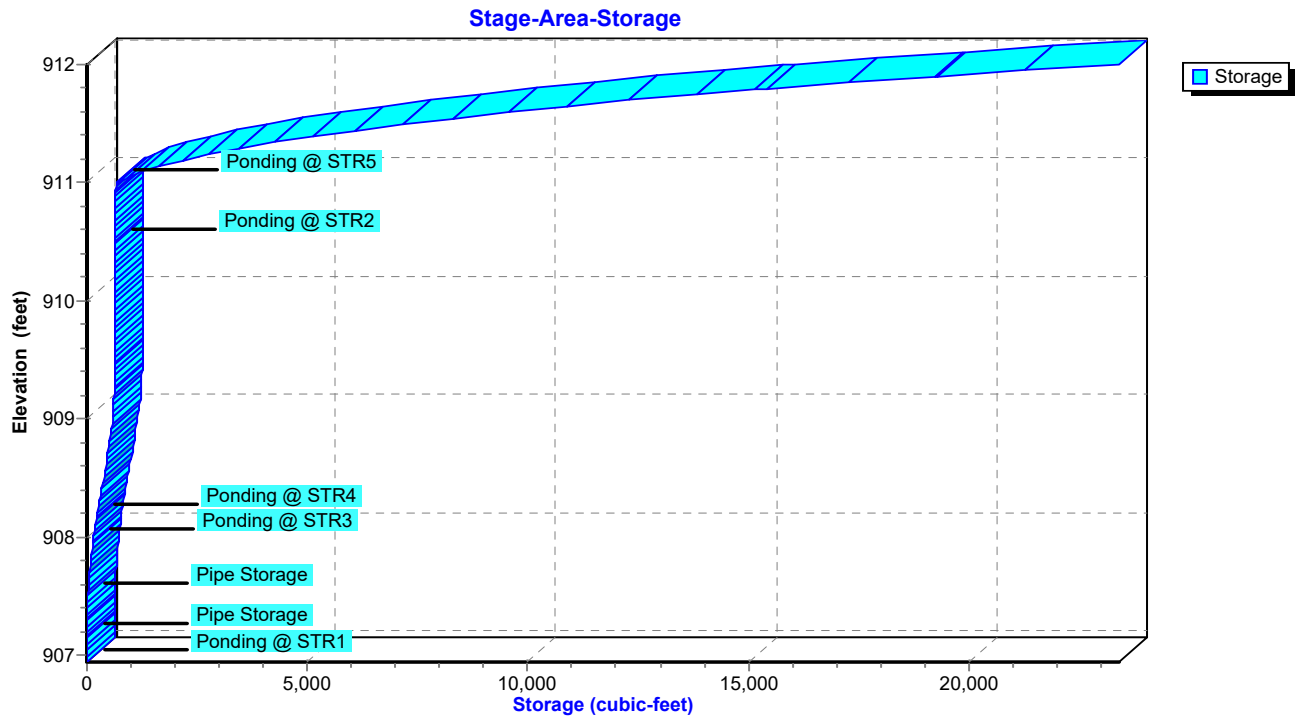
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Pond 1P: PONDING STR 1-5



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Summary for Subcatchment 2E: STR2

Runoff = 4.29 cfs @ 12.01 hrs, Volume= 0.261 af, Depth= 5.04"

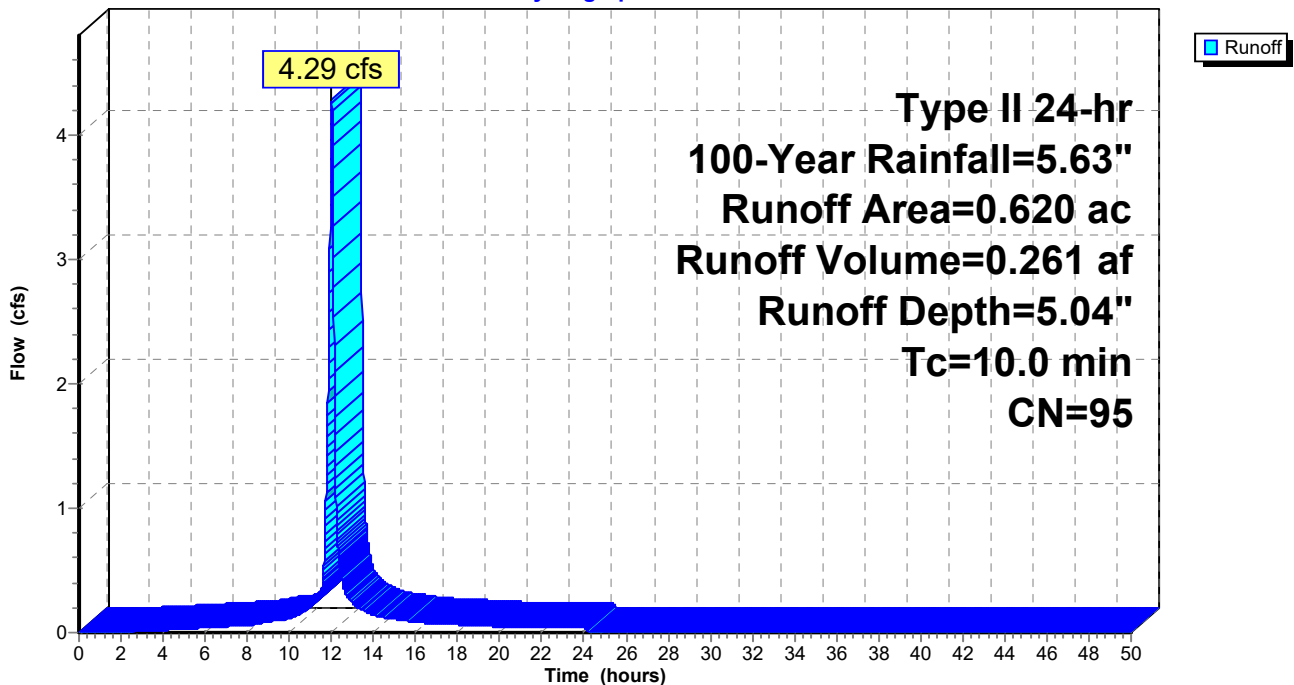
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.420	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.620	95	Weighted Average
0.100		16.13% Pervious Area
0.520		83.87% Impervious Area

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

Subcatchment 2E: STR2

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Summary for Subcatchment 3E: STR3

Runoff = 2.77 cfs @ 12.01 hrs, Volume= 0.168 af, Depth= 5.04"

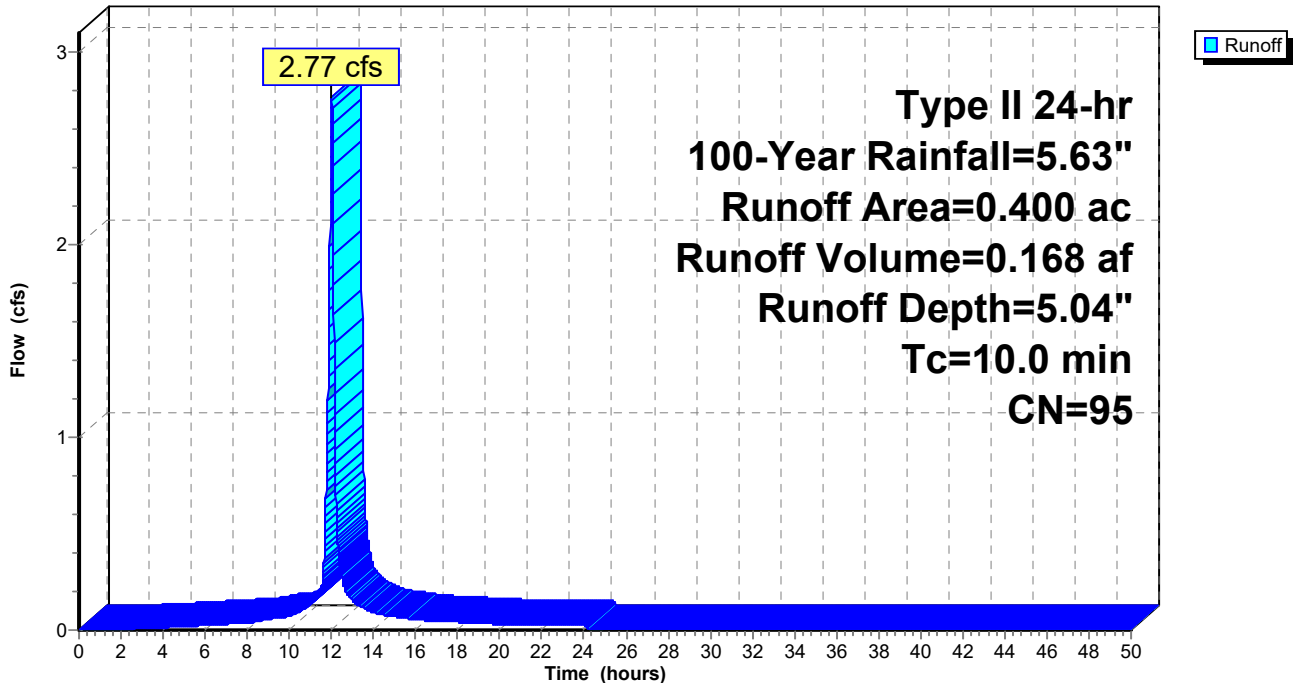
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.400	95	Weighted Average
0.060		15.00% Pervious Area
0.340		85.00% Impervious Area

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

Subcatchment 3E: STR3

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Summary for Subcatchment 4E: STR4

Runoff = 2.91 cfs @ 12.01 hrs, Volume= 0.173 af, Depth= 4.82"

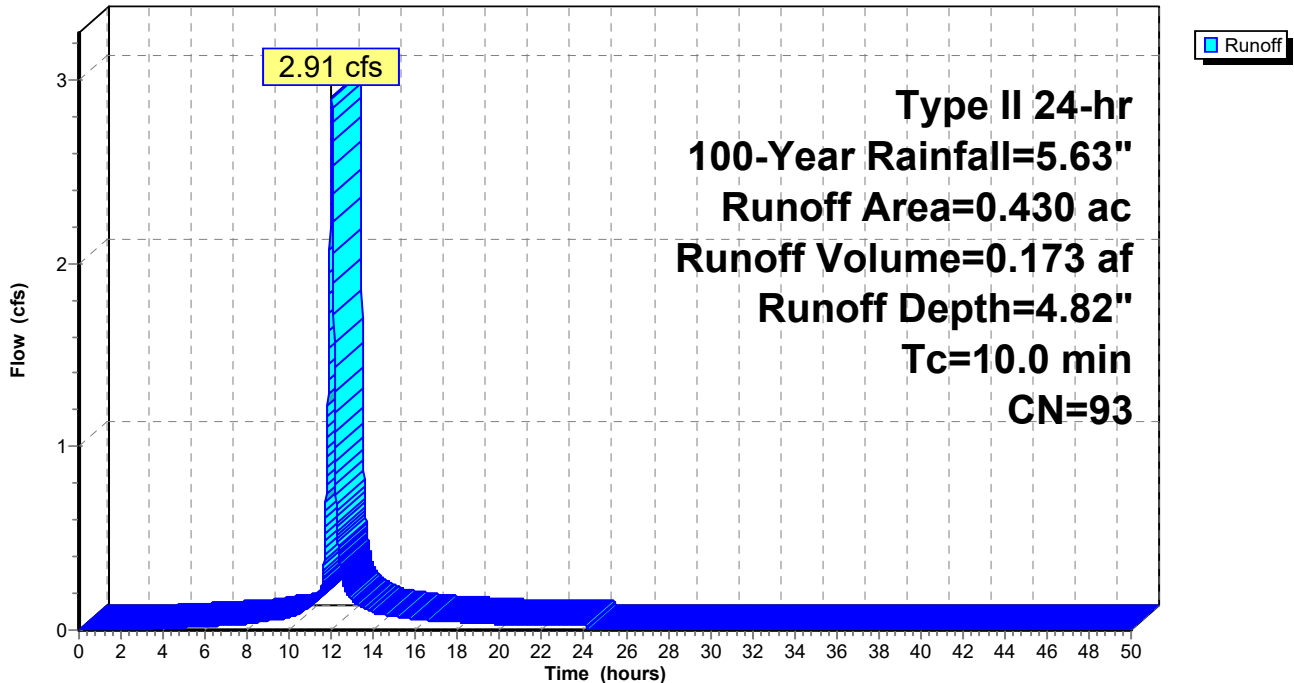
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

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Summary for Subcatchment 5E: STR5

Runoff = 3.76 cfs @ 12.01 hrs, Volume= 0.217 af, Depth= 4.49"

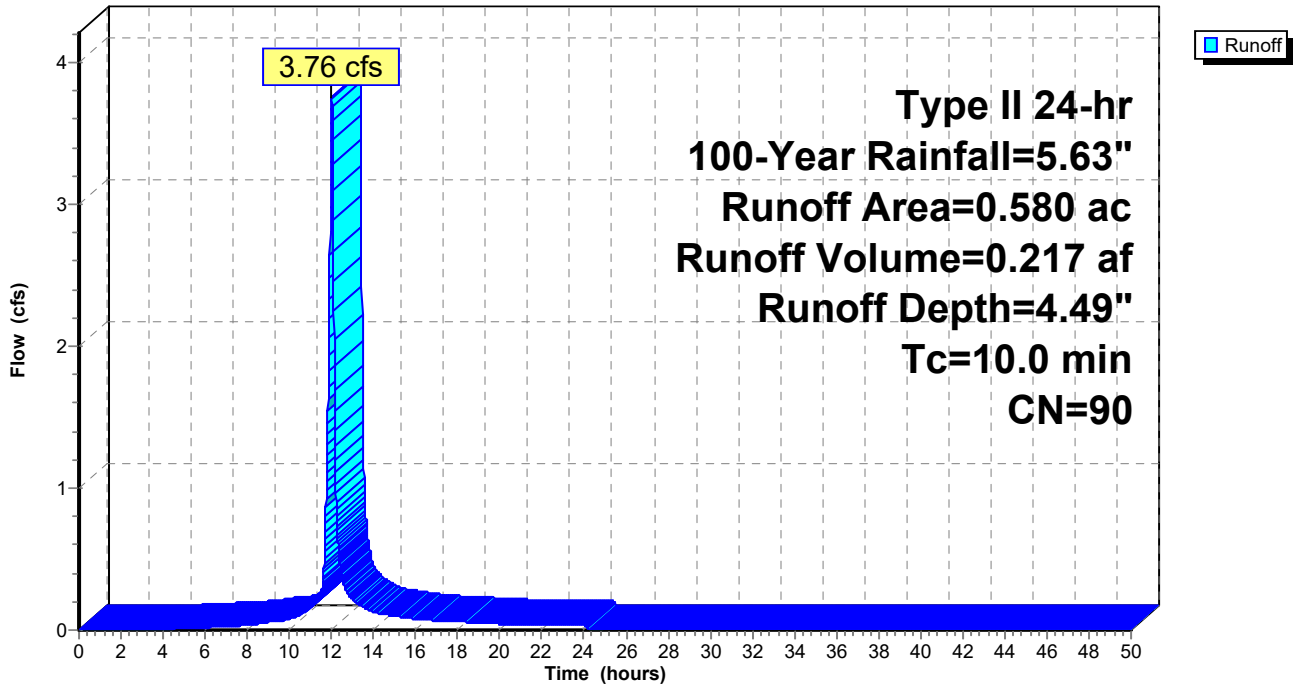
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Summary for Subcatchment 8E: STR8

Runoff = 2.28 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 5.04"

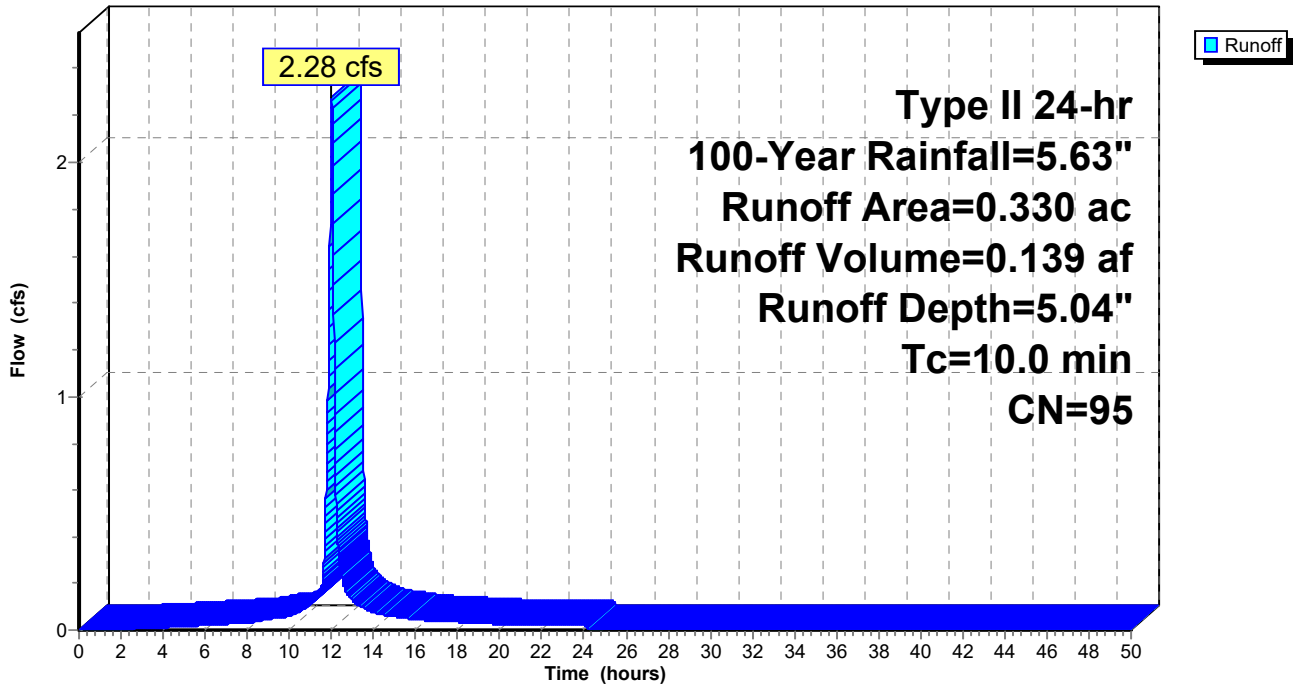
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 5.08" for 100-Year event
 Inflow = 9.96 cfs @ 12.01 hrs, Volume= 0.610 af
 Outflow = 3.63 cfs @ 12.16 hrs, Volume= 0.609 af, Atten= 64%, Lag= 9.1 min
 Primary = 1.62 cfs @ 13.01 hrs, Volume= 0.545 af
 Secondary = 2.81 cfs @ 12.16 hrs, Volume= 0.065 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.47' @ 12.16 hrs Surf.Area= 16,425 sf Storage= 8,088 cf

Plug-Flow detention time= 31.3 min calculated for 0.609 af (100% of inflow)
 Center-of-Mass det. time= 31.0 min (792.6 - 761.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.62 cfs @ 13.01 hrs HW=912.37' TW=908.91' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.62 cfs @ 8.97 fps)

Secondary OutFlow Max=2.81 cfs @ 12.16 hrs HW=912.47' TW=911.59' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Weir Controls 2.81 cfs @ 0.74 fps)

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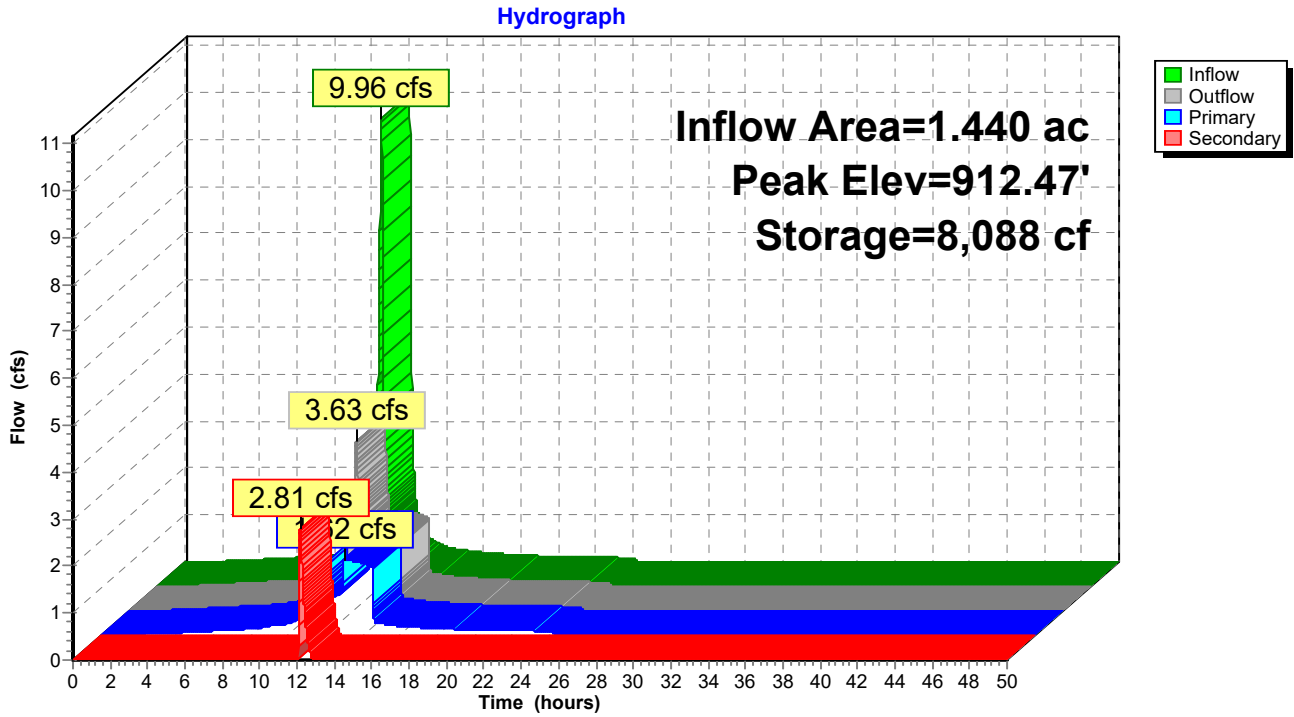
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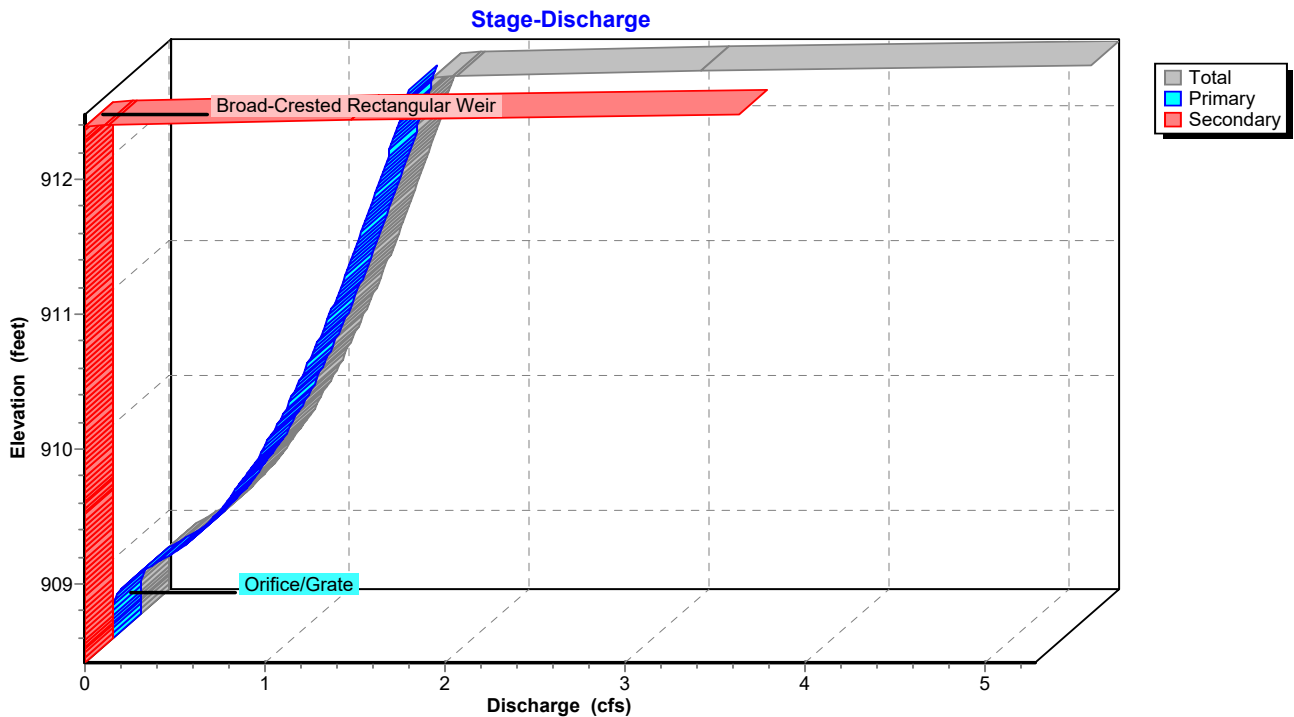
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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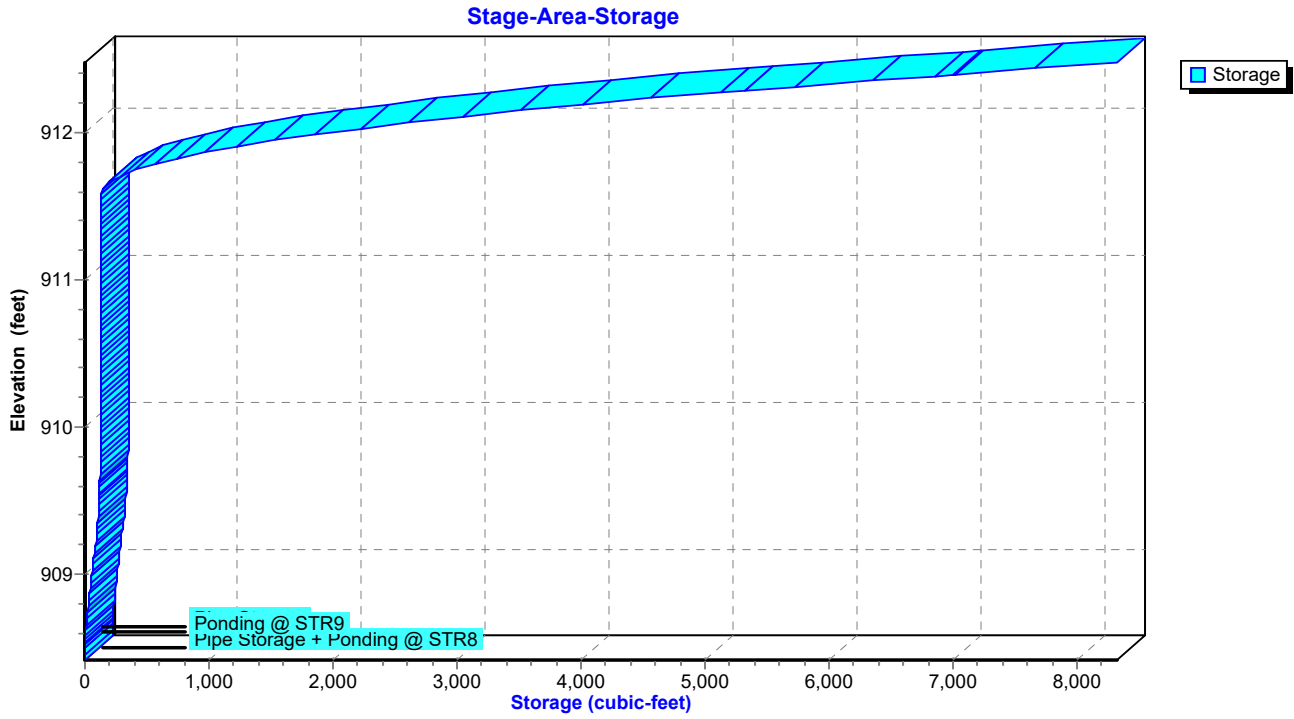
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Pond 8P: PONDING STR 8-11



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Summary for Subcatchment 9E: STR9

Runoff = 3.01 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 4.93"

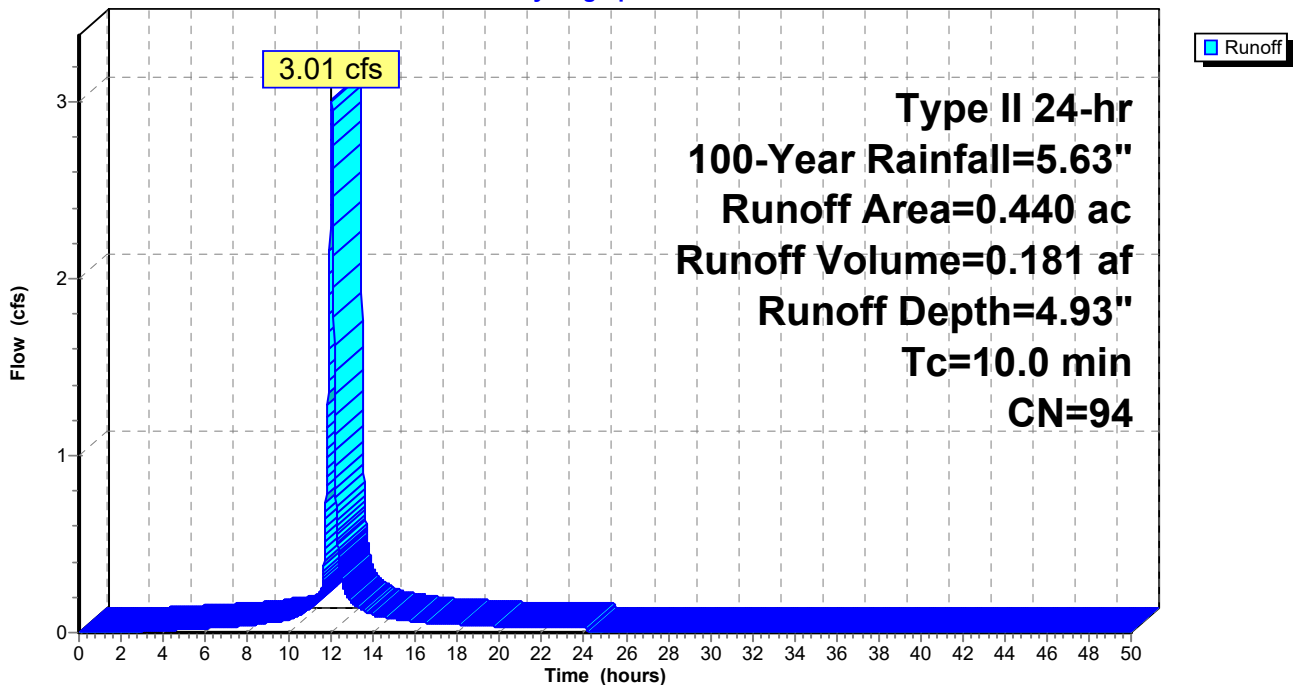
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

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Summary for Subcatchment 10E: STR10

Runoff = 3.39 cfs @ 12.01 hrs, Volume= 0.216 af, Depth= 5.39"

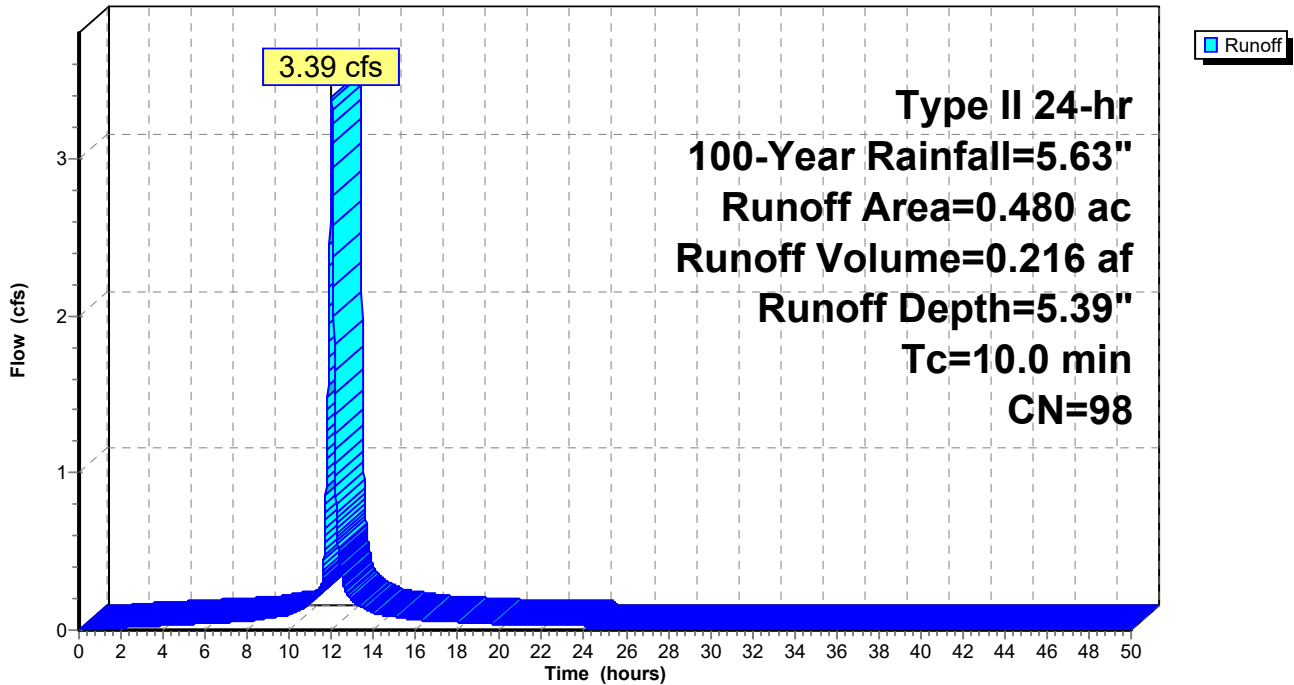
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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Summary for Subcatchment 11E: STR11

Runoff = 1.27 cfs @ 12.01 hrs, Volume= 0.075 af, Depth= 4.71"

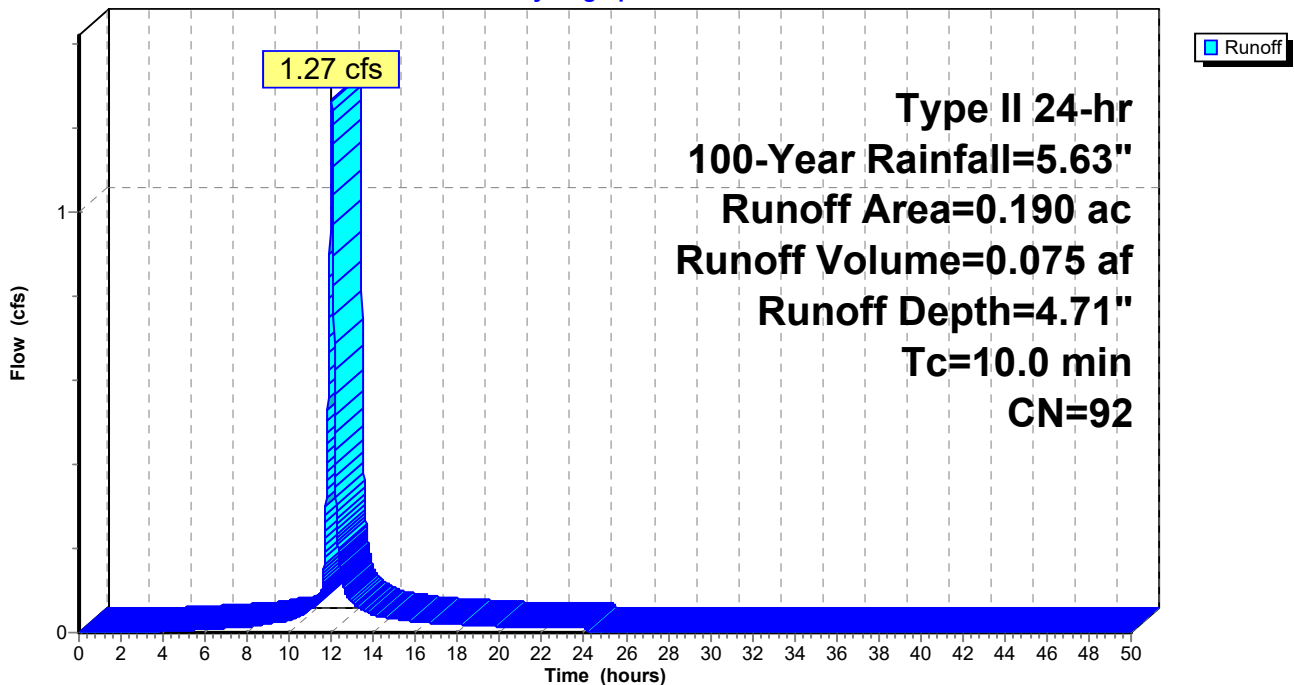
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

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Summary for Subcatchment 12E: STR12

Runoff = 3.67 cfs @ 12.01 hrs, Volume= 0.223 af, Depth= 5.04"

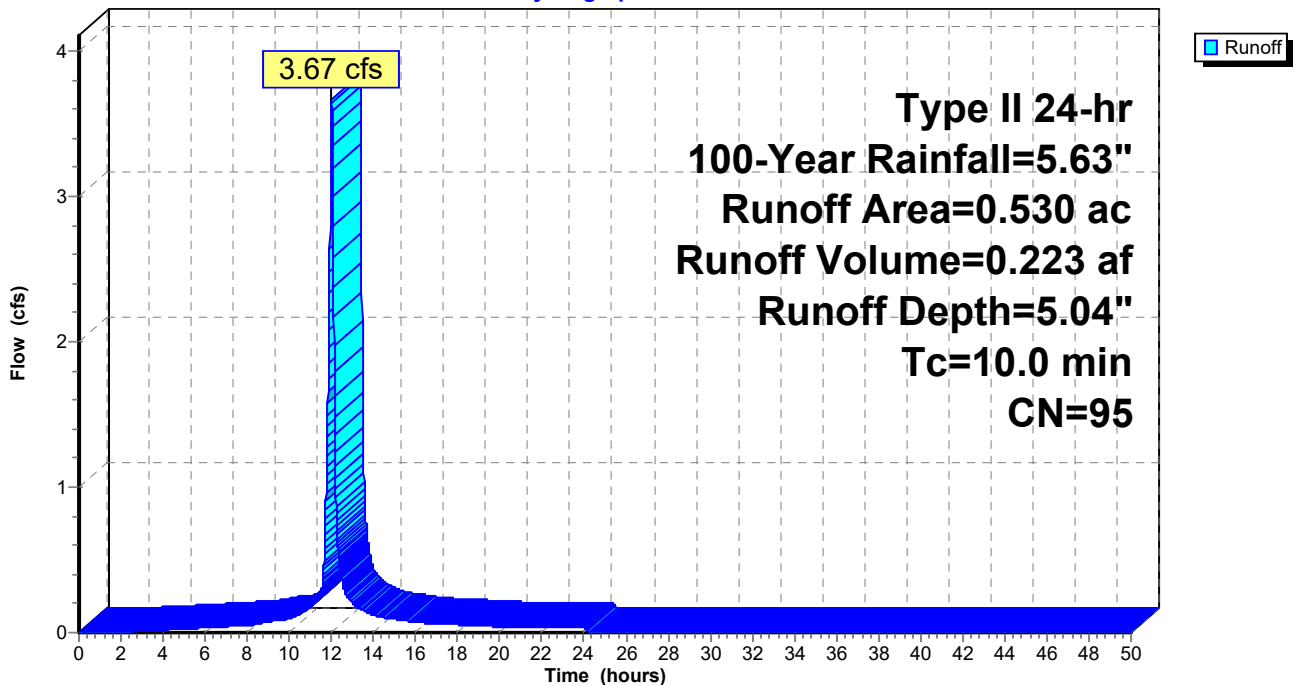
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.460	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.530	95	Weighted Average
0.070		13.21% Pervious Area
0.460		86.79% Impervious Area

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

Subcatchment 12E: STR12

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Summary for Pond 12P: PONDING STR 12-13

Inflow Area = 0.990 ac, 89.90% Impervious, Inflow Depth = 5.15" for 100-Year event
 Inflow = 6.91 cfs @ 12.01 hrs, Volume= 0.425 af
 Outflow = 0.68 cfs @ 13.00 hrs, Volume= 0.425 af, Atten= 90%, Lag= 59.4 min
 Primary = 0.68 cfs @ 13.00 hrs, Volume= 0.425 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.36' @ 12.92 hrs Surf.Area= 19,079 sf Storage= 7,804 cf

Plug-Flow detention time= 86.6 min calculated for 0.425 af (100% of inflow)
 Center-of-Mass det. time= 86.5 min (845.9 - 759.5)

Volume	Invert	Avail.Storage	Storage Description
#1	908.78'	36 cf	8.00" Round Pipe Storage L= 102.0' S= 0.0022 '/'
#2	908.84'	3,702 cf	Ponding @ STR12 (Prismatic) Listed below (Recalc)
#3	909.01'	4,825 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		8,563 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.84	4	0	0
911.53	4	11	11
911.59	16	1	11
912.29	7,945	2,786	2,798
912.40	8,500	904	3,702

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
909.01	4	0	0
911.44	4	10	10
911.59	16	1	11
912.29	10,379	3,638	3,649
912.40	11,000	1,176	4,825

Device	Routing	Invert	Outlet Devices
#1	Primary	908.84'	3.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Primary OutFlow Max=0.68 cfs @ 13.00 hrs HW=912.36' TW=908.90' (Dynamic Tailwater)

↑1=Orifice/Grate (Orifice Controls 0.68 cfs @ 8.83 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.78' TW=908.42' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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EXISTING EAST TRIB

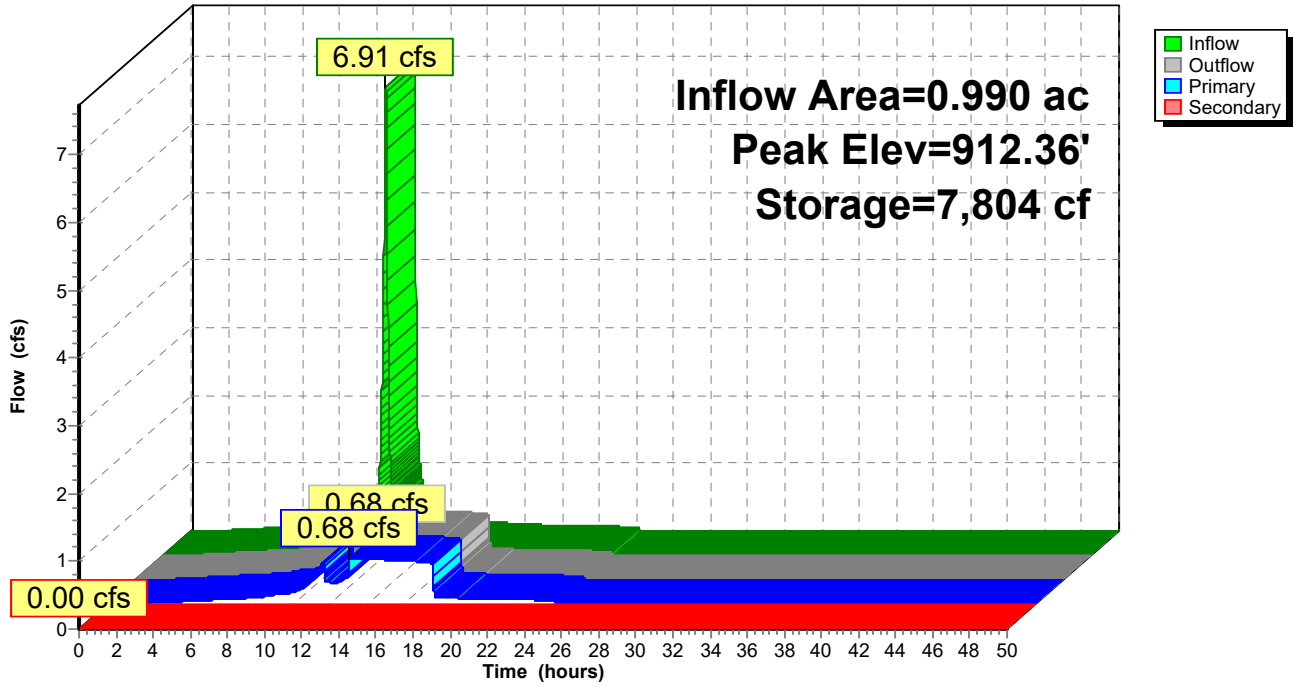
Type II 24-hr 100-Year Rainfall=5.63"

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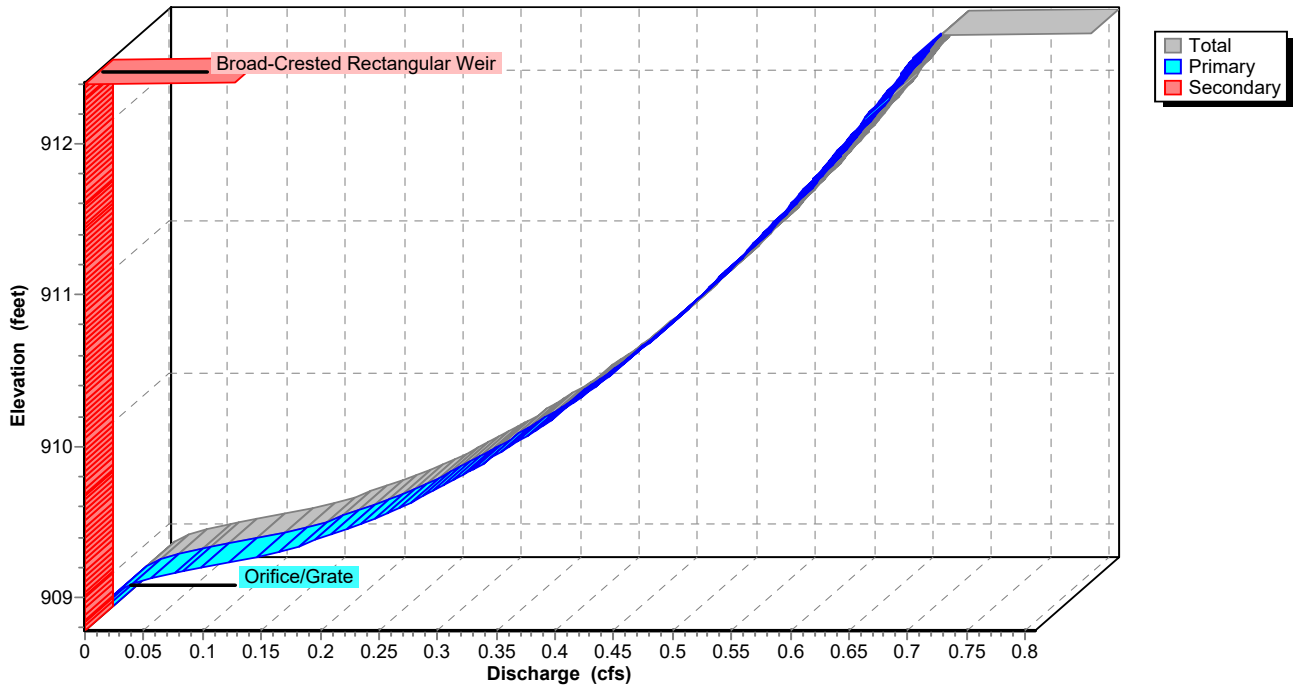
Pond 12P: PONDING STR 12-13

Hydrograph



Pond 12P: PONDING STR 12-13

Stage-Discharge



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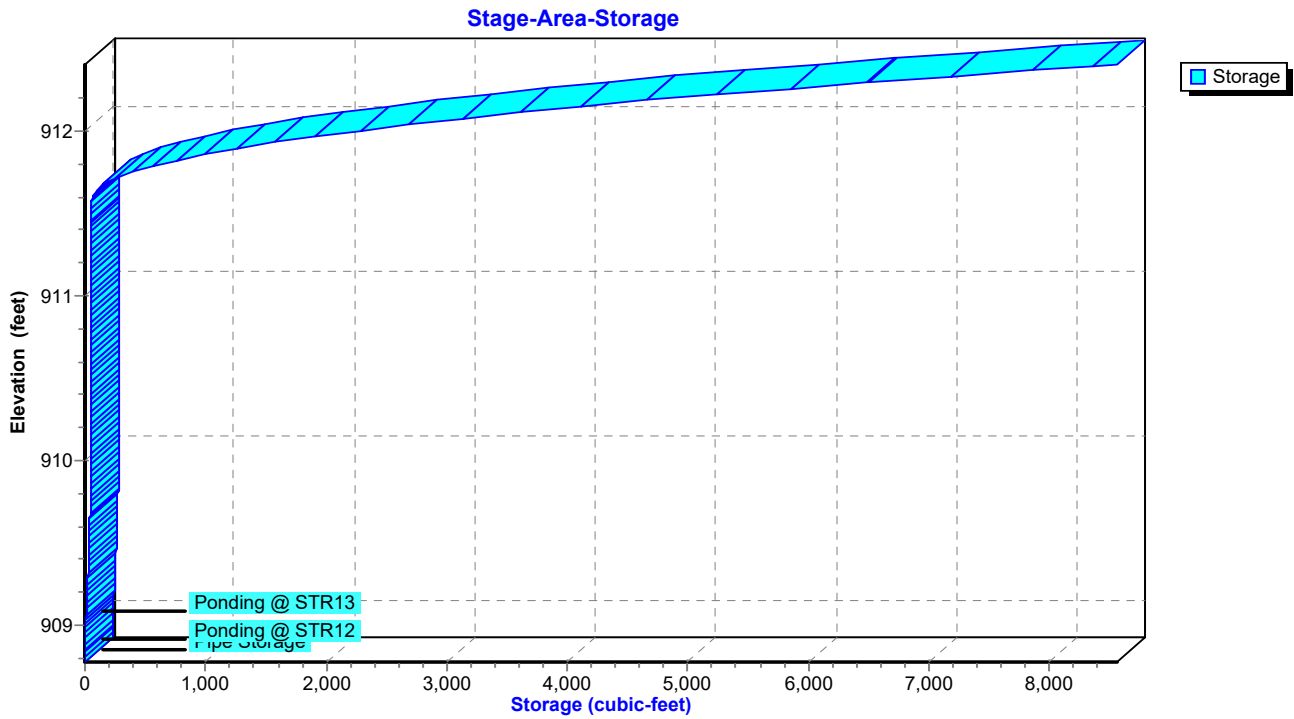
EXISTING EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Pond 12P: PONDING STR 12-13



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 13E: STR13

Runoff = 3.24 cfs @ 12.01 hrs, Volume= 0.202 af, Depth= 5.28"

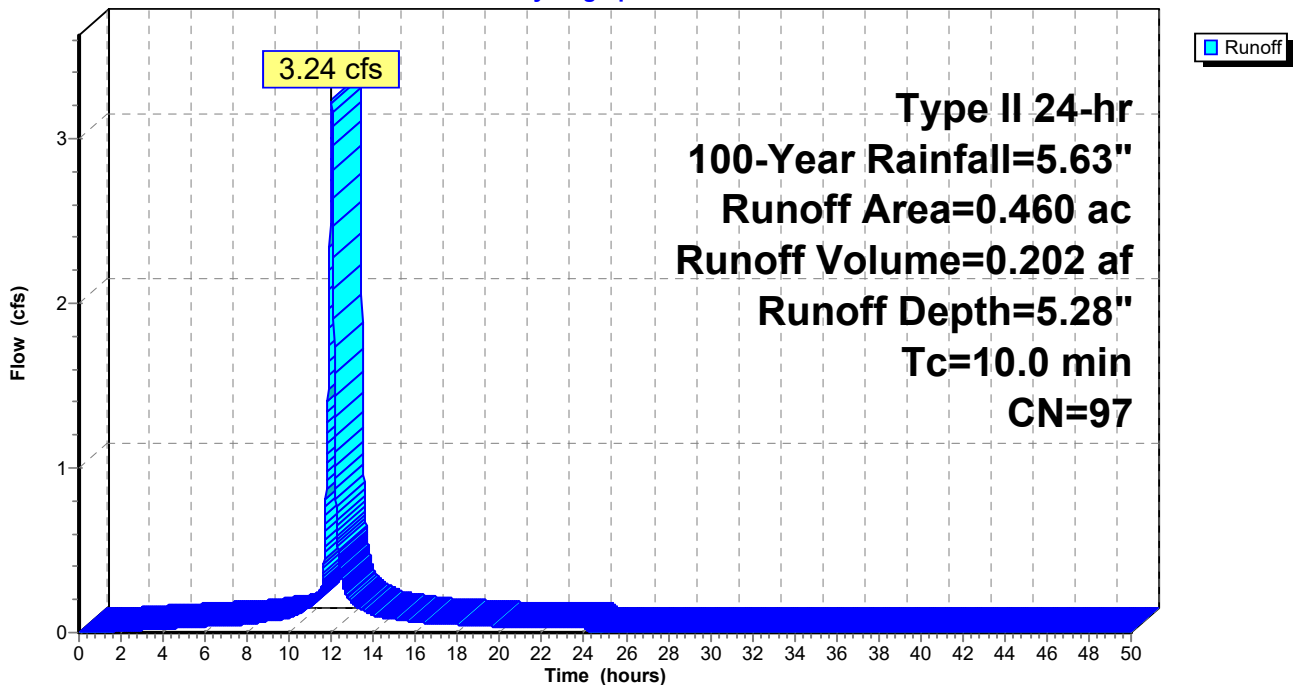
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.030	77	>75% Grass cover, Good, HSG C
0.460	97	Weighted Average
0.030		6.52% Pervious Area
0.430		93.48% Impervious Area

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

Subcatchment 13E: STR13

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 14E: STR14

Runoff = 3.12 cfs @ 12.01 hrs, Volume= 0.189 af, Depth= 5.04"

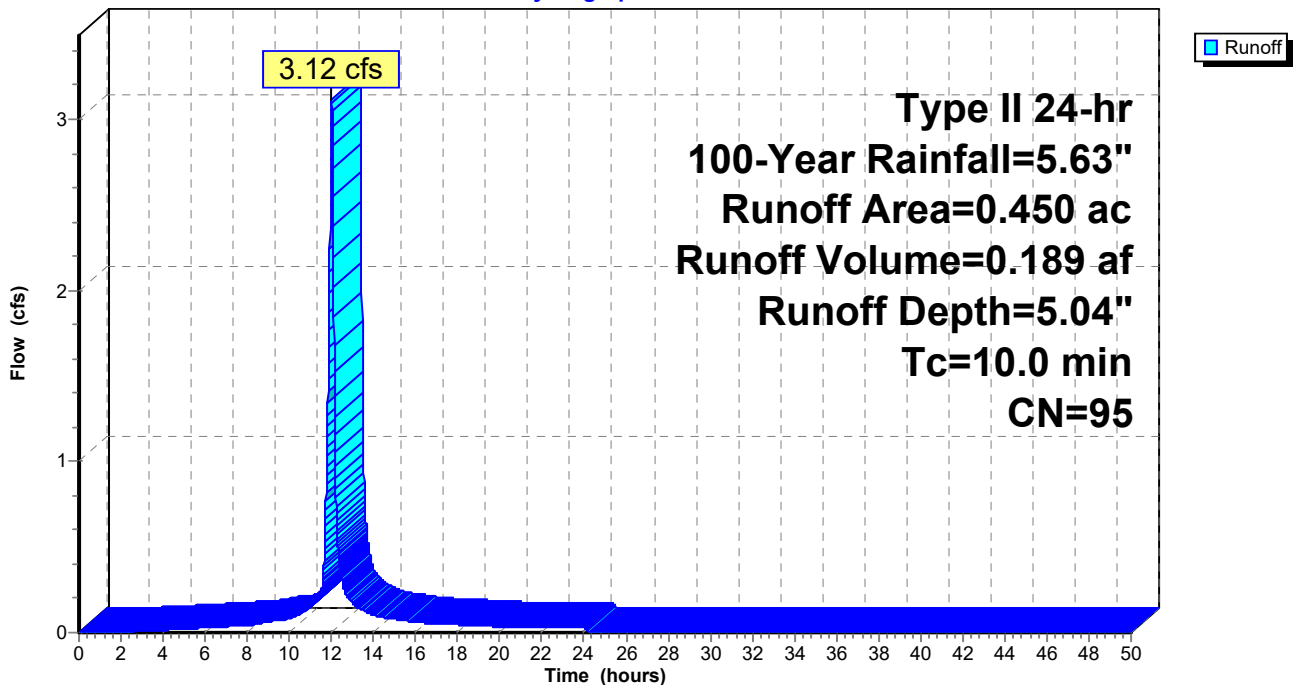
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.450	95	Weighted Average
0.070		15.56% Pervious Area
0.380		84.44% Impervious Area

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

Subcatchment 14E: STR14

Hydrograph



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EXISTING EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond 14P: PONDING STR 14

Inflow Area = 0.450 ac, 84.44% Impervious, Inflow Depth = 5.04" for 100-Year event
 Inflow = 3.12 cfs @ 12.01 hrs, Volume= 0.189 af
 Outflow = 2.05 cfs @ 12.10 hrs, Volume= 0.189 af, Atten= 34%, Lag= 5.2 min
 Primary = 0.75 cfs @ 13.01 hrs, Volume= 0.157 af
 Secondary = 1.67 cfs @ 12.10 hrs, Volume= 0.032 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.36' @ 12.10 hrs Surf.Area= 3,879 sf Storage= 1,803 cf

Plug-Flow detention time= 12.8 min calculated for 0.189 af (100% of inflow)
 Center-of-Mass det. time= 12.8 min (778.0 - 765.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.09'	2,389 cf	Ponding @ STR14 (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.09	4	0	0
911.47	16	34	34
912.29	3,683	1,517	1,550
912.50	4,300	838	2,389

Device	Routing	Invert	Outlet Devices
#1	Primary	908.24'	4.00" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.20'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.75 cfs @ 13.01 hrs HW=912.11' TW=908.91' (Dynamic Tailwater)
 ↑1=**Orifice/Grate** (Orifice Controls 0.75 cfs @ 8.62 fps)

Secondary OutFlow Max=1.67 cfs @ 12.10 hrs HW=912.36' TW=0.00' (Dynamic Tailwater)
 ↑2=**Broad-Crested Rectangular Weir** (Weir Controls 1.67 cfs @ 1.06 fps)

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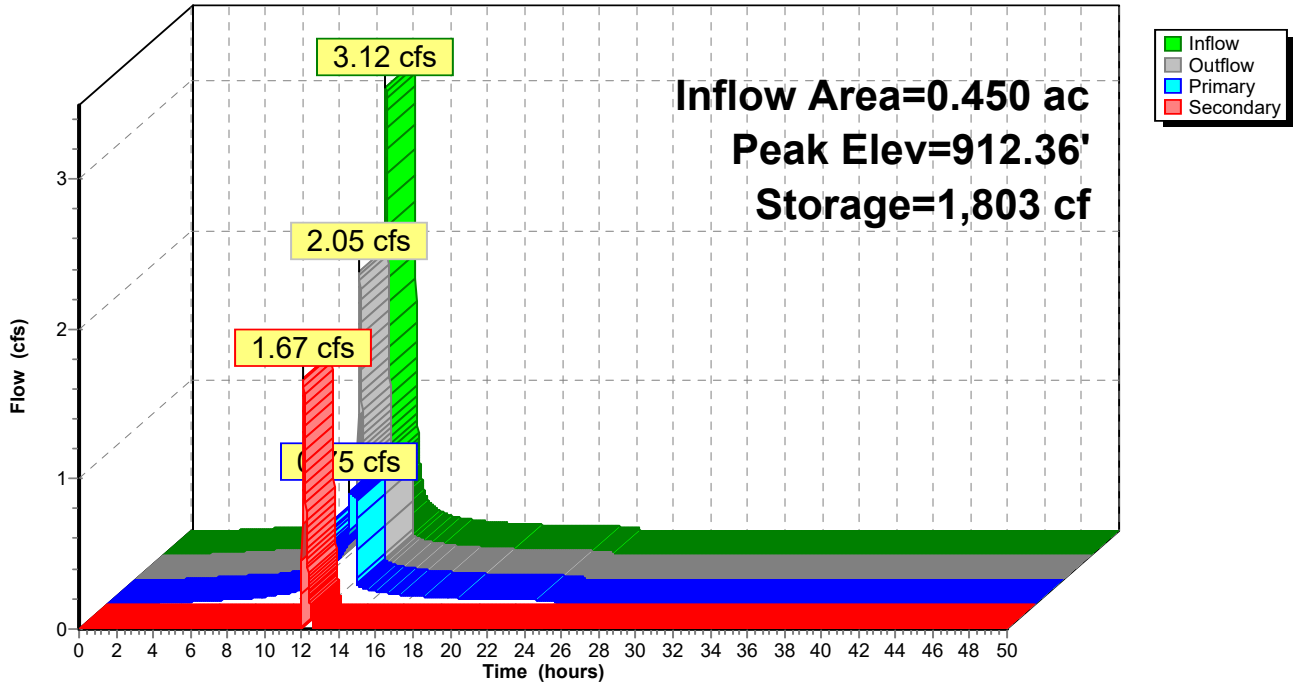
Type II 24-hr 100-Year Rainfall=5.63"

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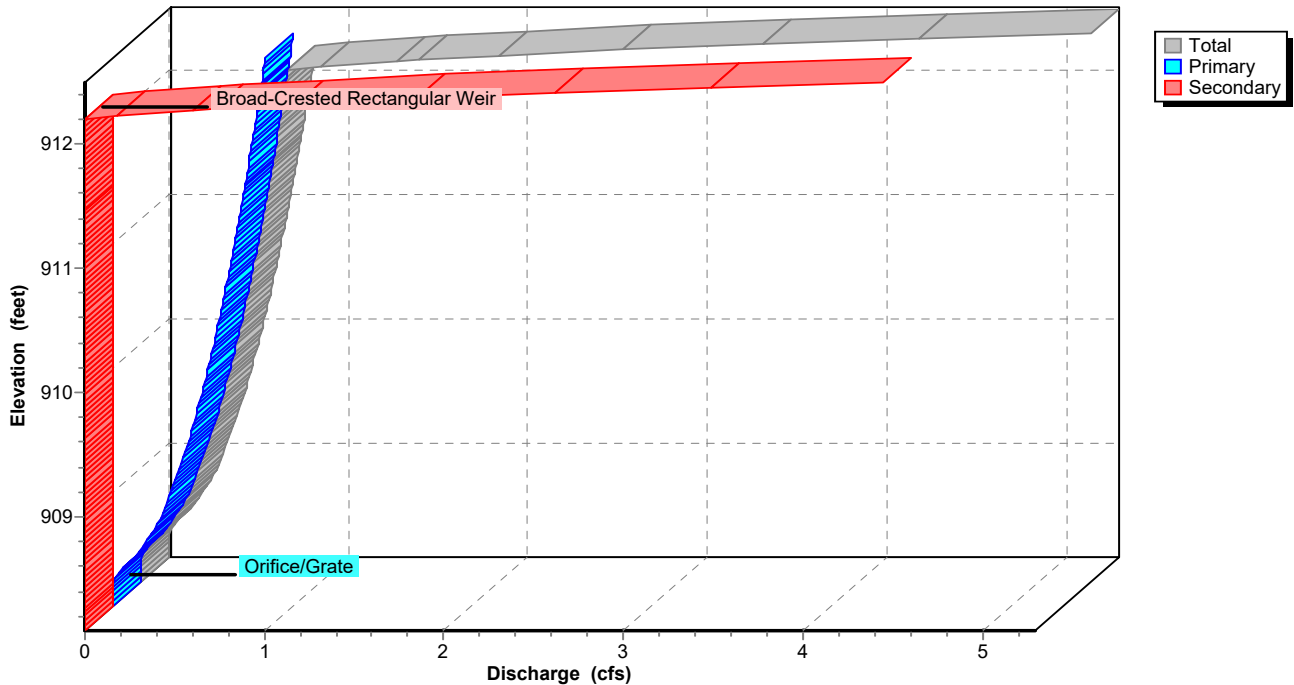
Pond 14P: PONDING STR 14

Hydrograph



Pond 14P: PONDING STR 14

Stage-Discharge



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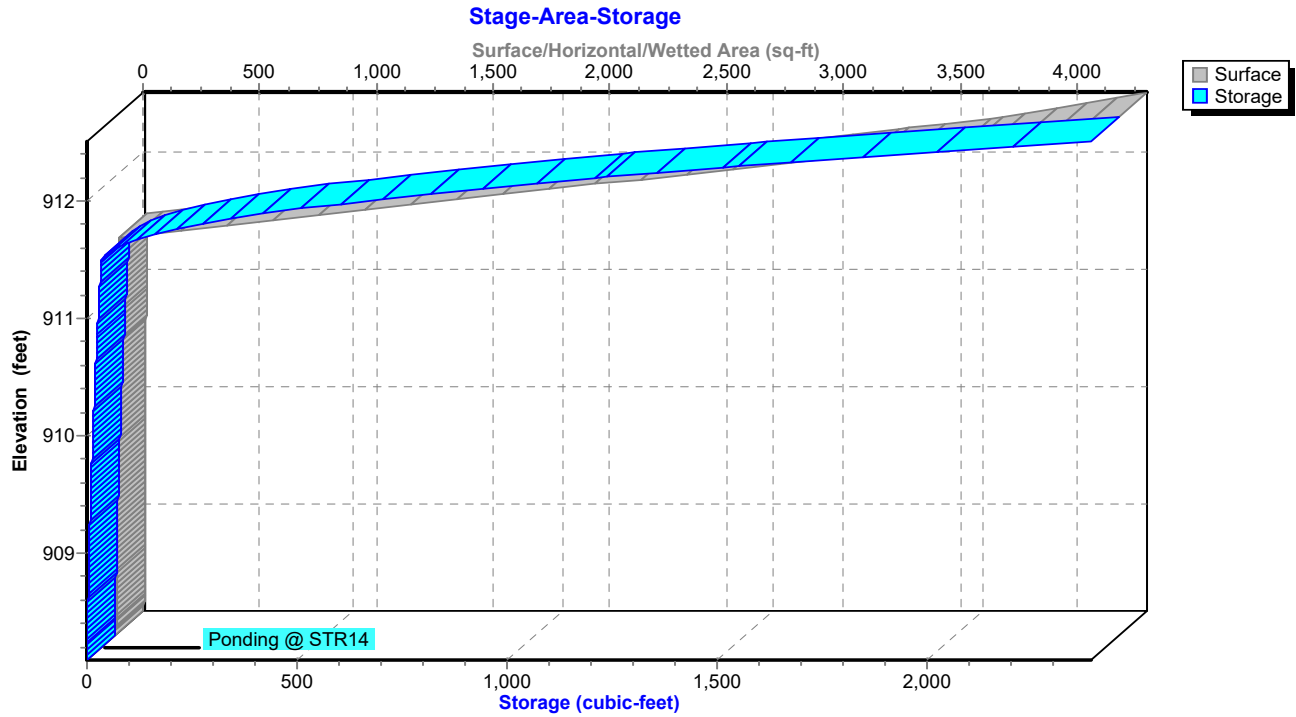
EXISTING EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Pond 14P: PONDING STR 14



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment XE: STRX

Runoff = 0.85 cfs @ 12.01 hrs, Volume= 0.054 af, Depth= 5.39"

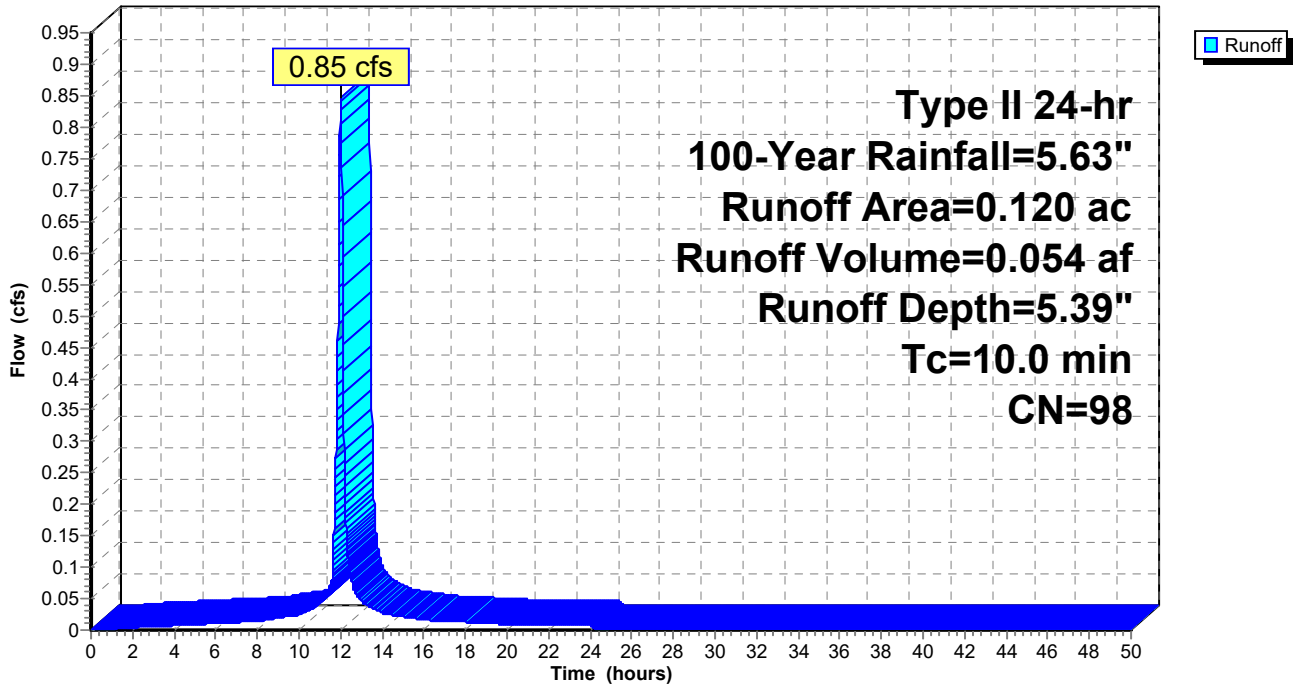
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph





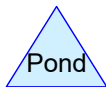
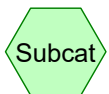
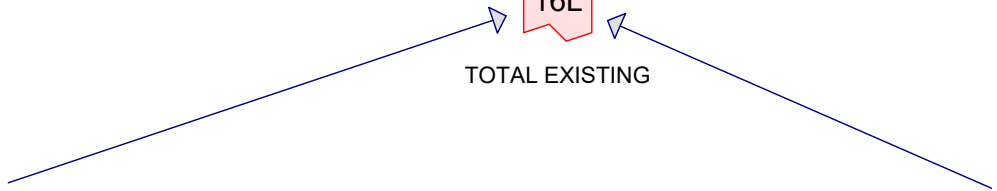
WEST



TOTAL EXISTING



EAST



Routing Diagram for 3481 MAG PORSCHE - EXISTING

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EXISTING TOTAL

Type II 24-hr 1-Year Rainfall=2.20"

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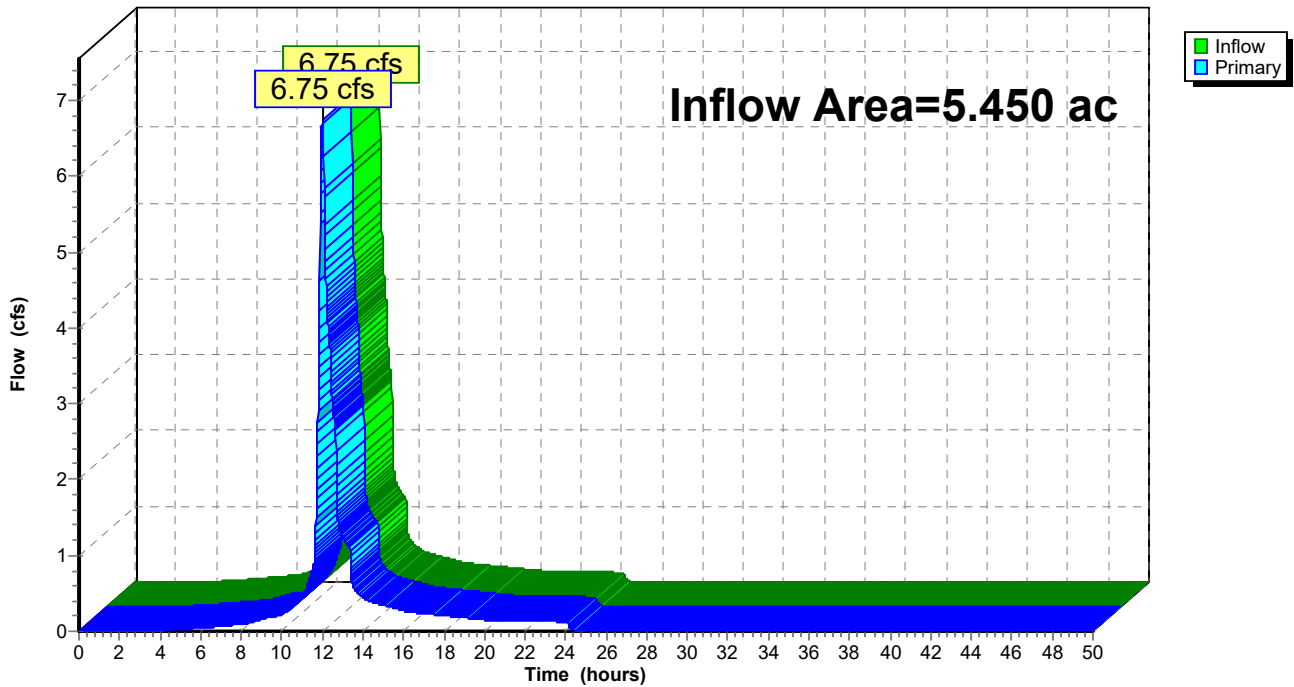
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.58" for 1-Year event
Inflow = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af
Primary = 6.75 cfs @ 12.04 hrs, Volume= 0.718 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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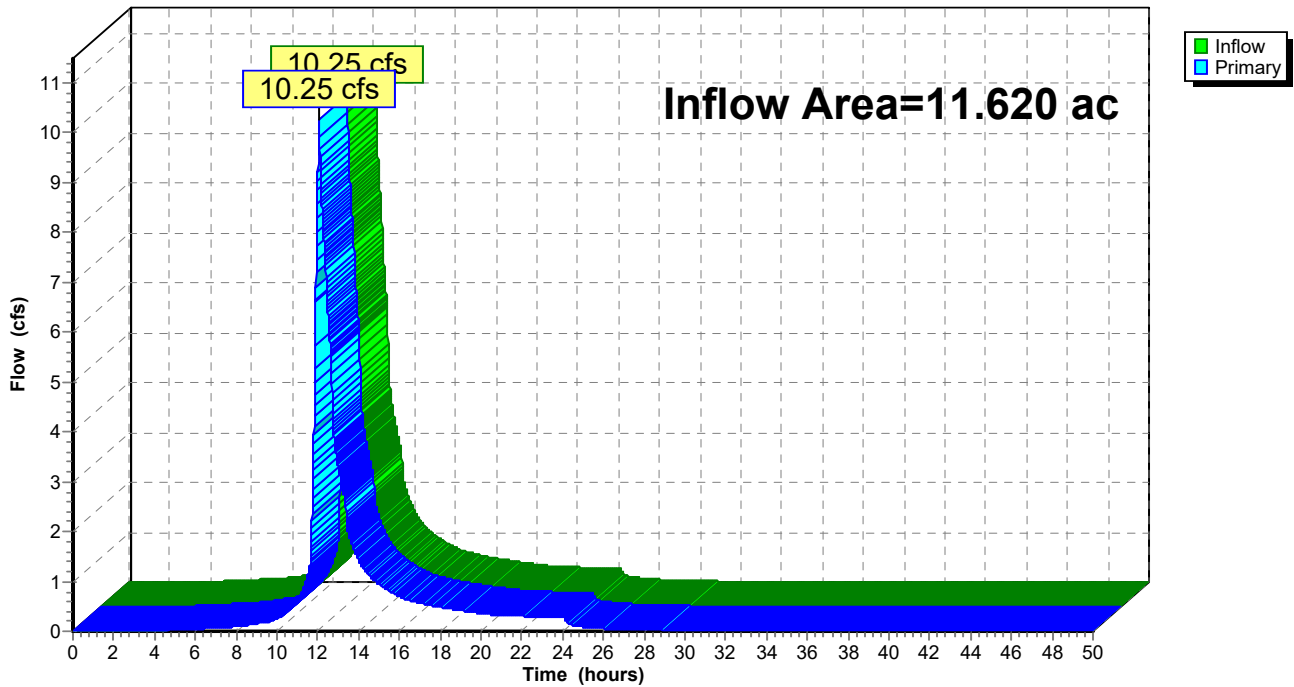
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 1.48" for 1-Year event
Inflow = 10.25 cfs @ 12.07 hrs, Volume= 1.430 af
Primary = 10.25 cfs @ 12.07 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

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Type II 24-hr 1-Year Rainfall=2.20"

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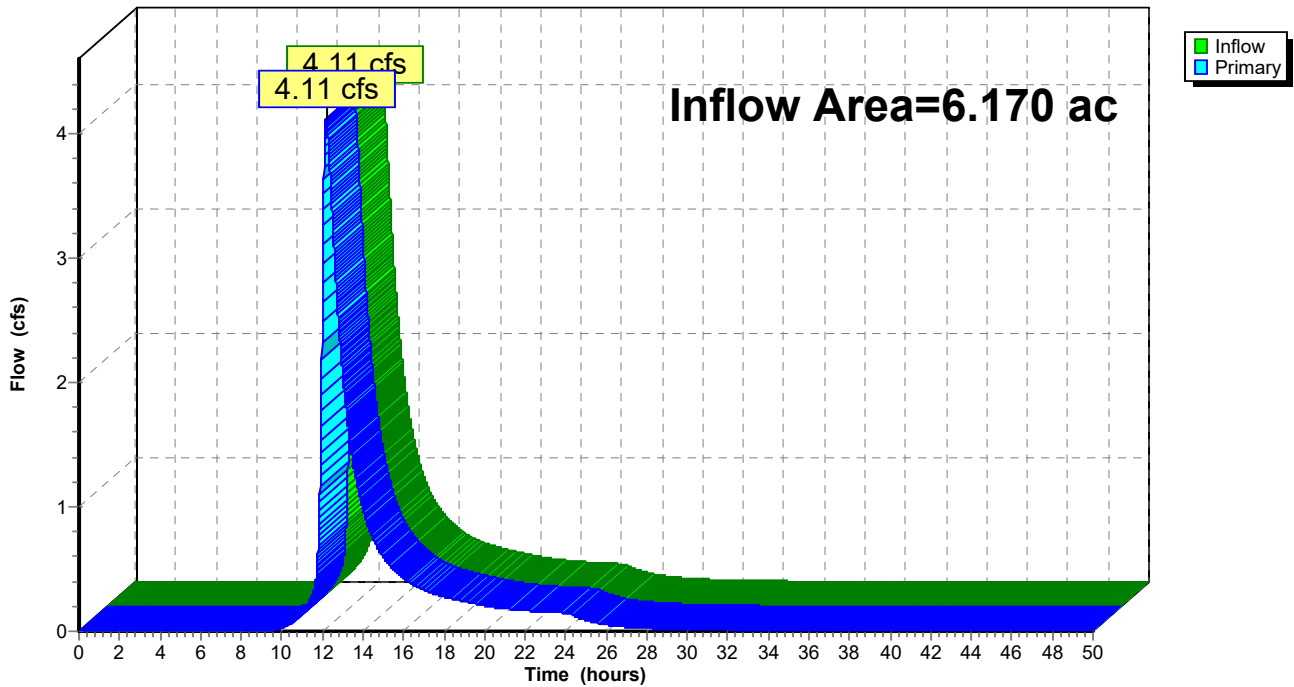
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth > 1.39" for 1-Year event
Inflow = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af
Primary = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING TOTAL

Type II 24-hr 2-Year Rainfall=2.63"

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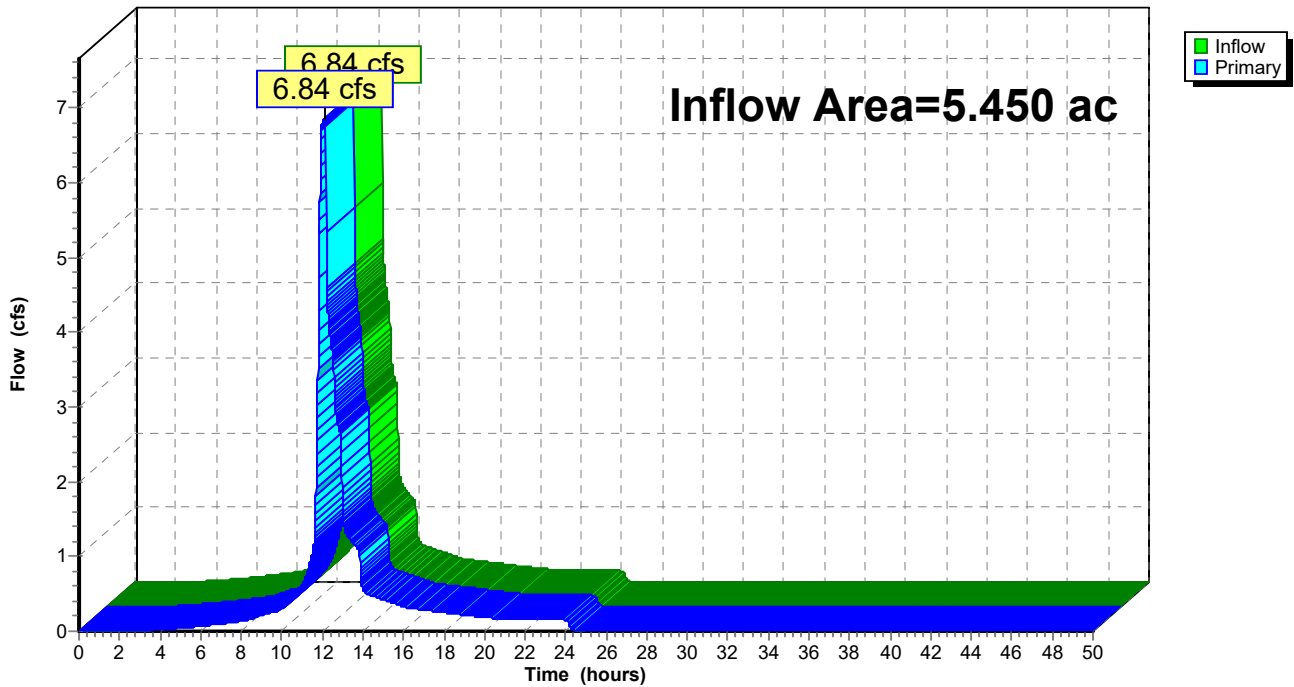
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 1.98" for 2-Year event
Inflow = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af
Primary = 6.84 cfs @ 12.08 hrs, Volume= 0.901 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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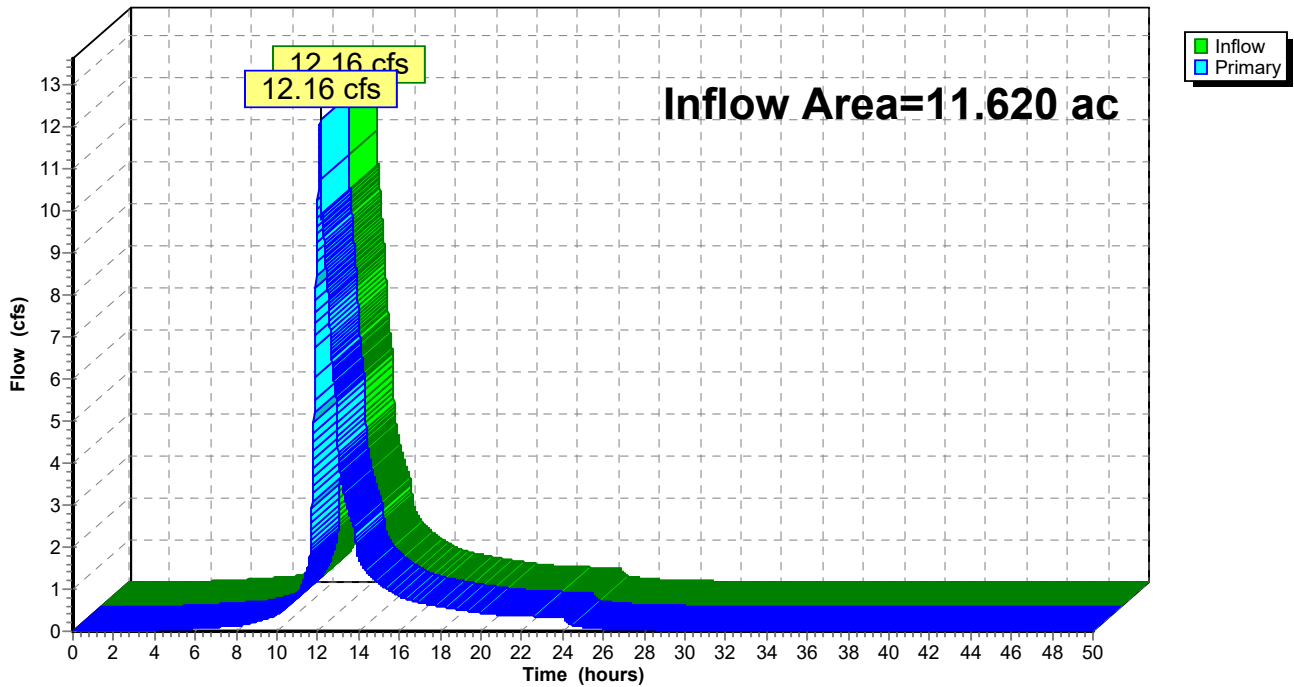
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 1.87" for 2-Year event
Inflow = 12.16 cfs @ 12.14 hrs, Volume= 1.813 af
Primary = 12.16 cfs @ 12.14 hrs, Volume= 1.813 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

Hydrograph



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EXISTING TOTAL

Type II 24-hr 2-Year Rainfall=2.63"

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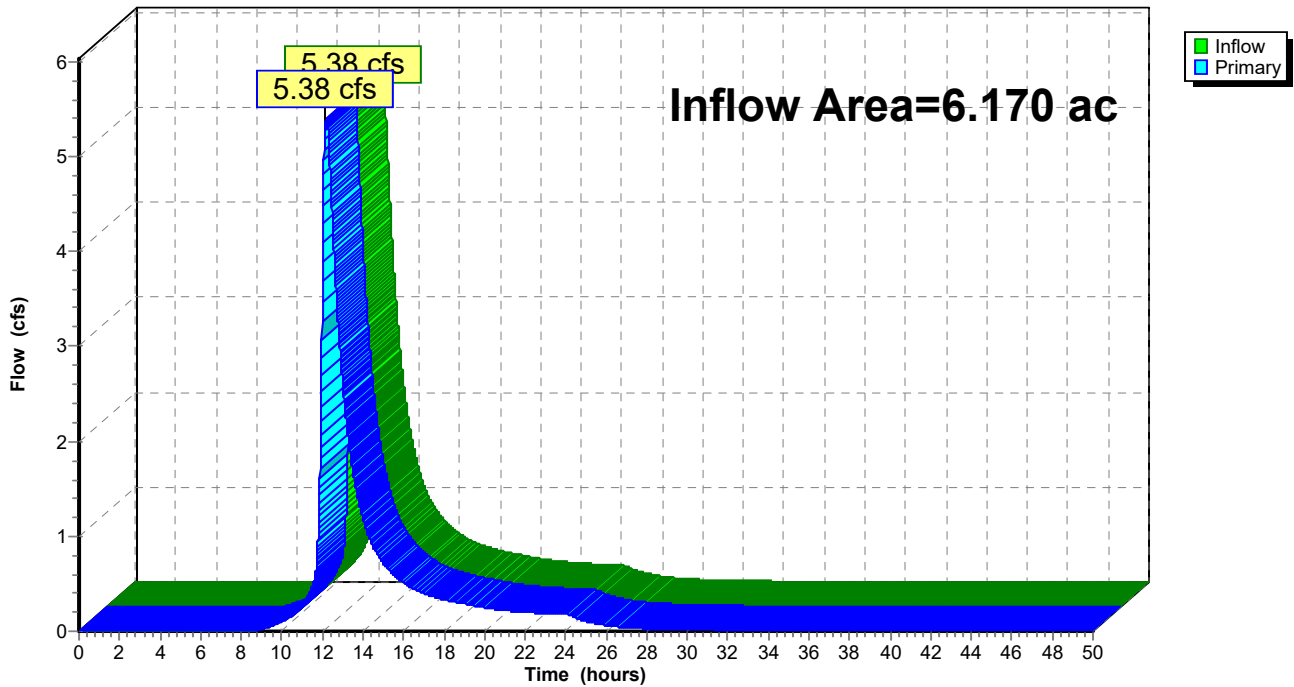
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 1.77" for 2-Year event
Inflow = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af
Primary = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING TOTAL

Type II 24-hr 5-Year Rainfall=3.24"

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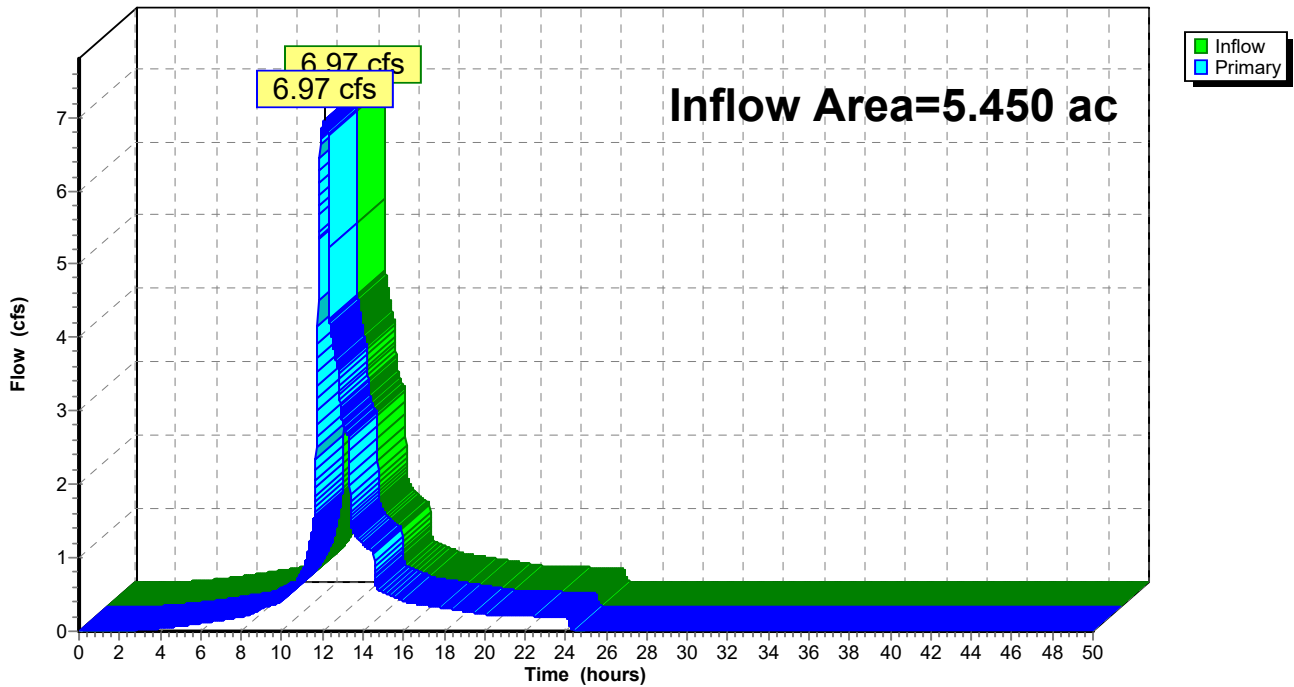
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 2.57" for 5-Year event
Inflow = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af
Primary = 6.97 cfs @ 12.11 hrs, Volume= 1.165 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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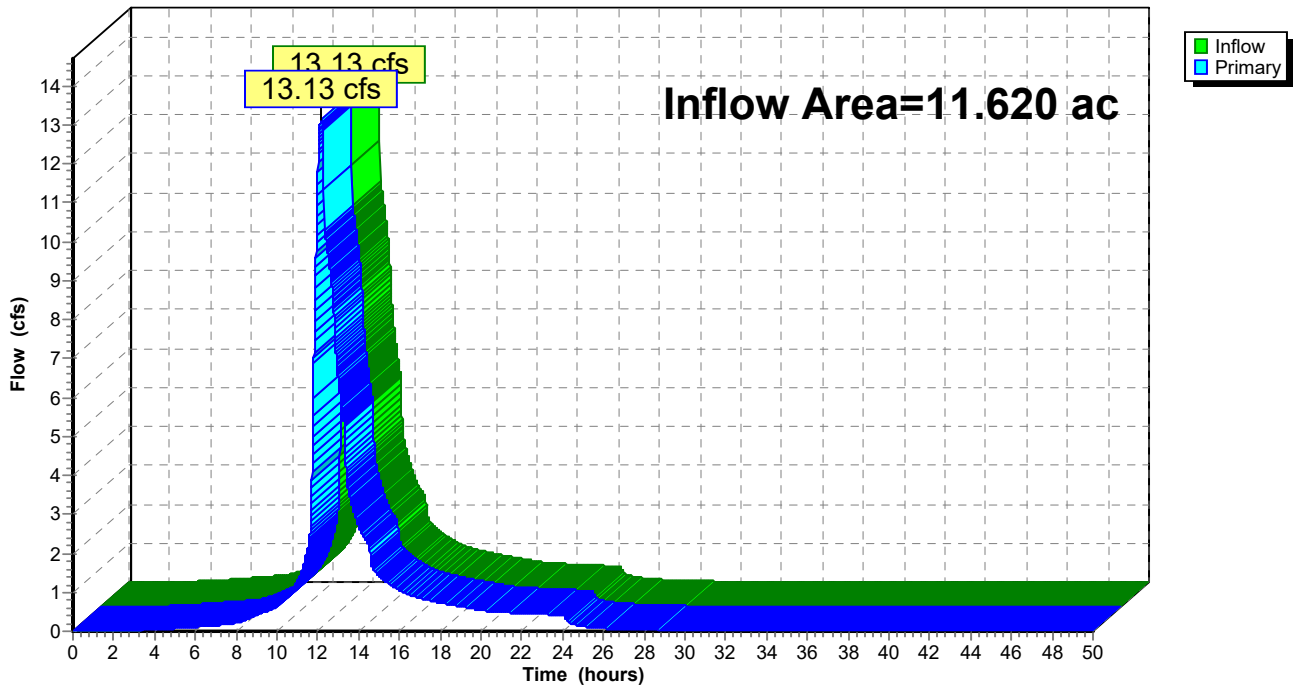
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 2.45" for 5-Year event
Inflow = 13.13 cfs @ 12.17 hrs, Volume= 2.368 af
Primary = 13.13 cfs @ 12.17 hrs, Volume= 2.368 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

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Type II 24-hr 5-Year Rainfall=3.24"

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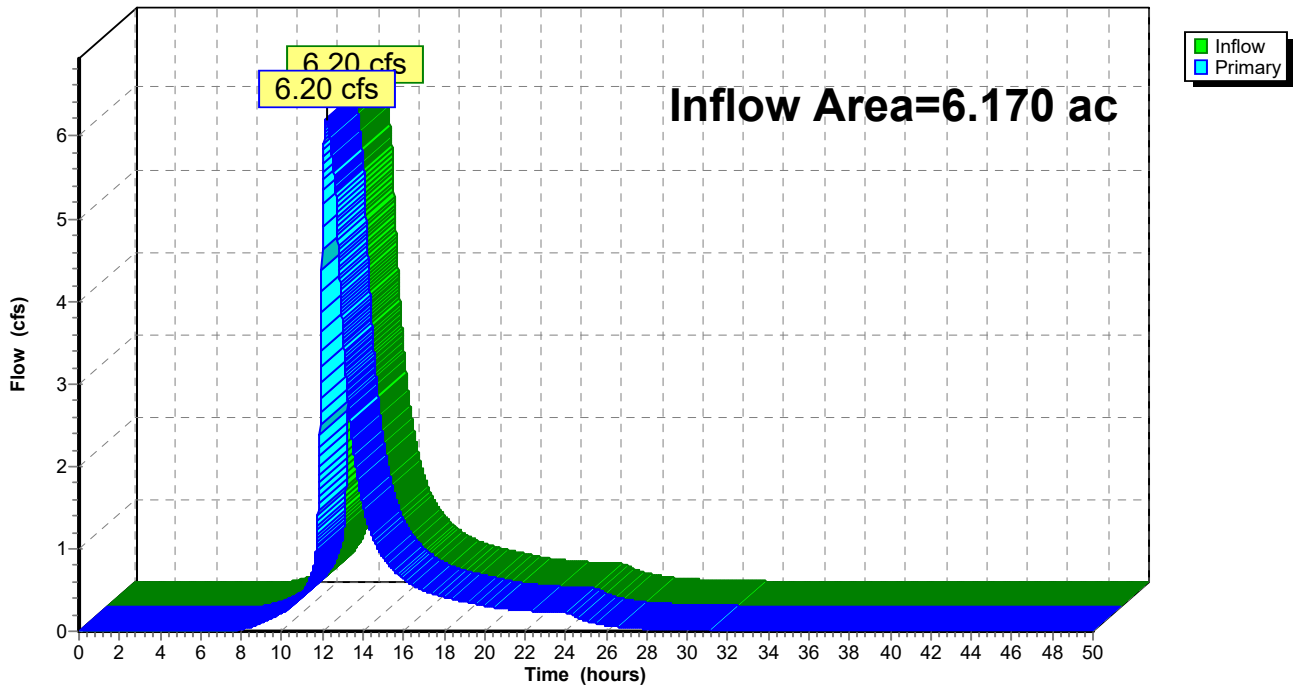
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.34" for 5-Year event
Inflow = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af
Primary = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

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Type II 24-hr 10-Year Rainfall=3.74"

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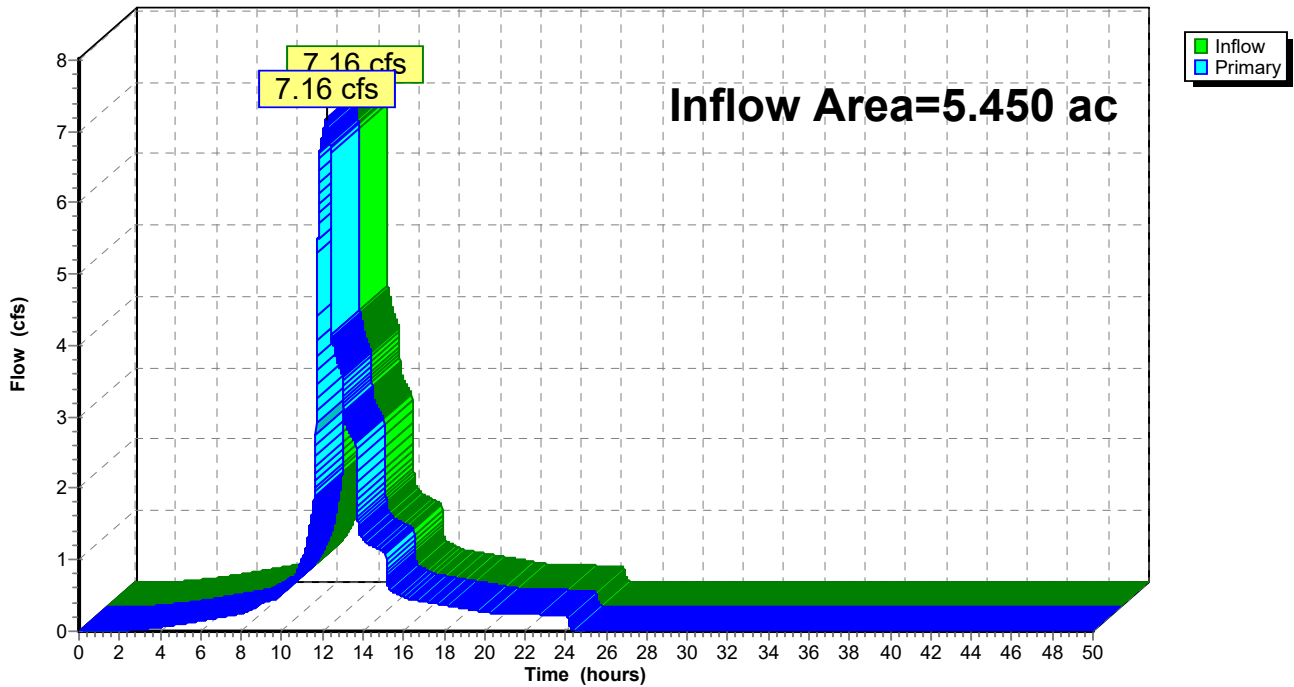
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.05" for 10-Year event
Inflow = 7.16 cfs @ 12.18 hrs, Volume= 1.384 af
Primary = 7.16 cfs @ 12.18 hrs, Volume= 1.384 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

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Type II 24-hr 10-Year Rainfall=3.74"

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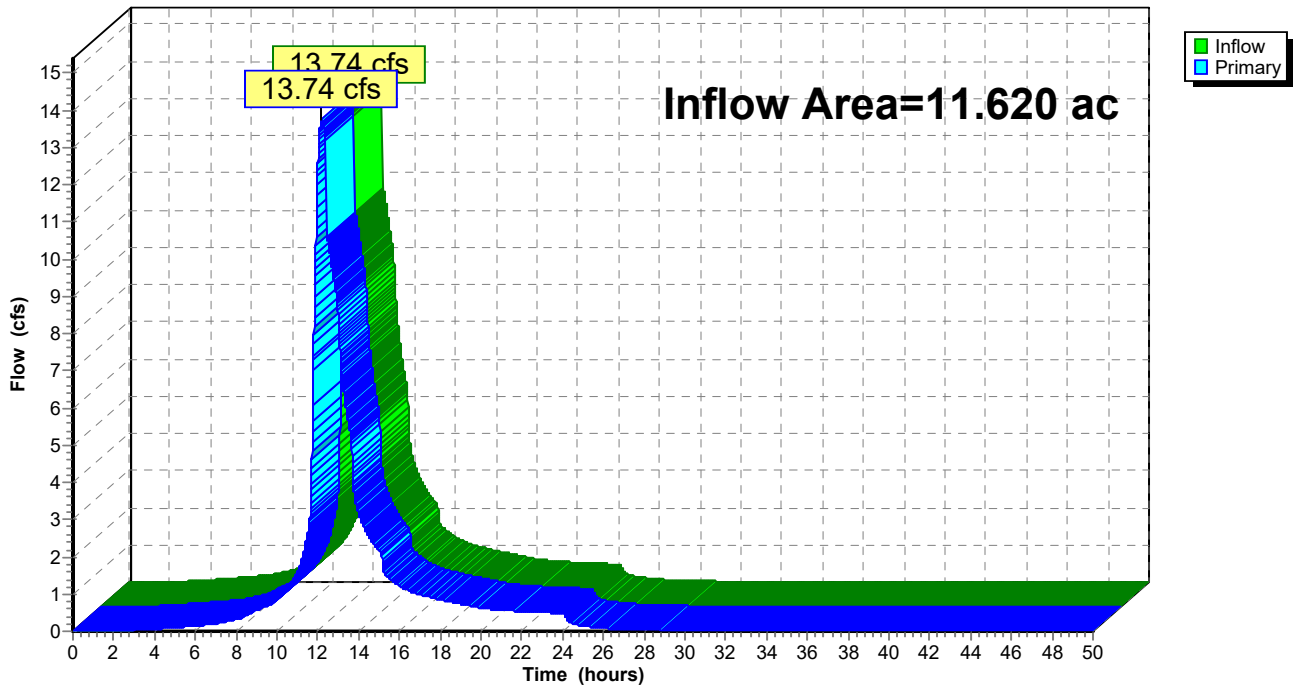
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 2.92" for 10-Year event
Inflow = 13.74 cfs @ 12.19 hrs, Volume= 2.829 af
Primary = 13.74 cfs @ 12.19 hrs, Volume= 2.829 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

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Type II 24-hr 10-Year Rainfall=3.74"

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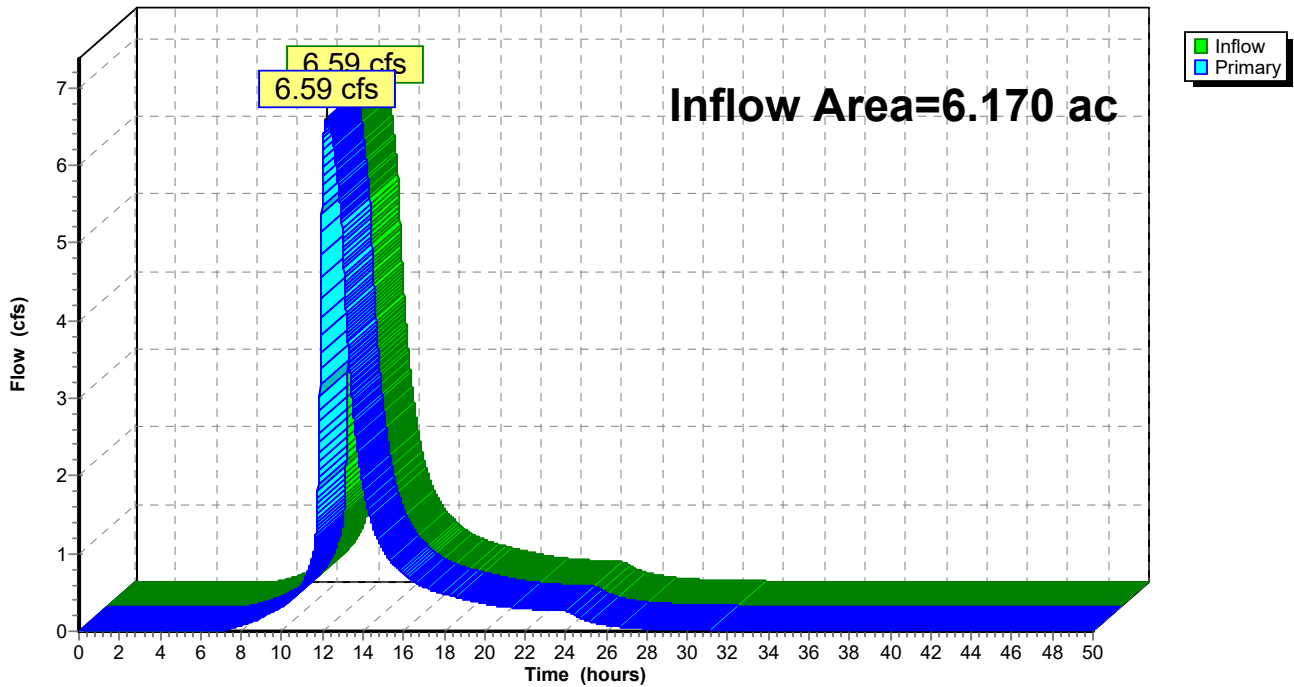
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.81" for 10-Year event
Inflow = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af
Primary = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

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Type II 24-hr 25-Year Rainfall=4.44"

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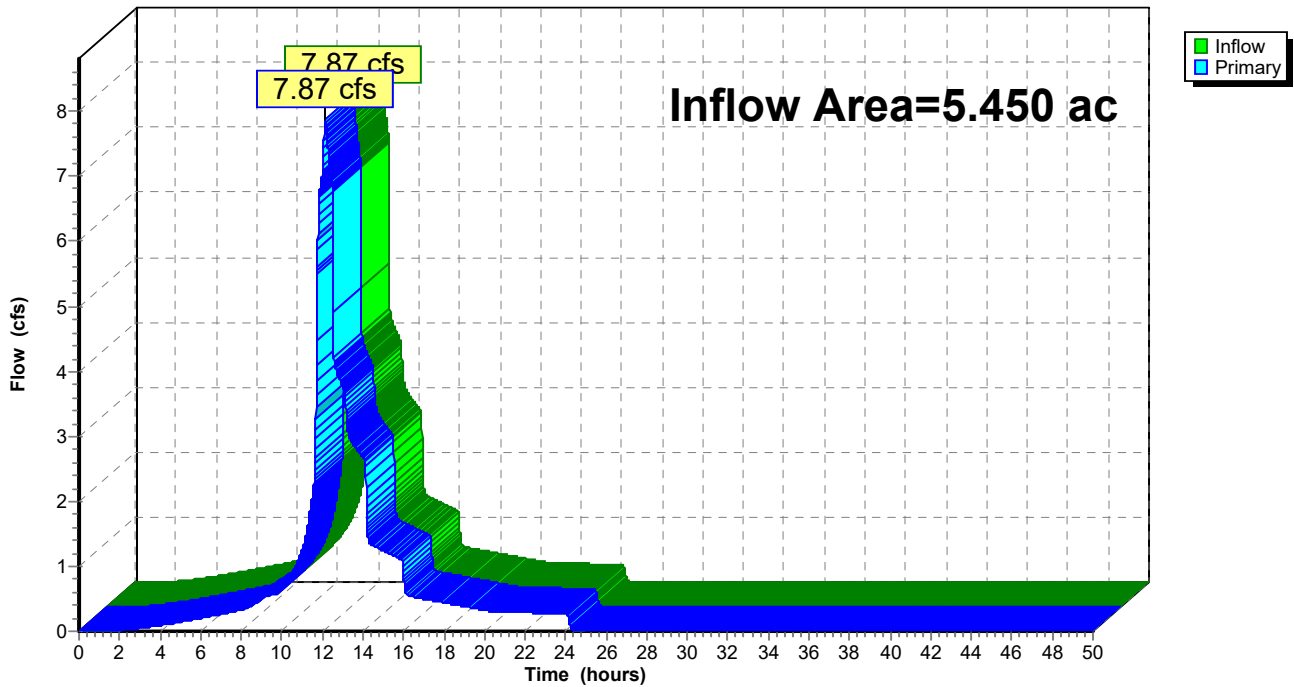
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 3.73" for 25-Year event
Inflow = 7.87 cfs @ 12.14 hrs, Volume= 1.693 af
Primary = 7.87 cfs @ 12.14 hrs, Volume= 1.693 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

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Type II 24-hr 25-Year Rainfall=4.44"

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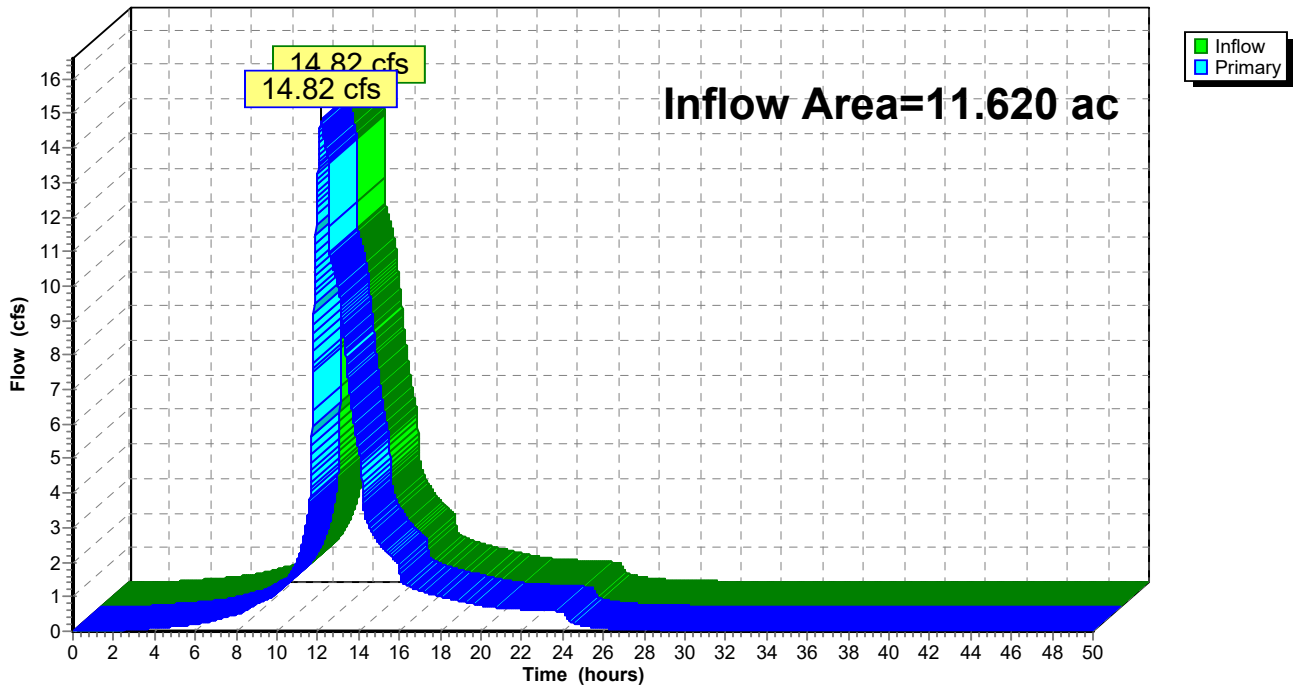
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 3.60" for 25-Year event
Inflow = 14.82 cfs @ 12.15 hrs, Volume= 3.481 af
Primary = 14.82 cfs @ 12.15 hrs, Volume= 3.481 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

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Type II 24-hr 25-Year Rainfall=4.44"

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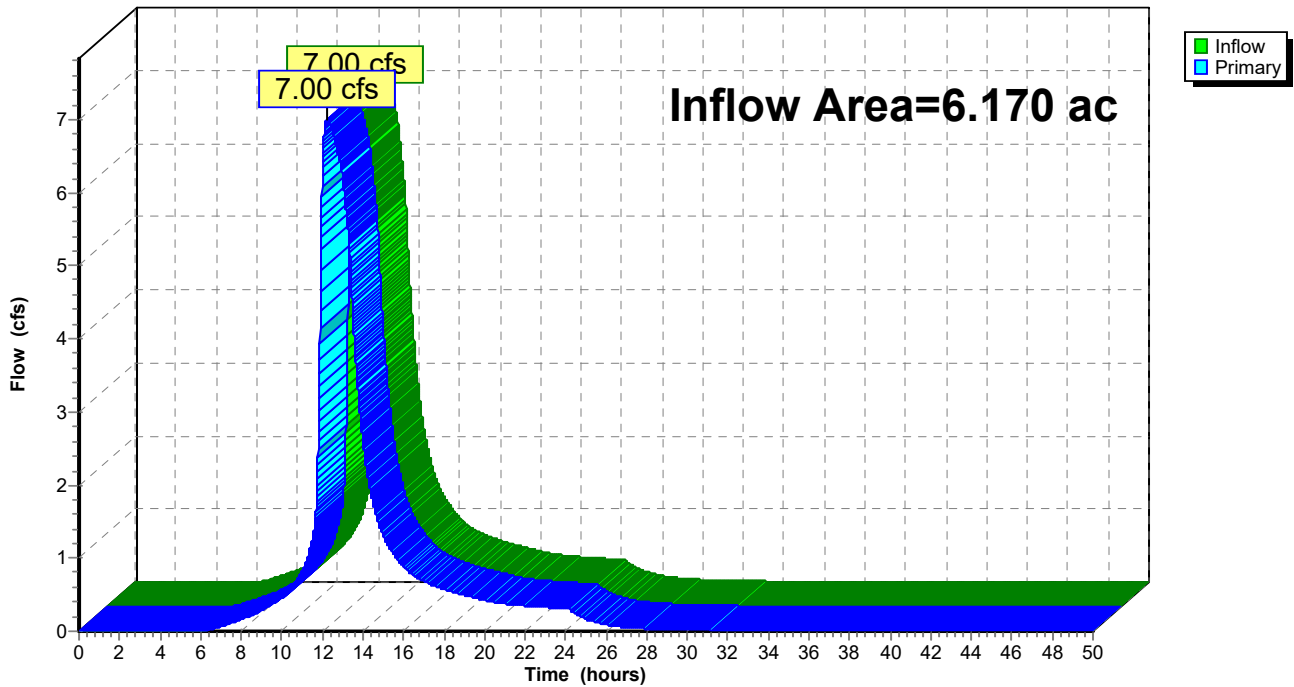
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 3.48" for 25-Year event
Inflow = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af
Primary = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

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EXISTING TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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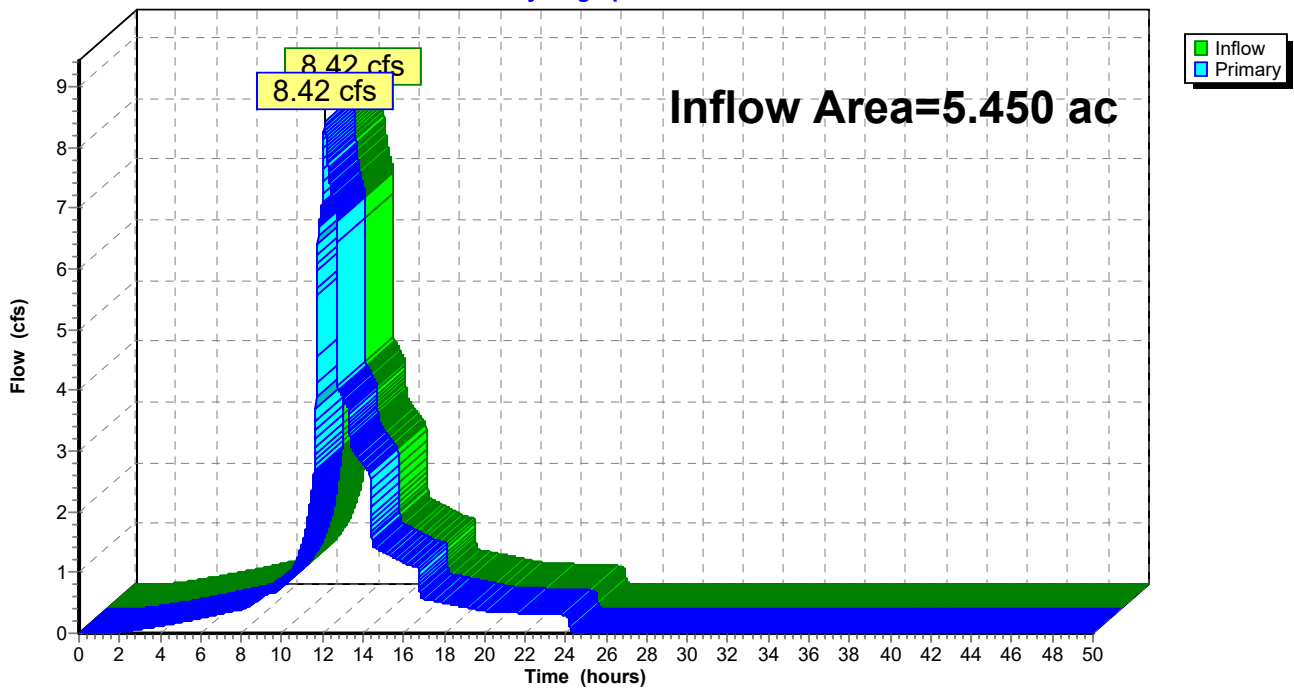
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.30" for 50-Year event
Inflow = 8.42 cfs @ 12.12 hrs, Volume= 1.951 af
Primary = 8.42 cfs @ 12.12 hrs, Volume= 1.951 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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EXISTING TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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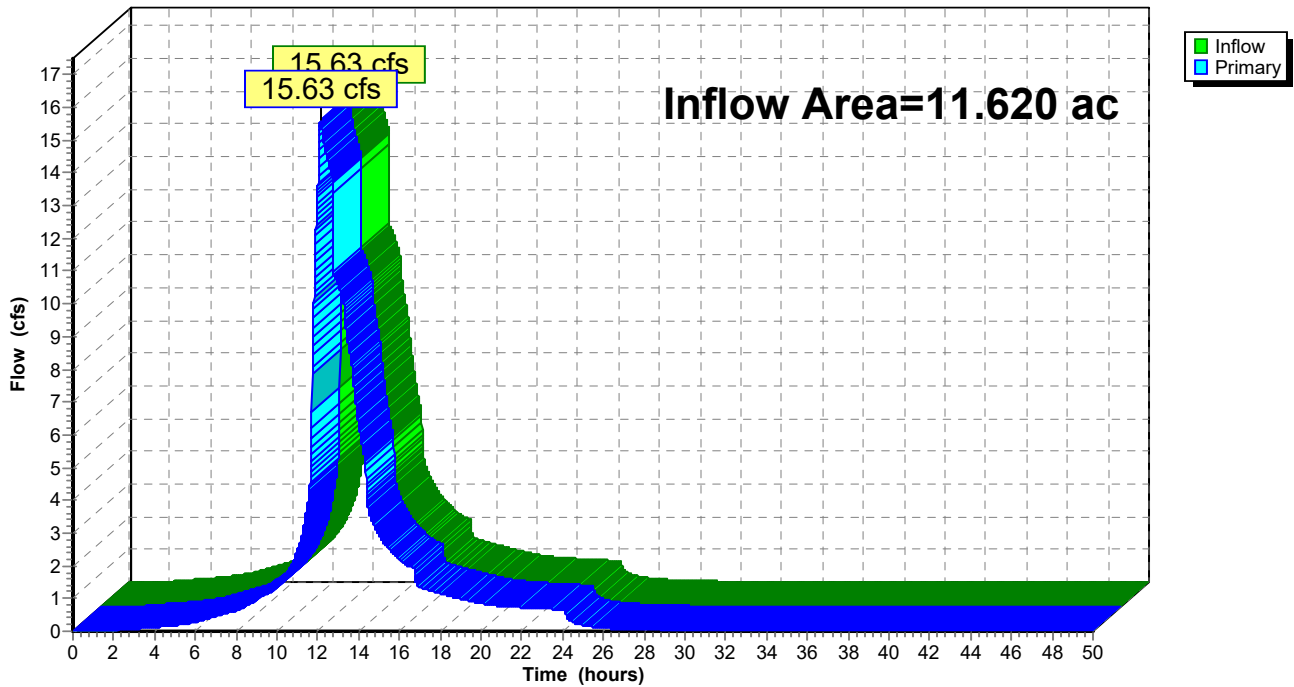
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 4.16" for 50-Year event
Inflow = 15.63 cfs @ 12.13 hrs, Volume= 4.026 af
Primary = 15.63 cfs @ 12.13 hrs, Volume= 4.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

Hydrograph



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EXISTING TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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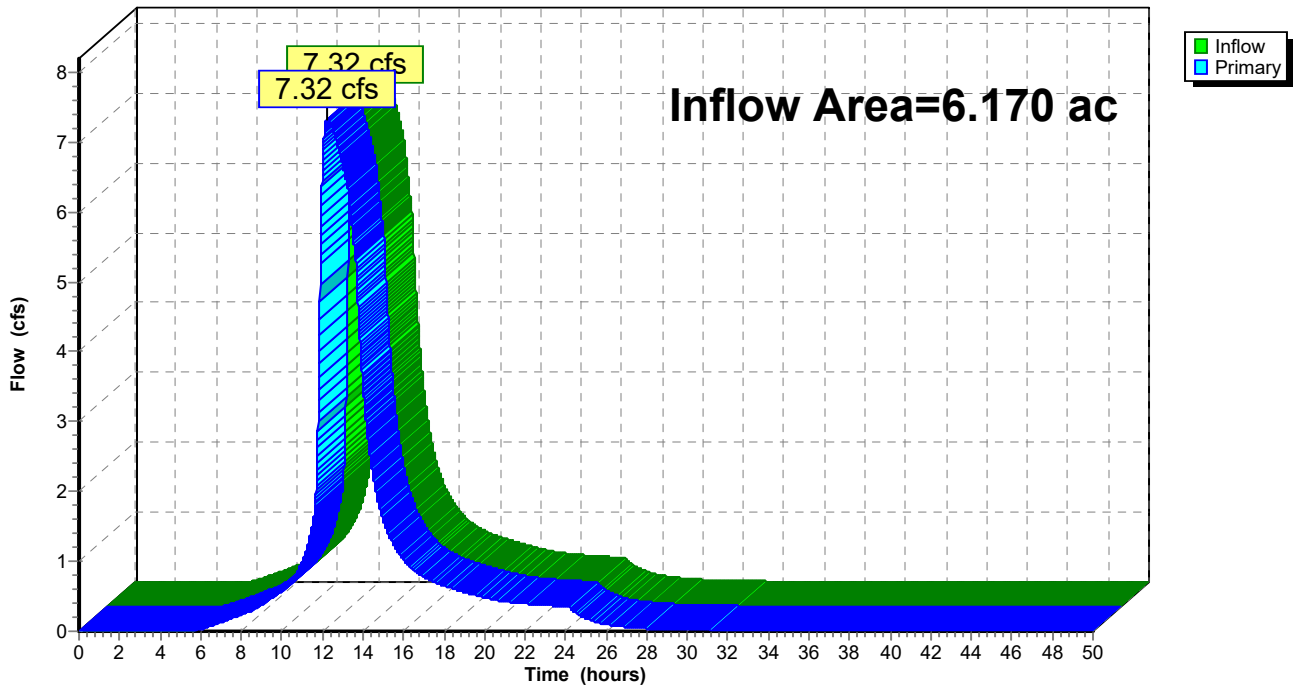
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.04" for 50-Year event
Inflow = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af
Primary = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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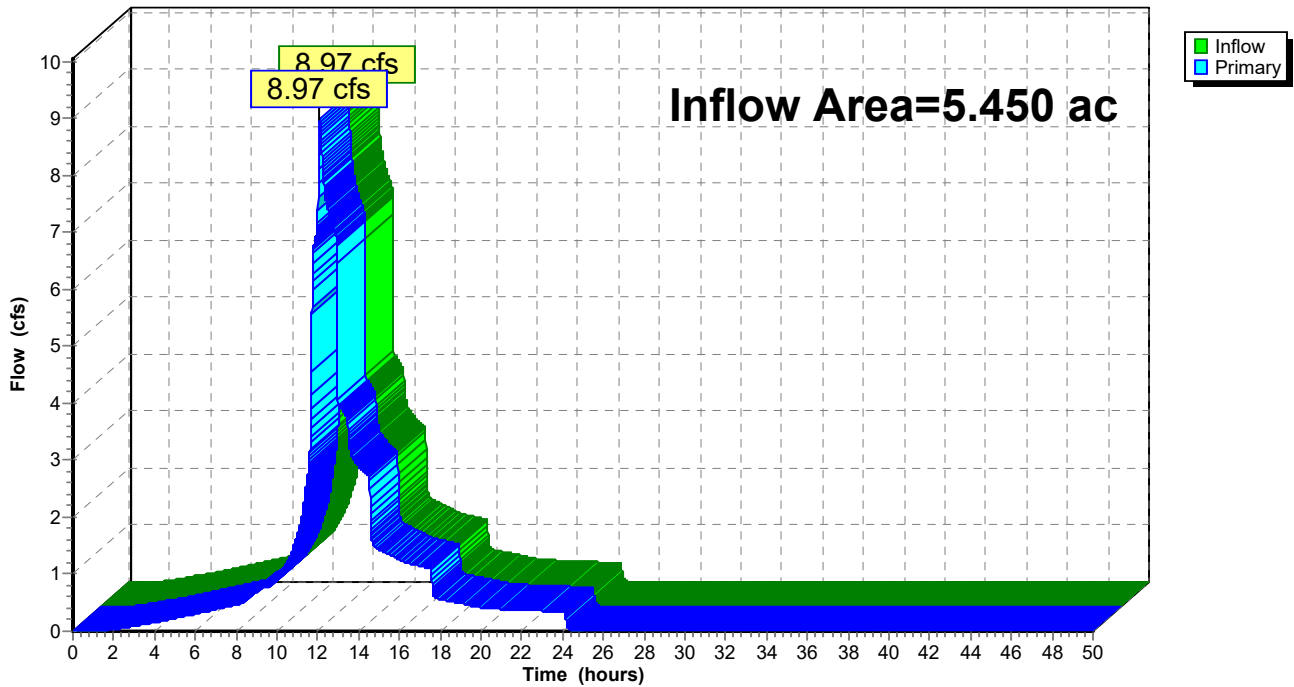
Summary for Link 1L: EAST

Inflow Area = 5.450 ac, 78.72% Impervious, Inflow Depth = 4.90" for 100-Year event
Inflow = 8.97 cfs @ 12.10 hrs, Volume= 2.223 af
Primary = 8.97 cfs @ 12.10 hrs, Volume= 2.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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EXISTING TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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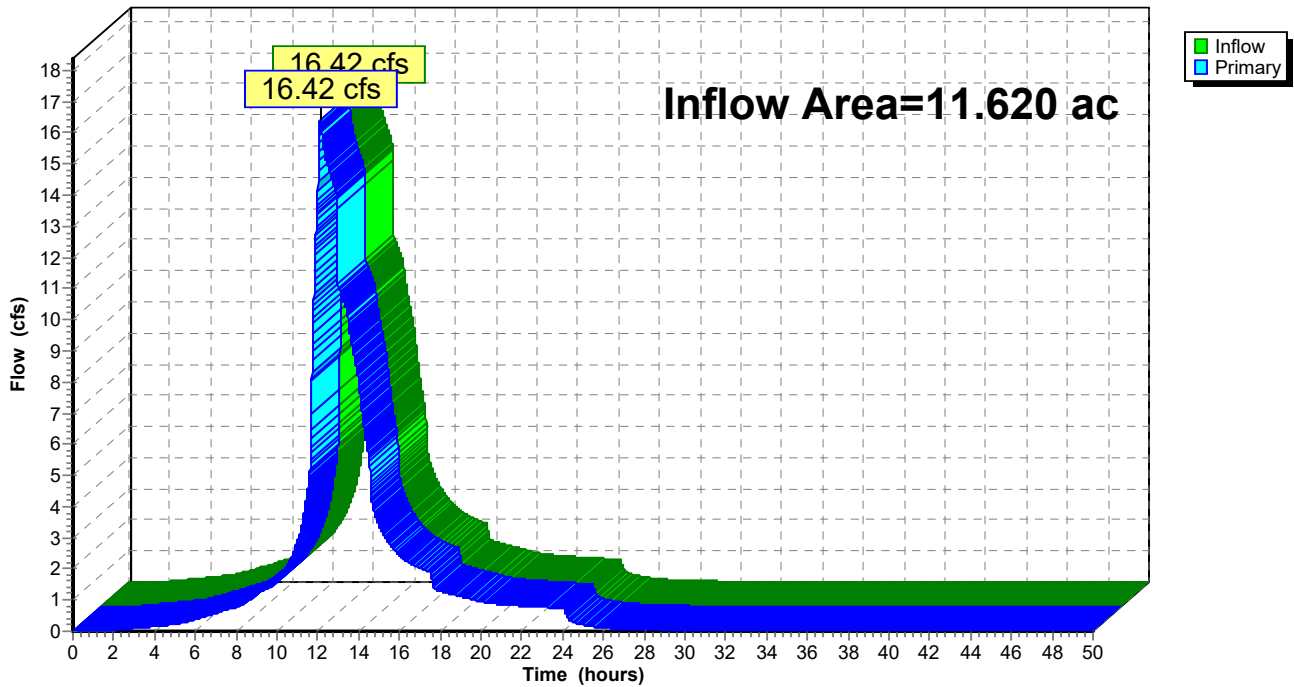
Summary for Link 16L: TOTAL EXISTING

Inflow Area = 11.620 ac, 73.75% Impervious, Inflow Depth = 4.75" for 100-Year event
Inflow = 16.42 cfs @ 12.12 hrs, Volume= 4.603 af
Primary = 16.42 cfs @ 12.12 hrs, Volume= 4.603 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL EXISTING

Hydrograph



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EXISTING TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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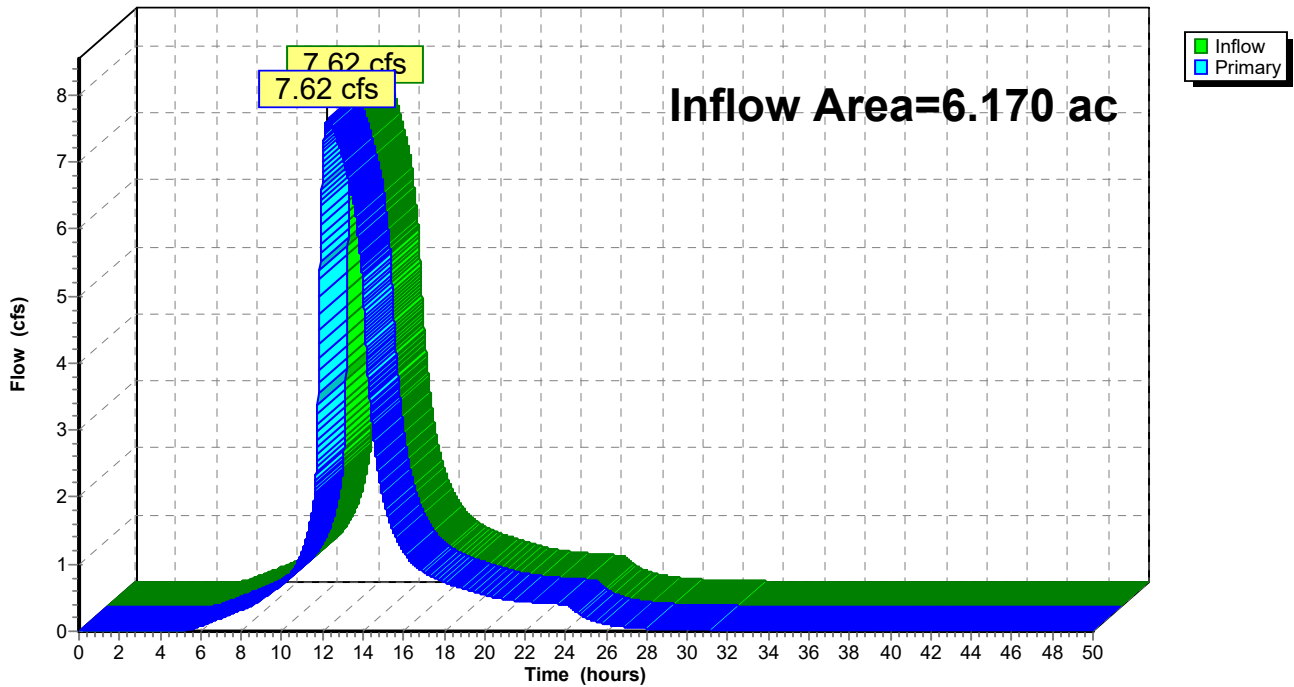
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.63" for 100-Year event
Inflow = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af
Primary = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af, Atten= 0%, Lag= 0.0 min

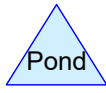
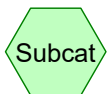
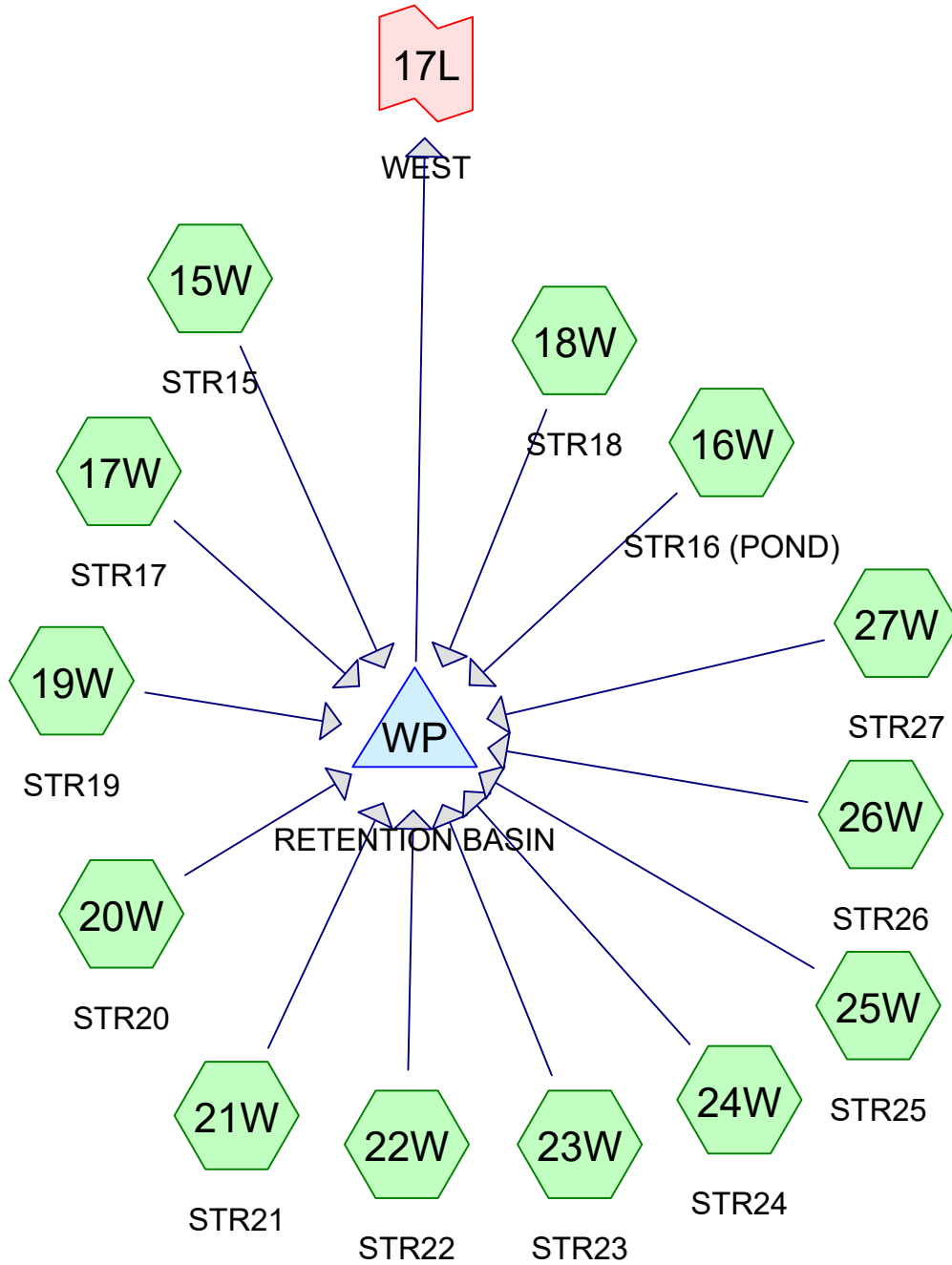
Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



EXISTING WEST TRIB



Routing Diagram for 3481 MAG PORSCHE - EXISTING
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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 15W: STR15

Runoff = 1.28 cfs @ 12.01 hrs, Volume= 0.071 af, Depth= 1.50"

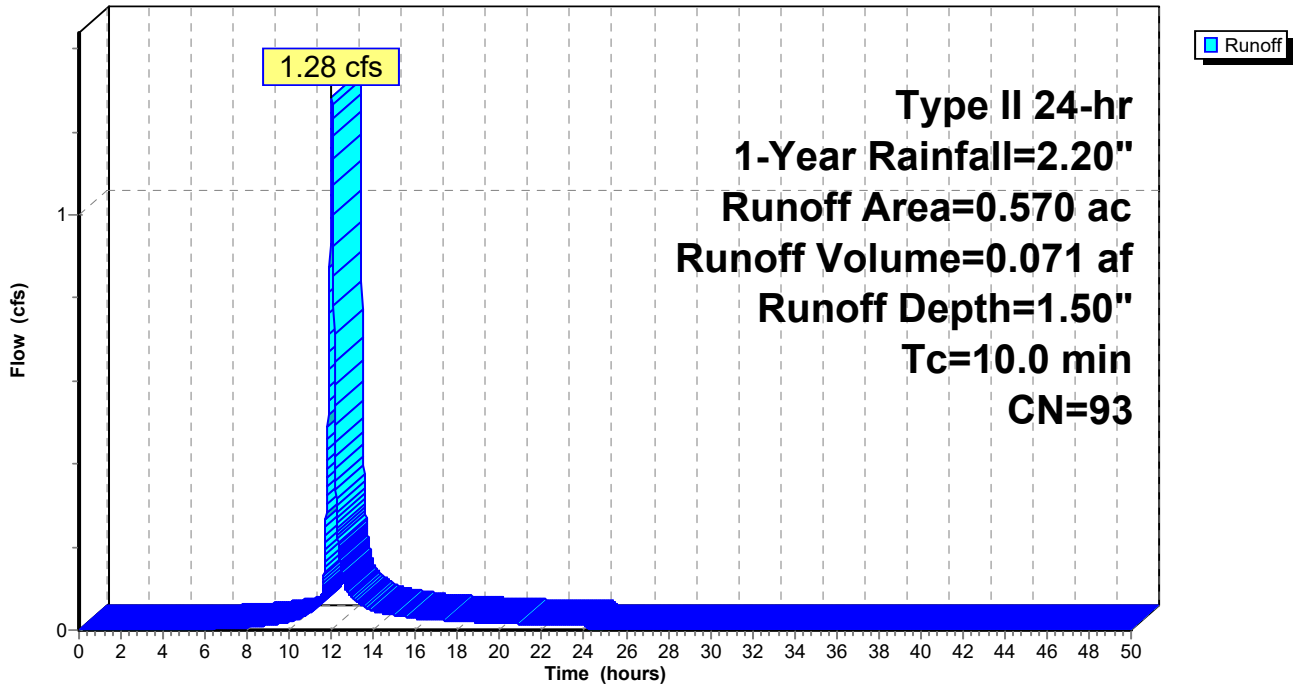
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 1.10 cfs @ 12.03 hrs, Volume= 0.061 af, Depth= 0.69"

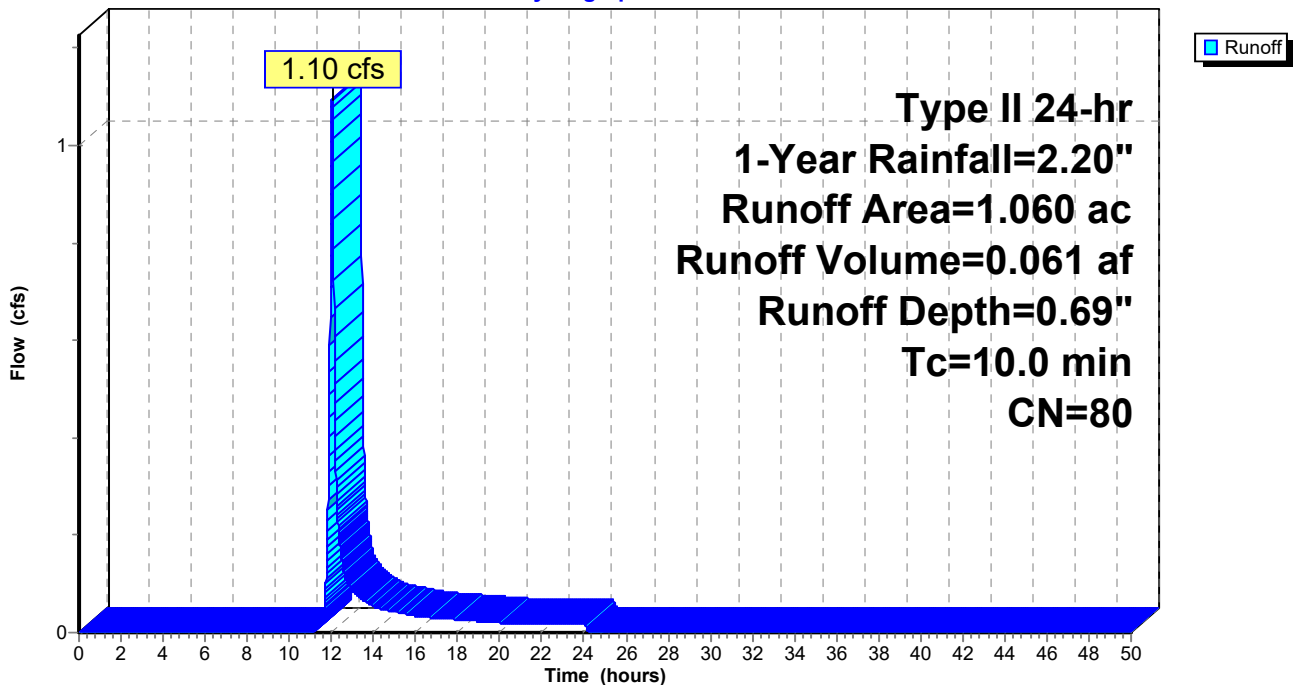
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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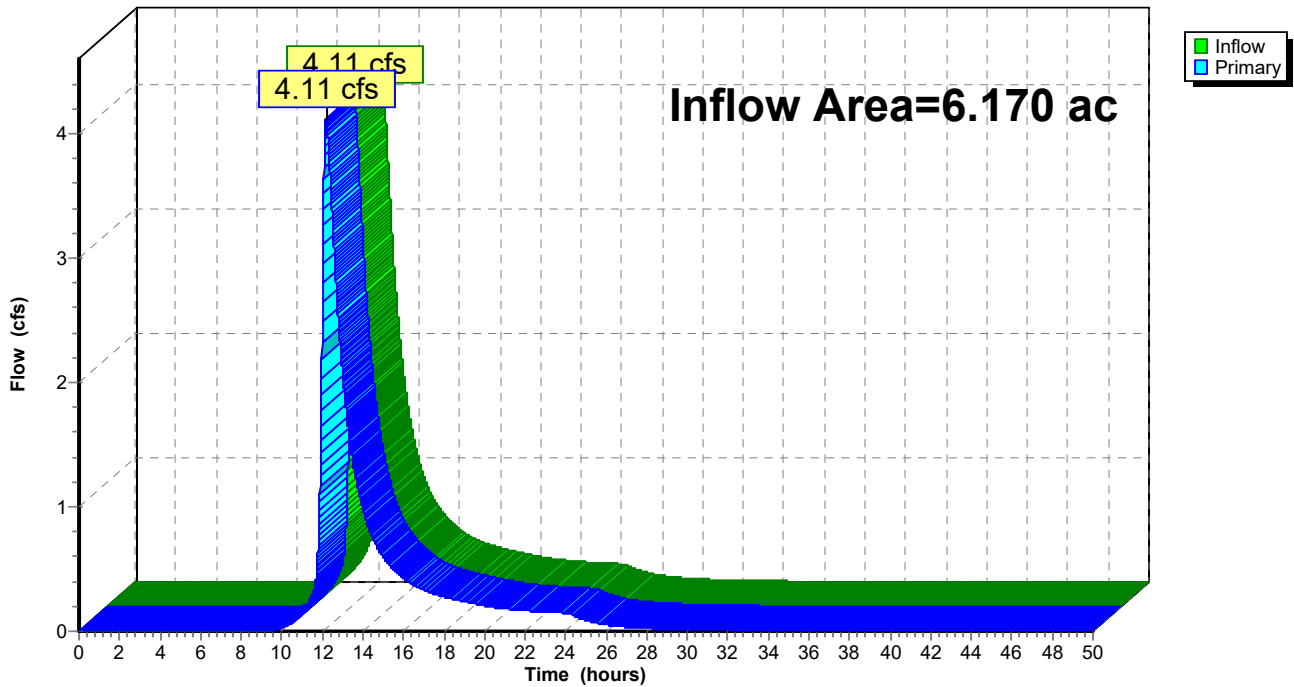
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth > 1.39" for 1-Year event
Inflow = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af
Primary = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 17W: STR17

Runoff = 1.56 cfs @ 12.01 hrs, Volume= 0.087 af, Depth= 1.58"

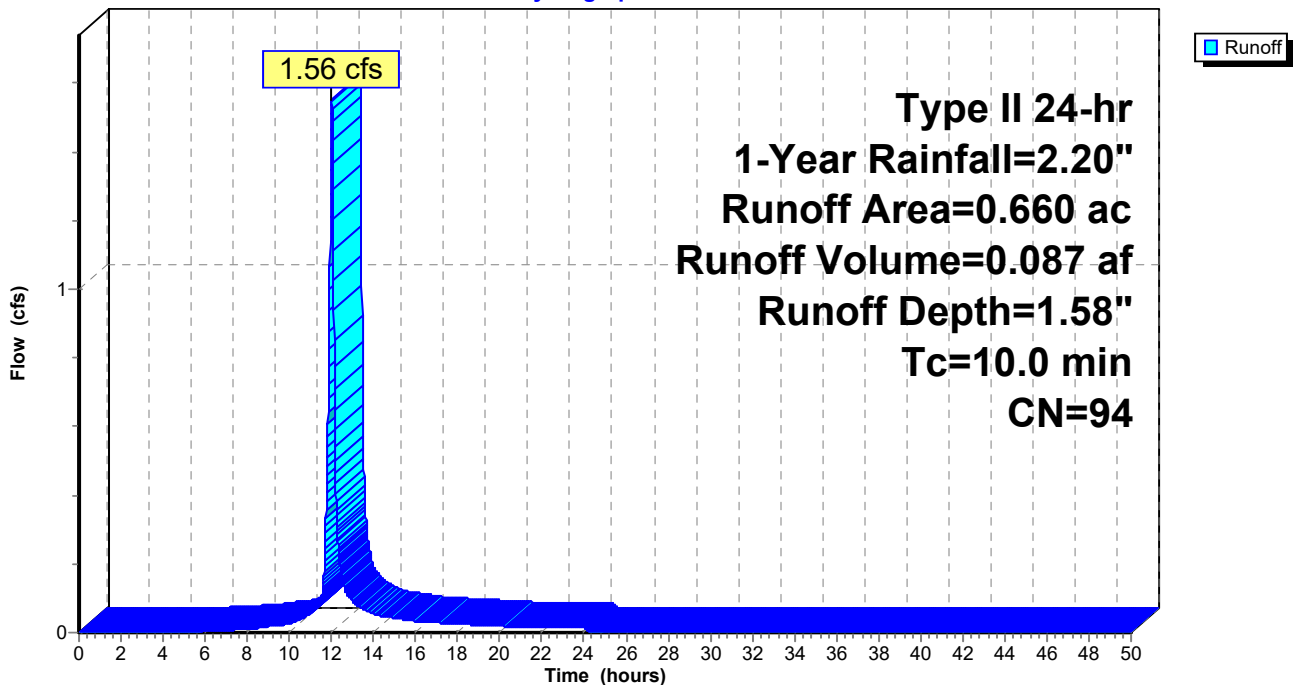
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 18W: STR18

Runoff = 0.33 cfs @ 12.01 hrs, Volume= 0.019 af, Depth= 1.77"

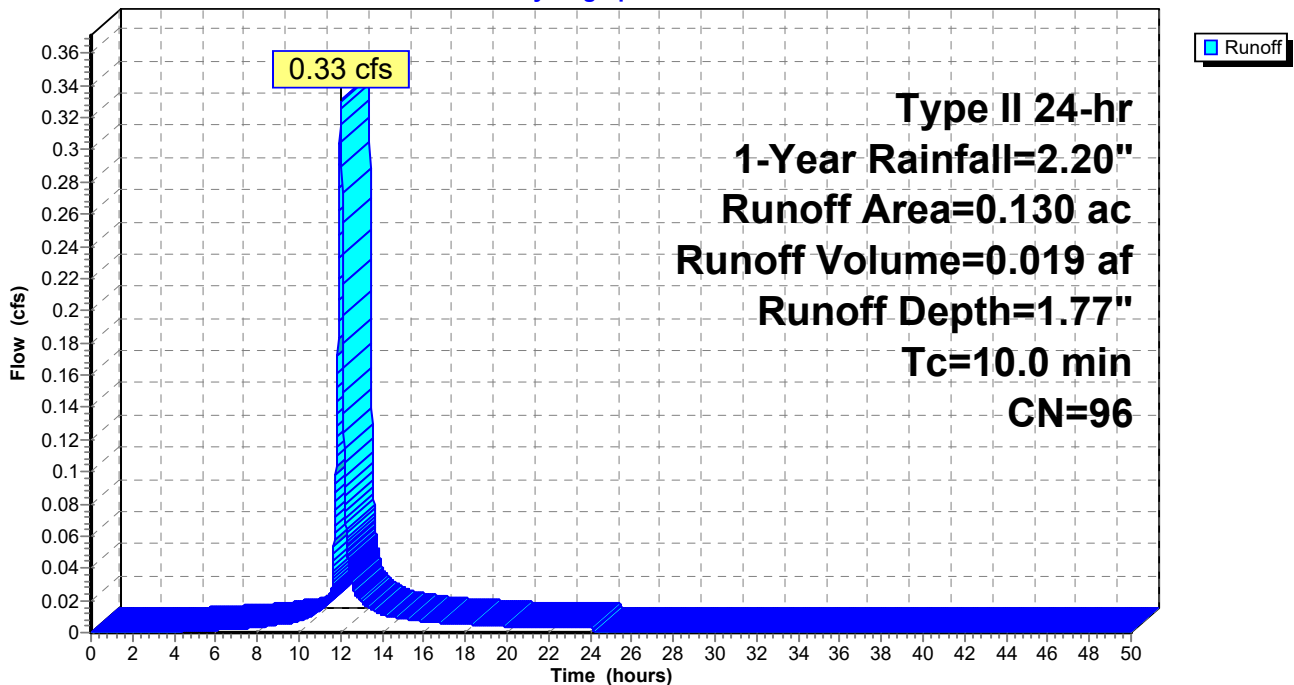
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 19W: STR19

Runoff = 0.95 cfs @ 12.01 hrs, Volume= 0.052 af, Depth= 1.50"

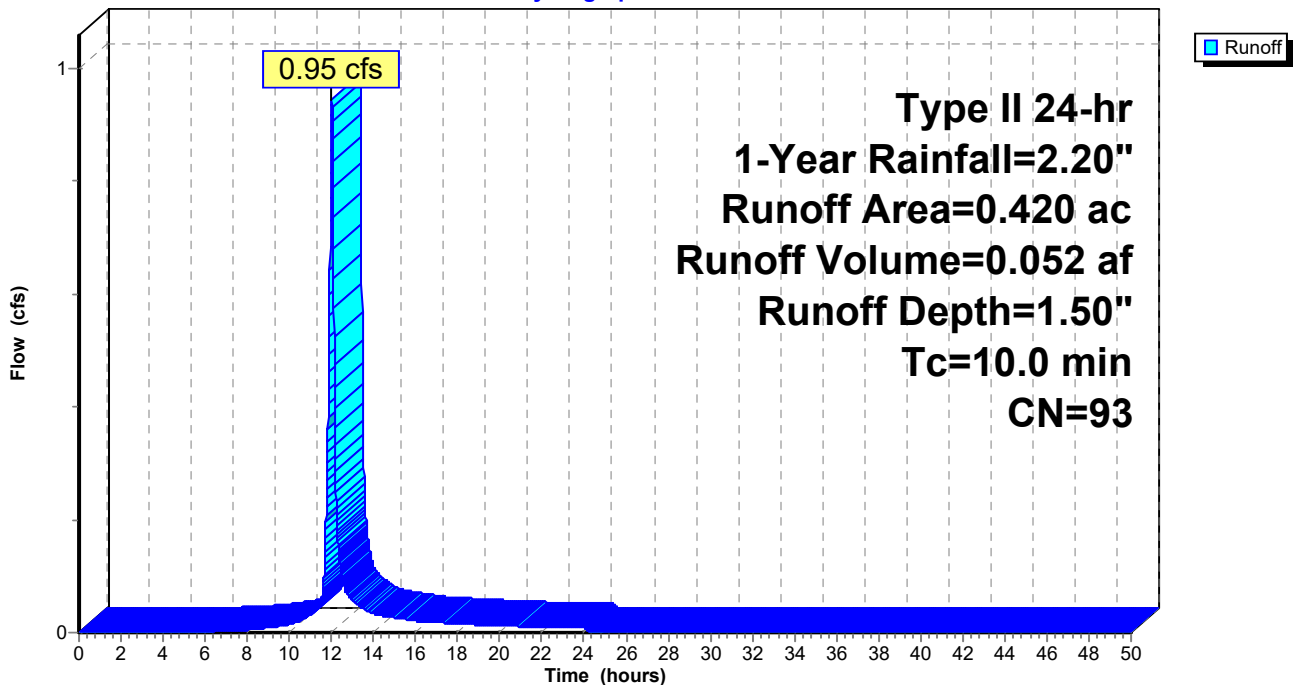
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 20W: STR20

Runoff = 1.29 cfs @ 12.01 hrs, Volume= 0.070 af, Depth= 1.34"

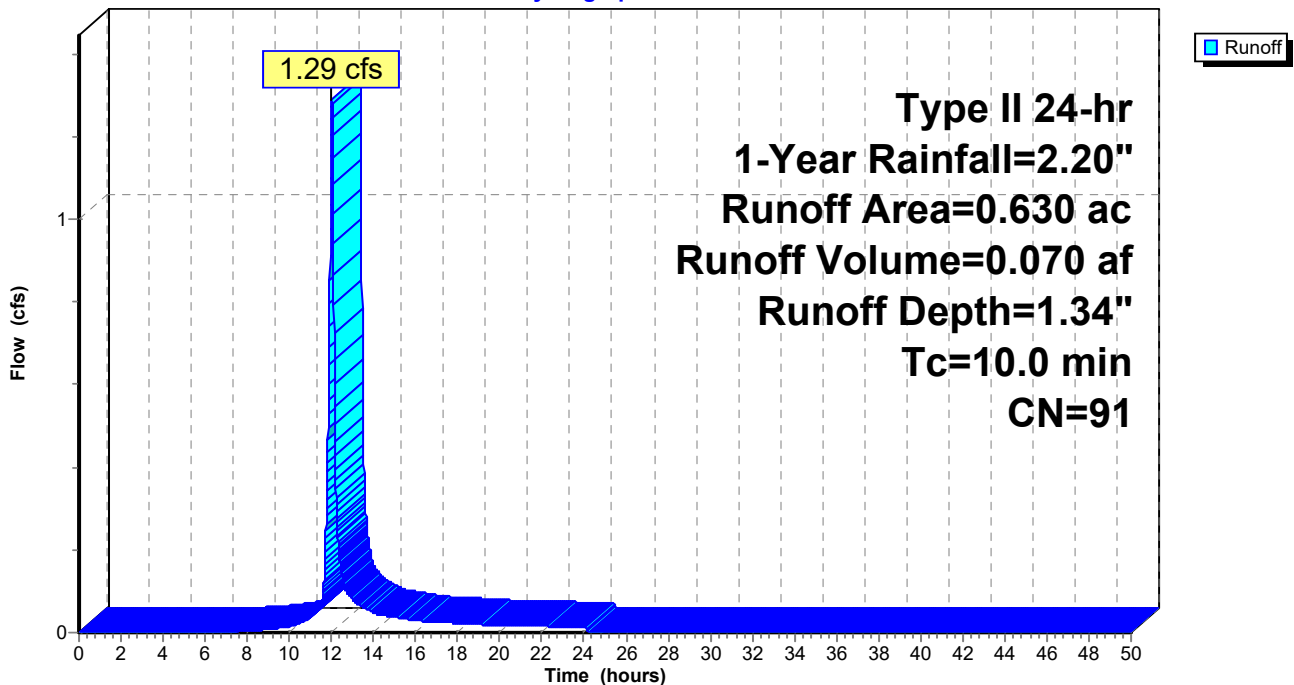
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 21W: STR21

Runoff = 1.53 cfs @ 12.01 hrs, Volume= 0.088 af, Depth= 1.77"

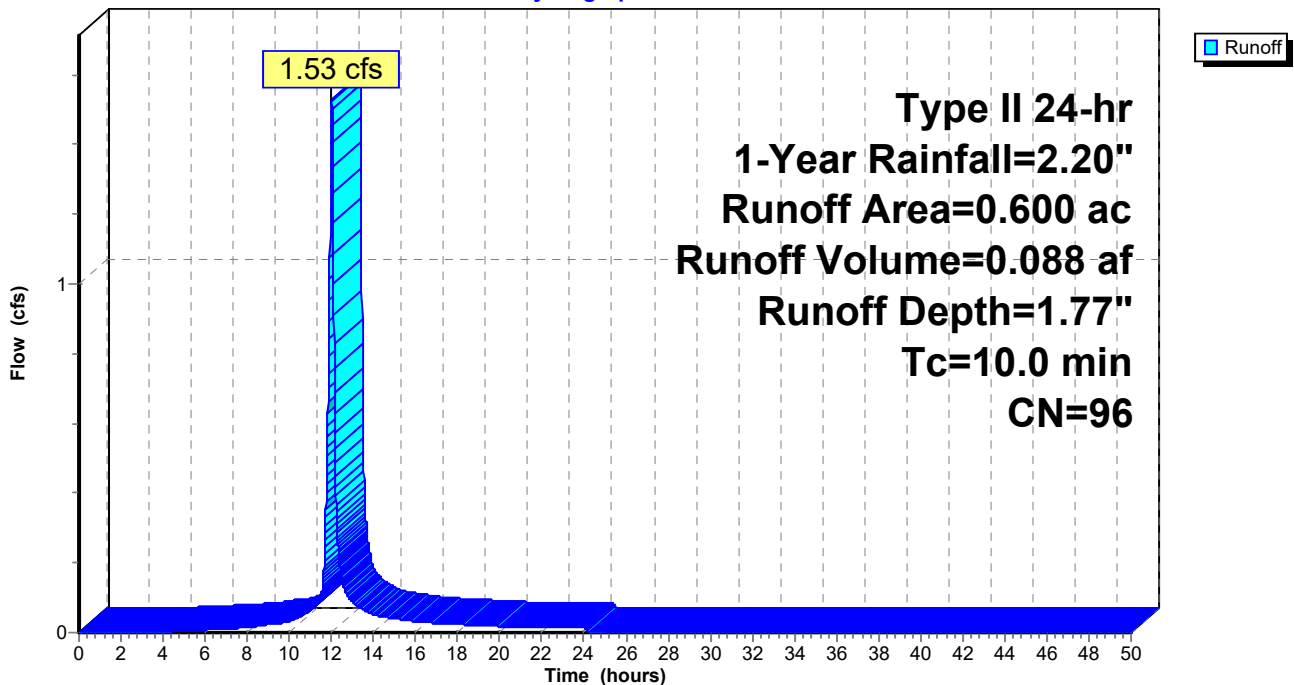
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 22W: STR22

Runoff = 1.99 cfs @ 12.01 hrs, Volume= 0.113 af, Depth= 1.67"

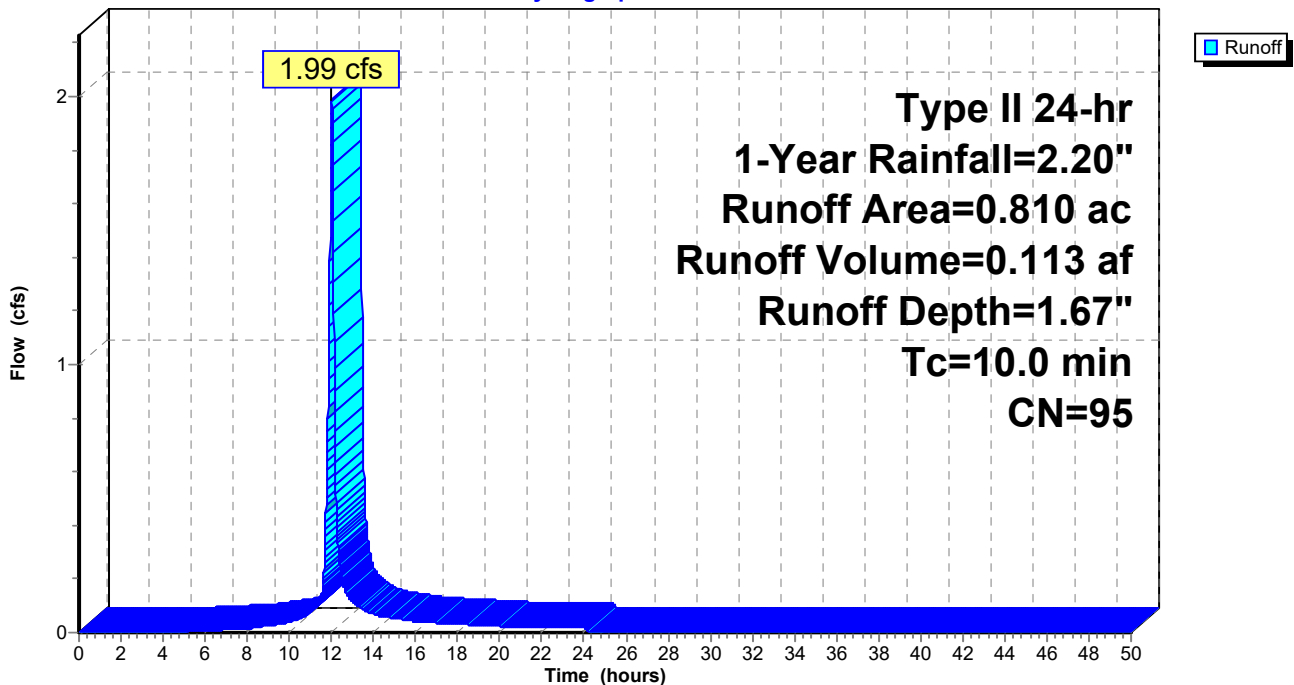
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 23W: STR23

Runoff = 1.63 cfs @ 12.01 hrs, Volume= 0.091 af, Depth= 1.58"

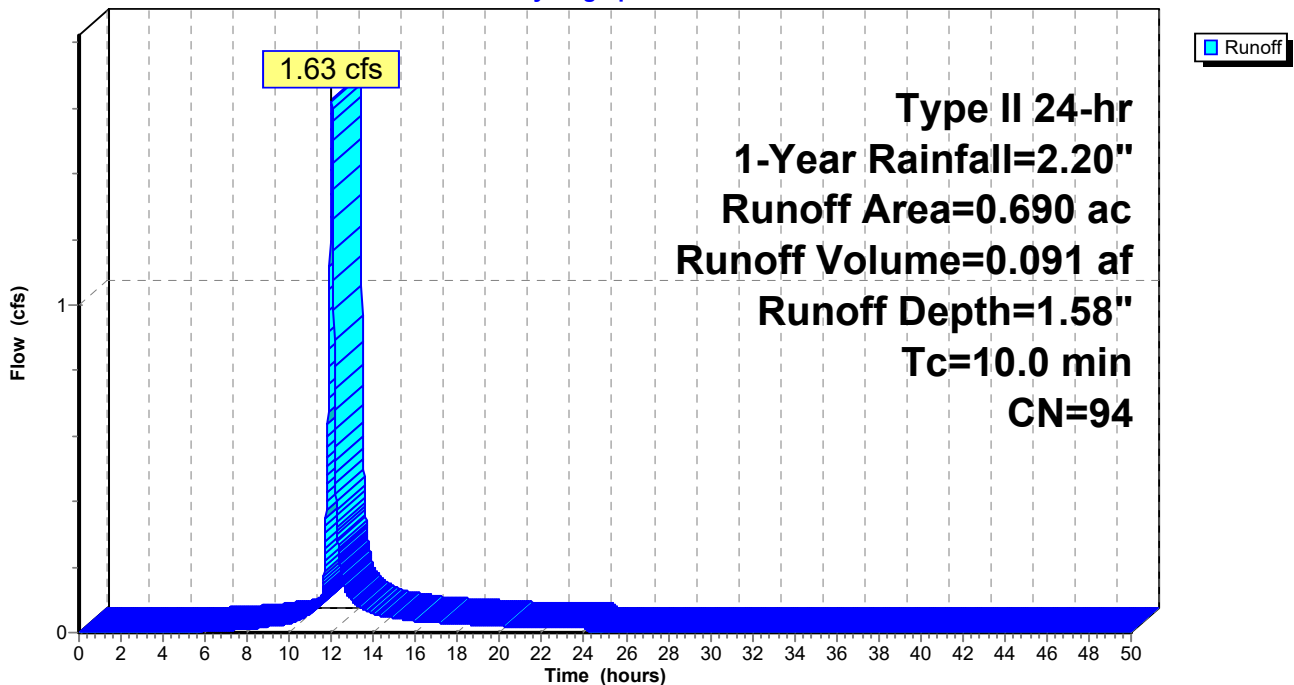
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 24W: STR24

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

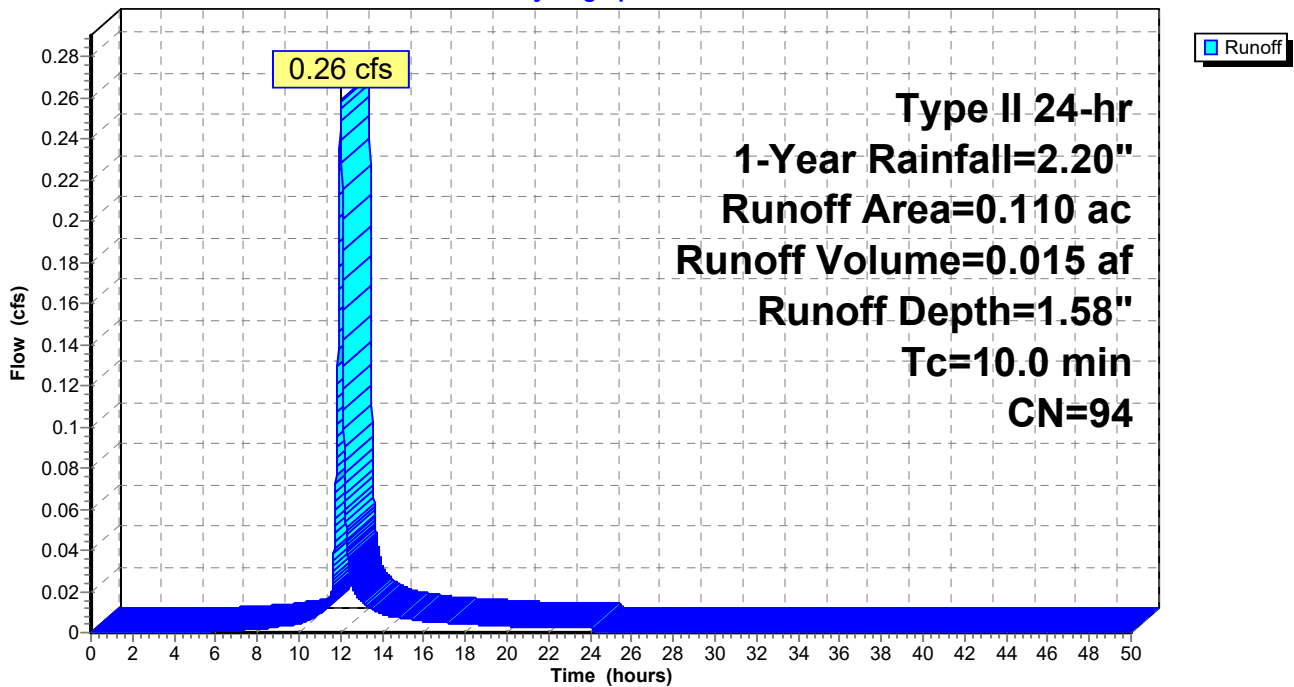
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 25W: STR25

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

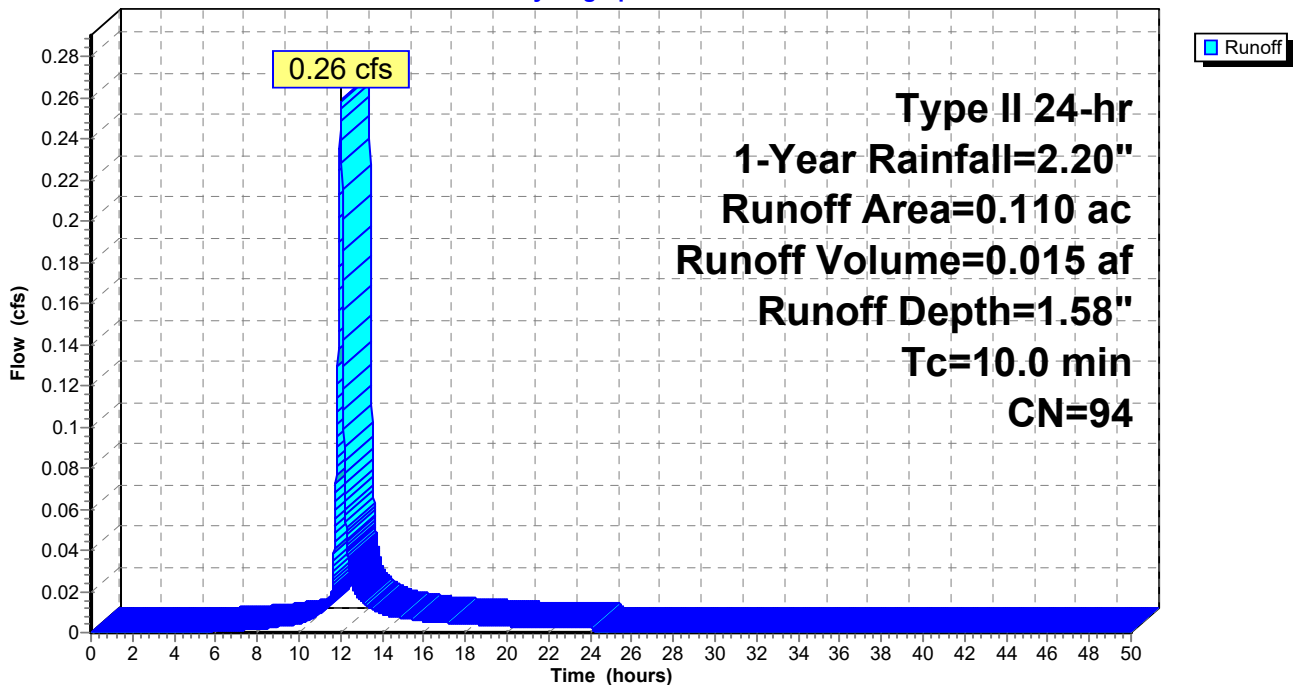
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 26W: STR26

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

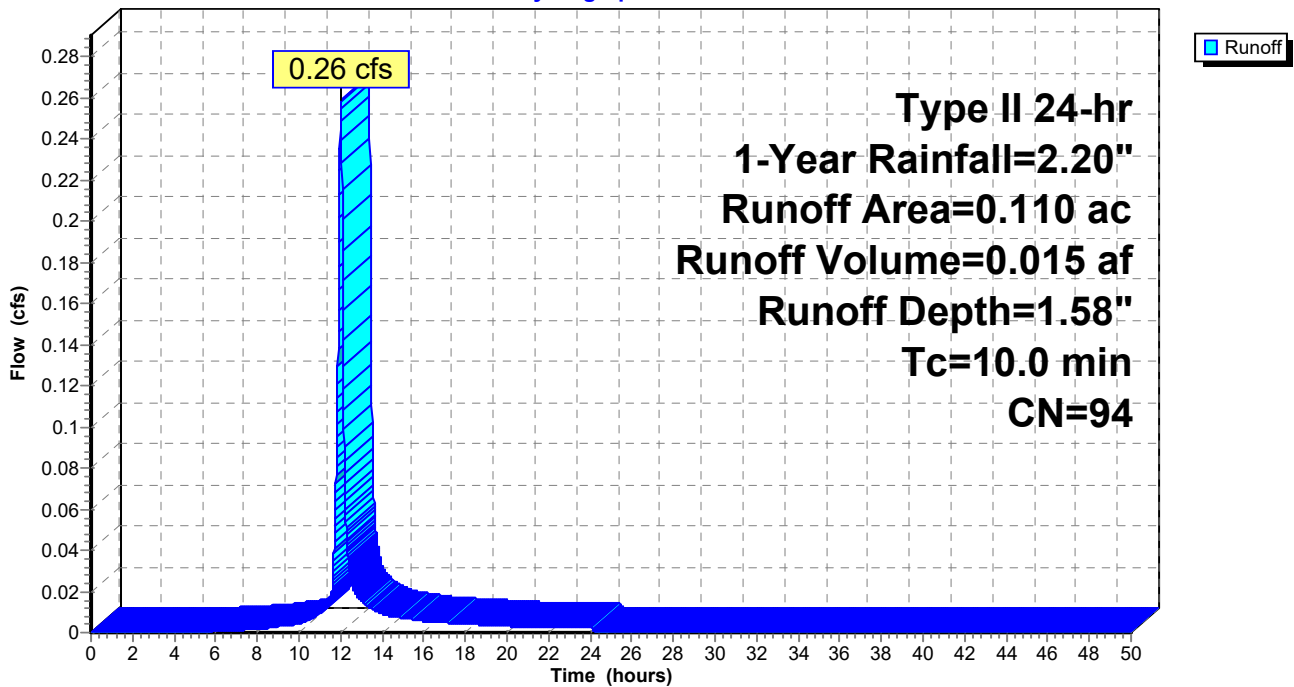
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 27W: STR27

Runoff = 0.69 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 1.77"

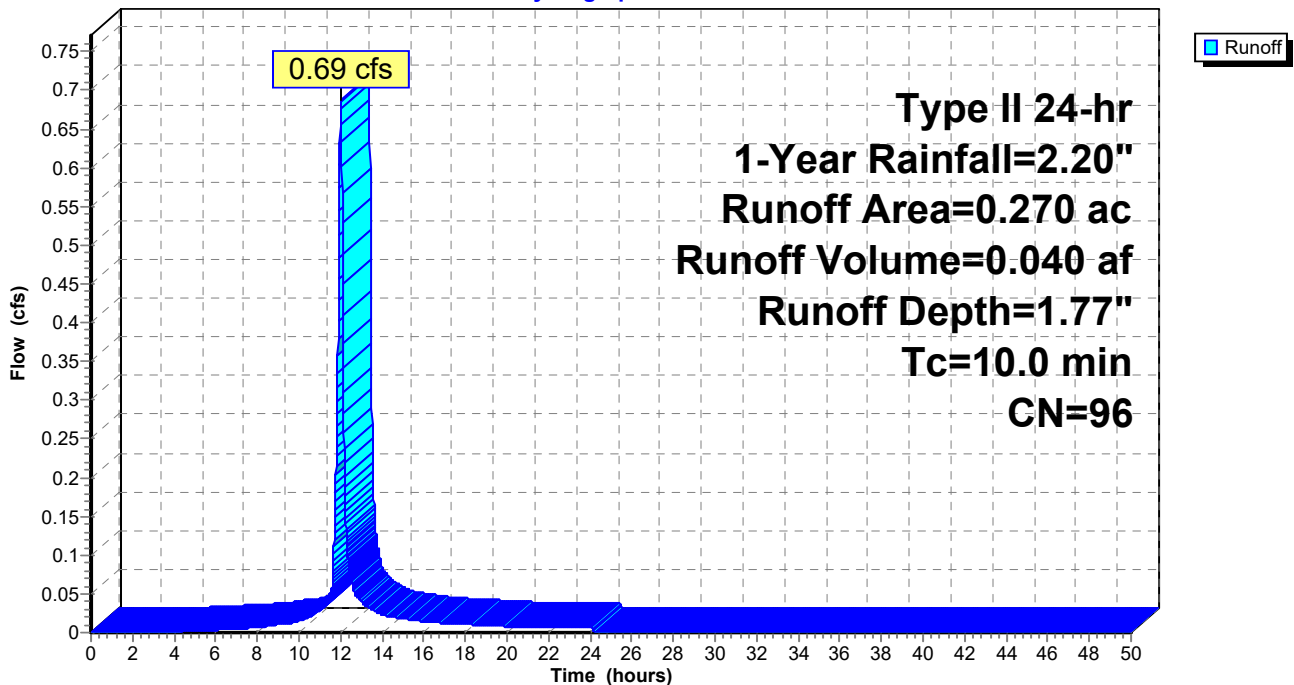
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 1.43" for 1-Year event
 Inflow = 13.10 cfs @ 12.01 hrs, Volume= 0.737 af
 Outflow = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af, Atten= 69%, Lag= 10.3 min
 Primary = 4.11 cfs @ 12.19 hrs, Volume= 0.712 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.34' @ 12.19 hrs Surf.Area= 16,311 sf Storage= 13,046 cf

Plug-Flow detention time= 112.4 min calculated for 0.712 af (97% of inflow)
 Center-of-Mass det. time= 92.6 min (897.2 - 804.6)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=4.11 cfs @ 12.19 hrs HW=911.34' TW=0.00' (Dynamic Tailwater)

- ↑ **1=Orifice/Grate** (Passes 4.11 cfs of 6.26 cfs potential flow)
- ↑ **2=Culvert** (Passes 4.11 cfs of 4.76 cfs potential flow)
- ↑ **3=Sharp-Crested Rectangular Weir** (Weir Controls 4.11 cfs @ 2.88 fps)

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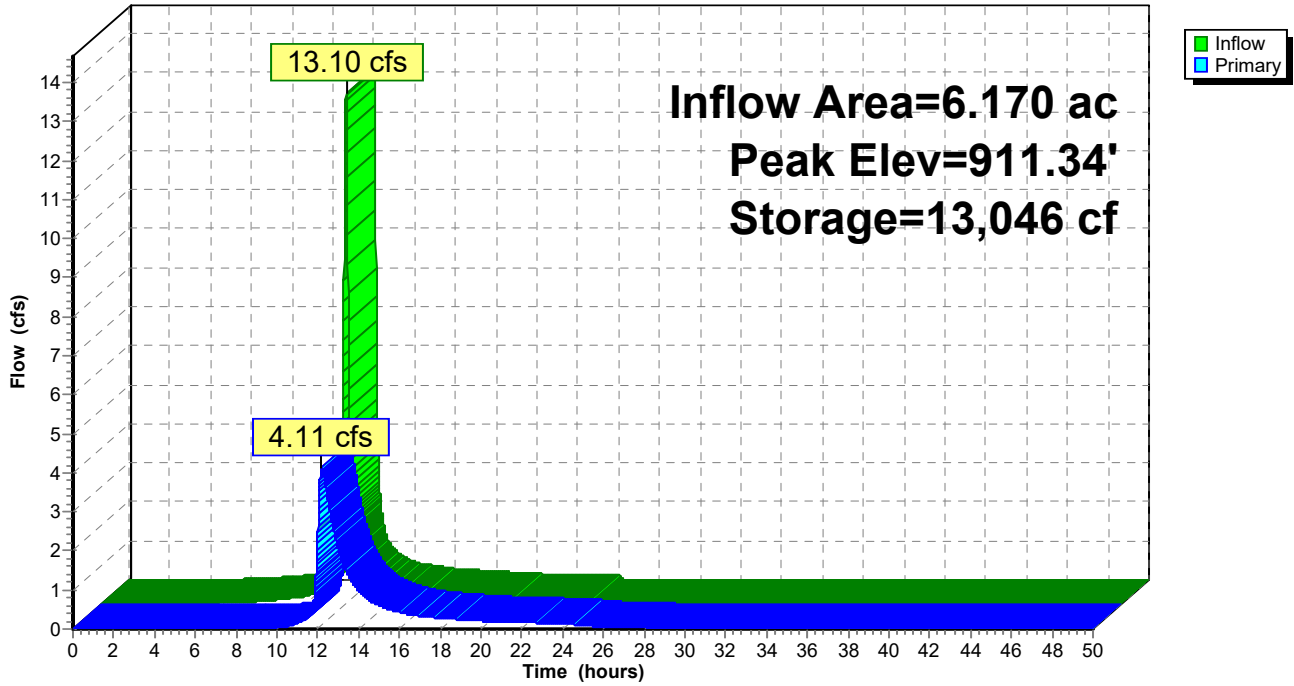
Type II 24-hr 1-Year Rainfall=2.20"

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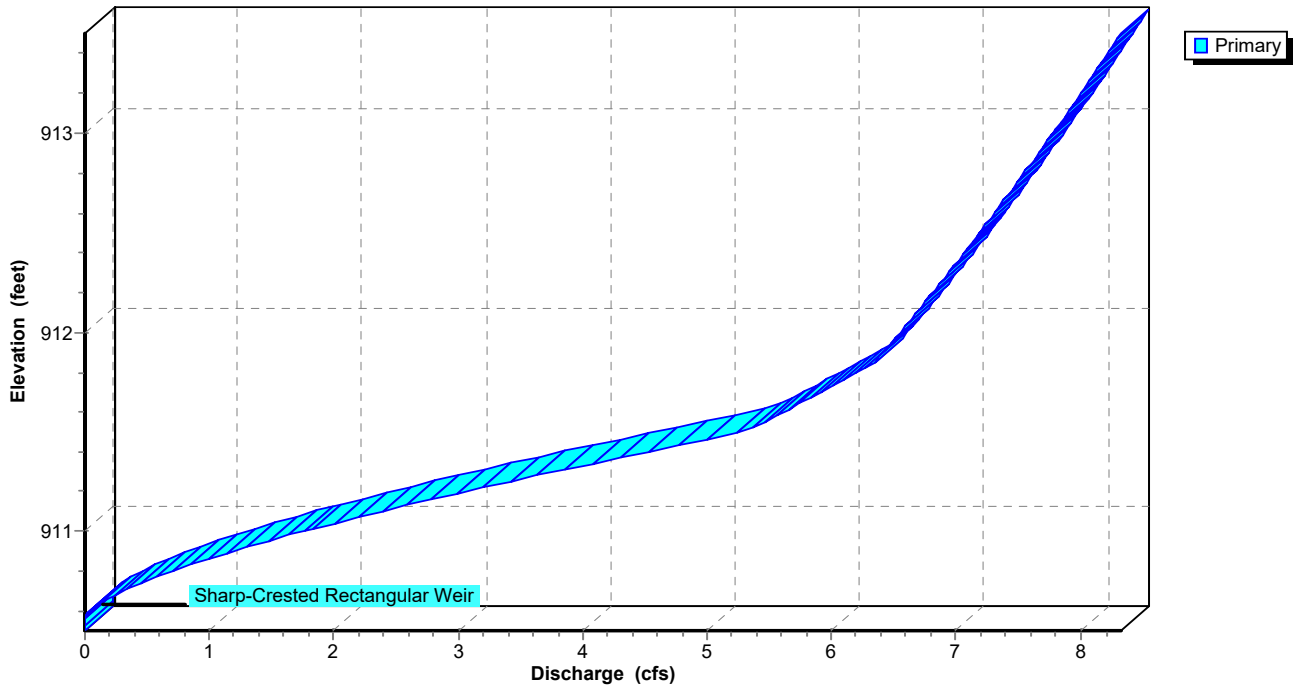
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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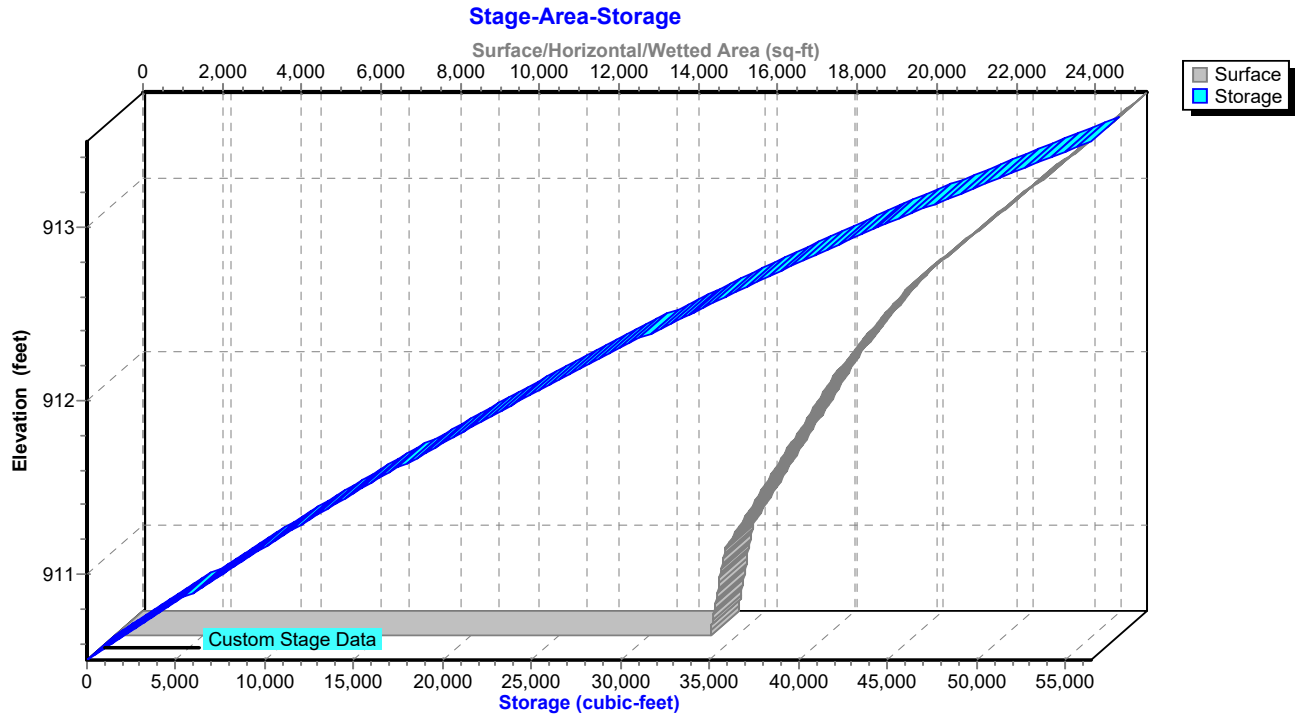
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Type II 24-hr 1-Year Rainfall=2.20"

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 15W: STR15

Runoff = 1.61 cfs @ 12.01 hrs, Volume= 0.090 af, Depth= 1.90"

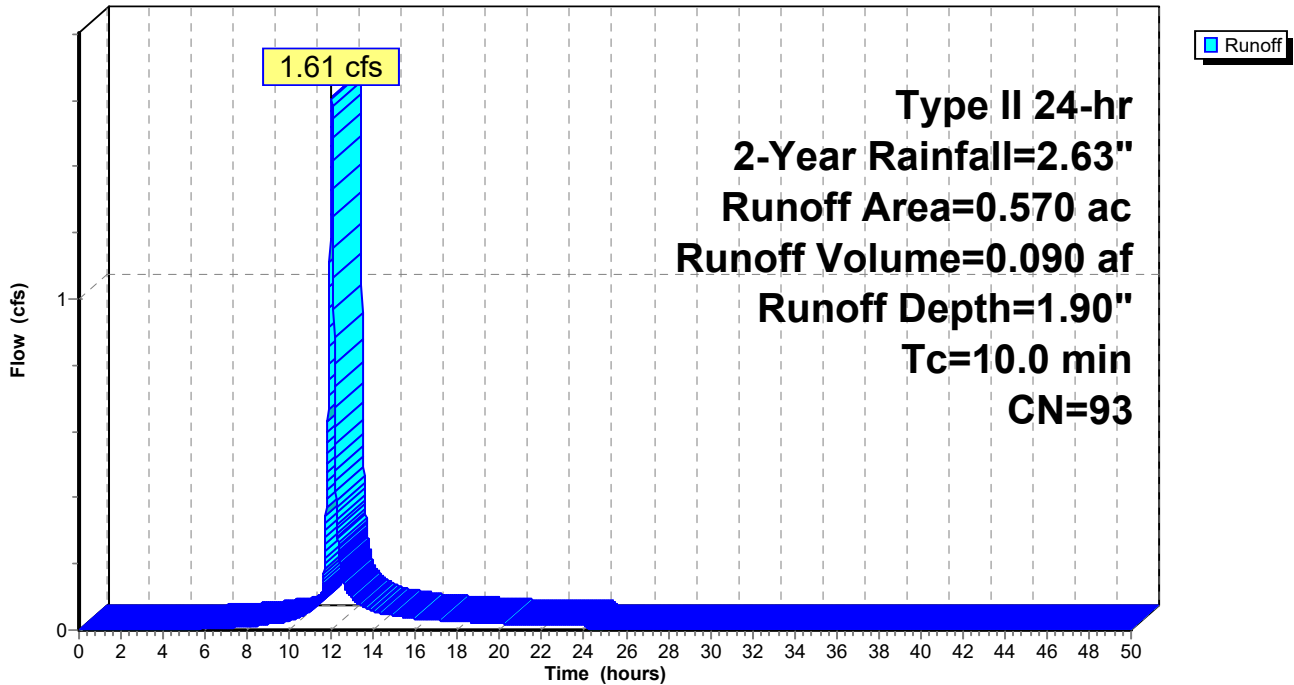
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 1.59 cfs @ 12.02 hrs, Volume= 0.087 af, Depth= 0.98"

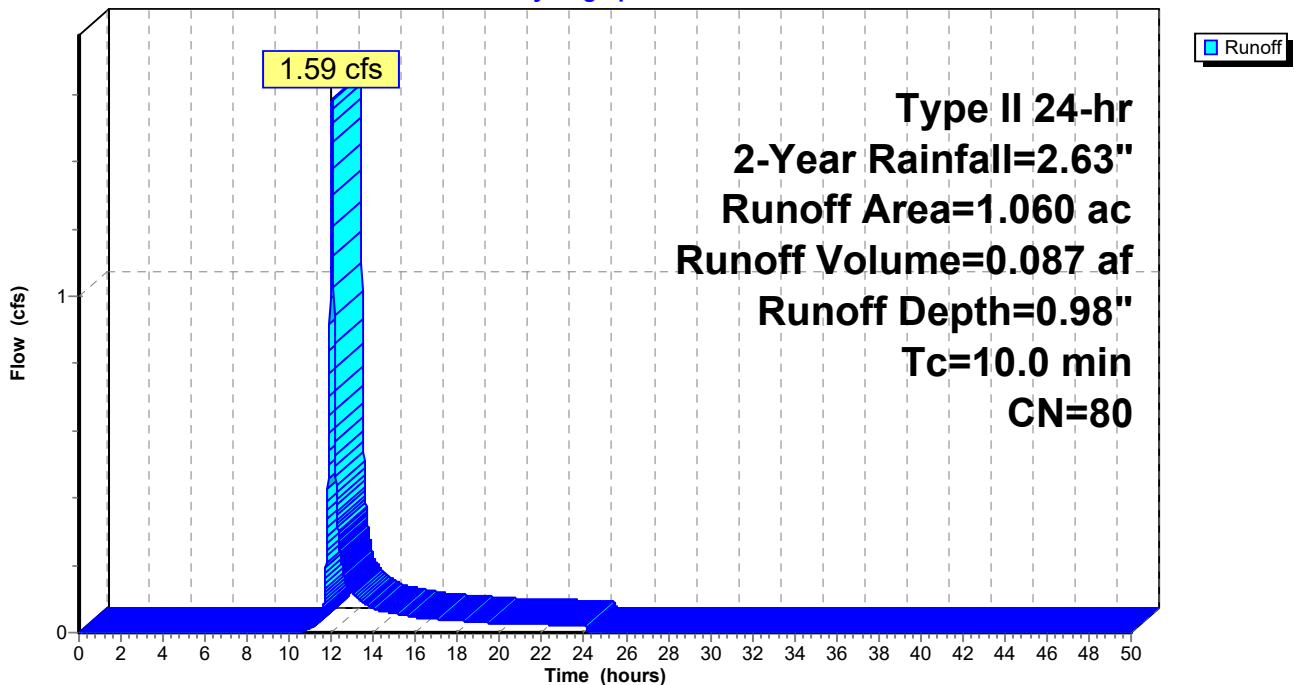
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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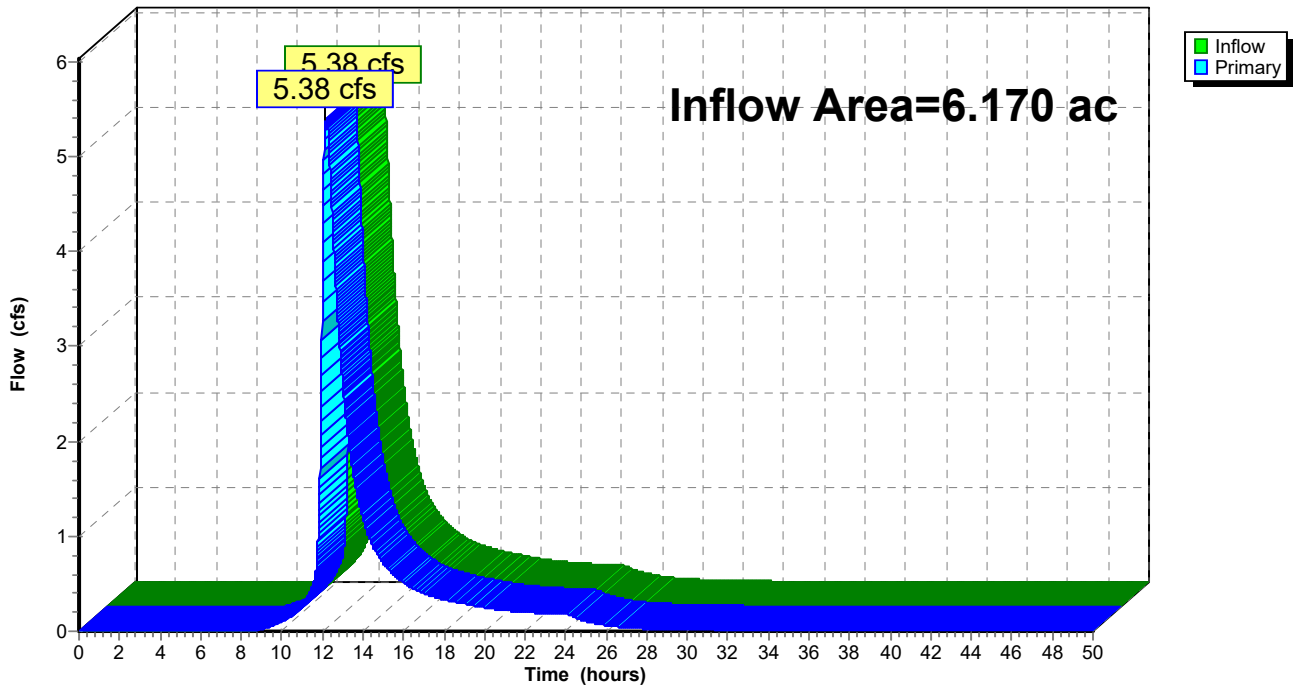
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 1.77" for 2-Year event
Inflow = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af
Primary = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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Summary for Subcatchment 17W: STR17

Runoff = 1.93 cfs @ 12.01 hrs, Volume= 0.110 af, Depth= 1.99"

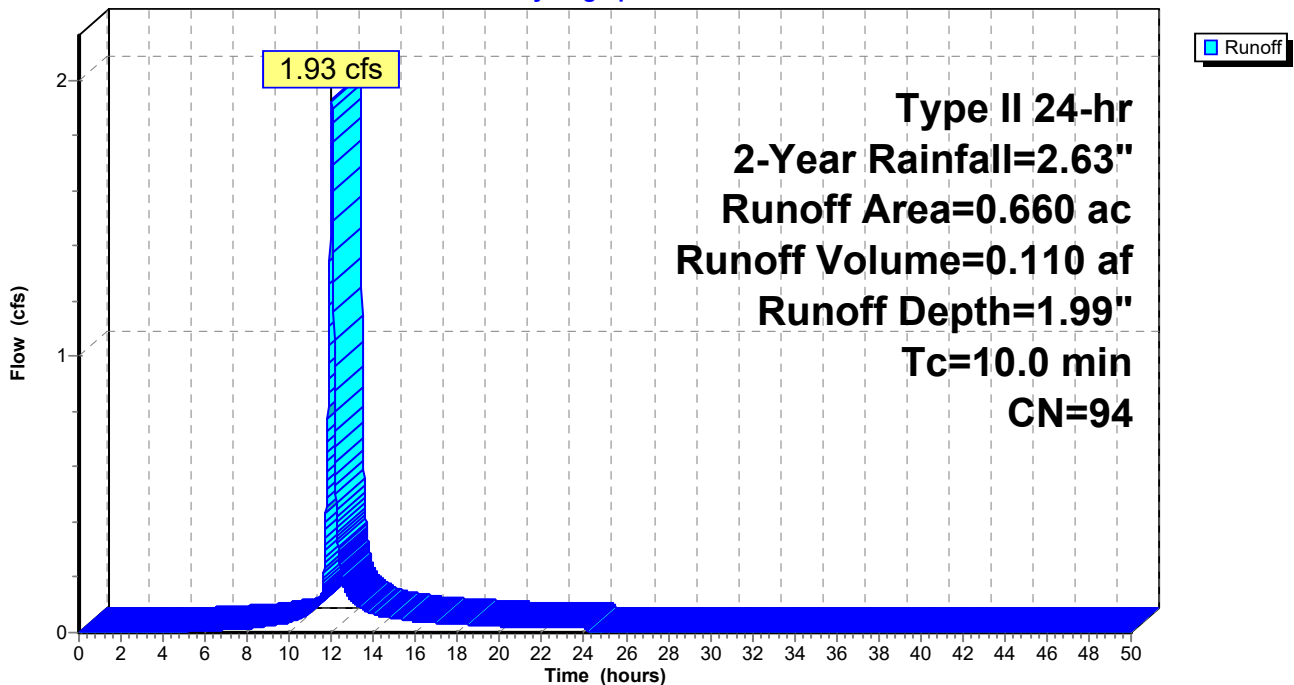
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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Summary for Subcatchment 18W: STR18

Runoff = 0.40 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.19"

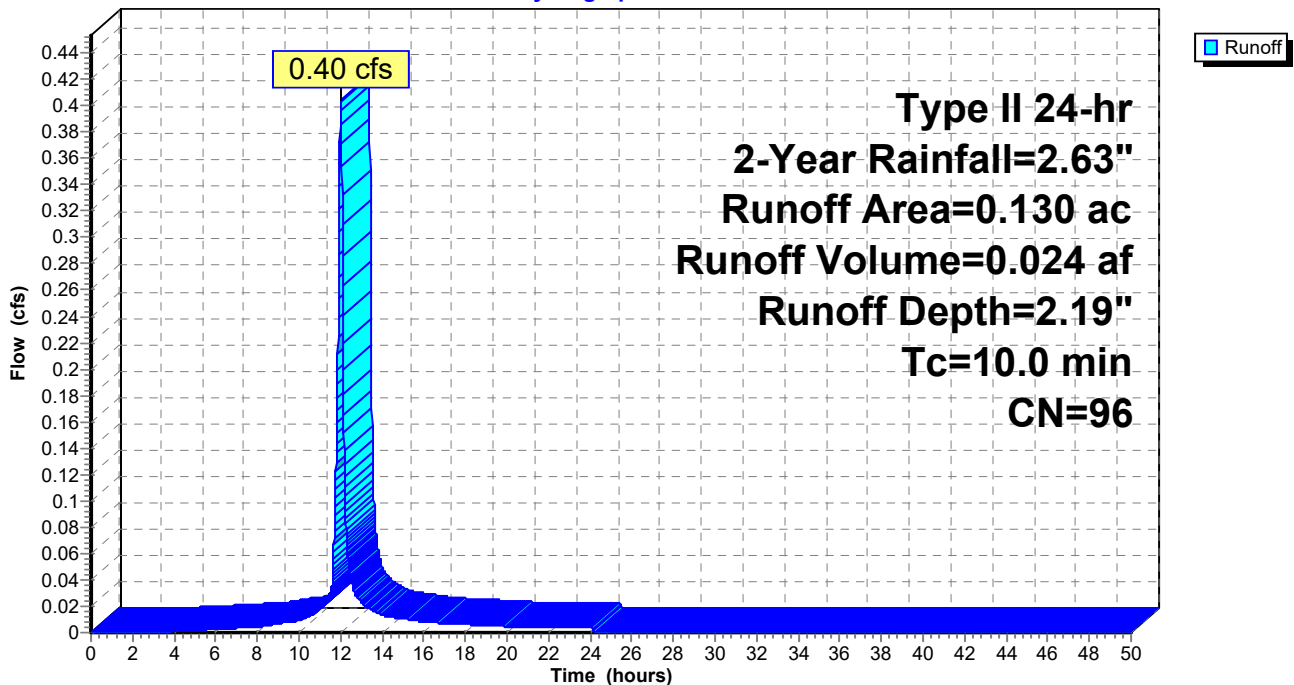
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

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Summary for Subcatchment 19W: STR19

Runoff = 1.19 cfs @ 12.01 hrs, Volume= 0.067 af, Depth= 1.90"

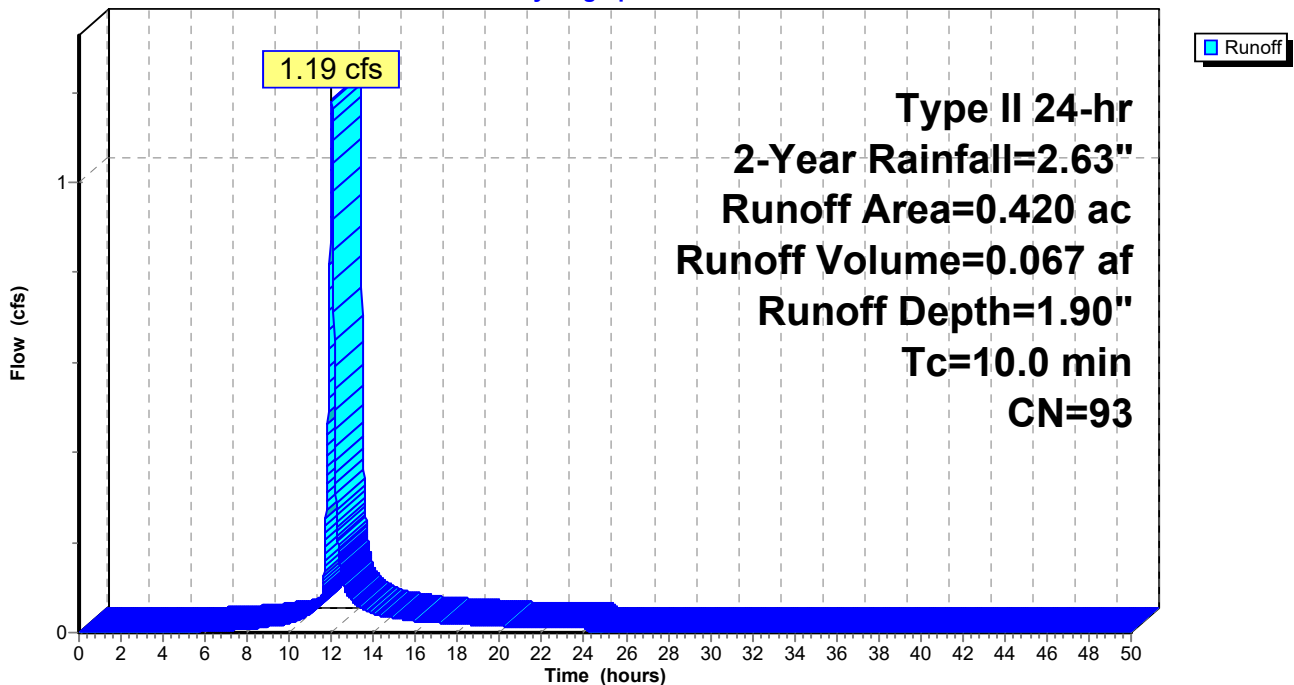
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Summary for Subcatchment 20W: STR20

Runoff = 1.65 cfs @ 12.01 hrs, Volume= 0.091 af, Depth= 1.73"

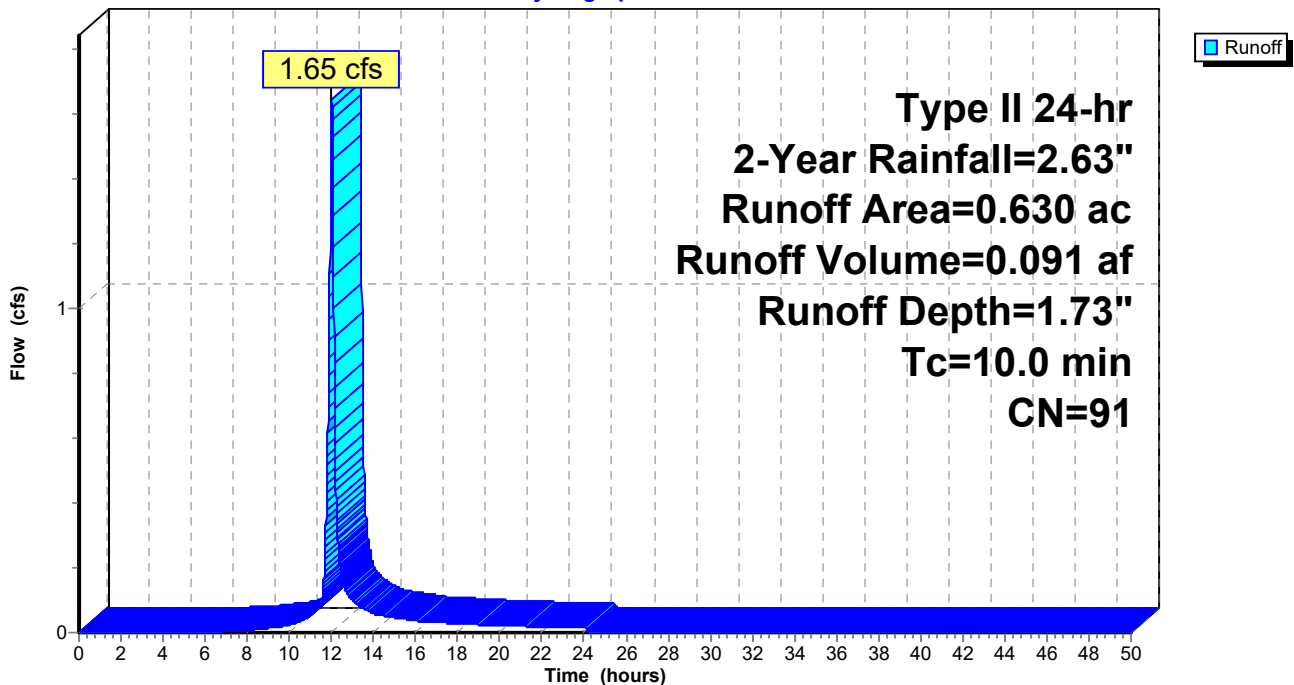
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

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Summary for Subcatchment 21W: STR21

Runoff = 1.87 cfs @ 12.01 hrs, Volume= 0.109 af, Depth= 2.19"

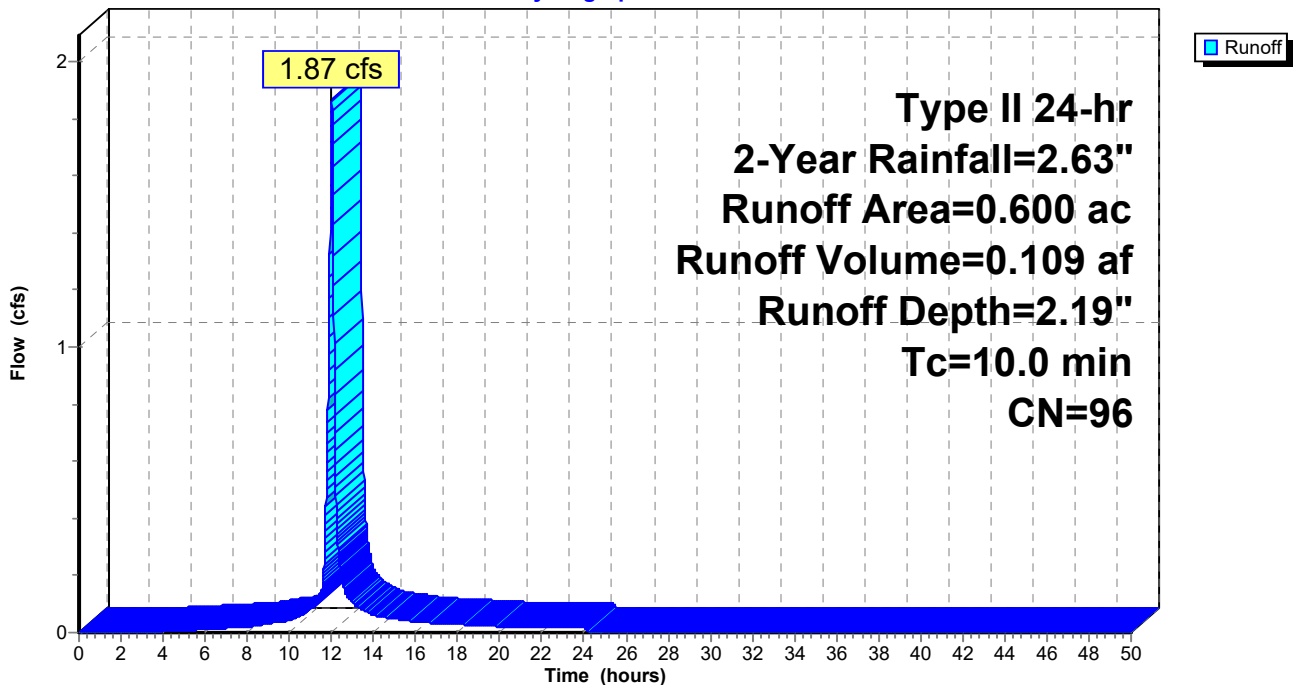
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

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Summary for Subcatchment 22W: STR22

Runoff = 2.45 cfs @ 12.01 hrs, Volume= 0.141 af, Depth= 2.09"

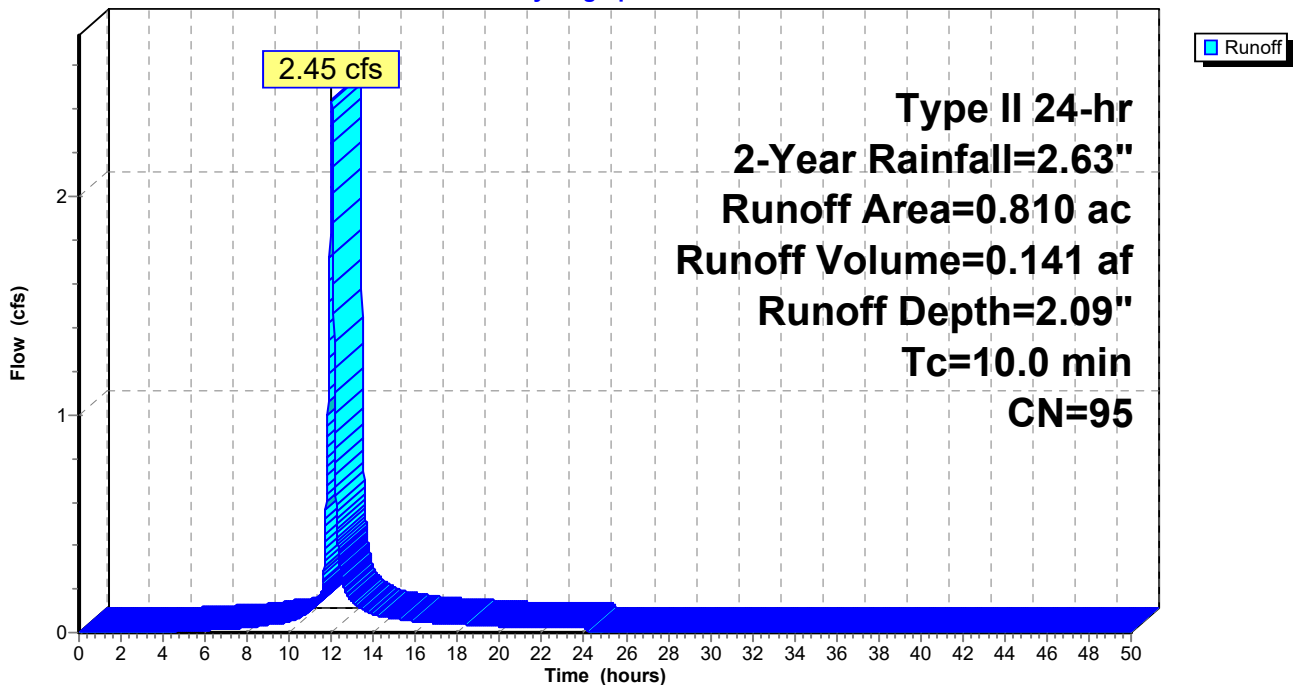
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Summary for Subcatchment 23W: STR23

Runoff = 2.02 cfs @ 12.01 hrs, Volume= 0.115 af, Depth= 1.99"

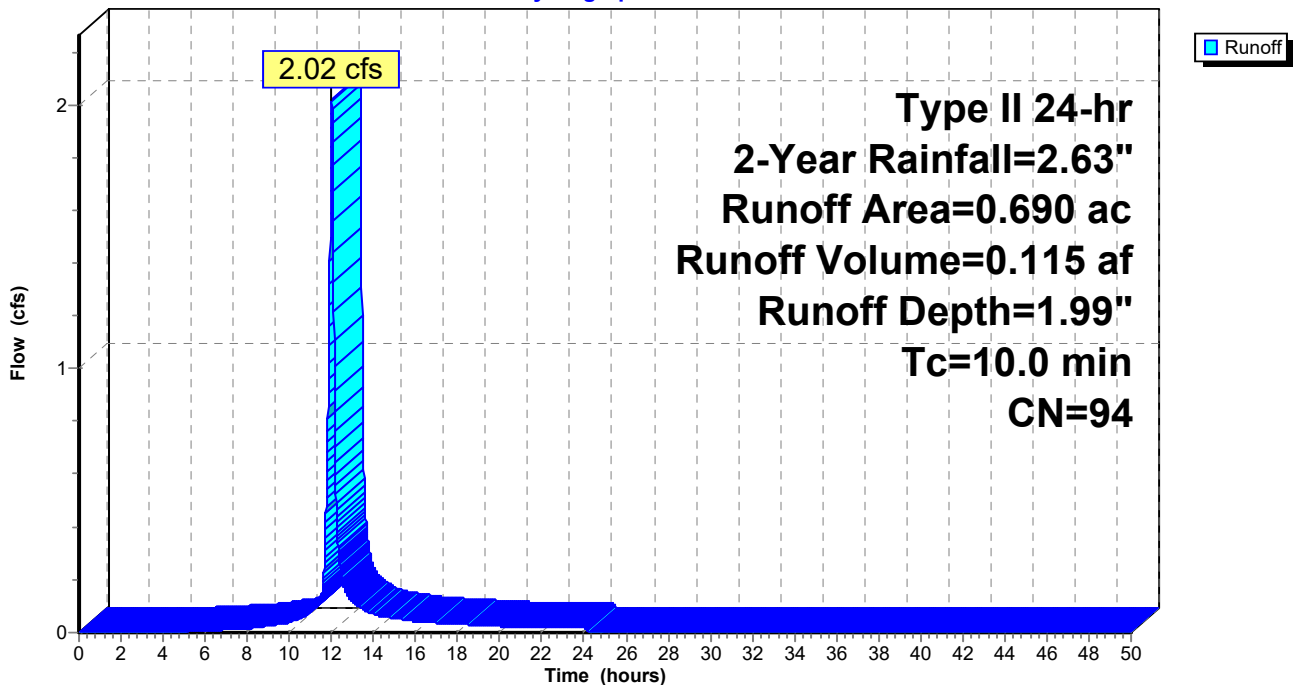
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 24W: STR24

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

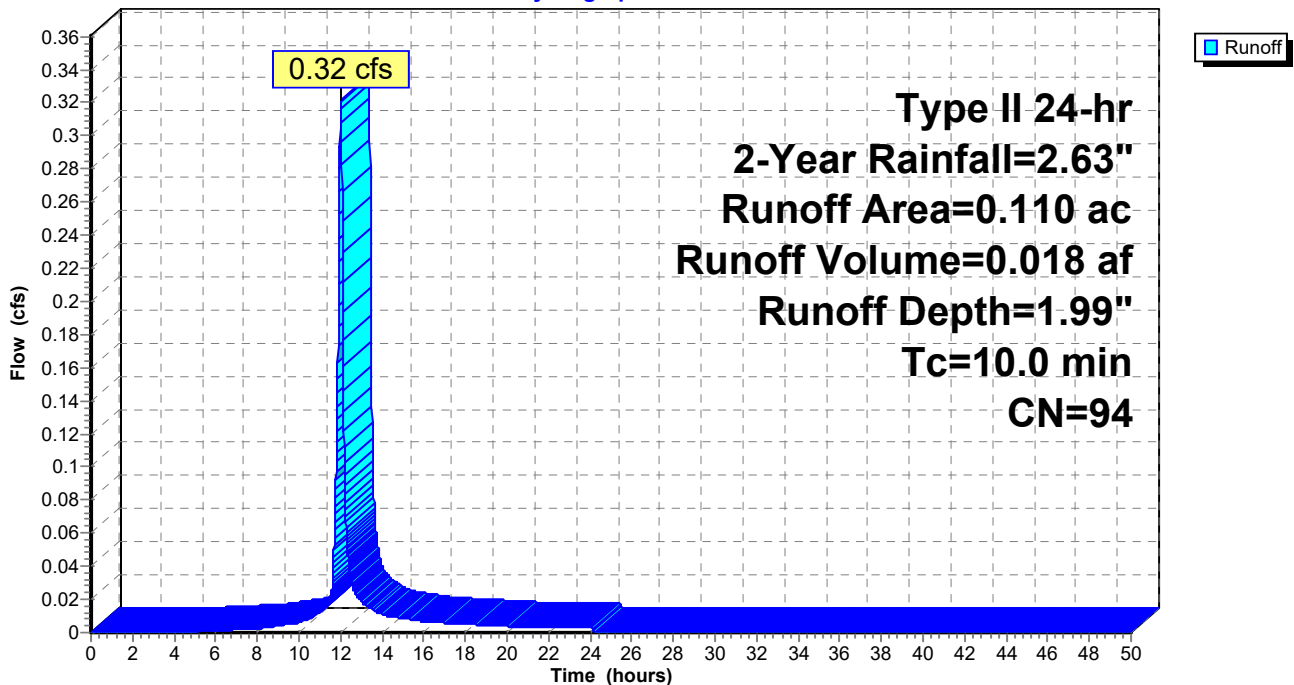
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Summary for Subcatchment 25W: STR25

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

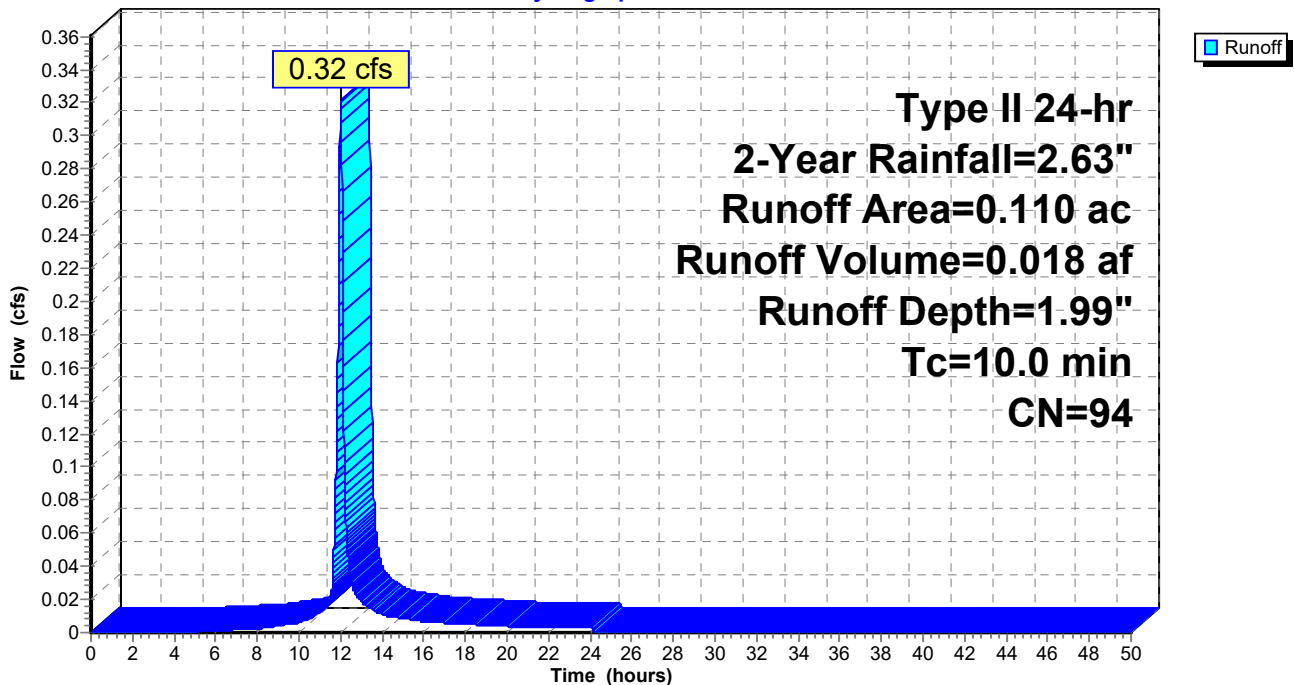
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Summary for Subcatchment 26W: STR26

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

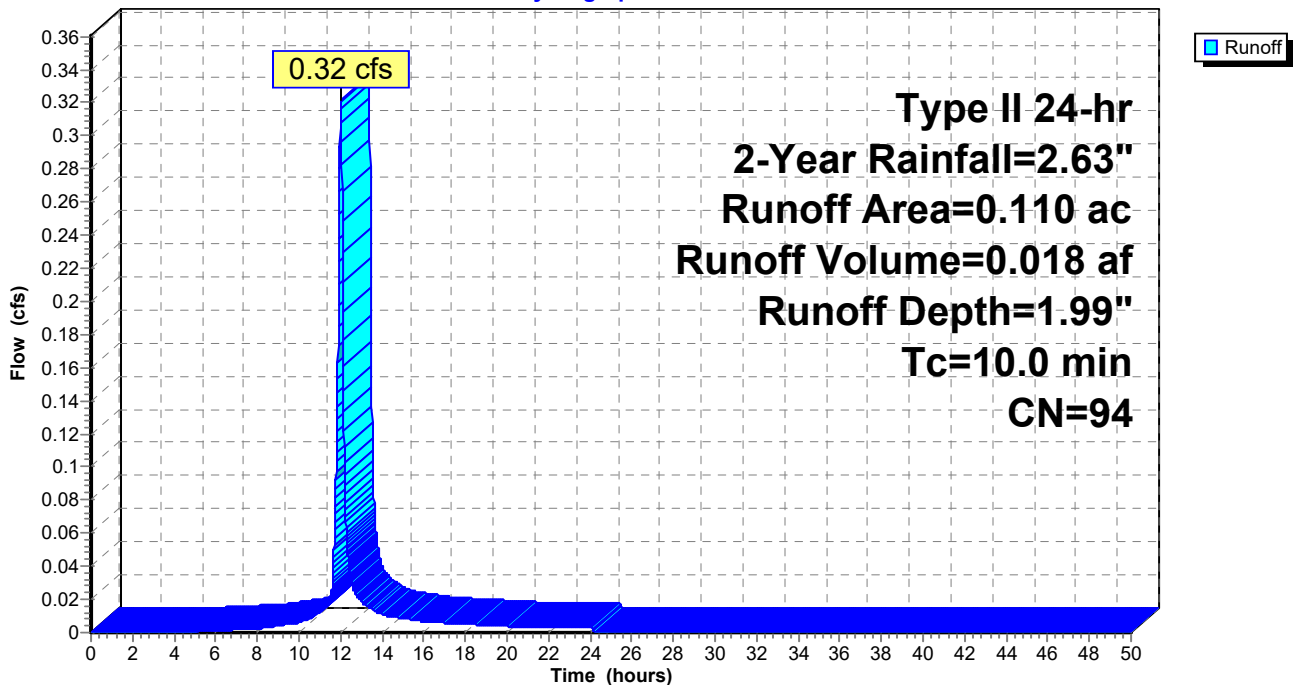
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Summary for Subcatchment 27W: STR27

Runoff = 0.84 cfs @ 12.01 hrs, Volume= 0.049 af, Depth= 2.19"

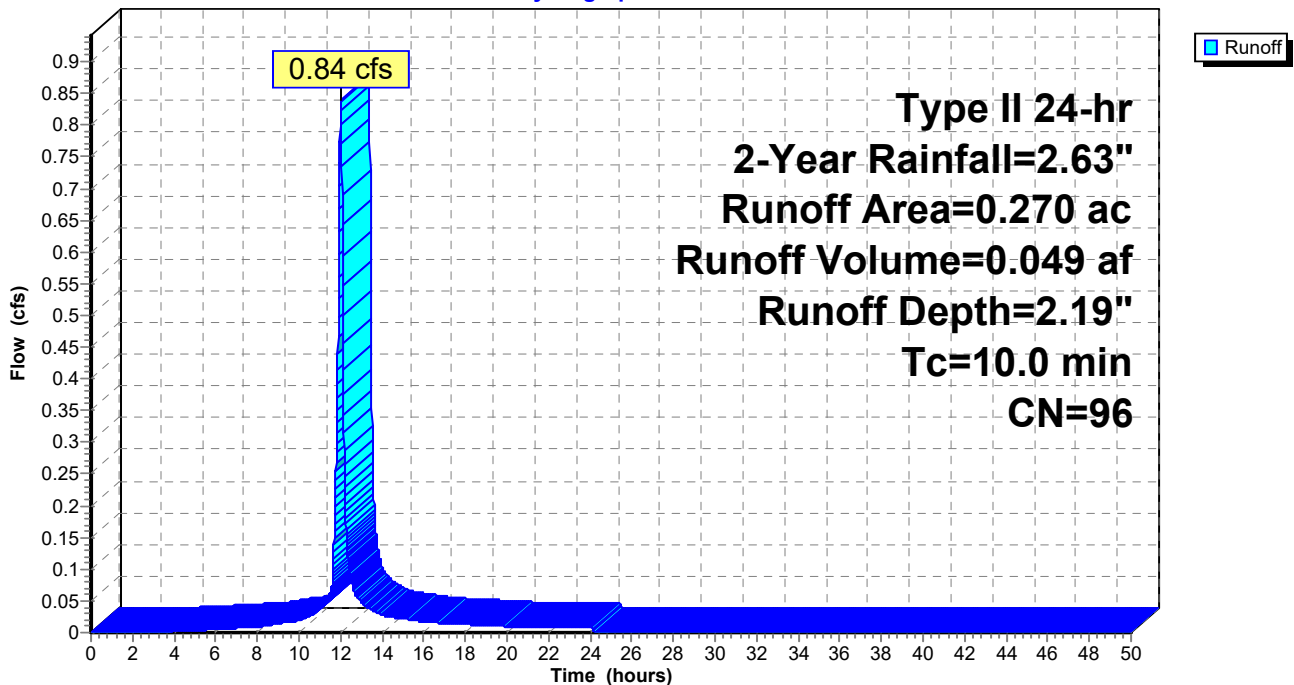
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 1.82" for 2-Year event
 Inflow = 16.50 cfs @ 12.01 hrs, Volume= 0.937 af
 Outflow = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af, Atten= 67%, Lag= 10.0 min
 Primary = 5.38 cfs @ 12.18 hrs, Volume= 0.912 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.52' @ 12.18 hrs Surf.Area= 16,805 sf Storage= 16,030 cf

Plug-Flow detention time= 101.7 min calculated for 0.912 af (97% of inflow)
 Center-of-Mass det. time= 85.8 min (884.4 - 798.6)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=5.38 cfs @ 12.18 hrs HW=911.52' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 5.38 cfs of 6.47 cfs potential flow)

↑ **2=Culvert** (Inlet Controls 5.38 cfs @ 4.39 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 5.38 cfs of 5.52 cfs potential flow)

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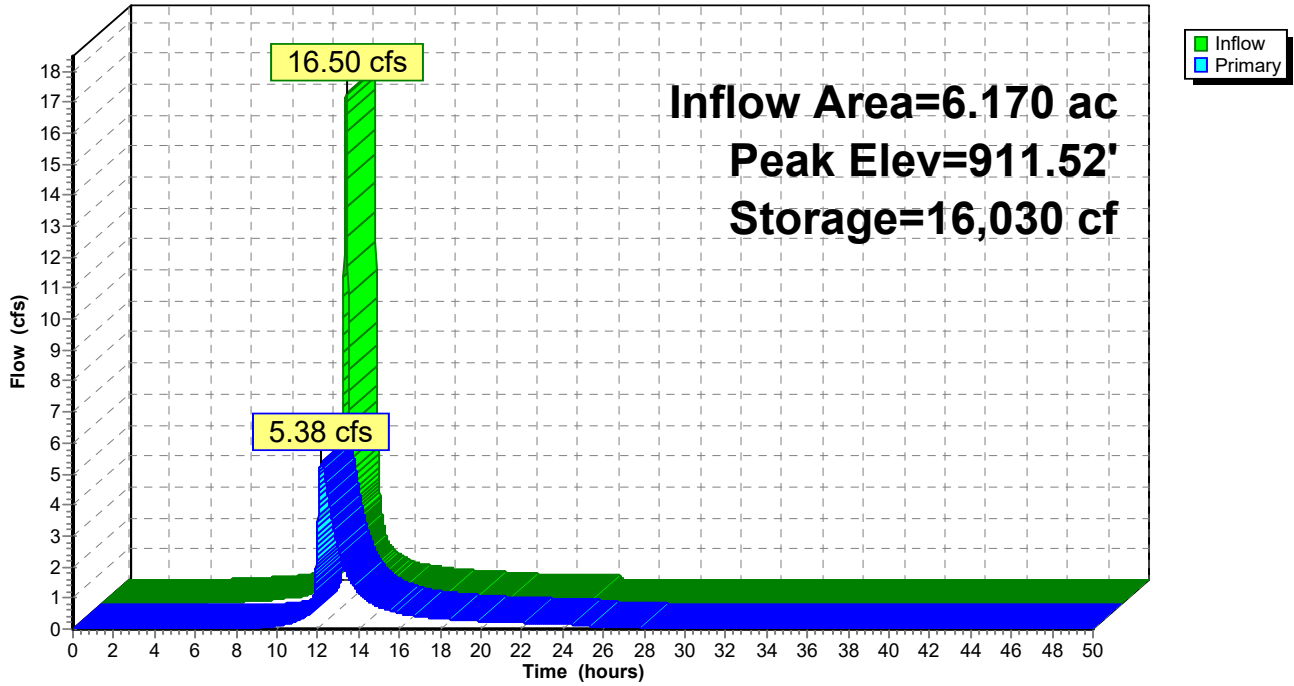
Type II 24-hr 2-Year Rainfall=2.63"

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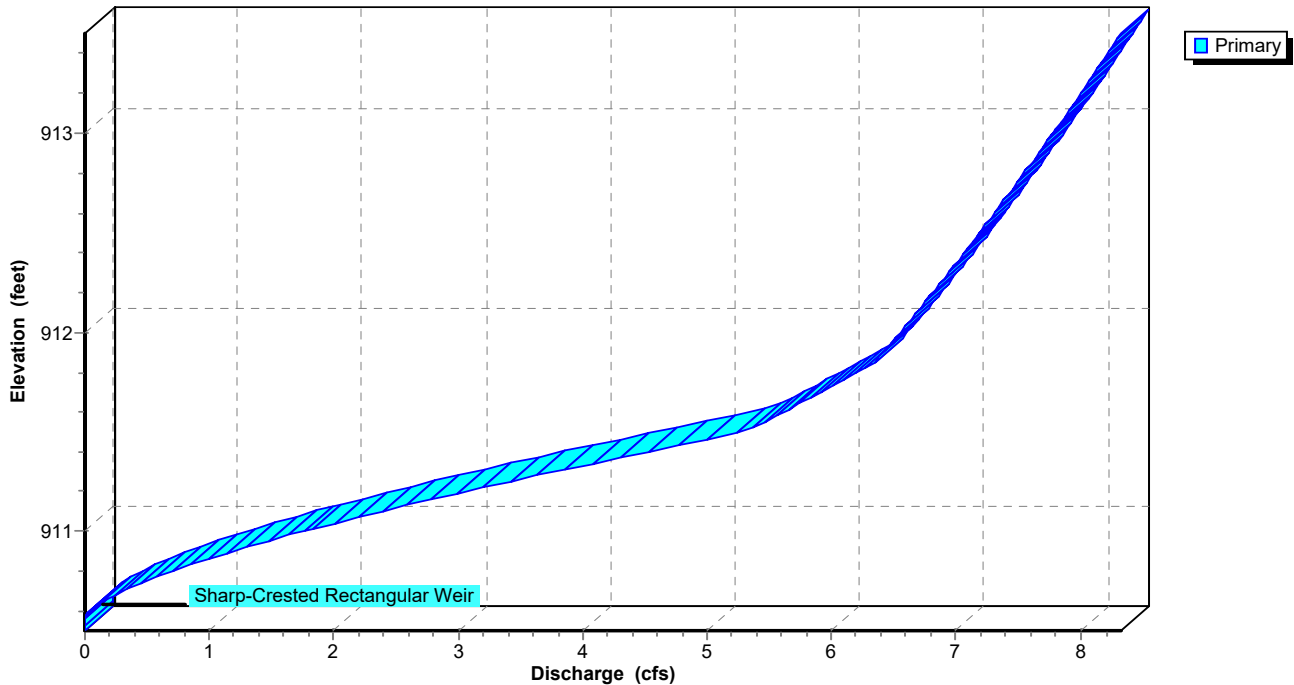
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Stage-Discharge



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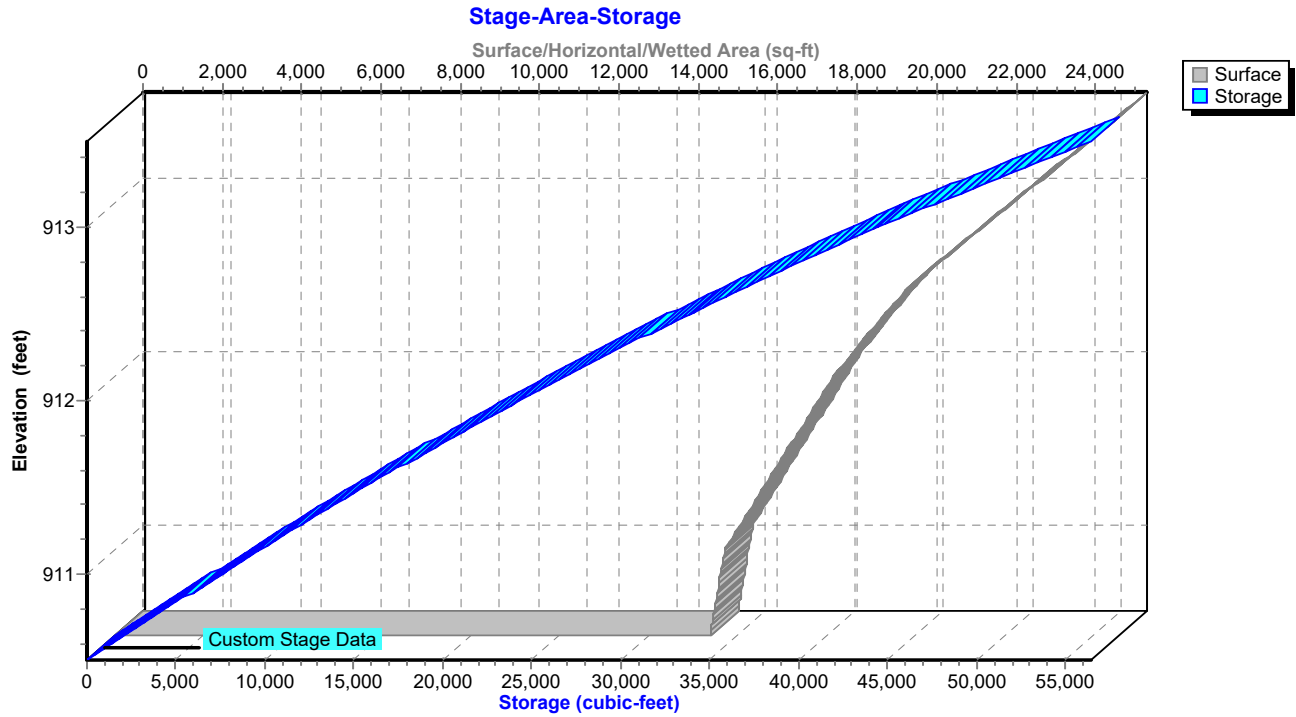
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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 15W: STR15

Runoff = 2.07 cfs @ 12.01 hrs, Volume= 0.118 af, Depth= 2.48"

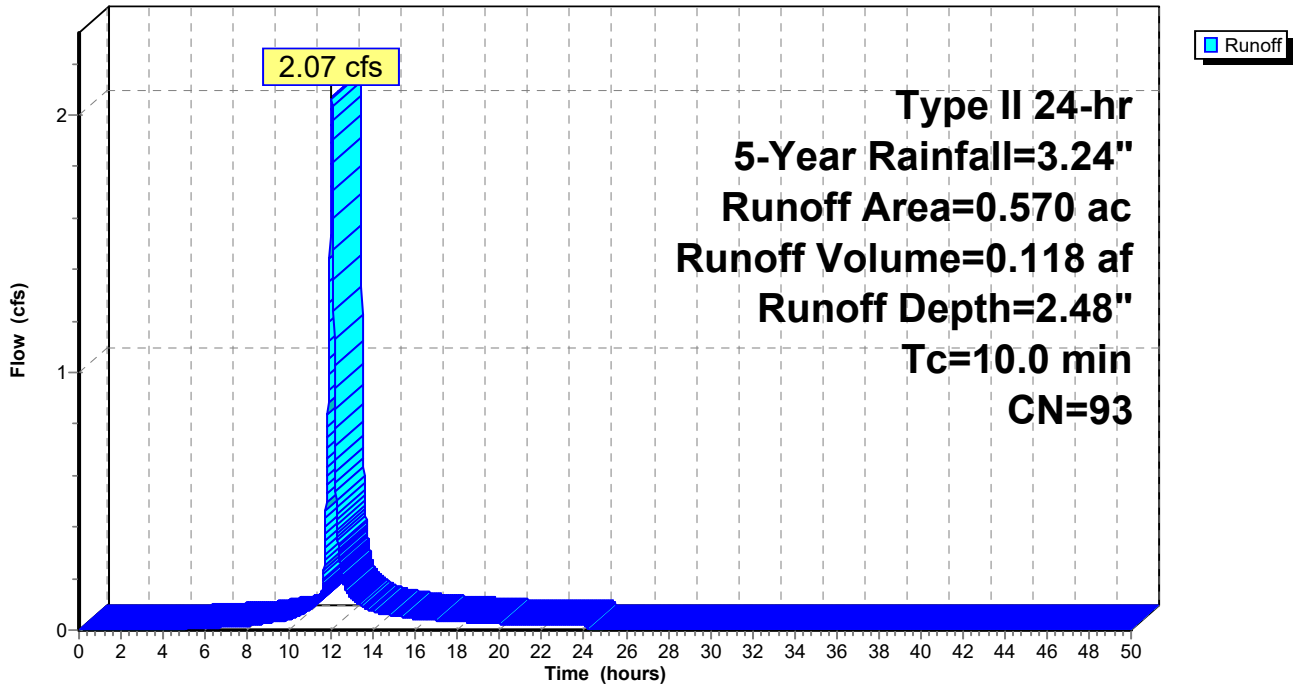
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 2.34 cfs @ 12.02 hrs, Volume= 0.127 af, Depth= 1.43"

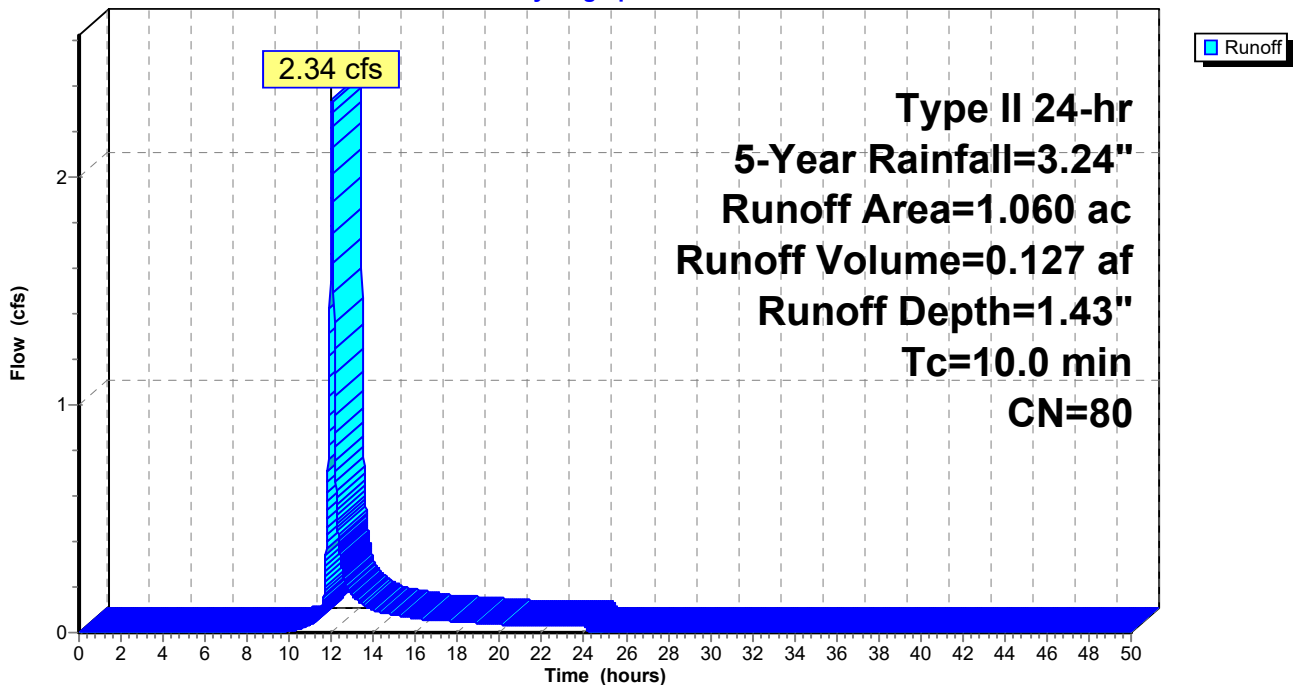
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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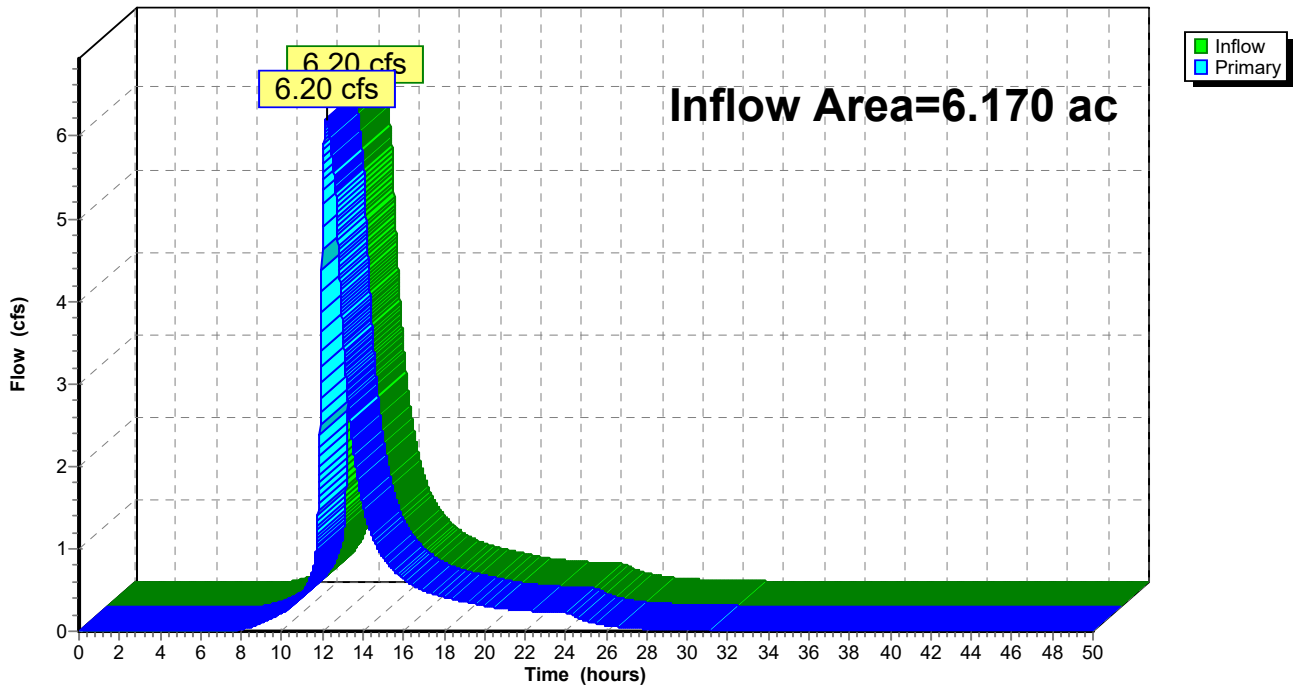
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.34" for 5-Year event
Inflow = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af
Primary = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 17W: STR17

Runoff = 2.46 cfs @ 12.01 hrs, Volume= 0.142 af, Depth= 2.58"

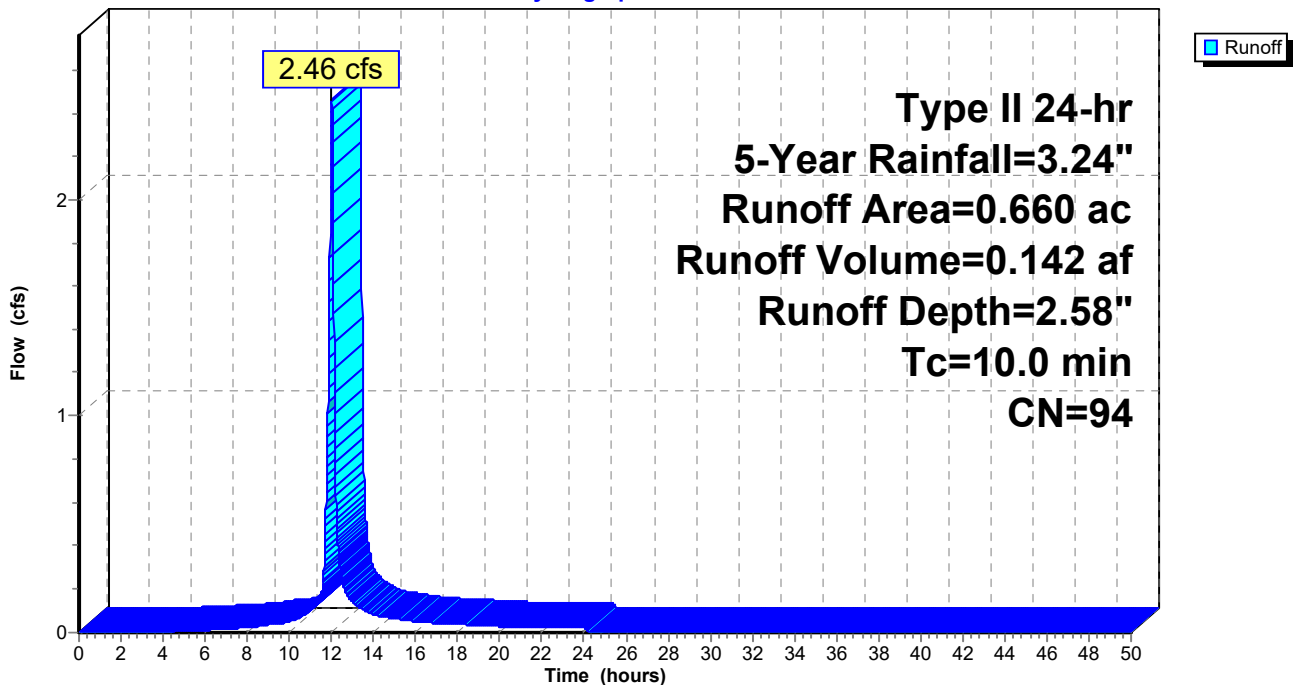
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 18W: STR18

Runoff = 0.51 cfs @ 12.01 hrs, Volume= 0.030 af, Depth= 2.79"

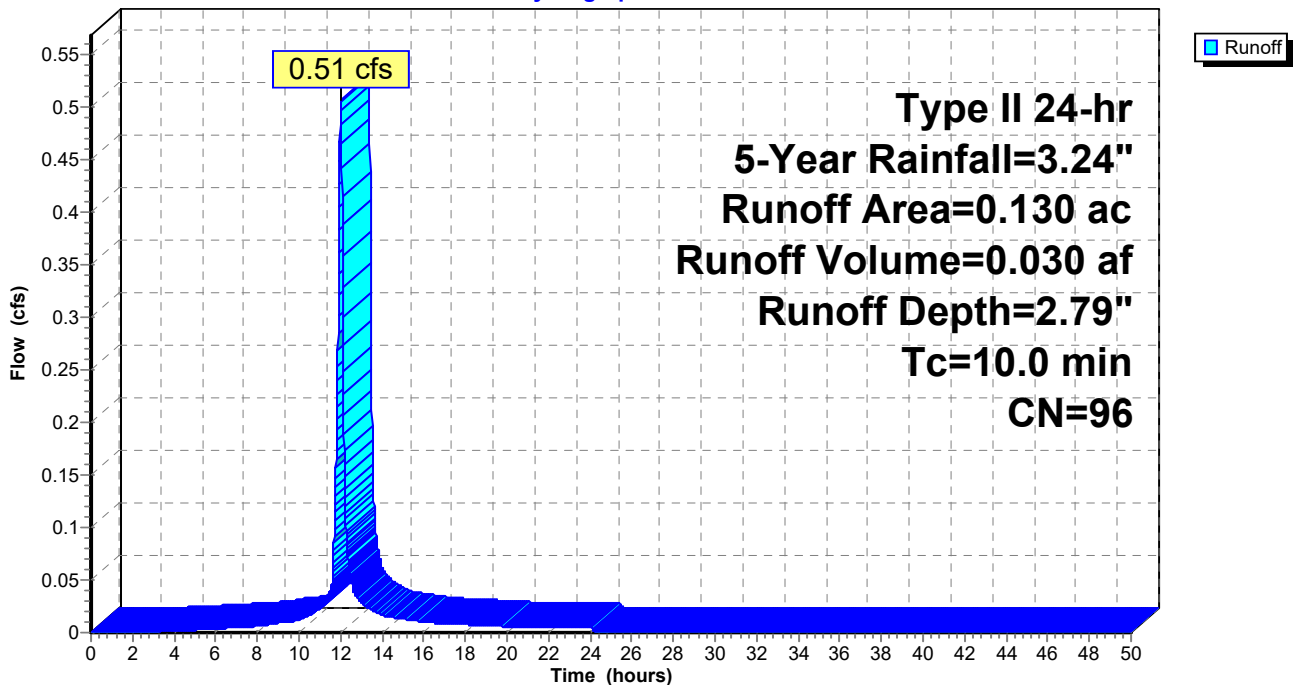
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 19W: STR19

Runoff = 1.53 cfs @ 12.01 hrs, Volume= 0.087 af, Depth= 2.48"

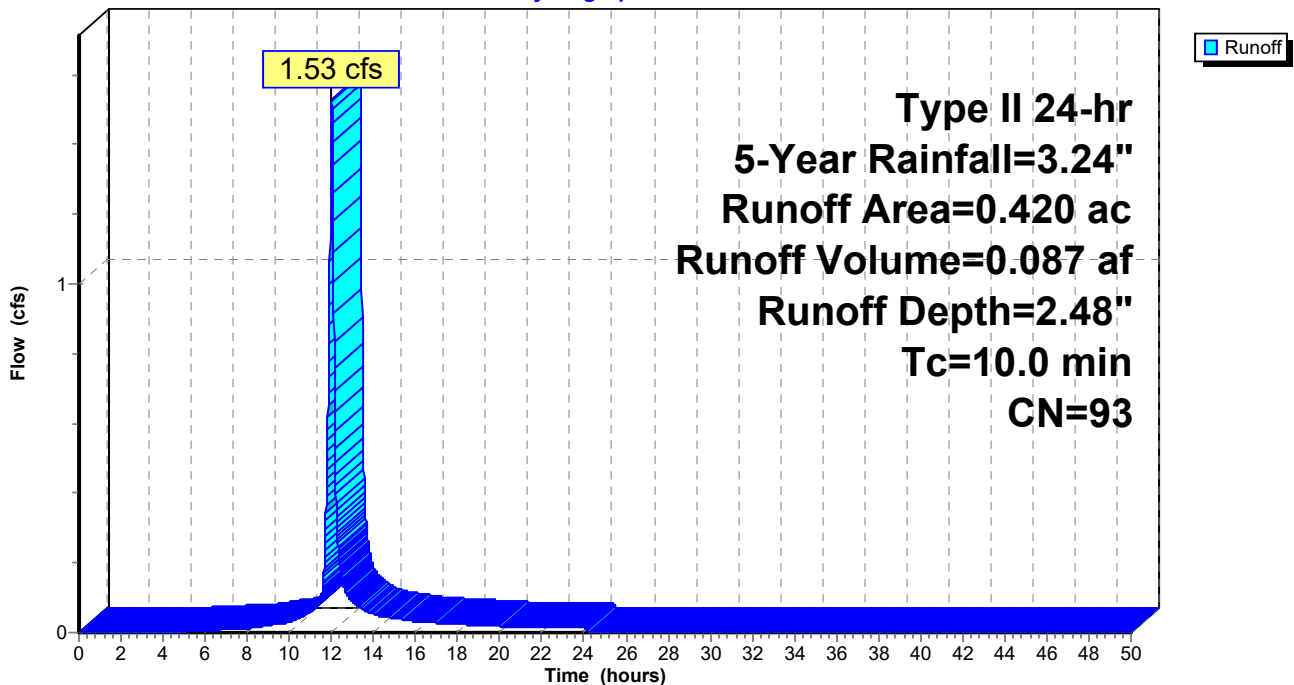
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 20W: STR20

Runoff = 2.16 cfs @ 12.01 hrs, Volume= 0.121 af, Depth= 2.30"

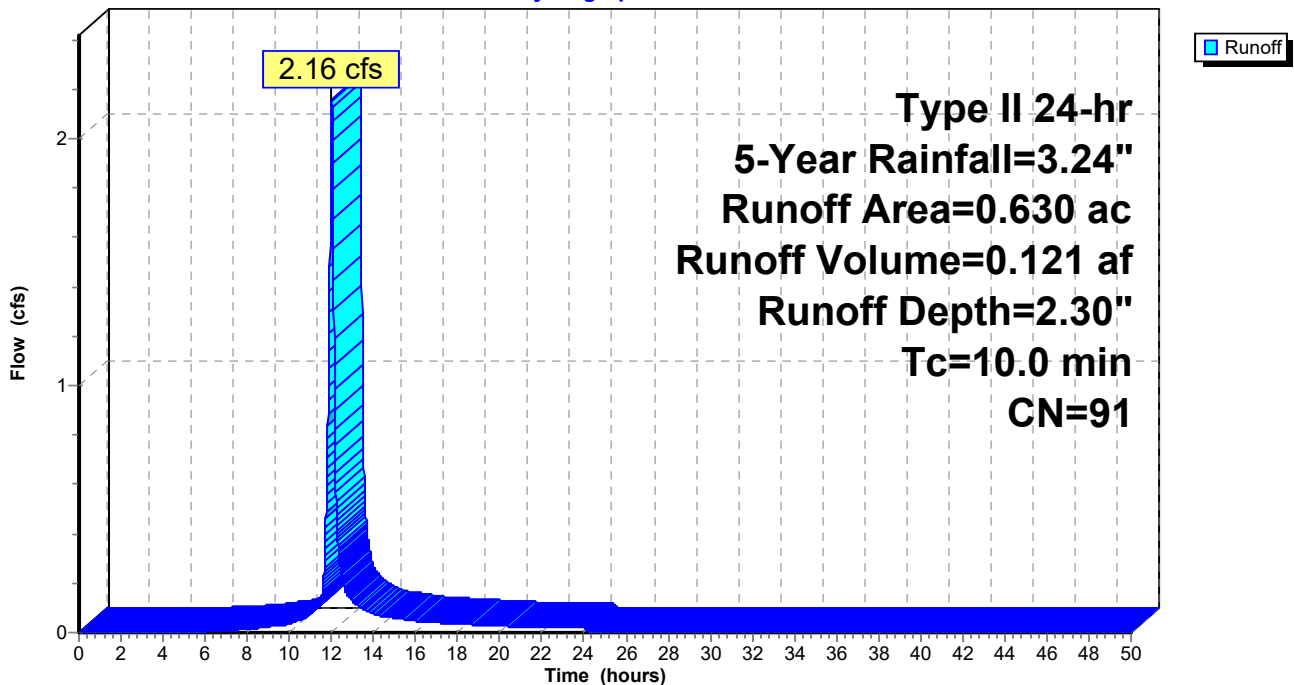
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 21W: STR21

Runoff = 2.35 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 2.79"

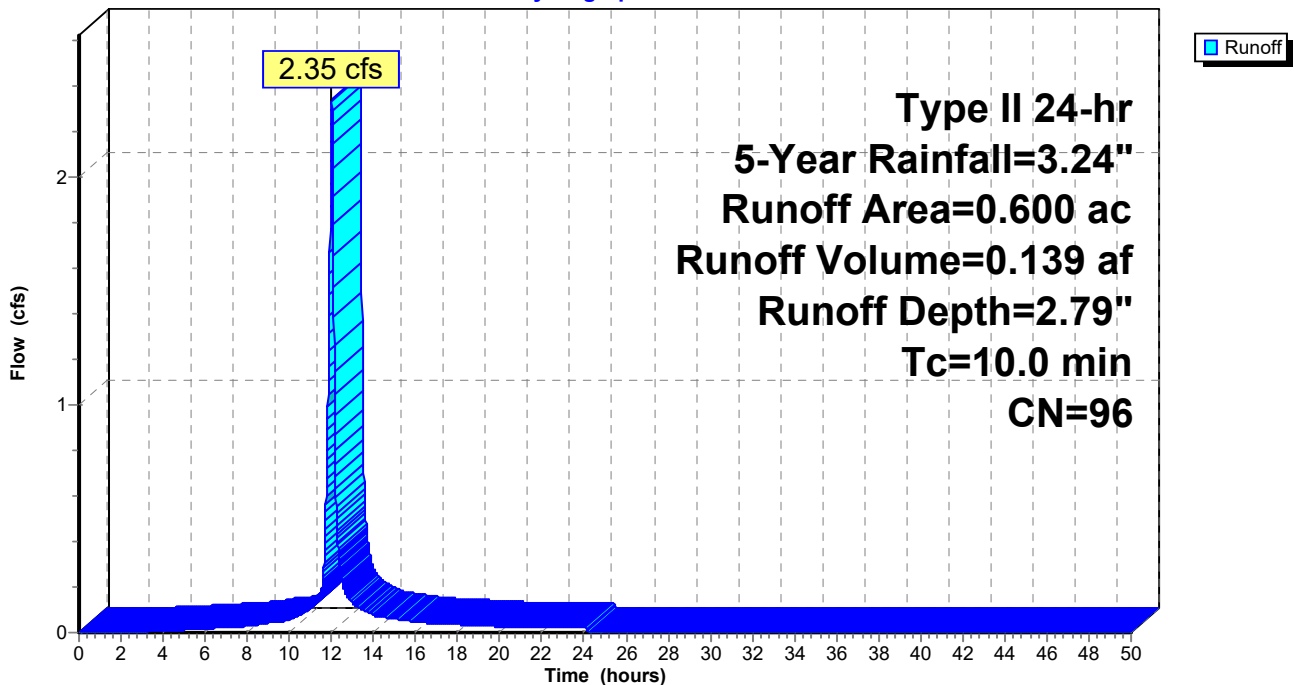
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 22W: STR22

Runoff = 3.10 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 2.68"

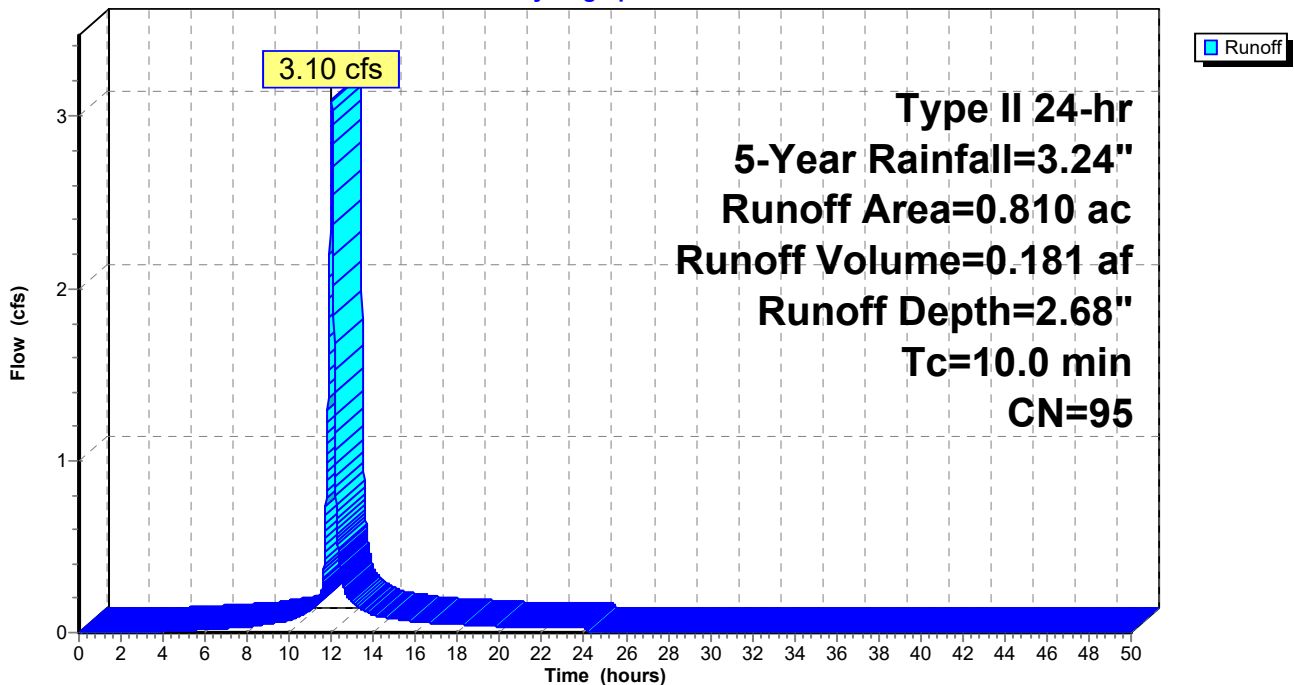
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 23W: STR23

Runoff = 2.58 cfs @ 12.01 hrs, Volume= 0.149 af, Depth= 2.58"

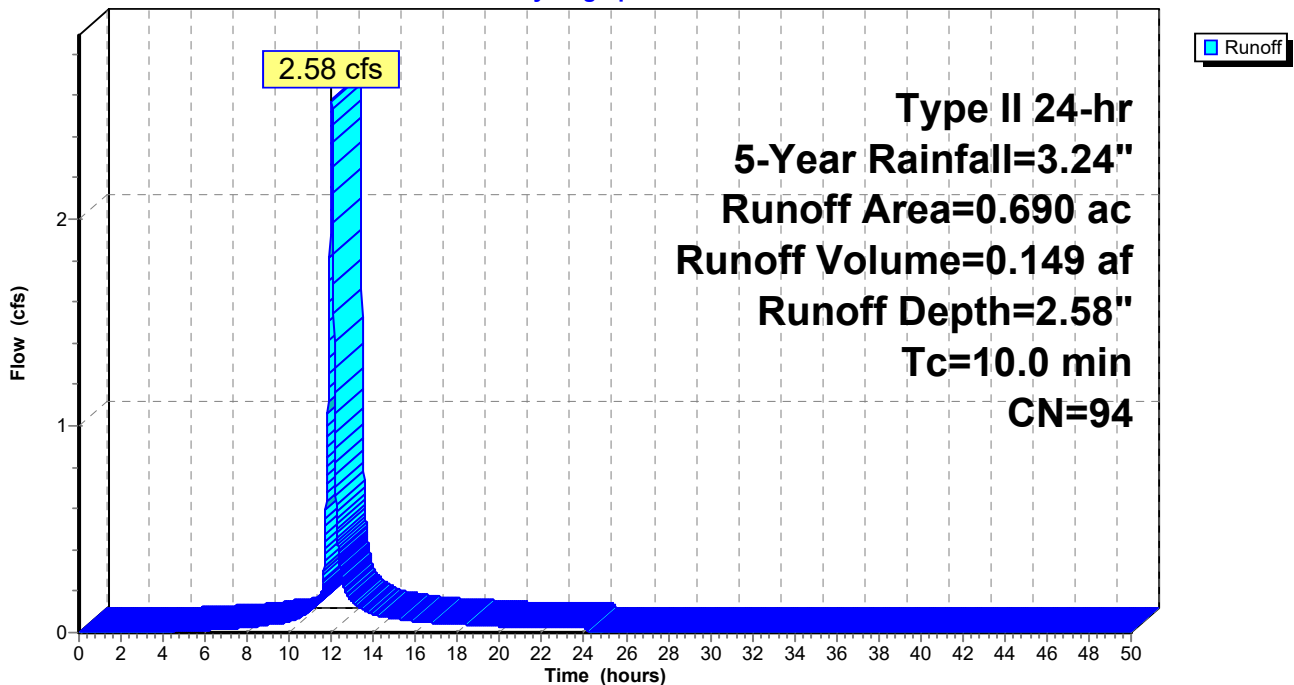
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 24W: STR24

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

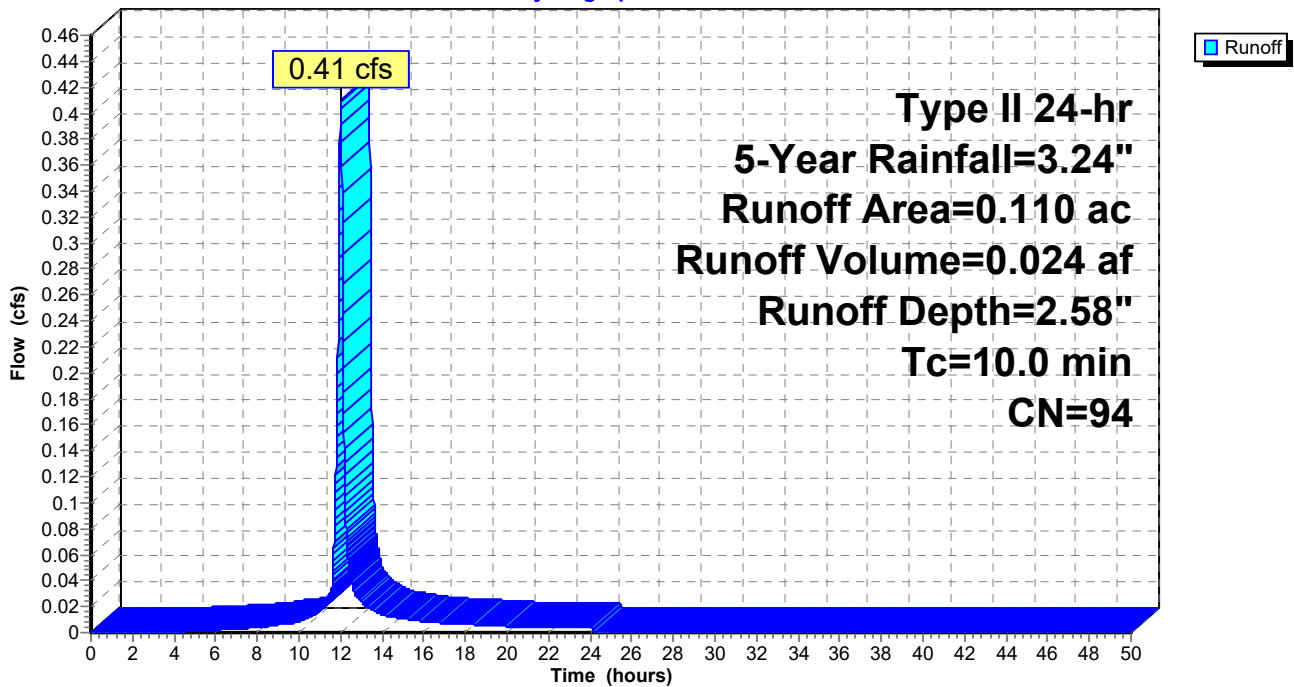
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 25W: STR25

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

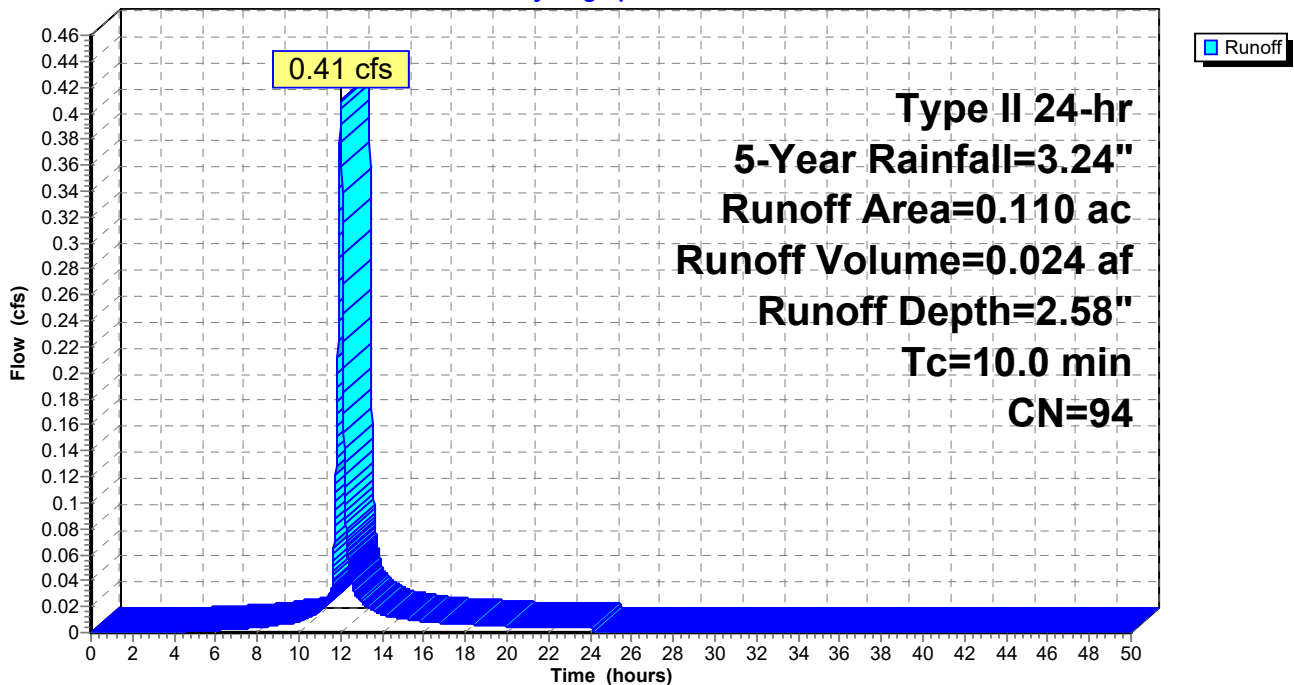
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 26W: STR26

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

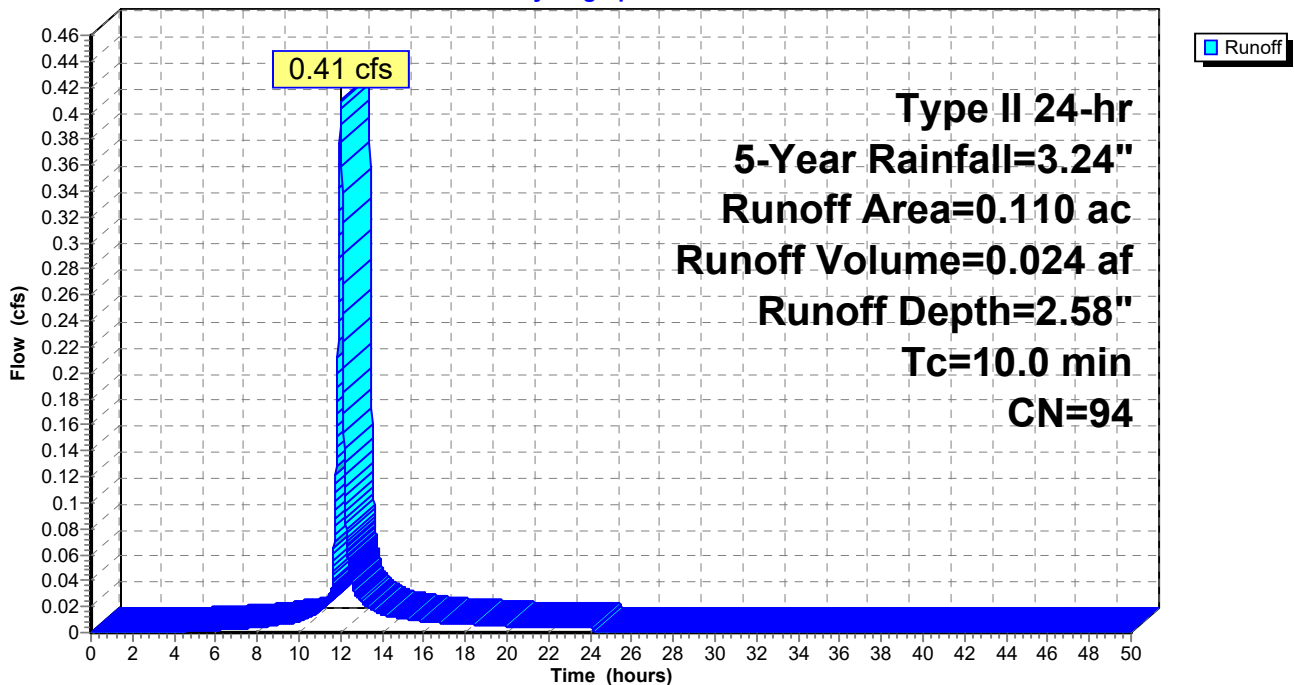
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 27W: STR27

Runoff = 1.06 cfs @ 12.01 hrs, Volume= 0.063 af, Depth= 2.79"

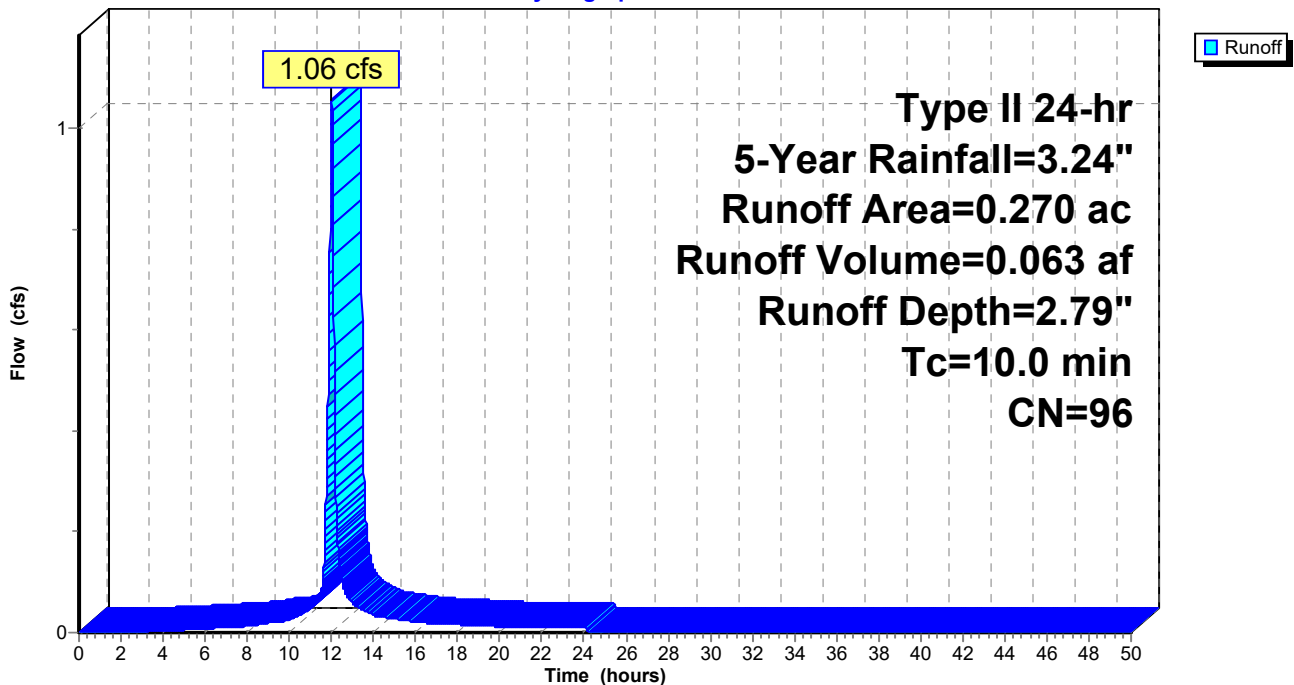
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.39" for 5-Year event
 Inflow = 21.37 cfs @ 12.01 hrs, Volume= 1.227 af
 Outflow = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af, Atten= 71%, Lag= 10.9 min
 Primary = 6.20 cfs @ 12.19 hrs, Volume= 1.202 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 911.80' @ 12.19 hrs Surf.Area= 17,548 sf Storage= 20,693 cf

Plug-Flow detention time= 92.8 min calculated for 1.202 af (98% of inflow)
 Center-of-Mass det. time= 80.4 min (872.3 - 791.9)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=6.20 cfs @ 12.19 hrs HW=911.80' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 6.20 cfs of 6.76 cfs potential flow)

↑ **2=Culvert** (Inlet Controls 6.20 cfs @ 5.05 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 6.20 cfs of 7.79 cfs potential flow)

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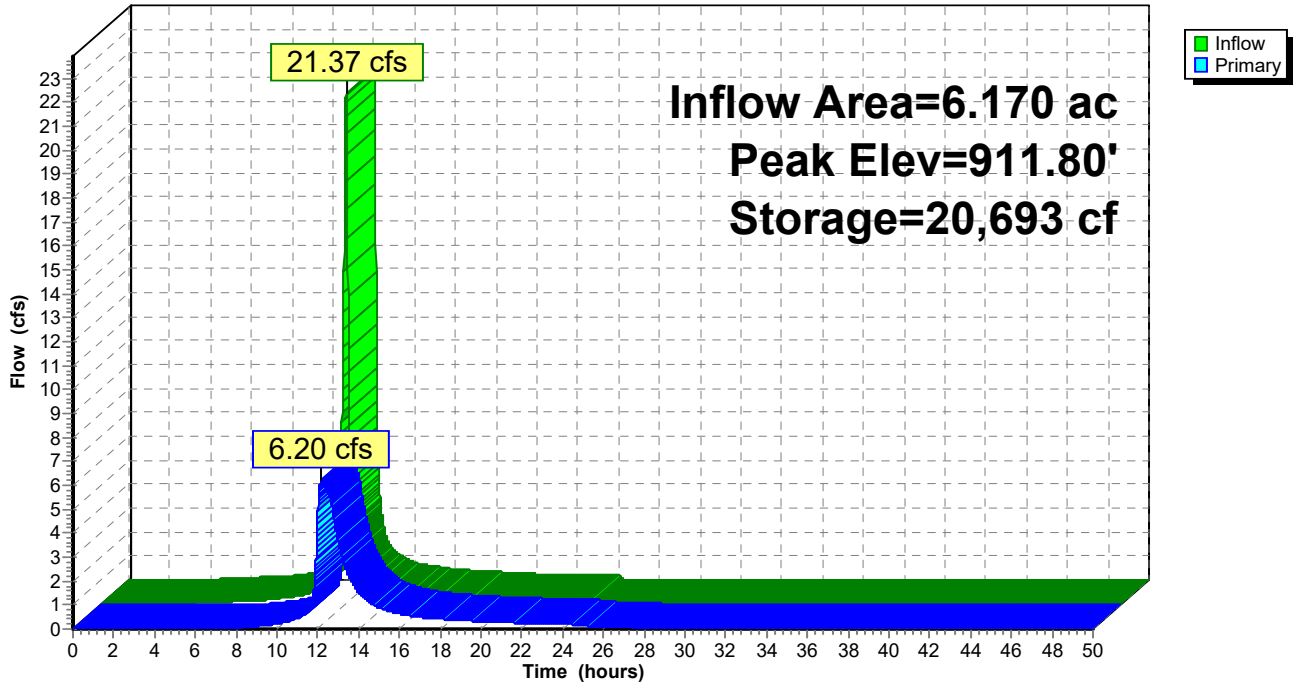
Type II 24-hr 5-Year Rainfall=3.24"

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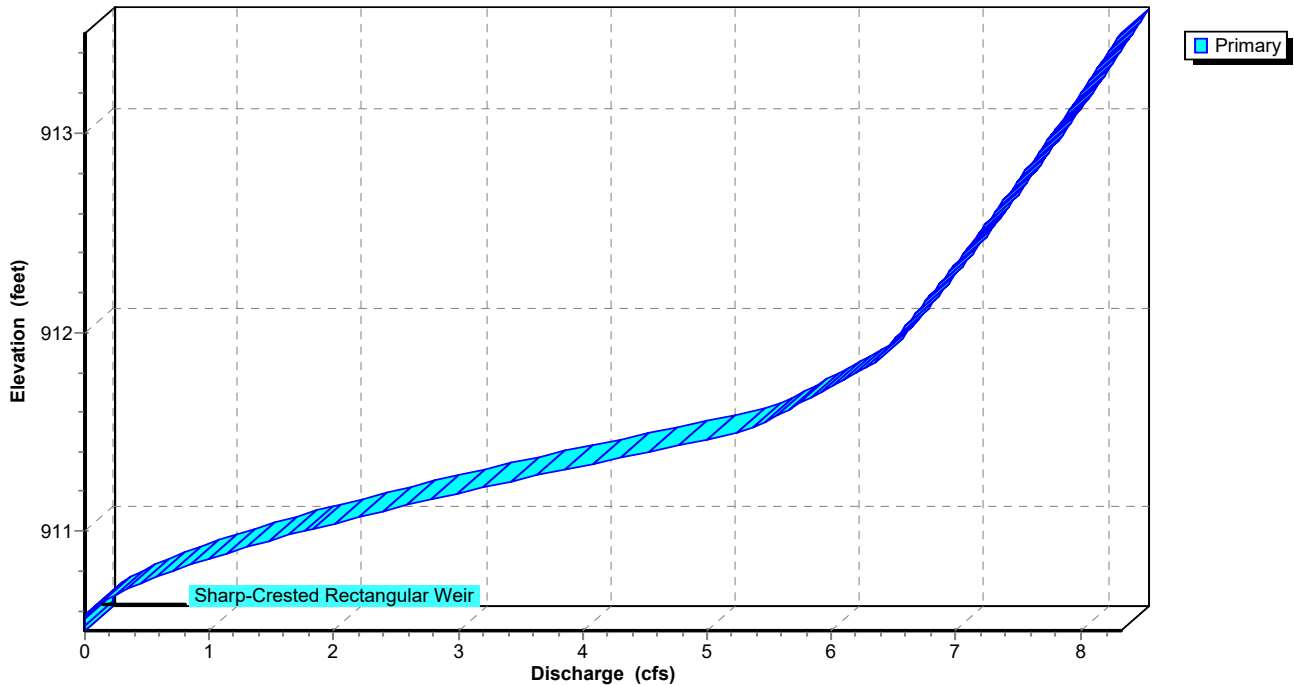
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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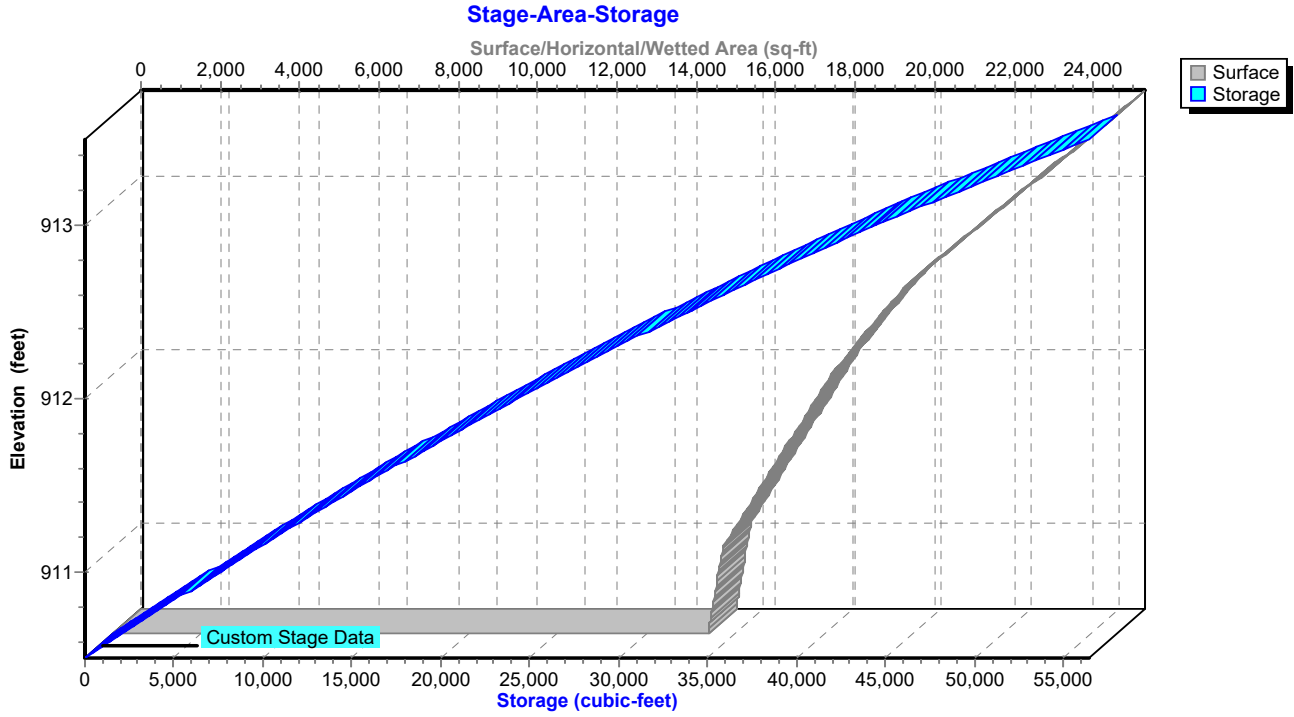
EXISTING WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond WP: RETENTION BASIN



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 15W: STR15

Runoff = 2.45 cfs @ 12.01 hrs, Volume= 0.141 af, Depth= 2.97"

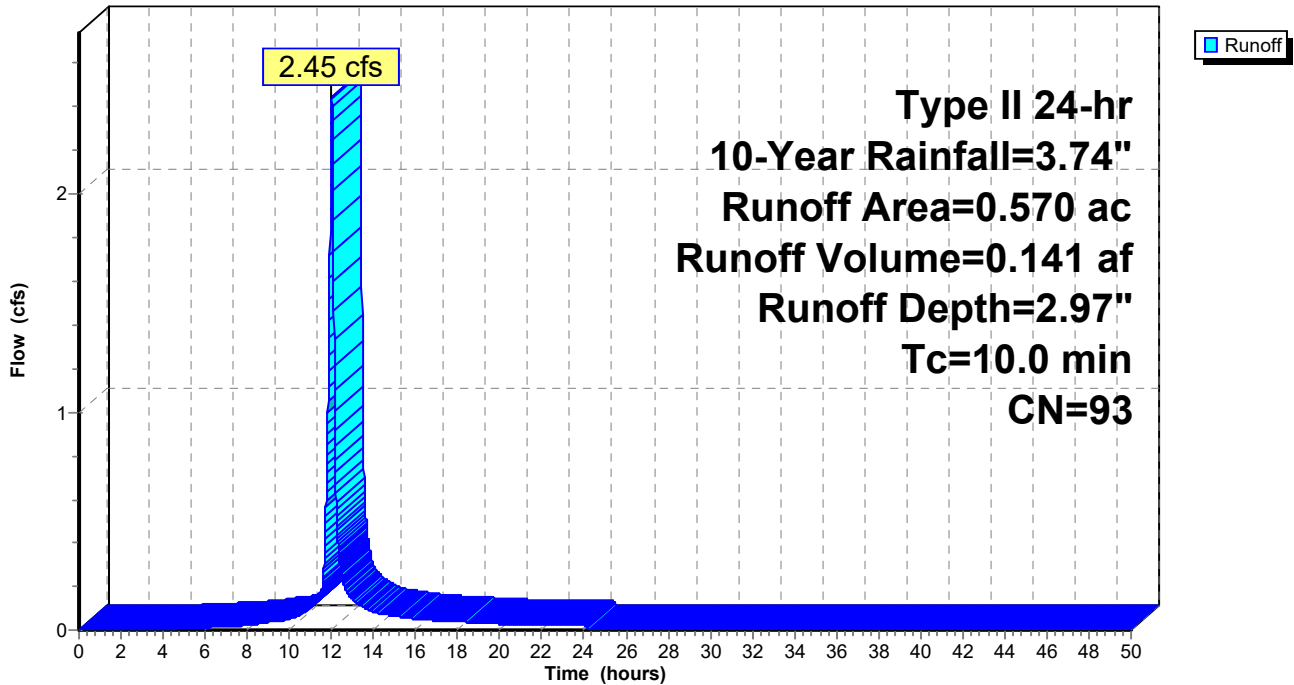
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 2.99 cfs @ 12.02 hrs, Volume= 0.162 af, Depth= 1.83"

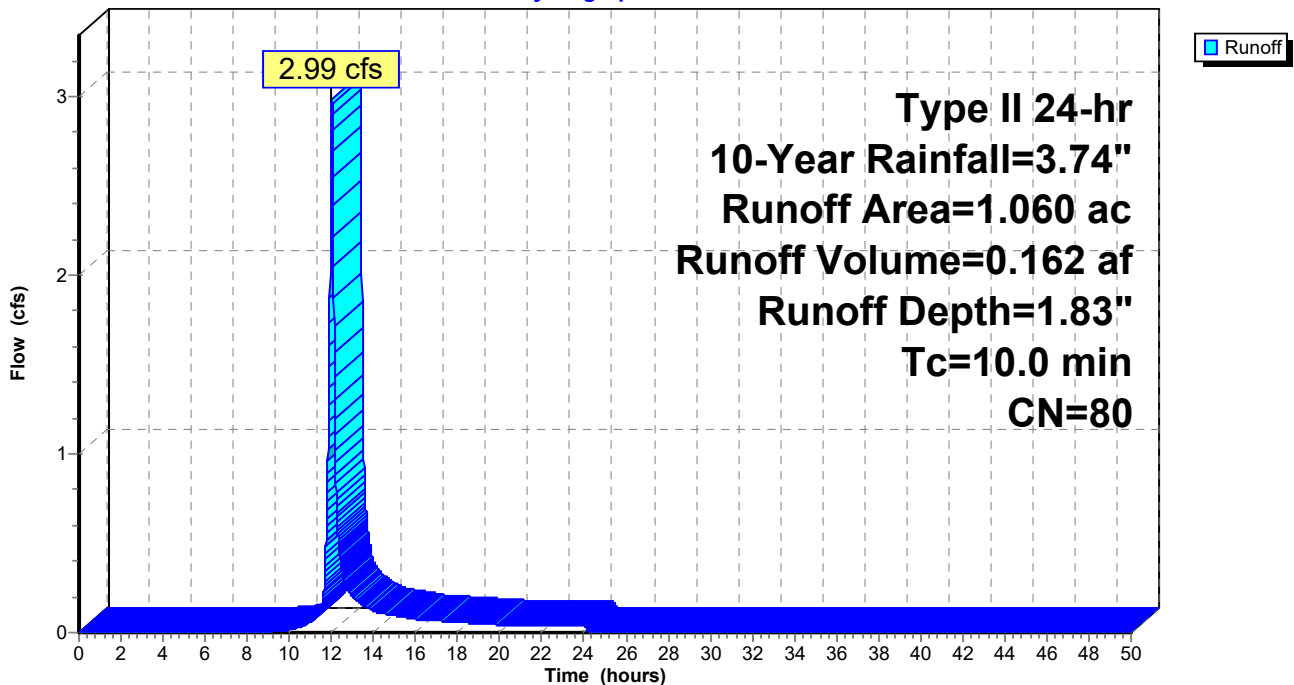
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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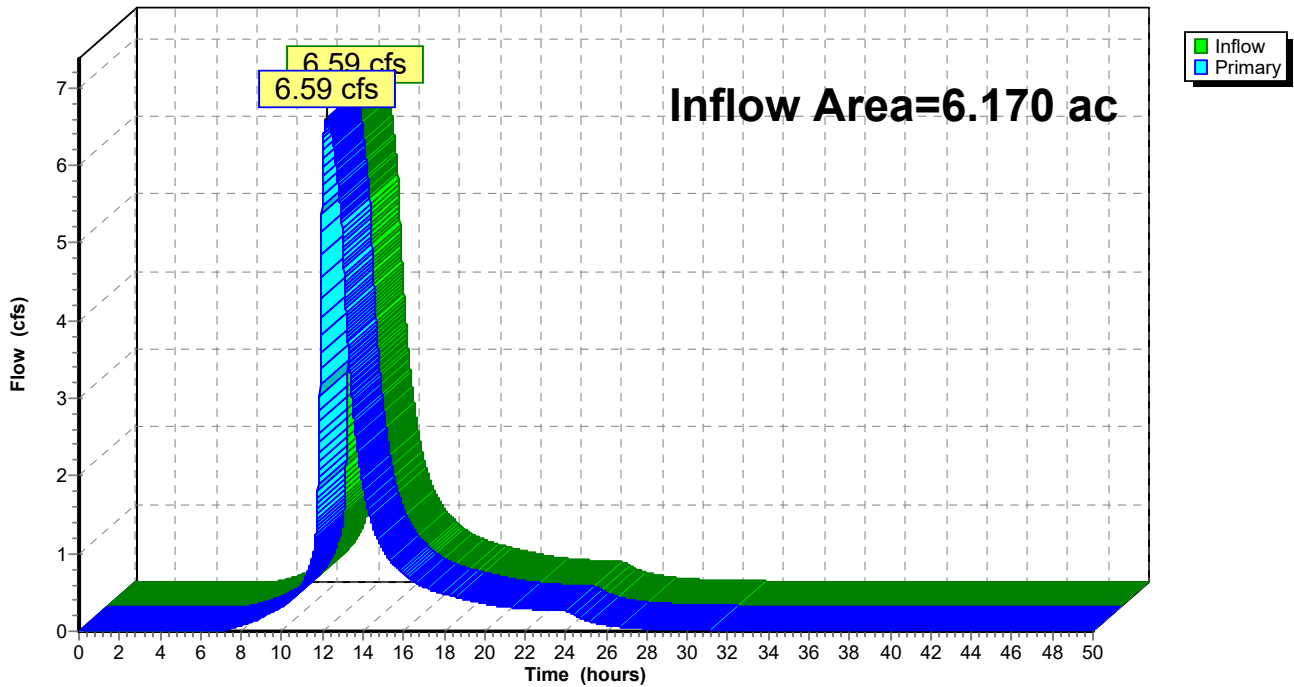
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.81" for 10-Year event
Inflow = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af
Primary = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



3481 MAG PORSCHE - EXISTING

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EXISTING WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 17W: STR17

Runoff = 2.90 cfs @ 12.01 hrs, Volume= 0.169 af, Depth= 3.07"

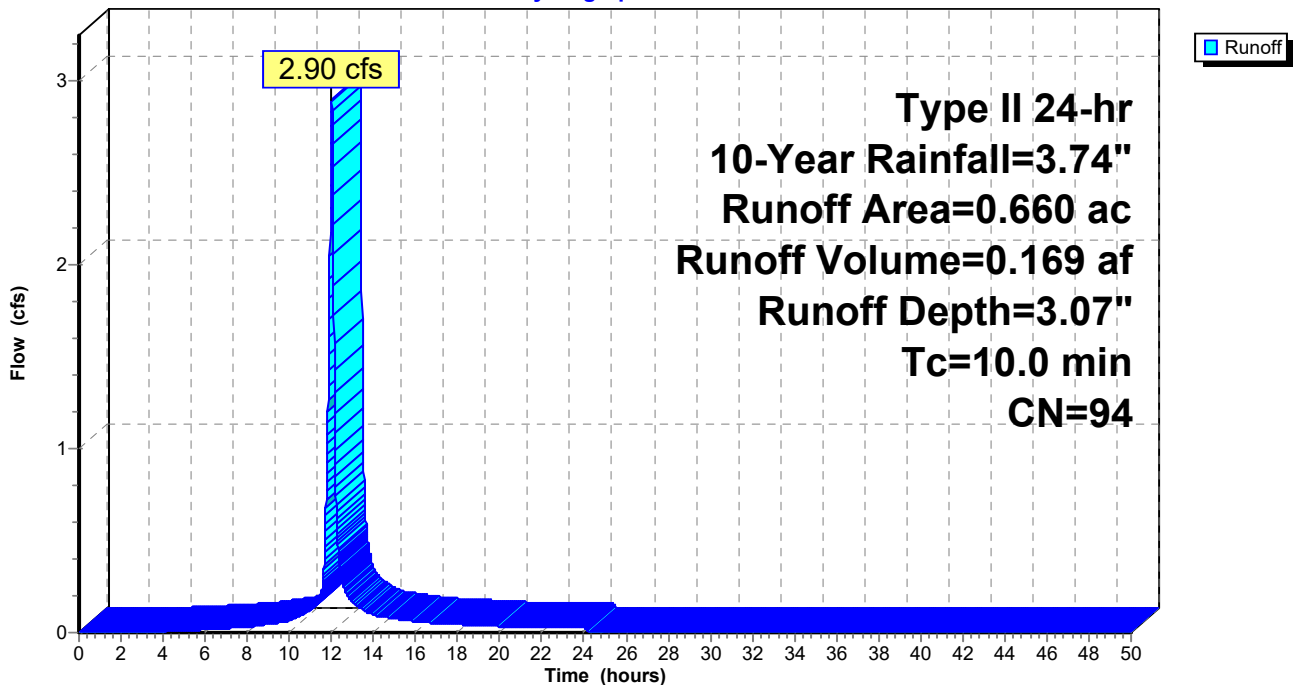
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 18W: STR18

Runoff = 0.59 cfs @ 12.01 hrs, Volume= 0.036 af, Depth= 3.28"

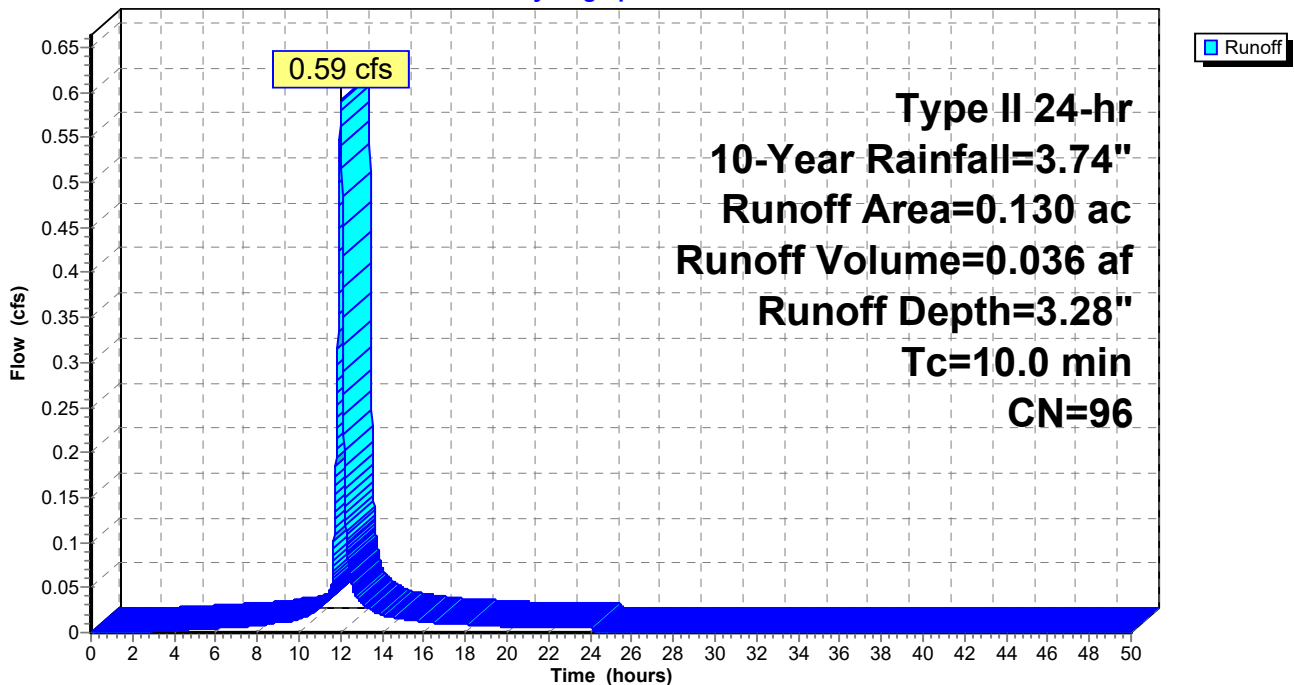
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 19W: STR19

Runoff = 1.81 cfs @ 12.01 hrs, Volume= 0.104 af, Depth= 2.97"

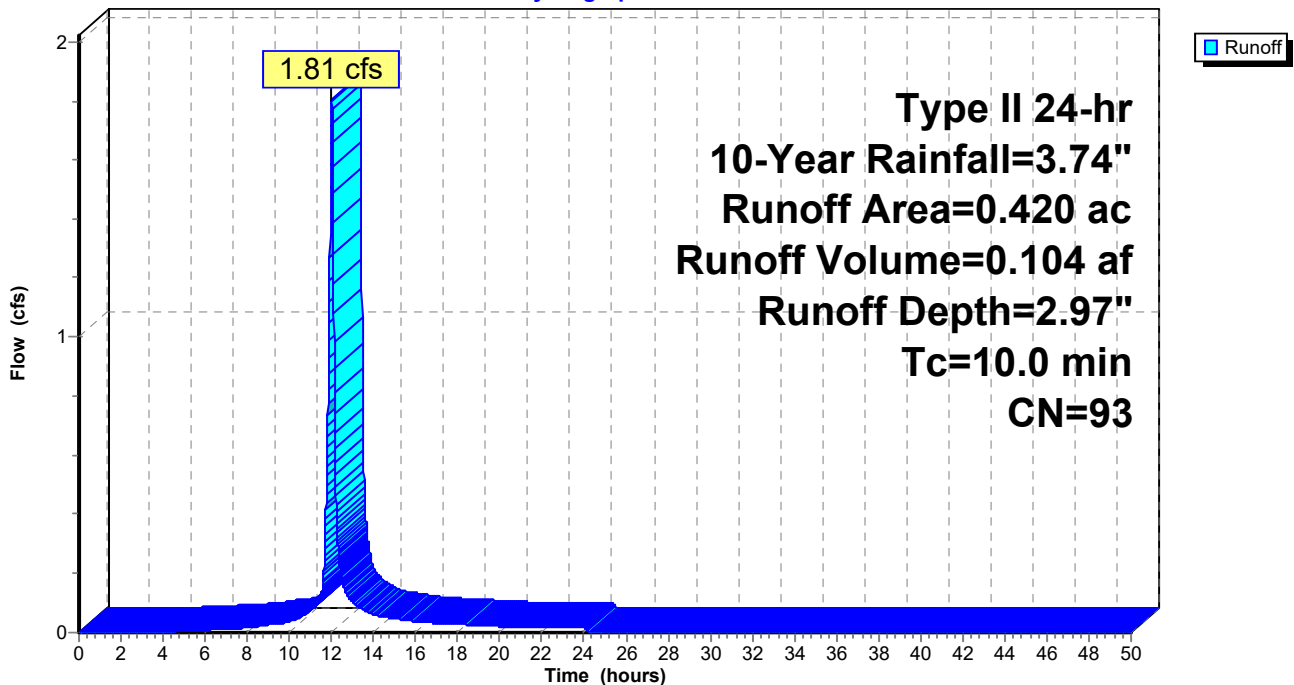
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 20W: STR20

Runoff = 2.58 cfs @ 12.01 hrs, Volume= 0.145 af, Depth= 2.77"

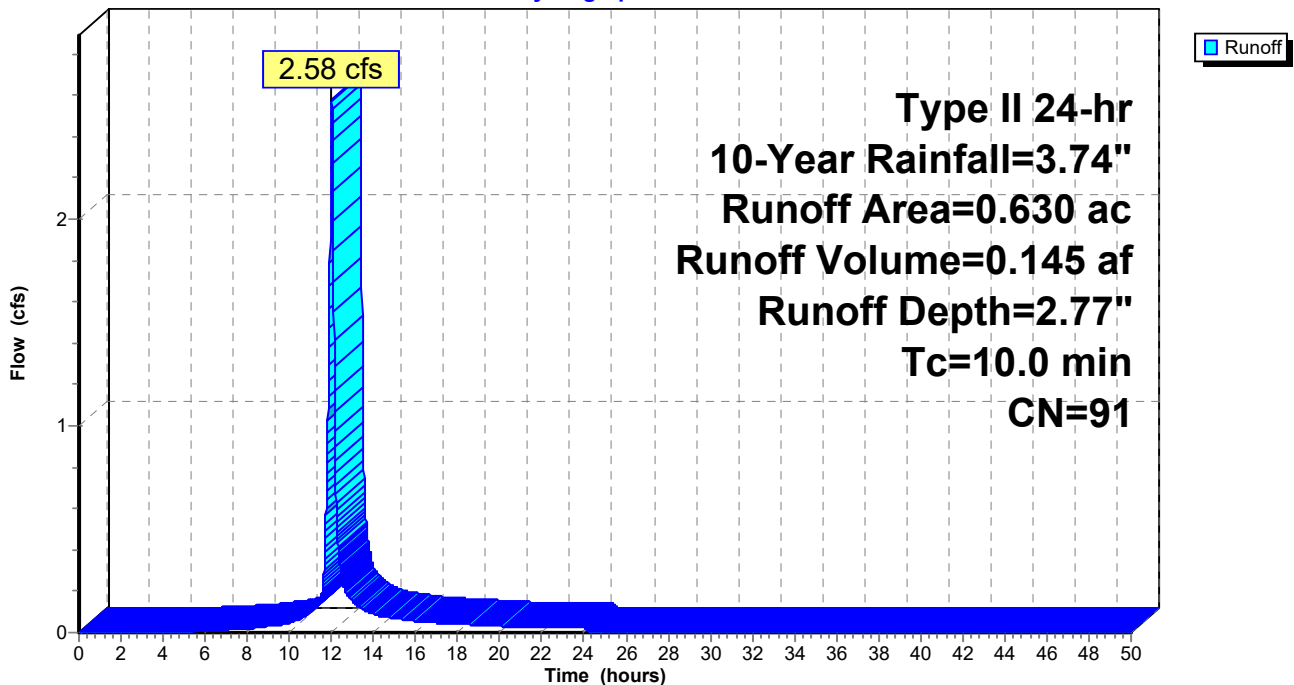
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 21W: STR21

Runoff = 2.73 cfs @ 12.01 hrs, Volume= 0.164 af, Depth= 3.28"

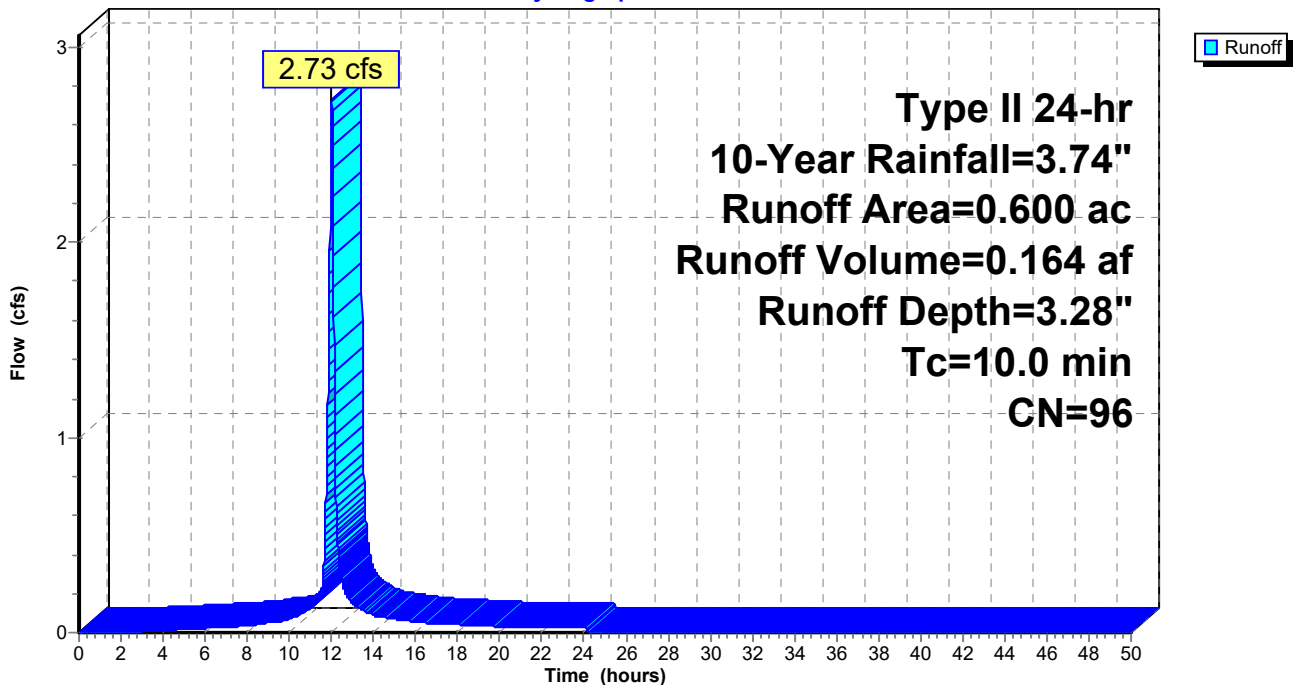
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 22W: STR22

Runoff = 3.63 cfs @ 12.01 hrs, Volume= 0.214 af, Depth= 3.17"

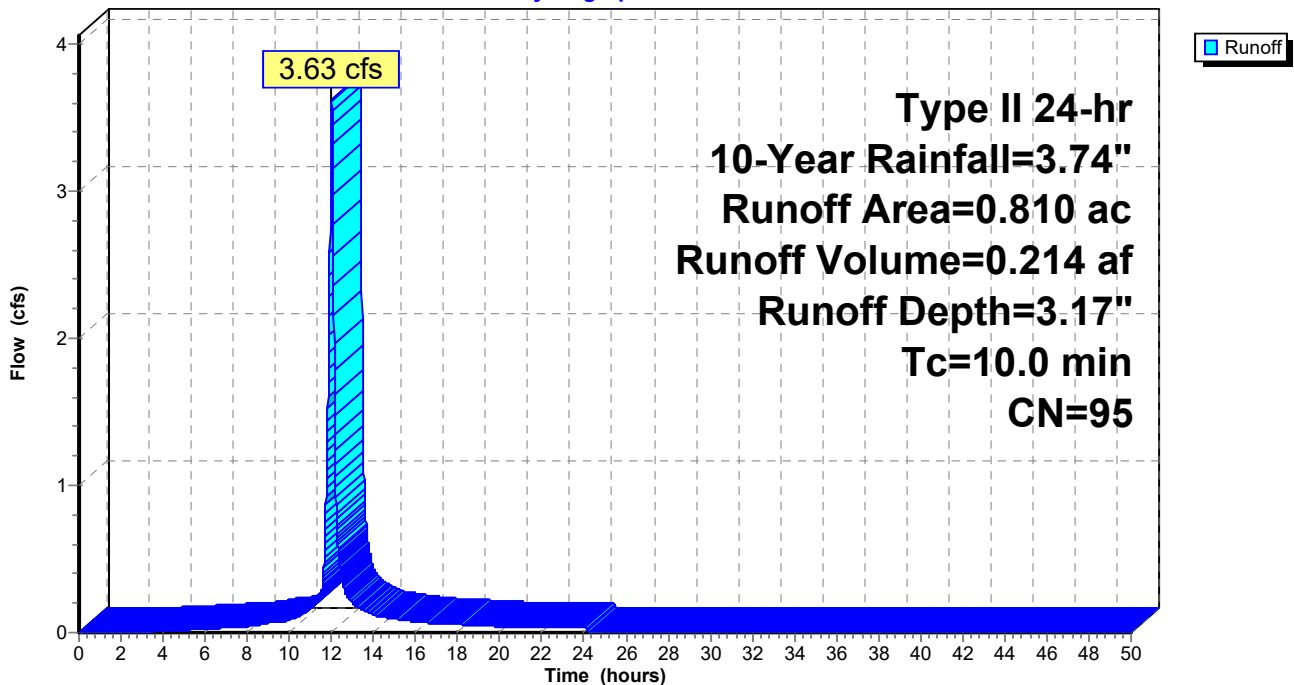
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 23W: STR23

Runoff = 3.03 cfs @ 12.01 hrs, Volume= 0.177 af, Depth= 3.07"

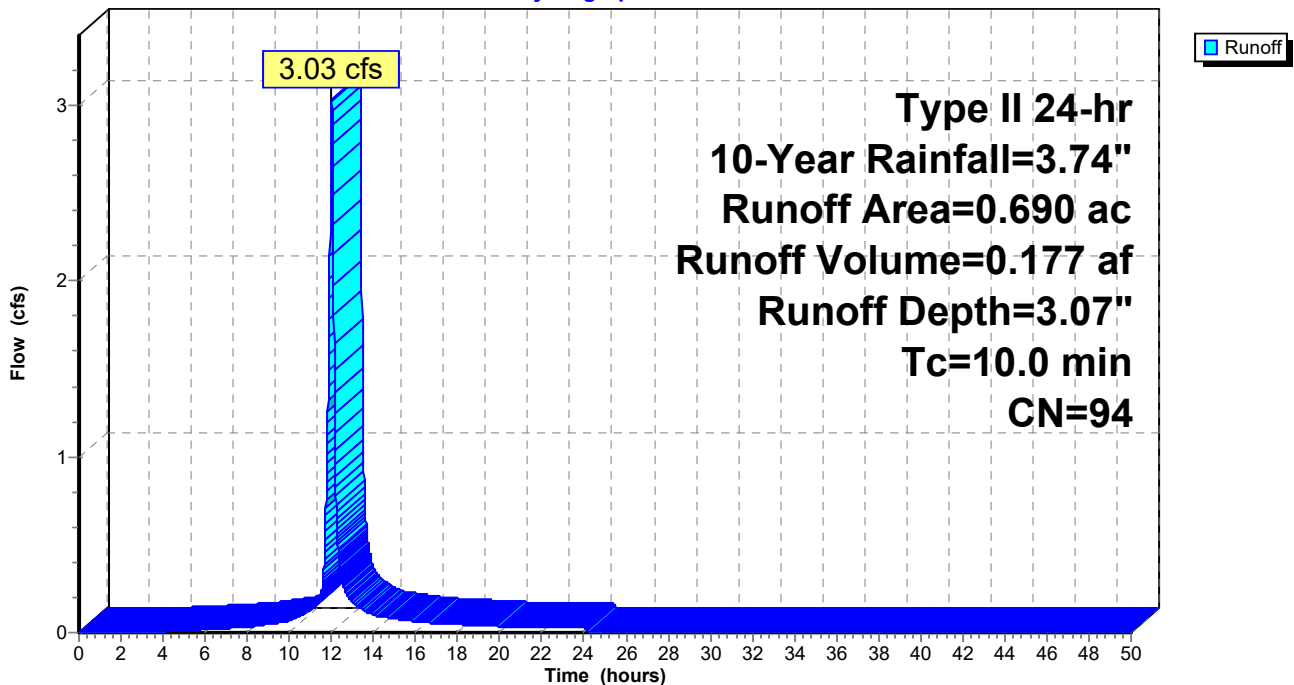
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 24W: STR24

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

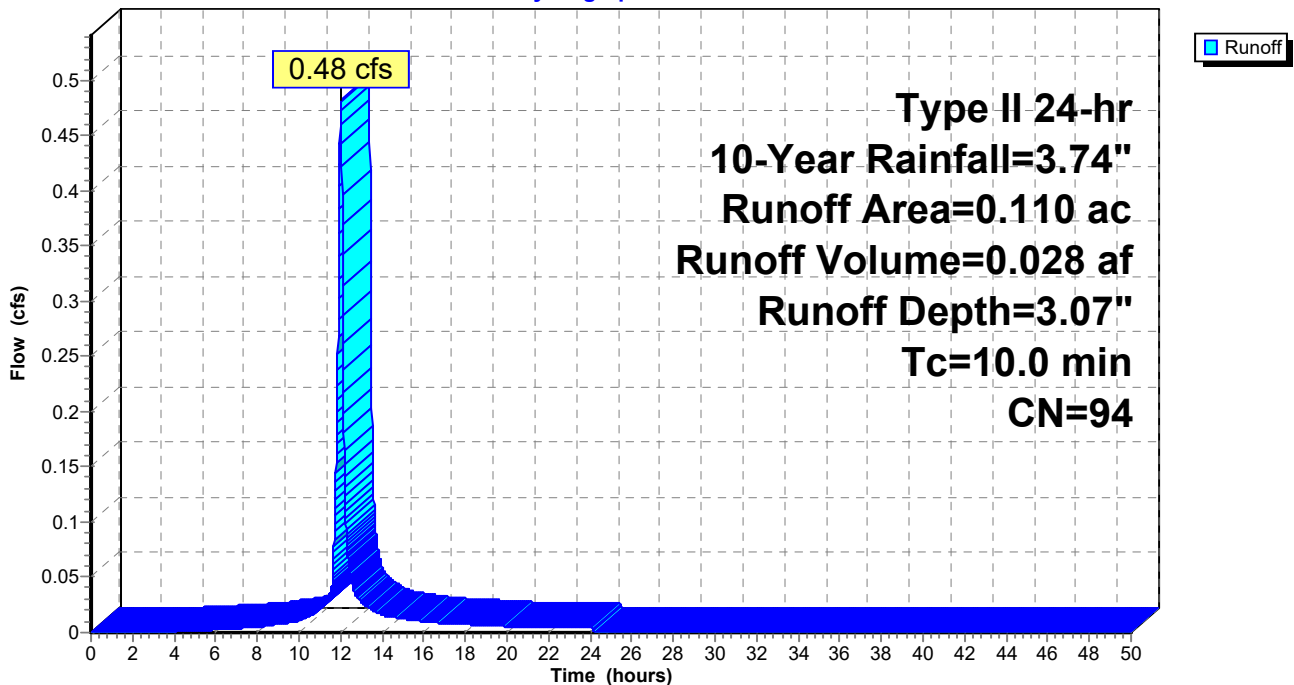
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 25W: STR25

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

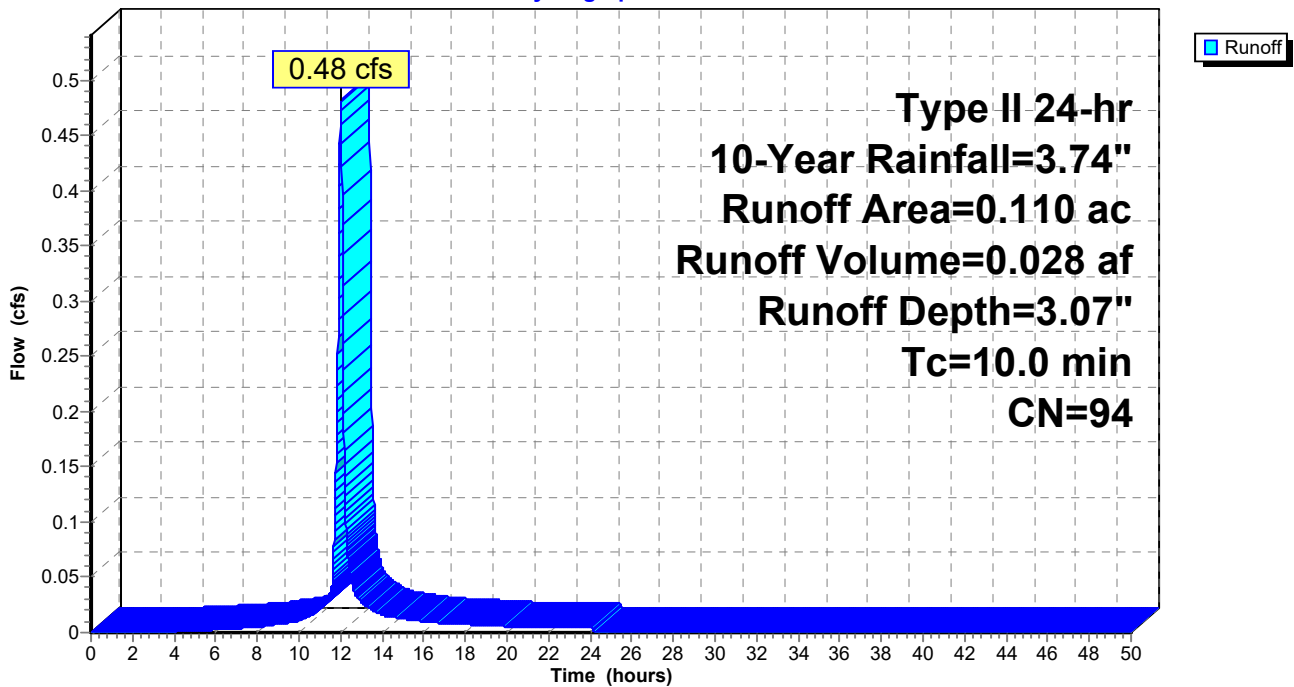
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 26W: STR26

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

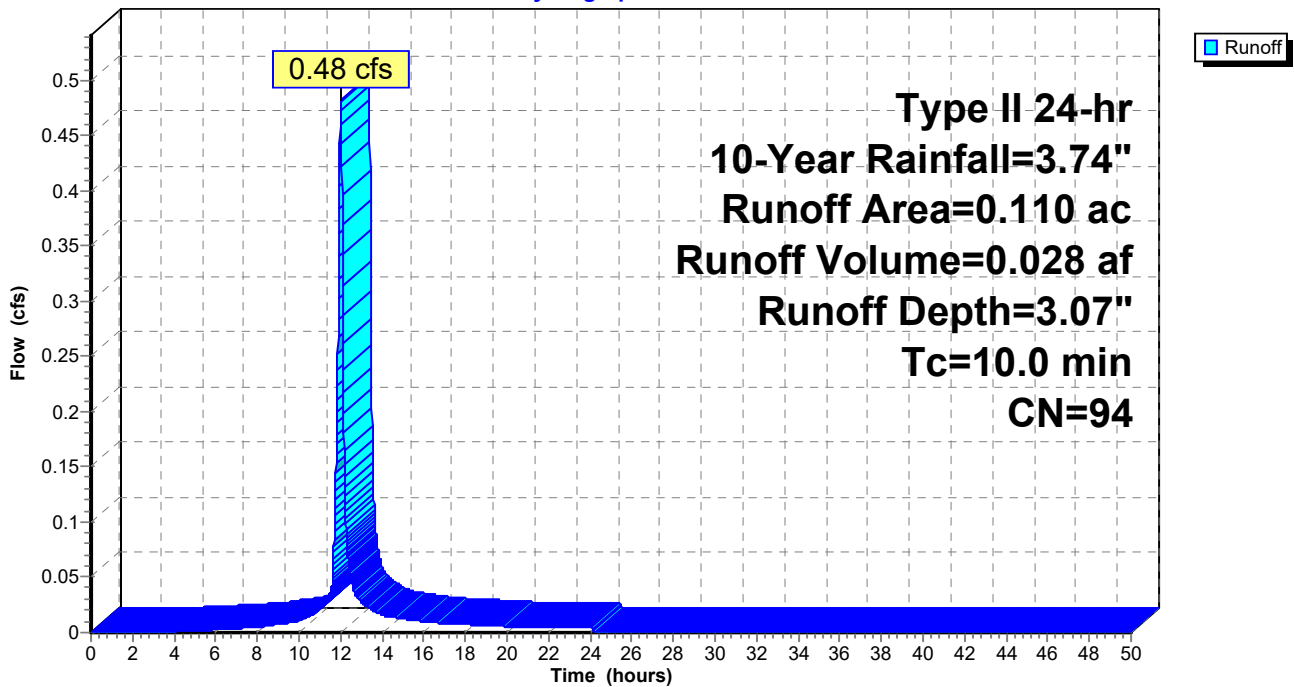
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 27W: STR27

Runoff = 1.23 cfs @ 12.01 hrs, Volume= 0.074 af, Depth= 3.28"

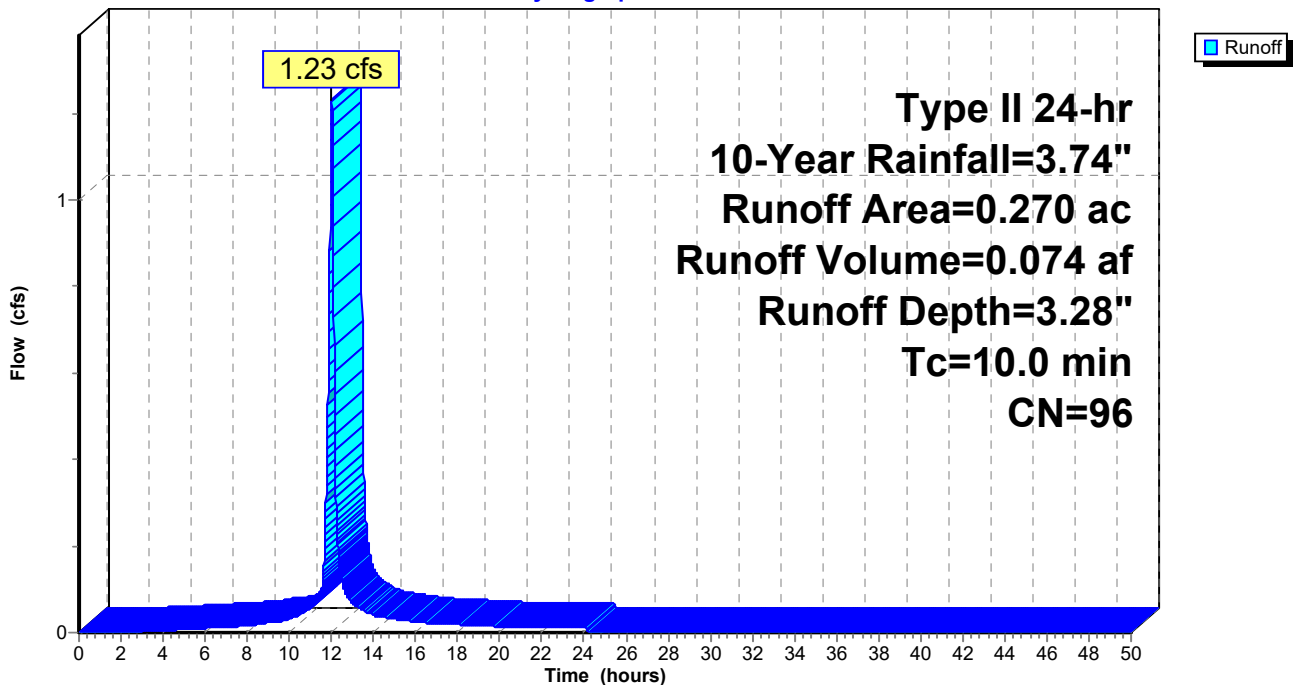
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 2.86" for 10-Year event
 Inflow = 25.38 cfs @ 12.01 hrs, Volume= 1.469 af
 Outflow = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af, Atten= 74%, Lag= 11.9 min
 Primary = 6.59 cfs @ 12.21 hrs, Volume= 1.445 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.02' @ 12.21 hrs Surf.Area= 18,194 sf Storage= 24,771 cf

Plug-Flow detention time= 89.0 min calculated for 1.445 af (98% of inflow)
 Center-of-Mass det. time= 78.2 min (865.7 - 787.5)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=6.59 cfs @ 12.21 hrs HW=912.02' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 6.59 cfs of 7.00 cfs potential flow)

↑ **2=Culvert** (Barrel Controls 6.59 cfs @ 5.37 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 6.59 cfs of 9.80 cfs potential flow)

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EXISTING WEST TRIB

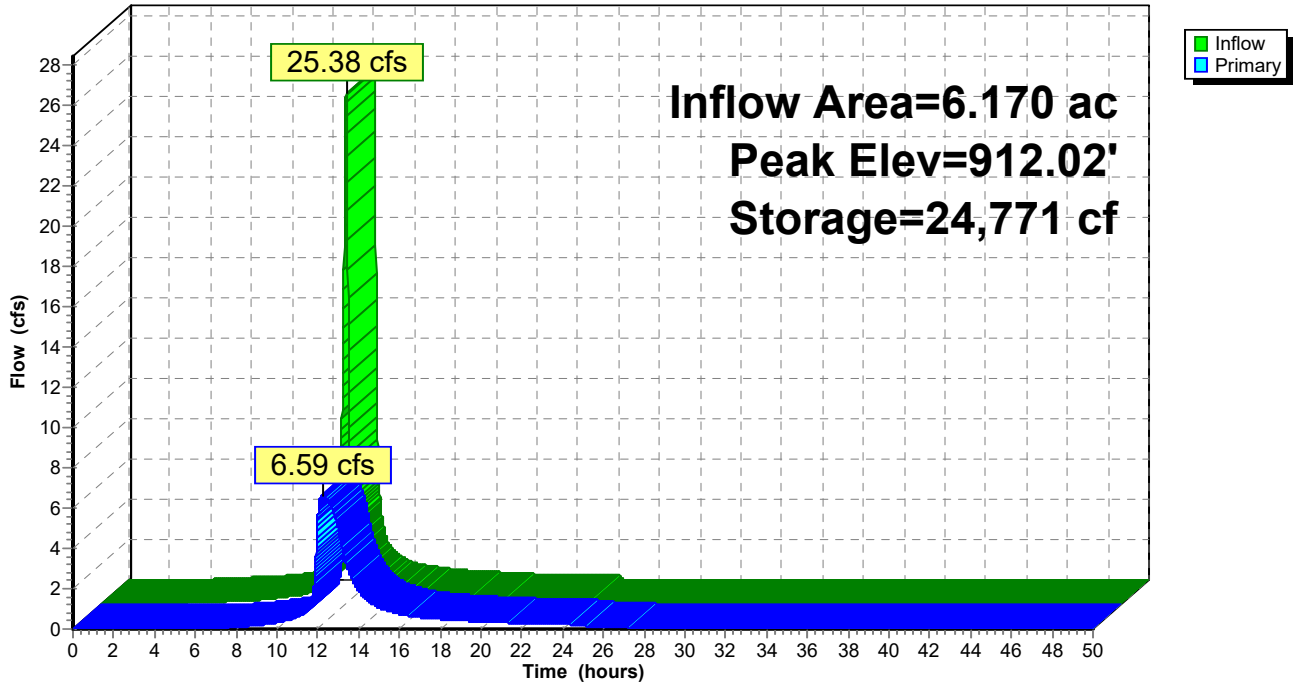
Type II 24-hr 10-Year Rainfall=3.74"

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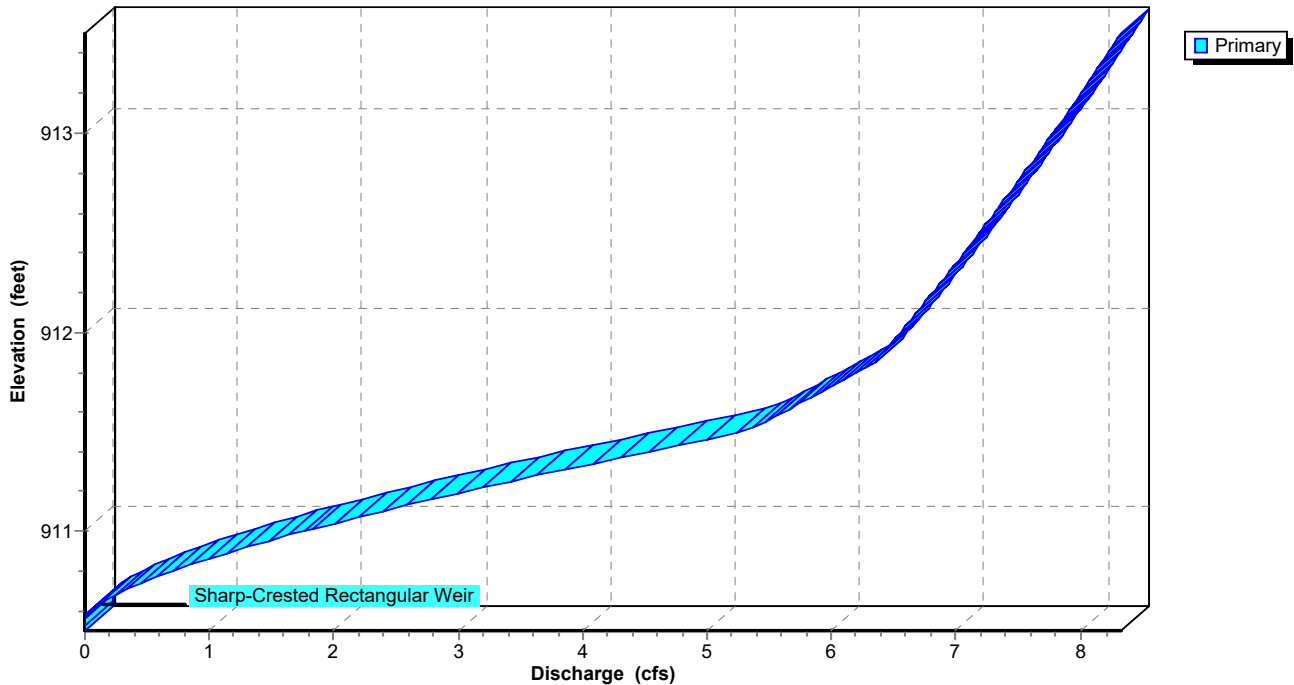
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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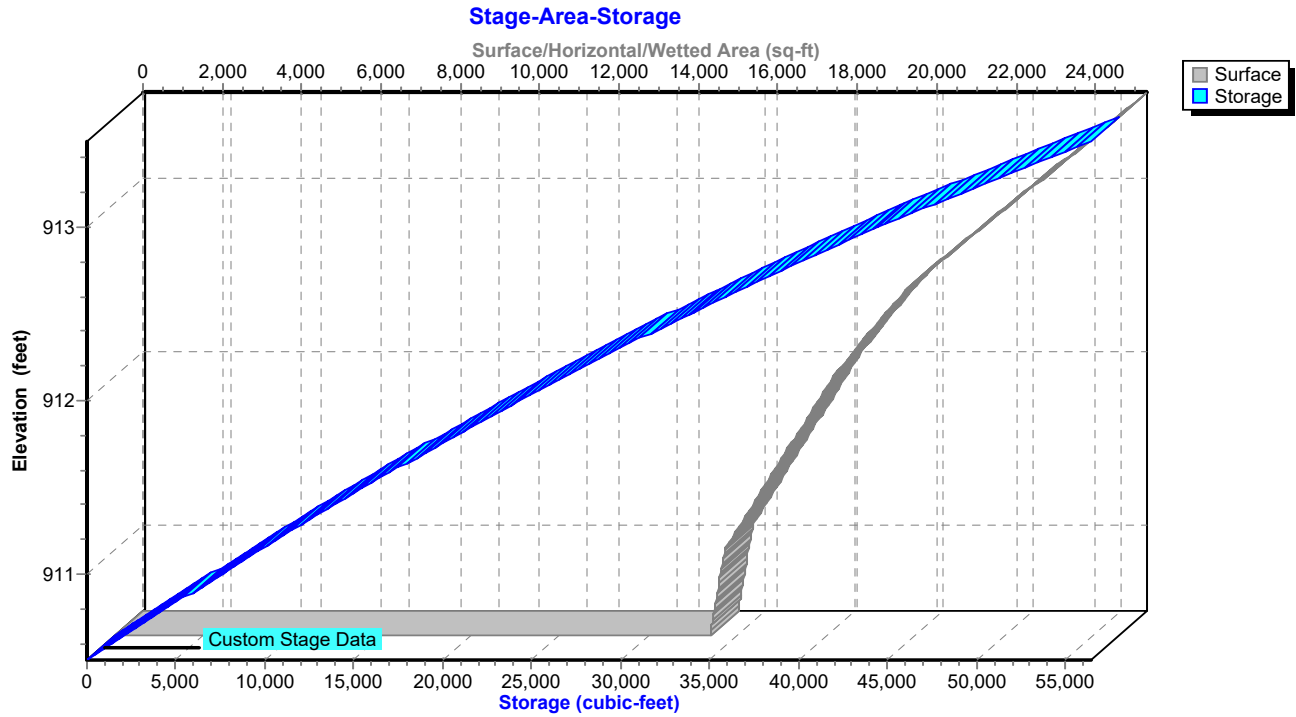
EXISTING WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond WP: RETENTION BASIN



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EXISTING WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 15W: STR15

Runoff = 2.97 cfs @ 12.01 hrs, Volume= 0.173 af, Depth= 3.65"

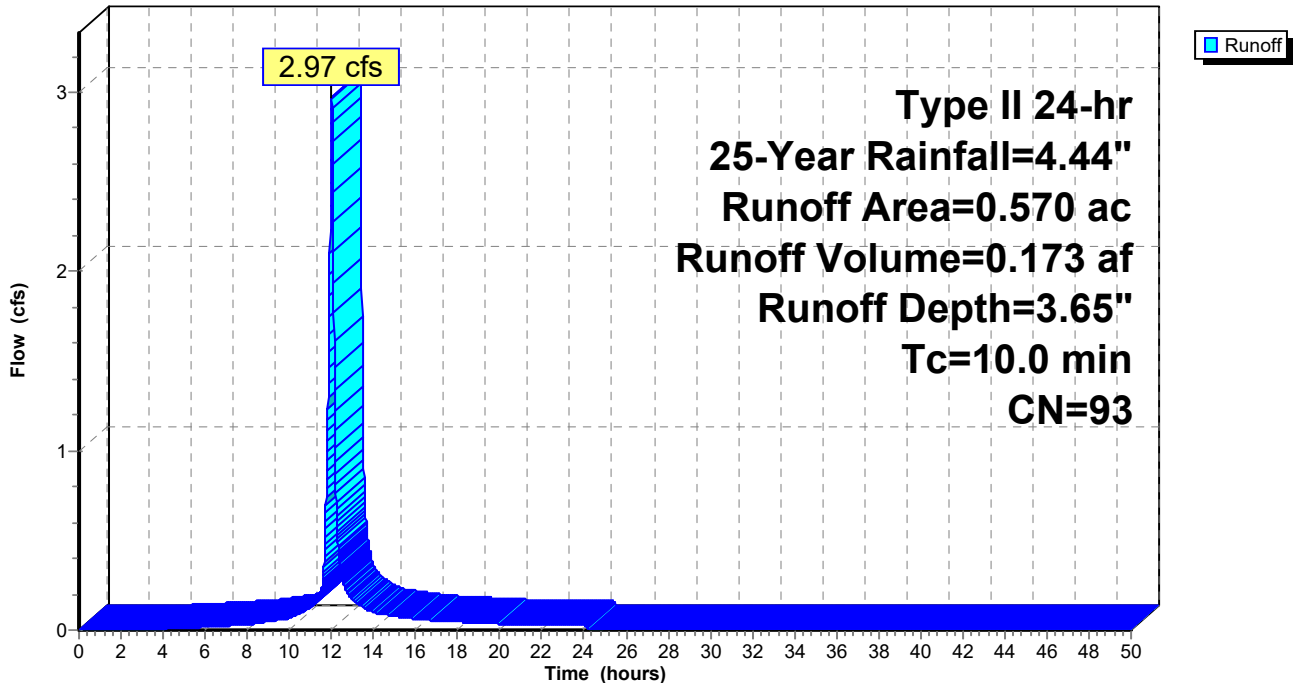
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 3.93 cfs @ 12.02 hrs, Volume= 0.213 af, Depth= 2.41"

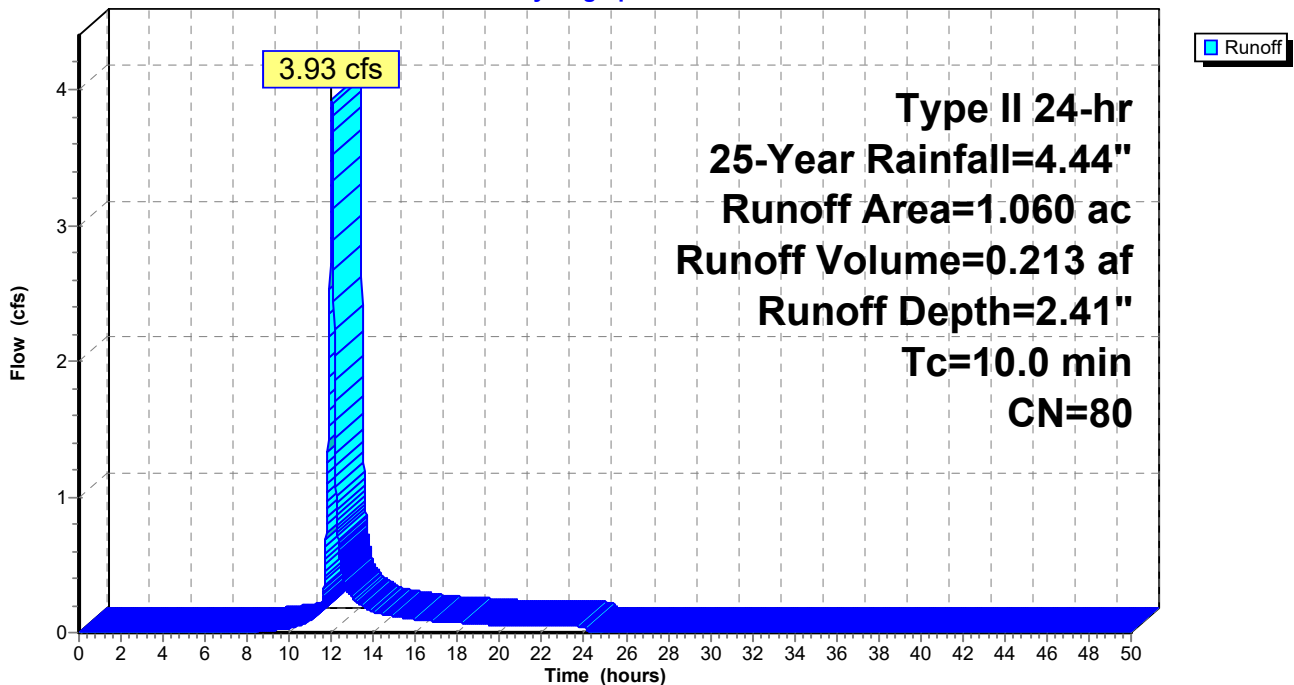
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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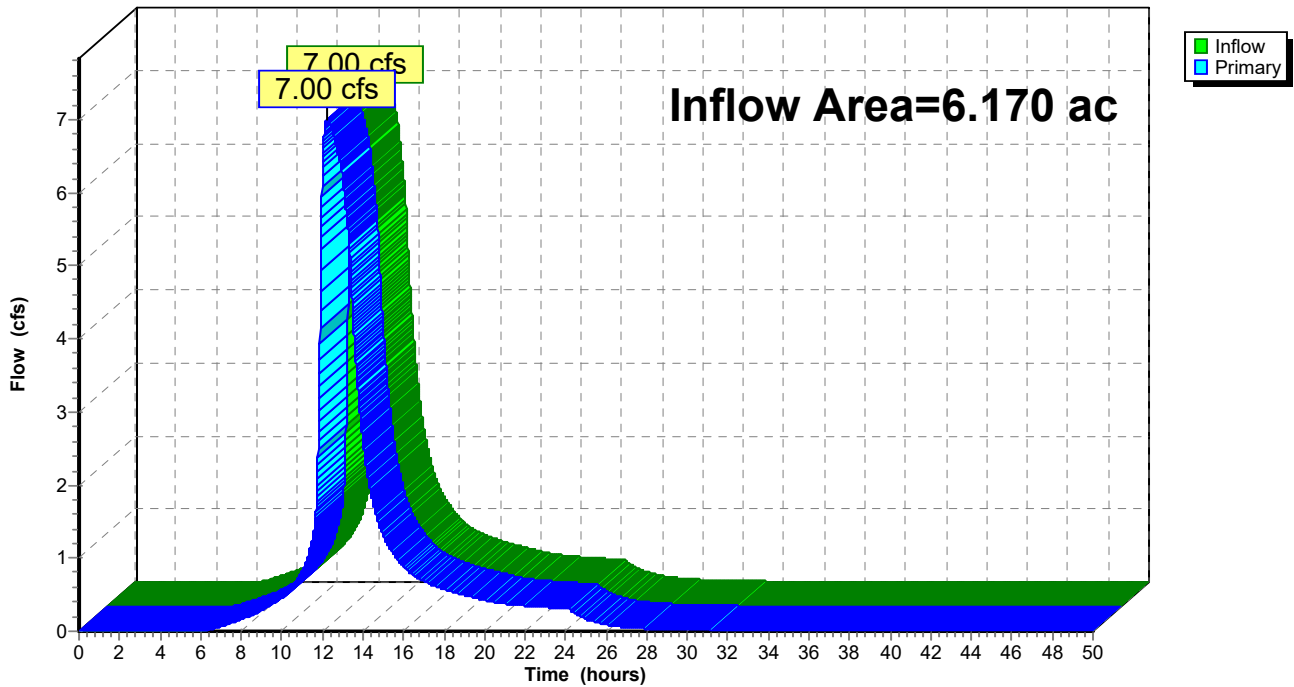
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 3.48" for 25-Year event
Inflow = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af
Primary = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 17W: STR17

Runoff = 3.50 cfs @ 12.01 hrs, Volume= 0.207 af, Depth= 3.76"

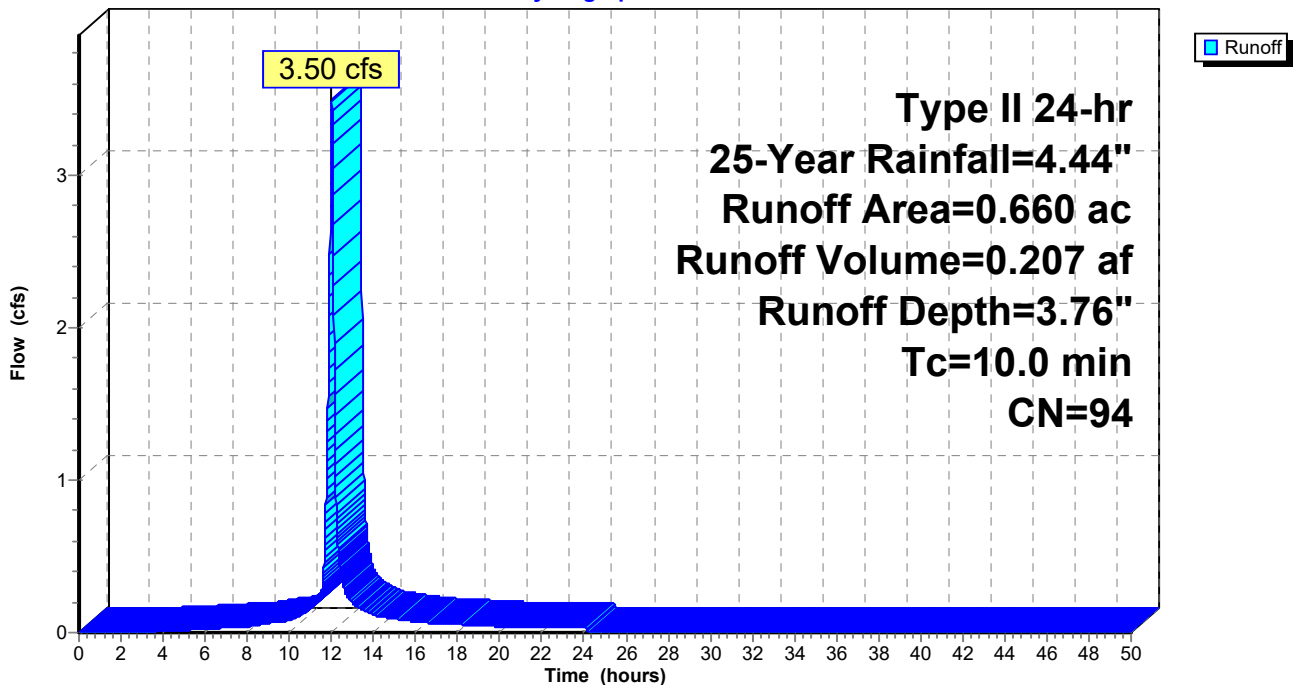
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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EXISTING WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 18W: STR18

Runoff = 0.71 cfs @ 12.01 hrs, Volume= 0.043 af, Depth= 3.98"

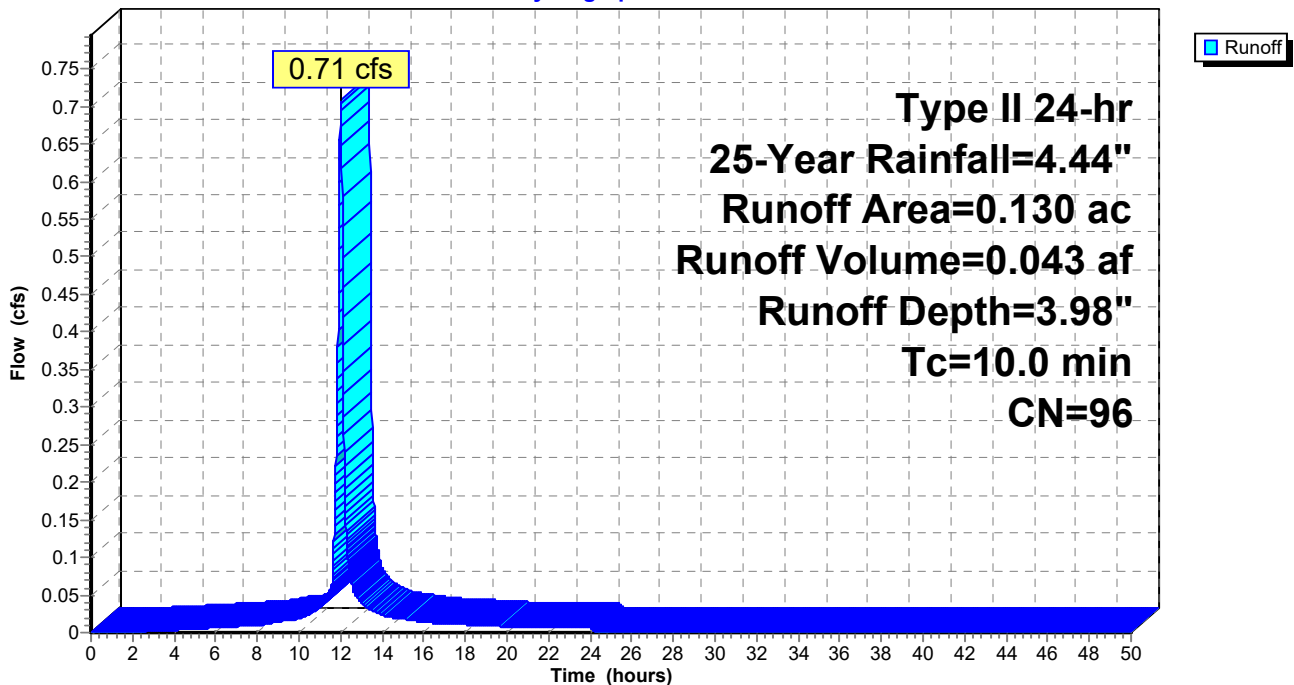
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 19W: STR19

Runoff = 2.19 cfs @ 12.01 hrs, Volume= 0.128 af, Depth= 3.65"

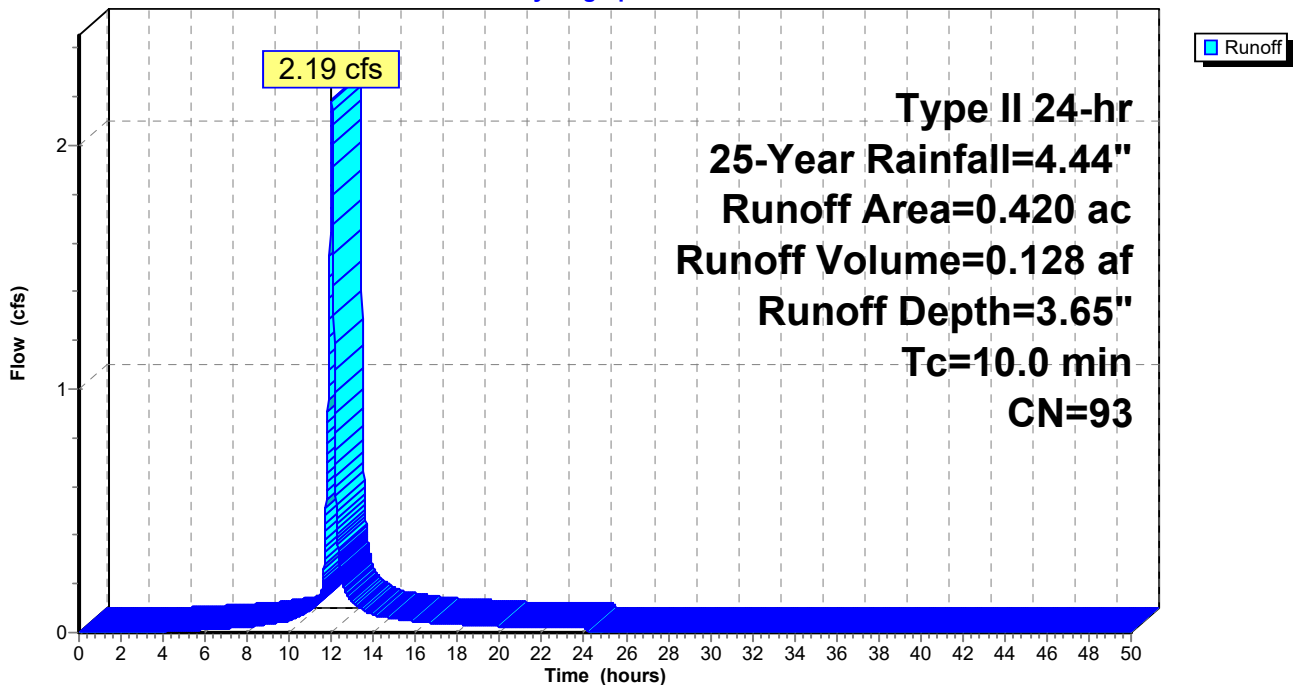
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 20W: STR20

Runoff = 3.16 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 3.44"

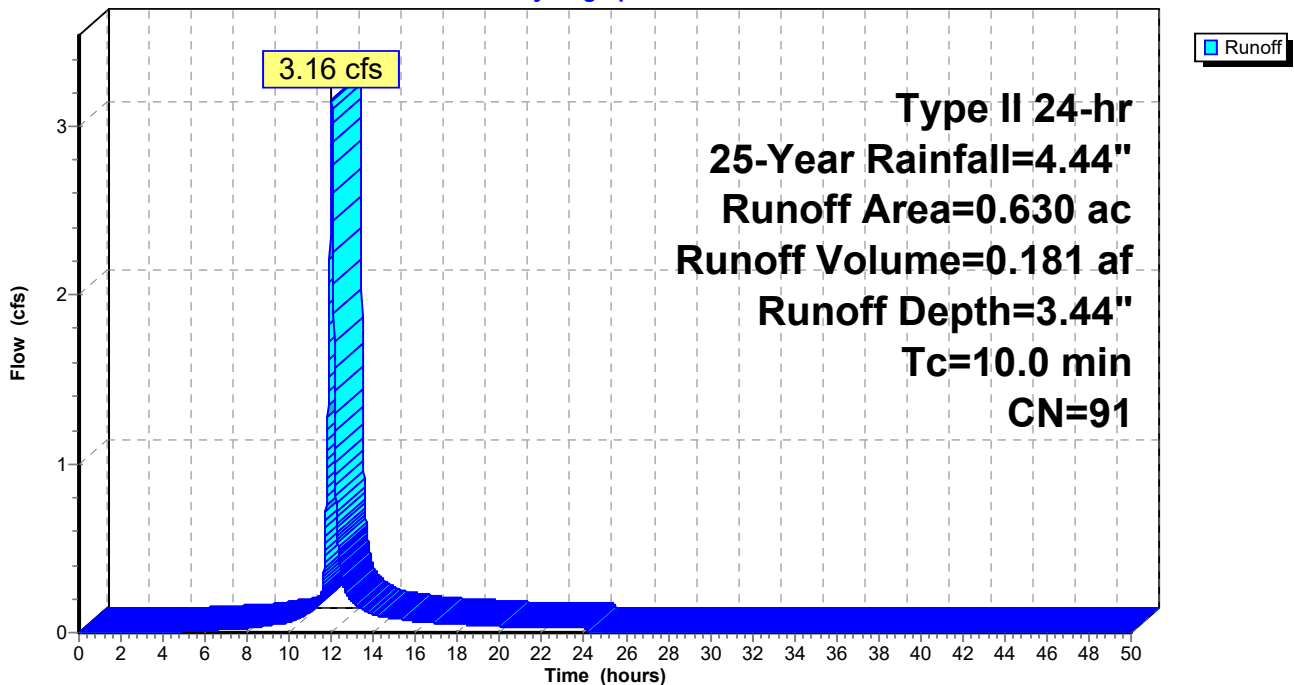
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 21W: STR21

Runoff = 3.28 cfs @ 12.01 hrs, Volume= 0.199 af, Depth= 3.98"

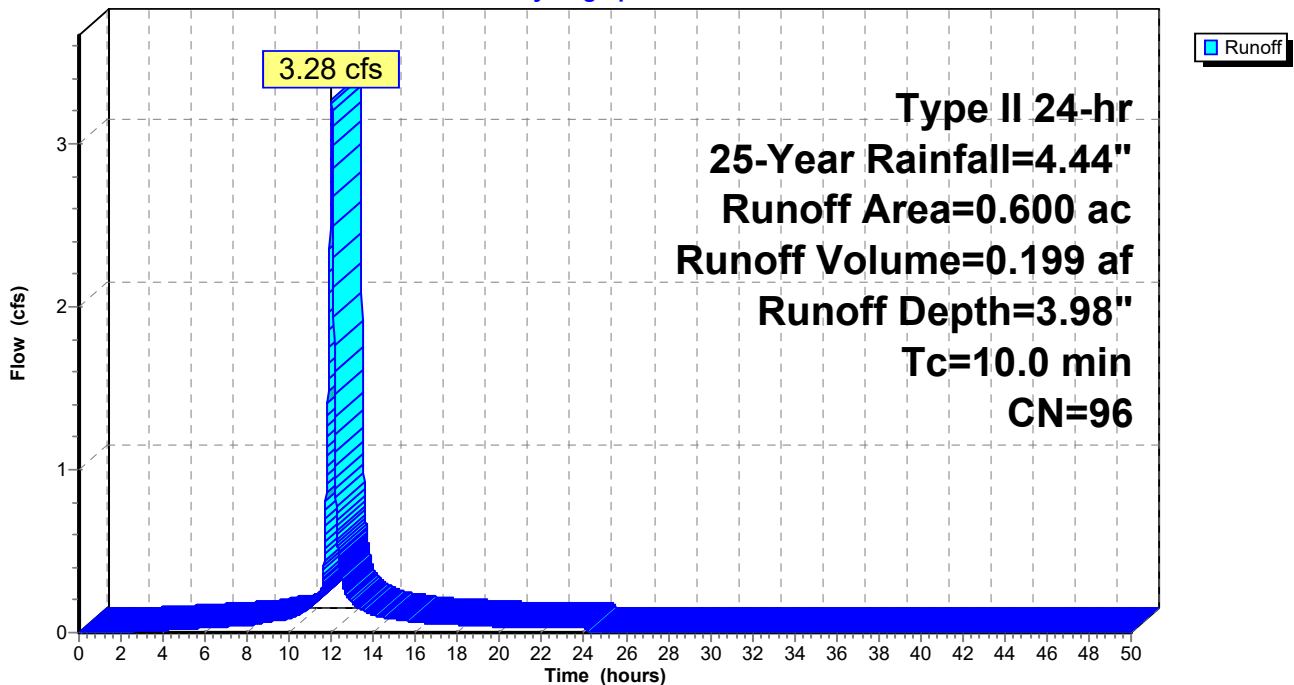
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 22W: STR22

Runoff = 4.36 cfs @ 12.01 hrs, Volume= 0.261 af, Depth= 3.87"

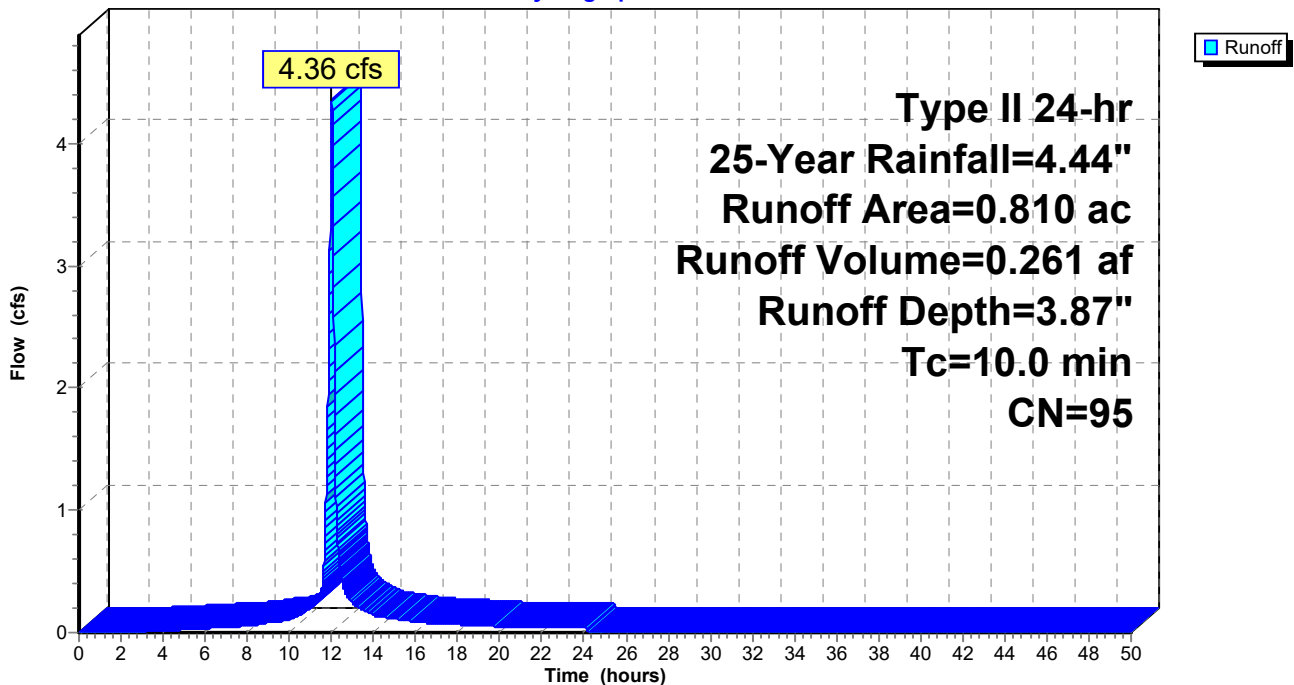
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 23W: STR23

Runoff = 3.66 cfs @ 12.01 hrs, Volume= 0.216 af, Depth= 3.76"

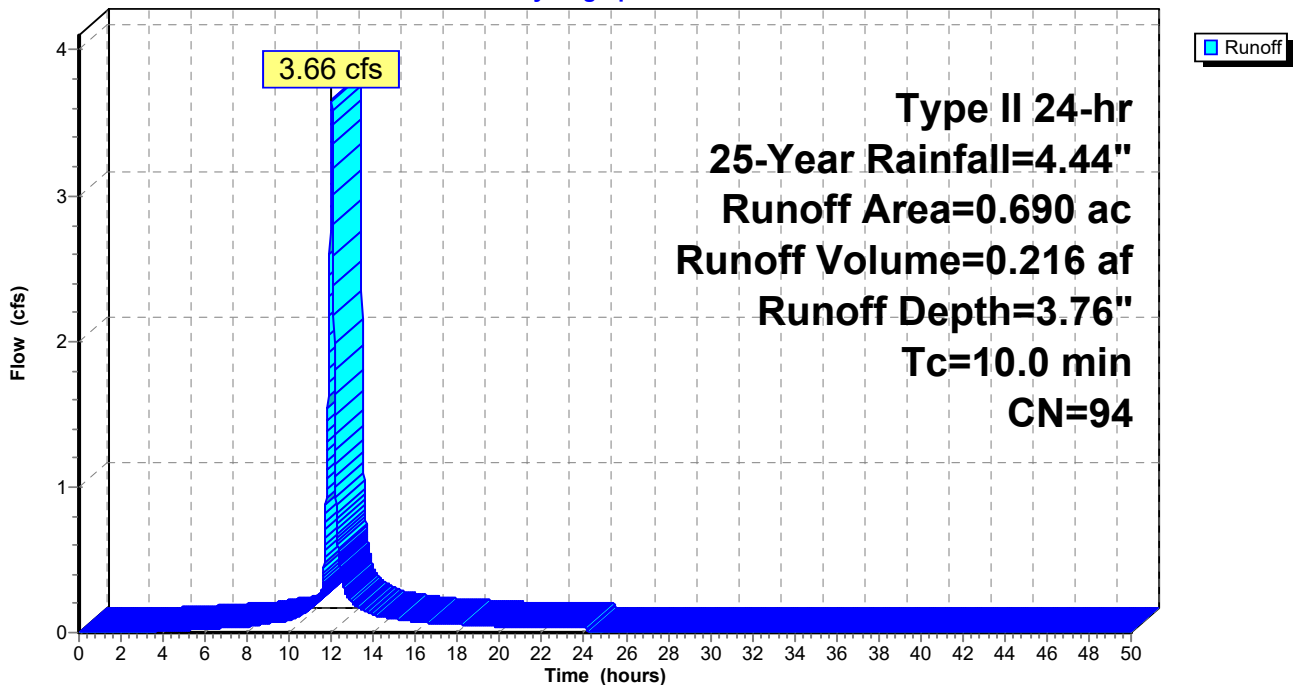
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 24W: STR24

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

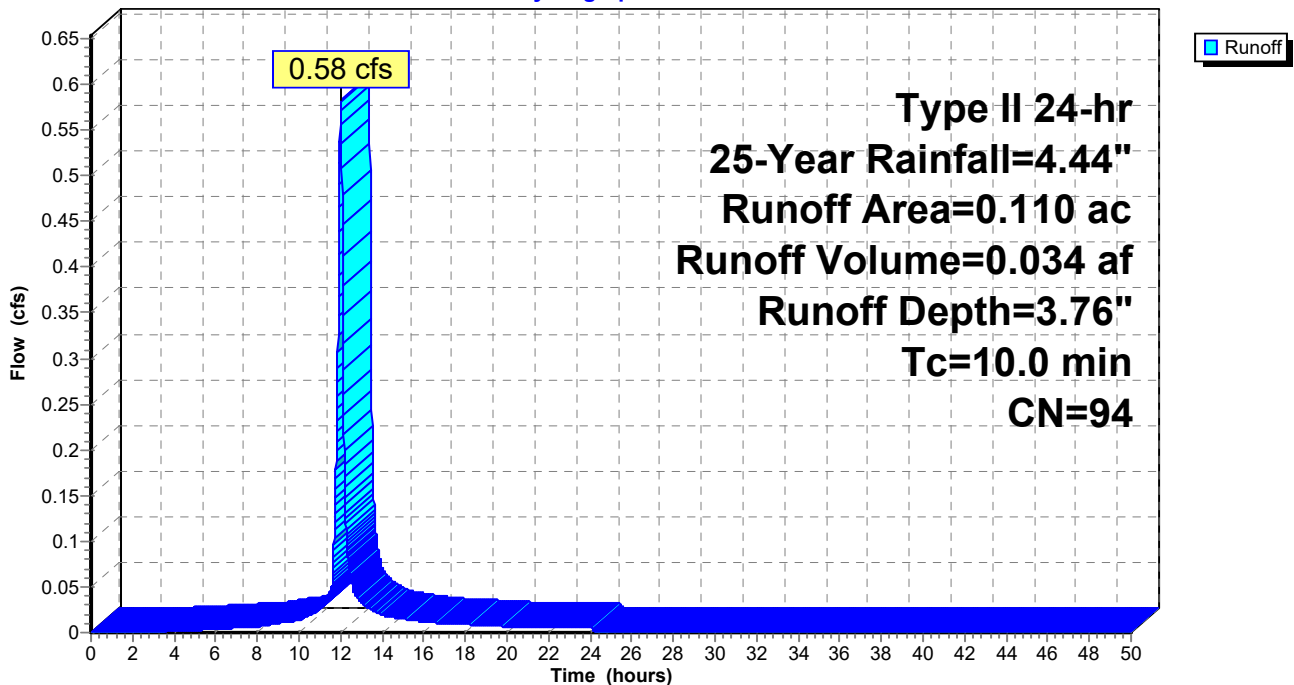
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 25W: STR25

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

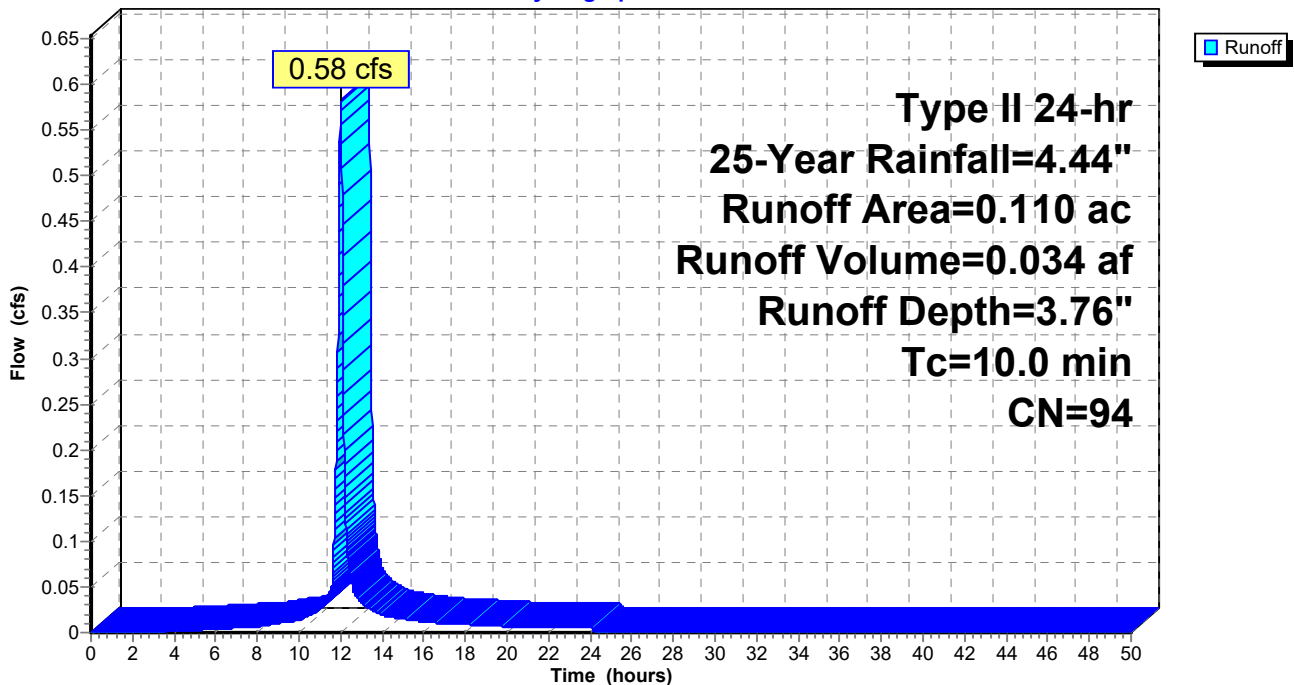
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 26W: STR26

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

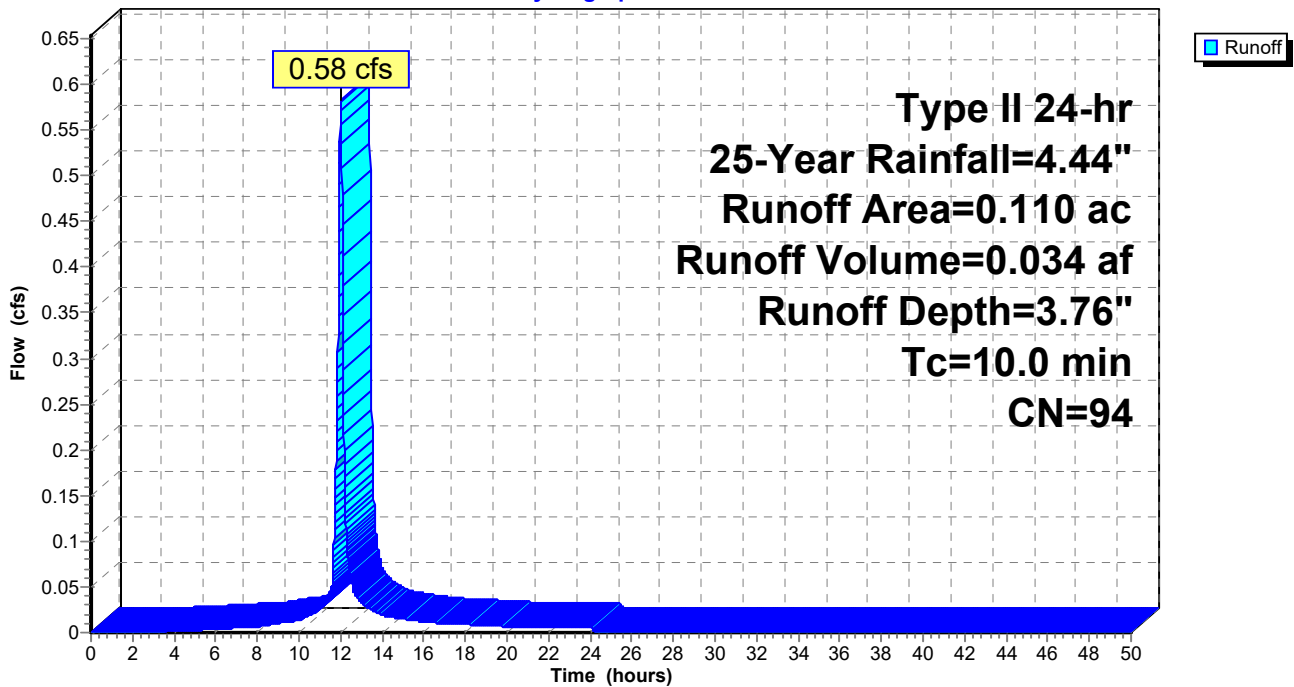
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 27W: STR27

Runoff = 1.47 cfs @ 12.01 hrs, Volume= 0.089 af, Depth= 3.98"

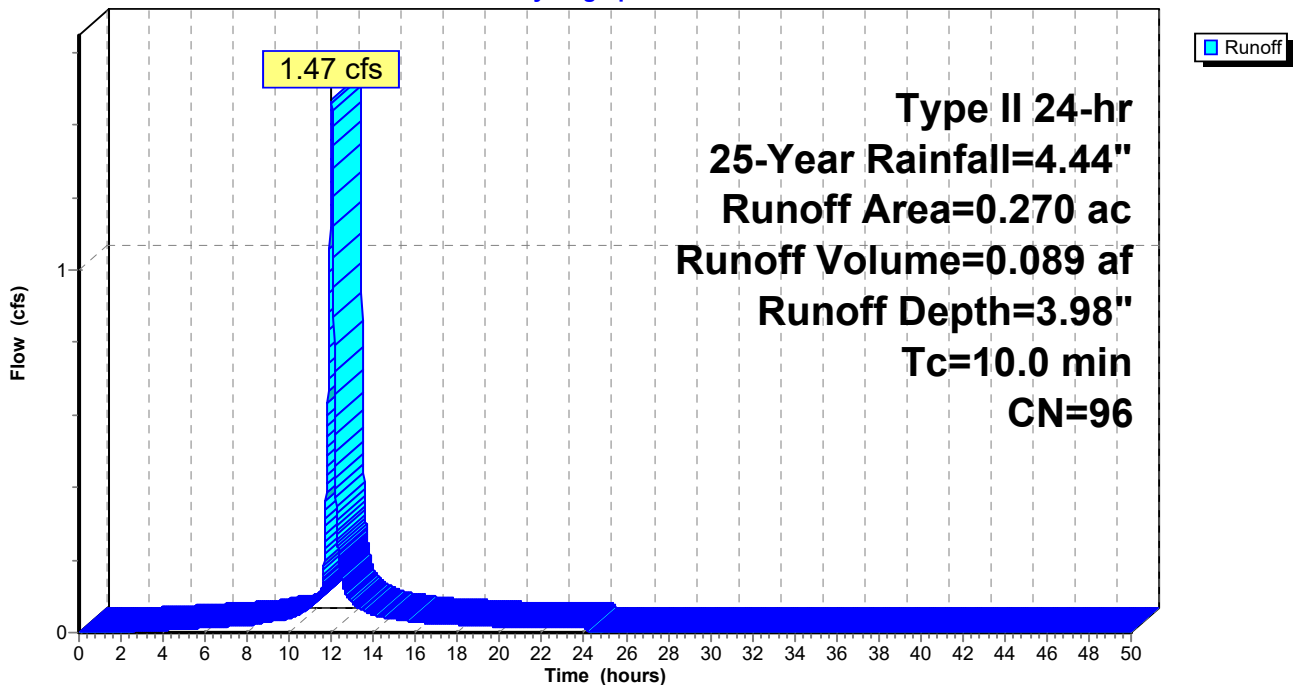
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 3.53" for 25-Year event
 Inflow = 30.99 cfs @ 12.01 hrs, Volume= 1.813 af
 Outflow = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af, Atten= 77%, Lag= 13.2 min
 Primary = 7.00 cfs @ 12.23 hrs, Volume= 1.788 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.34' @ 12.23 hrs Surf.Area= 19,352 sf Storage= 30,777 cf

Plug-Flow detention time= 86.2 min calculated for 1.788 af (99% of inflow)
 Center-of-Mass det. time= 77.4 min (859.7 - 782.4)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.00 cfs @ 12.23 hrs HW=912.34' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 7.00 cfs of 7.32 cfs potential flow)

↑ **2=Culvert** (Barrel Controls 7.00 cfs @ 5.70 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 7.00 cfs of 12.71 cfs potential flow)

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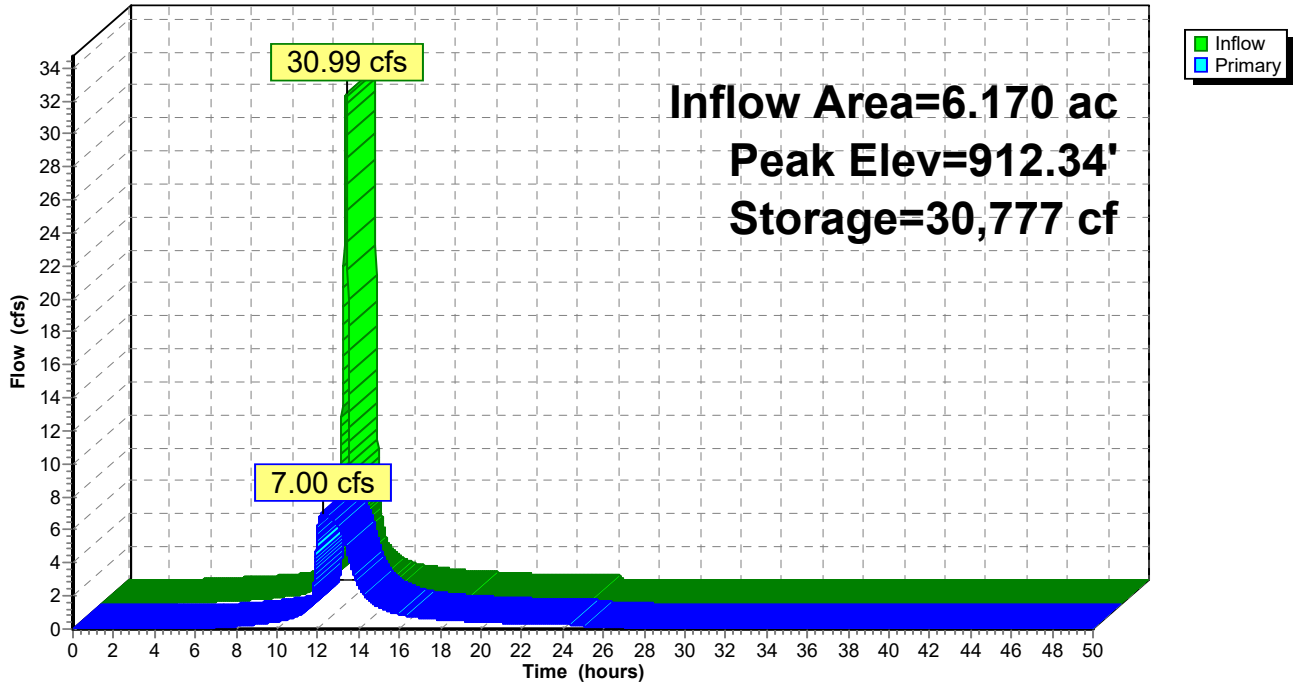
EXISTING WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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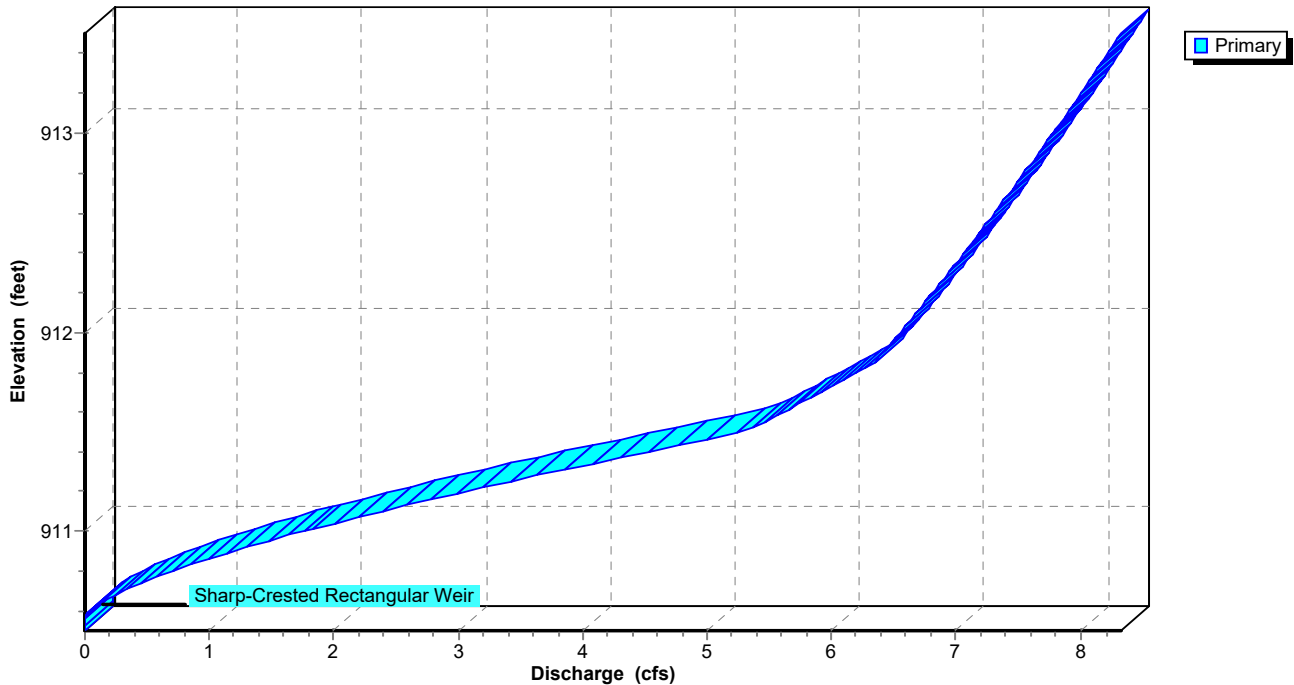
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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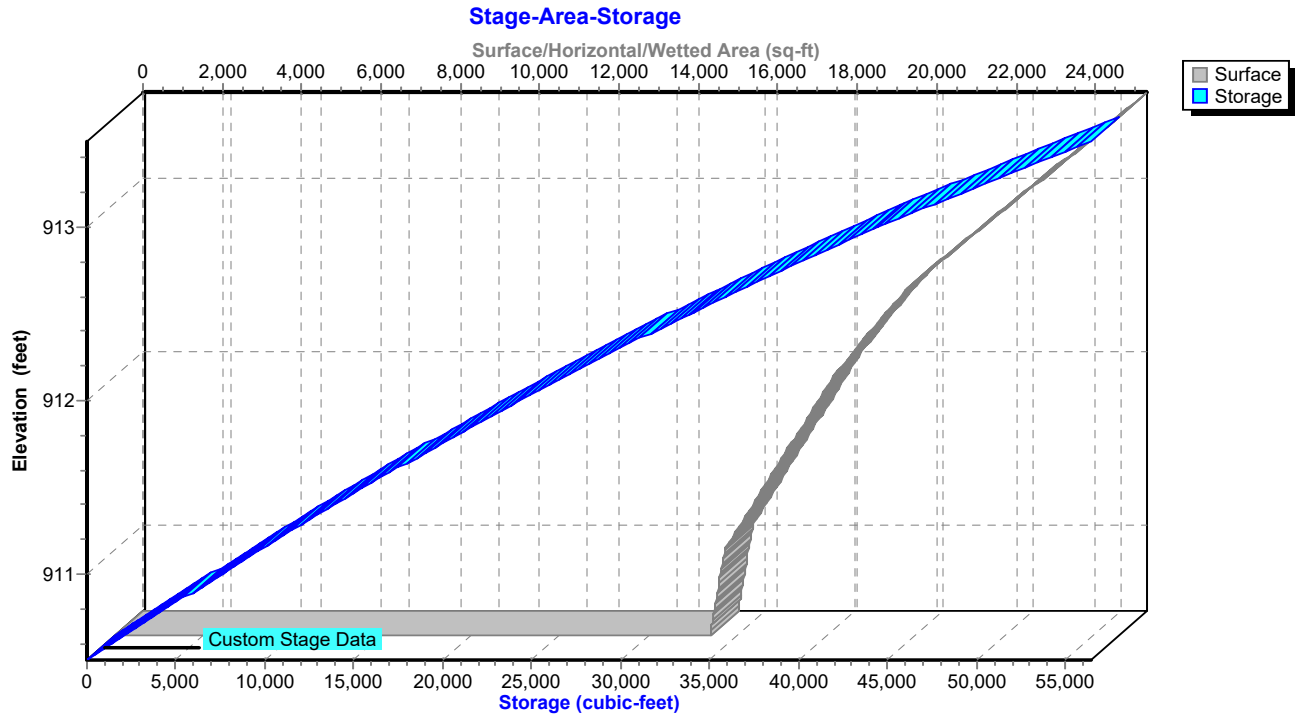
EXISTING WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Pond WP: RETENTION BASIN



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EXISTING WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 15W: STR15

Runoff = 3.41 cfs @ 12.01 hrs, Volume= 0.200 af, Depth= 4.22"

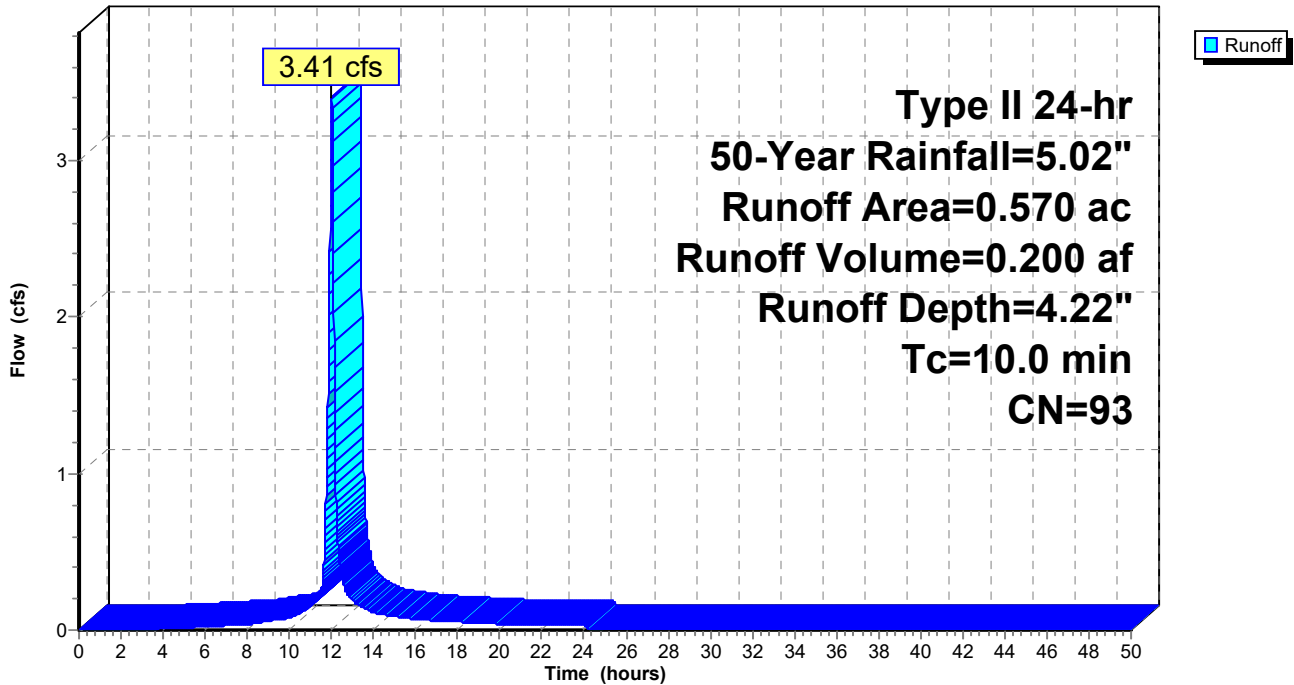
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 4.73 cfs @ 12.02 hrs, Volume= 0.257 af, Depth= 2.91"

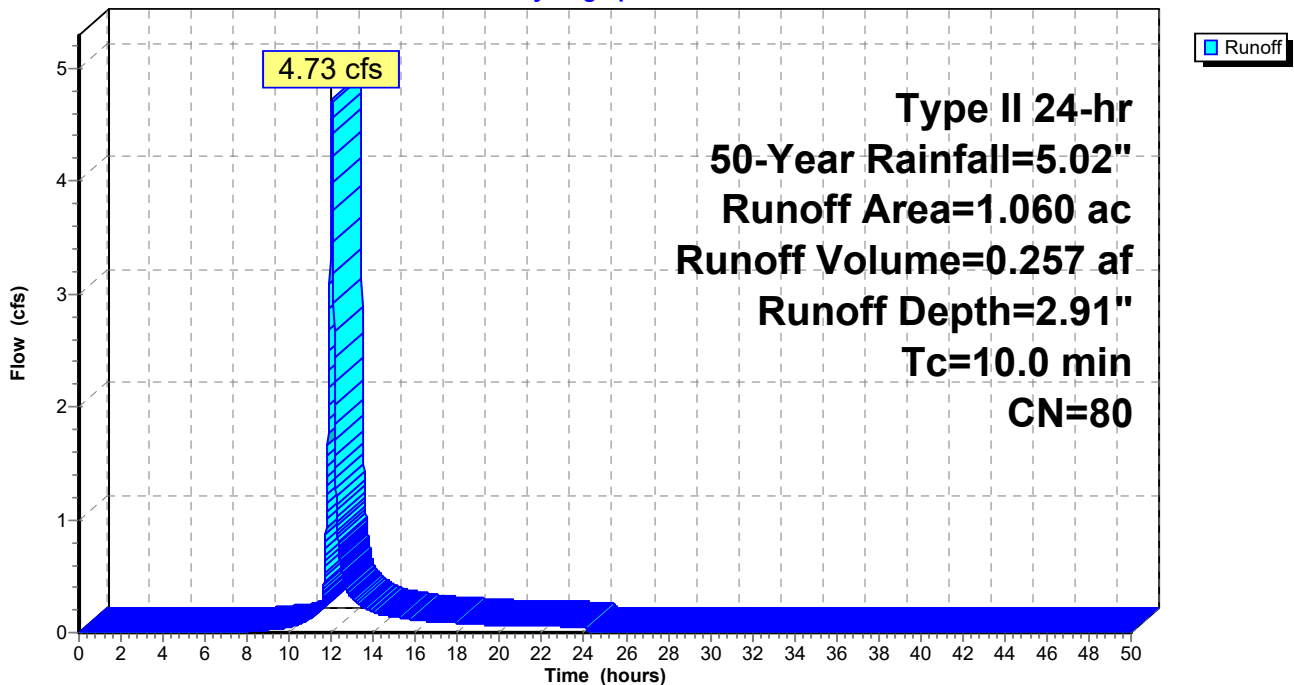
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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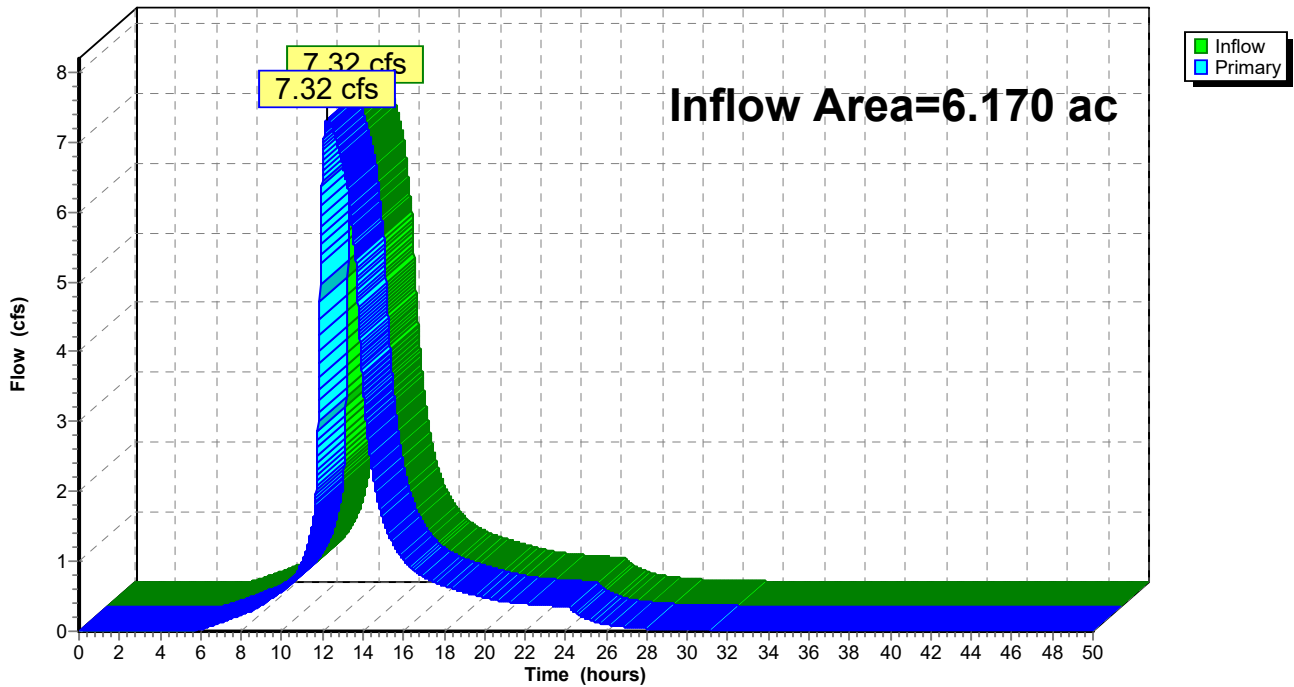
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.04" for 50-Year event
Inflow = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af
Primary = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 17W: STR17

Runoff = 4.00 cfs @ 12.01 hrs, Volume= 0.238 af, Depth= 4.33"

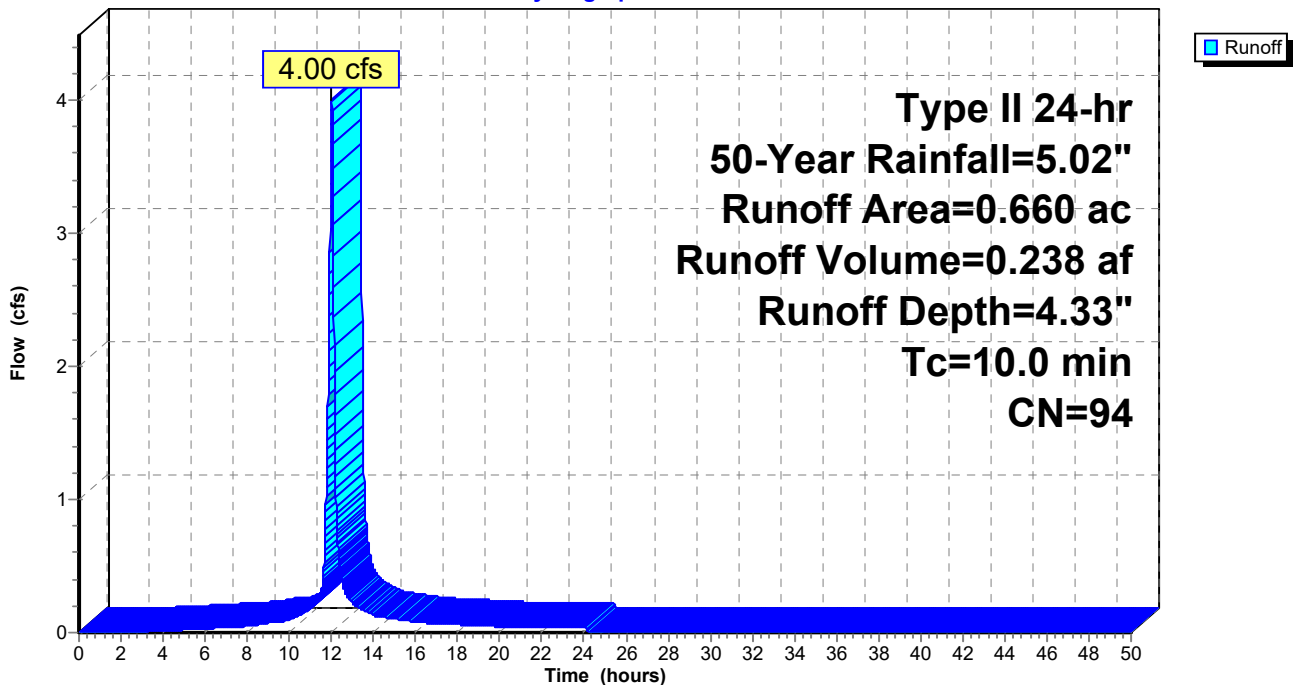
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 18W: STR18

Runoff = 0.81 cfs @ 12.01 hrs, Volume= 0.049 af, Depth= 4.55"

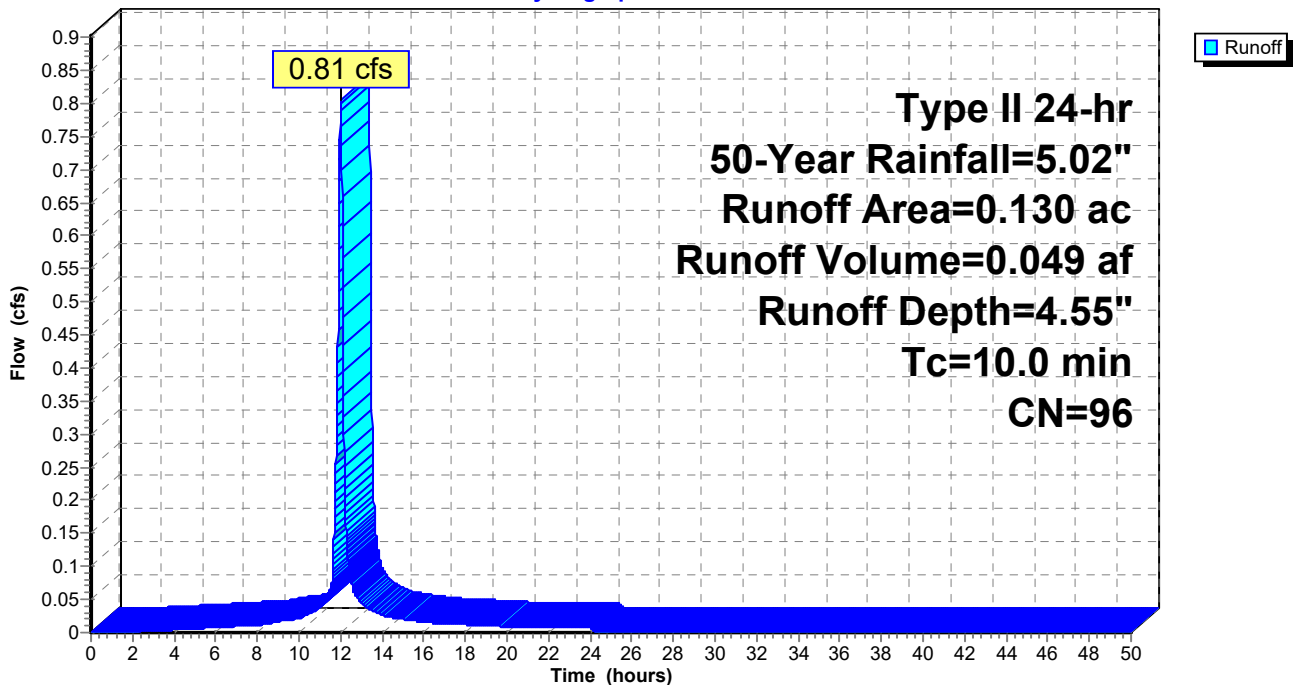
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 19W: STR19

Runoff = 2.51 cfs @ 12.01 hrs, Volume= 0.148 af, Depth= 4.22"

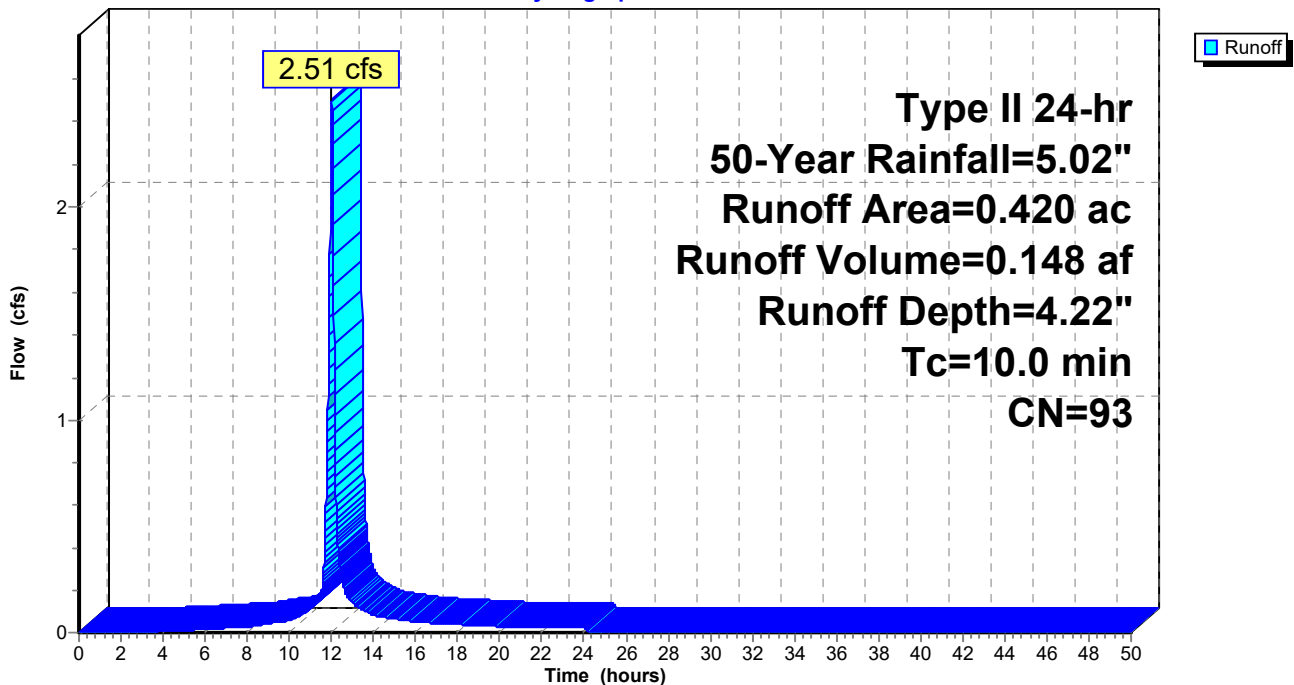
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 20W: STR20

Runoff = 3.65 cfs @ 12.01 hrs, Volume= 0.210 af, Depth= 4.00"

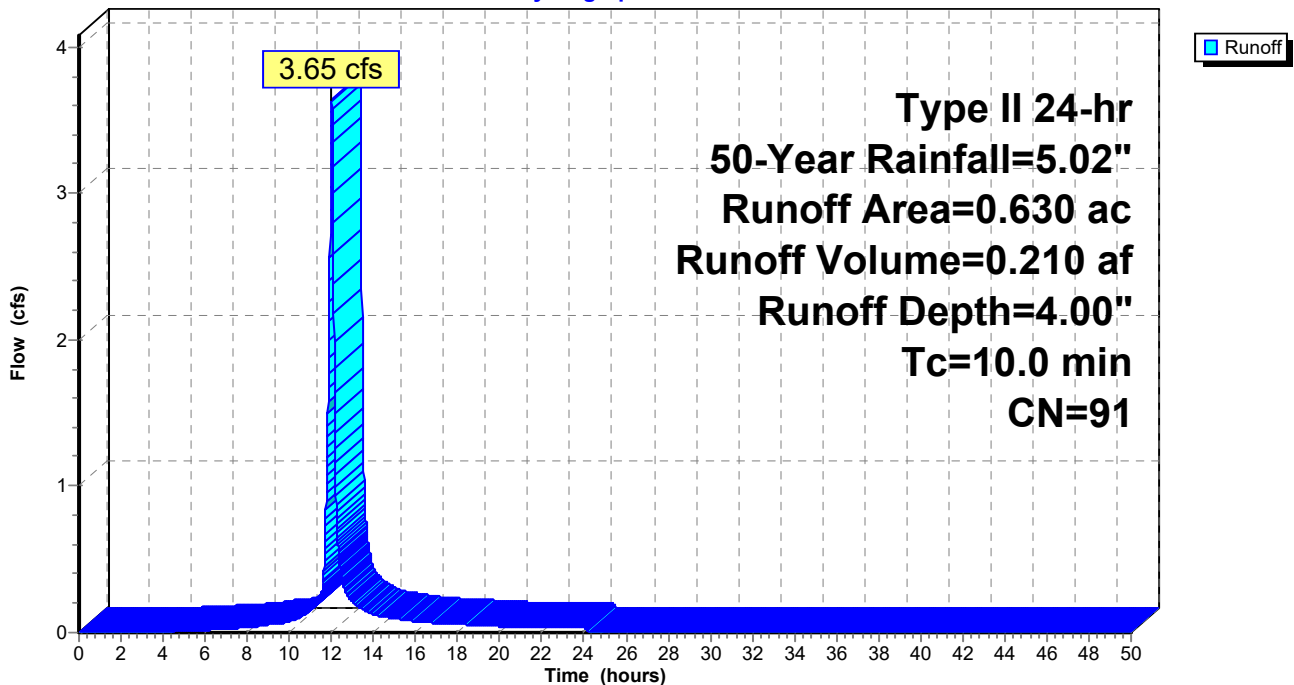
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 21W: STR21

Runoff = 3.72 cfs @ 12.01 hrs, Volume= 0.228 af, Depth= 4.55"

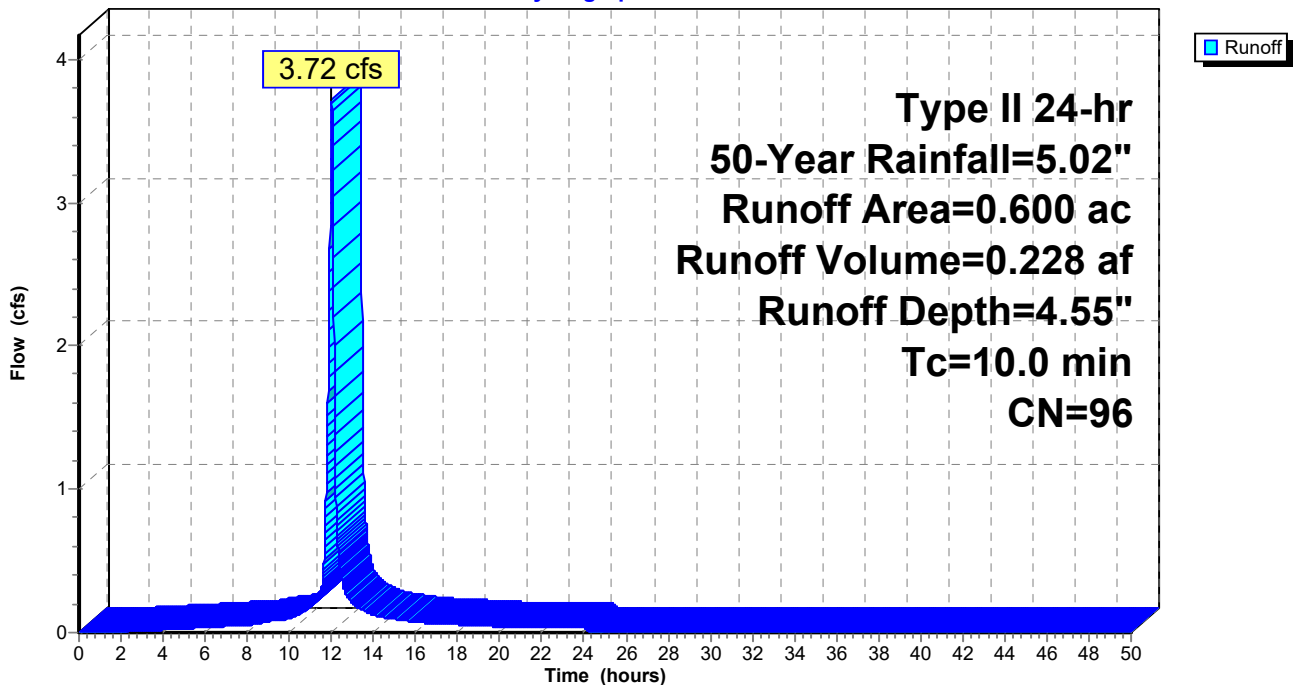
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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EXISTING WEST TRIB
Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 22W: STR22

Runoff = 4.97 cfs @ 12.01 hrs, Volume= 0.300 af, Depth= 4.44"

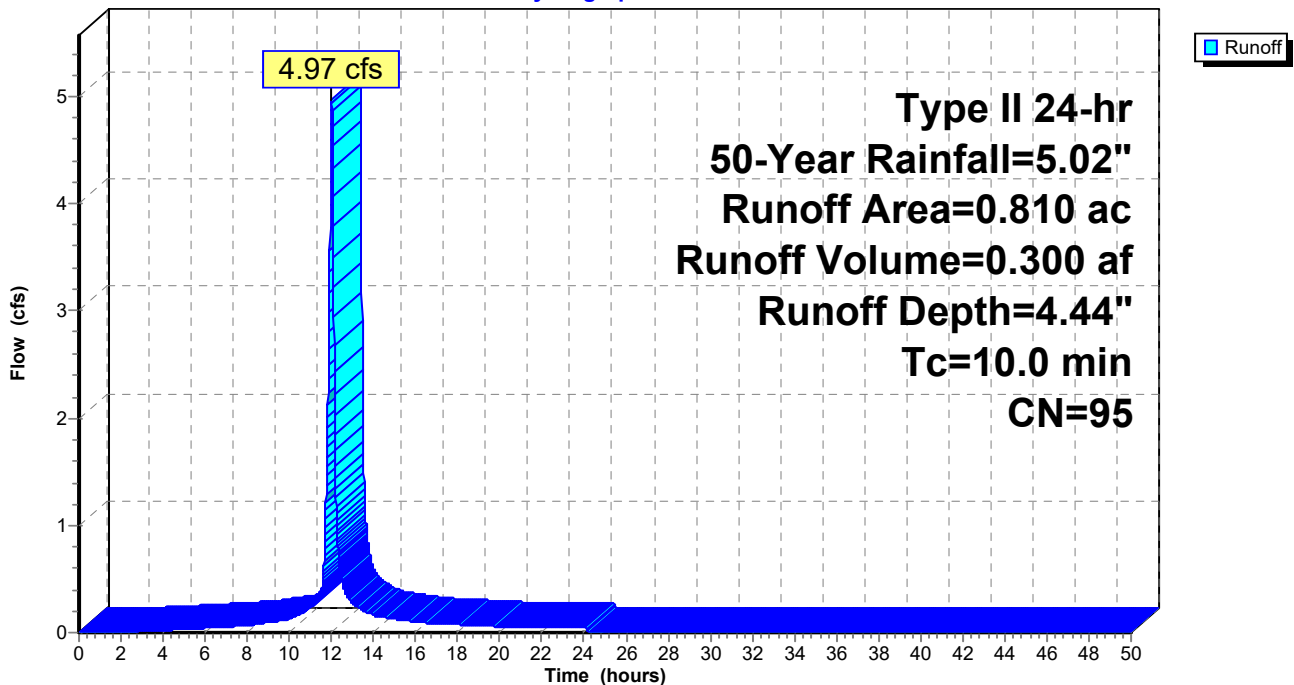
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 23W: STR23

Runoff = 4.18 cfs @ 12.01 hrs, Volume= 0.249 af, Depth= 4.33"

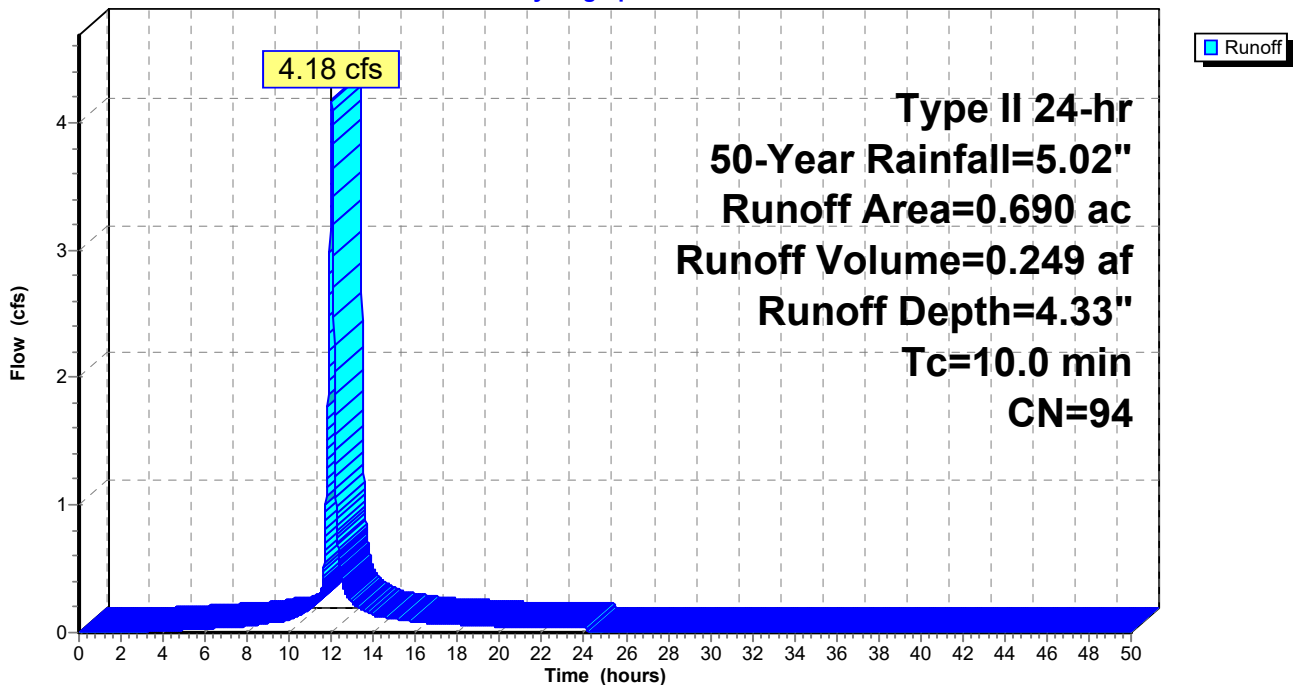
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 24W: STR24

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

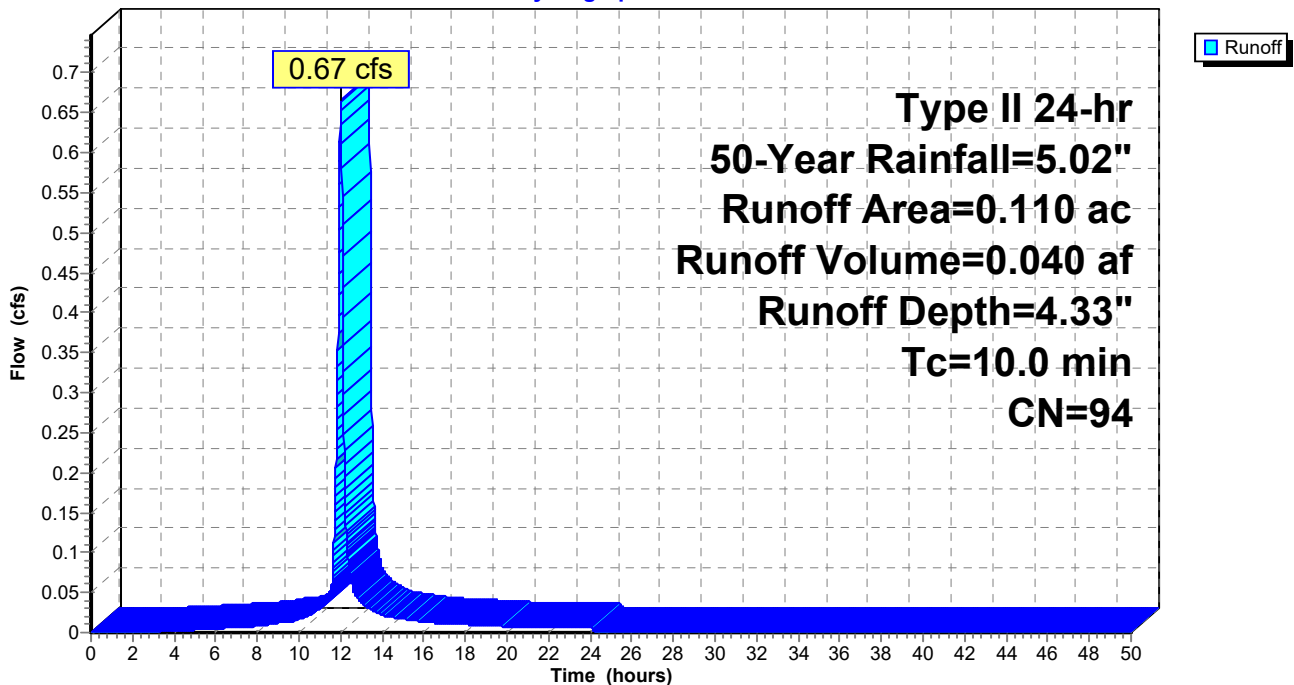
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 25W: STR25

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

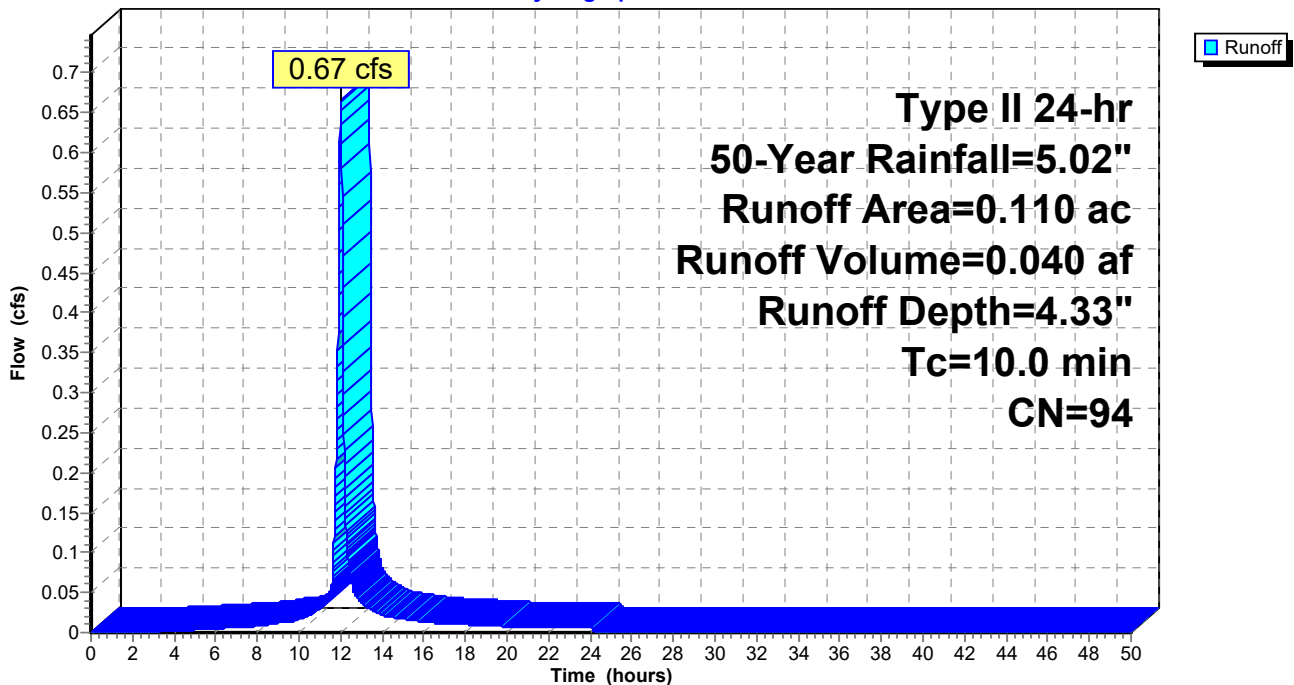
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 26W: STR26

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

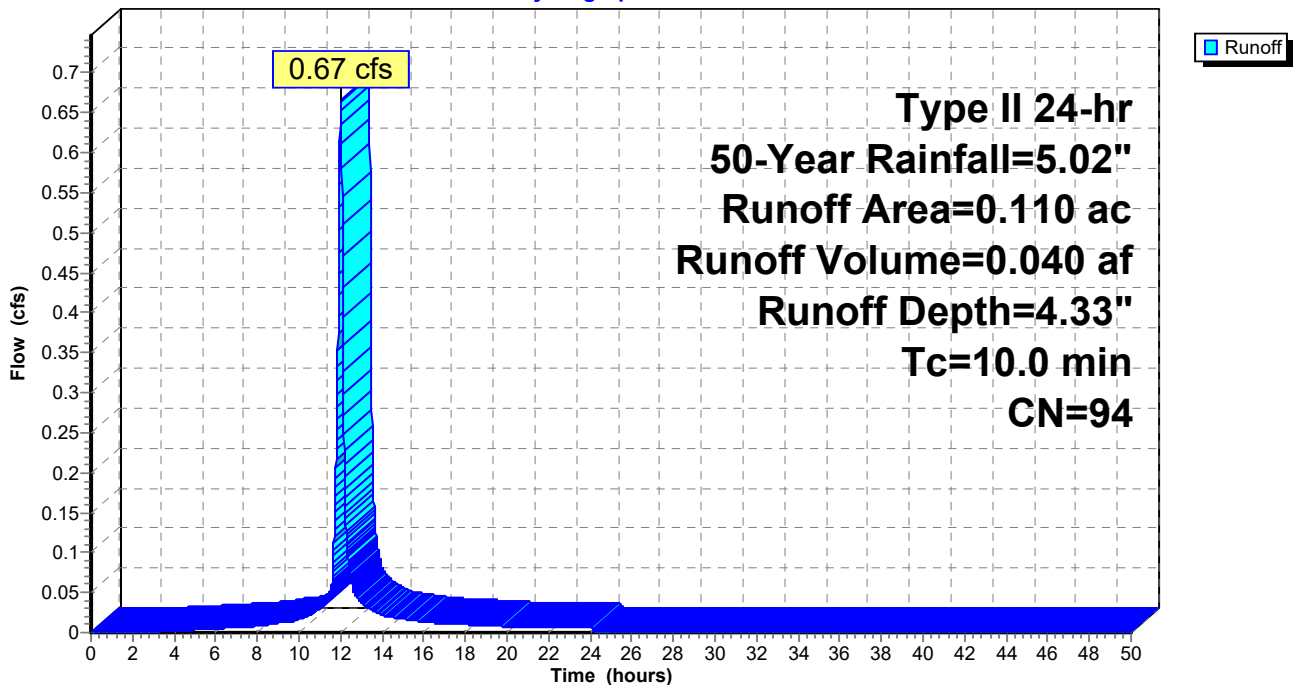
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 27W: STR27

Runoff = 1.67 cfs @ 12.01 hrs, Volume= 0.102 af, Depth= 4.55"

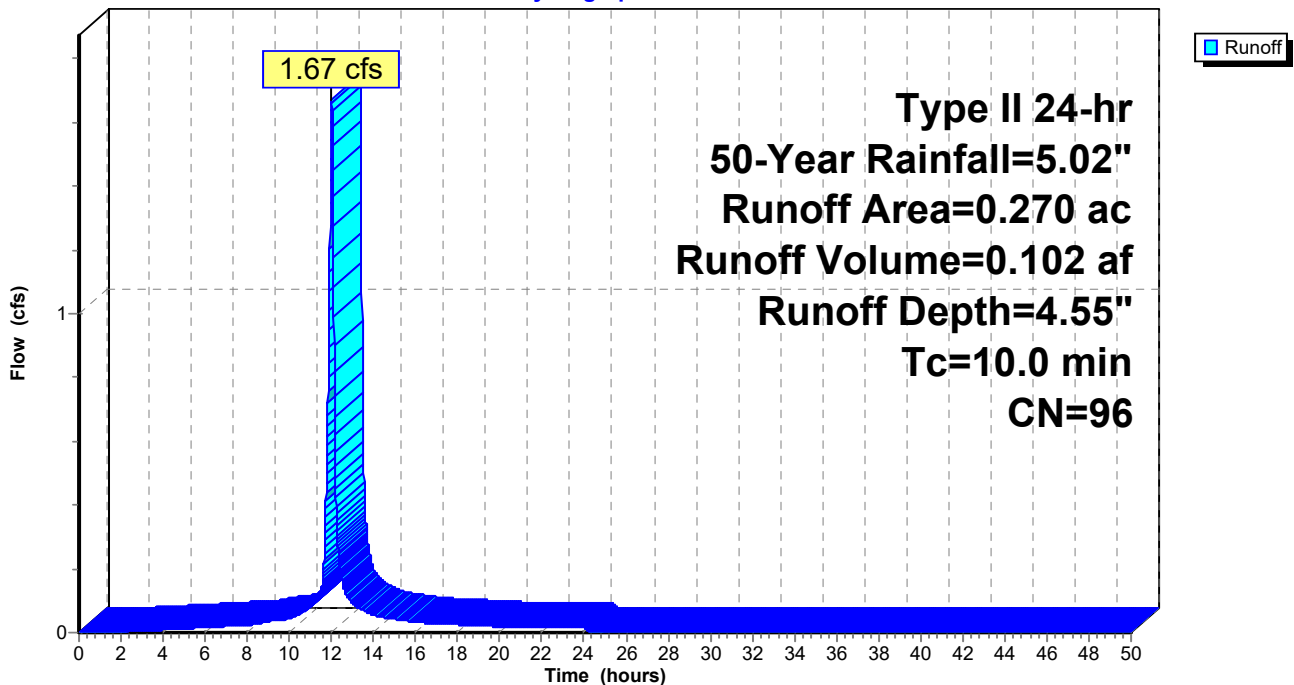
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.08" for 50-Year event
 Inflow = 35.64 cfs @ 12.01 hrs, Volume= 2.100 af
 Outflow = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af, Atten= 79%, Lag= 14.3 min
 Primary = 7.32 cfs @ 12.25 hrs, Volume= 2.075 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.60' @ 12.25 hrs Surf.Area= 20,472 sf Storage= 35,910 cf

Plug-Flow detention time= 85.1 min calculated for 2.075 af (99% of inflow)
 Center-of-Mass det. time= 77.7 min (856.6 - 778.9)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.32 cfs @ 12.25 hrs HW=912.60' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 7.32 cfs of 7.57 cfs potential flow)

↑ **2=Culvert** (Barrel Controls 7.32 cfs @ 5.96 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 7.32 cfs of 15.10 cfs potential flow)

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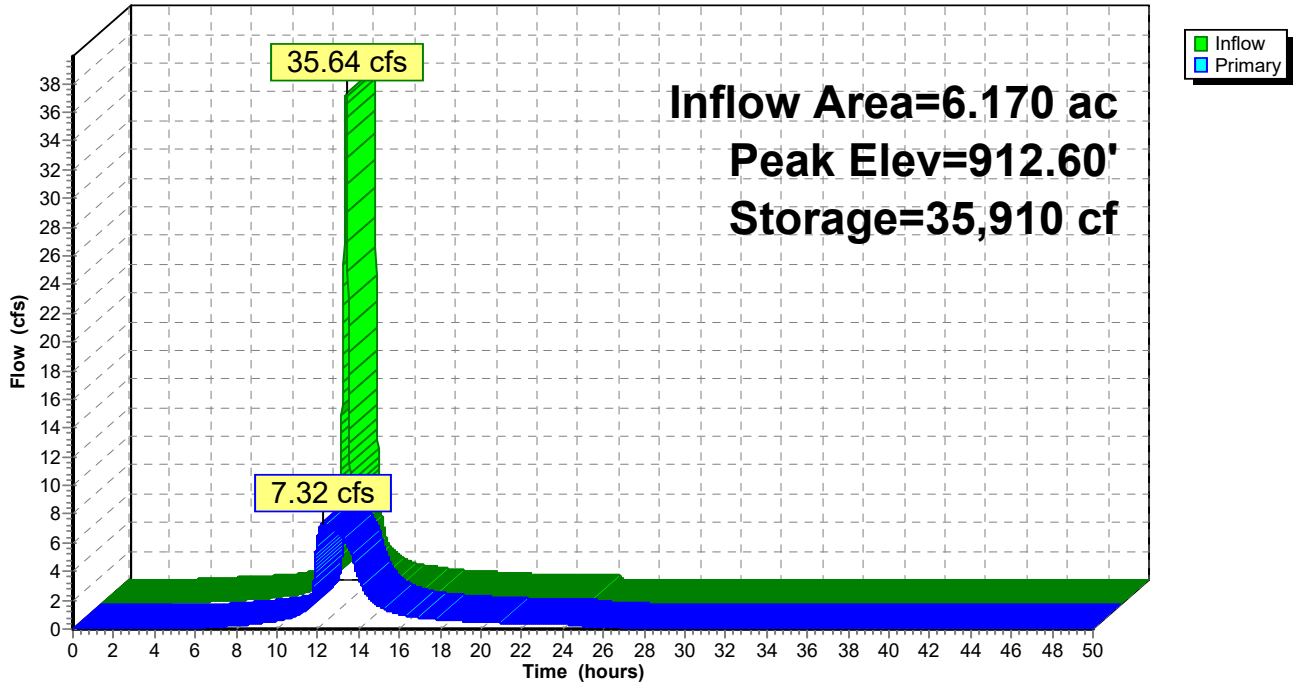
EXISTING WEST TRIB
Type II 24-hr 50-Year Rainfall=5.02"

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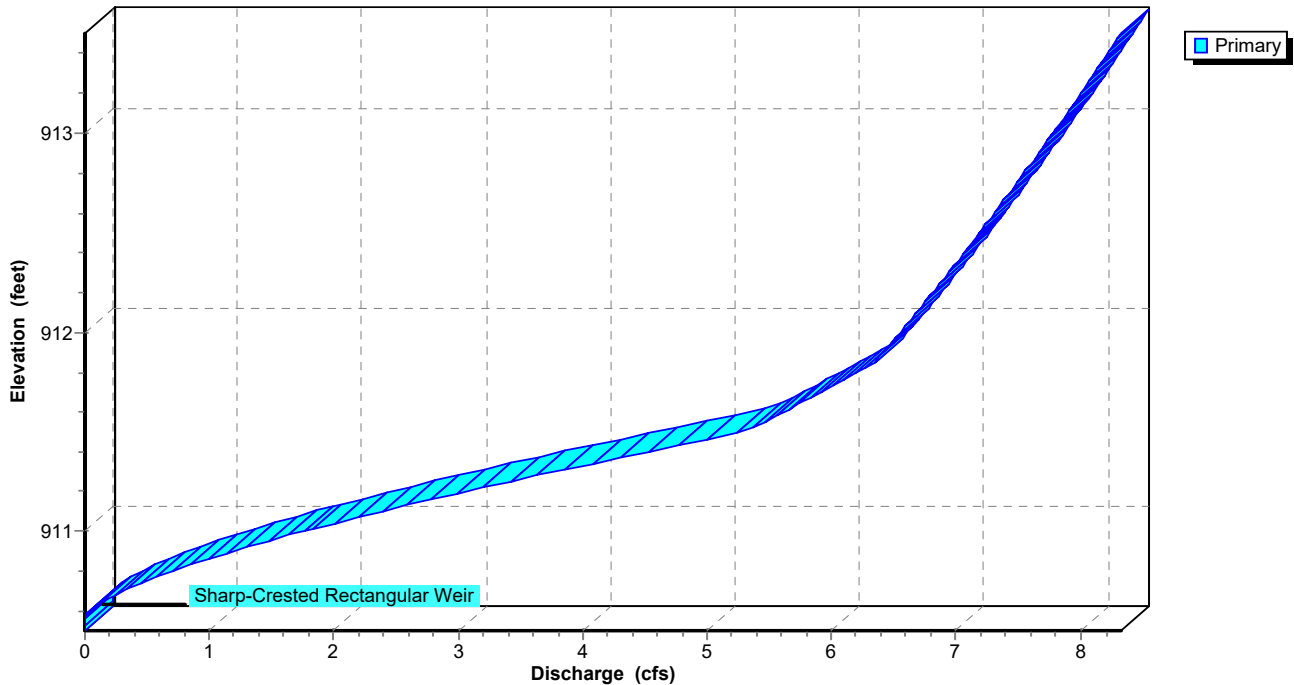
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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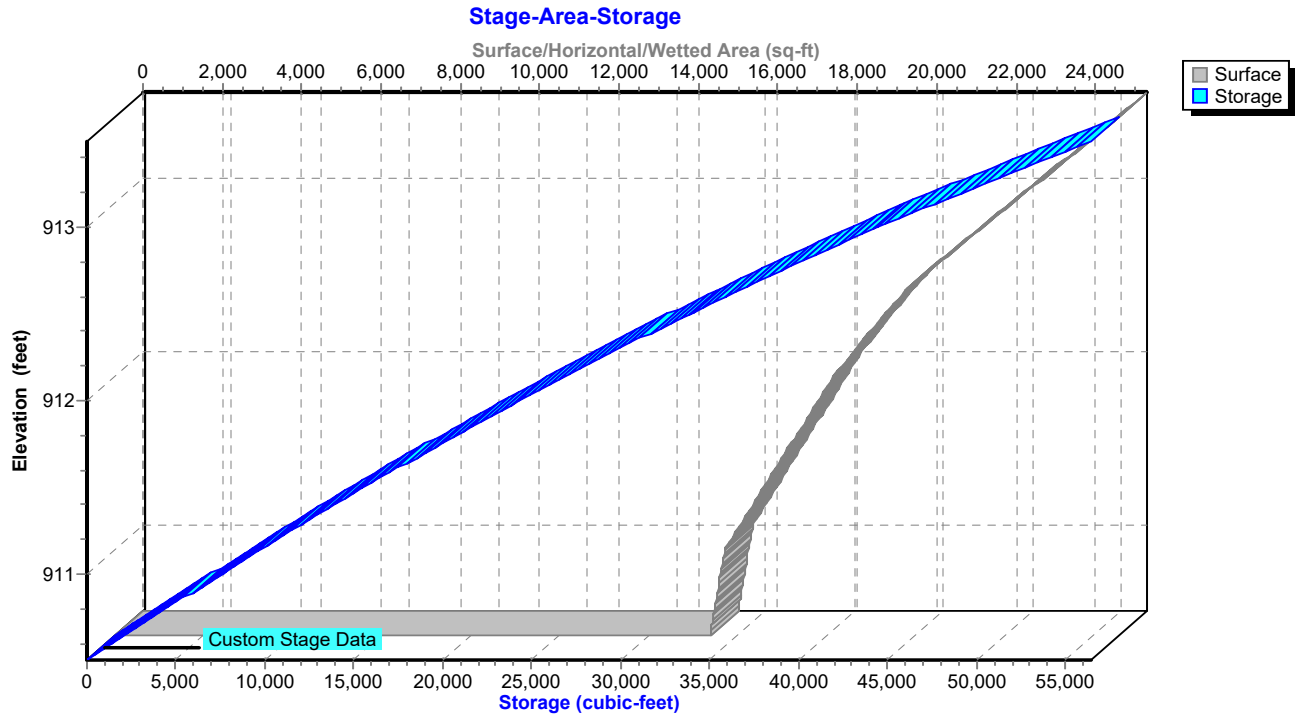
EXISTING WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Pond WP: RETENTION BASIN



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 15W: STR15

Runoff = 3.86 cfs @ 12.01 hrs, Volume= 0.229 af, Depth= 4.82"

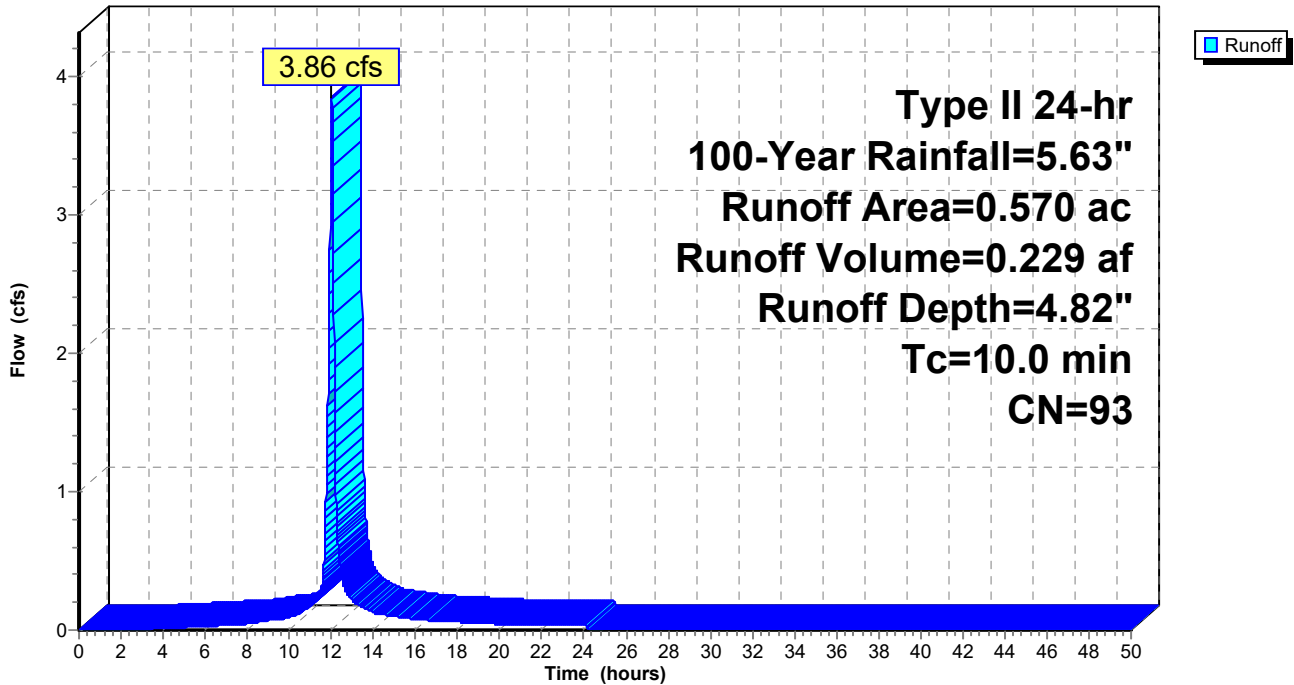
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG C
* 0.140	77	>75% Grass cover, Good, HSG C
0.570	93	Weighted Average
0.140		24.56% Pervious Area
0.430		75.44% Impervious Area

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

Subcatchment 15W: STR15

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 16W: STR16 (POND)

Runoff = 5.58 cfs @ 12.01 hrs, Volume= 0.305 af, Depth= 3.45"

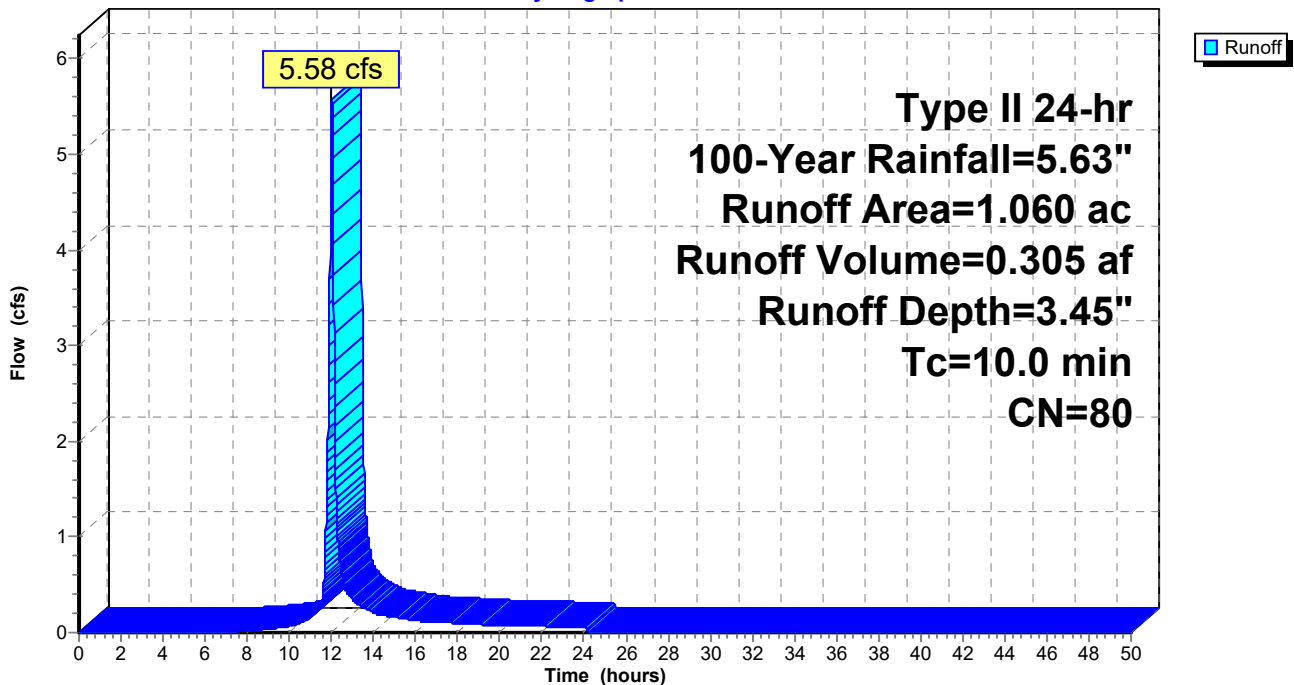
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.910	77	>75% Grass cover, Good, HSG C
1.060	80	Weighted Average
0.910		85.85% Pervious Area
0.150		14.15% Impervious Area

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

Subcatchment 16W: STR16 (POND)

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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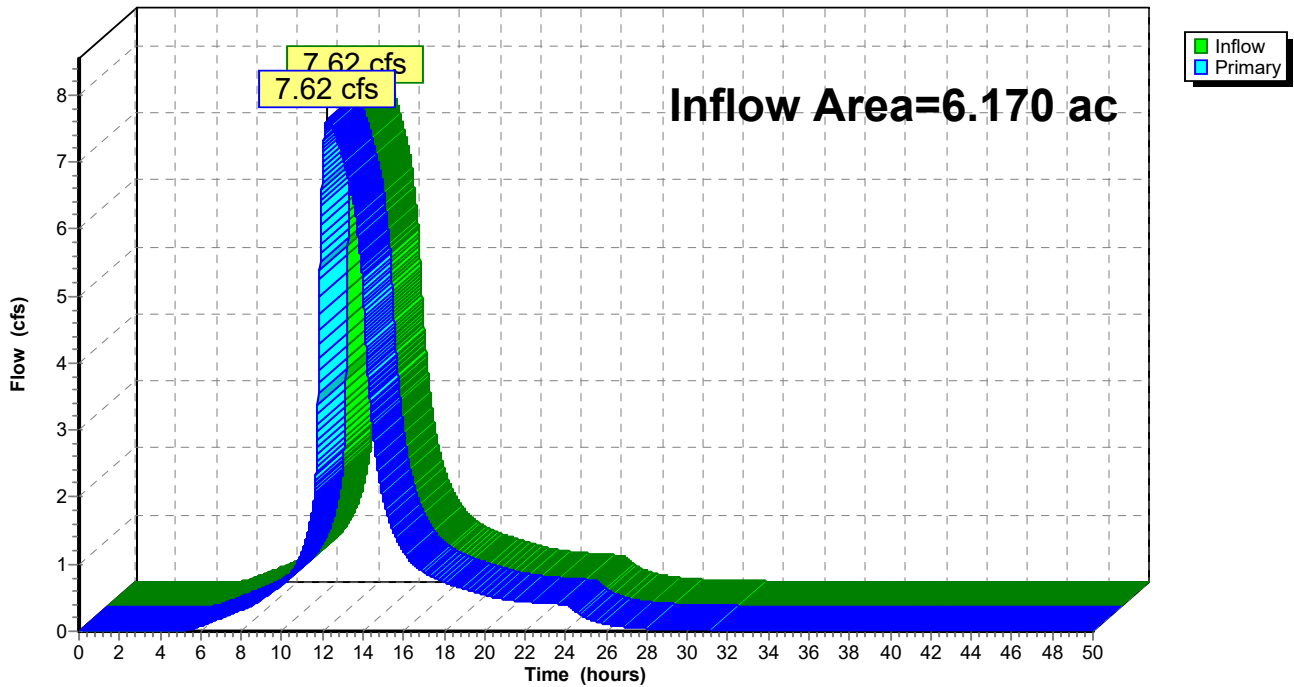
Summary for Link 17L: WEST

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.63" for 100-Year event
Inflow = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af
Primary = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 17W: STR17

Runoff = 4.52 cfs @ 12.01 hrs, Volume= 0.271 af, Depth= 4.93"

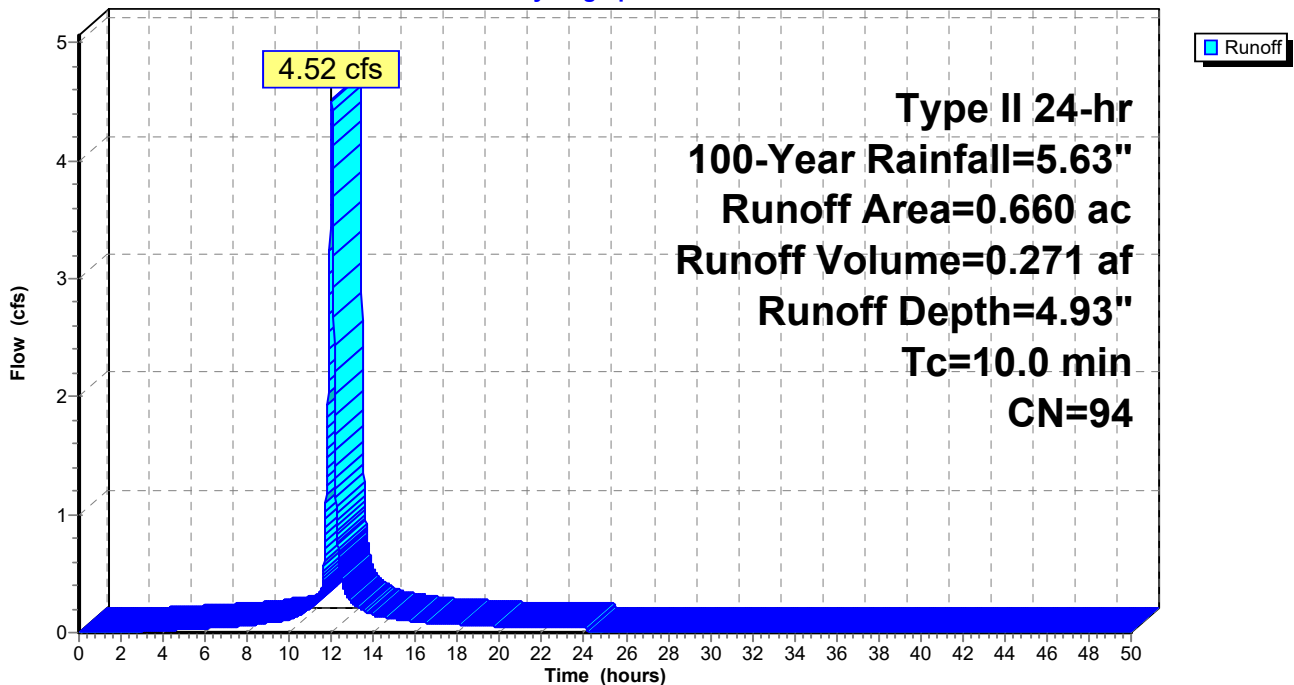
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.530	98	Paved parking, HSG C
* 0.130	77	>75% Grass cover, Good, HSG C
0.660	94	Weighted Average
0.130		19.70% Pervious Area
0.530		80.30% Impervious Area

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

Subcatchment 17W: STR17

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 18W: STR18

Runoff = 0.91 cfs @ 12.01 hrs, Volume= 0.056 af, Depth= 5.16"

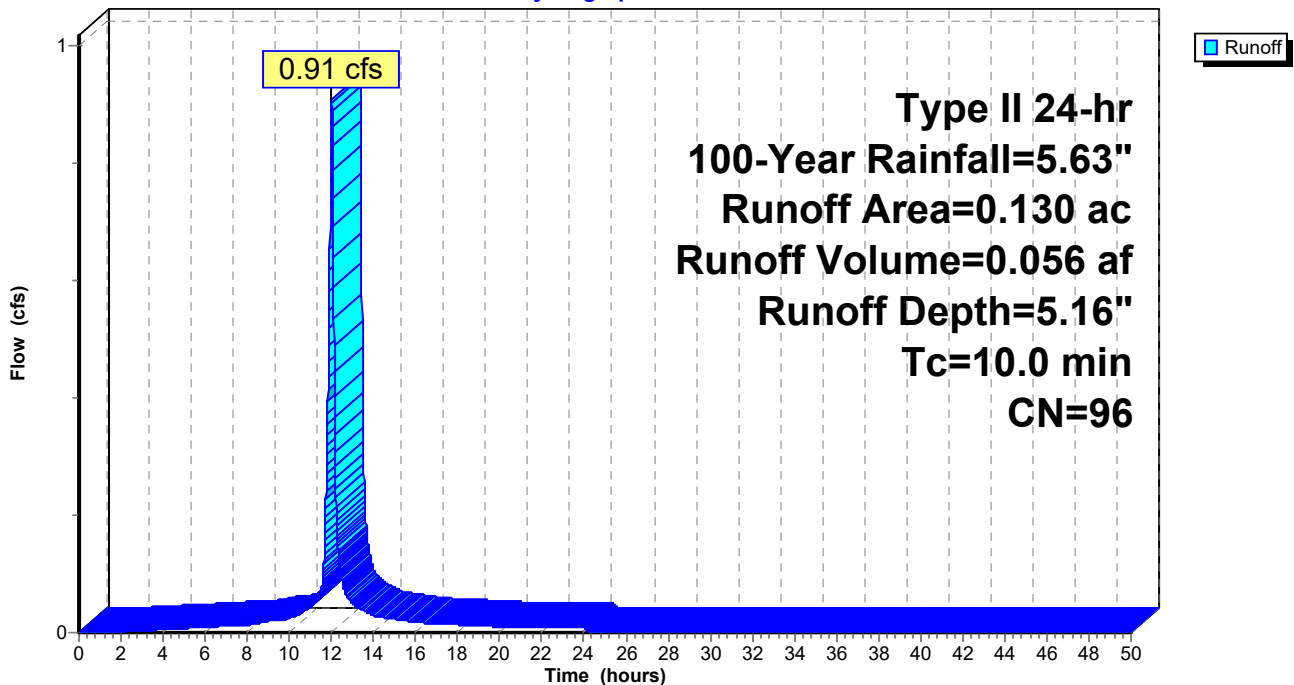
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.120	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.130	96	Weighted Average
0.010		7.69% Pervious Area
0.120		92.31% Impervious Area

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

Subcatchment 18W: STR18

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 19W: STR19

Runoff = 2.84 cfs @ 12.01 hrs, Volume= 0.169 af, Depth= 4.82"

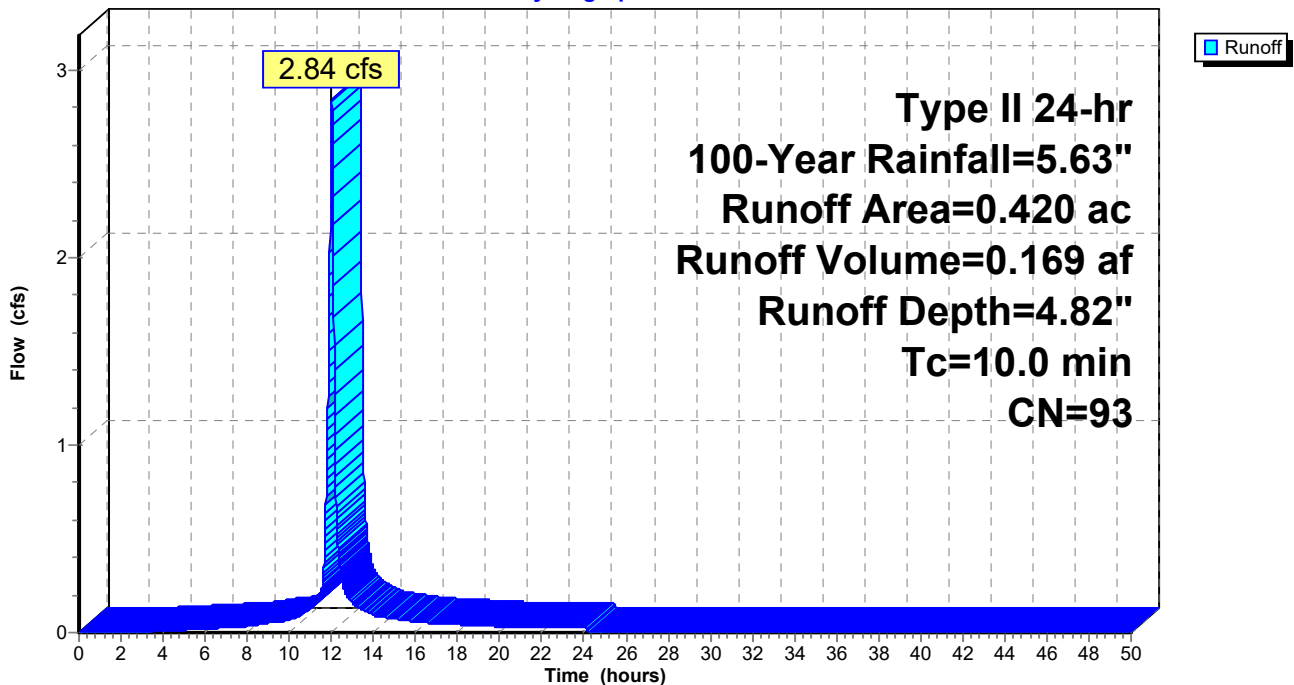
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 20W: STR20

Runoff = 4.15 cfs @ 12.01 hrs, Volume= 0.241 af, Depth= 4.60"

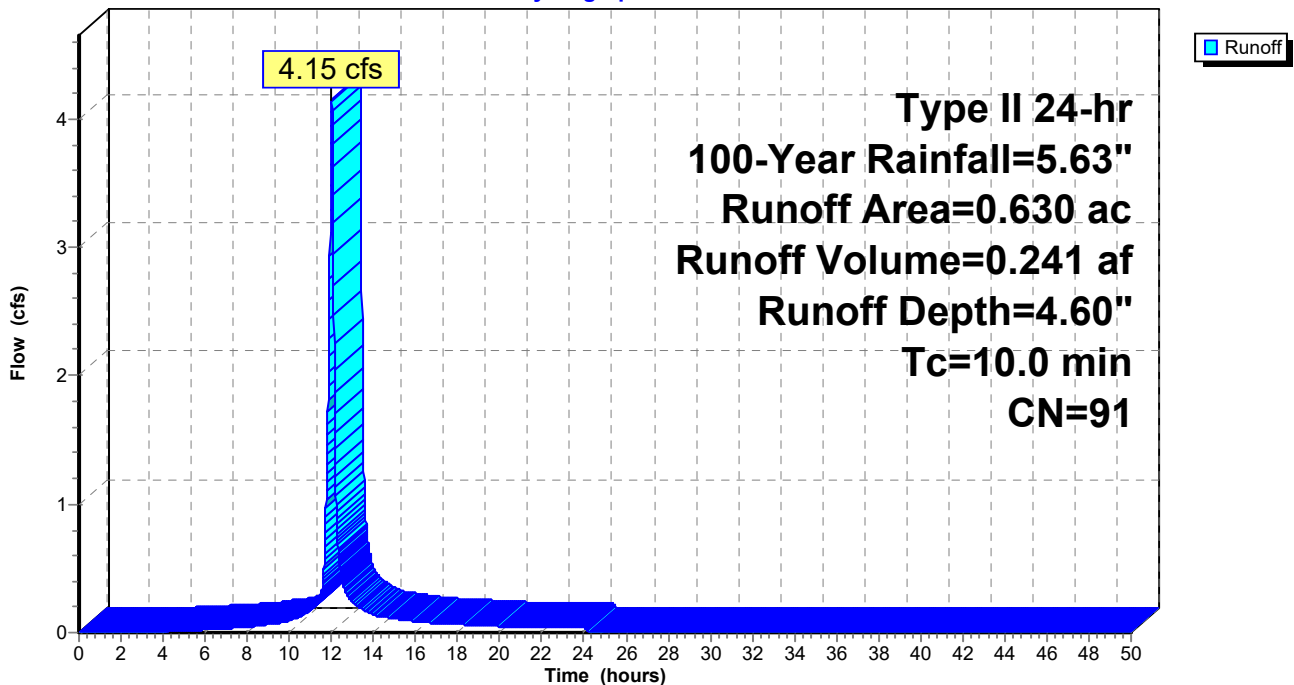
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 21W: STR21

Runoff = 4.19 cfs @ 12.01 hrs, Volume= 0.258 af, Depth= 5.16"

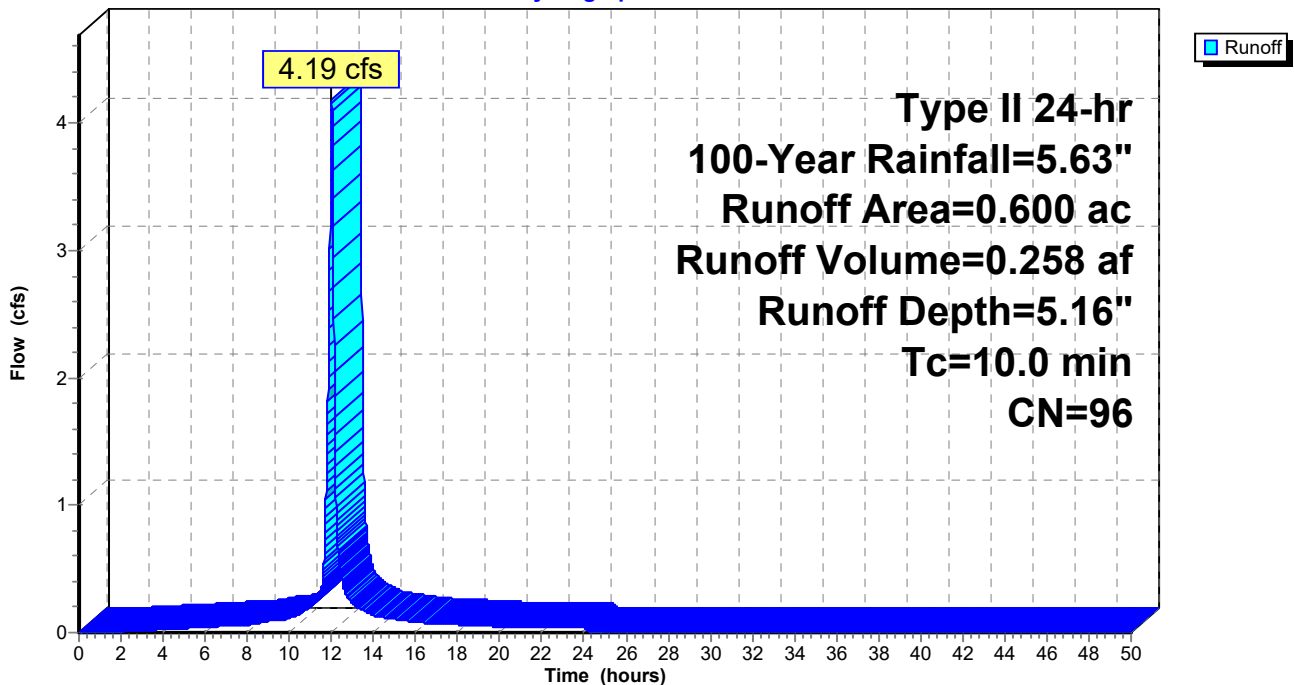
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 22W: STR22

Runoff = 5.61 cfs @ 12.01 hrs, Volume= 0.340 af, Depth= 5.04"

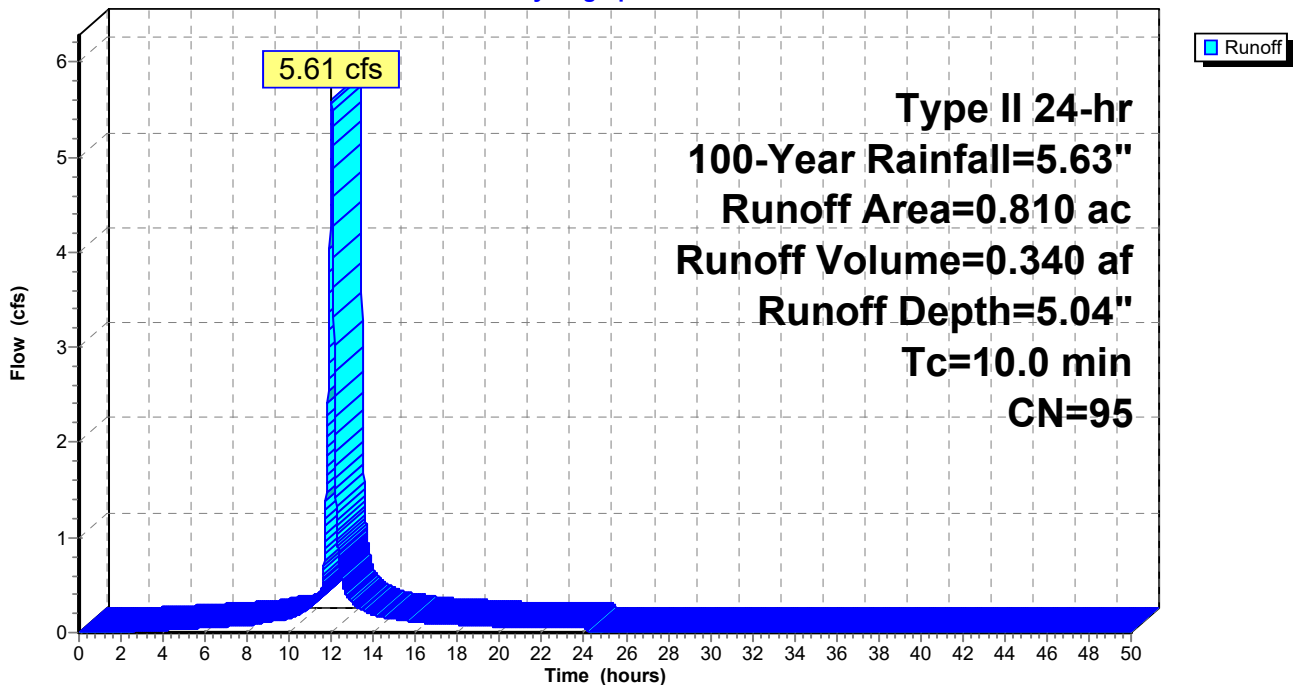
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 23W: STR23

Runoff = 4.73 cfs @ 12.01 hrs, Volume= 0.283 af, Depth= 4.93"

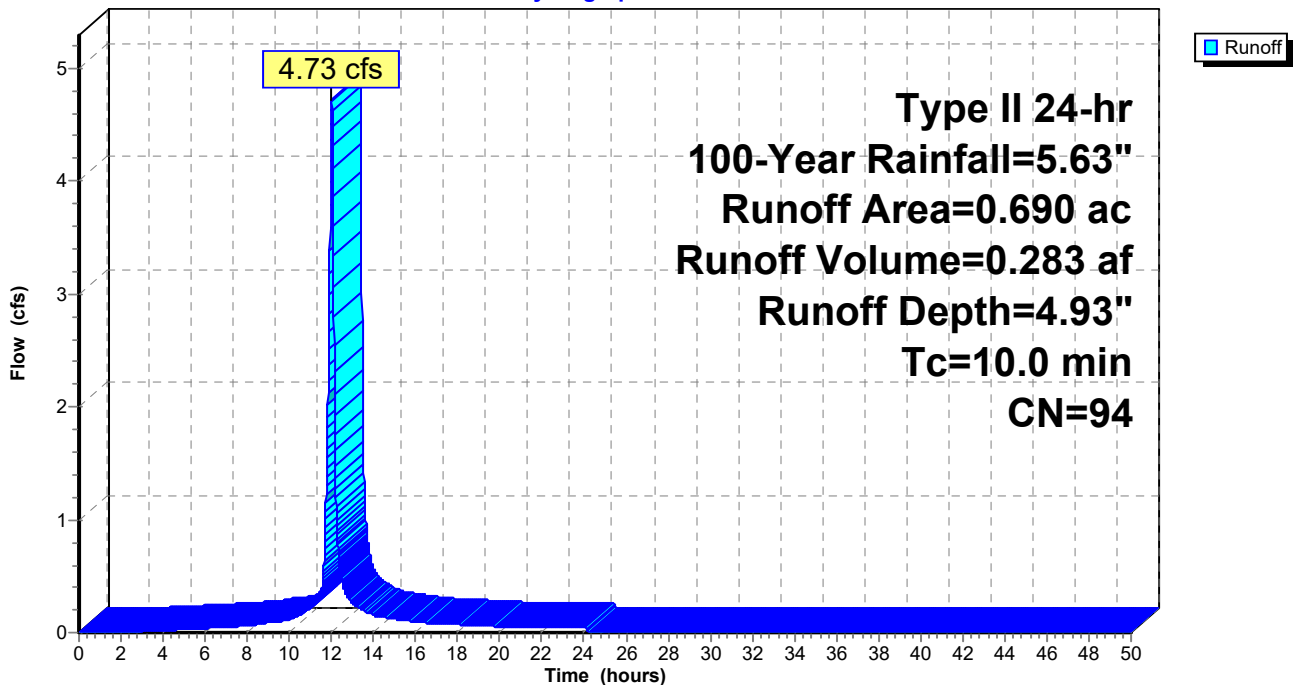
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 24W: STR24

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

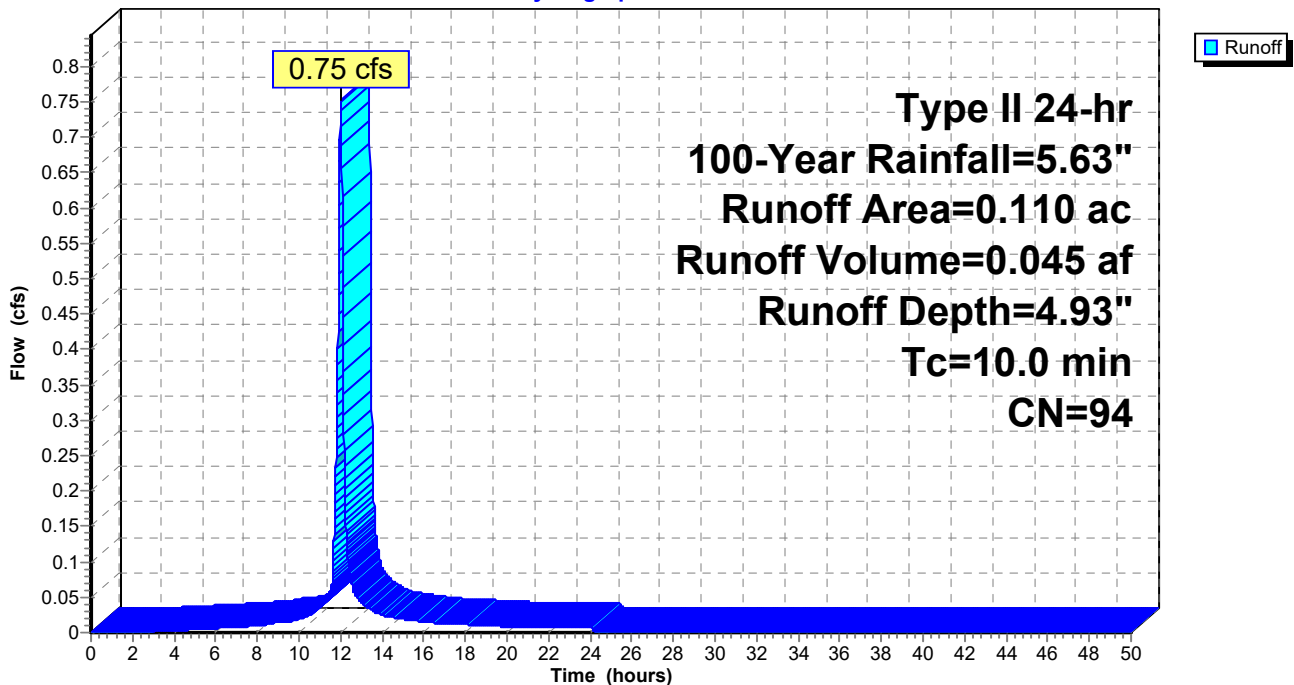
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 25W: STR25

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

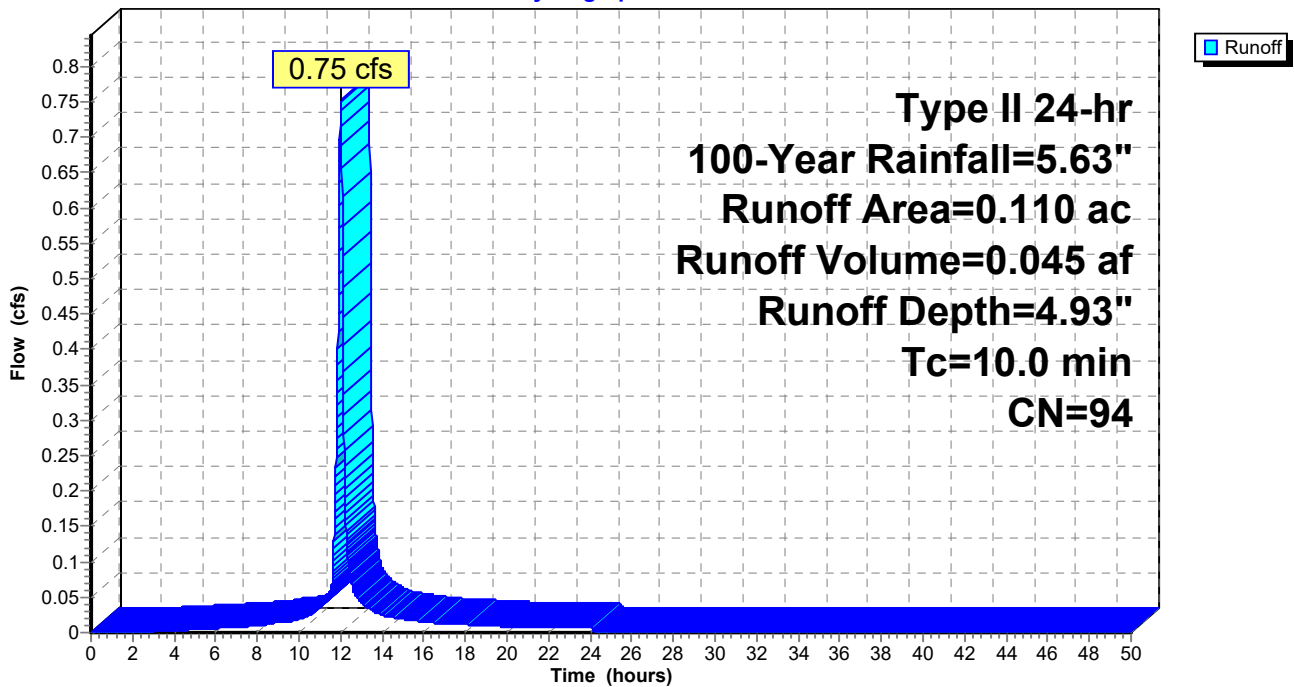
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 26W: STR26

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

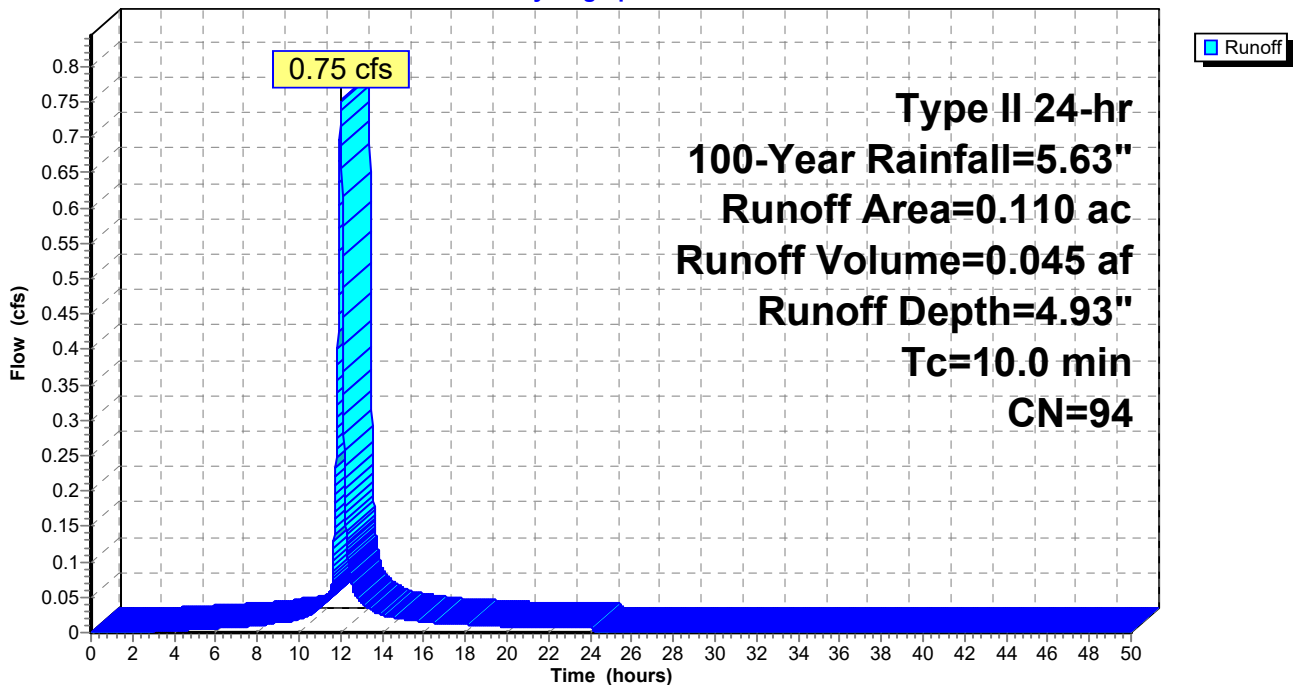
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 27W: STR27

Runoff = 1.89 cfs @ 12.01 hrs, Volume= 0.116 af, Depth= 5.16"

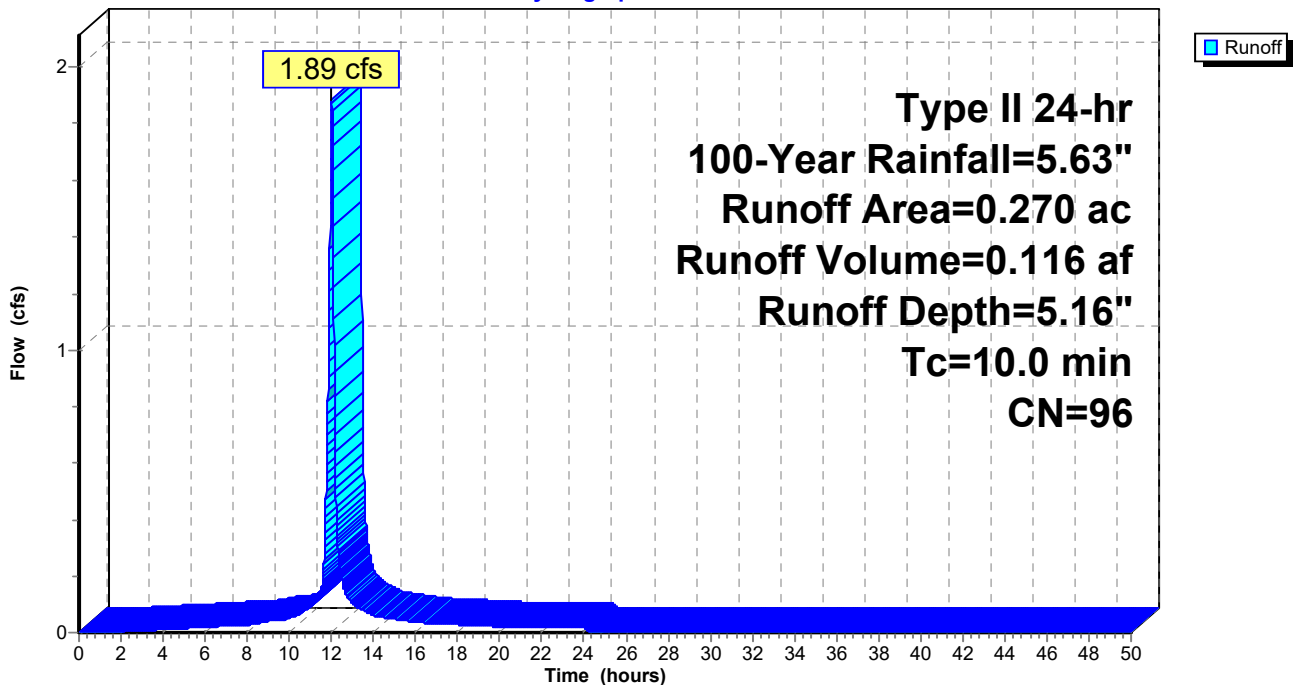
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 6.170 ac, 69.37% Impervious, Inflow Depth = 4.68" for 100-Year event
 Inflow = 40.53 cfs @ 12.01 hrs, Volume= 2.404 af
 Outflow = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af, Atten= 81%, Lag= 15.3 min
 Primary = 7.62 cfs @ 12.27 hrs, Volume= 2.379 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 912.86' @ 12.27 hrs Surf.Area= 21,882 sf Storage= 41,427 cf

Plug-Flow detention time= 85.6 min calculated for 2.379 af (99% of inflow)
 Center-of-Mass det. time= 78.8 min (854.5 - 775.7)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	56,449 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,369	7,591	7,591
912.00	18,106	16,738	24,329
912.50	19,916	9,506	33,834
913.00	22,622	10,635	44,469
913.50	25,300	11,981	56,449

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 172.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.31' S= 0.0102 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.62 cfs @ 12.27 hrs HW=912.86' TW=0.00' (Dynamic Tailwater)

↑ **1=Orifice/Grate** (Passes 7.62 cfs of 7.81 cfs potential flow)

↑ **2=Culvert** (Barrel Controls 7.62 cfs @ 6.21 fps)

↑ **3=Sharp-Crested Rectangular Weir** (Passes 7.62 cfs of 17.50 cfs potential flow)

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EXISTING WEST TRIB

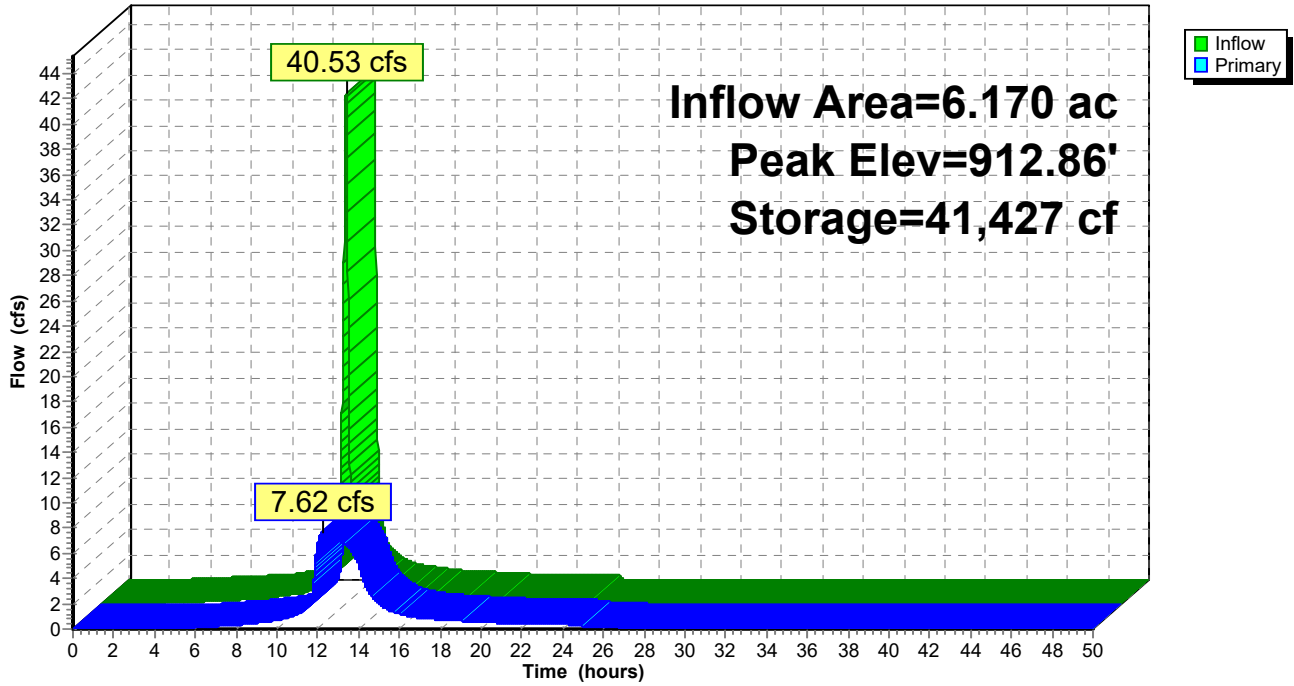
Type II 24-hr 100-Year Rainfall=5.63"

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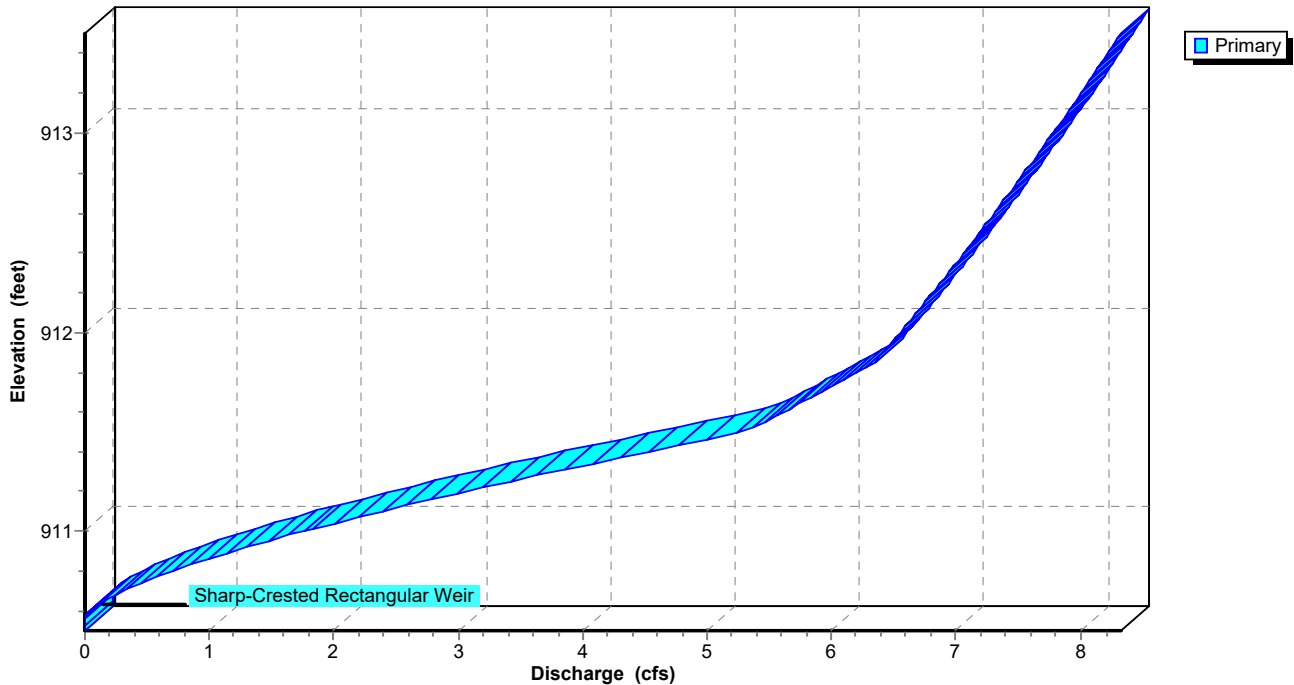
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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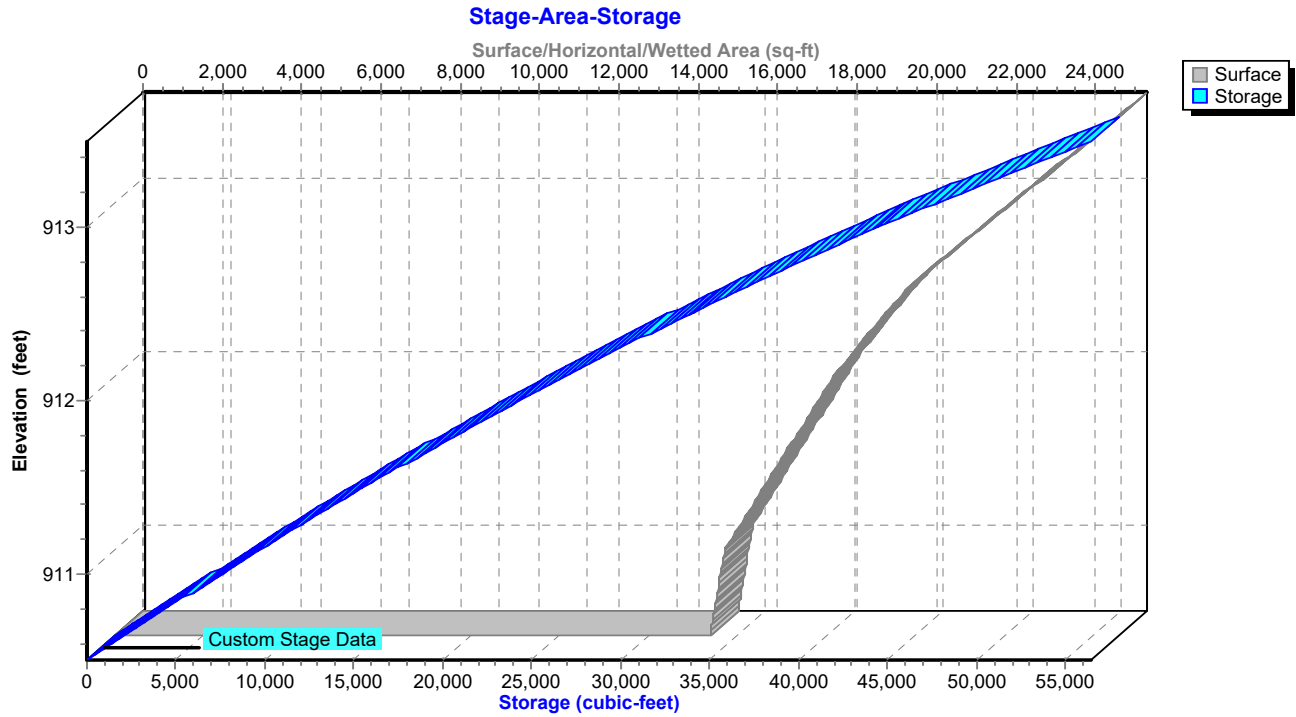
EXISTING WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

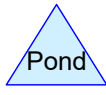
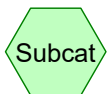
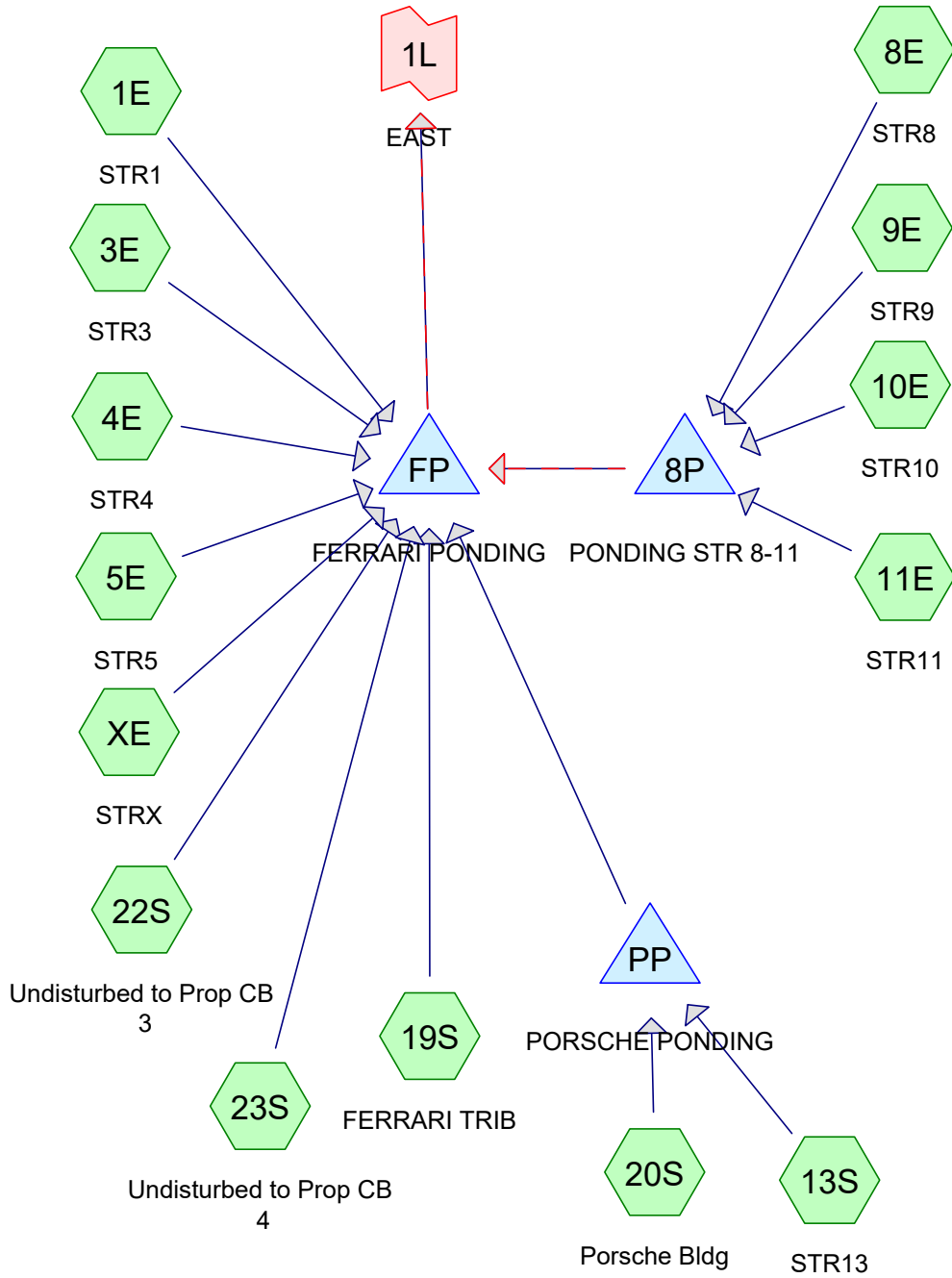
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Pond WP: RETENTION BASIN



PROP EAST TRIB



Routing Diagram for 3481 MAG PORSCHE - PROPOSED
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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Page 2

Summary for Subcatchment 1E: STR1

Runoff = 0.53 cfs @ 12.02 hrs, Volume= 0.029 af, Depth= 0.78"

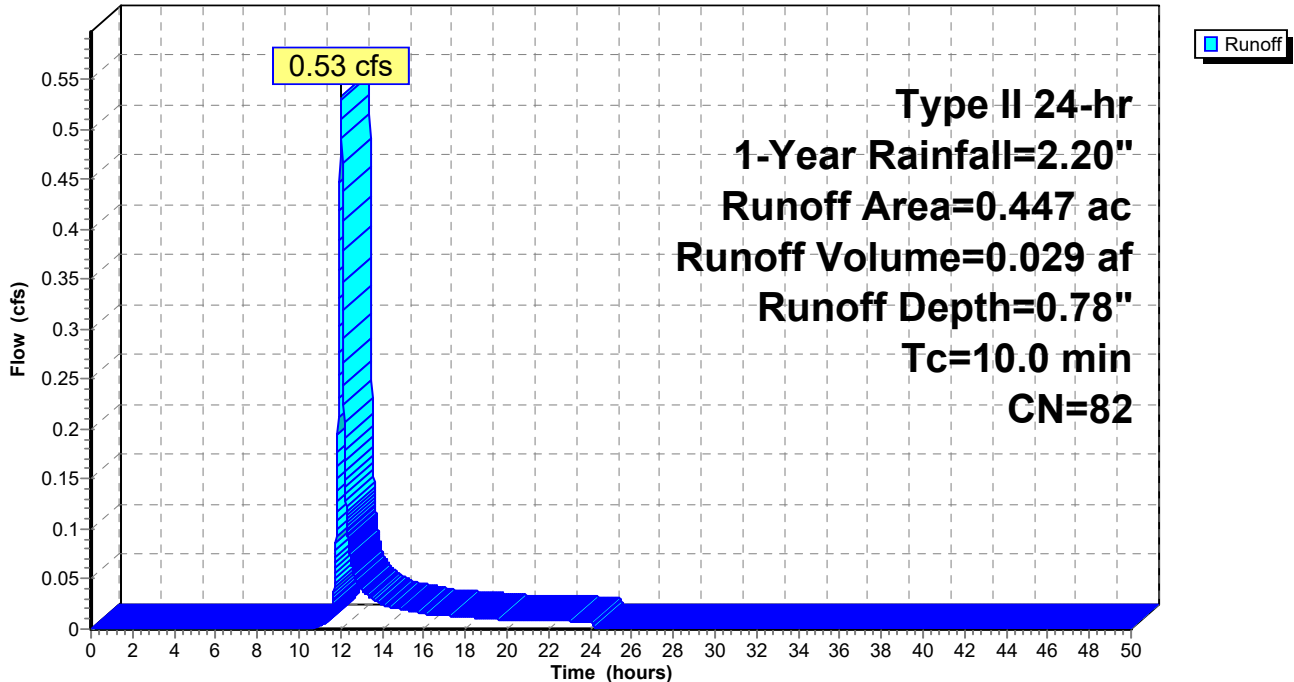
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Page 3

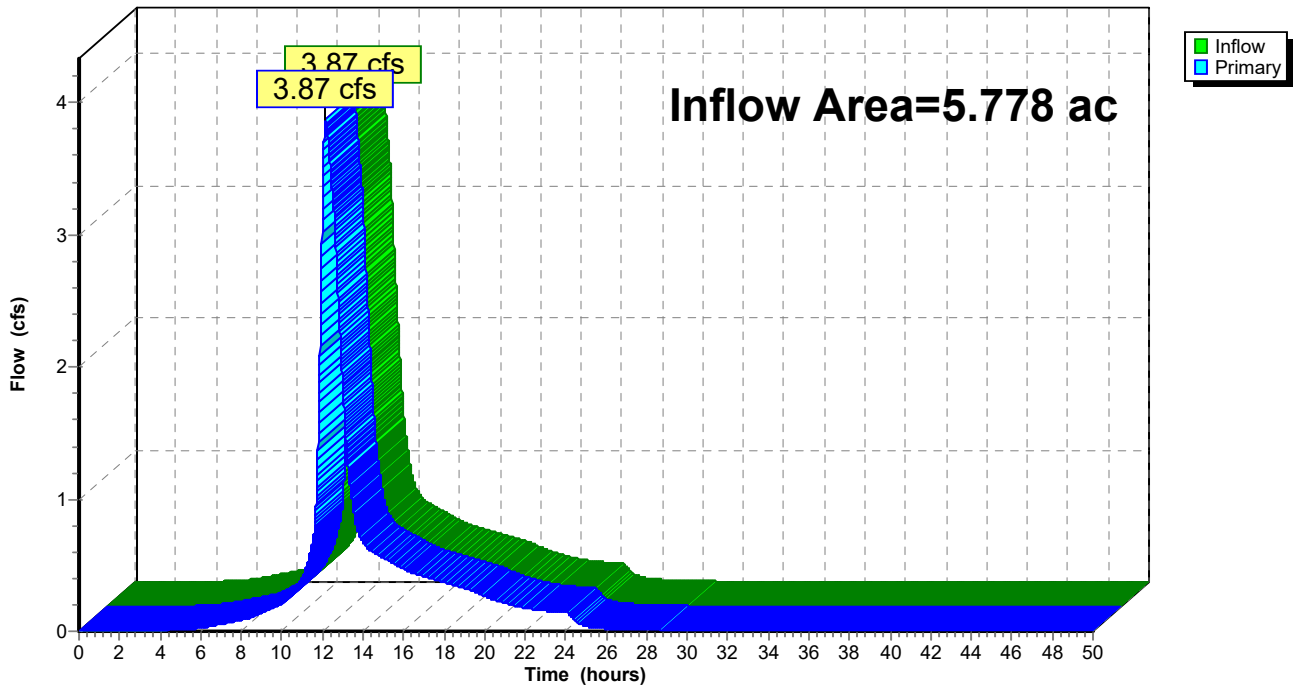
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 1.61" for 1-Year event
Inflow = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af
Primary = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 3E: STR3

Runoff = 1.01 cfs @ 12.01 hrs, Volume= 0.057 af, Depth= 1.58"

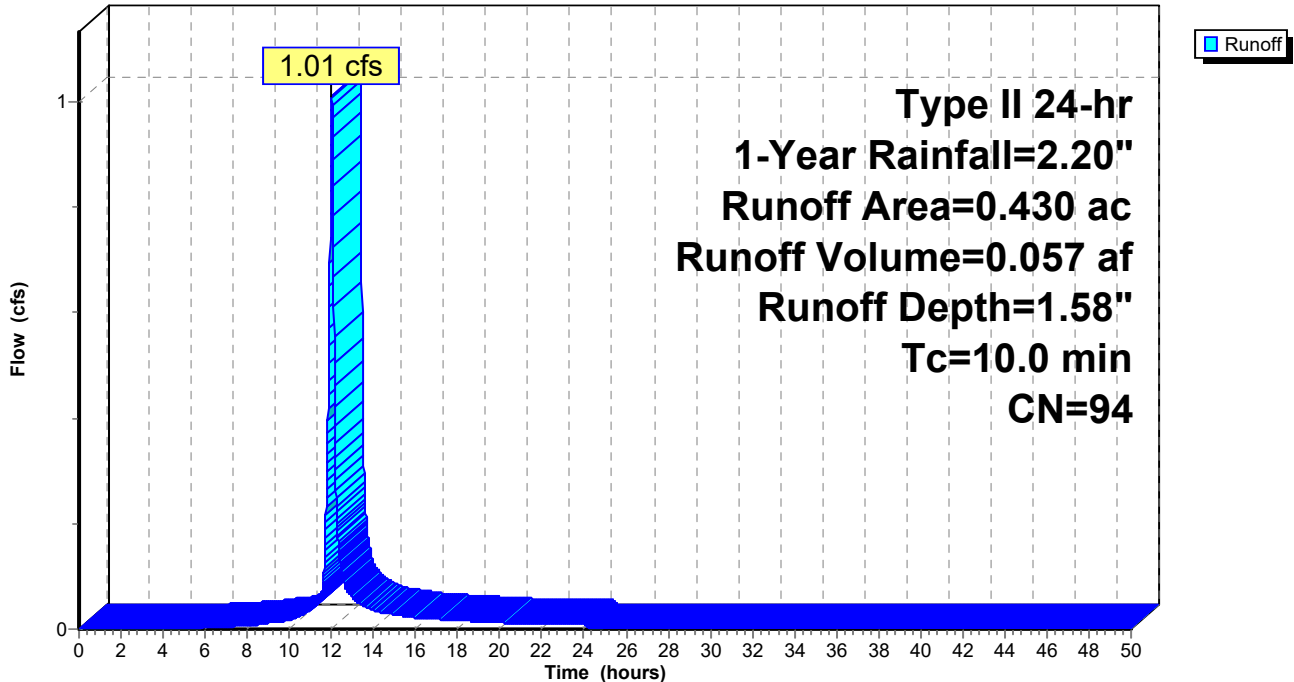
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 4E: STR4

Runoff = 0.97 cfs @ 12.01 hrs, Volume= 0.054 af, Depth= 1.50"

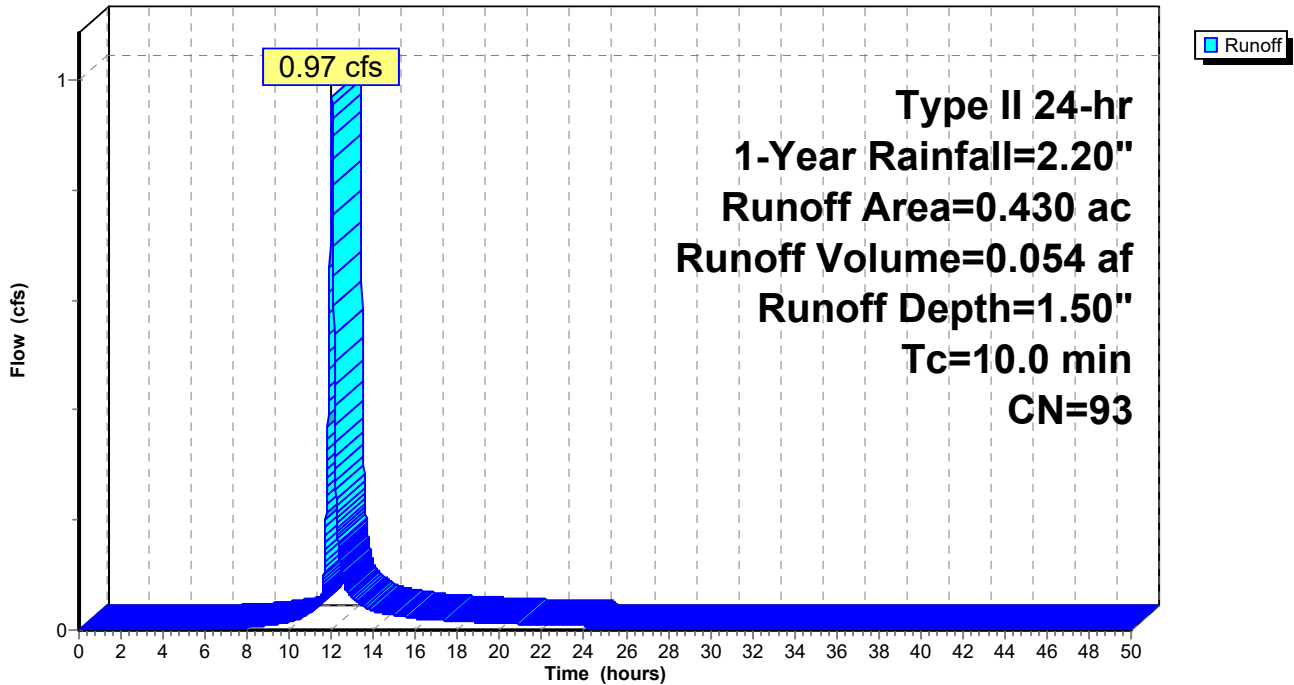
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 5E: STR5

Runoff = 1.13 cfs @ 12.02 hrs, Volume= 0.061 af, Depth= 1.27"

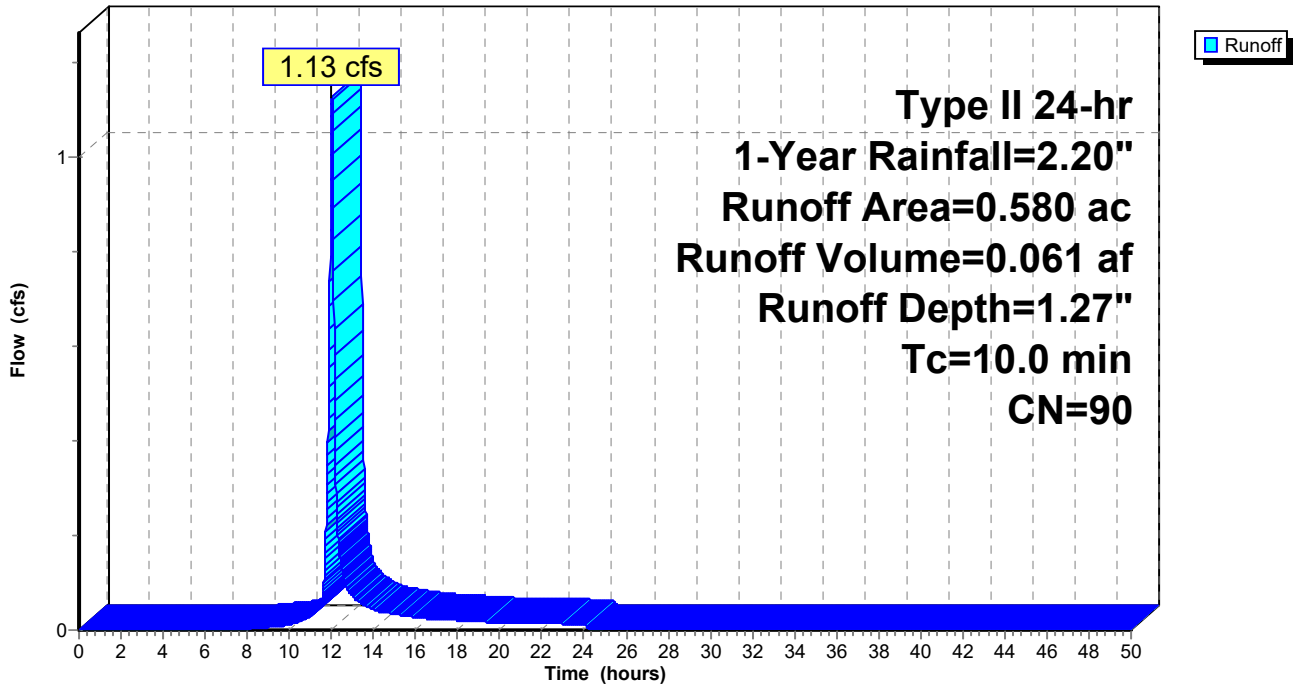
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 8E: STR8

Runoff = 0.81 cfs @ 12.01 hrs, Volume= 0.046 af, Depth= 1.67"

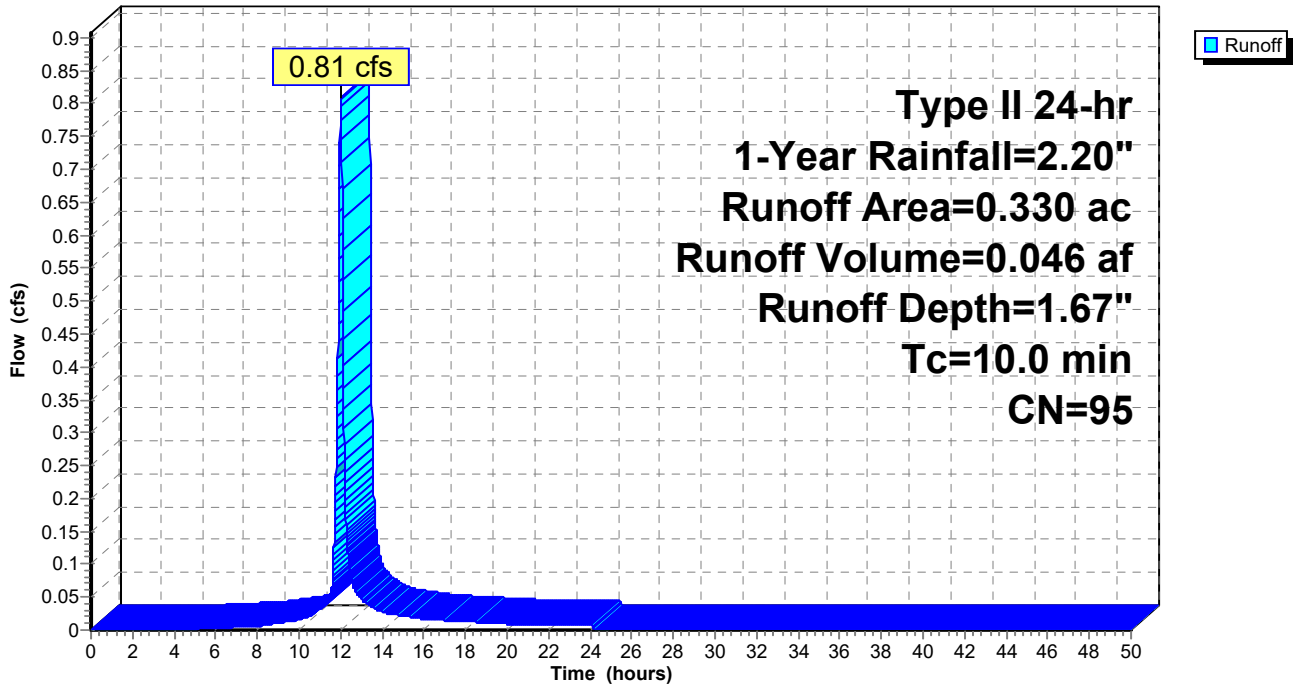
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 1.71" for 1-Year event
 Inflow = 3.55 cfs @ 12.01 hrs, Volume= 0.205 af
 Outflow = 1.49 cfs @ 12.00 hrs, Volume= 0.205 af, Atten= 58%, Lag= 0.0 min
 Primary = 1.49 cfs @ 12.00 hrs, Volume= 0.205 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.94' @ 12.16 hrs Surf.Area= 7,489 sf Storage= 1,464 cf

Plug-Flow detention time= 8.3 min calculated for 0.205 af (100% of inflow)
 Center-of-Mass det. time= 7.4 min (794.2 - 786.8)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.49 cfs @ 12.00 hrs HW=911.83' TW=908.88' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.49 cfs @ 8.24 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=907.34' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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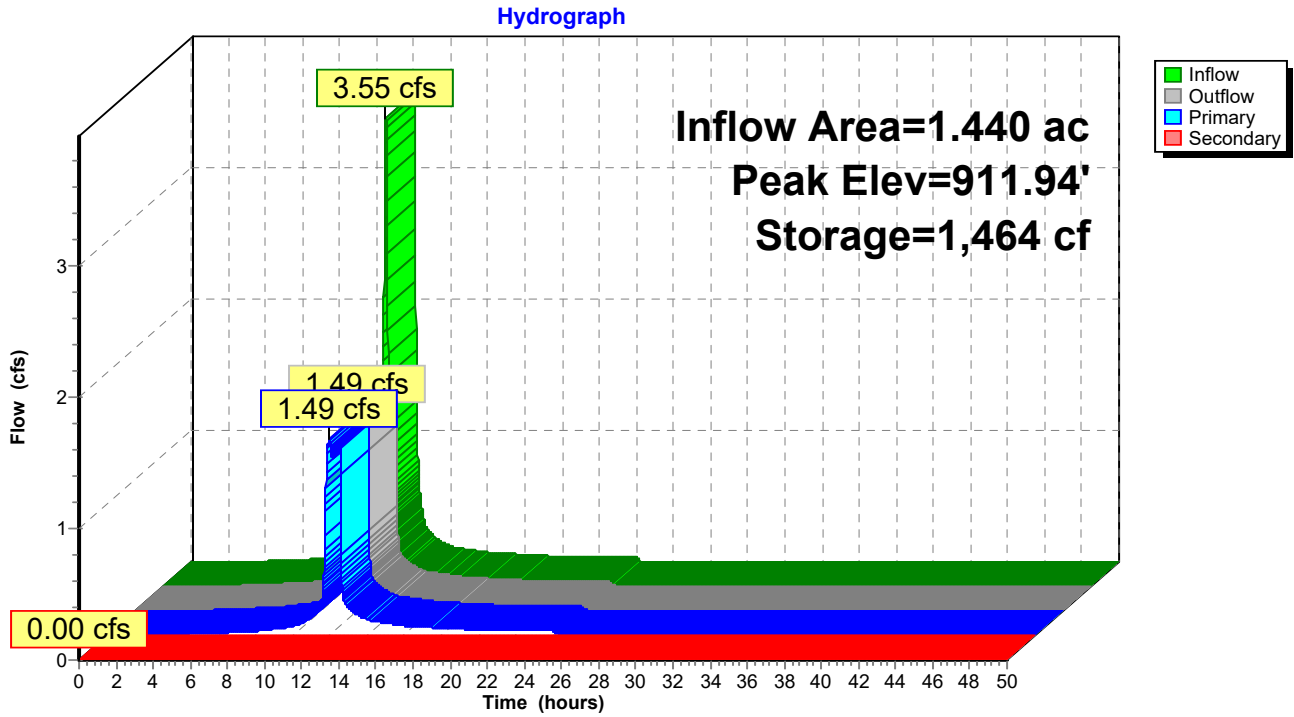
PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

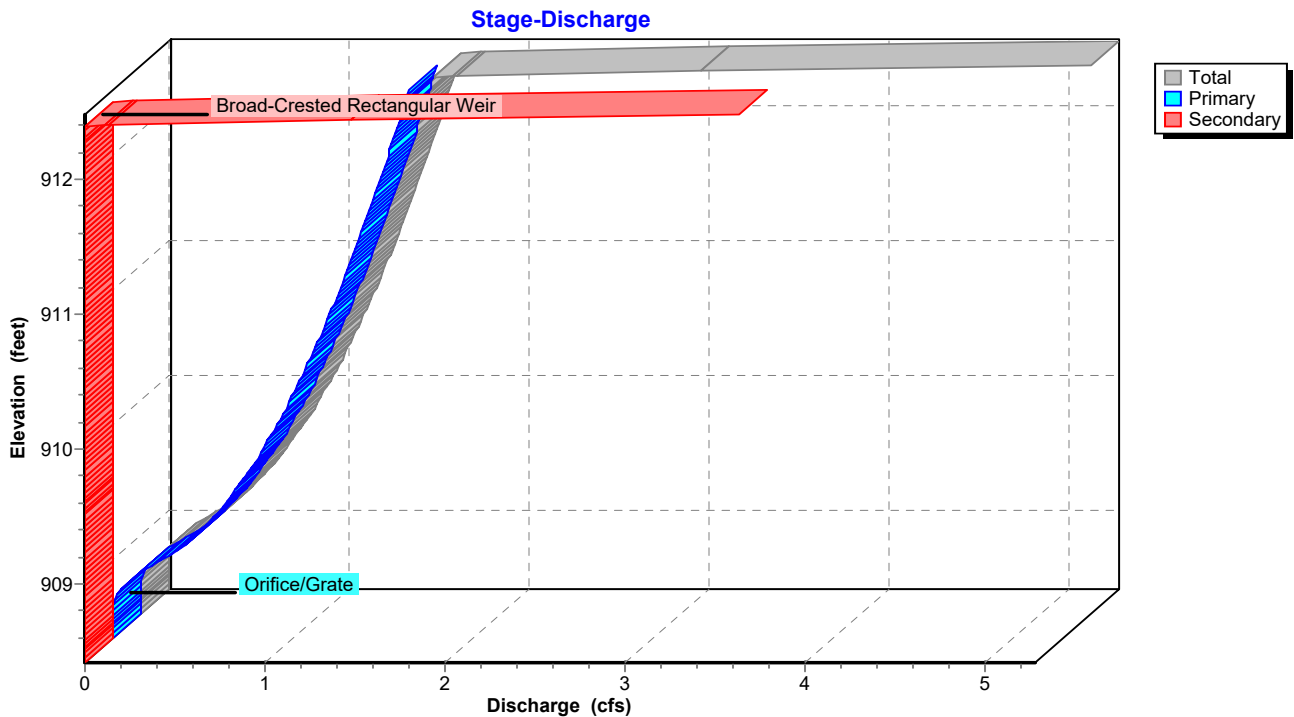
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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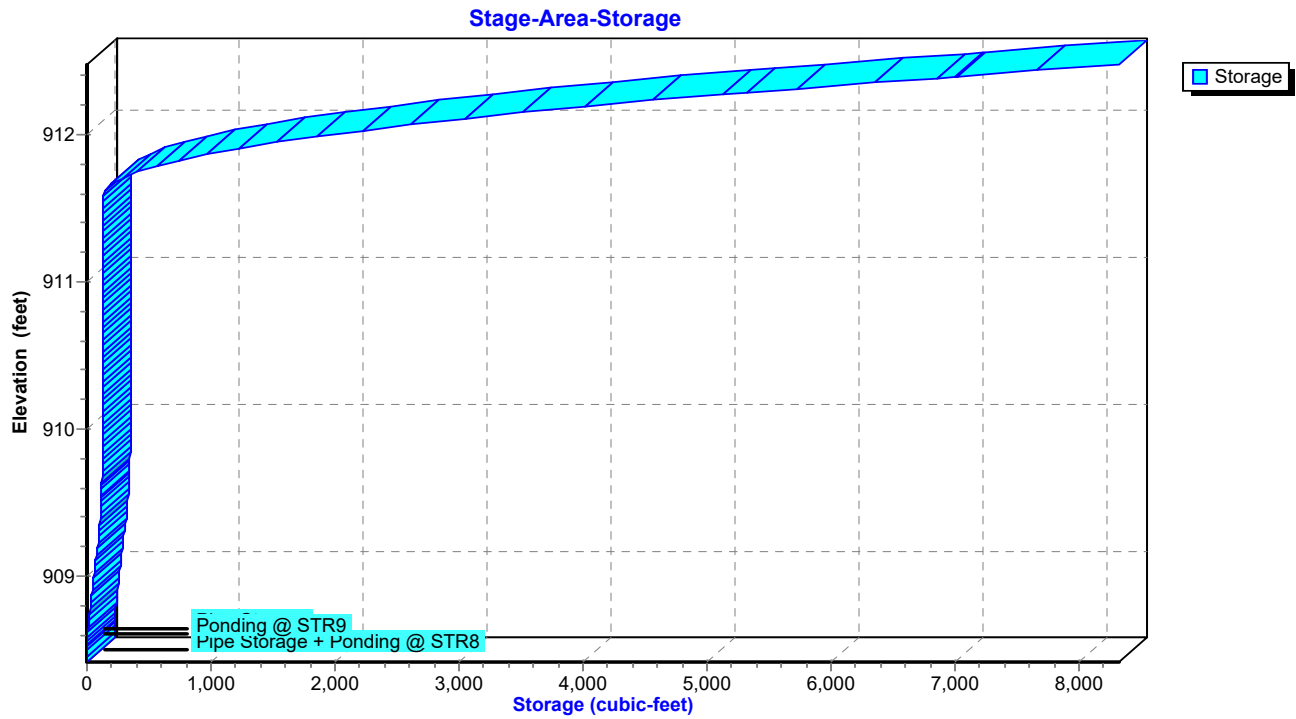
PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 9E: STR9

Runoff = 1.04 cfs @ 12.01 hrs, Volume= 0.058 af, Depth= 1.58"

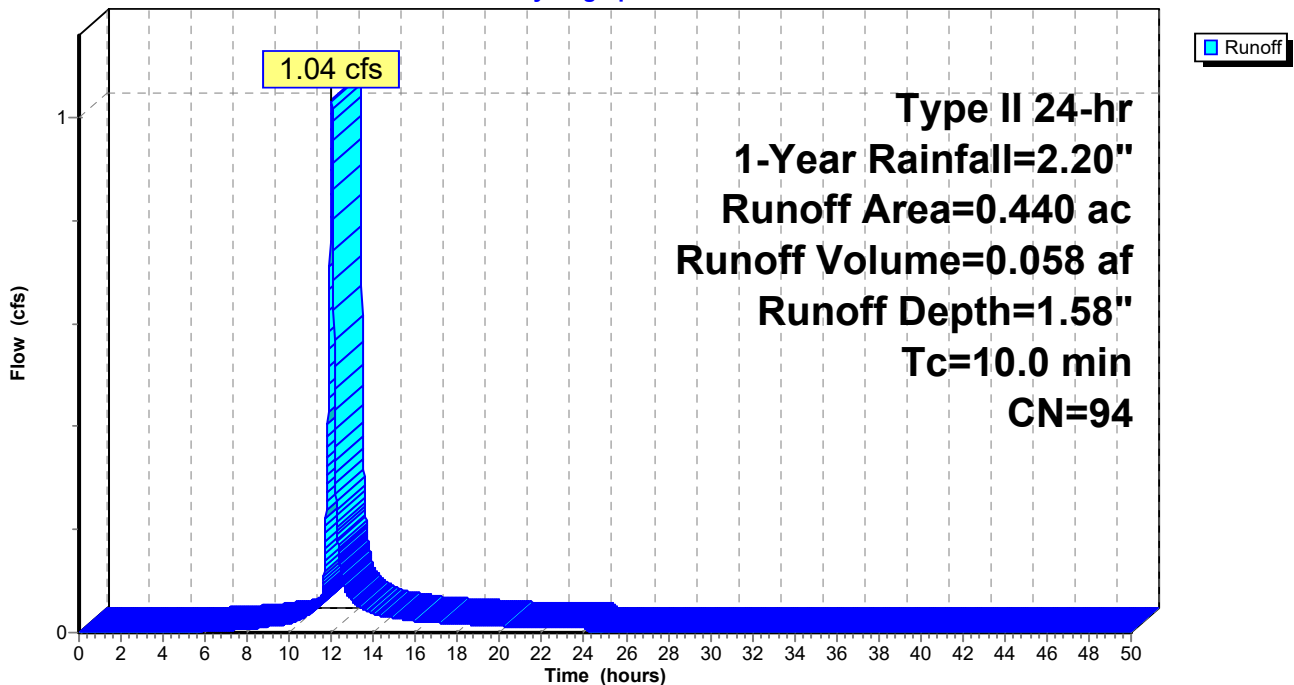
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 10E: STR10

Runoff = 1.30 cfs @ 12.01 hrs, Volume= 0.079 af, Depth= 1.97"

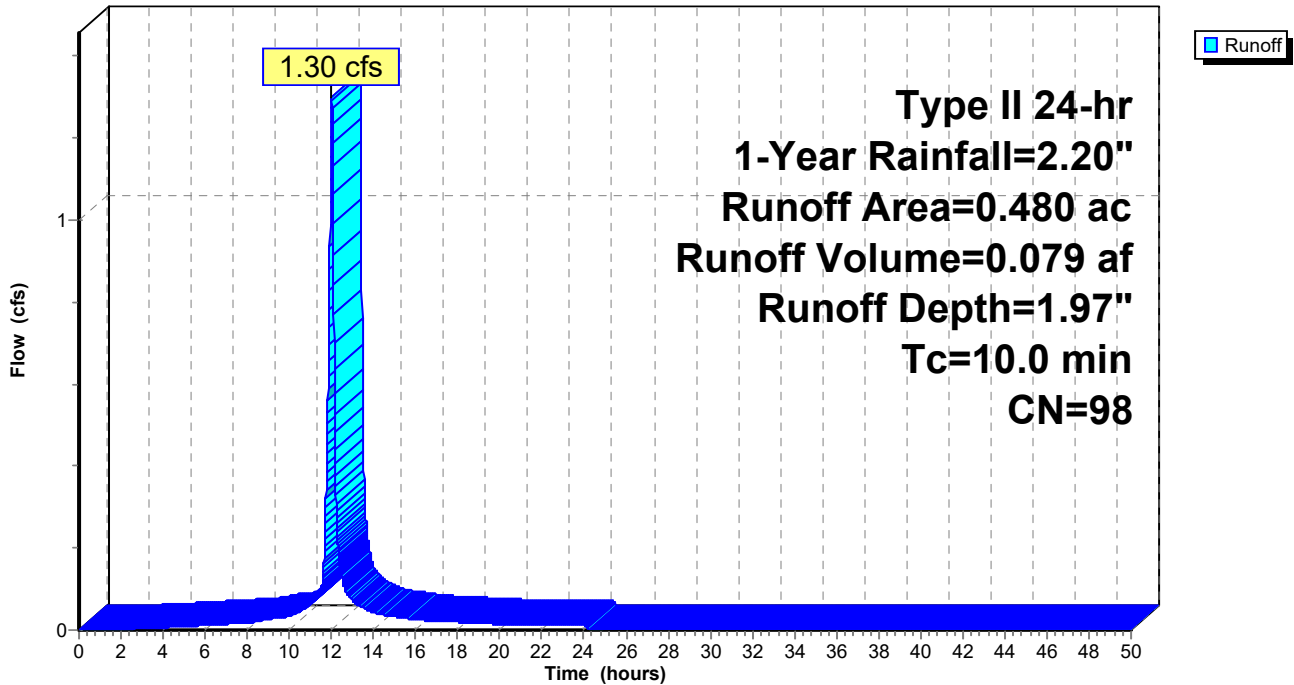
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 11E: STR11

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.022 af, Depth= 1.42"

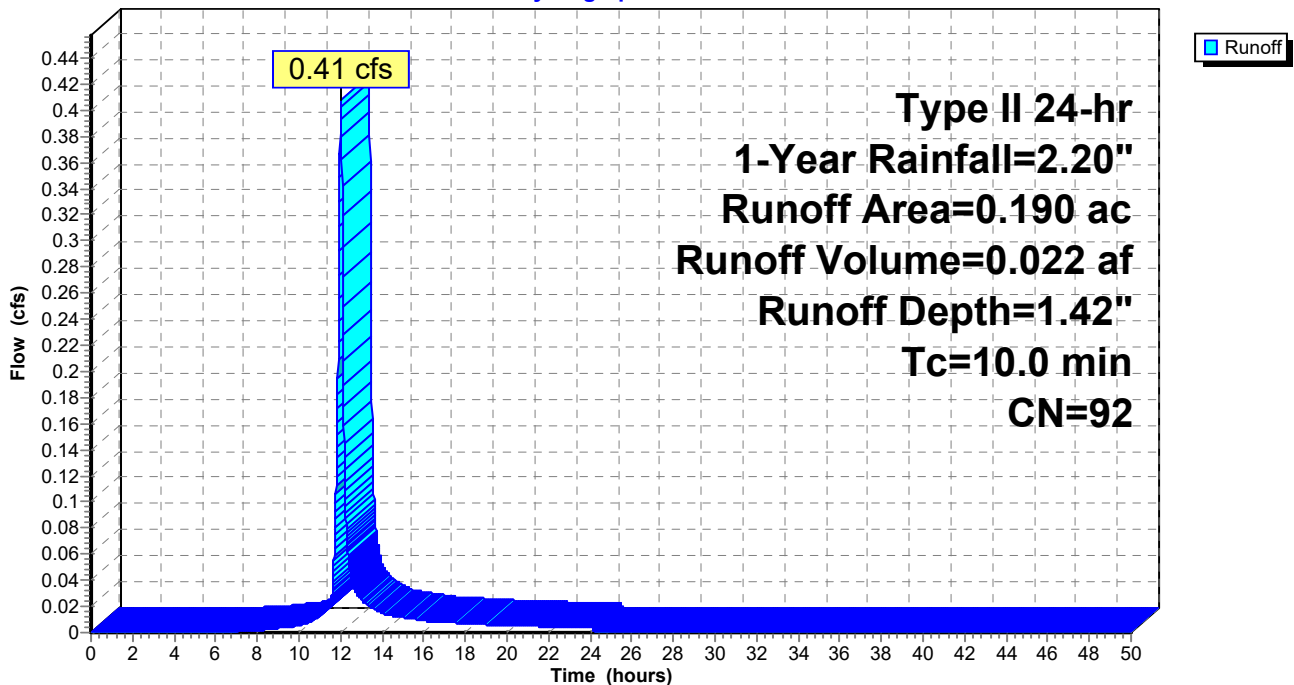
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 13S: STR13

Runoff = 1.92 cfs @ 12.01 hrs, Volume= 0.114 af, Depth= 1.87"

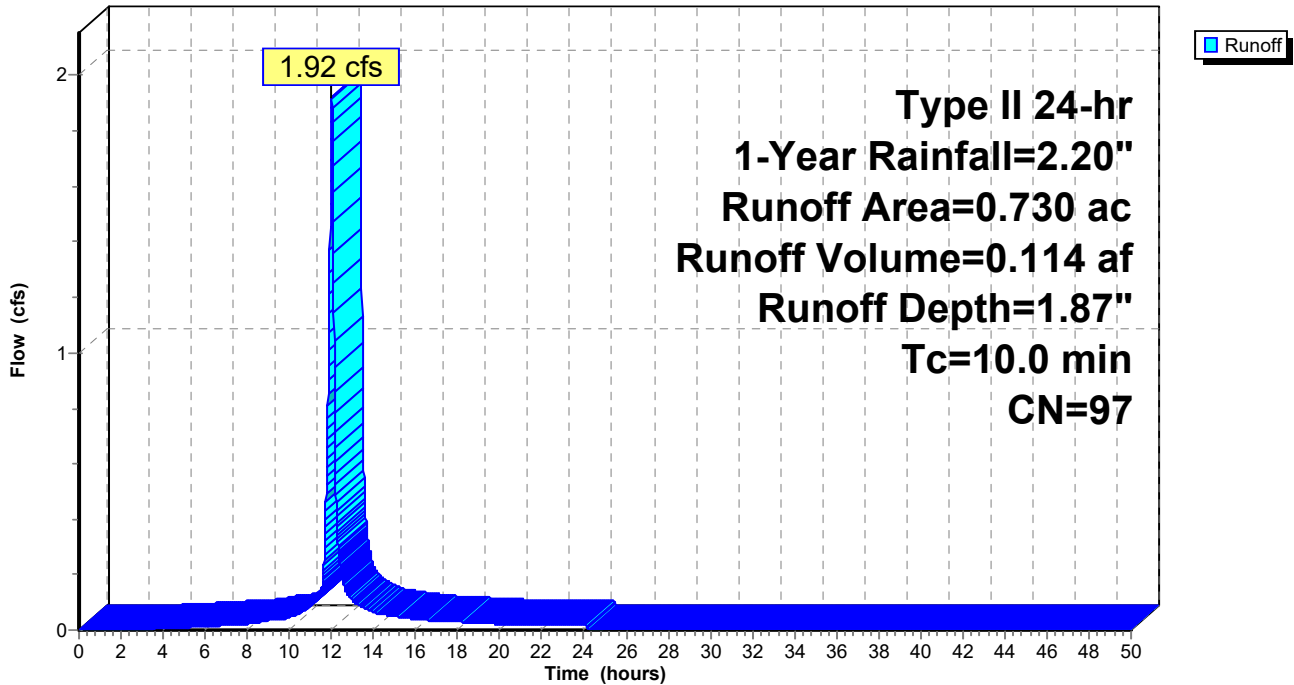
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 1.74 cfs @ 12.01 hrs, Volume= 0.098 af, Depth= 1.58"

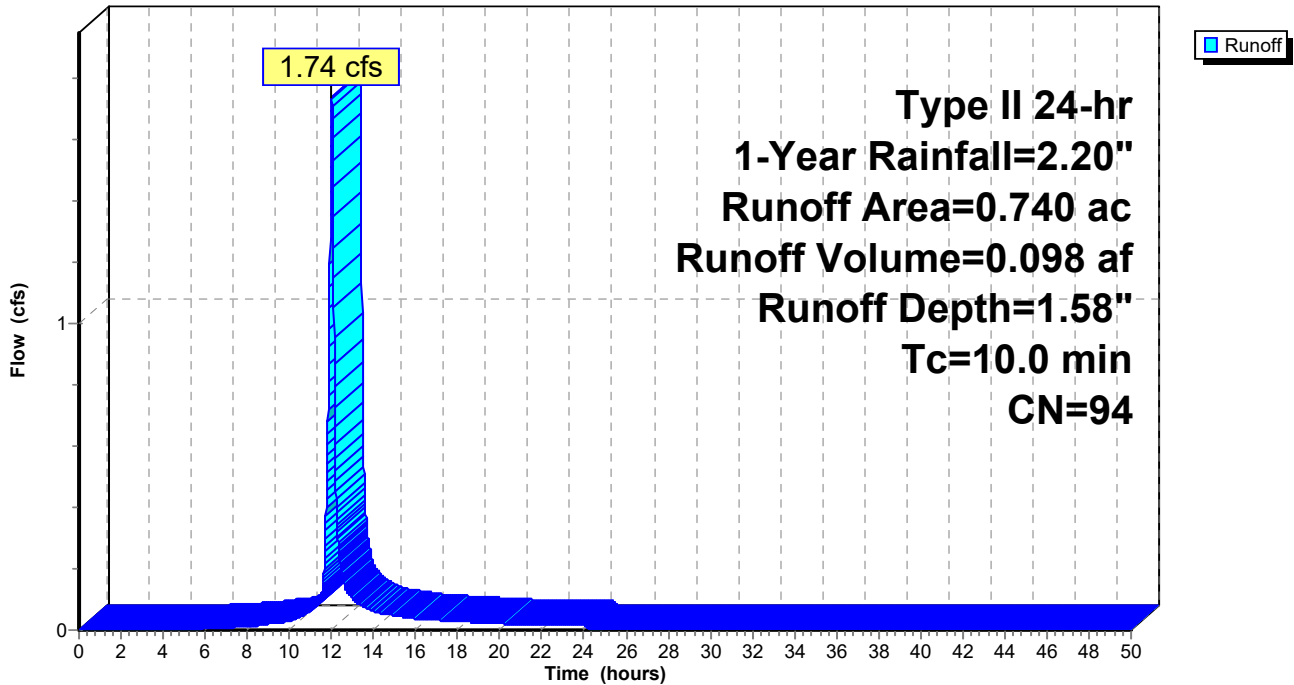
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 1.32 cfs @ 12.01 hrs, Volume= 0.080 af, Depth= 1.97"

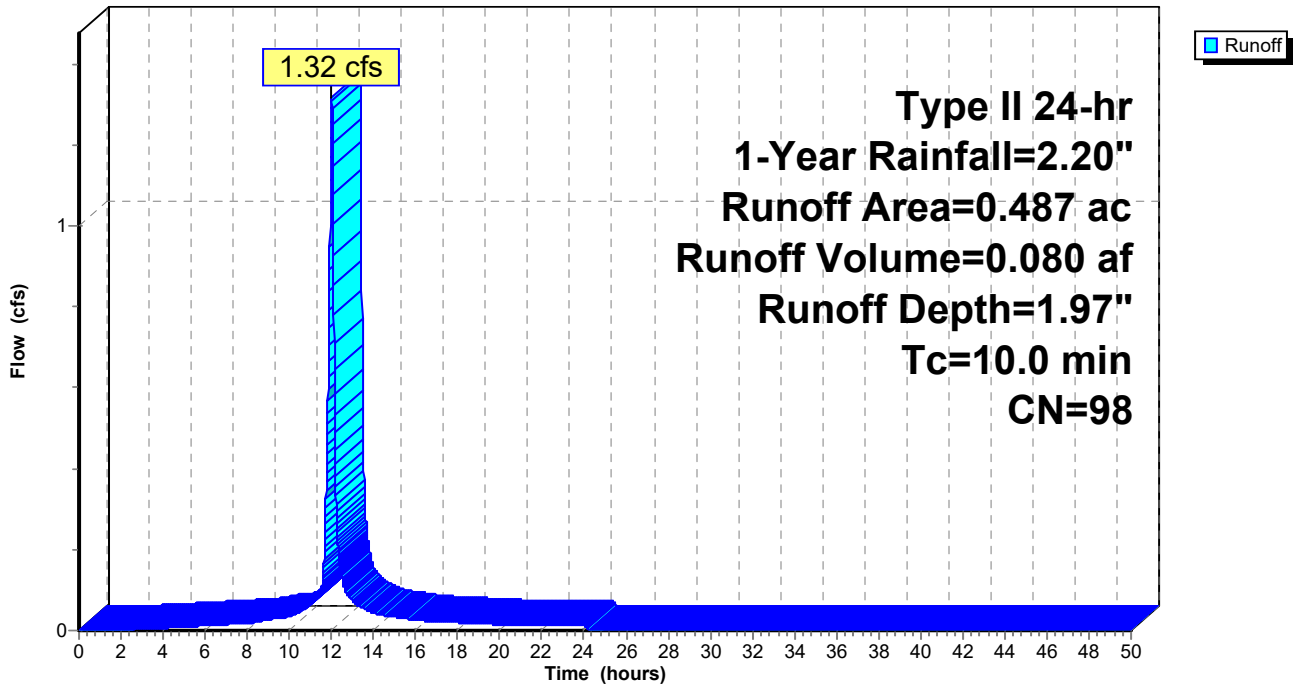
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 0.62 cfs @ 12.01 hrs, Volume= 0.036 af, Depth= 1.87"

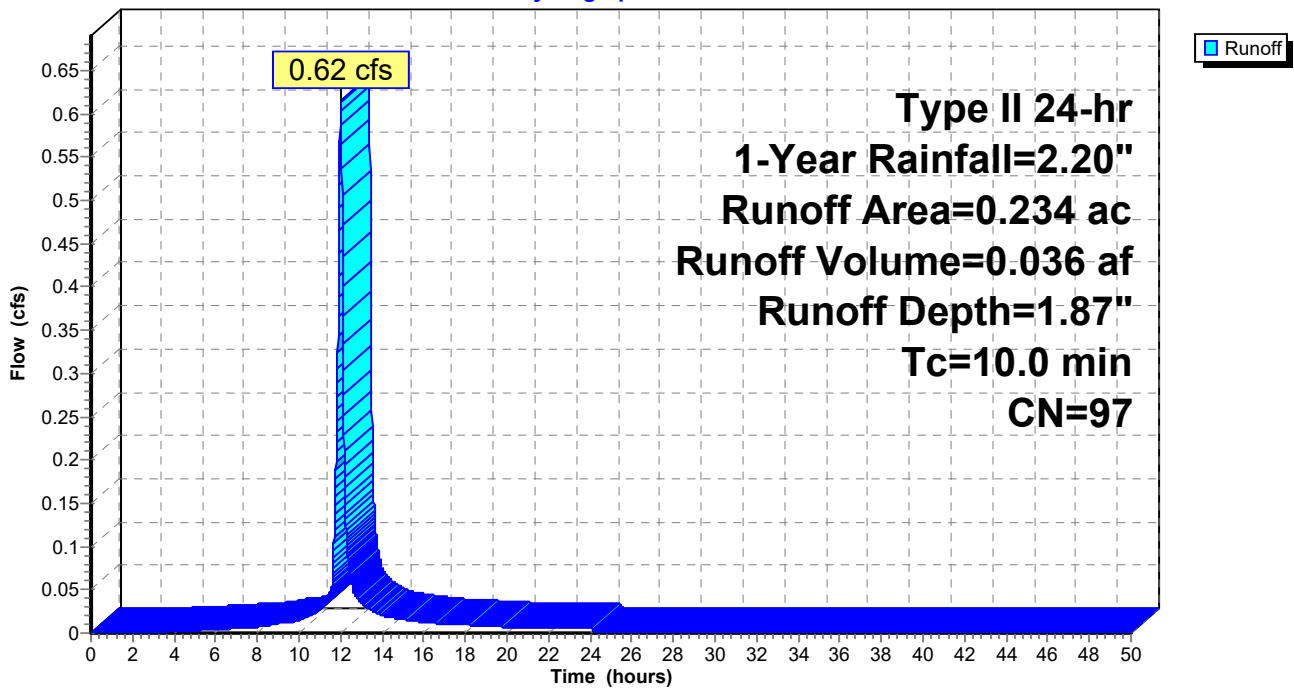
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.36 cfs @ 12.01 hrs, Volume= 0.021 af, Depth= 1.77"

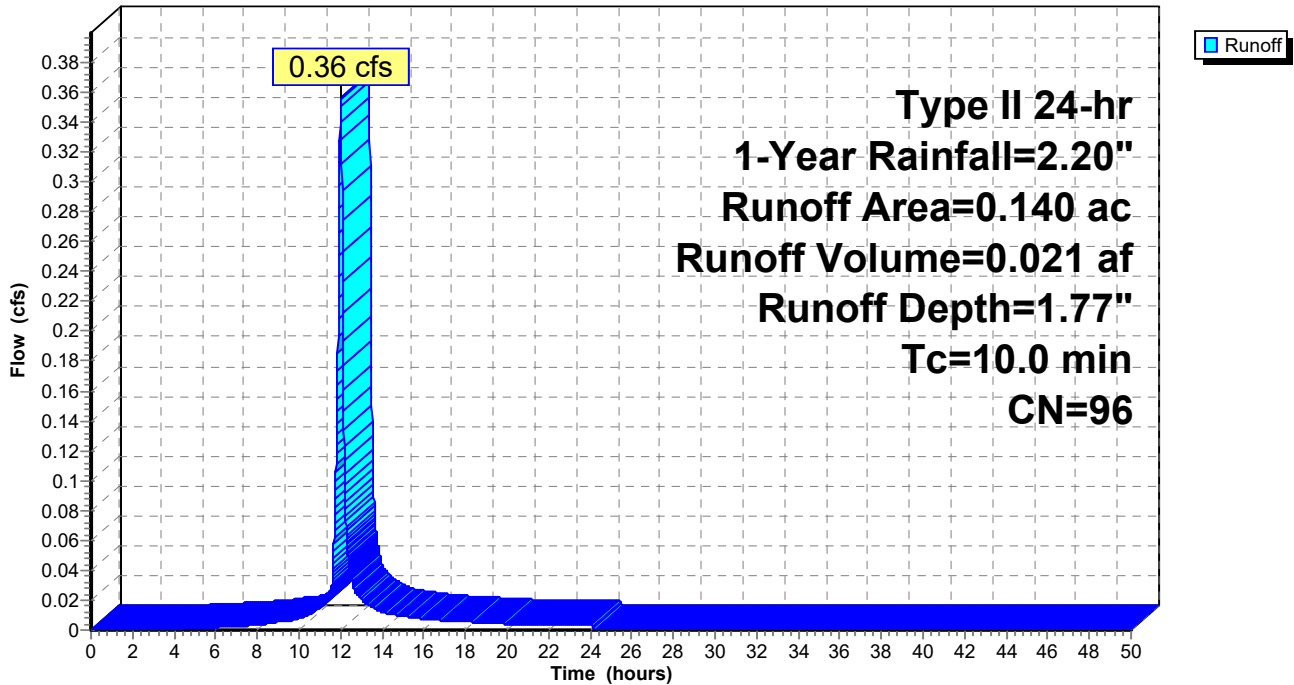
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 1.61" for 1-Year event
 Inflow = 8.15 cfs @ 12.01 hrs, Volume= 0.774 af
 Outflow = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af, Atten= 52%, Lag= 9.0 min
 Primary = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 909.54' @ 12.16 hrs Surf.Area= 3,515 sf Storage= 5,300 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 18.9 min (861.7 - 842.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

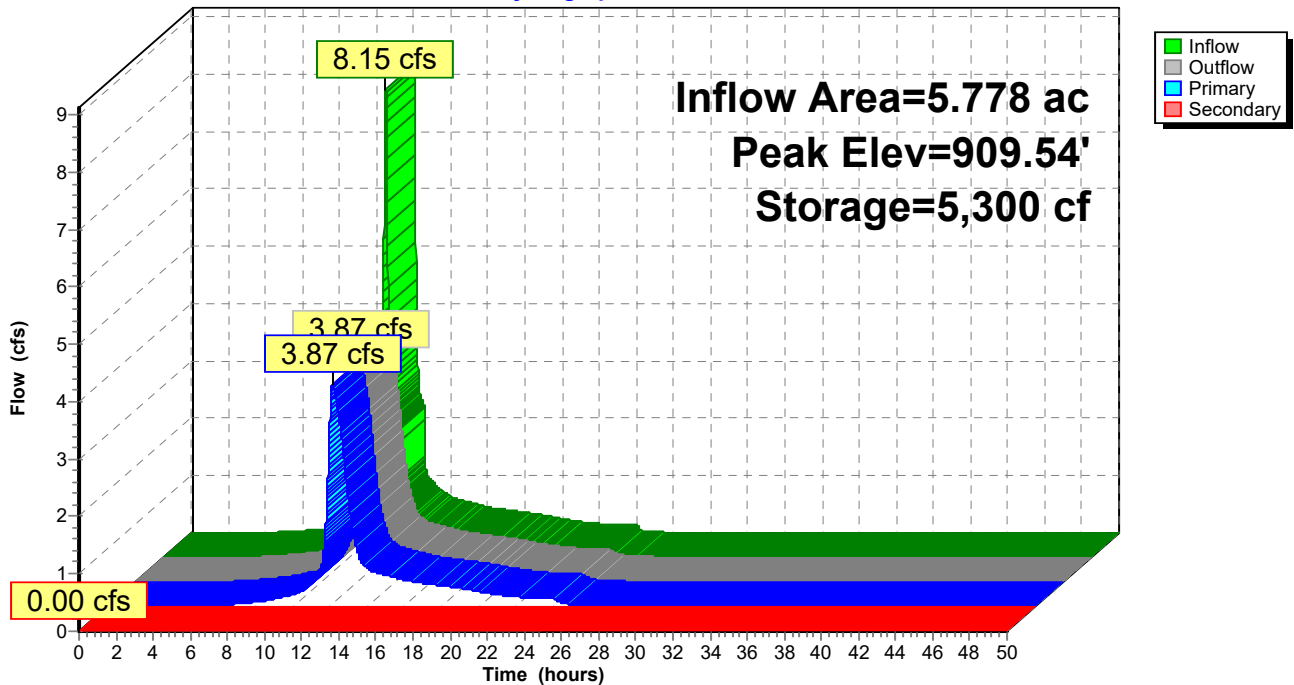
Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=3.87 cfs @ 12.16 hrs HW=909.54' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 3.87 cfs @ 6.44 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING

Hydrograph



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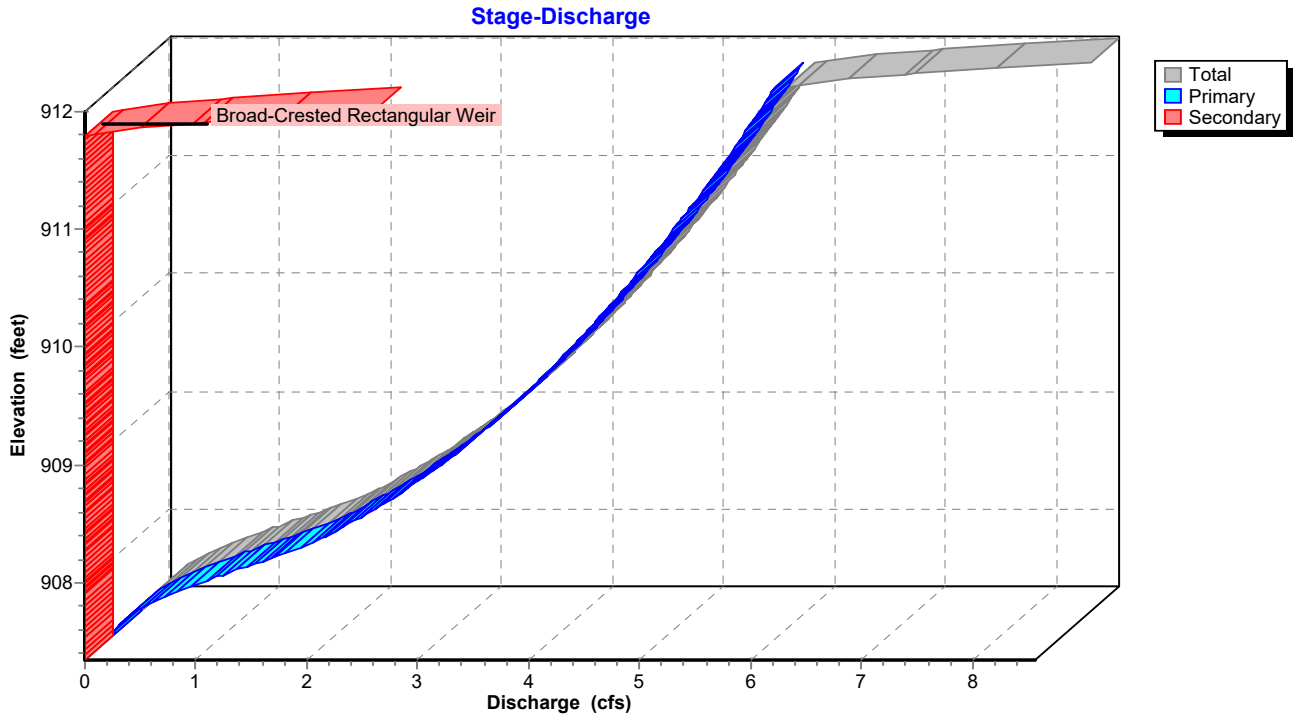
PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

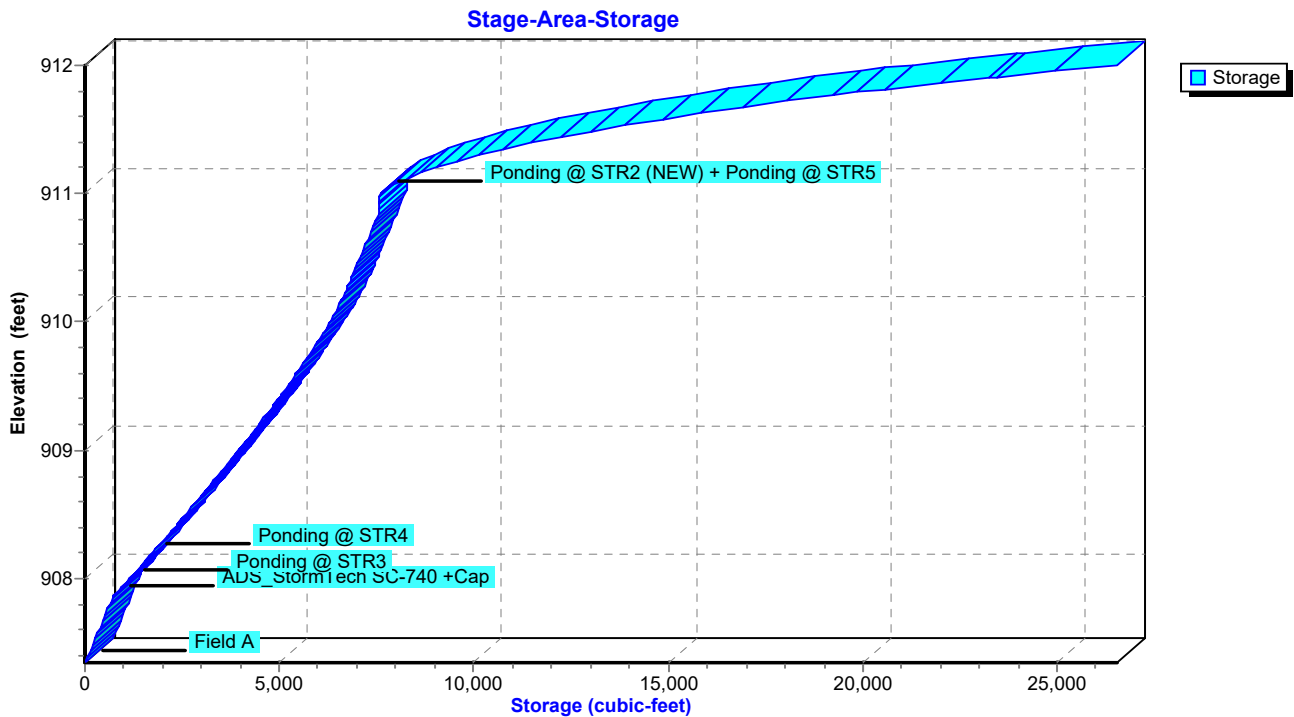
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 1.91" for 1-Year event
 Inflow = 3.24 cfs @ 12.01 hrs, Volume= 0.194 af
 Outflow = 0.29 cfs @ 13.03 hrs, Volume= 0.193 af, Atten= 91%, Lag= 61.3 min
 Primary = 0.29 cfs @ 13.03 hrs, Volume= 0.193 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 909.28' @ 12.73 hrs Surf.Area= 5,569 sf Storage= 4,678 cf

Plug-Flow detention time= 198.8 min calculated for 0.193 af (100% of inflow)
 Center-of-Mass det. time= 197.1 min (968.8 - 771.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.29 cfs @ 13.03 hrs HW=909.26' TW=908.12' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.29 cfs @ 5.10 fps)

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PROPOSED EAST TRIB

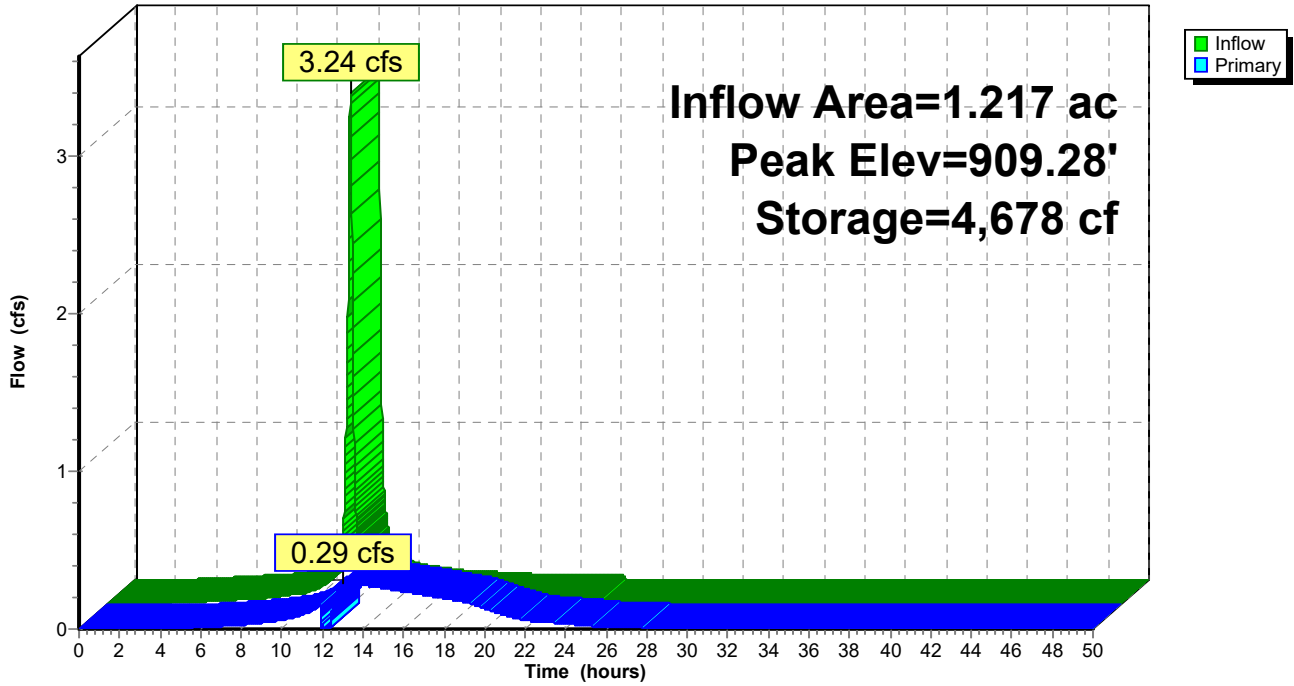
Type II 24-hr 1-Year Rainfall=2.20"

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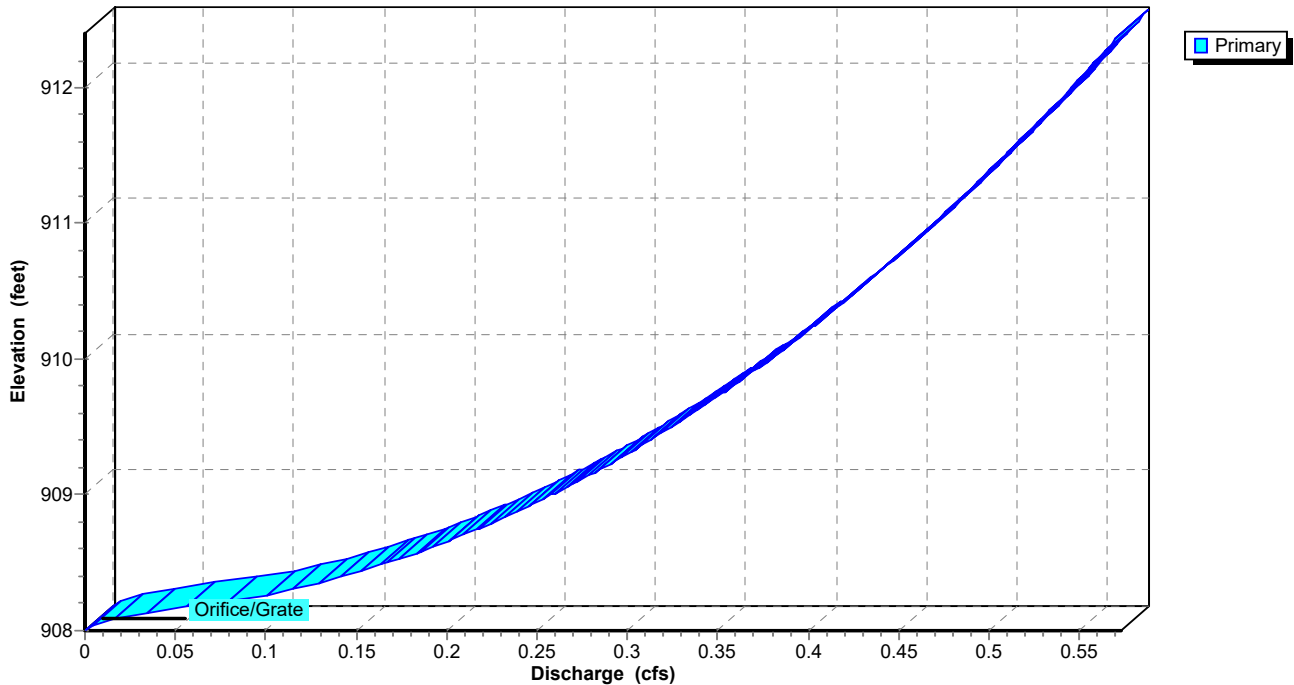
Pond PP: PORSCHE PONDING

Hydrograph



Pond PP: PORSCHE PONDING

Stage-Discharge



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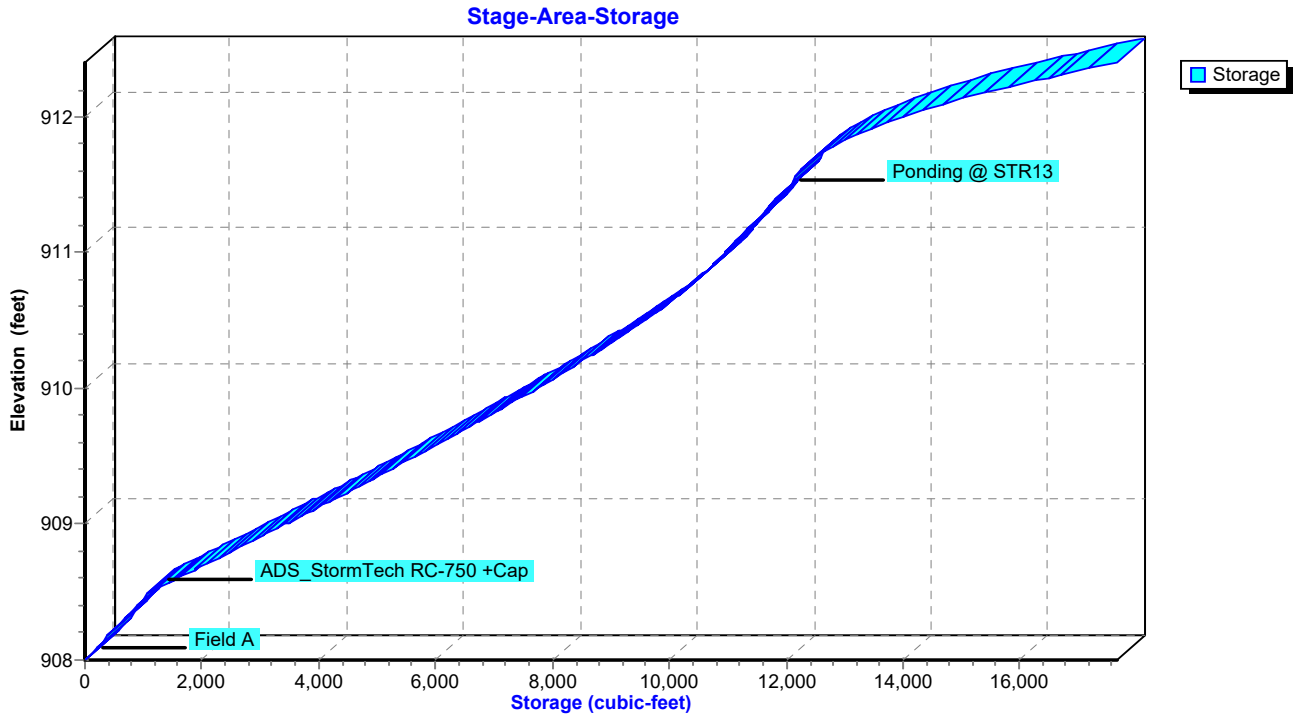
PROPOSED EAST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment XE: STRX

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.020 af, Depth= 1.97"

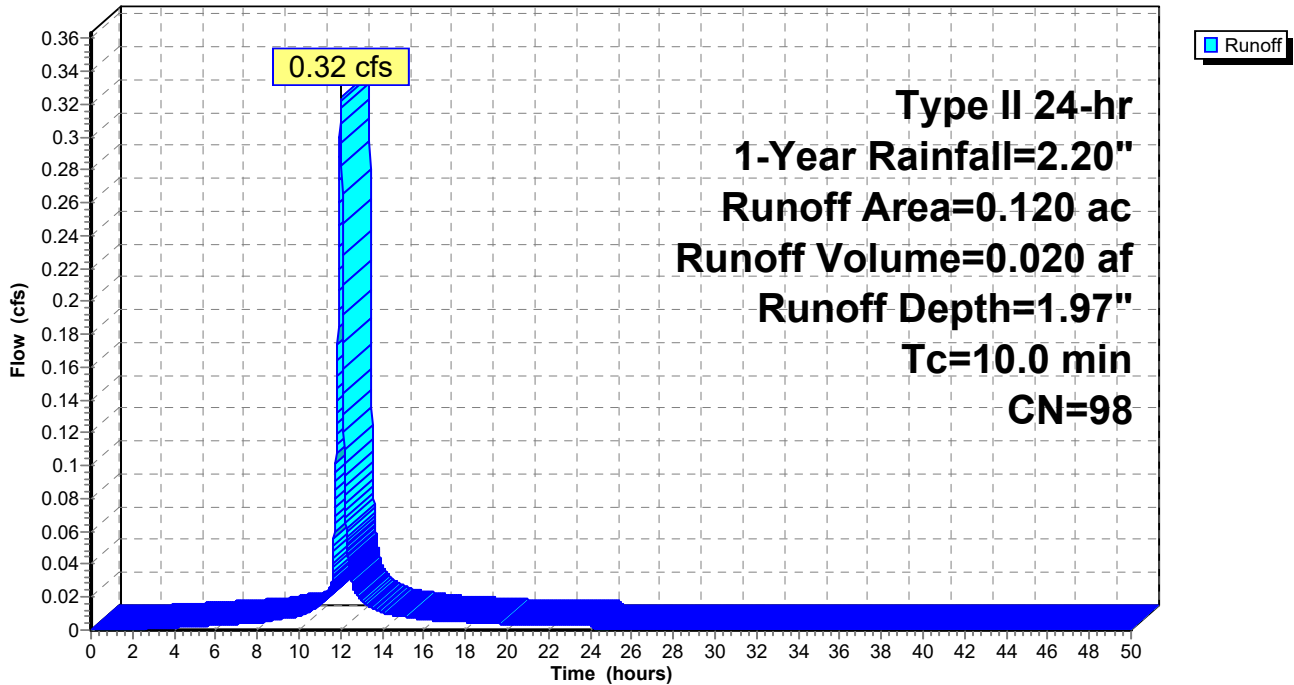
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 1E: STR1

Runoff = 0.75 cfs @ 12.02 hrs, Volume= 0.041 af, Depth= 1.09"

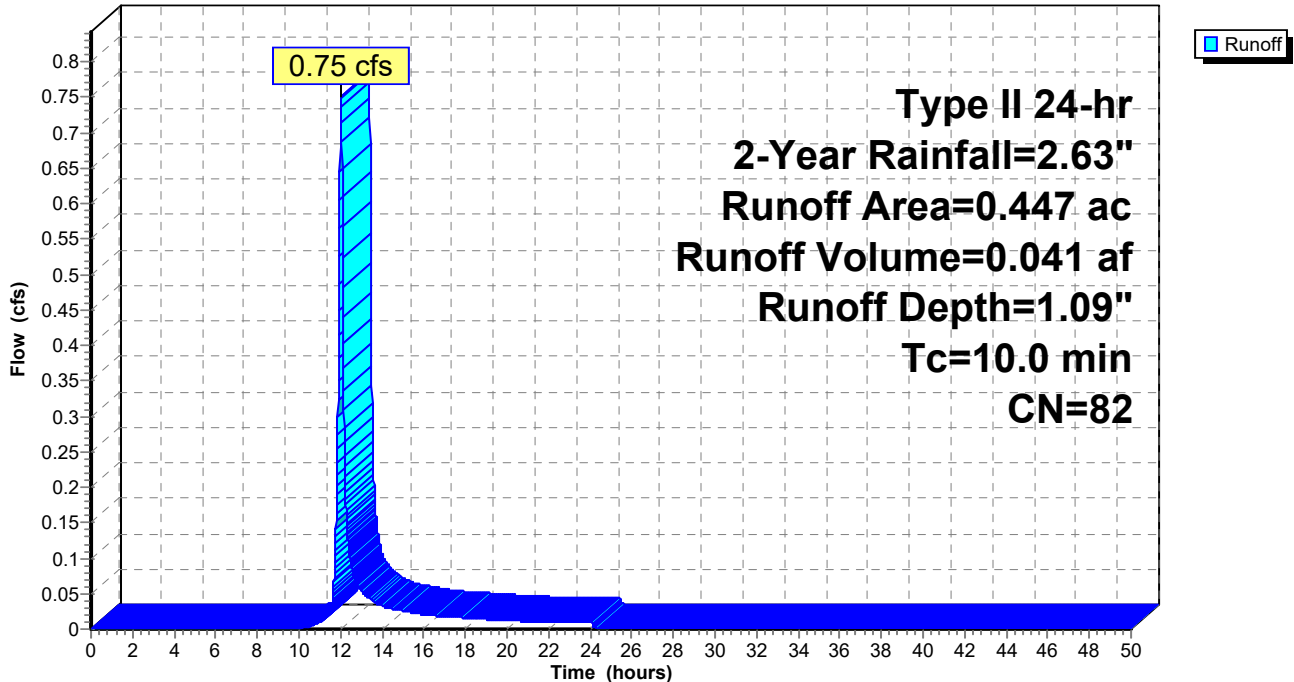
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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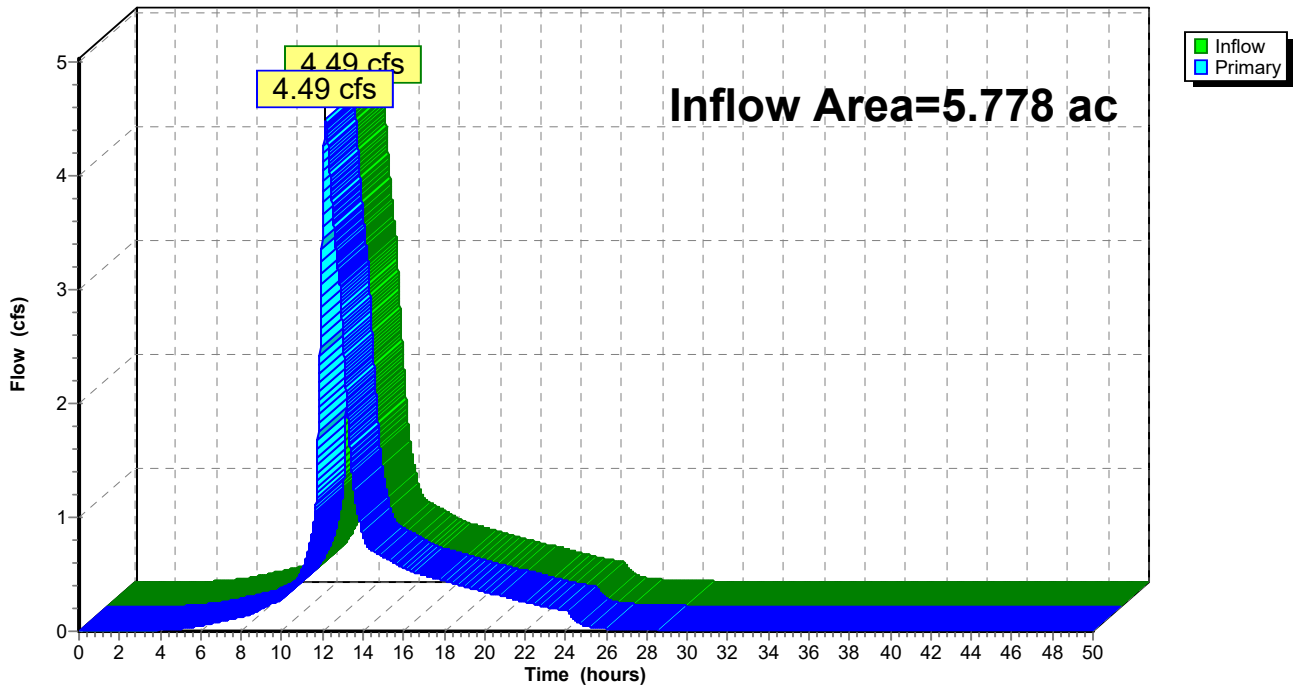
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 2.01" for 2-Year event
Inflow = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af
Primary = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 3E: STR3

Runoff = 1.26 cfs @ 12.01 hrs, Volume= 0.071 af, Depth= 1.99"

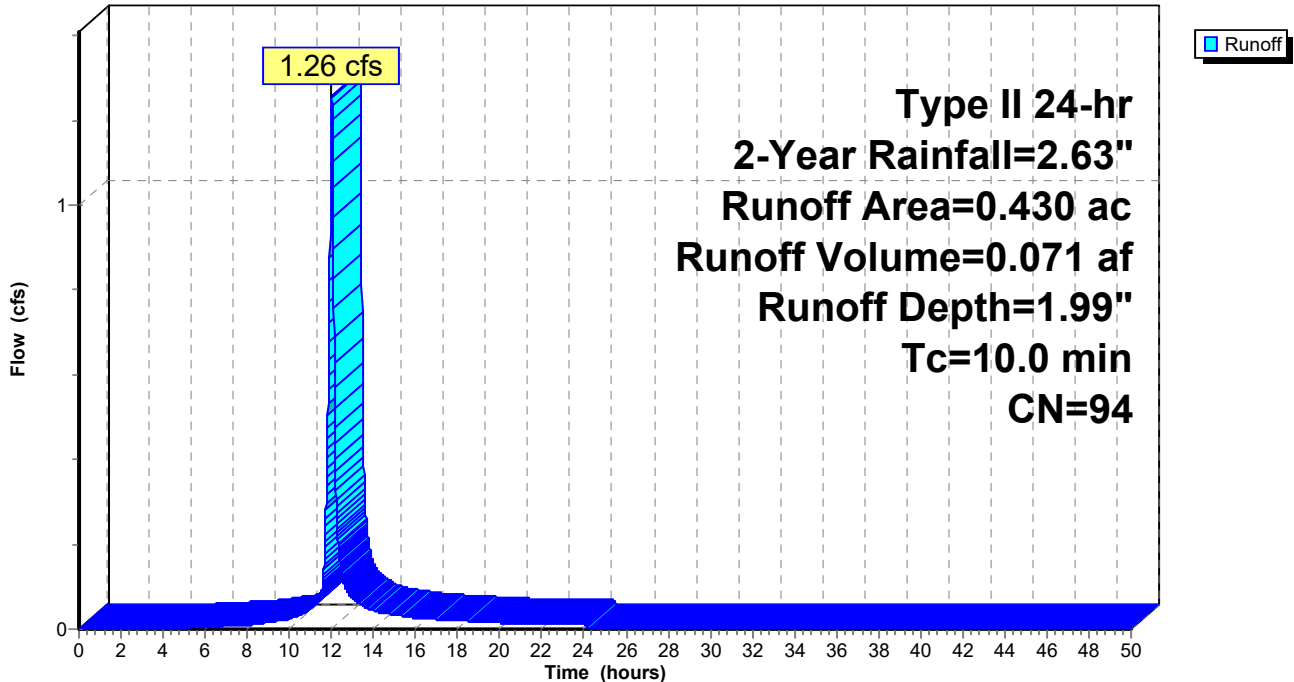
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 4E: STR4

Runoff = 1.22 cfs @ 12.01 hrs, Volume= 0.068 af, Depth= 1.90"

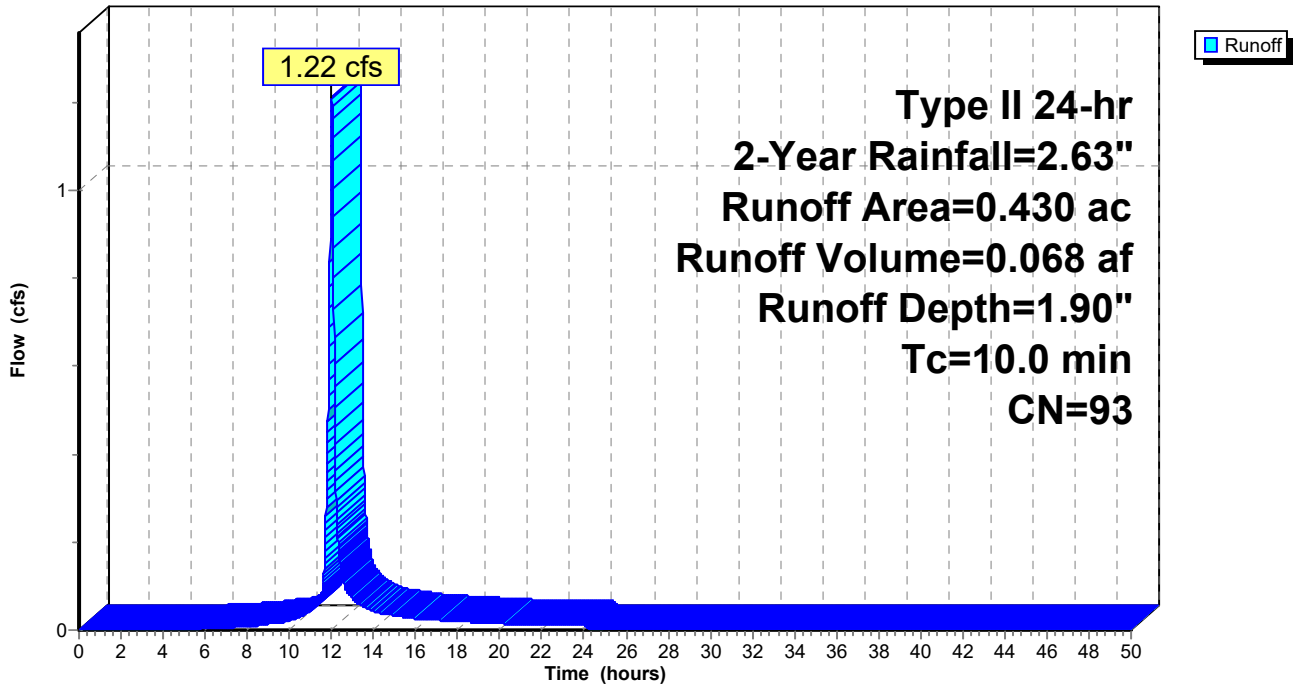
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 5E: STR5

Runoff = 1.45 cfs @ 12.01 hrs, Volume= 0.080 af, Depth= 1.65"

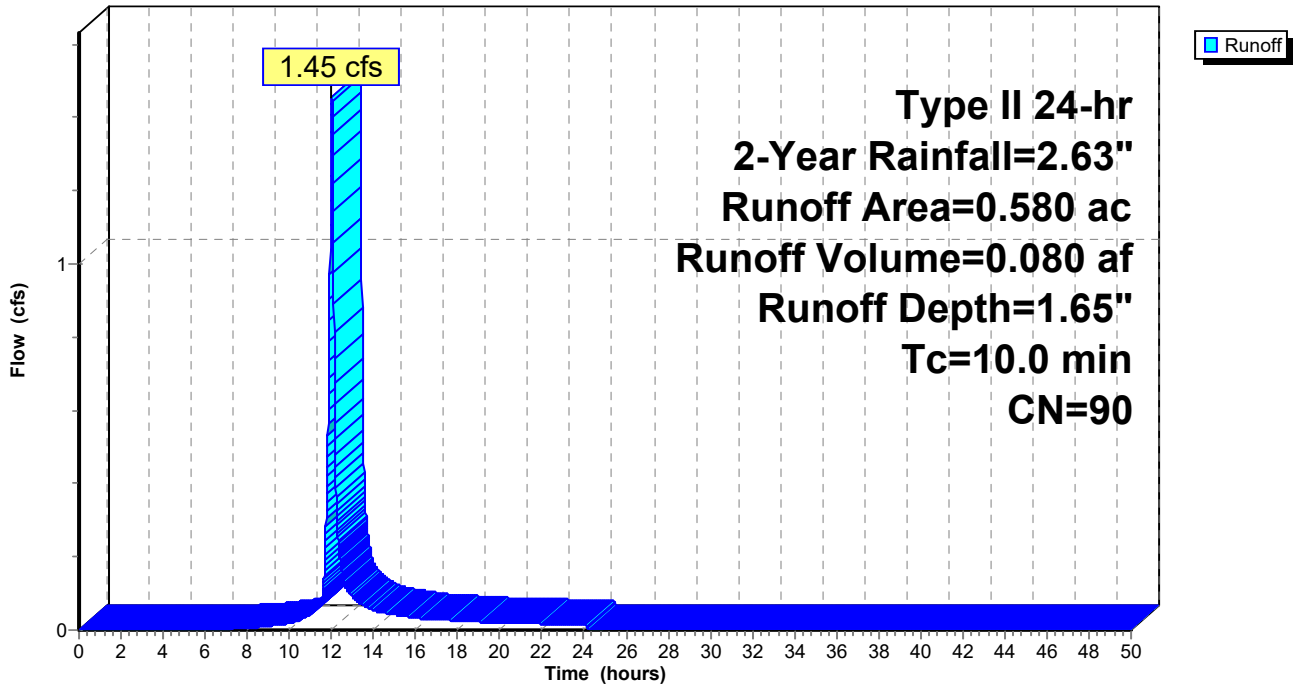
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 8E: STR8

Runoff = 1.00 cfs @ 12.01 hrs, Volume= 0.057 af, Depth= 2.09"

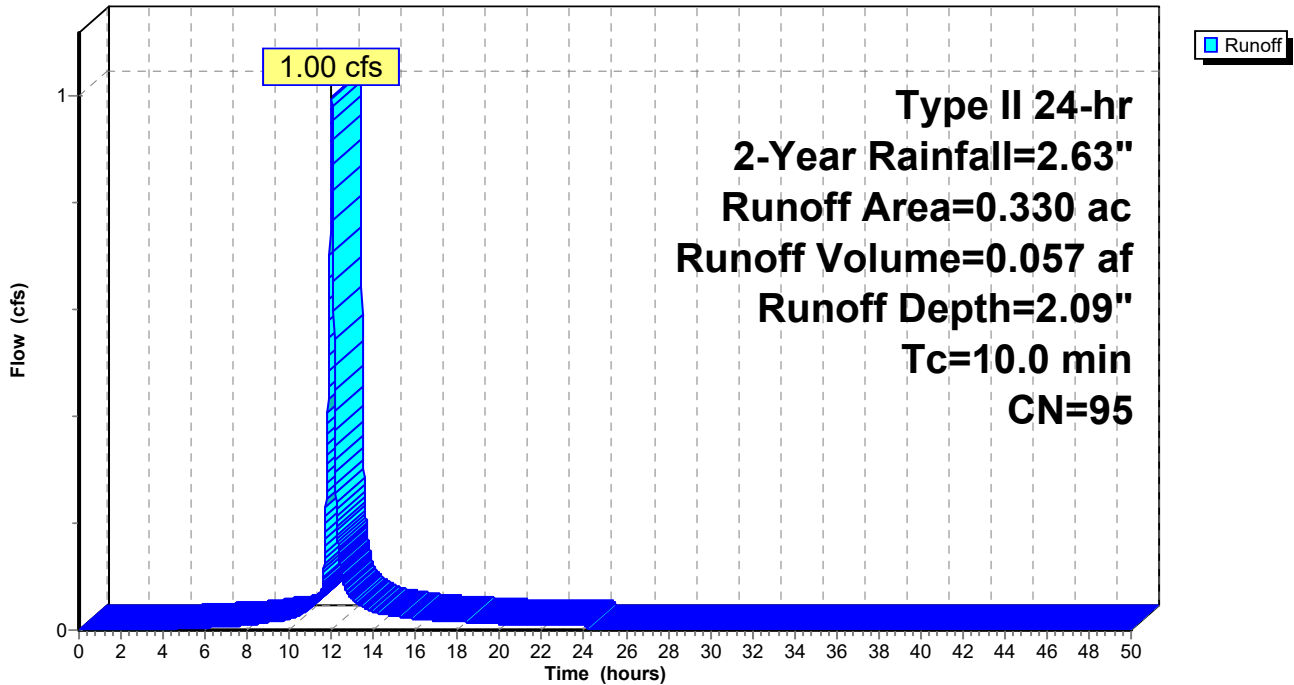
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 2.13" for 2-Year event
 Inflow = 4.37 cfs @ 12.01 hrs, Volume= 0.255 af
 Outflow = 1.48 cfs @ 11.95 hrs, Volume= 0.255 af, Atten= 66%, Lag= 0.0 min
 Primary = 1.48 cfs @ 11.95 hrs, Volume= 0.255 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.04' @ 12.20 hrs Surf.Area= 9,537 sf Storage= 2,289 cf

Plug-Flow detention time= 10.9 min calculated for 0.255 af (100% of inflow)
 Center-of-Mass det. time= 10.3 min (791.7 - 781.4)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.48 cfs @ 11.95 hrs HW=911.82' TW=908.86' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.48 cfs @ 8.22 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=907.34' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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PROPOSED EAST TRIB

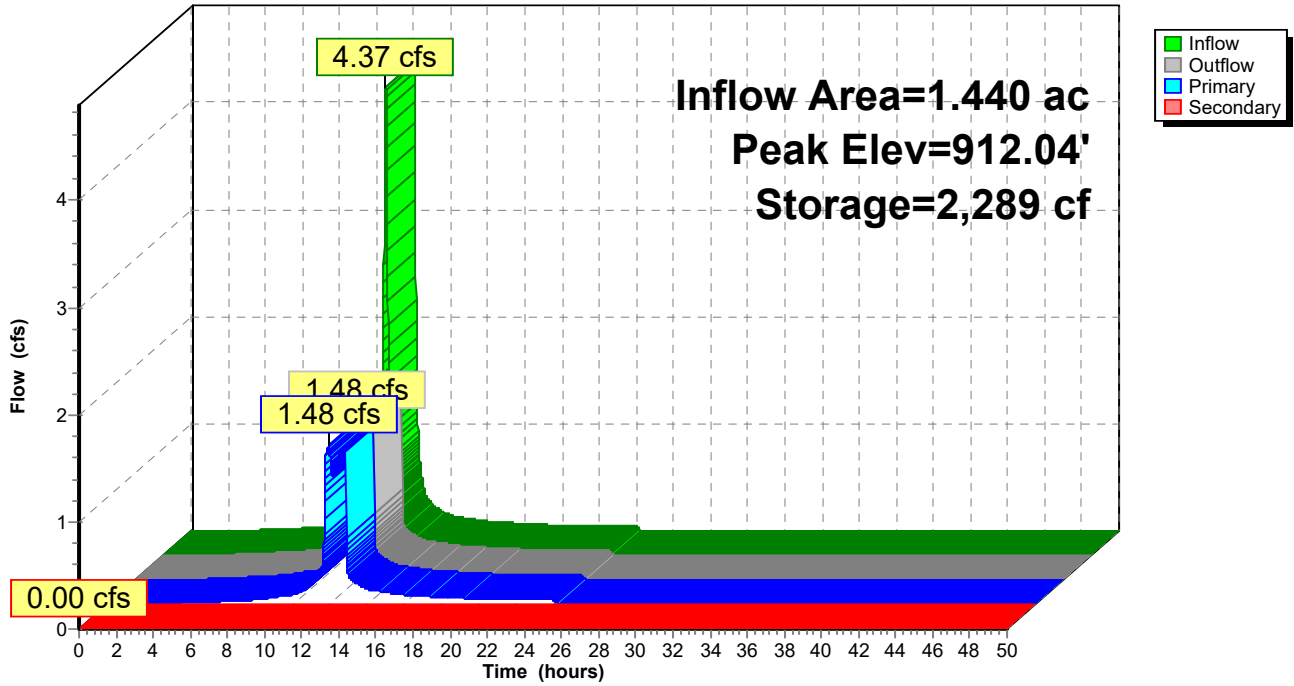
Type II 24-hr 2-Year Rainfall=2.63"

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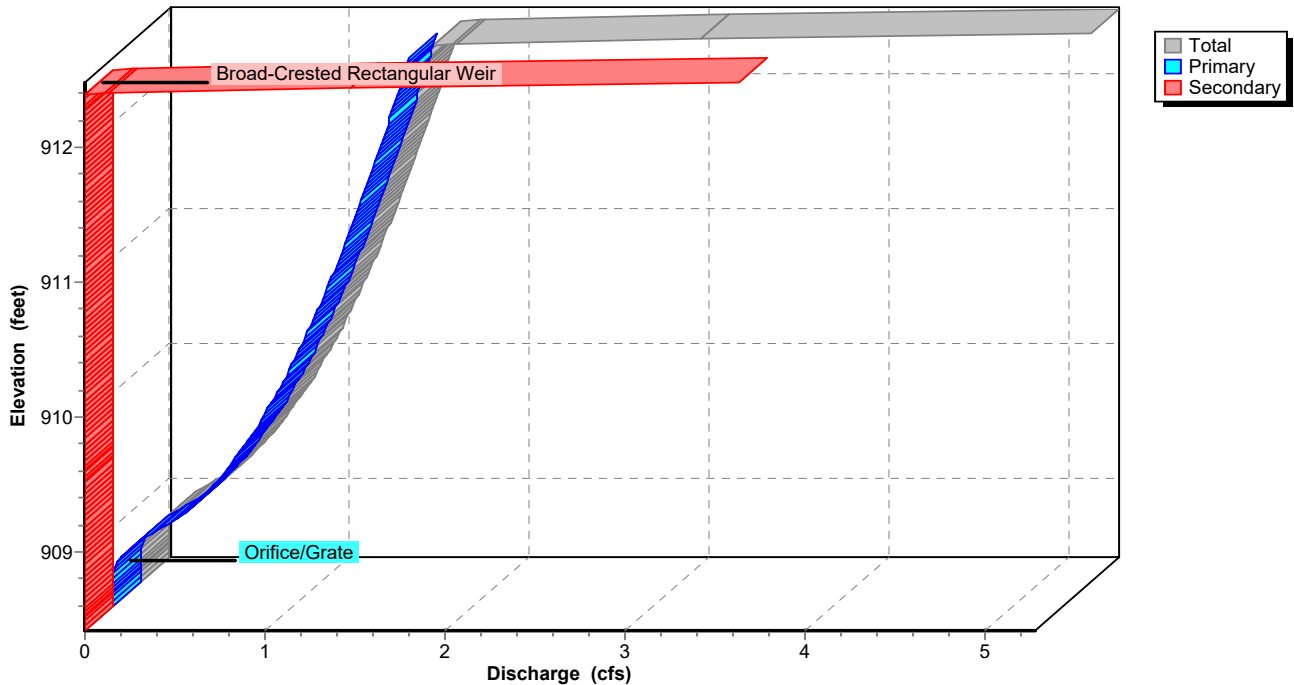
Pond 8P: PONDING STR 8-11

Hydrograph



Pond 8P: PONDING STR 8-11

Stage-Discharge



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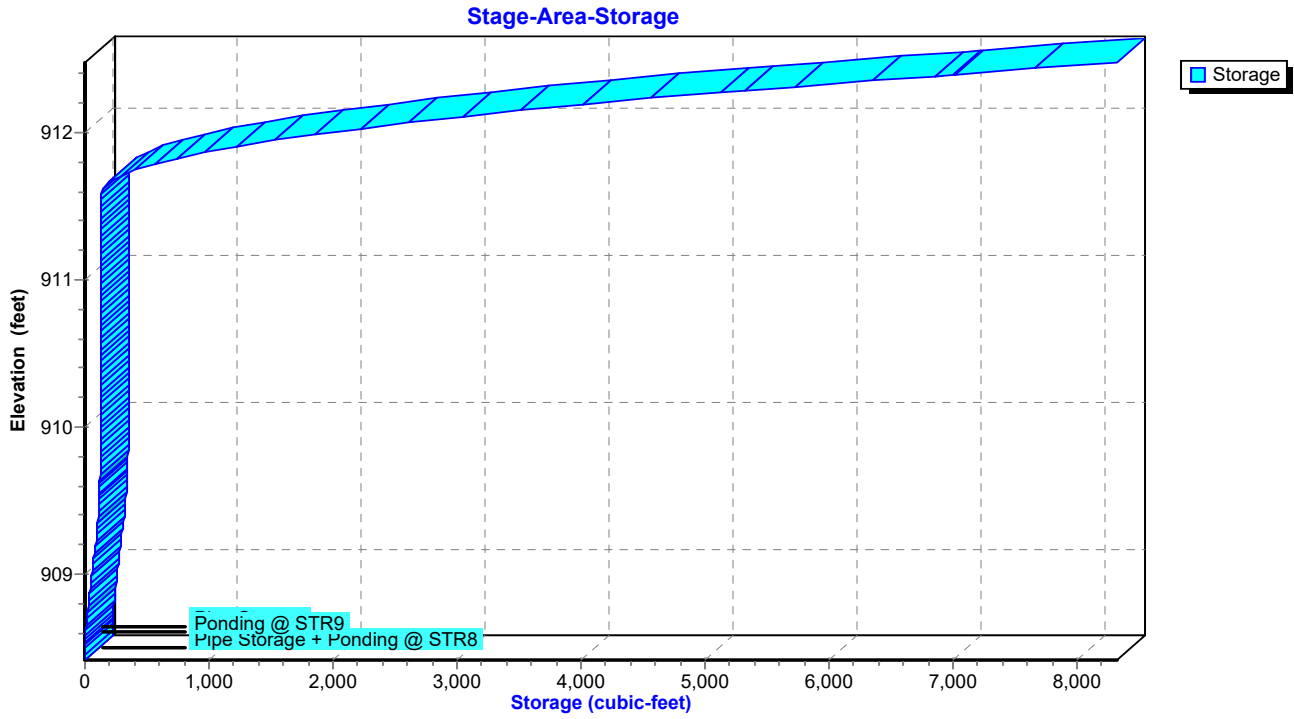
PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond 8P: PONDING STR 8-11



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Summary for Subcatchment 9E: STR9

Runoff = 1.29 cfs @ 12.01 hrs, Volume= 0.073 af, Depth= 1.99"

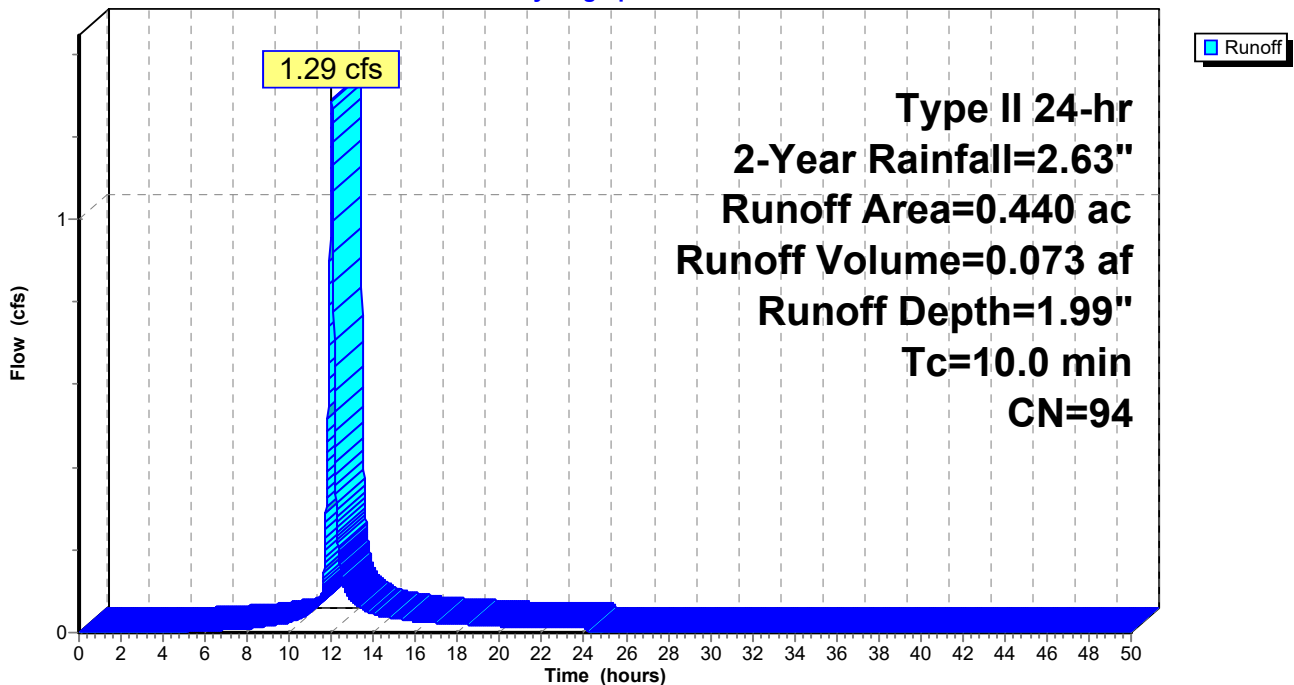
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 10E: STR10

Runoff = 1.56 cfs @ 12.01 hrs, Volume= 0.096 af, Depth= 2.40"

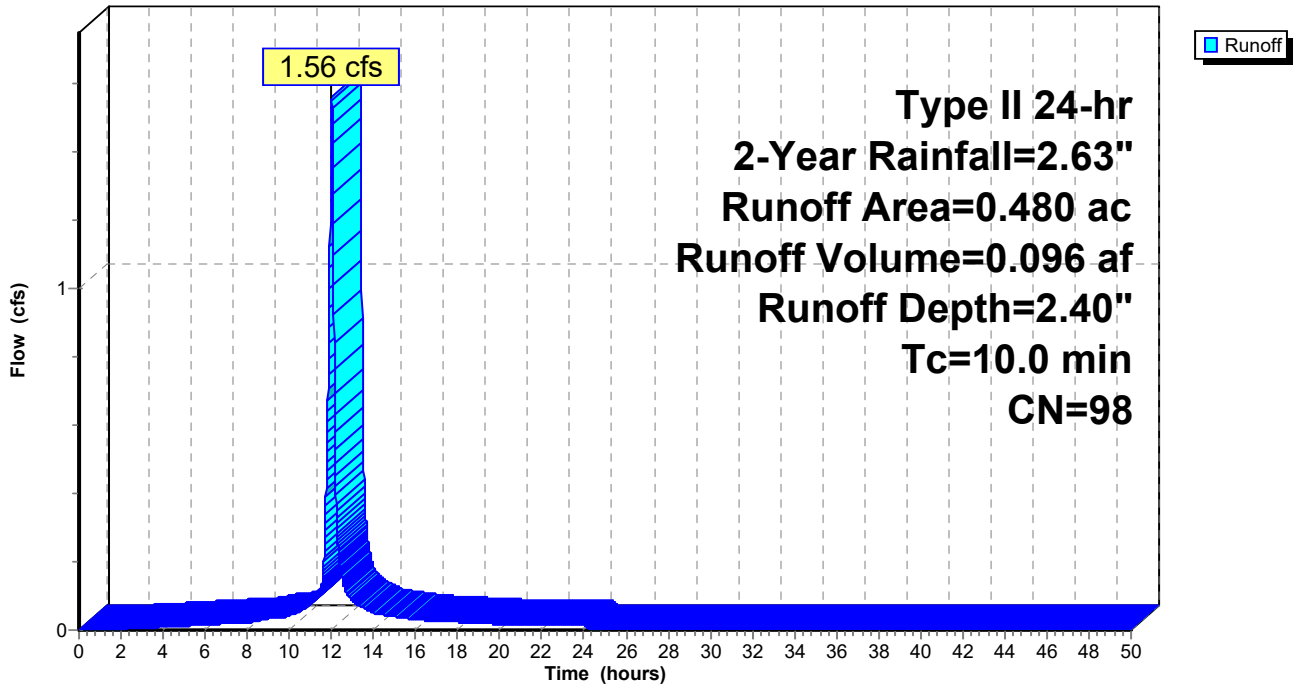
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 11E: STR11

Runoff = 0.52 cfs @ 12.01 hrs, Volume= 0.029 af, Depth= 1.81"

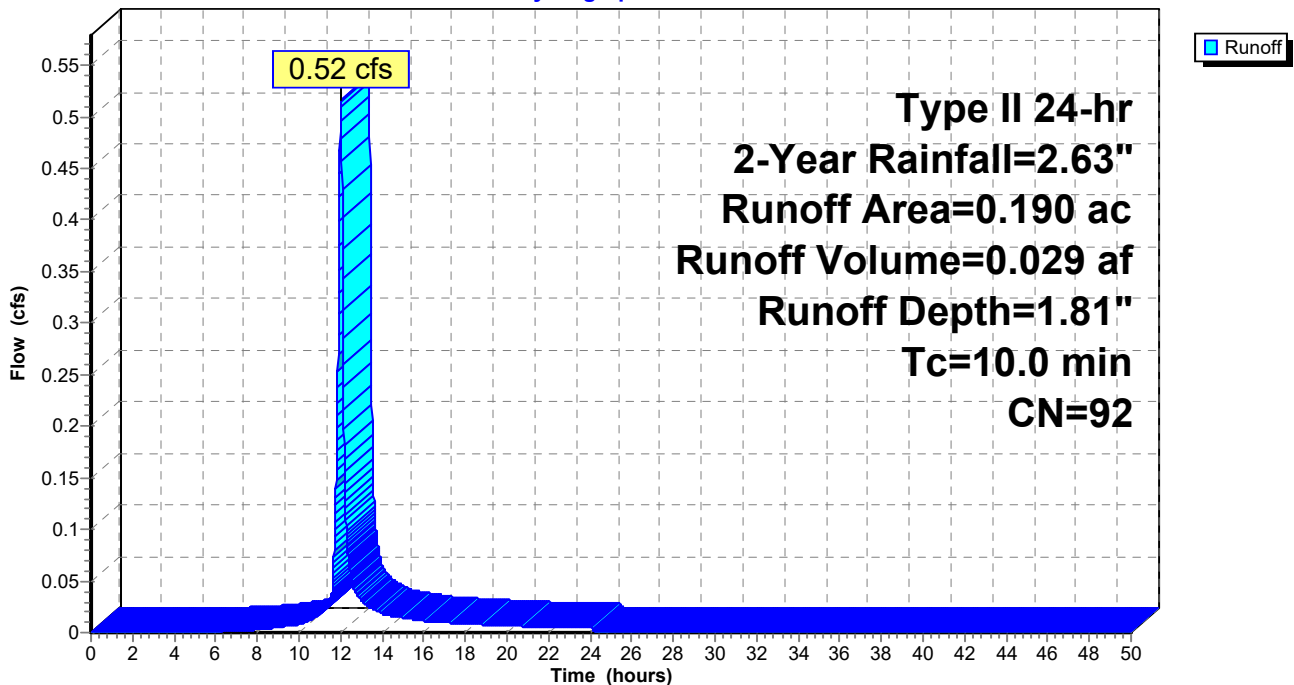
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 13S: STR13

Runoff = 2.33 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 2.29"

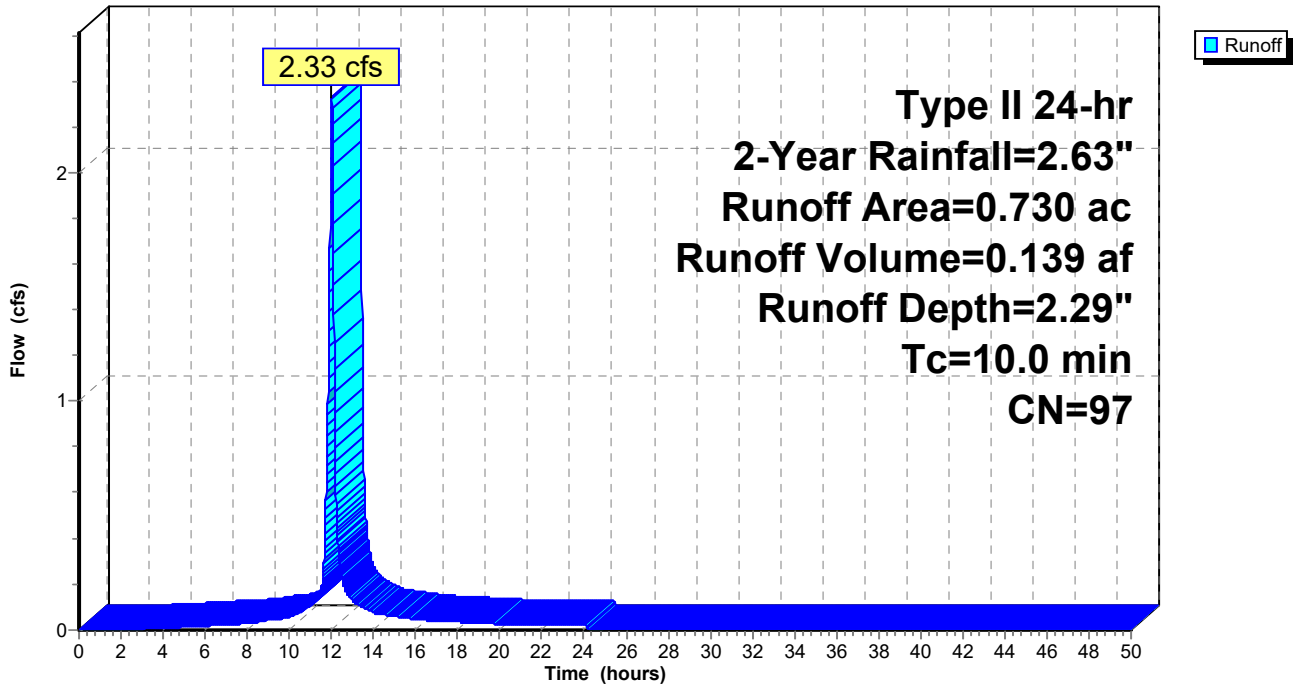
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 2.17 cfs @ 12.01 hrs, Volume= 0.123 af, Depth= 1.99"

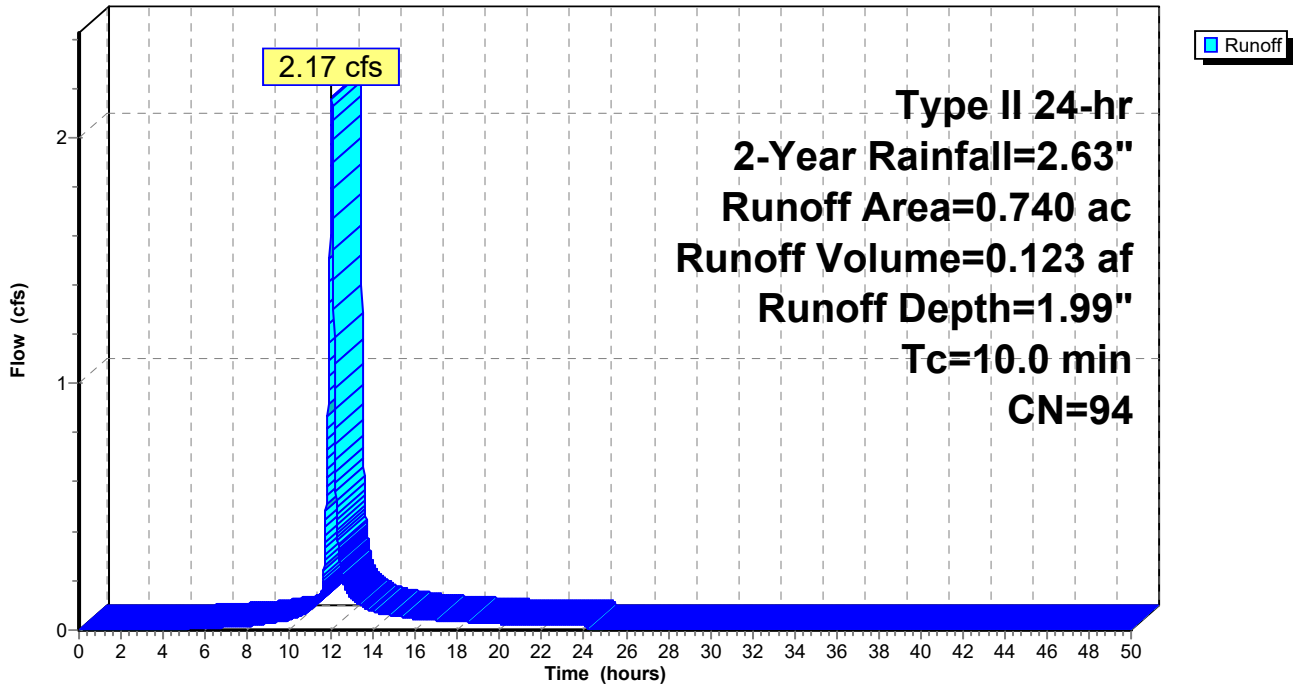
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 1.59 cfs @ 12.01 hrs, Volume= 0.097 af, Depth= 2.40"

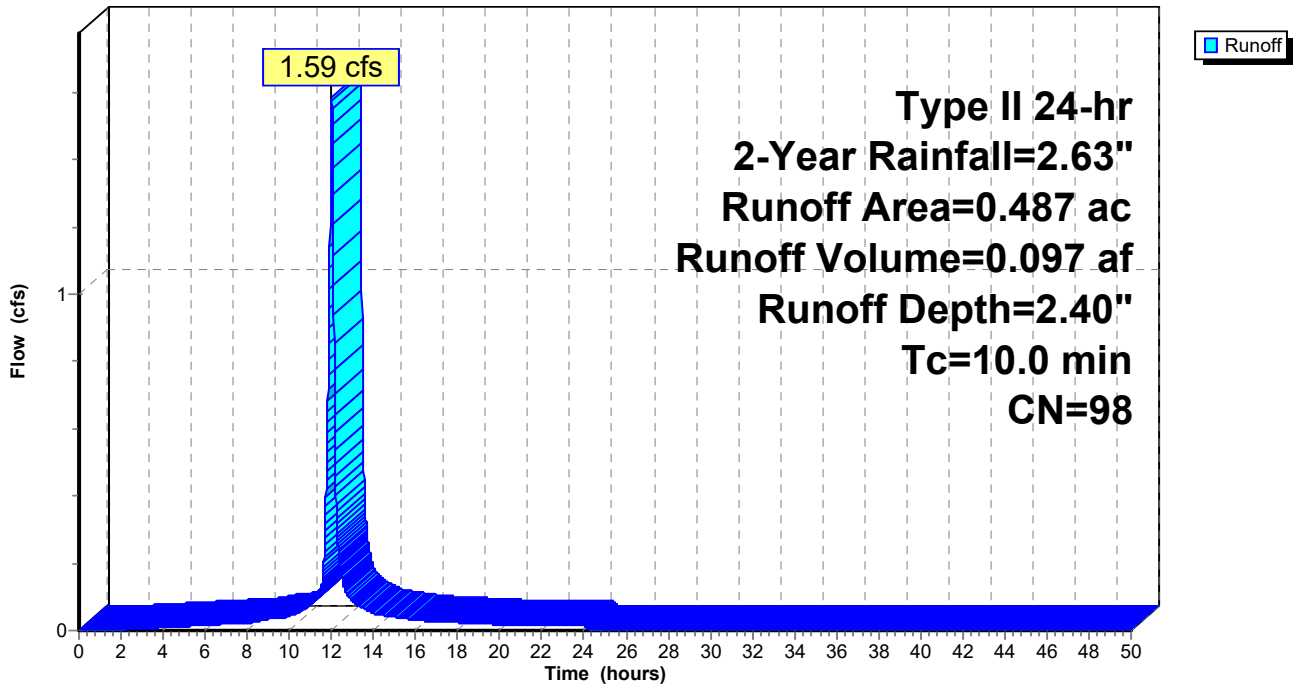
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 2.29"

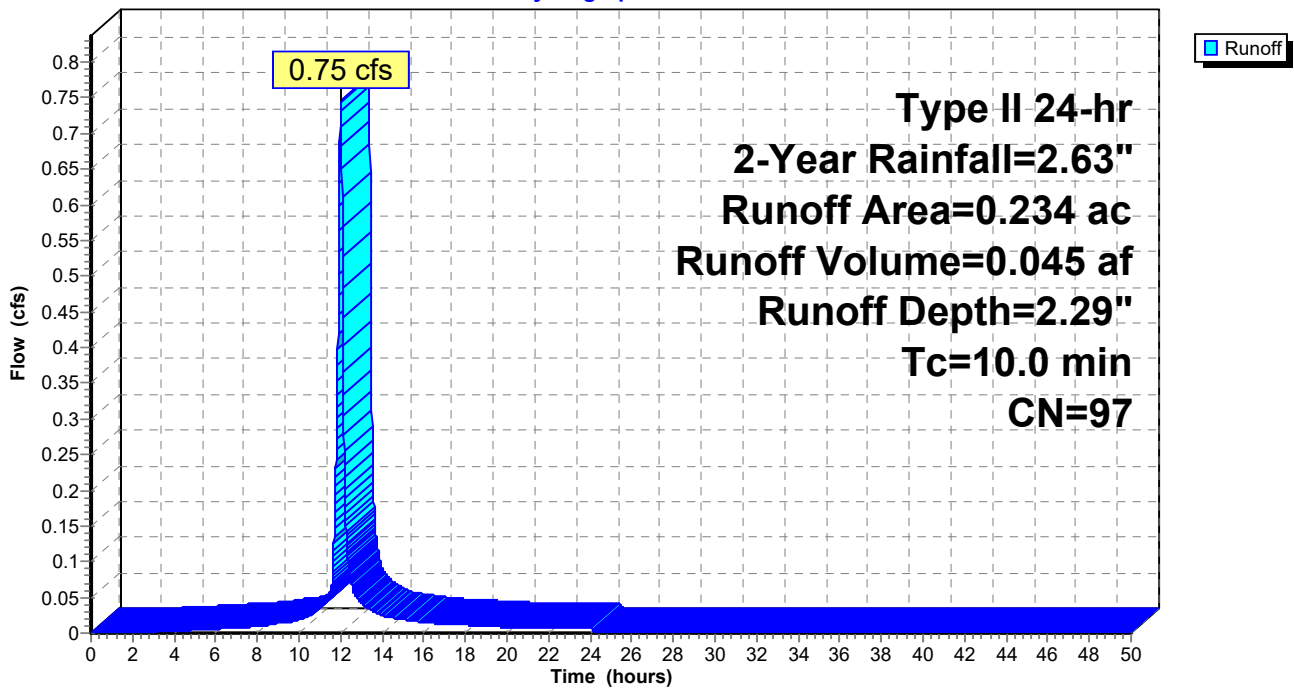
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.44 cfs @ 12.01 hrs, Volume= 0.026 af, Depth= 2.19"

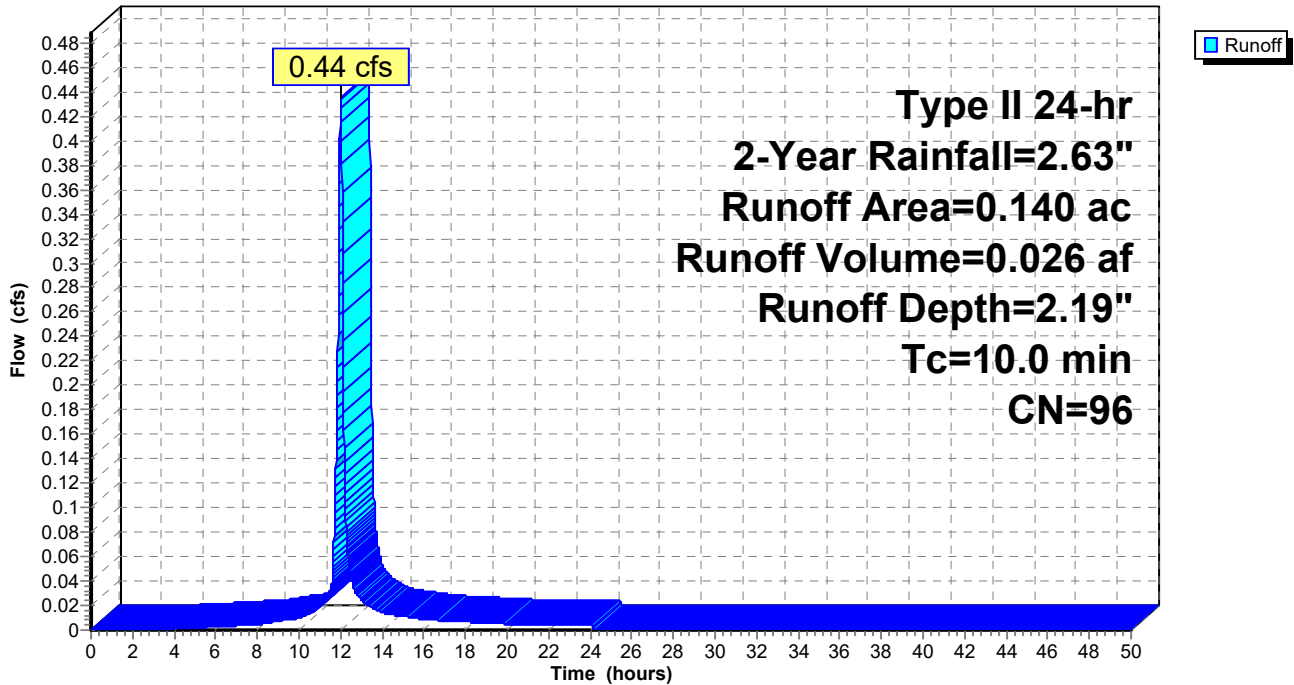
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 2.01" for 2-Year event
 Inflow = 9.80 cfs @ 12.01 hrs, Volume= 0.969 af
 Outflow = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af, Atten= 54%, Lag= 8.8 min
 Primary = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 910.15' @ 12.16 hrs Surf.Area= 3,515 sf Storage= 6,565 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 18.9 min (861.4 - 842.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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Type II 24-hr 2-Year Rainfall=2.63"

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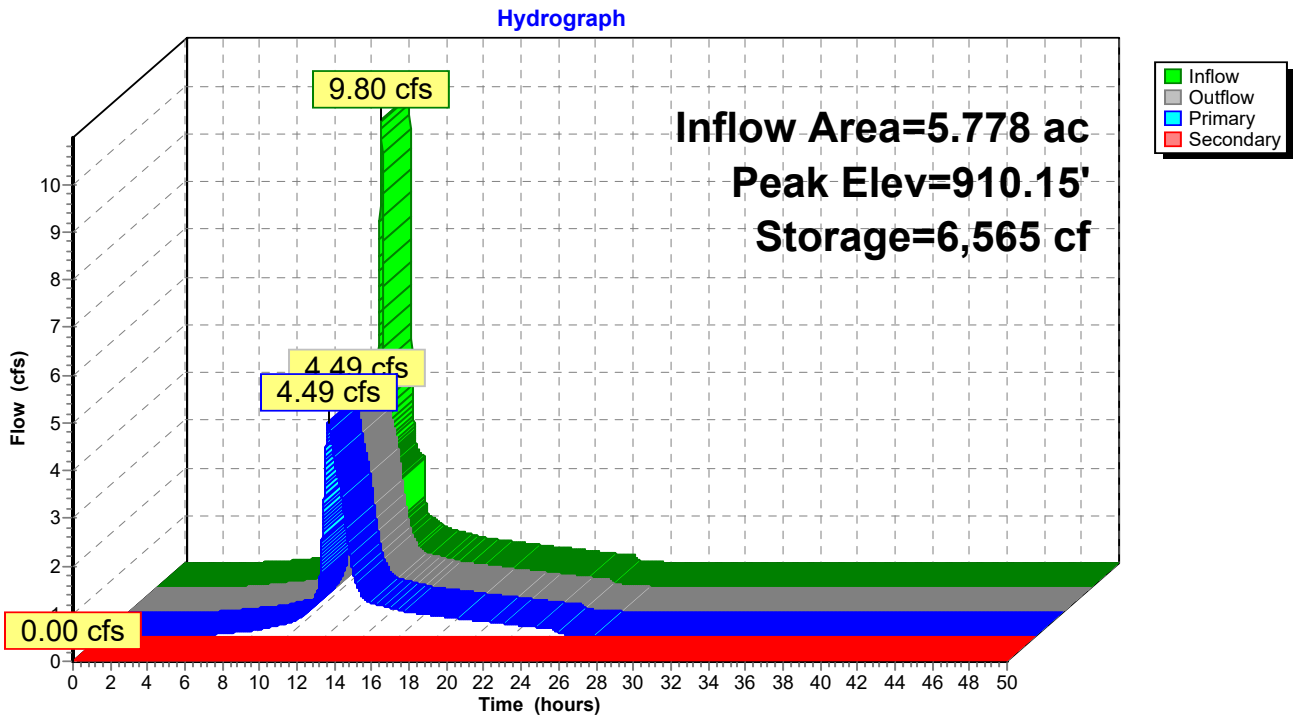
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00			
2.50 3.00			
Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31			
3.30 3.31 3.32			

Primary OutFlow Max=4.49 cfs @ 12.16 hrs HW=910.15' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 4.49 cfs @ 7.47 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING



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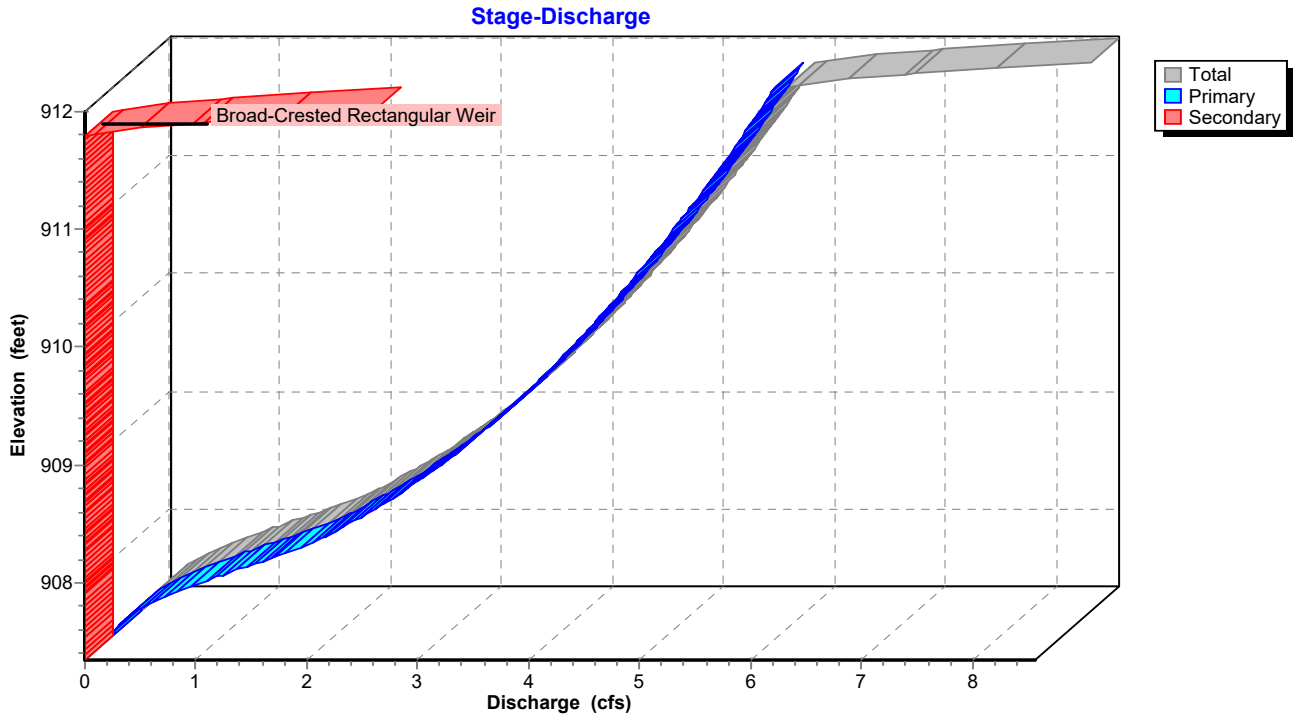
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Type II 24-hr 2-Year Rainfall=2.63"

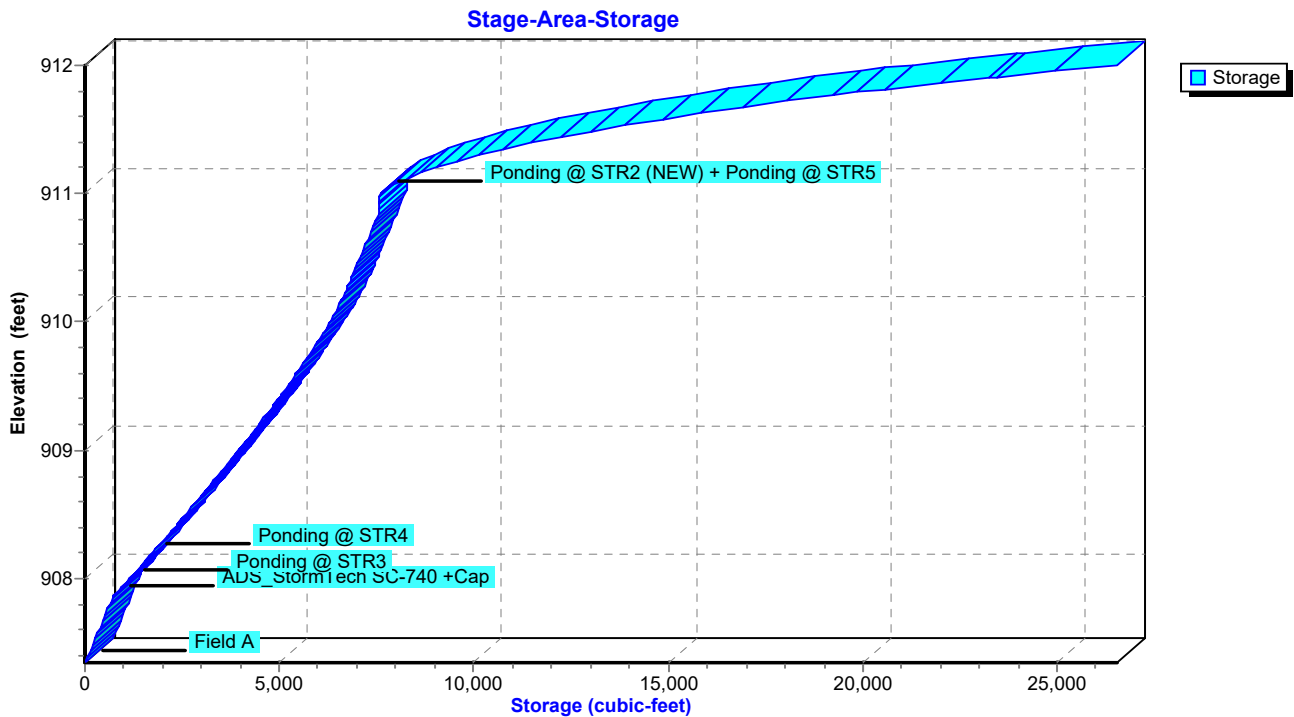
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 2.34" for 2-Year event
 Inflow = 3.92 cfs @ 12.01 hrs, Volume= 0.237 af
 Outflow = 0.33 cfs @ 13.29 hrs, Volume= 0.236 af, Atten= 92%, Lag= 77.0 min
 Primary = 0.33 cfs @ 13.29 hrs, Volume= 0.236 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 909.54' @ 12.89 hrs Surf.Area= 5,569 sf Storage= 5,821 cf

Plug-Flow detention time= 220.8 min calculated for 0.236 af (100% of inflow)
 Center-of-Mass det. time= 219.4 min (986.3 - 766.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.33 cfs @ 13.29 hrs HW=909.51' TW=908.13' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.33 cfs @ 5.64 fps)

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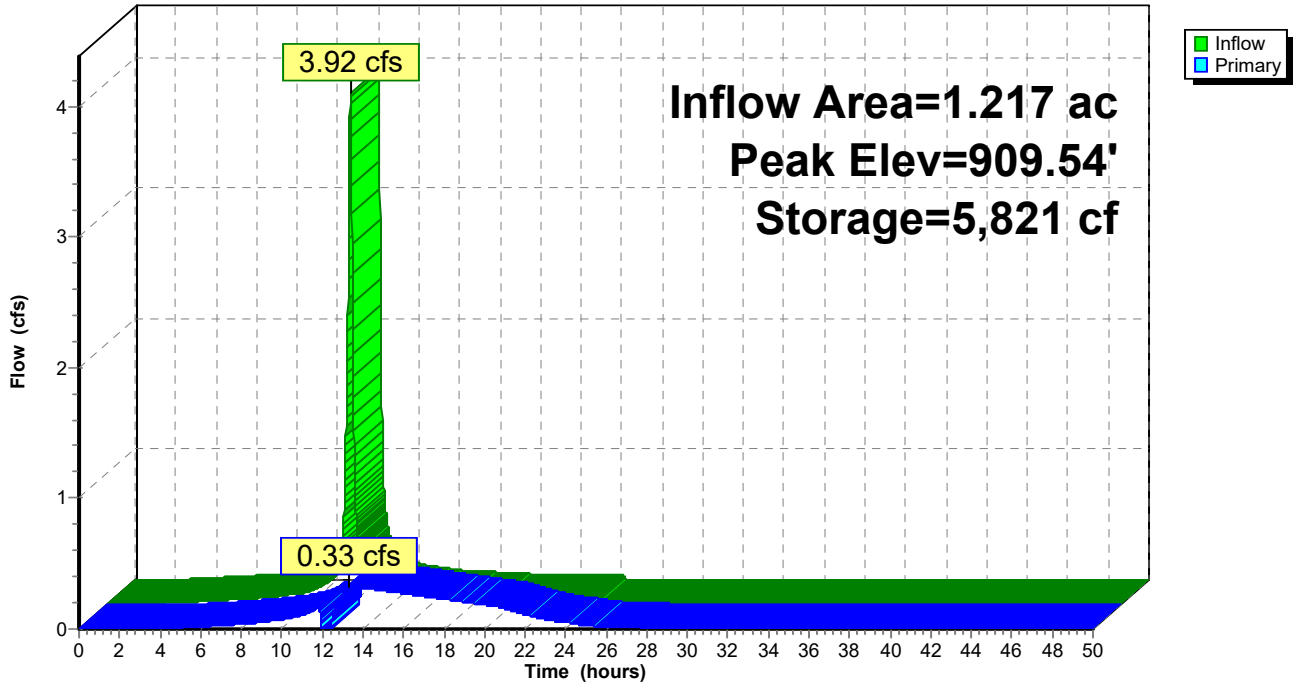
Type II 24-hr 2-Year Rainfall=2.63"

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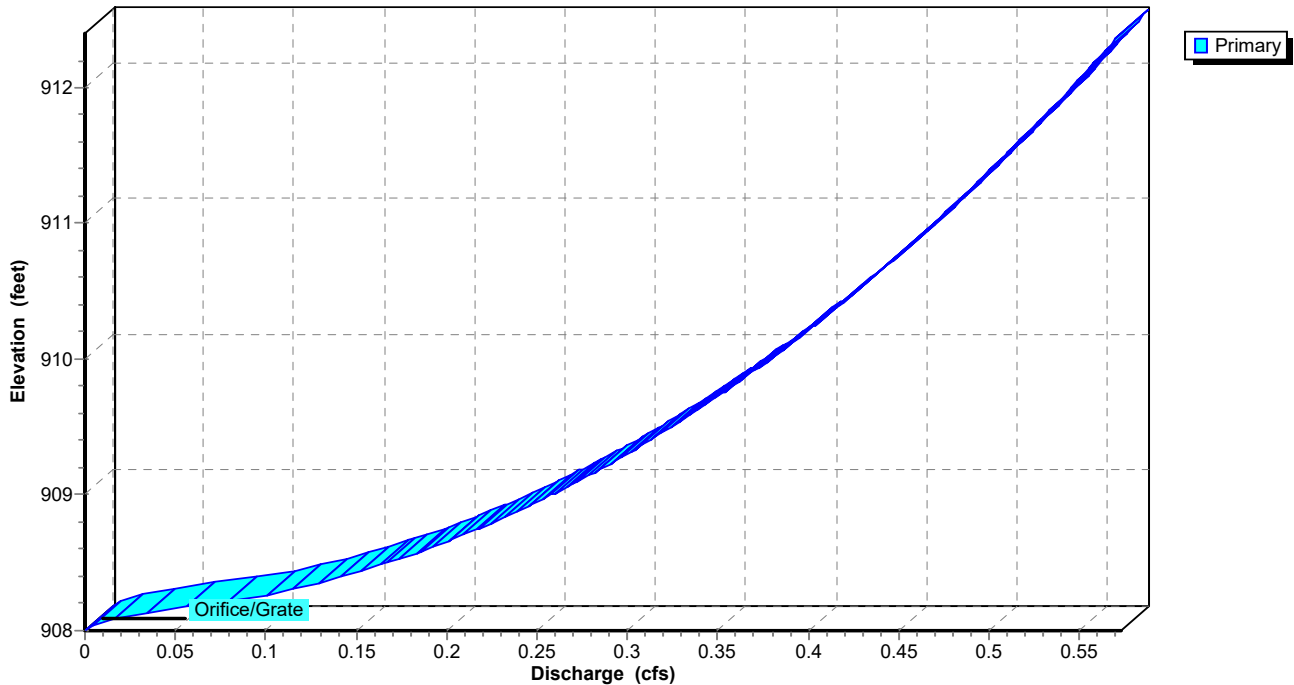
Pond PP: PORSCHE PONDING

Hydrograph



Pond PP: PORSCHE PONDING

Stage-Discharge



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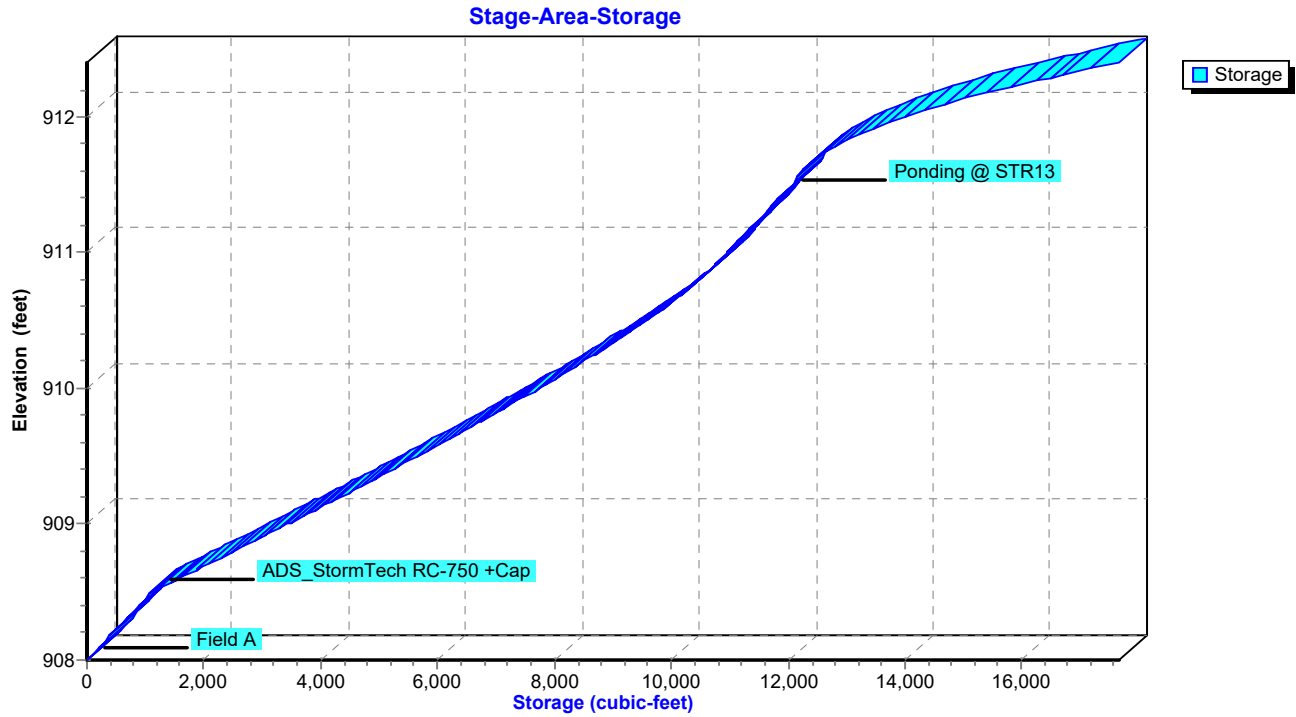
PROPOSED EAST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond PP: PORSCHE PONDING



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Summary for Subcatchment XE: STRX

Runoff = 0.39 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.40"

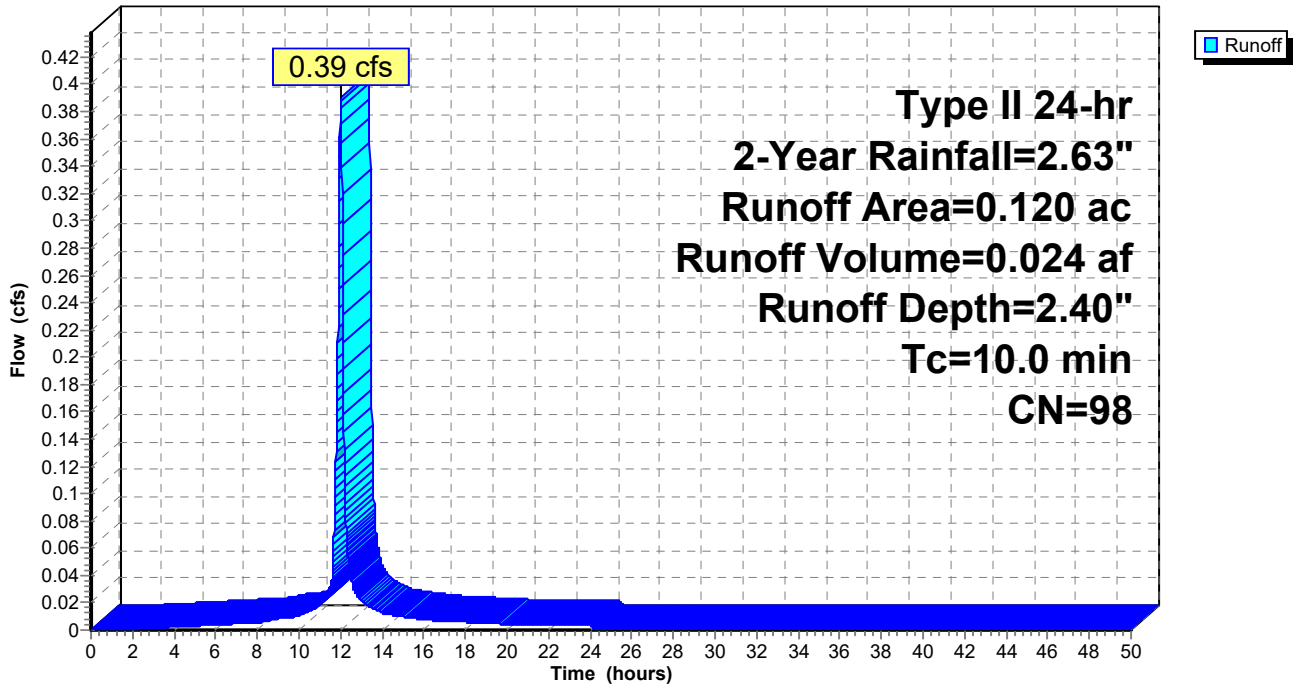
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 1E: STR1

Runoff = 1.08 cfs @ 12.02 hrs, Volume= 0.058 af, Depth= 1.57"

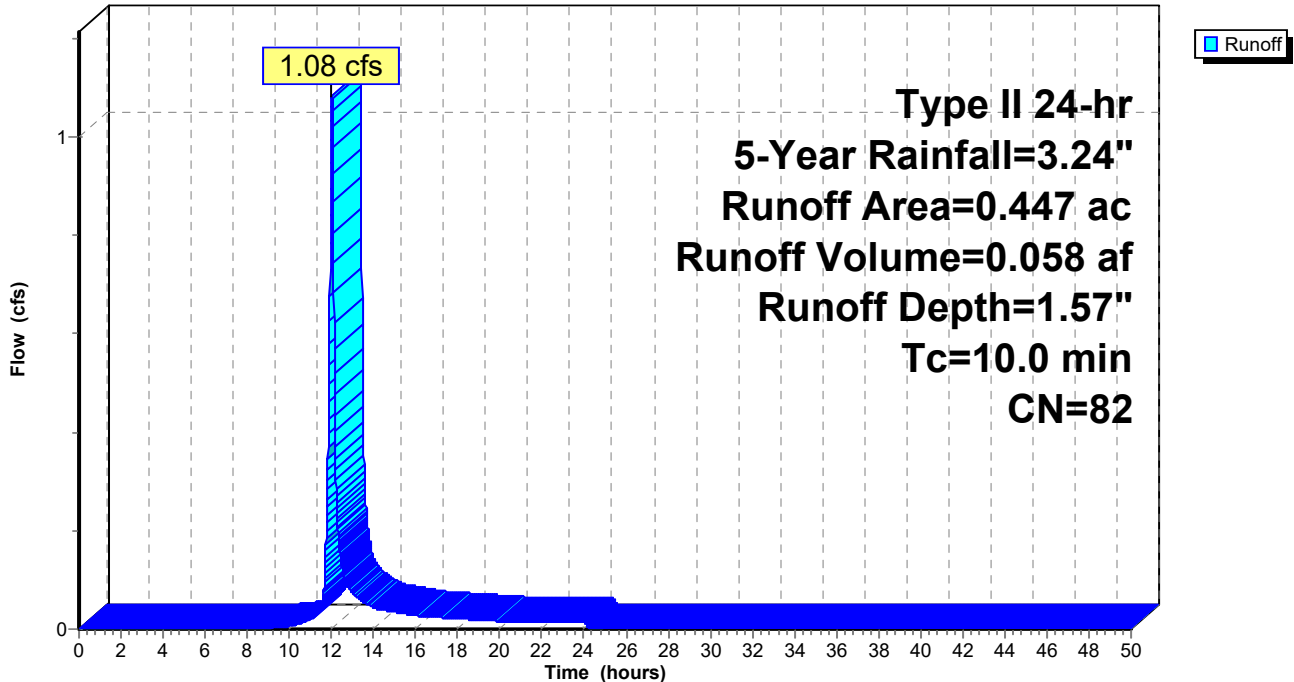
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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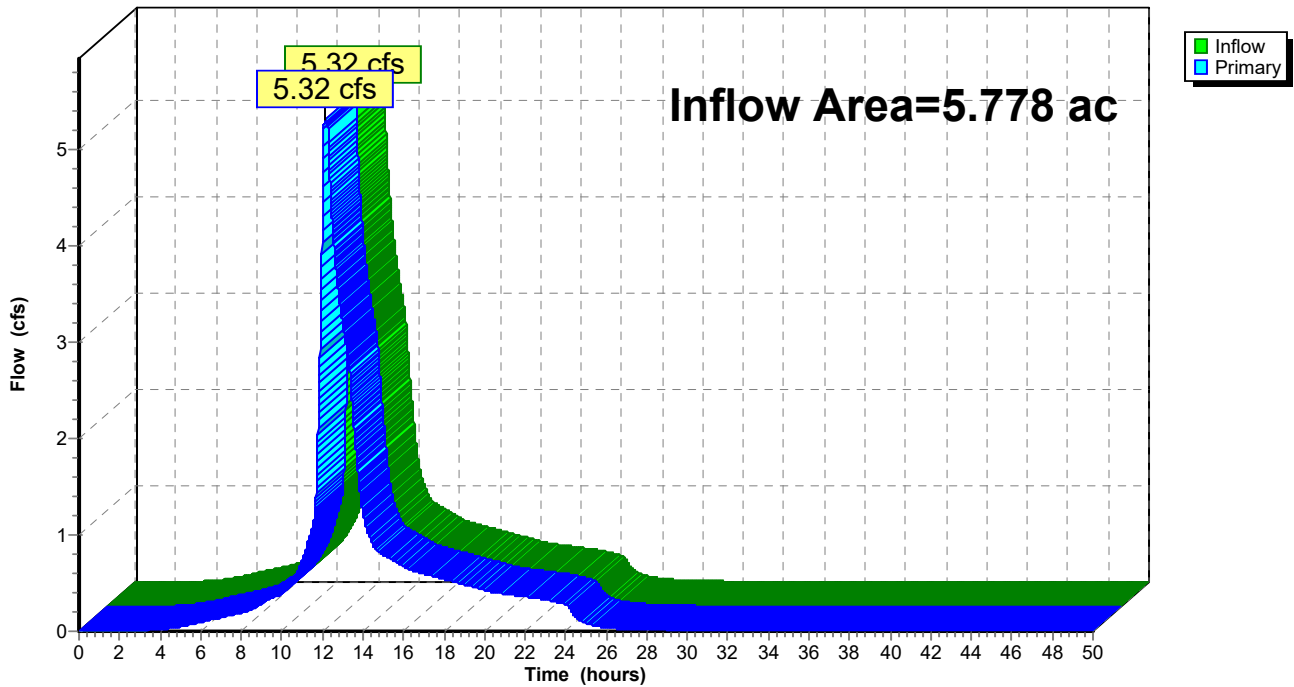
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 2.59" for 5-Year event
Inflow = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af
Primary = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 3E: STR3

Runoff = 1.61 cfs @ 12.01 hrs, Volume= 0.093 af, Depth= 2.58"

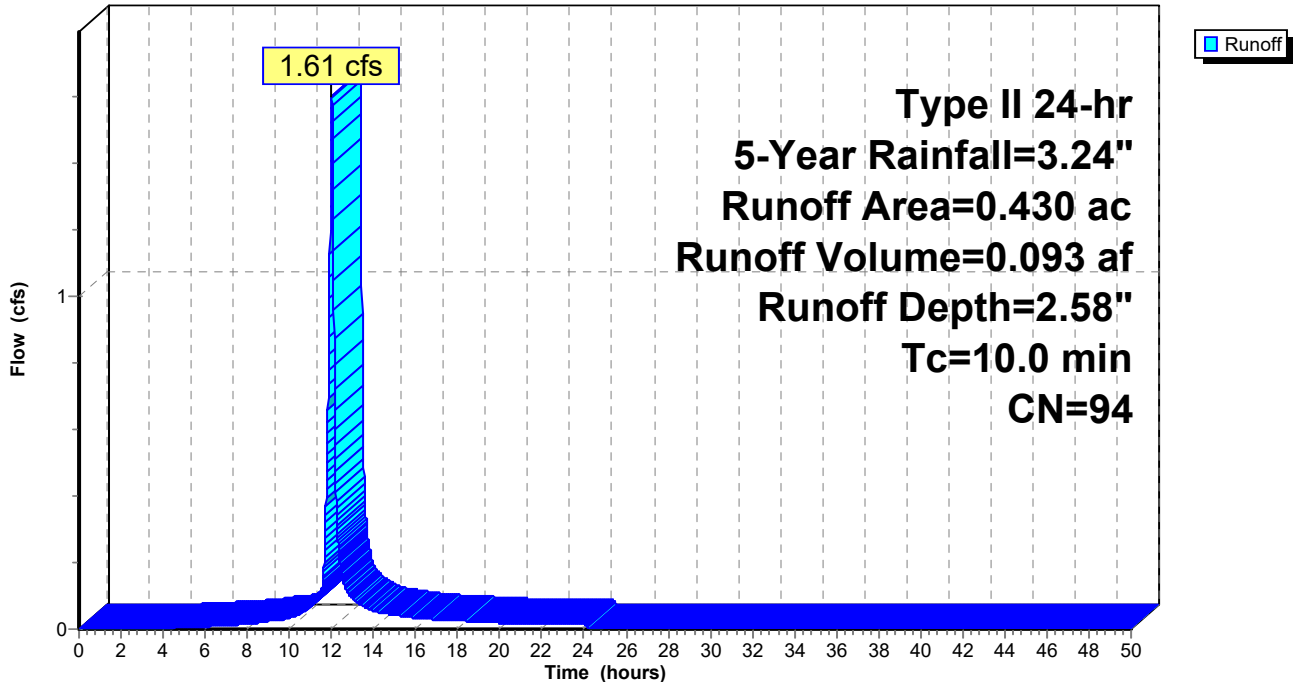
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 4E: STR4

Runoff = 1.56 cfs @ 12.01 hrs, Volume= 0.089 af, Depth= 2.48"

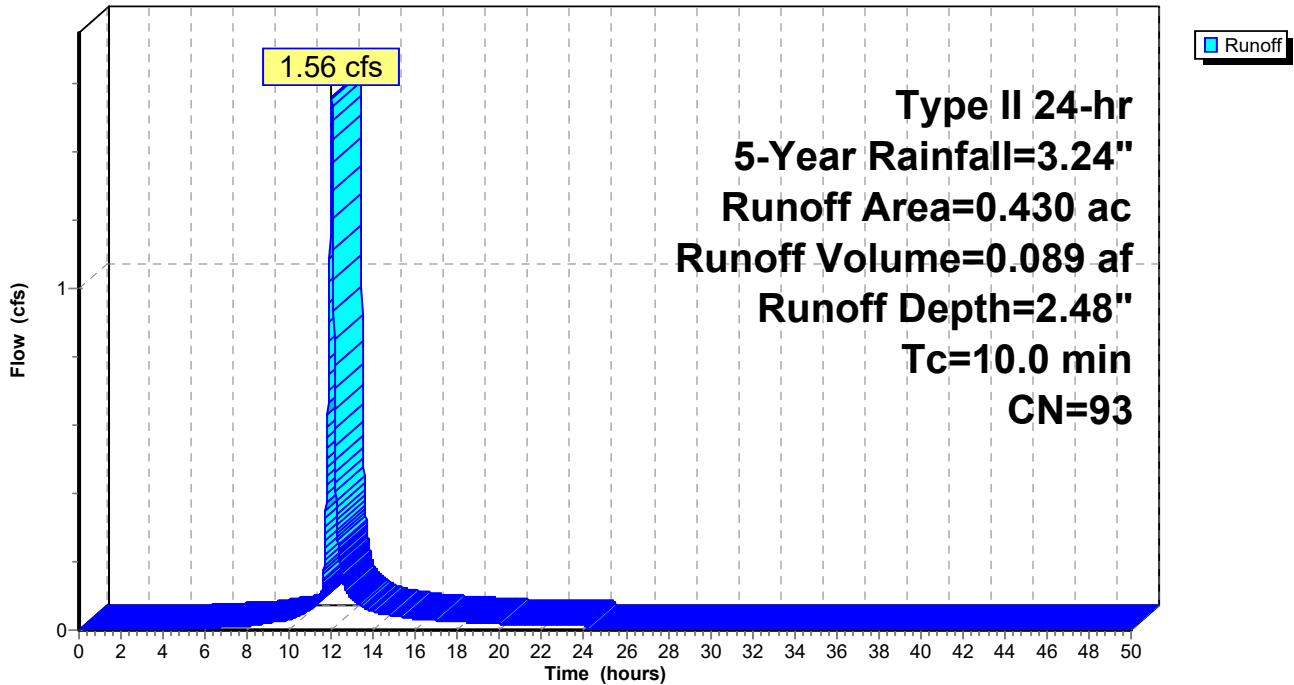
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 5E: STR5

Runoff = 1.92 cfs @ 12.01 hrs, Volume= 0.107 af, Depth= 2.21"

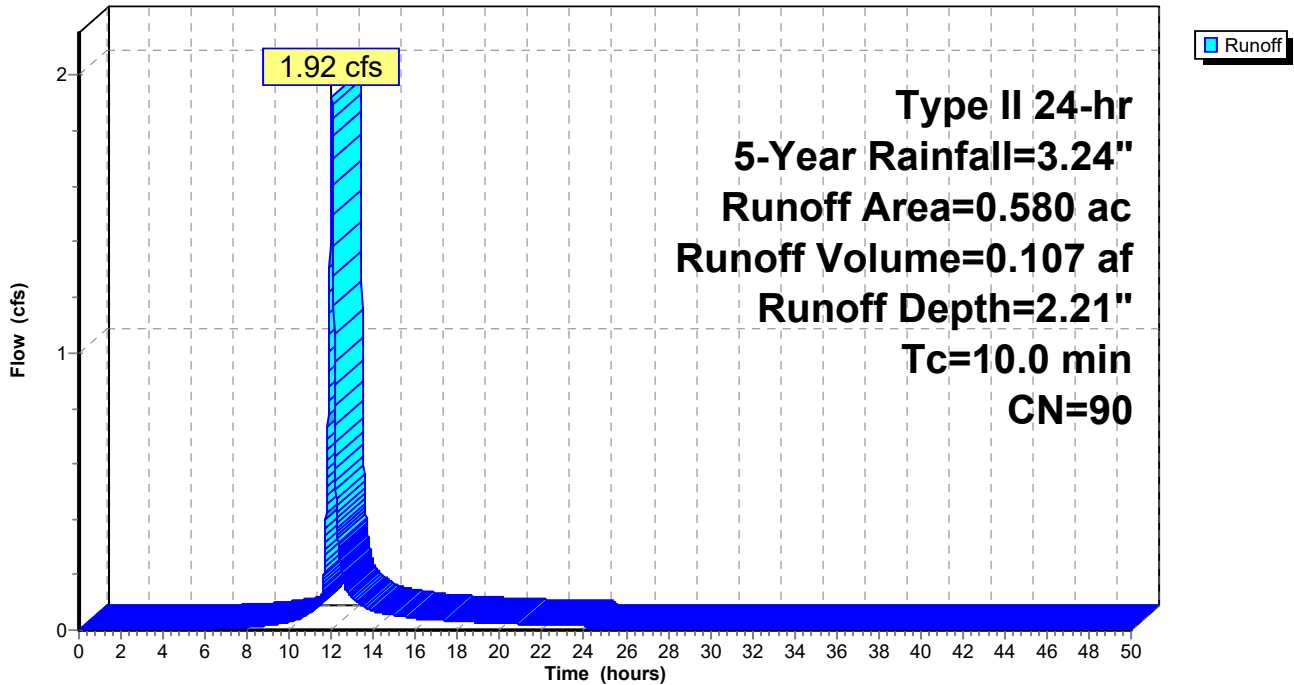
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Summary for Subcatchment 8E: STR8

Runoff = 1.26 cfs @ 12.01 hrs, Volume= 0.074 af, Depth= 2.68"

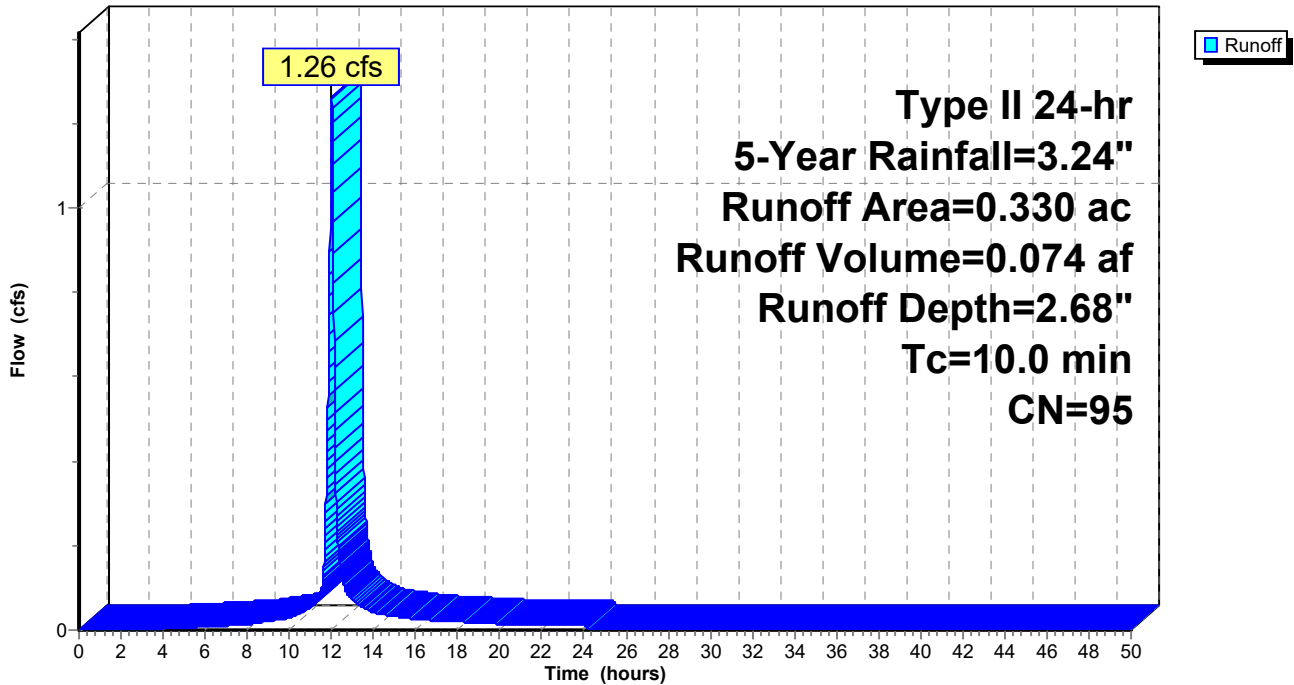
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 2.72" for 5-Year event
 Inflow = 5.51 cfs @ 12.01 hrs, Volume= 0.327 af
 Outflow = 1.51 cfs @ 13.06 hrs, Volume= 0.326 af, Atten= 73%, Lag= 63.1 min
 Primary = 1.51 cfs @ 13.06 hrs, Volume= 0.326 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.17' @ 12.28 hrs Surf.Area= 12,337 sf Storage= 3,737 cf

Plug-Flow detention time= 16.9 min calculated for 0.326 af (100% of inflow)
 Center-of-Mass det. time= 16.4 min (791.9 - 775.5)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.51 cfs @ 13.06 hrs HW=911.91' TW=908.90' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.51 cfs @ 8.36 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=907.34' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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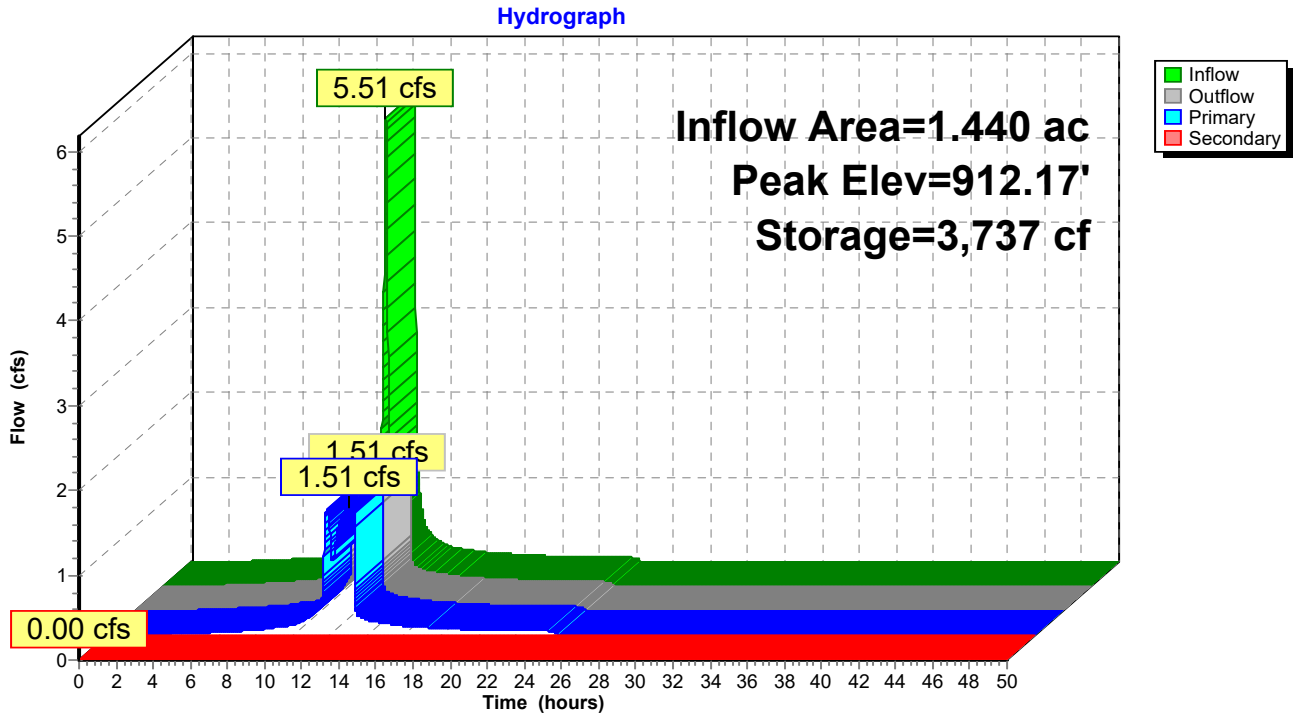
PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

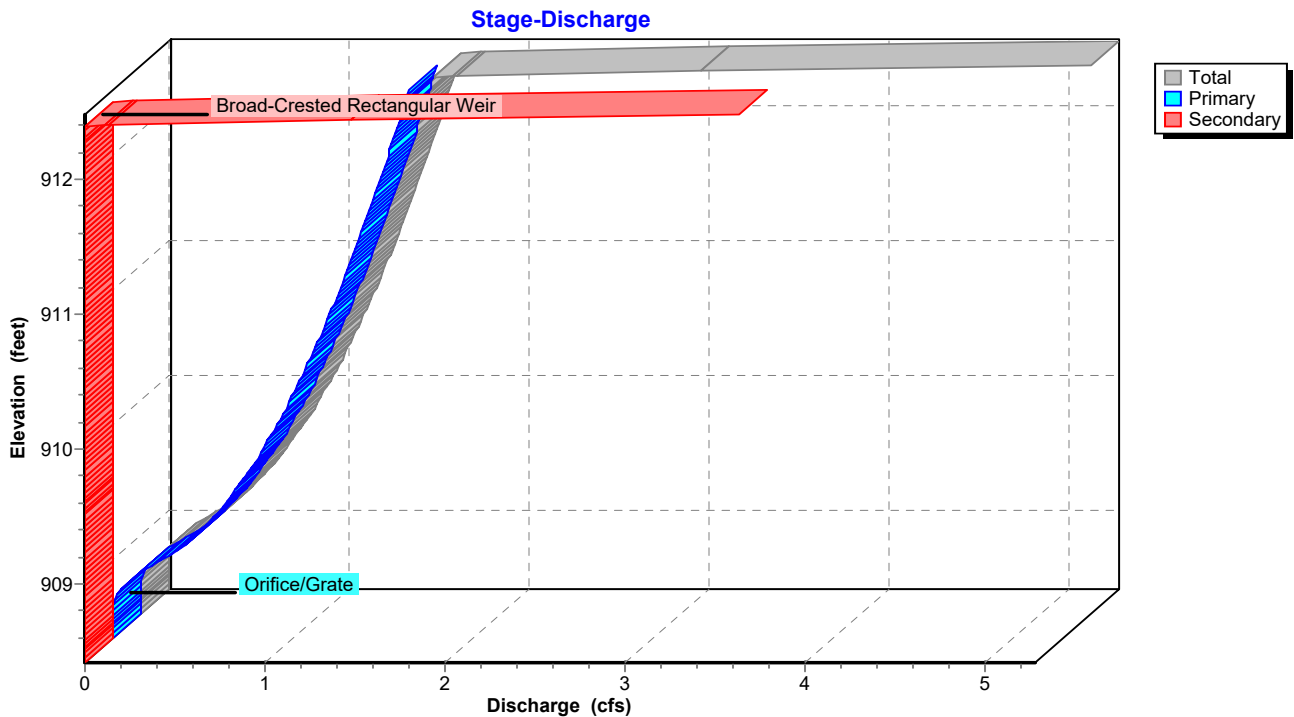
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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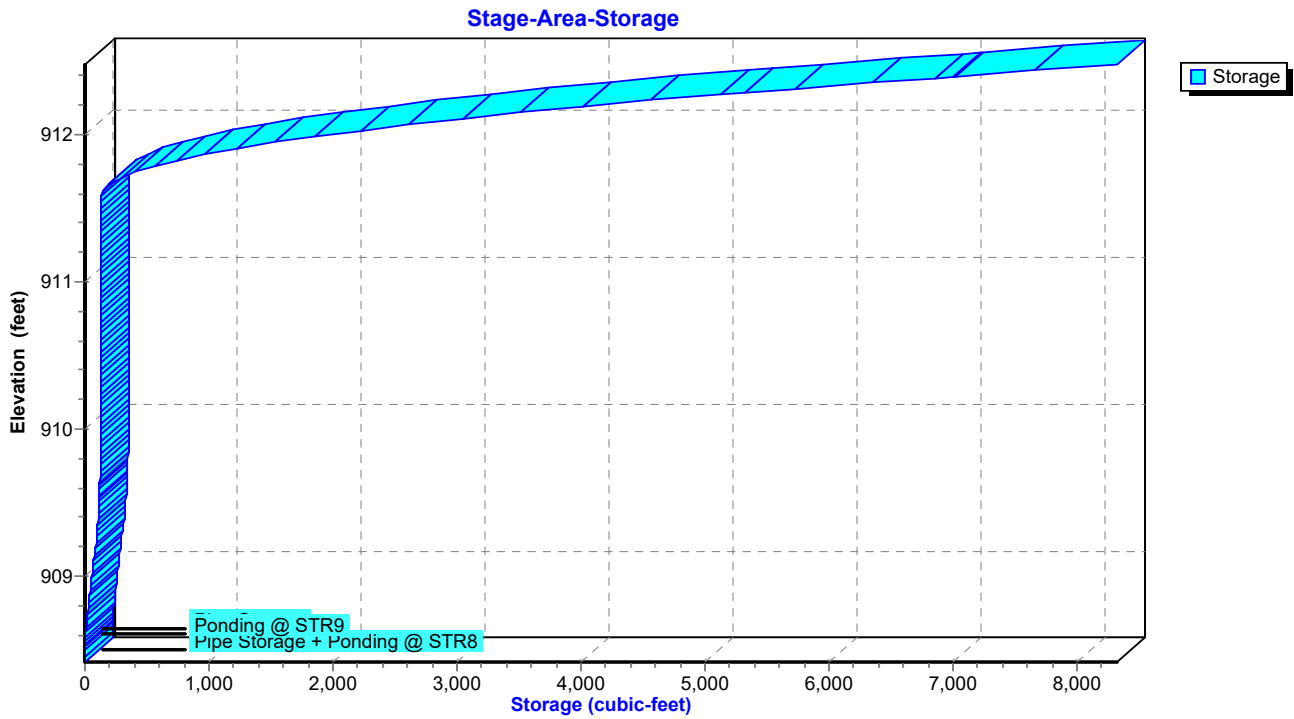
PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond 8P: PONDING STR 8-11



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Summary for Subcatchment 9E: STR9

Runoff = 1.64 cfs @ 12.01 hrs, Volume= 0.095 af, Depth= 2.58"

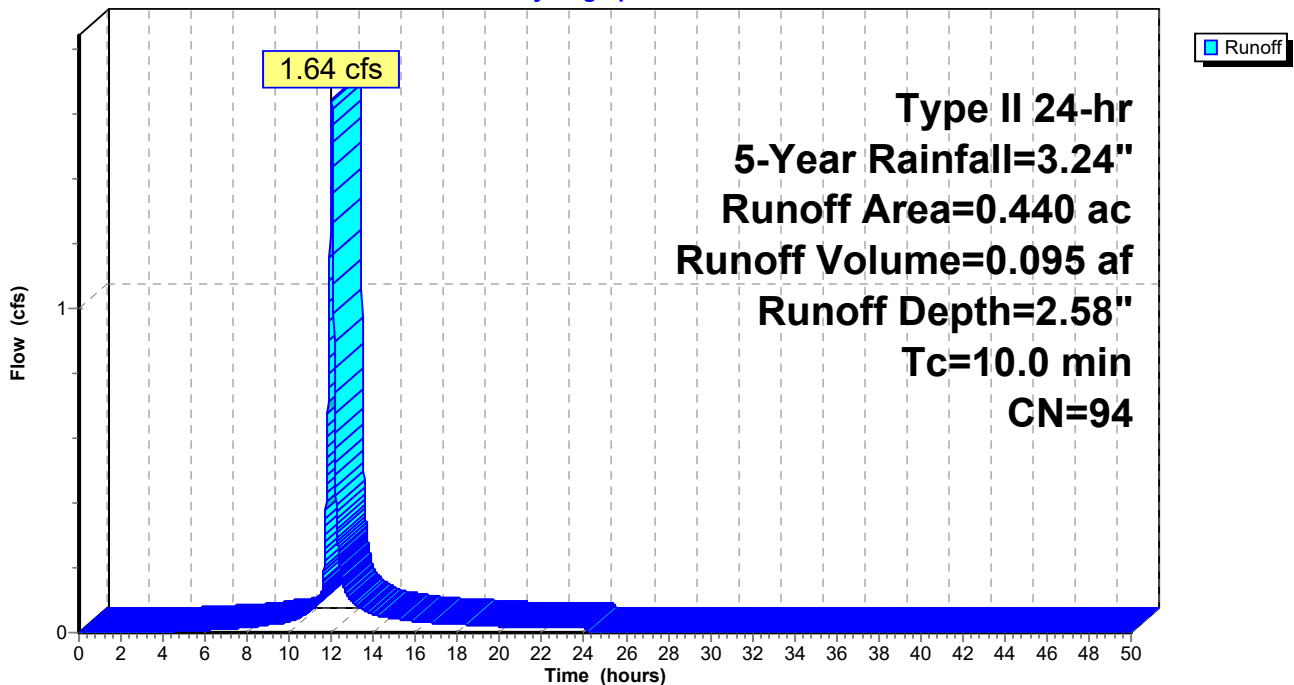
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 10E: STR10

Runoff = 1.94 cfs @ 12.01 hrs, Volume= 0.120 af, Depth= 3.01"

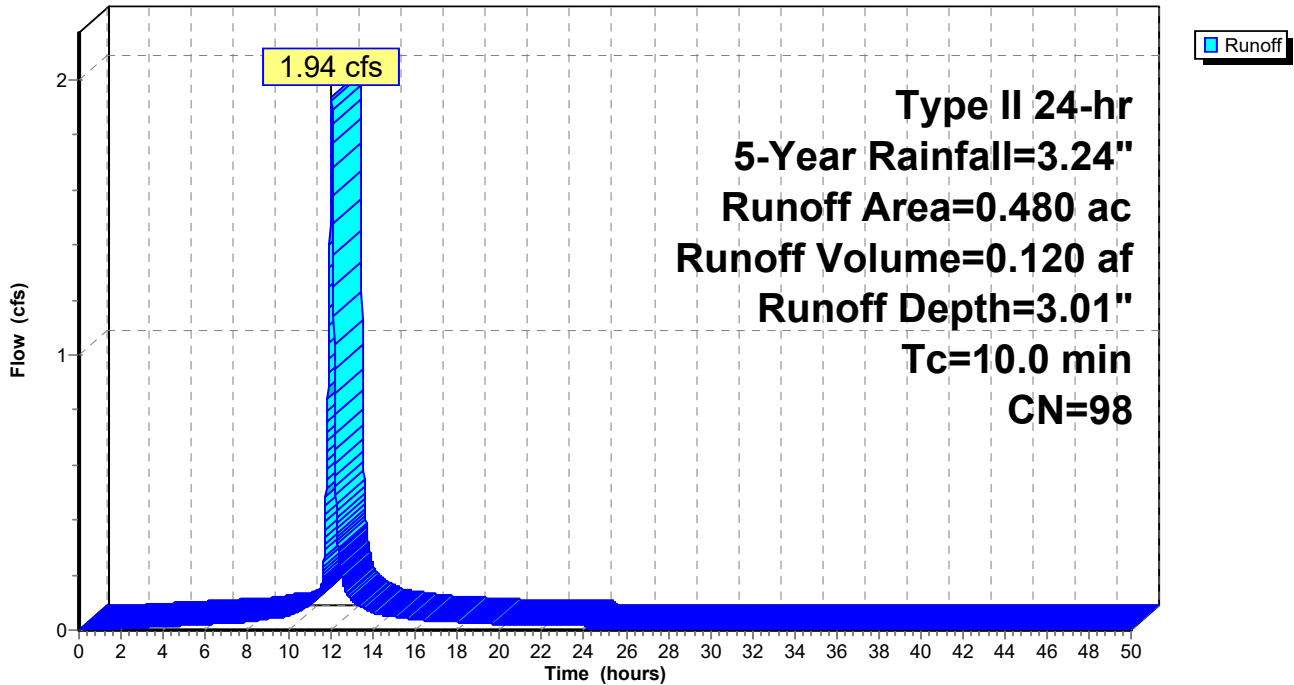
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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Summary for Subcatchment 11E: STR11

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.038 af, Depth= 2.39"

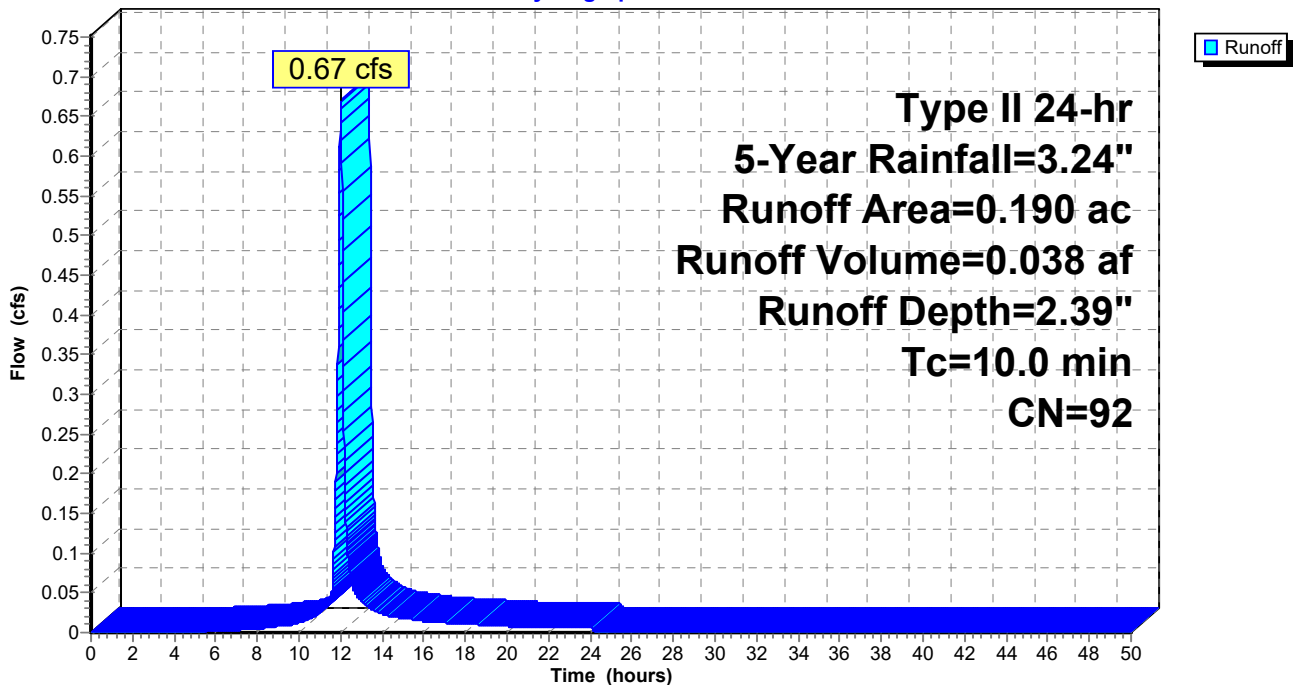
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Summary for Subcatchment 13S: STR13

Runoff = 2.91 cfs @ 12.01 hrs, Volume= 0.176 af, Depth= 2.90"

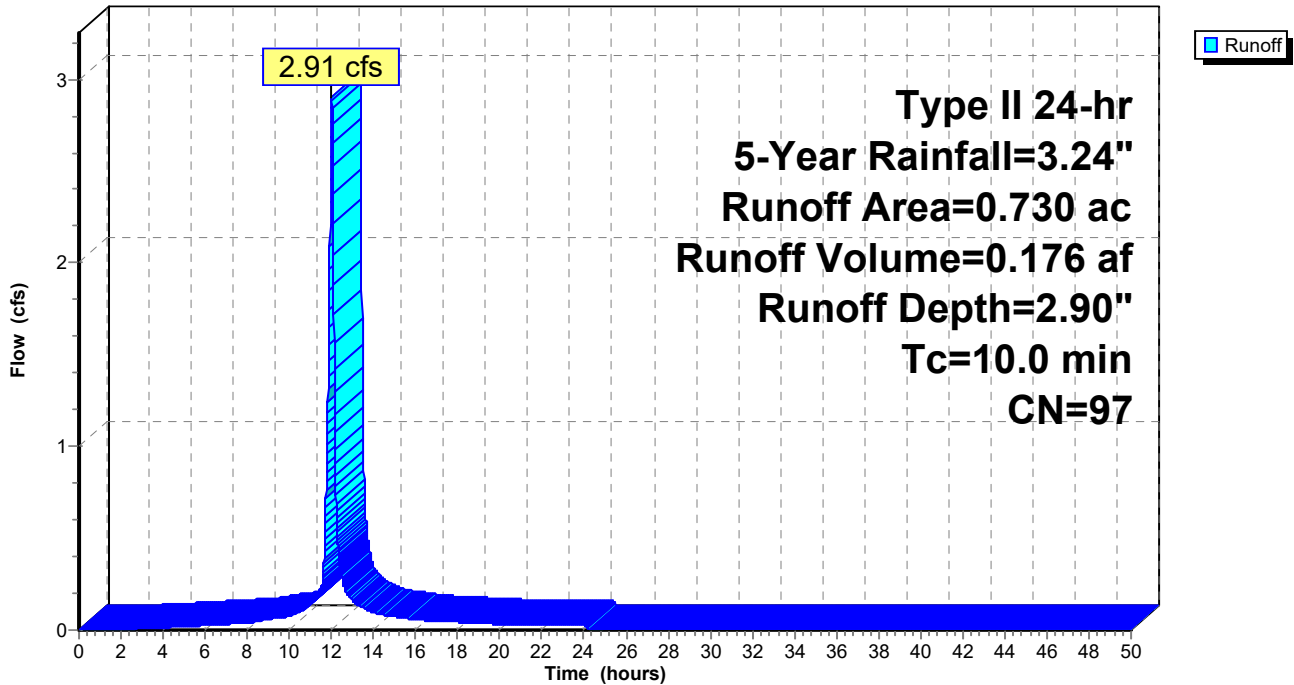
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 2.76 cfs @ 12.01 hrs, Volume= 0.159 af, Depth= 2.58"

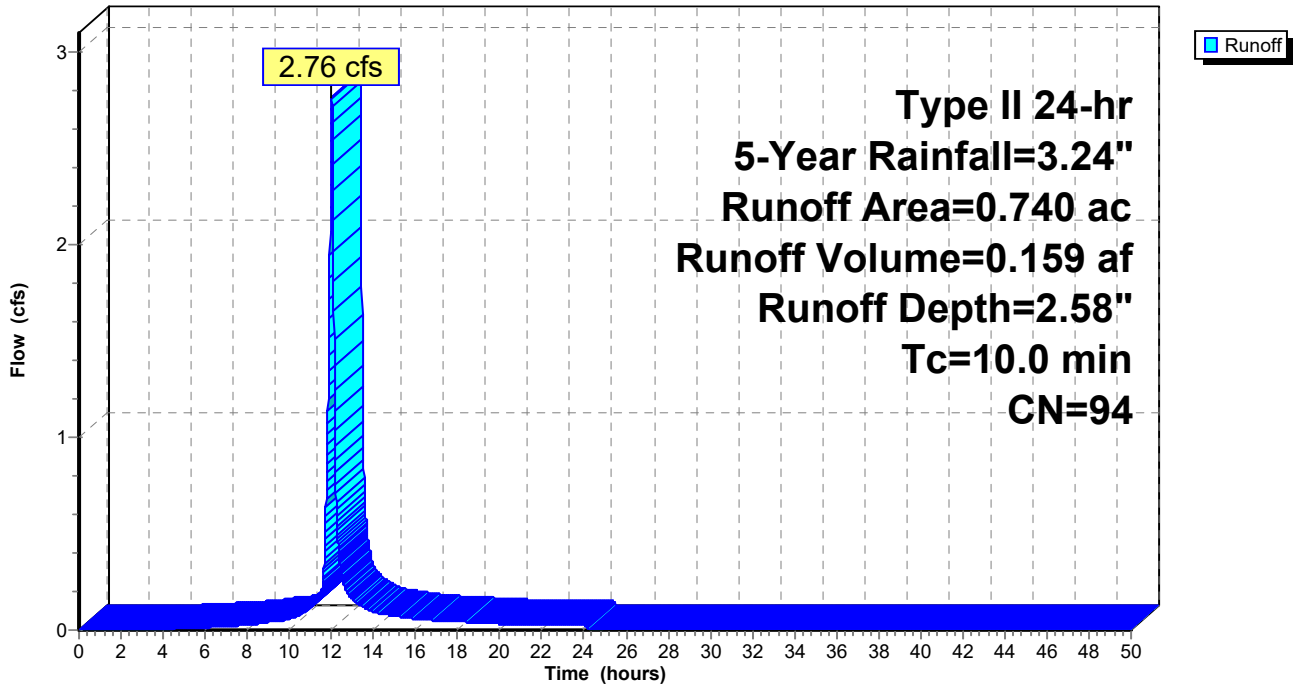
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 1.97 cfs @ 12.01 hrs, Volume= 0.122 af, Depth= 3.01"

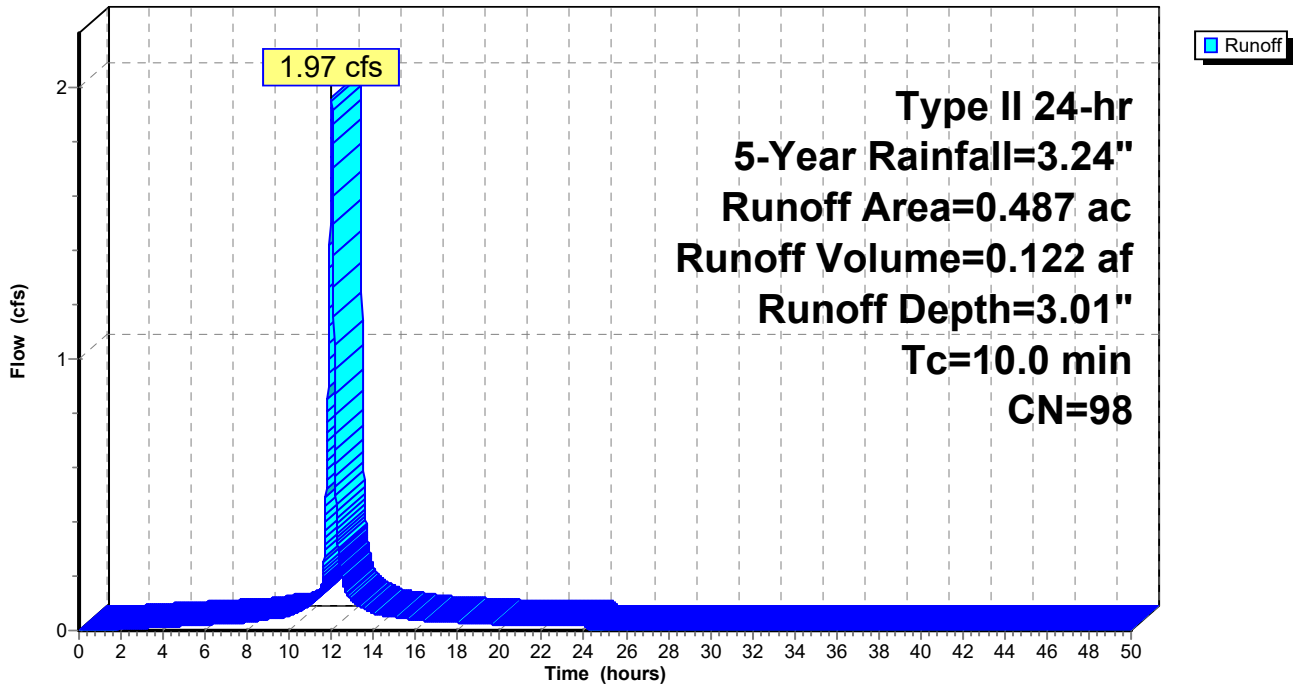
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 0.93 cfs @ 12.01 hrs, Volume= 0.056 af, Depth= 2.90"

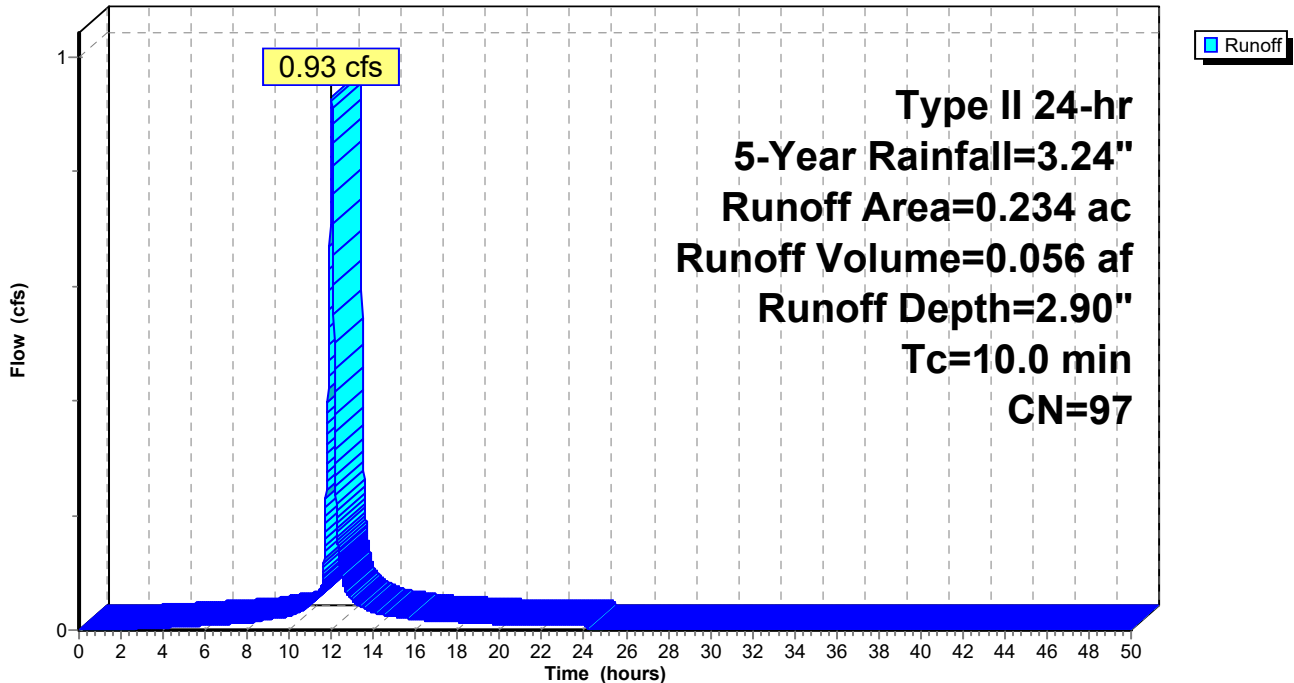
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.55 cfs @ 12.01 hrs, Volume= 0.033 af, Depth= 2.79"

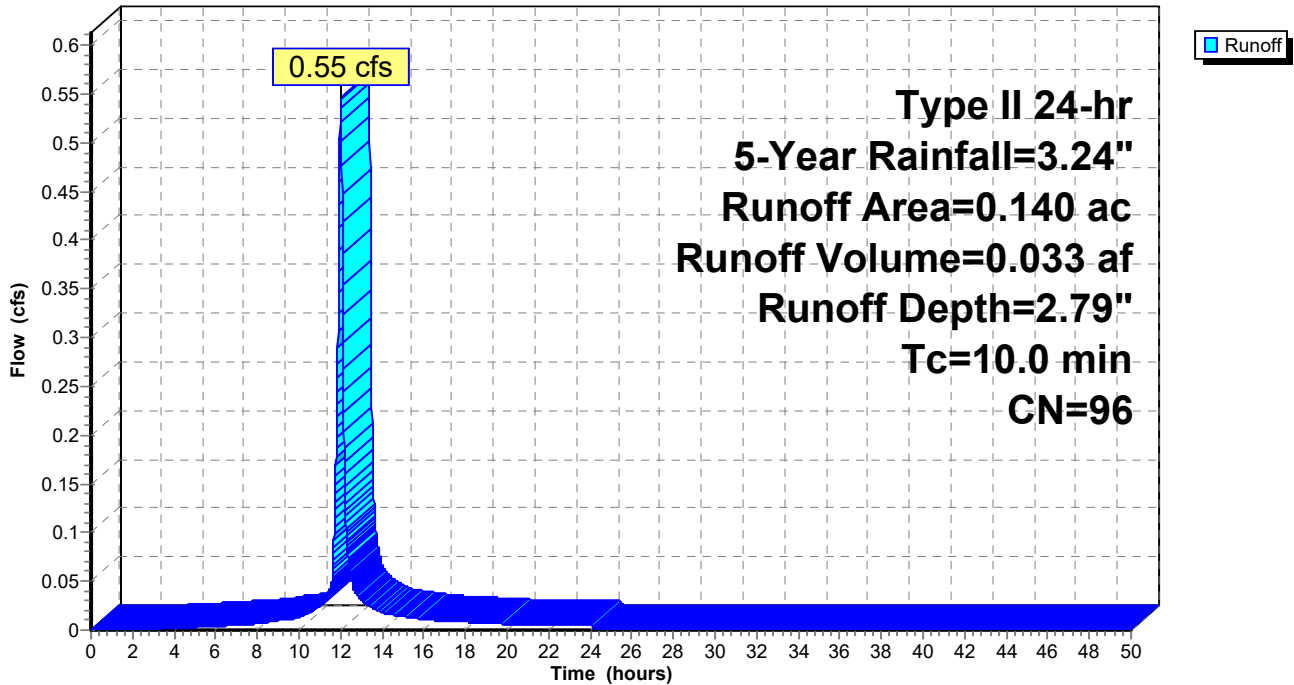
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 2.59" for 5-Year event
 Inflow = 12.13 cfs @ 12.01 hrs, Volume= 1.249 af
 Outflow = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af, Atten= 56%, Lag= 8.6 min
 Primary = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.12' @ 12.15 hrs Surf.Area= 9,046 sf Storage= 8,298 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 18.9 min (862.7 - 843.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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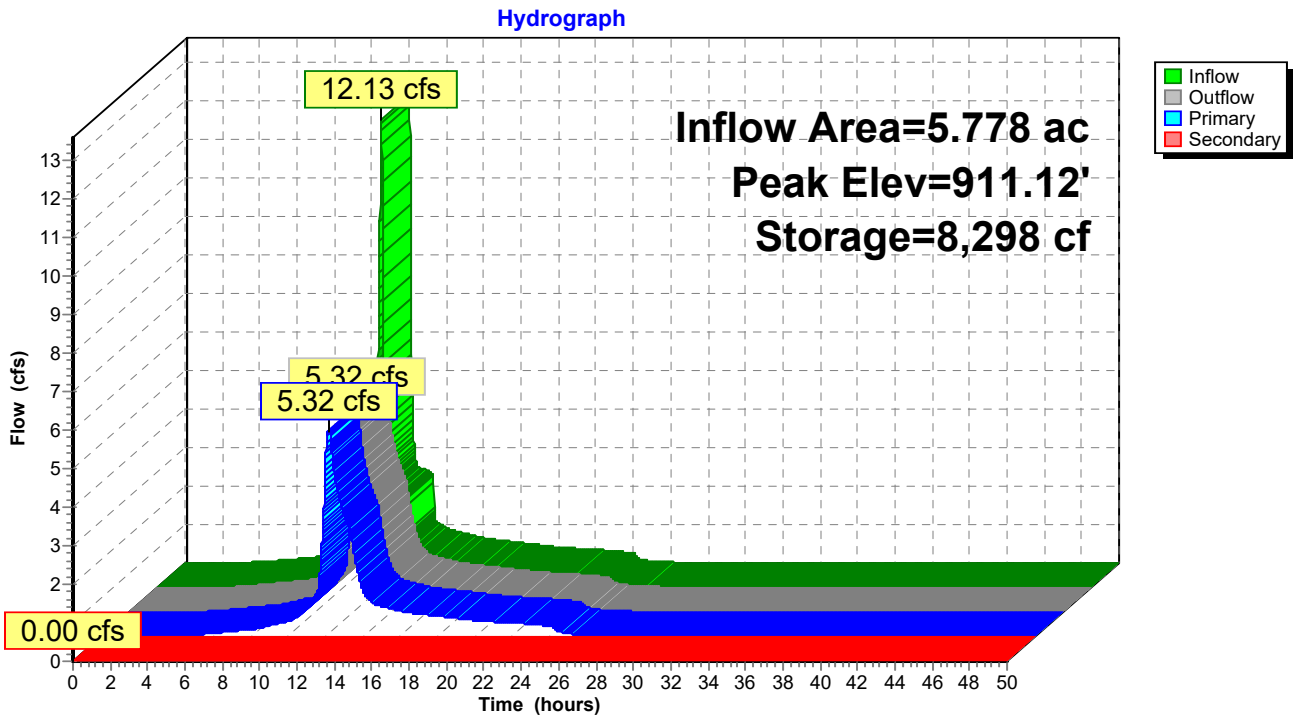
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=5.32 cfs @ 12.15 hrs HW=911.12' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 5.32 cfs @ 8.84 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING



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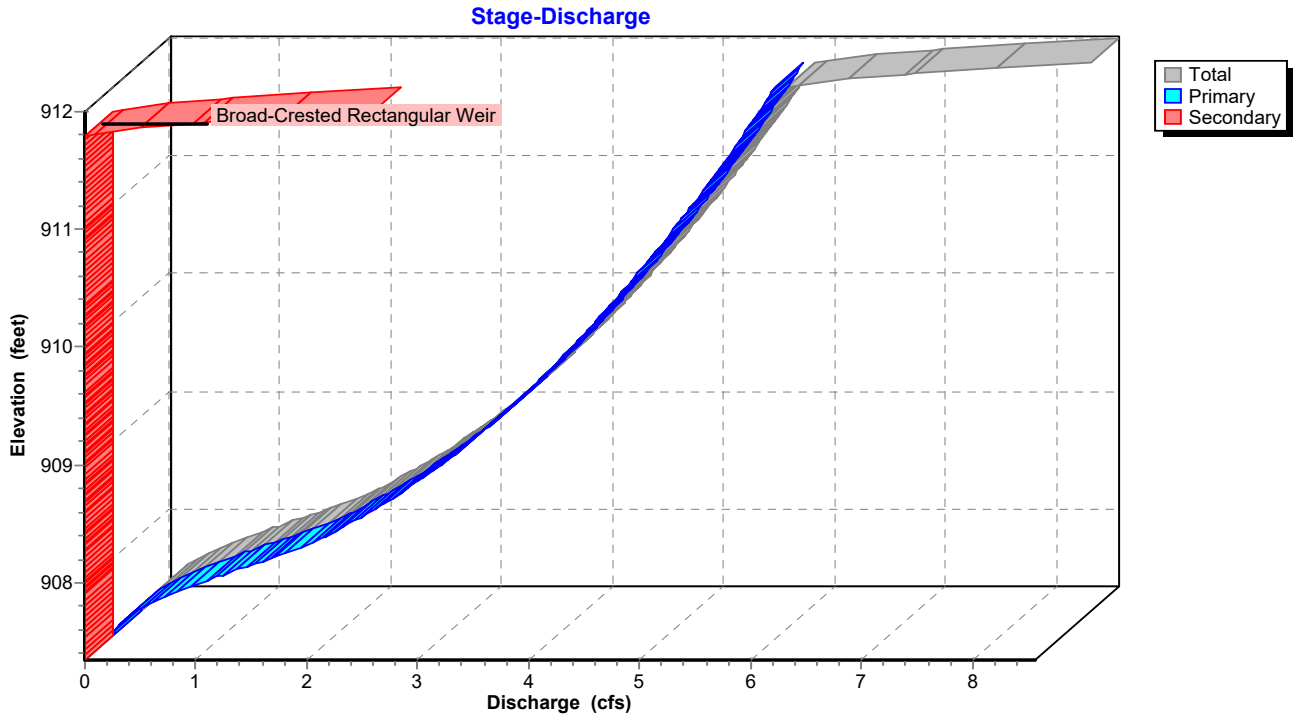
PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

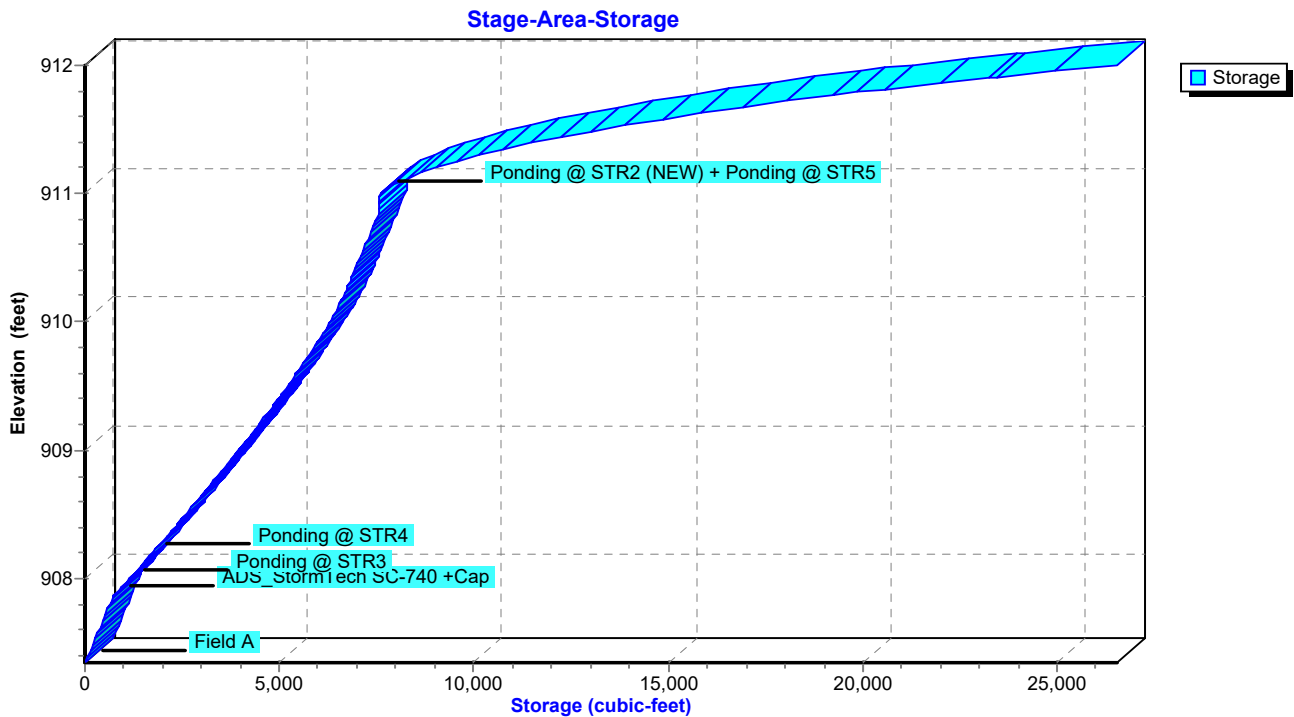
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 2.94" for 5-Year event
 Inflow = 4.87 cfs @ 12.01 hrs, Volume= 0.298 af
 Outflow = 0.36 cfs @ 13.69 hrs, Volume= 0.298 af, Atten= 93%, Lag= 101.0 min
 Primary = 0.36 cfs @ 13.69 hrs, Volume= 0.298 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 909.92' @ 13.00 hrs Surf.Area= 5,569 sf Storage= 7,422 cf

Plug-Flow detention time= 249.1 min calculated for 0.298 af (100% of inflow)
 Center-of-Mass det. time= 248.1 min (1,009.9 - 761.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.36 cfs @ 13.69 hrs HW=909.86' TW=908.13' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.36 cfs @ 6.33 fps)

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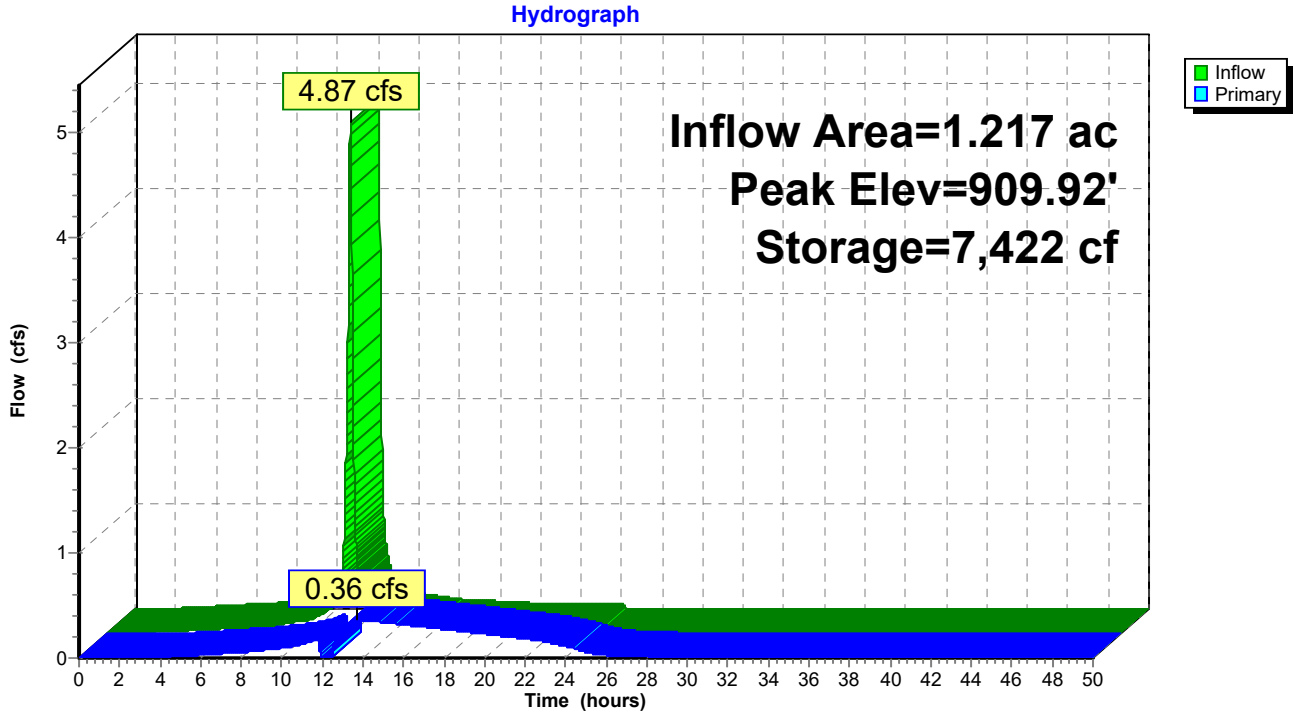
PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

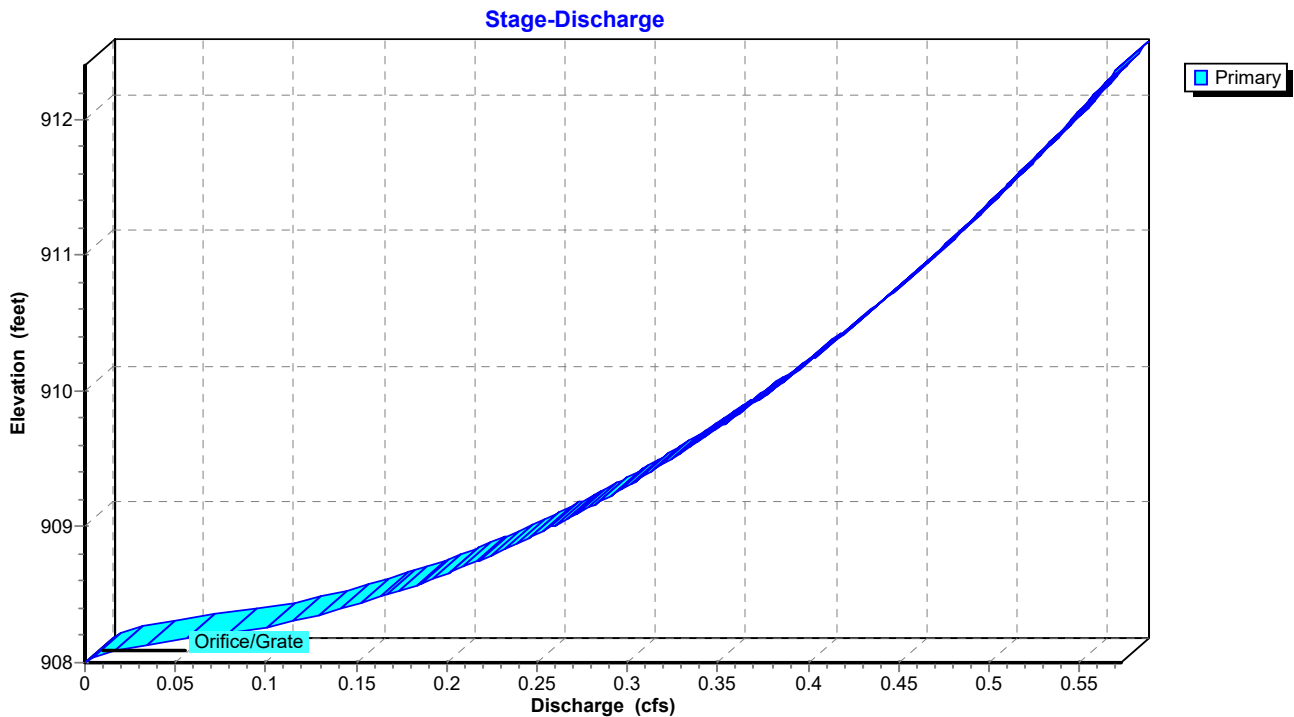
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Pond PP: PORSCHE PONDING



Pond PP: PORSCHE PONDING



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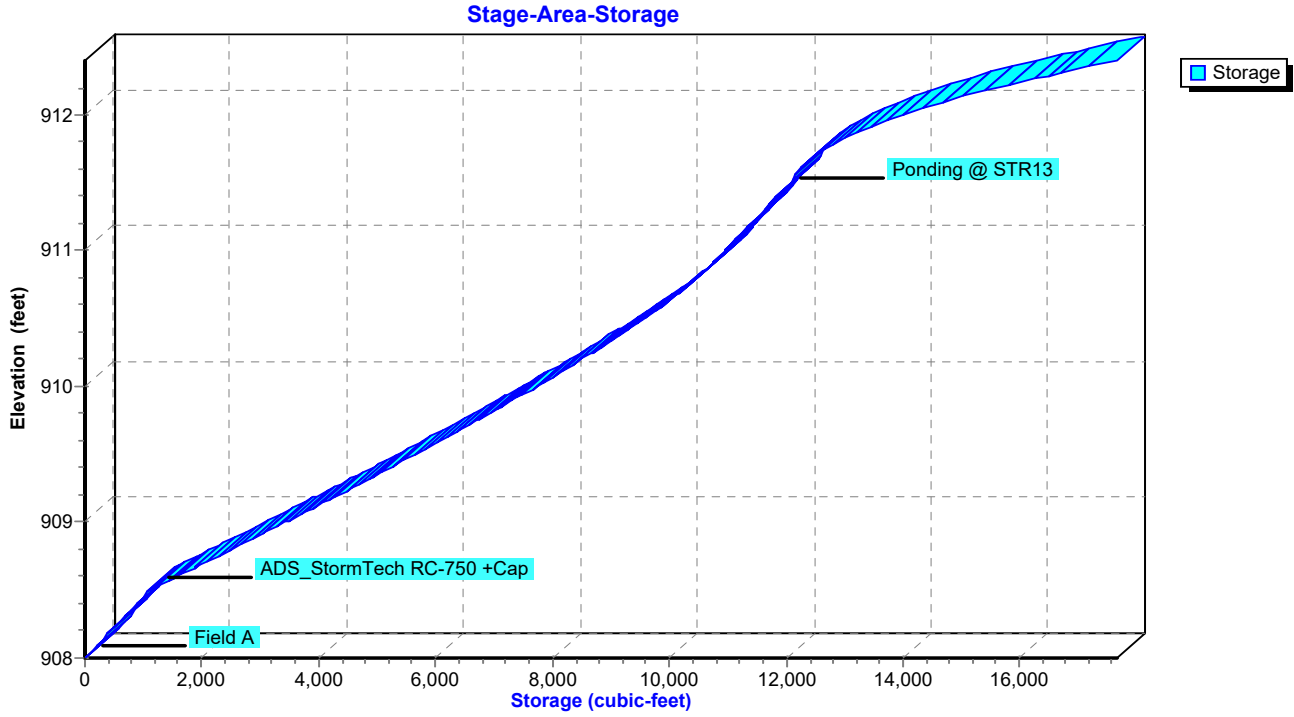
PROPOSED EAST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment XE: STRX

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.030 af, Depth= 3.01"

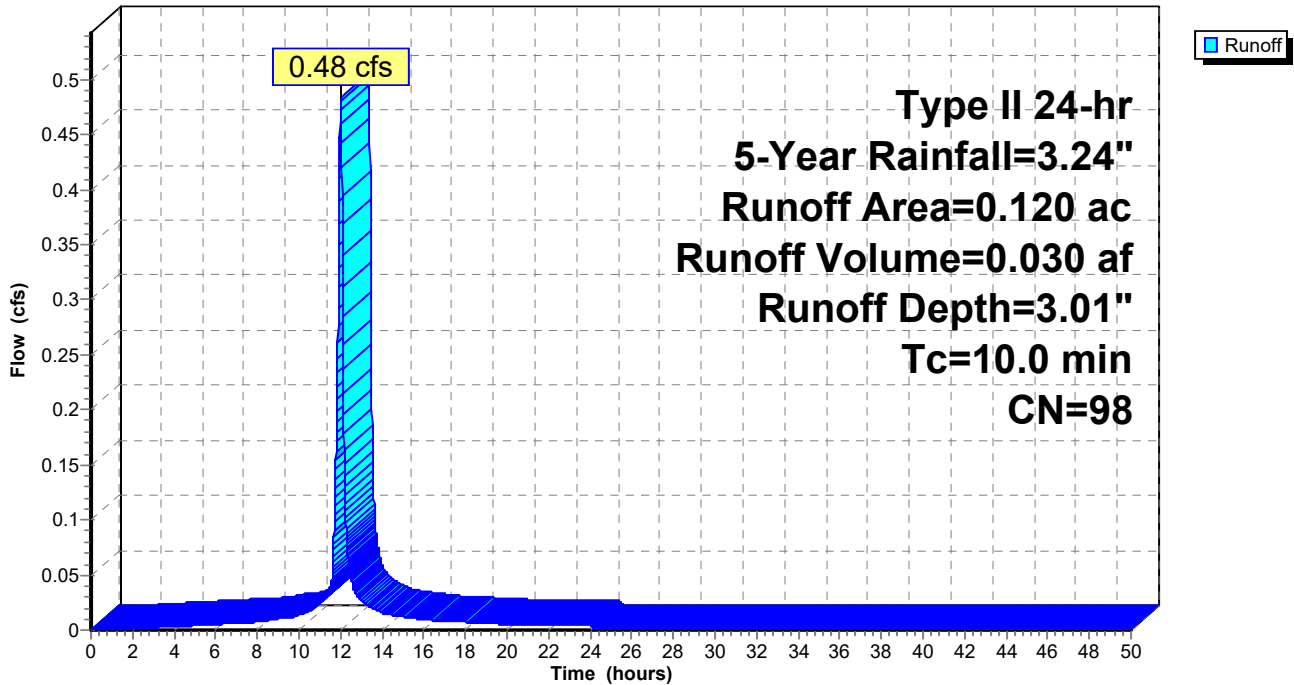
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 1E: STR1

Runoff = 1.36 cfs @ 12.02 hrs, Volume= 0.074 af, Depth= 1.98"

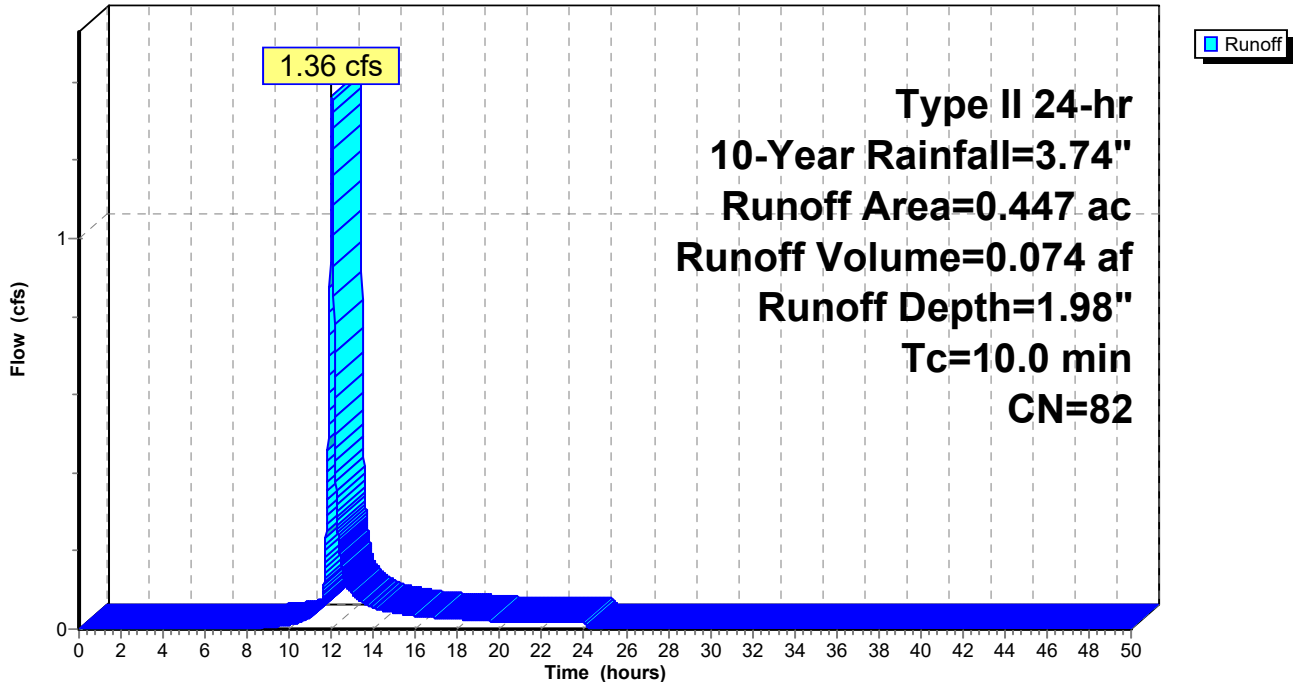
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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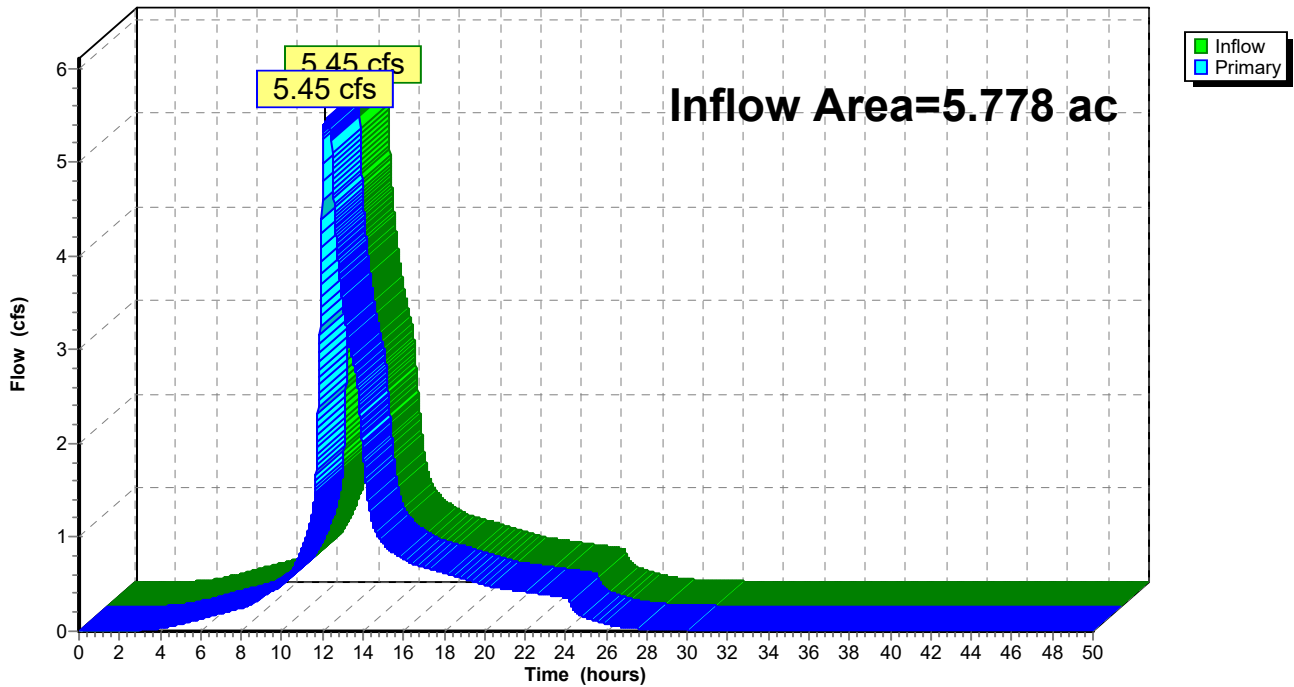
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 3.08" for 10-Year event
Inflow = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af
Primary = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 3E: STR3

Runoff = 1.89 cfs @ 12.01 hrs, Volume= 0.110 af, Depth= 3.07"

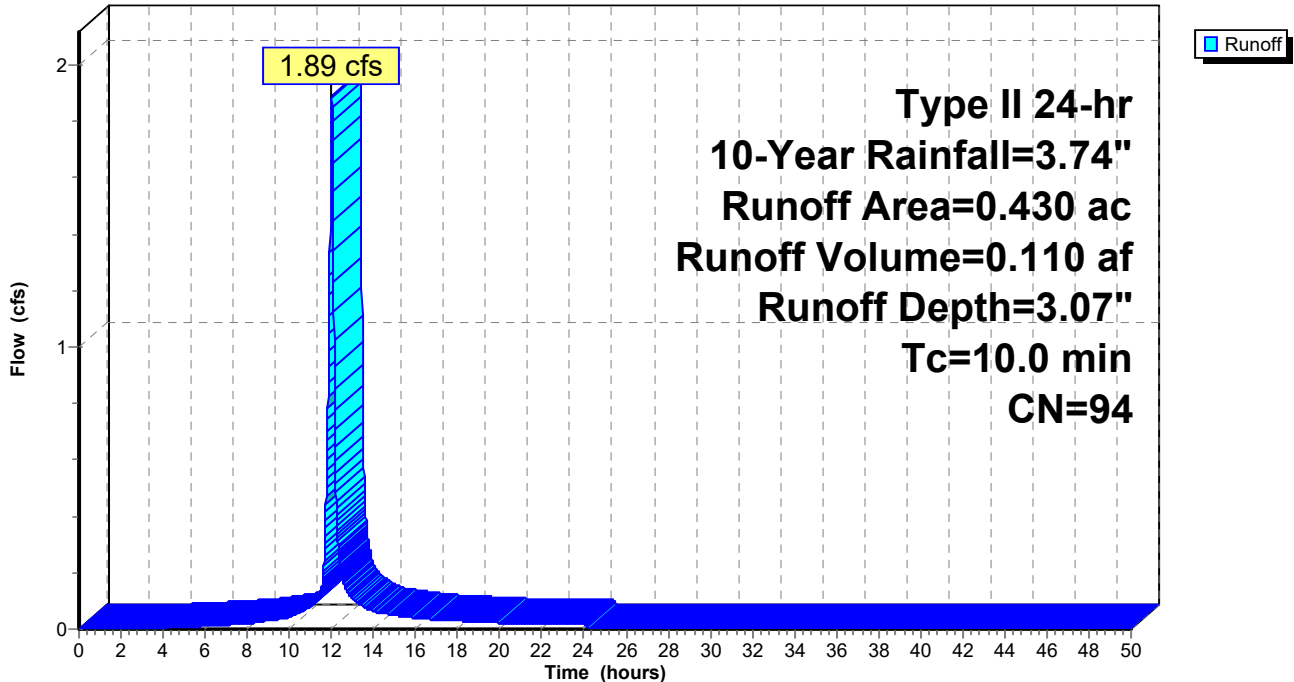
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 4E: STR4

Runoff = 1.85 cfs @ 12.01 hrs, Volume= 0.106 af, Depth= 2.97"

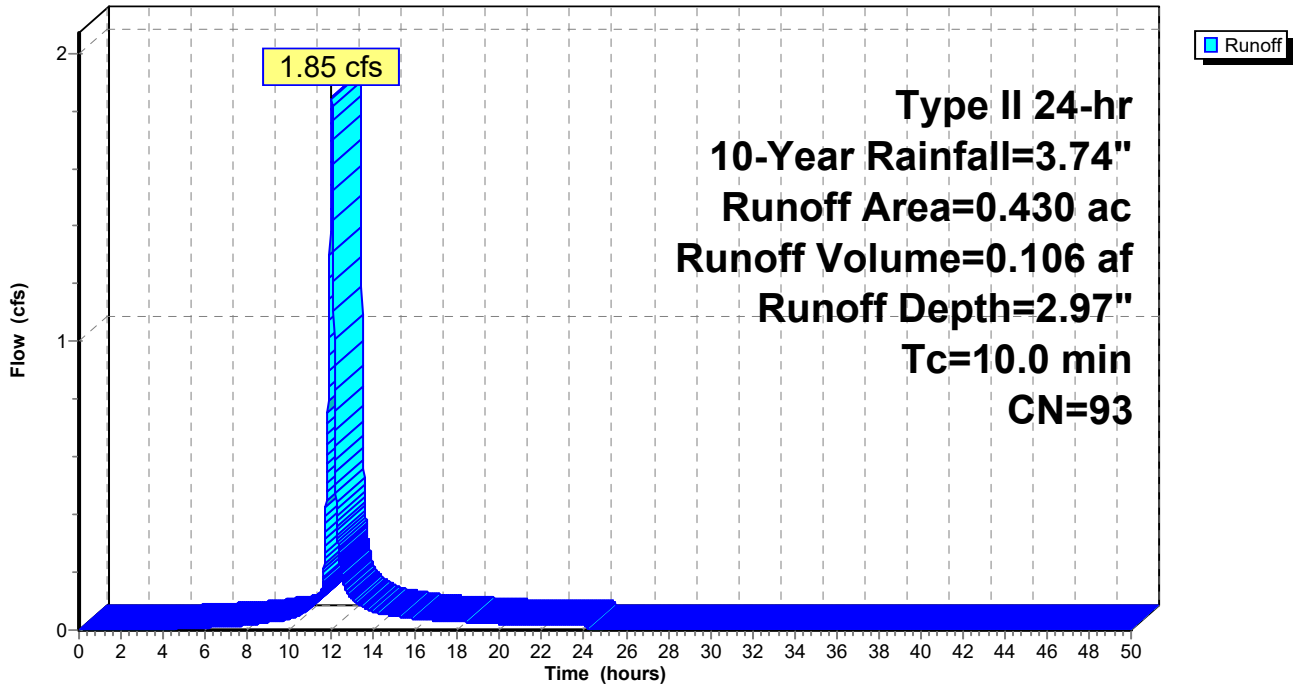
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 5E: STR5

Runoff = 2.31 cfs @ 12.01 hrs, Volume= 0.129 af, Depth= 2.67"

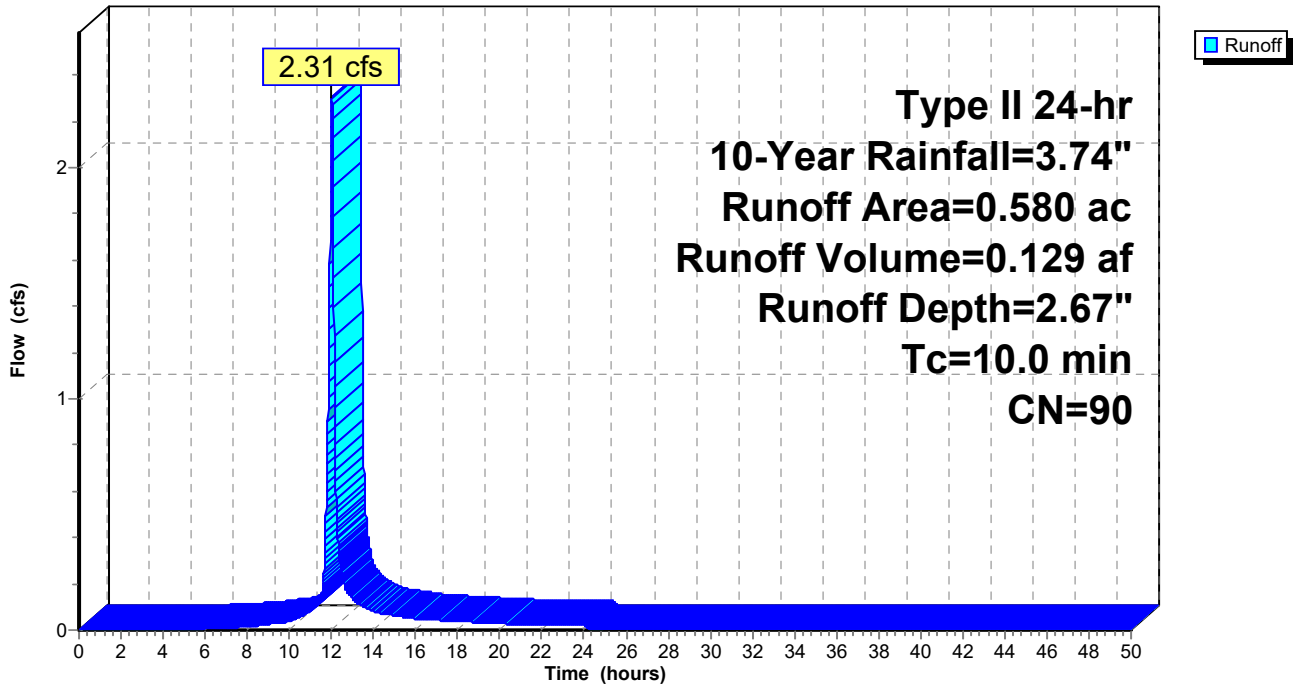
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 8E: STR8

Runoff = 1.48 cfs @ 12.01 hrs, Volume= 0.087 af, Depth= 3.17"

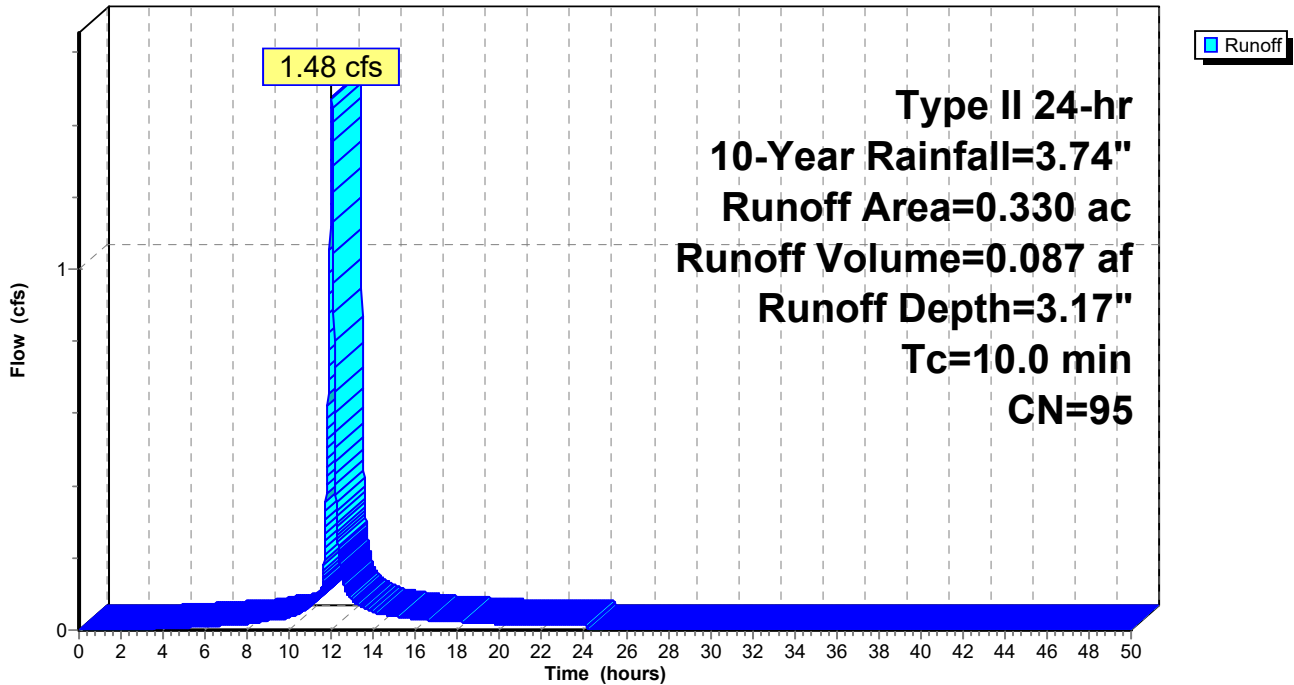
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 3.21" for 10-Year event
 Inflow = 6.45 cfs @ 12.01 hrs, Volume= 0.385 af
 Outflow = 1.53 cfs @ 13.28 hrs, Volume= 0.385 af, Atten= 76%, Lag= 76.3 min
 Primary = 1.53 cfs @ 13.28 hrs, Volume= 0.385 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.26' @ 12.35 hrs Surf.Area= 14,199 sf Storage= 4,906 cf

Plug-Flow detention time= 22.7 min calculated for 0.385 af (100% of inflow)
 Center-of-Mass det. time= 22.3 min (793.9 - 771.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.53 cfs @ 13.28 hrs HW=912.01' TW=908.90' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.53 cfs @ 8.49 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=907.34' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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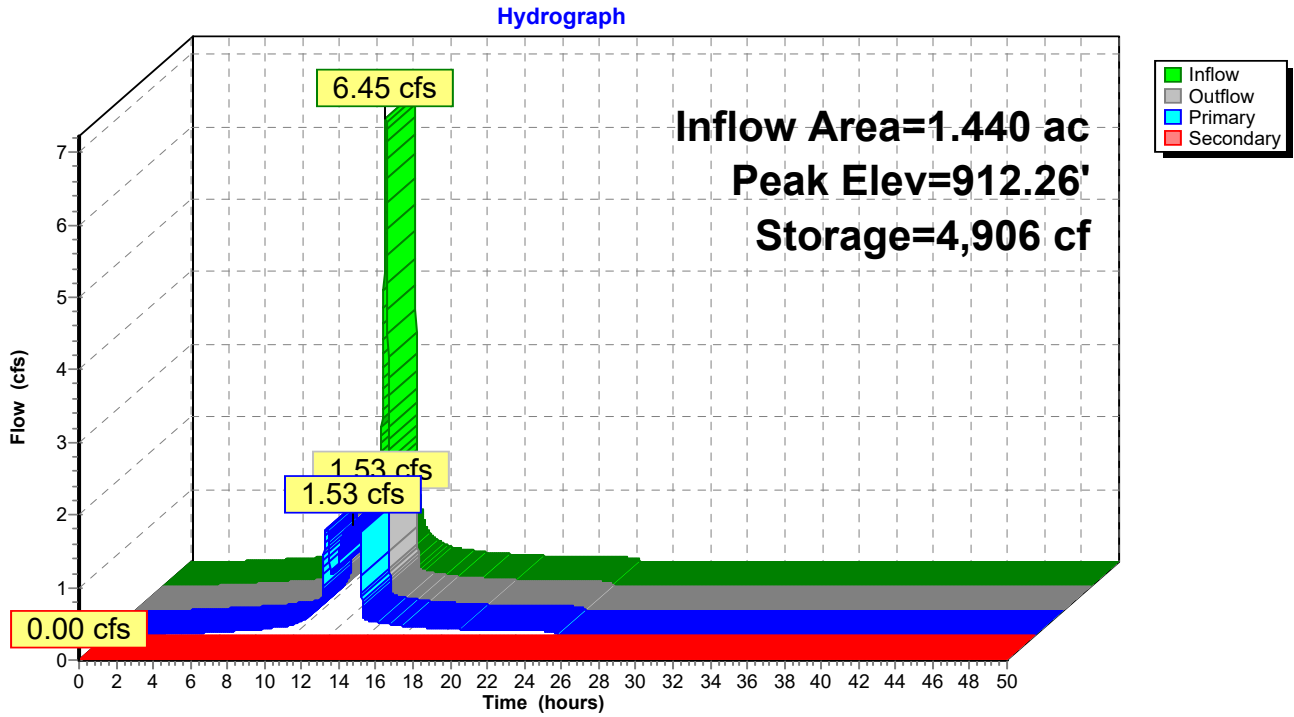
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Type II 24-hr 10-Year Rainfall=3.74"

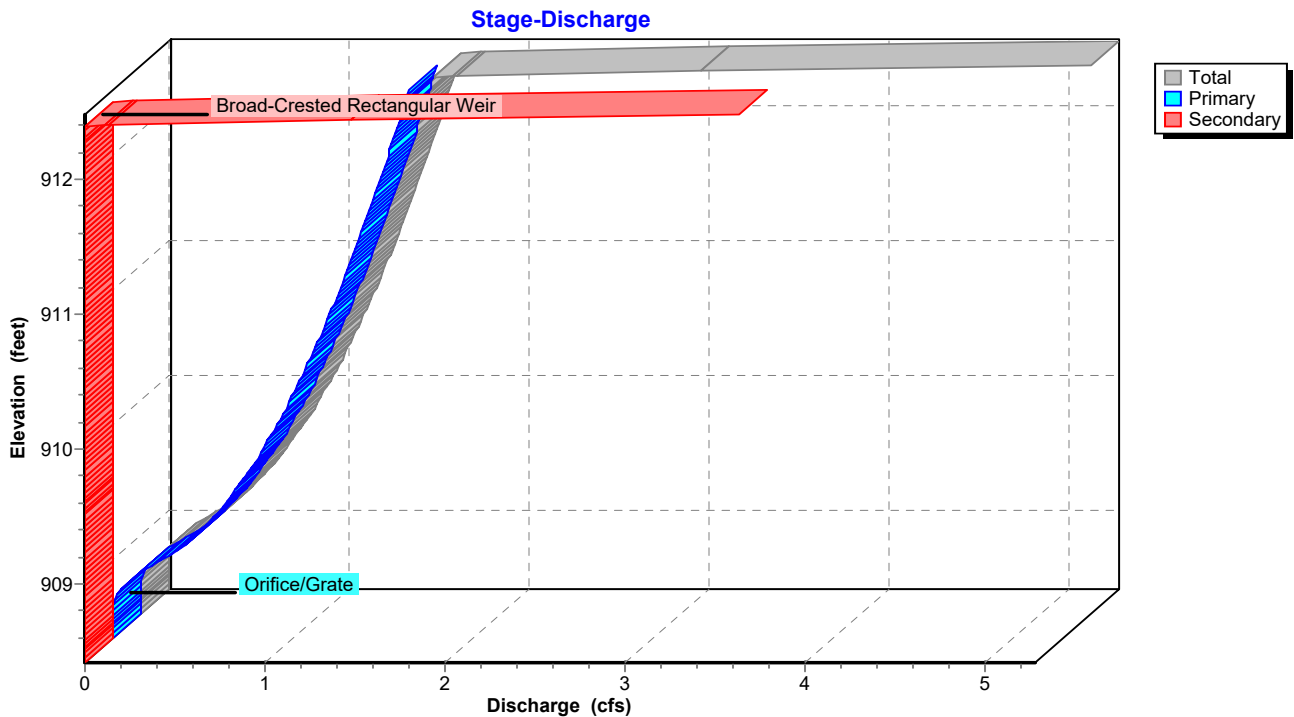
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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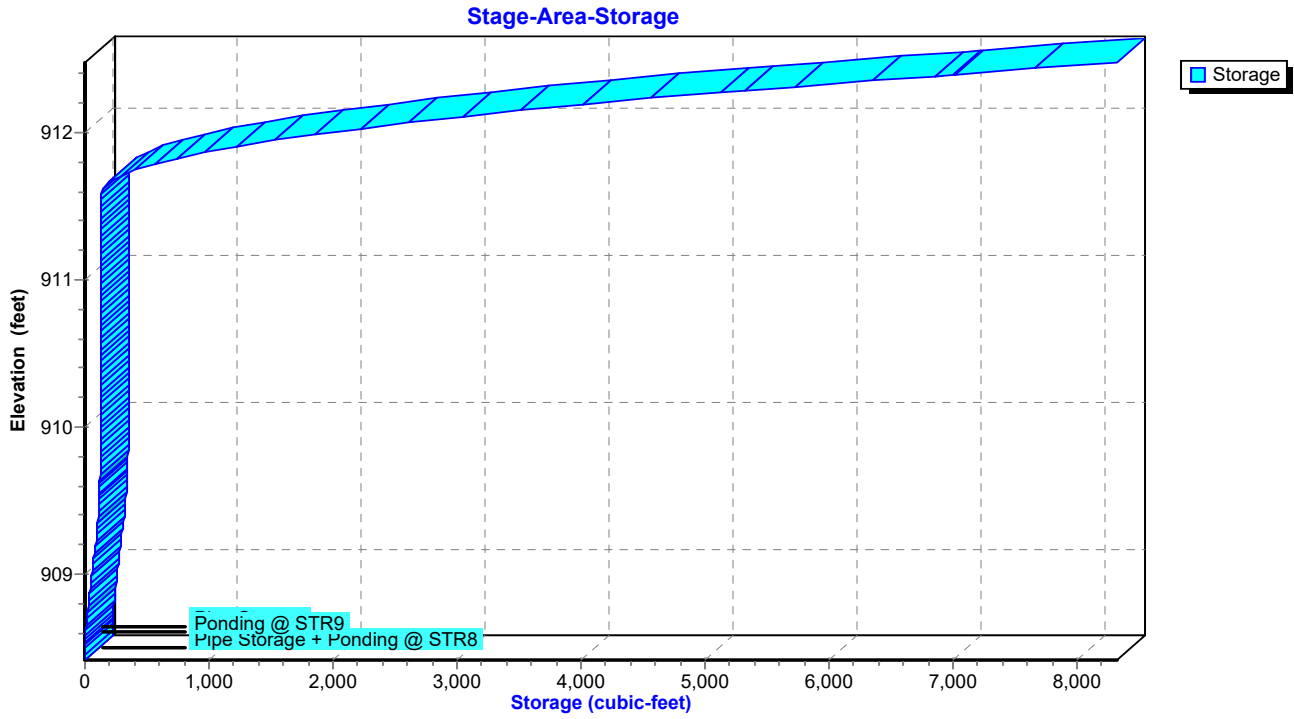
PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 9E: STR9

Runoff = 1.93 cfs @ 12.01 hrs, Volume= 0.113 af, Depth= 3.07"

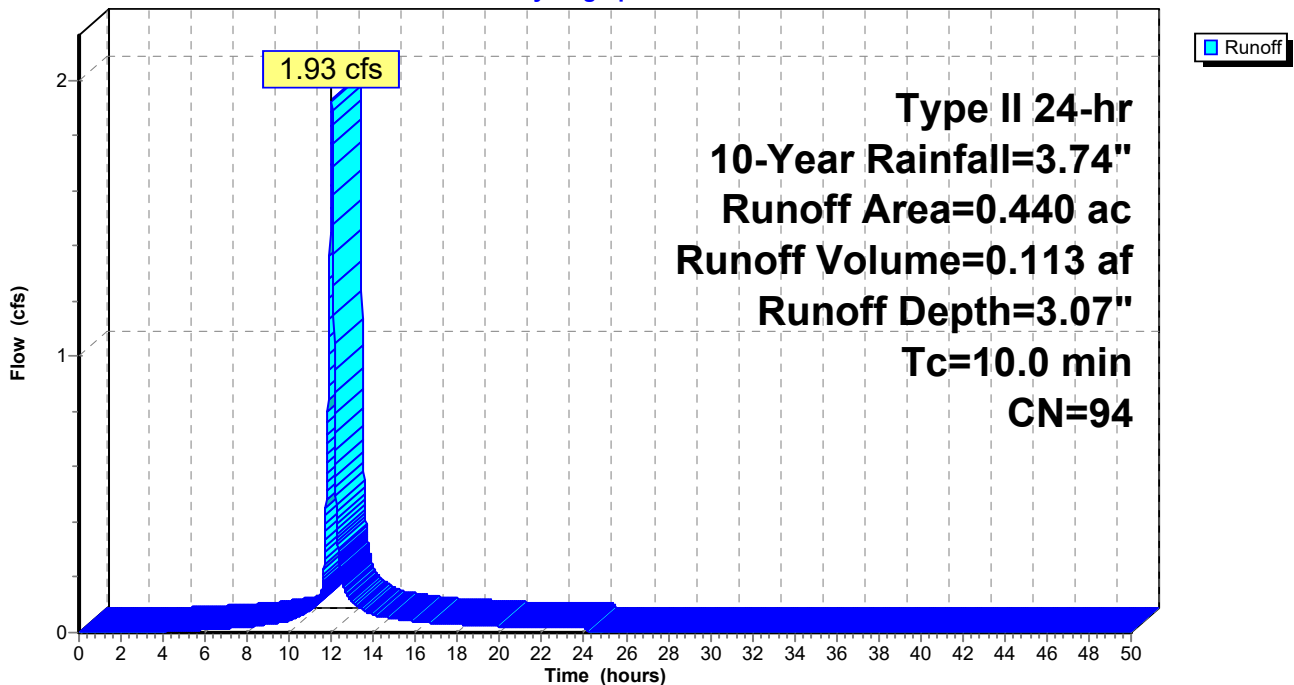
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 10E: STR10

Runoff = 2.24 cfs @ 12.01 hrs, Volume= 0.140 af, Depth= 3.51"

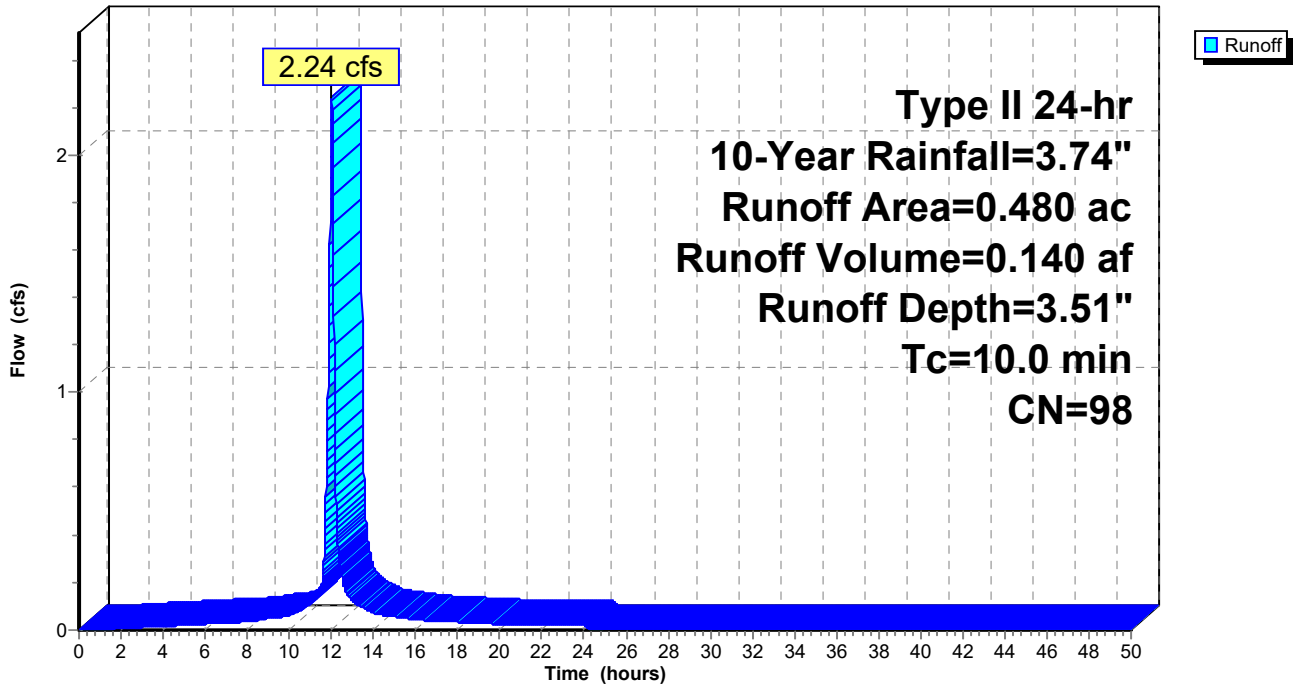
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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Summary for Subcatchment 11E: STR11

Runoff = 0.80 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 2.87"

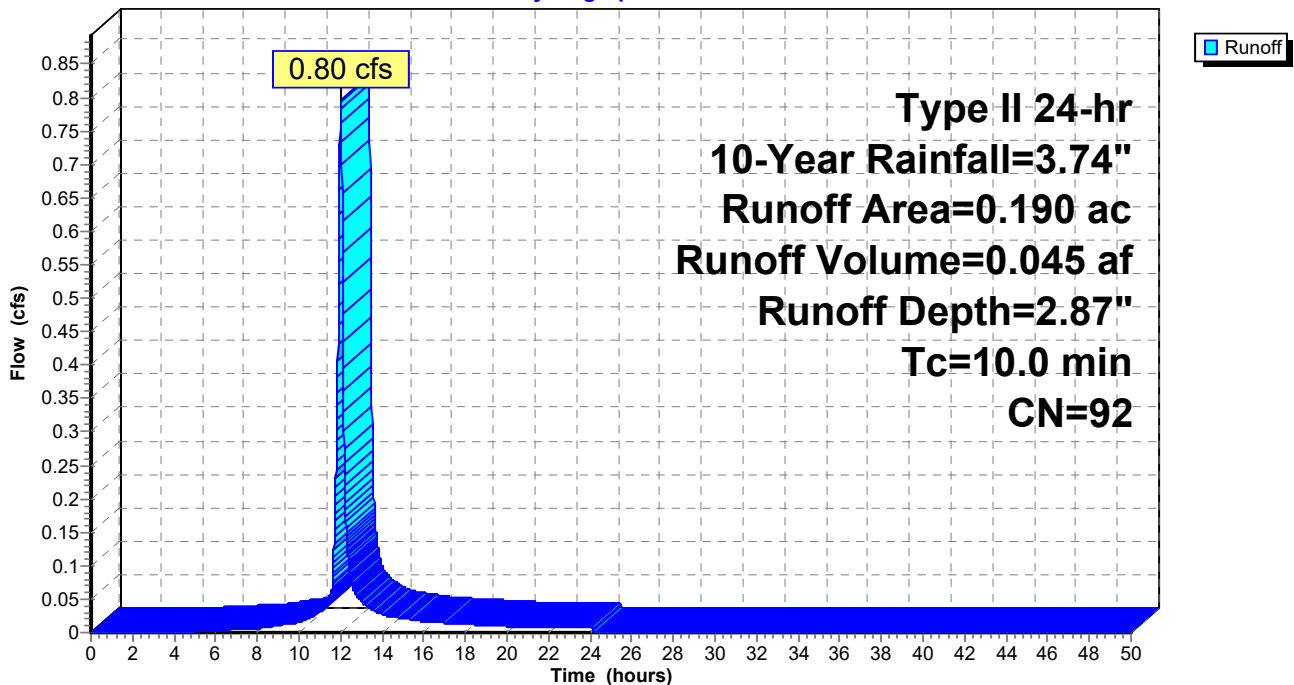
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Summary for Subcatchment 13S: STR13

Runoff = 3.37 cfs @ 12.01 hrs, Volume= 0.206 af, Depth= 3.39"

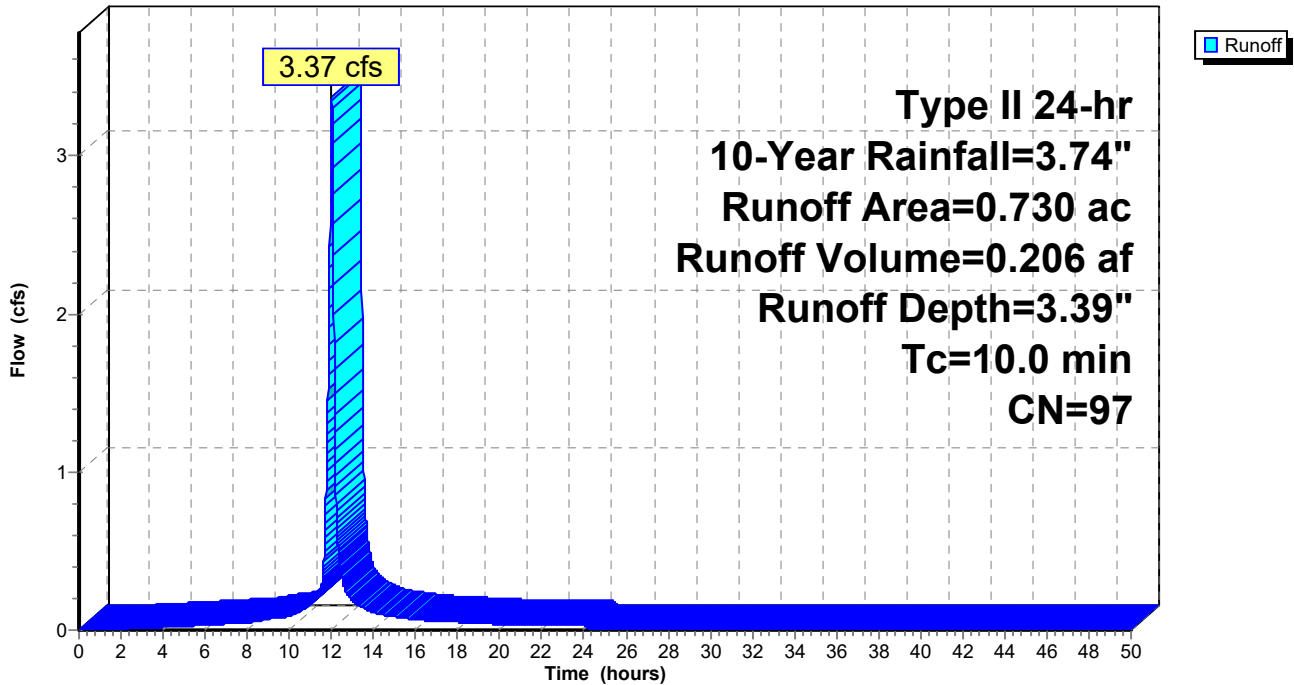
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 3.25 cfs @ 12.01 hrs, Volume= 0.189 af, Depth= 3.07"

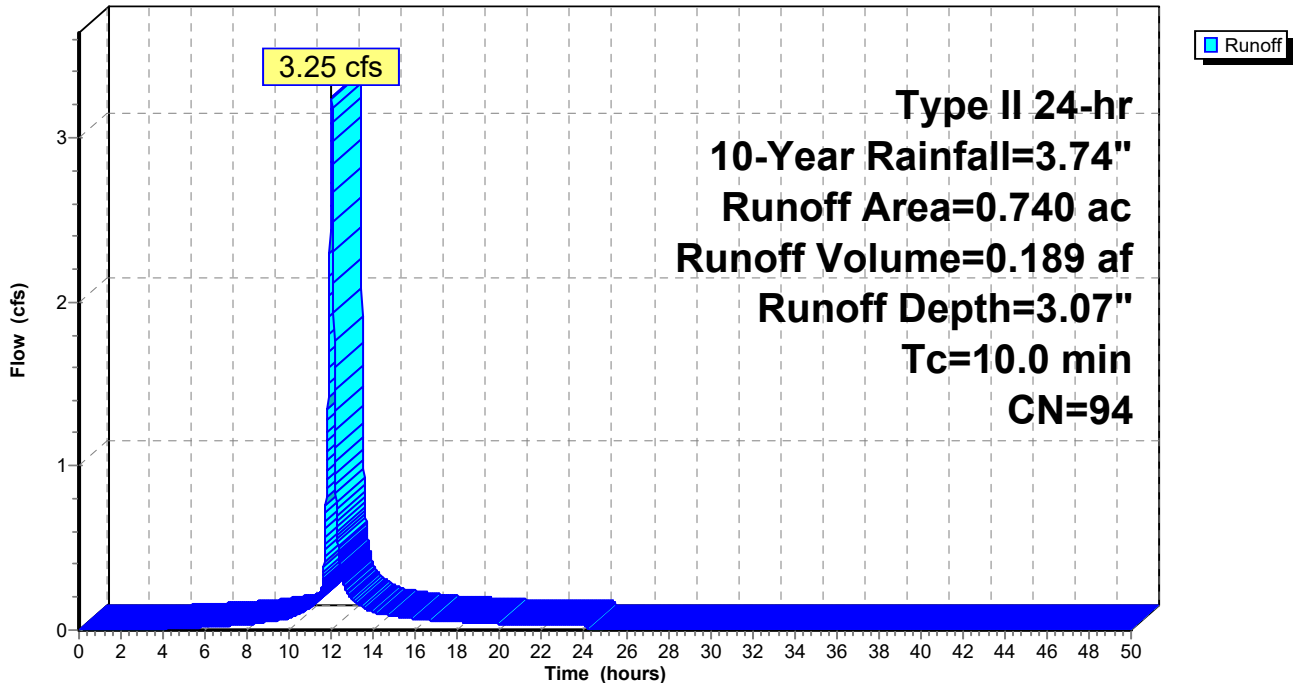
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 2.28 cfs @ 12.01 hrs, Volume= 0.142 af, Depth= 3.51"

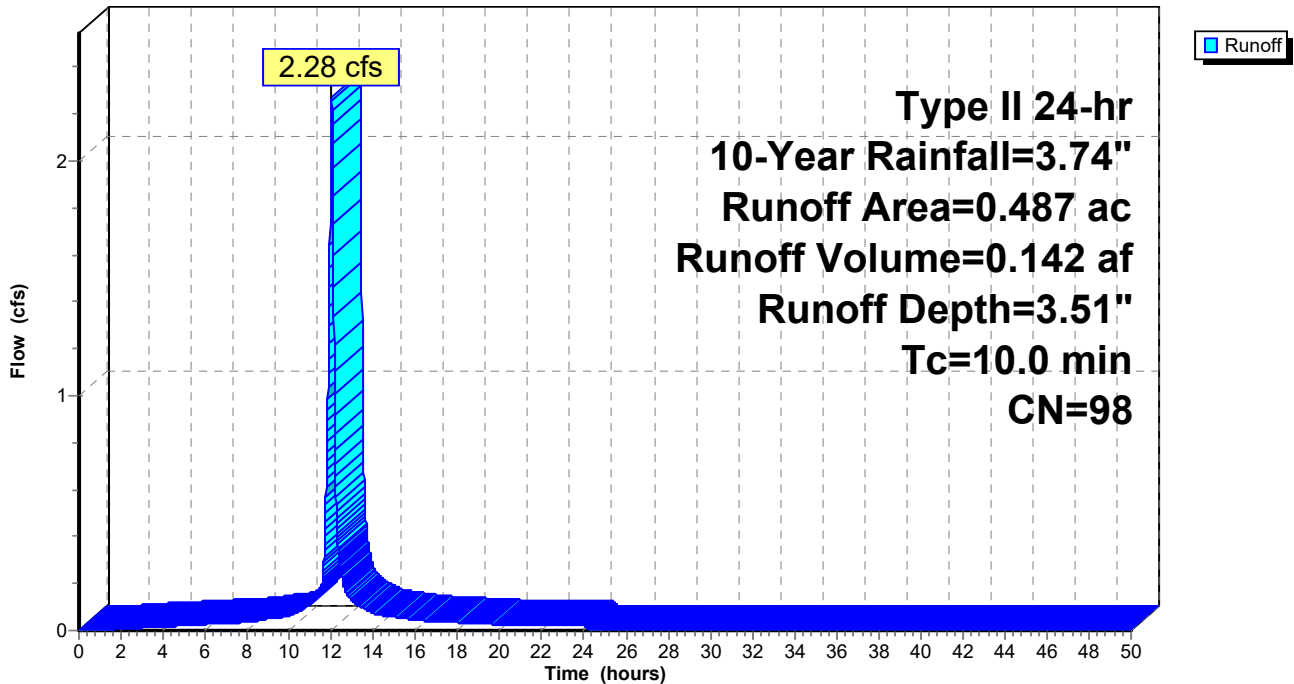
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 1.08 cfs @ 12.01 hrs, Volume= 0.066 af, Depth= 3.39"

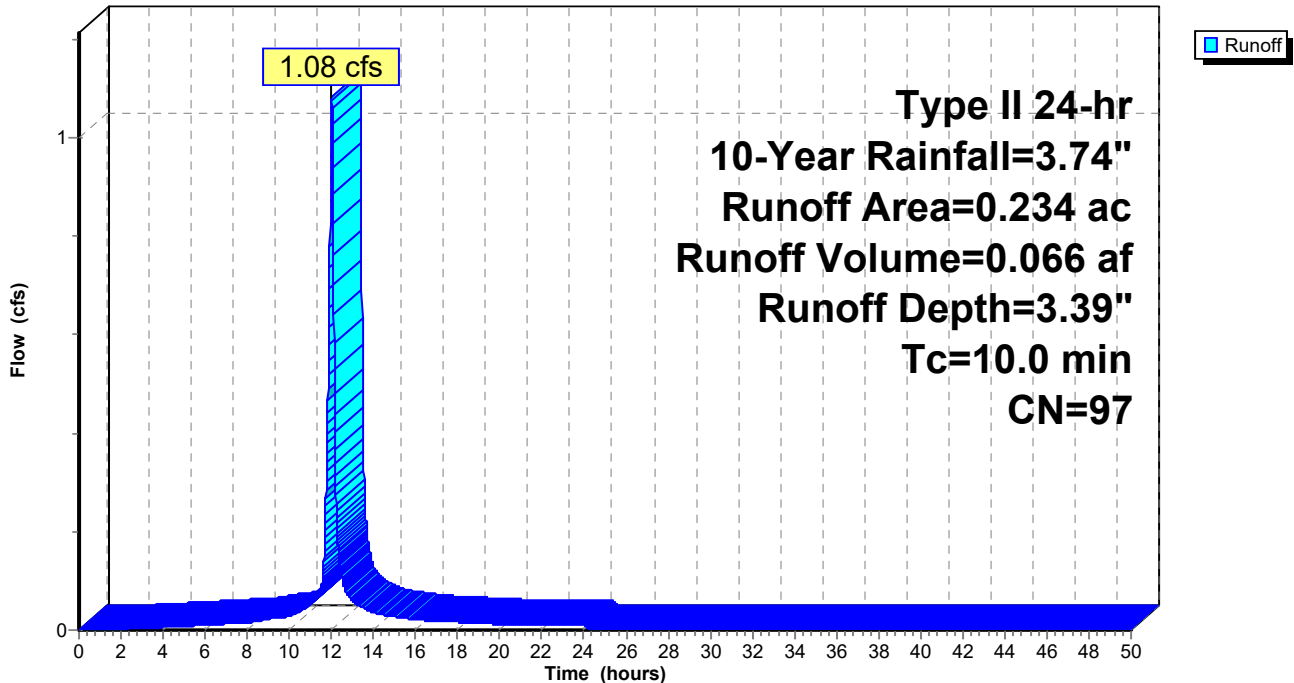
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.64 cfs @ 12.01 hrs, Volume= 0.038 af, Depth= 3.28"

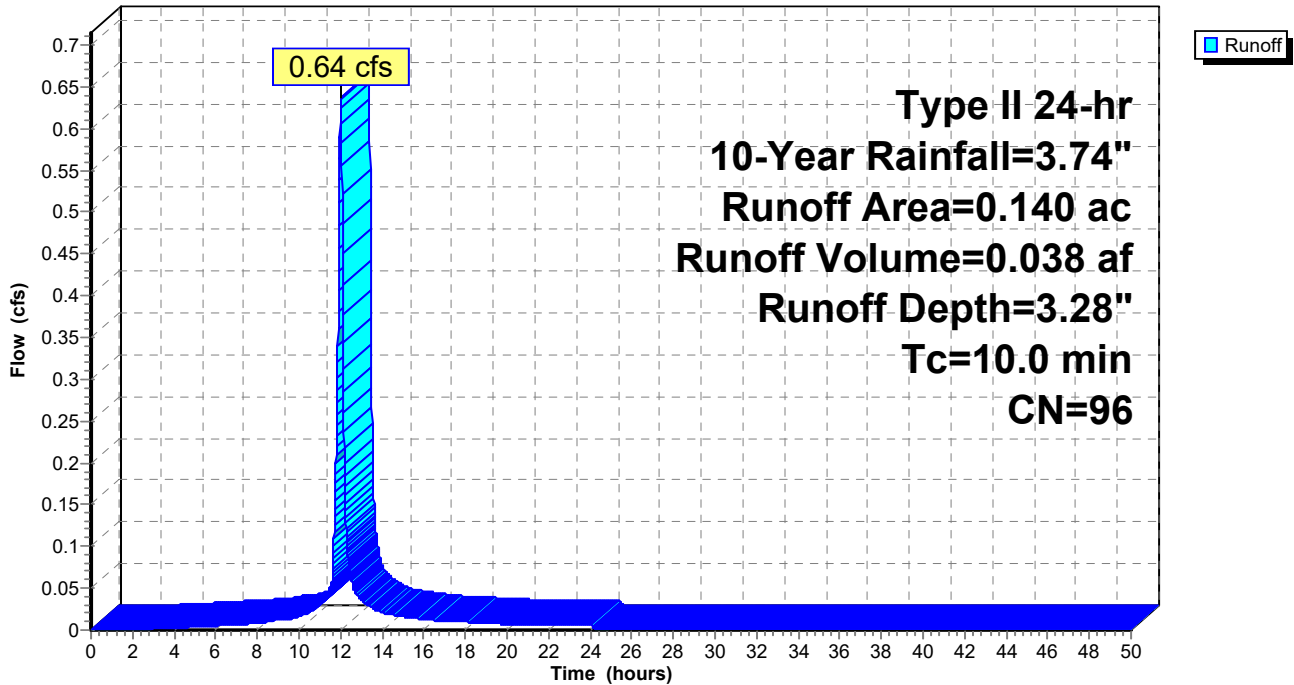
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 3.08" for 10-Year event
 Inflow = 13.96 cfs @ 12.01 hrs, Volume= 1.482 af
 Outflow = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af, Atten= 61%, Lag= 9.6 min
 Primary = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.29' @ 12.17 hrs Surf.Area= 15,227 sf Storage= 10,012 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 19.3 min (865.3 - 846.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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Type II 24-hr 10-Year Rainfall=3.74"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

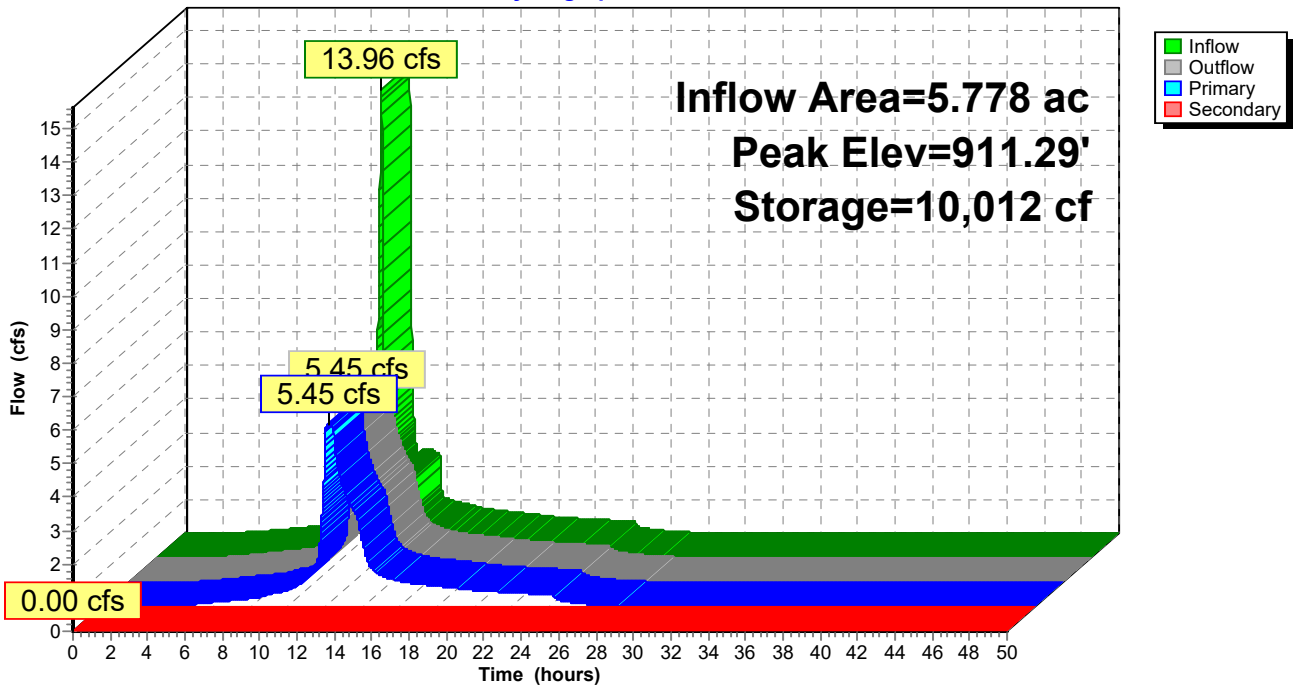
Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=5.45 cfs @ 12.17 hrs HW=911.29' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 5.45 cfs @ 9.06 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING

Hydrograph



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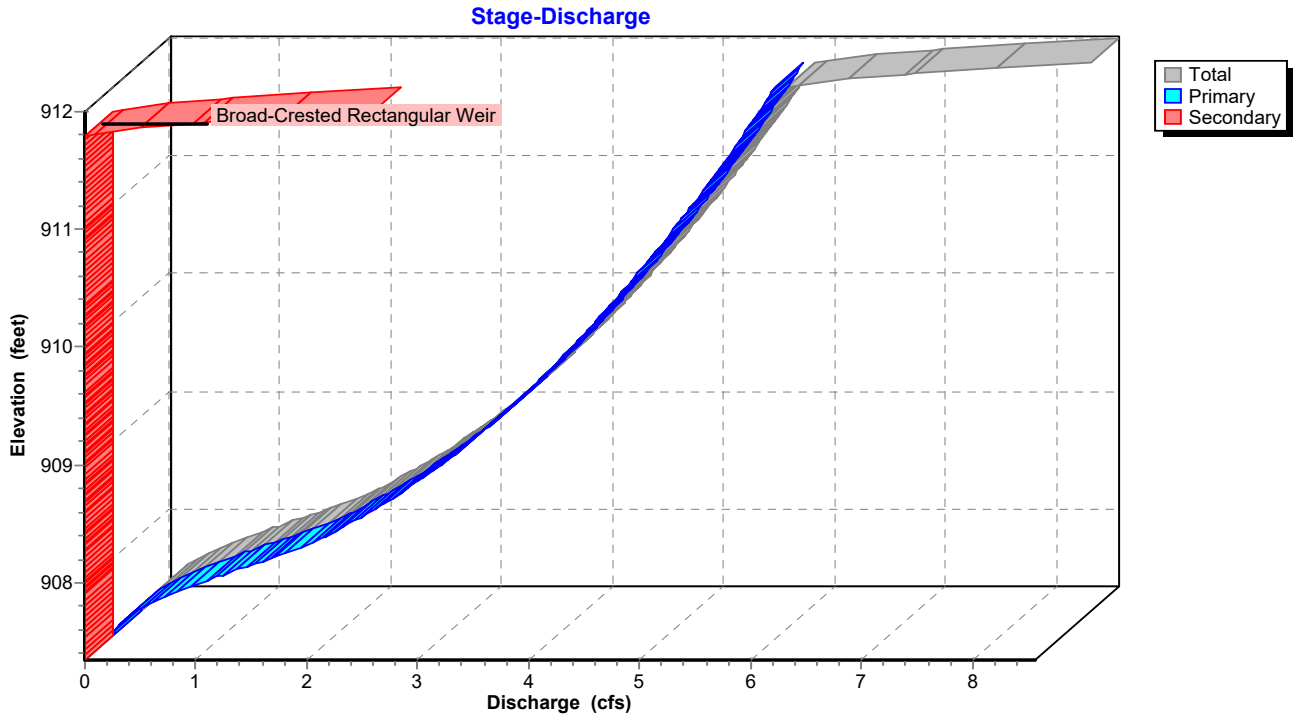
PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

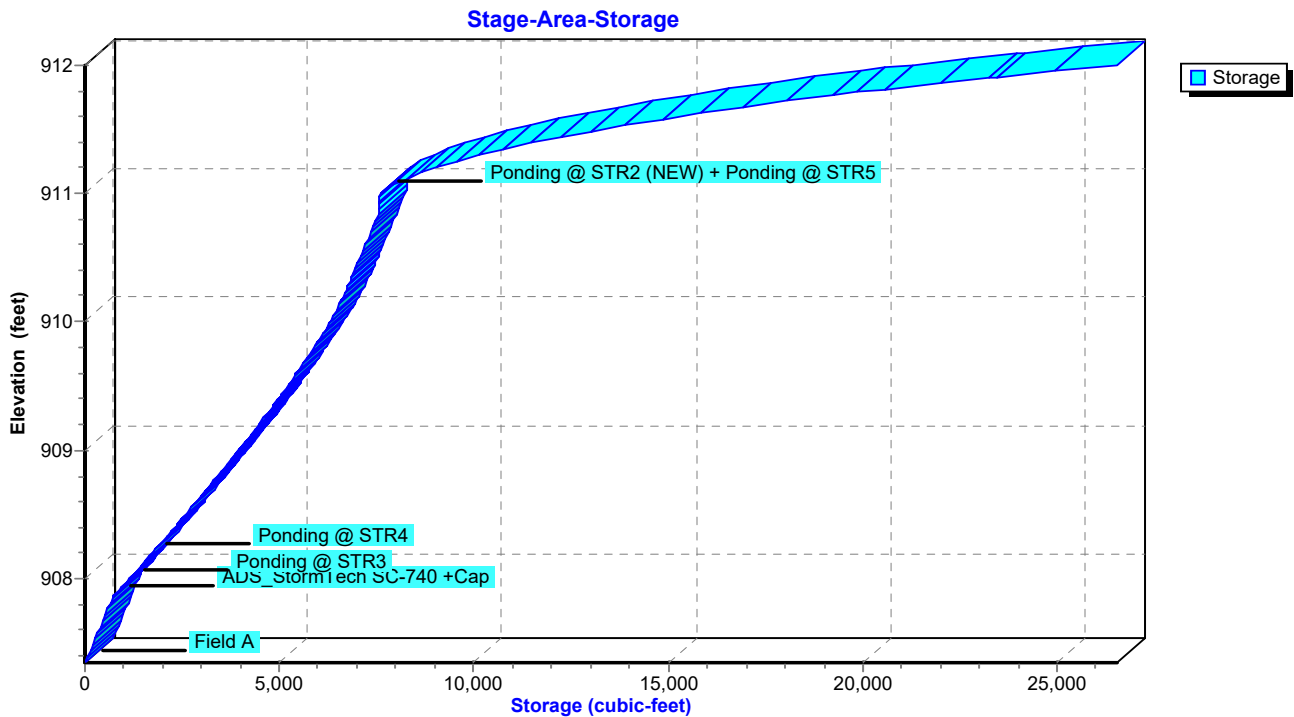
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 3.44" for 10-Year event
 Inflow = 5.65 cfs @ 12.01 hrs, Volume= 0.349 af
 Outflow = 0.40 cfs @ 14.05 hrs, Volume= 0.348 af, Atten= 93%, Lag= 122.6 min
 Primary = 0.40 cfs @ 14.05 hrs, Volume= 0.348 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 910.28' @ 13.07 hrs Surf.Area= 5,569 sf Storage= 8,793 cf

Plug-Flow detention time= 272.3 min calculated for 0.348 af (100% of inflow)
 Center-of-Mass det. time= 271.2 min (1,029.6 - 758.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.40 cfs @ 14.05 hrs HW=910.17' TW=908.13' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.40 cfs @ 6.86 fps)

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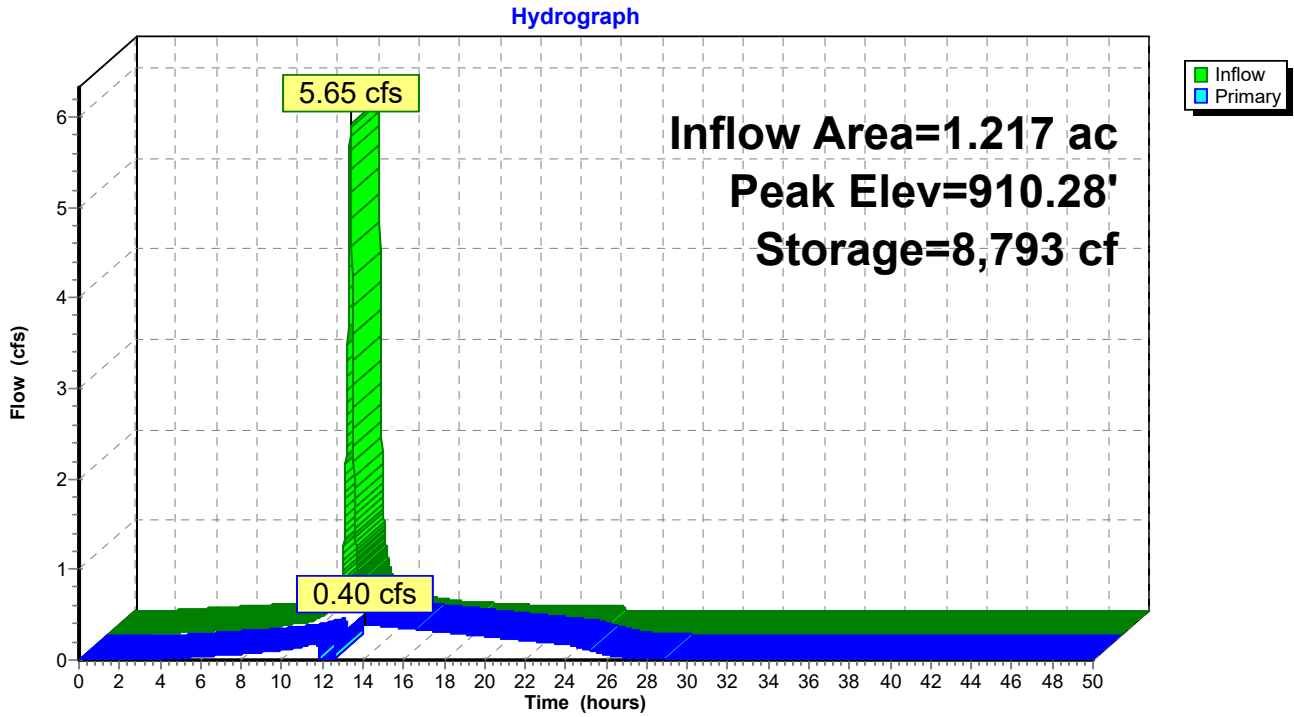
PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

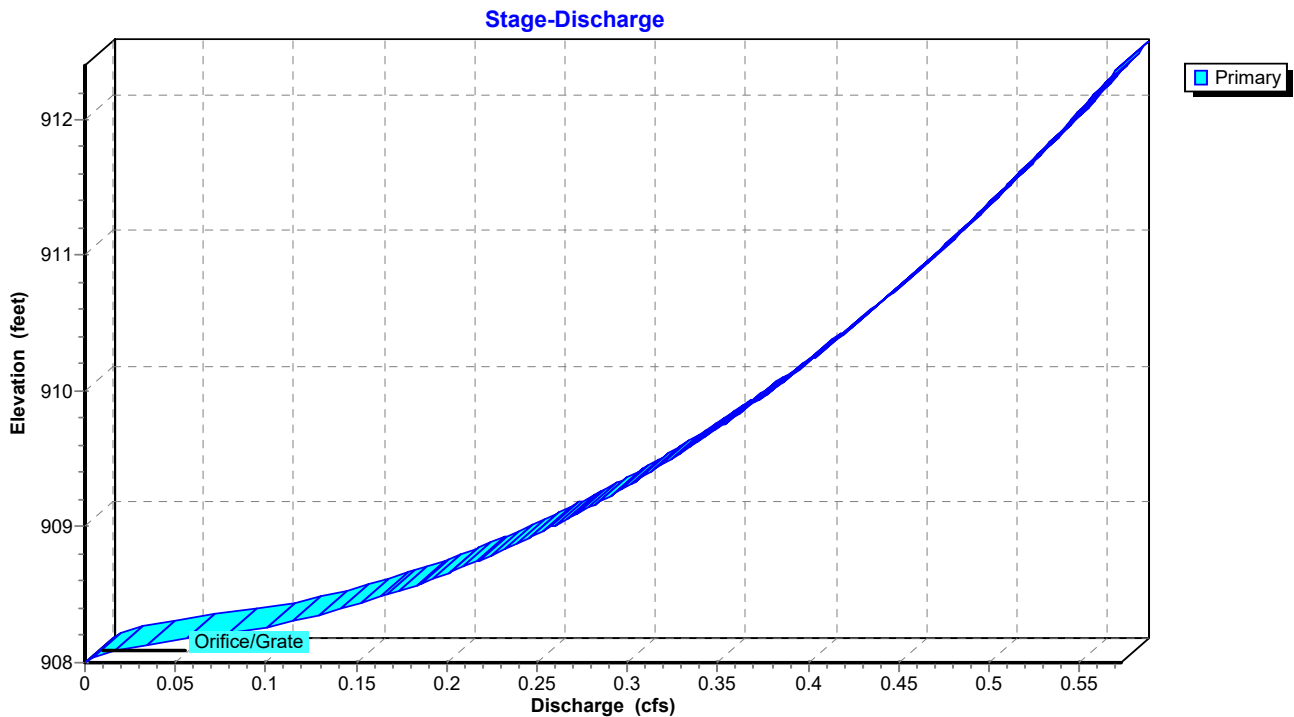
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Pond PP: PORSCHE PONDING



Pond PP: PORSCHE PONDING



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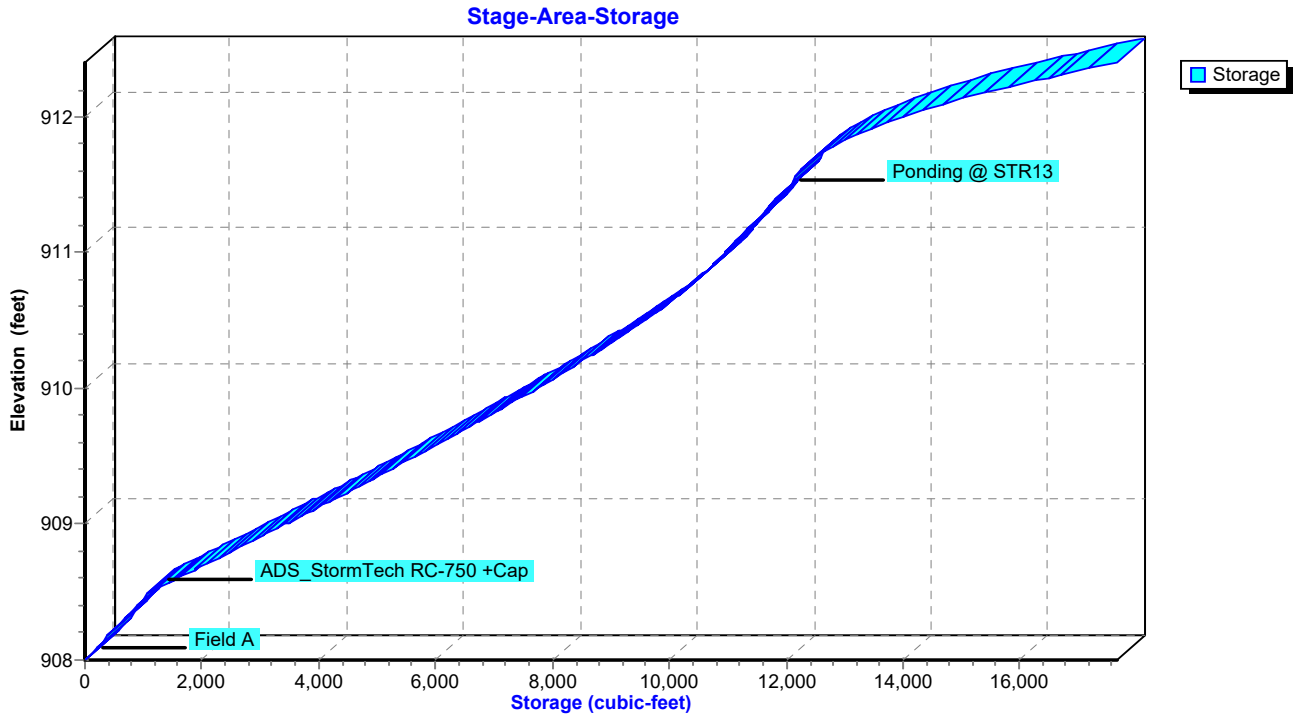
PROPOSED EAST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment XE: STRX

Runoff = 0.56 cfs @ 12.01 hrs, Volume= 0.035 af, Depth= 3.51"

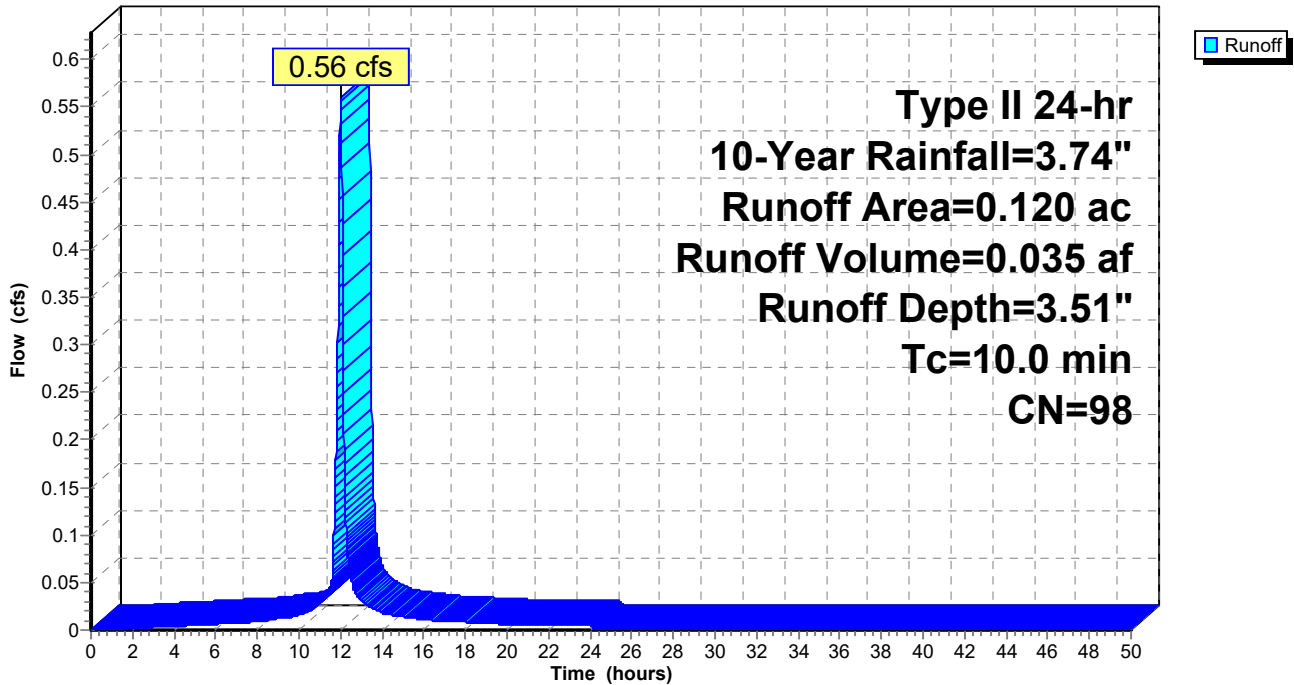
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 1E: STR1

Runoff = 1.77 cfs @ 12.02 hrs, Volume= 0.096 af, Depth= 2.58"

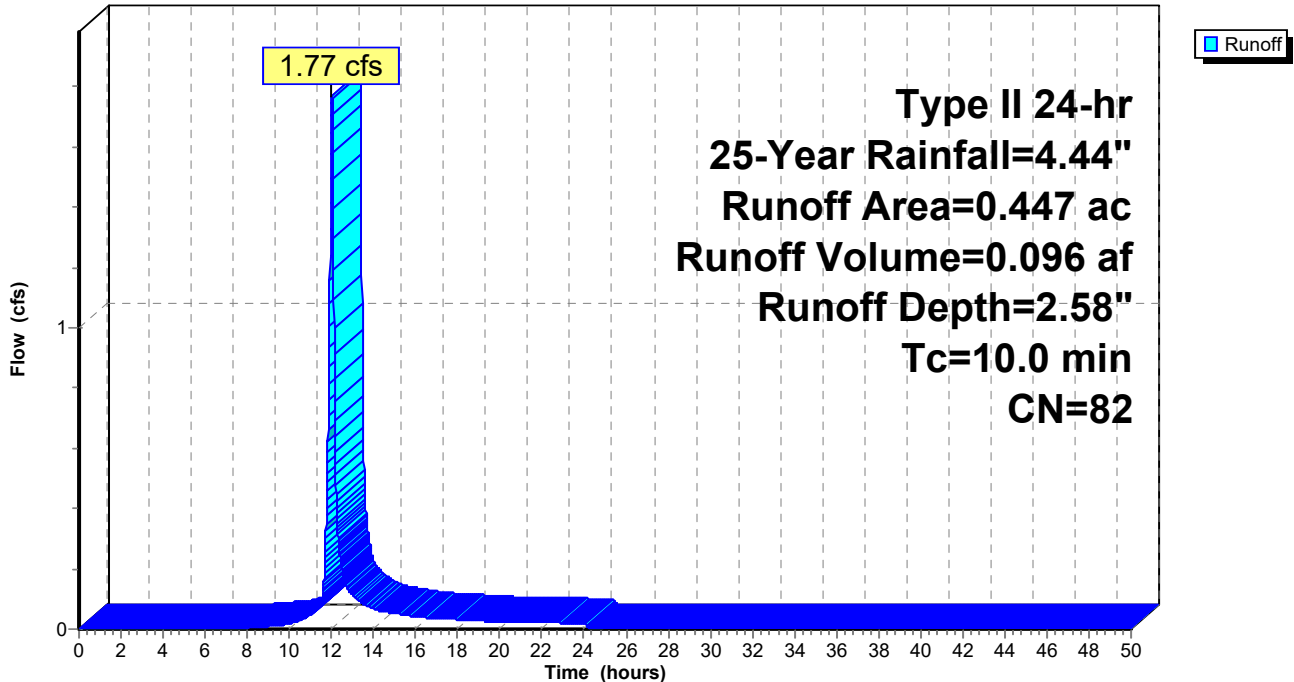
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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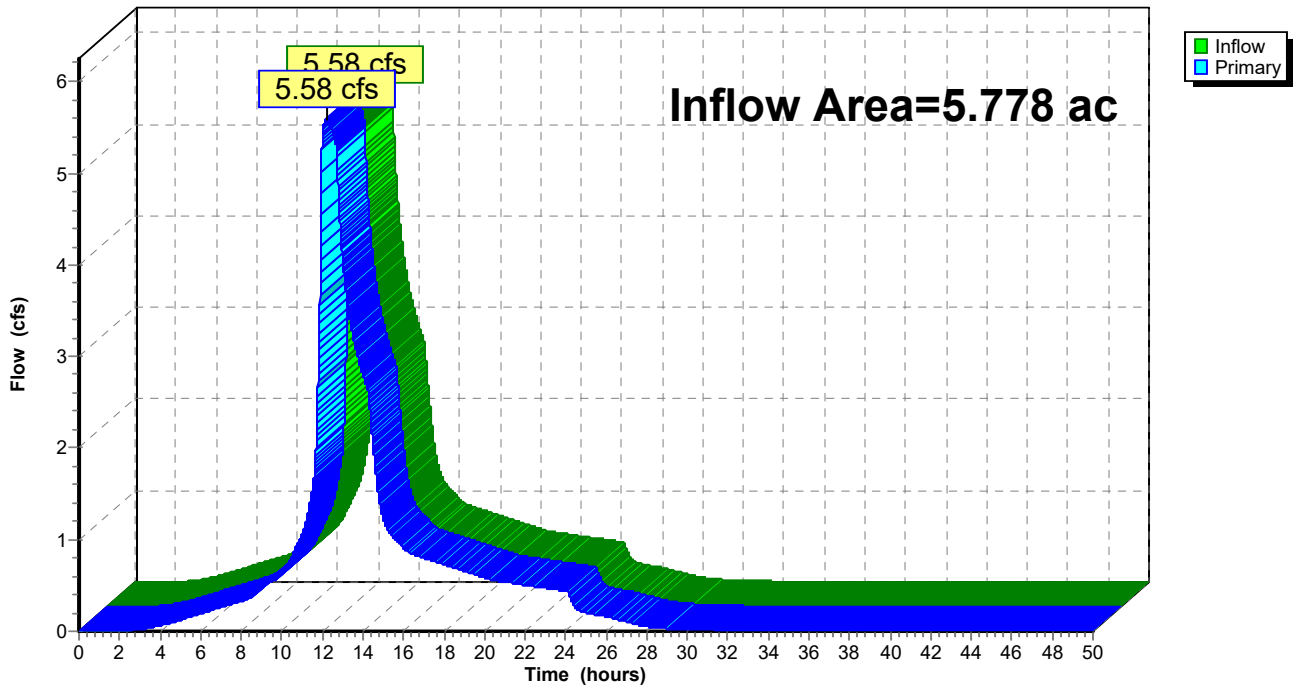
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 3.76" for 25-Year event
Inflow = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af
Primary = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 3E: STR3

Runoff = 2.28 cfs @ 12.01 hrs, Volume= 0.135 af, Depth= 3.76"

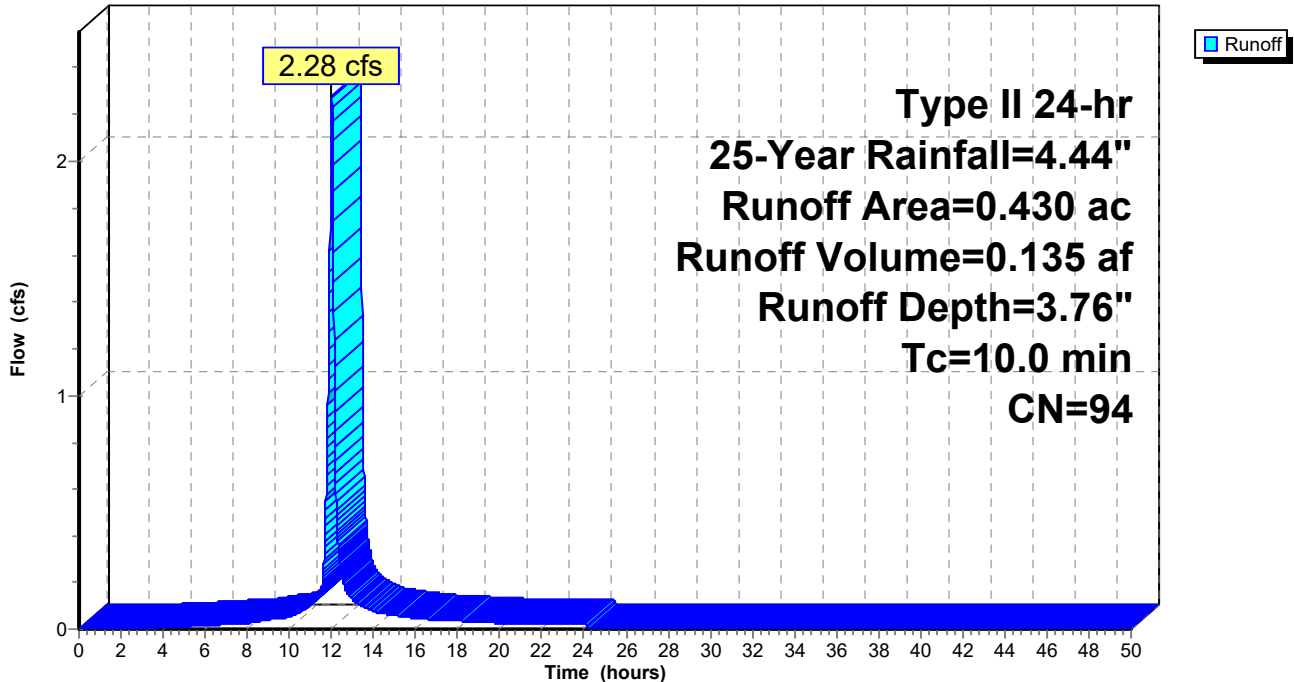
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 4E: STR4

Runoff = 2.24 cfs @ 12.01 hrs, Volume= 0.131 af, Depth= 3.65"

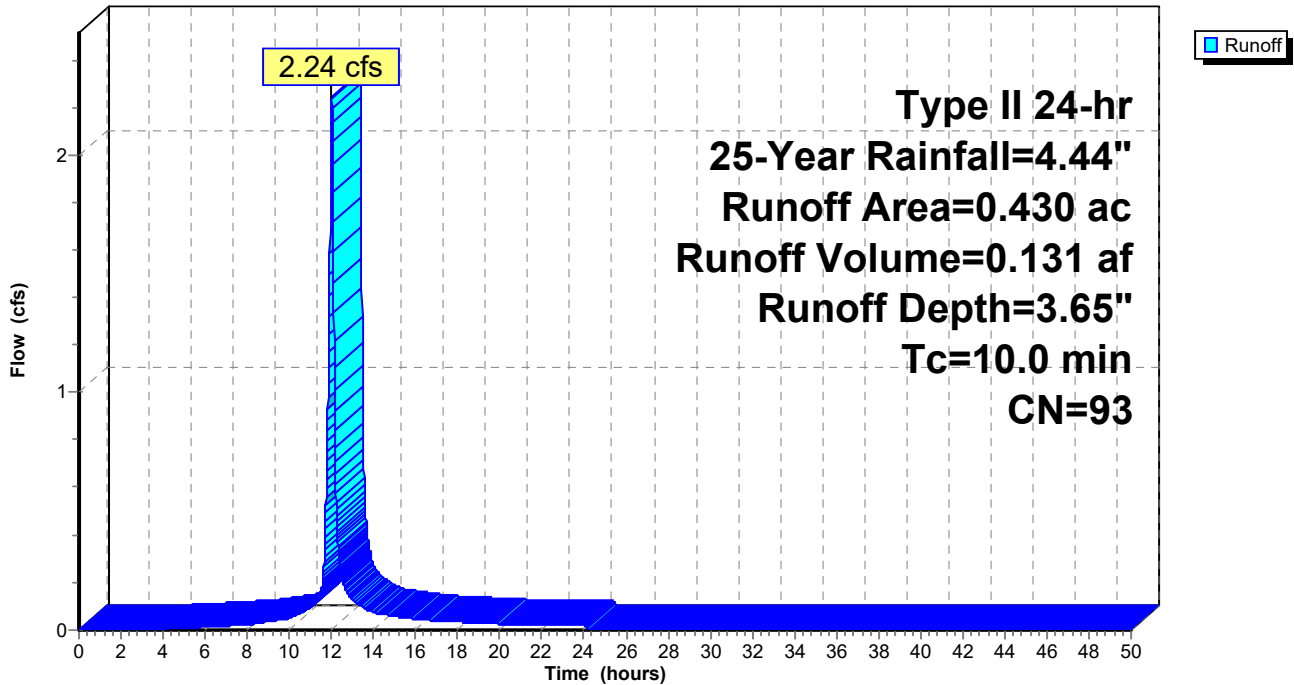
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 5E: STR5

Runoff = 2.85 cfs @ 12.01 hrs, Volume= 0.161 af, Depth= 3.34"

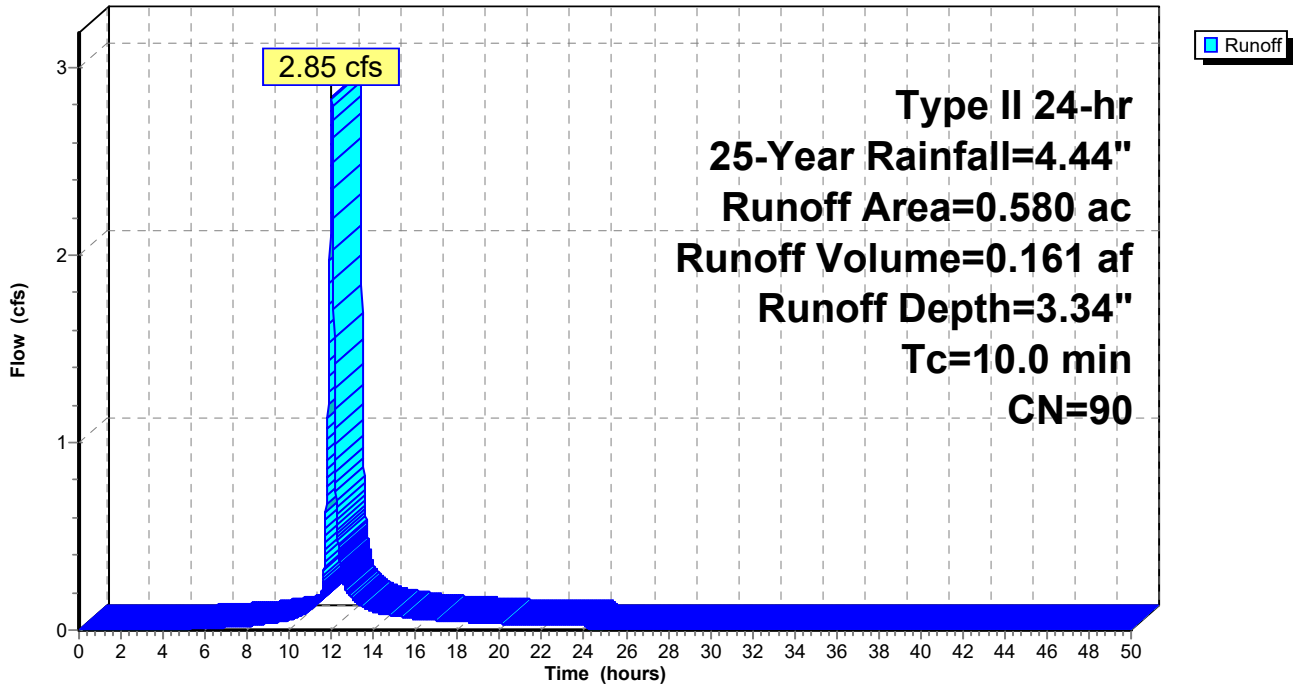
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 8E: STR8

Runoff = 1.78 cfs @ 12.01 hrs, Volume= 0.106 af, Depth= 3.87"

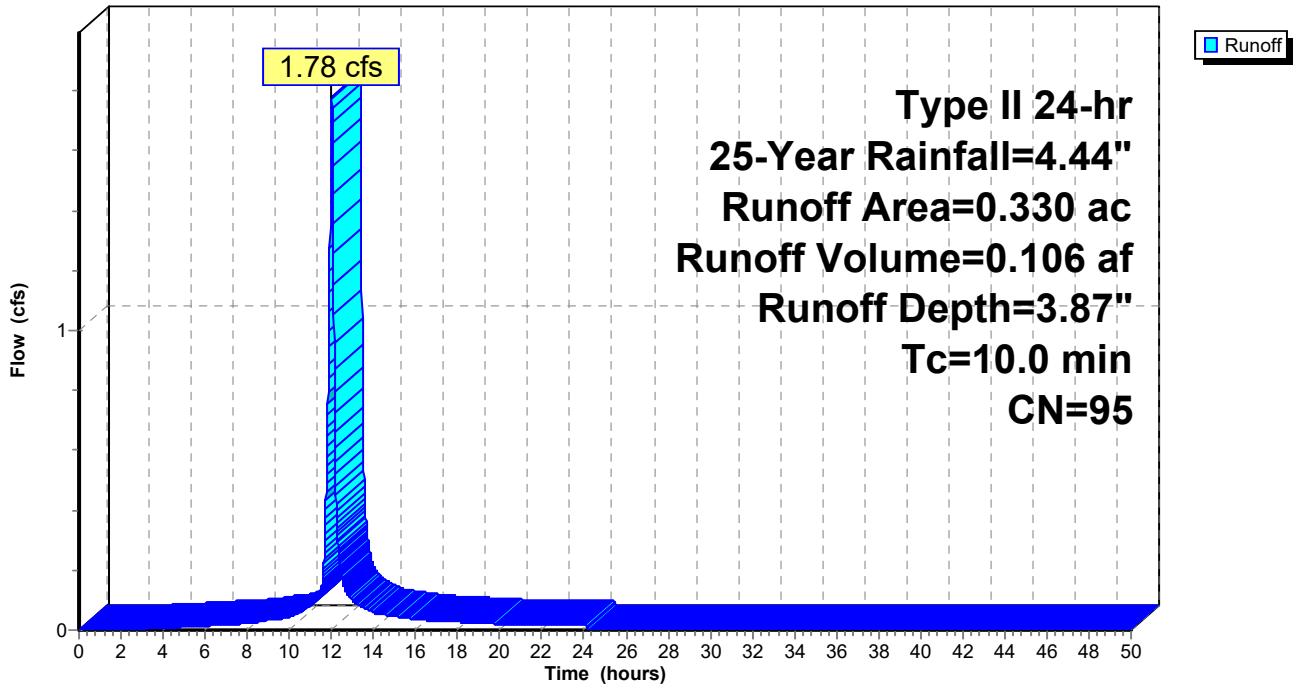
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 3.90" for 25-Year event
 Inflow = 7.76 cfs @ 12.01 hrs, Volume= 0.468 af
 Outflow = 1.56 cfs @ 13.62 hrs, Volume= 0.468 af, Atten= 80%, Lag= 96.8 min
 Primary = 1.56 cfs @ 13.62 hrs, Volume= 0.468 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.37' @ 12.44 hrs Surf.Area= 15,755 sf Storage= 6,578 cf

Plug-Flow detention time= 31.7 min calculated for 0.468 af (100% of inflow)
 Center-of-Mass det. time= 31.3 min (798.5 - 767.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.56 cfs @ 13.62 hrs HW=912.11' TW=908.90' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.56 cfs @ 8.62 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=908.42' TW=907.34' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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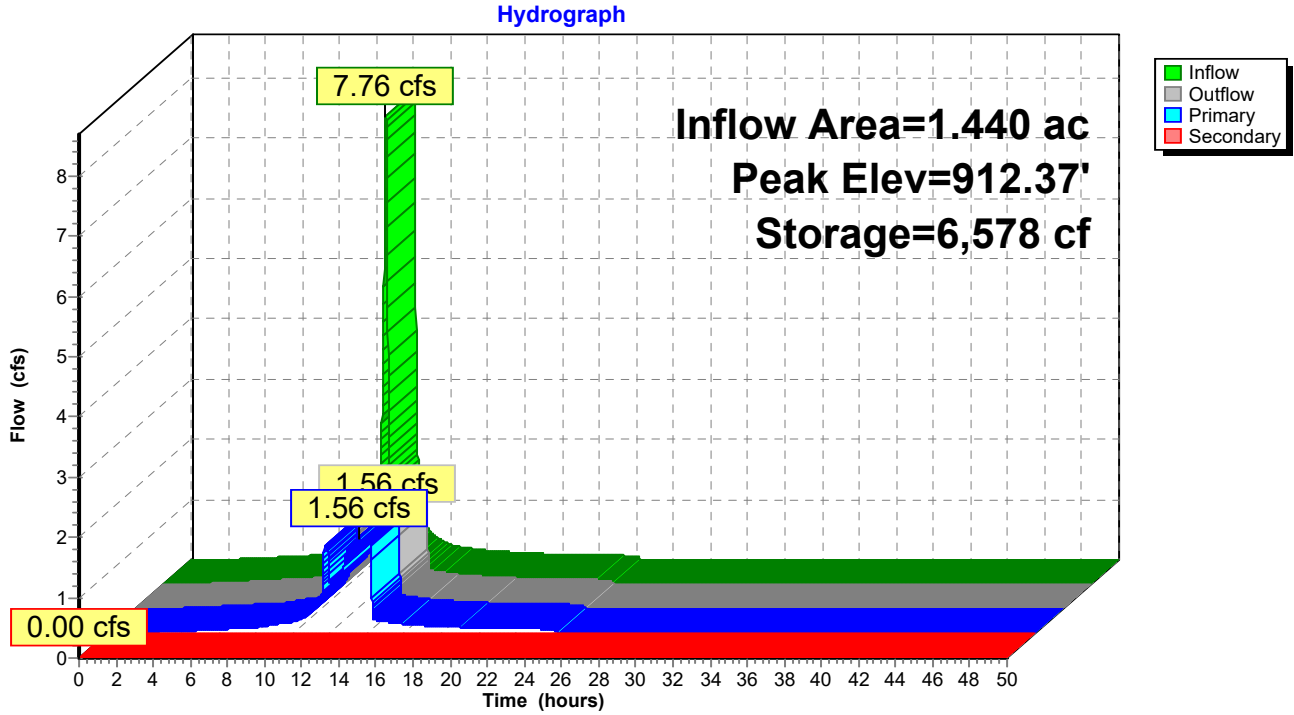
PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

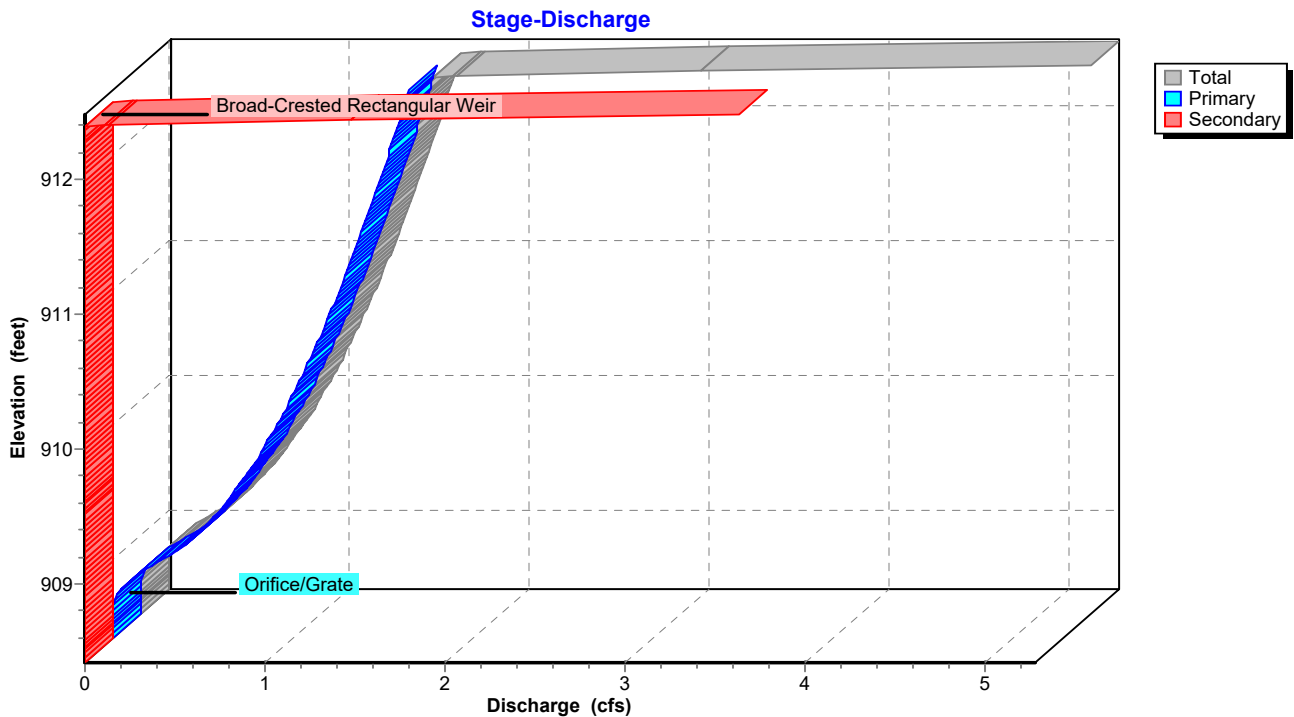
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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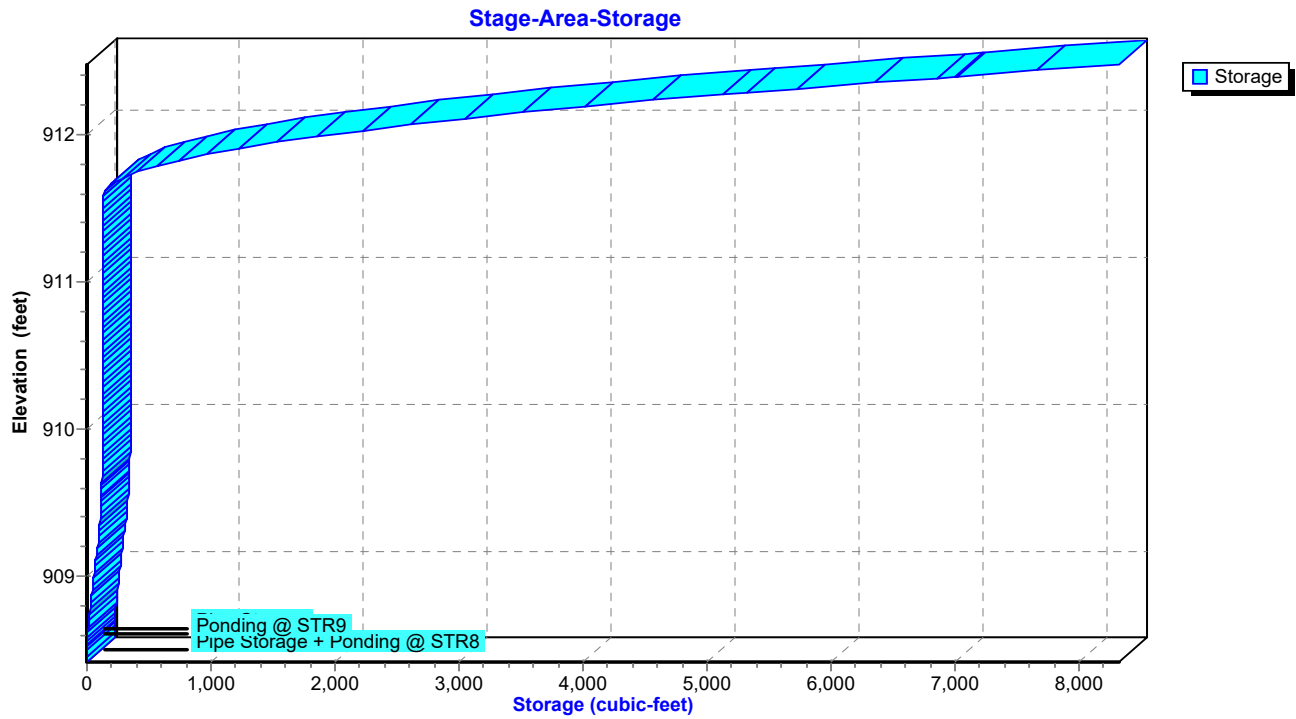
PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Pond 8P: PONDING STR 8-11



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 9E: STR9

Runoff = 2.34 cfs @ 12.01 hrs, Volume= 0.138 af, Depth= 3.76"

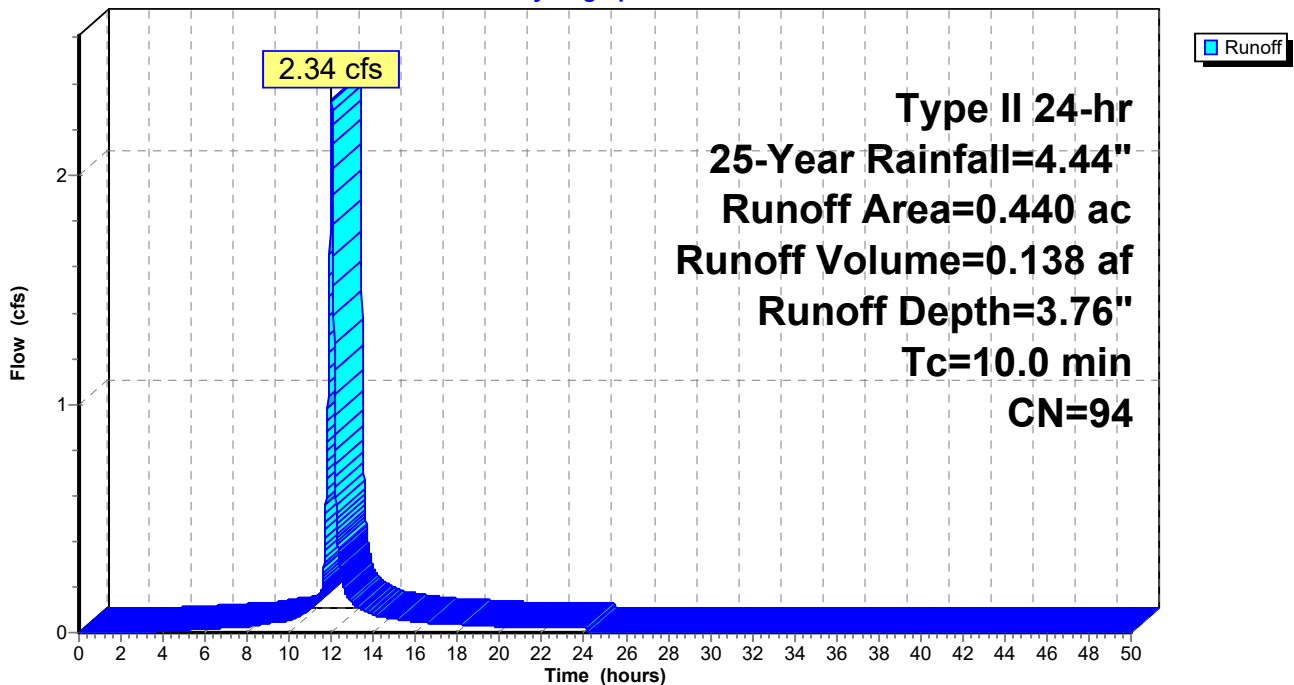
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 10E: STR10

Runoff = 2.67 cfs @ 12.01 hrs, Volume= 0.168 af, Depth= 4.20"

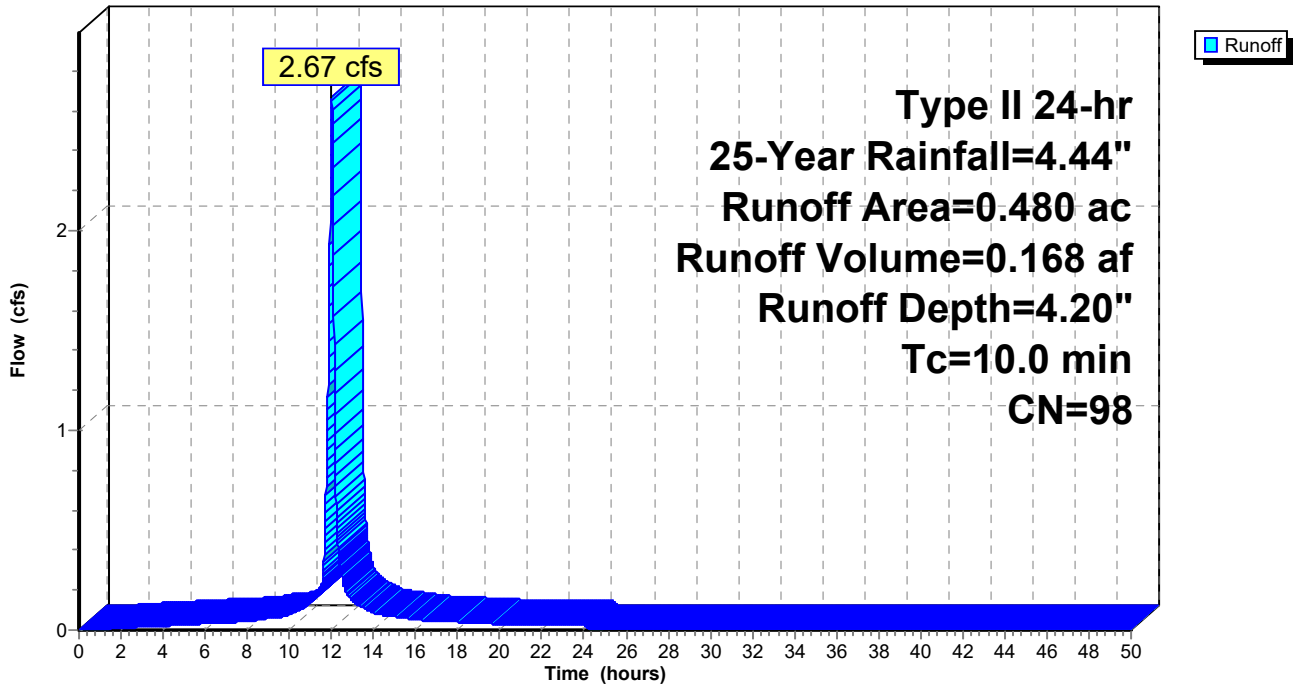
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 11E: STR11

Runoff = 0.97 cfs @ 12.01 hrs, Volume= 0.056 af, Depth= 3.54"

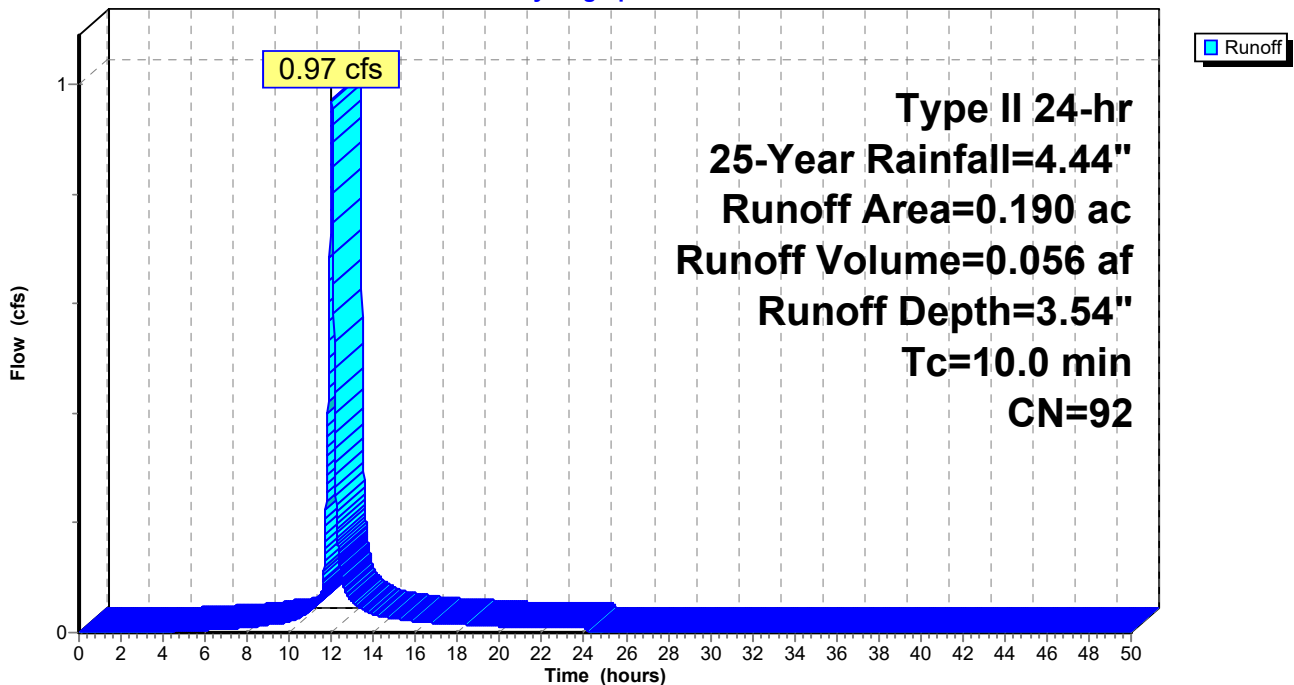
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 13S: STR13

Runoff = 4.03 cfs @ 12.01 hrs, Volume= 0.249 af, Depth= 4.09"

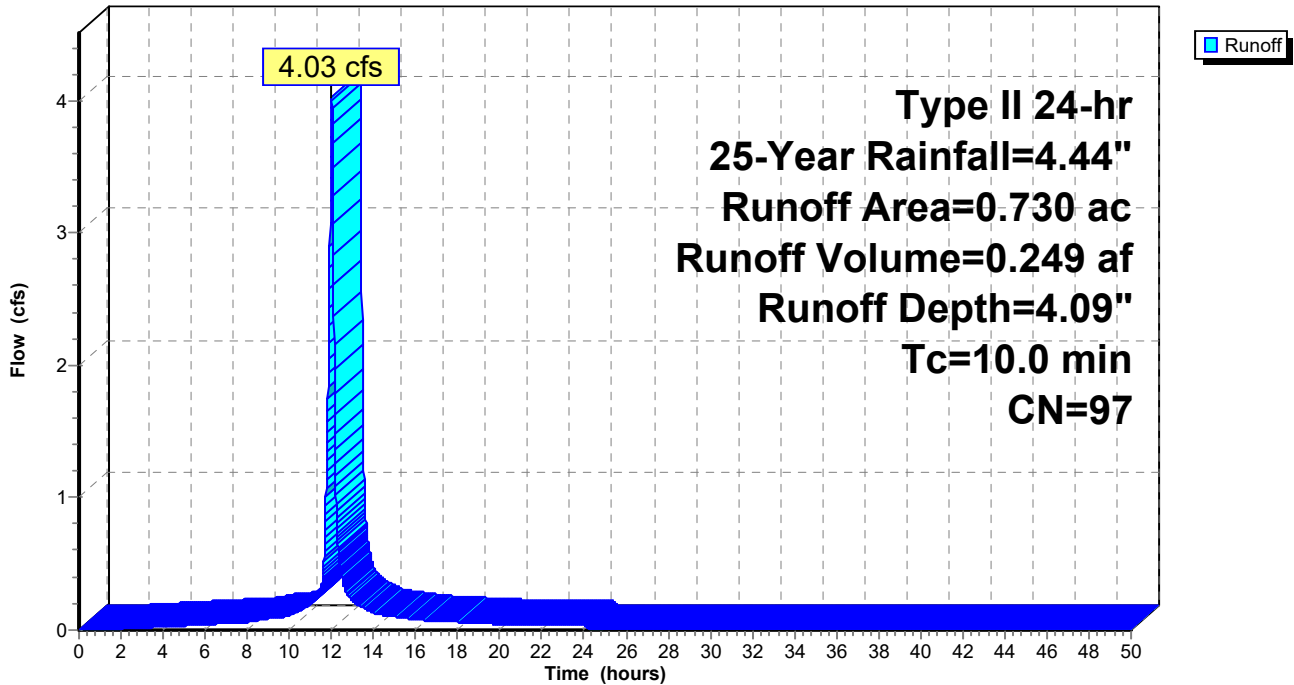
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 3.93 cfs @ 12.01 hrs, Volume= 0.232 af, Depth= 3.76"

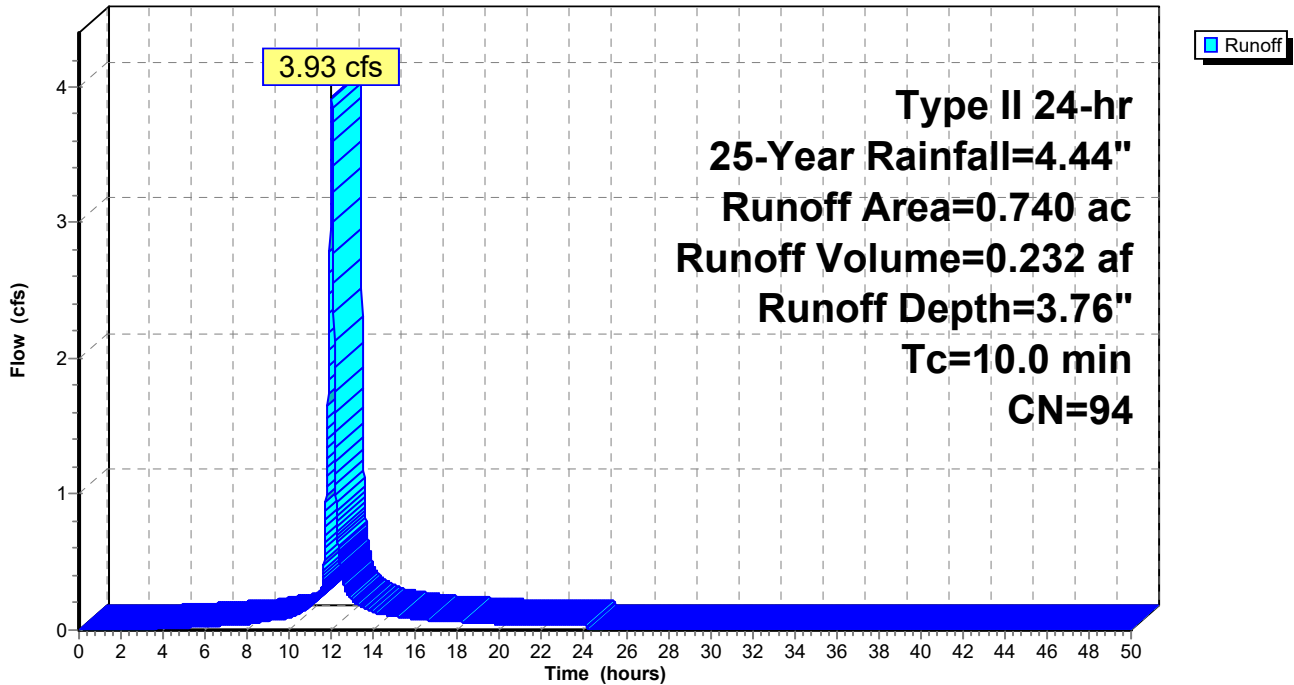
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 2.71 cfs @ 12.01 hrs, Volume= 0.171 af, Depth= 4.20"

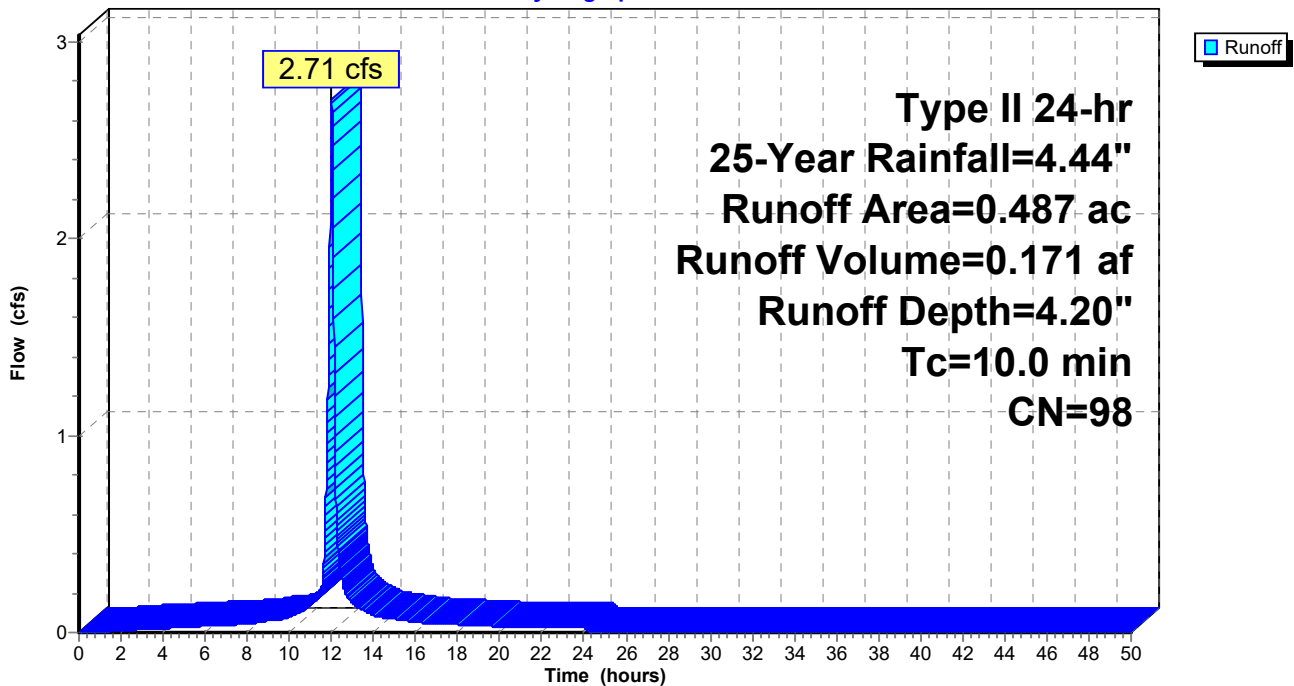
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 1.29 cfs @ 12.01 hrs, Volume= 0.080 af, Depth= 4.09"

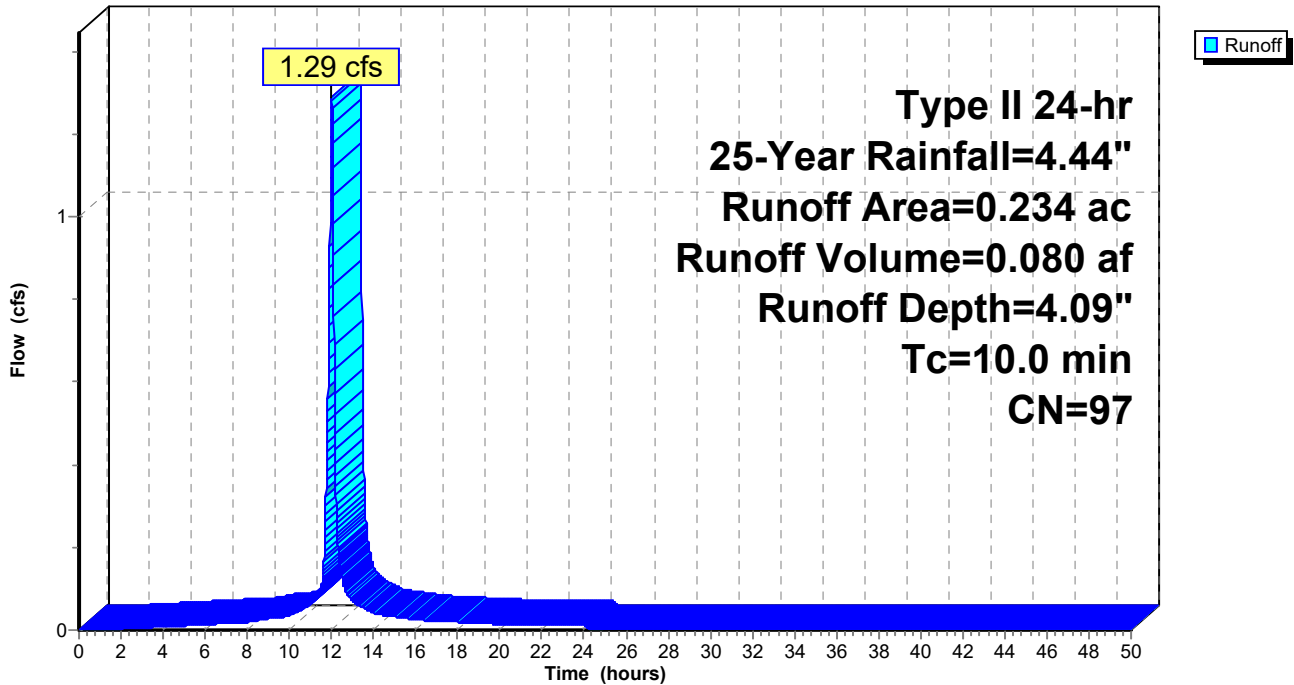
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.76 cfs @ 12.01 hrs, Volume= 0.046 af, Depth= 3.98"

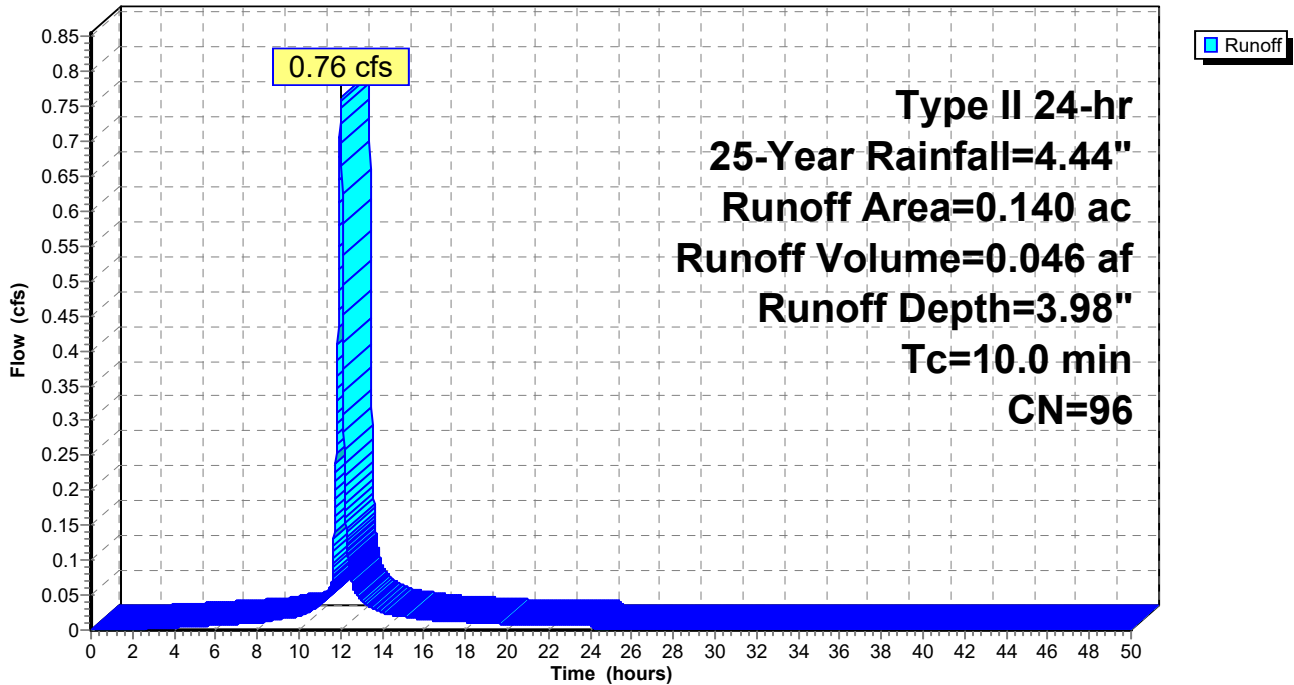
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 3.76" for 25-Year event
 Inflow = 16.64 cfs @ 12.01 hrs, Volume= 1.810 af
 Outflow = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af, Atten= 66%, Lag= 10.6 min
 Primary = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.47' @ 12.19 hrs Surf.Area= 21,632 sf Storage= 12,669 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 20.4 min (870.2 - 849.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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PROPOSED EAST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

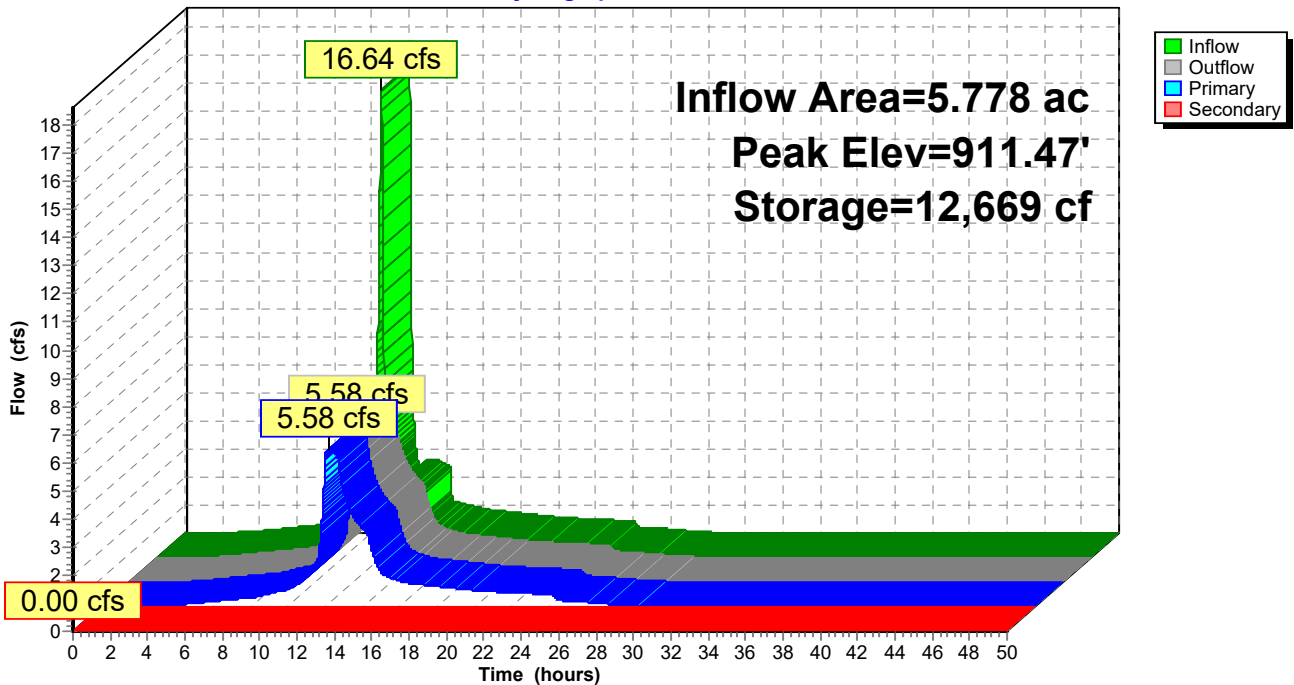
Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=5.58 cfs @ 12.19 hrs HW=911.47' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 5.58 cfs @ 9.29 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING

Hydrograph



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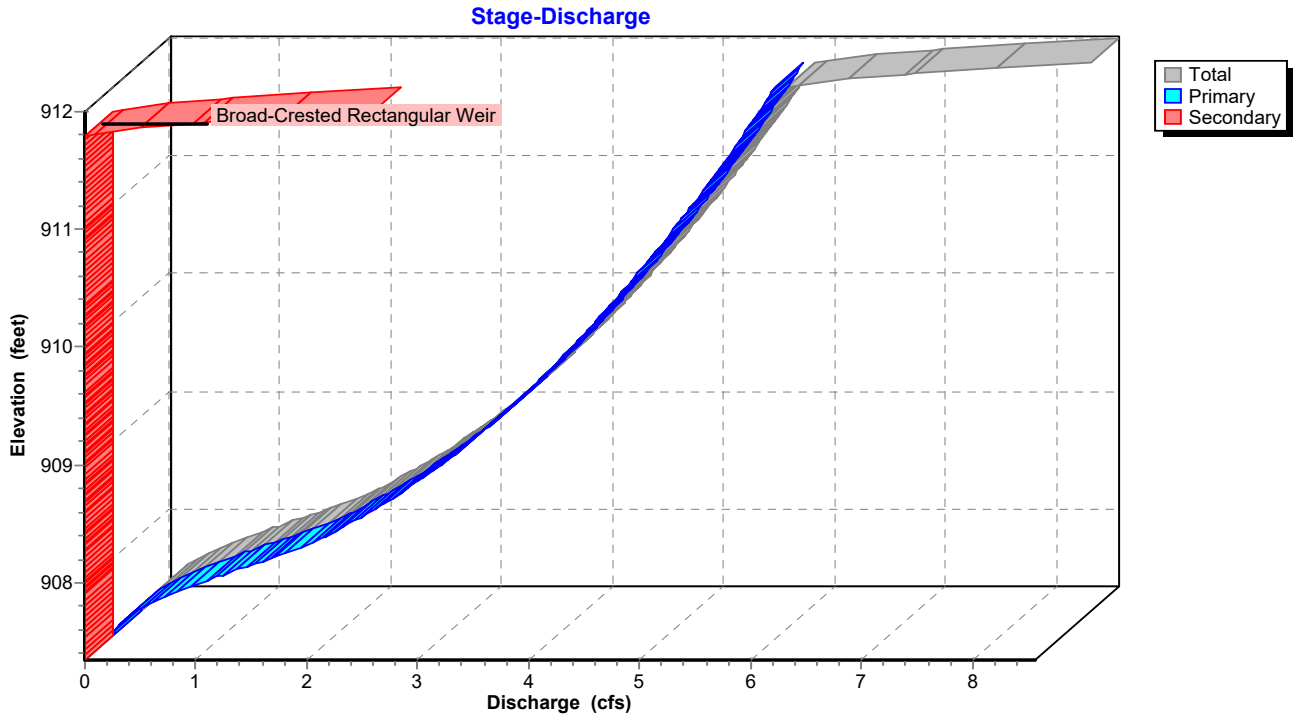
PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

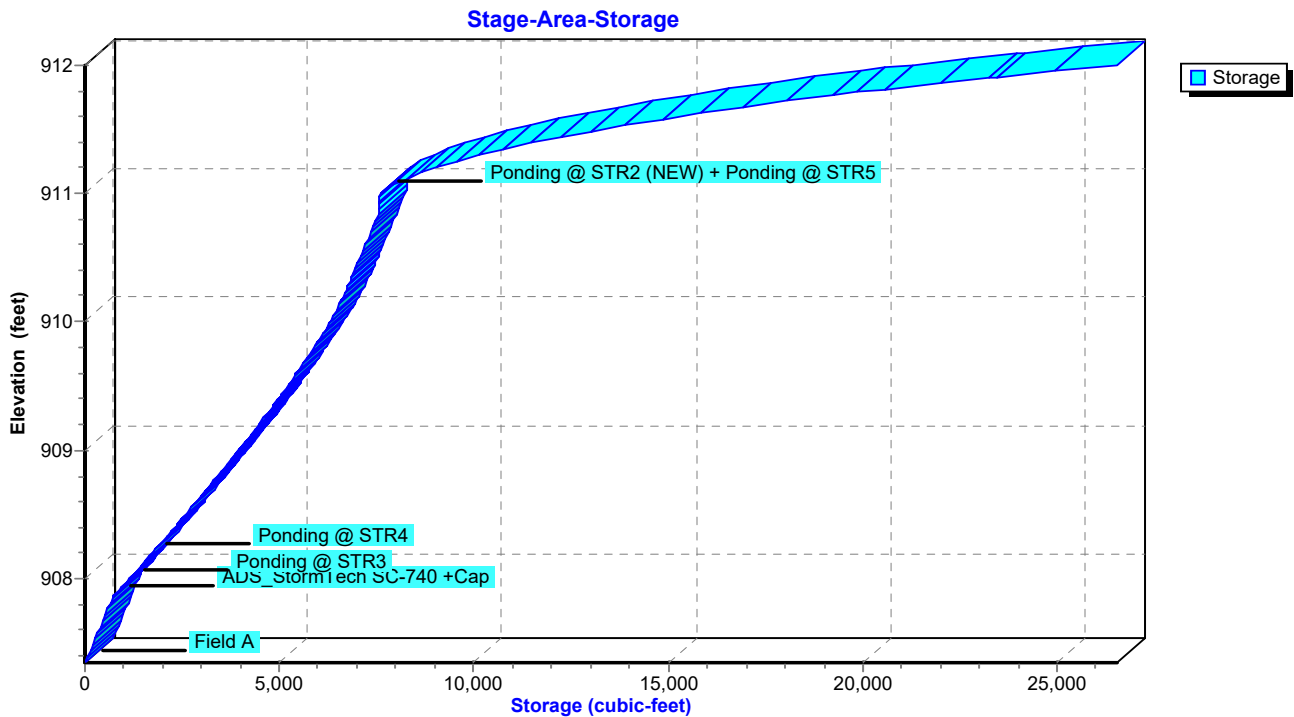
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 4.14" for 25-Year event
 Inflow = 6.74 cfs @ 12.01 hrs, Volume= 0.419 af
 Outflow = 0.44 cfs @ 14.60 hrs, Volume= 0.419 af, Atten= 94%, Lag= 155.4 min
 Primary = 0.44 cfs @ 14.60 hrs, Volume= 0.419 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 910.93' @ 13.13 hrs Surf.Area= 5,569 sf Storage= 10,803 cf

Plug-Flow detention time= 301.8 min calculated for 0.419 af (100% of inflow)
 Center-of-Mass det. time= 301.1 min (1,055.8 - 754.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.44 cfs @ 14.60 hrs HW=910.63' TW=908.13' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.44 cfs @ 7.60 fps)

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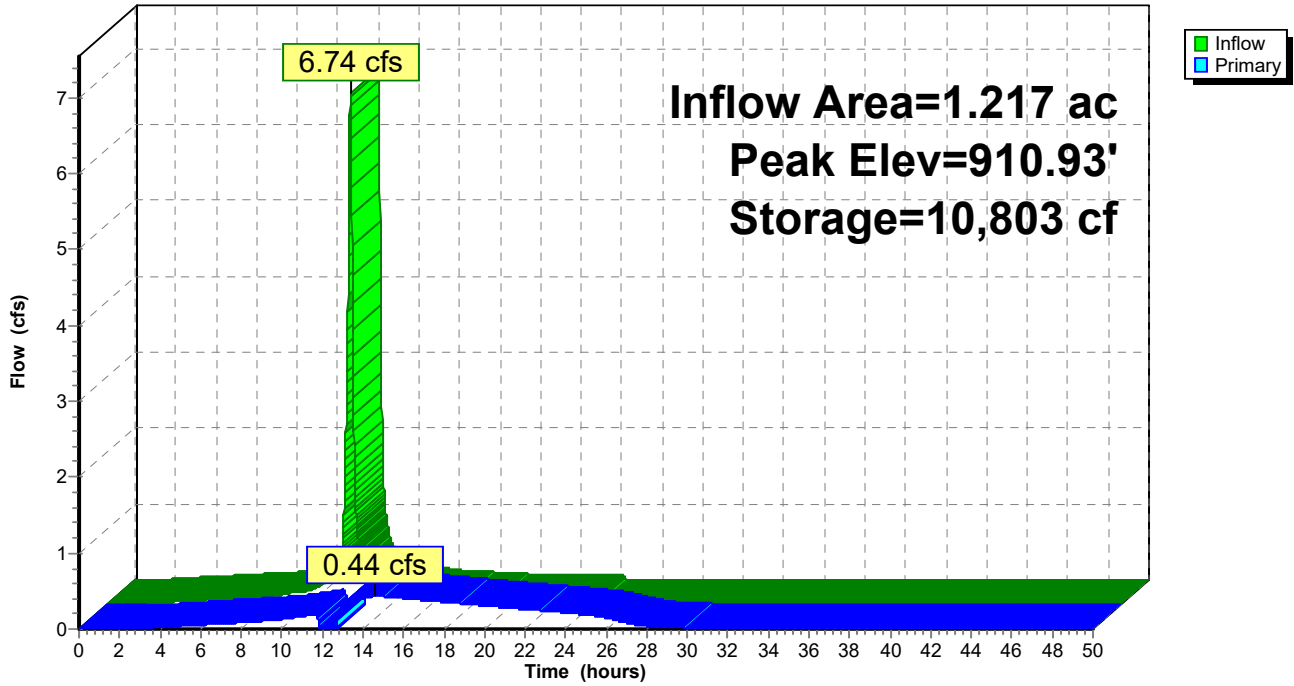
Type II 24-hr 25-Year Rainfall=4.44"

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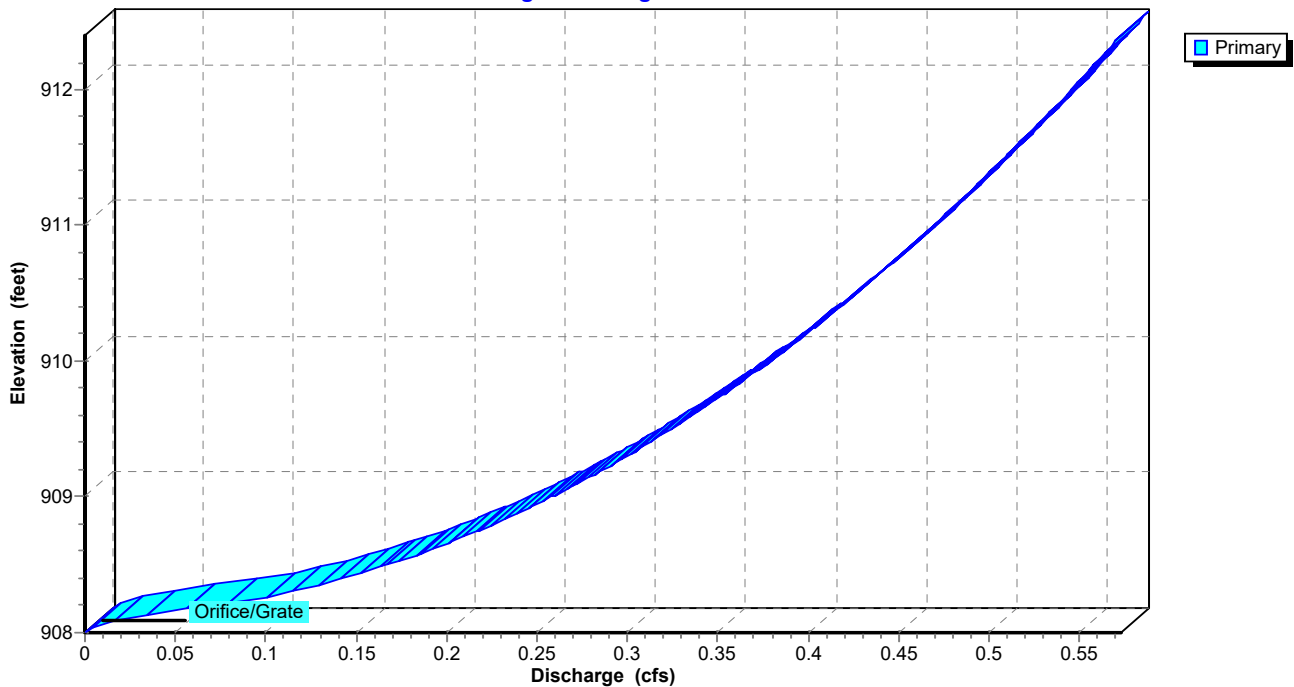
Pond PP: PORSCHE PONDING

Hydrograph



Pond PP: PORSCHE PONDING

Stage-Discharge



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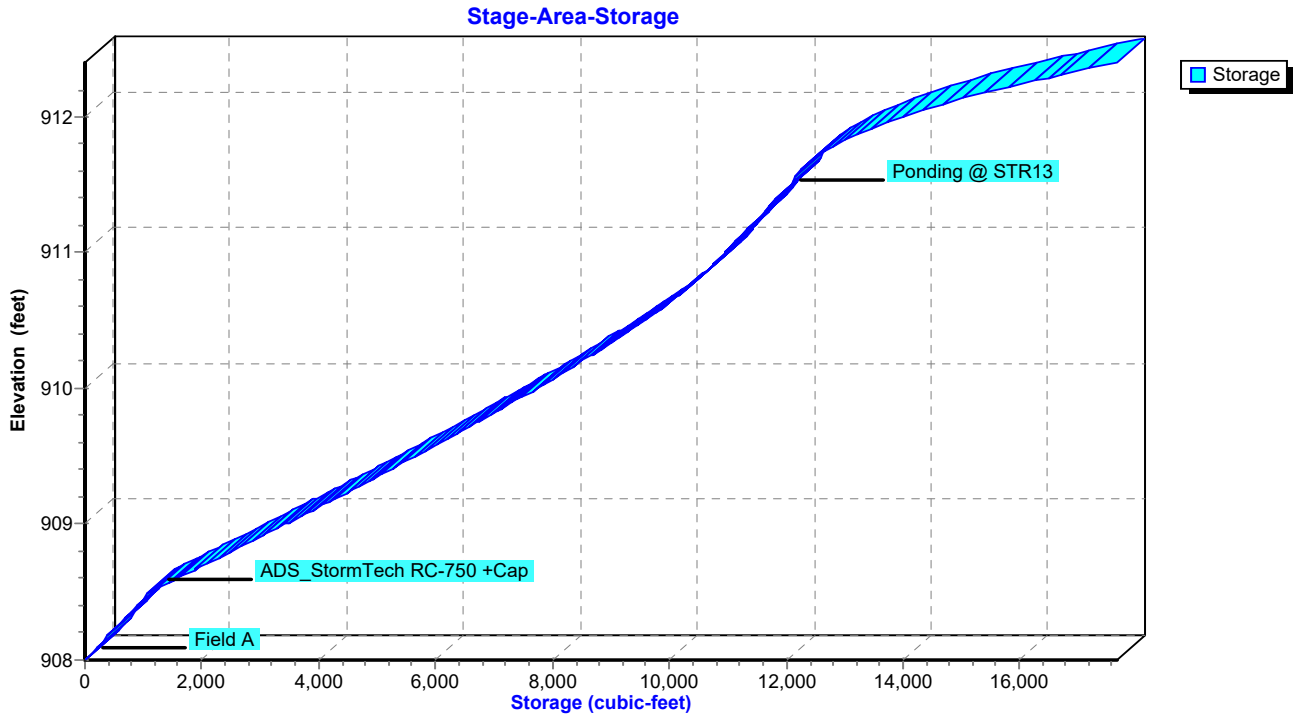
PROPOSED EAST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment XE: STRX

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.042 af, Depth= 4.20"

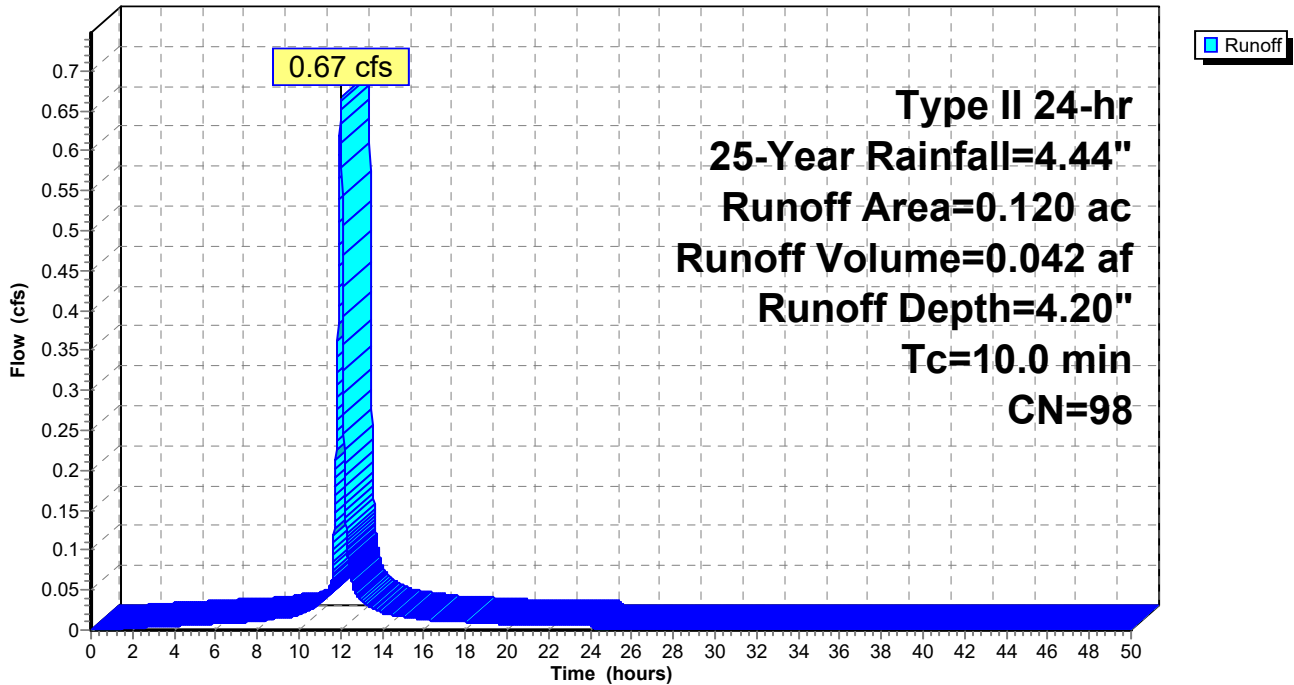
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 1E: STR1

Runoff = 2.11 cfs @ 12.01 hrs, Volume= 0.115 af, Depth= 3.10"

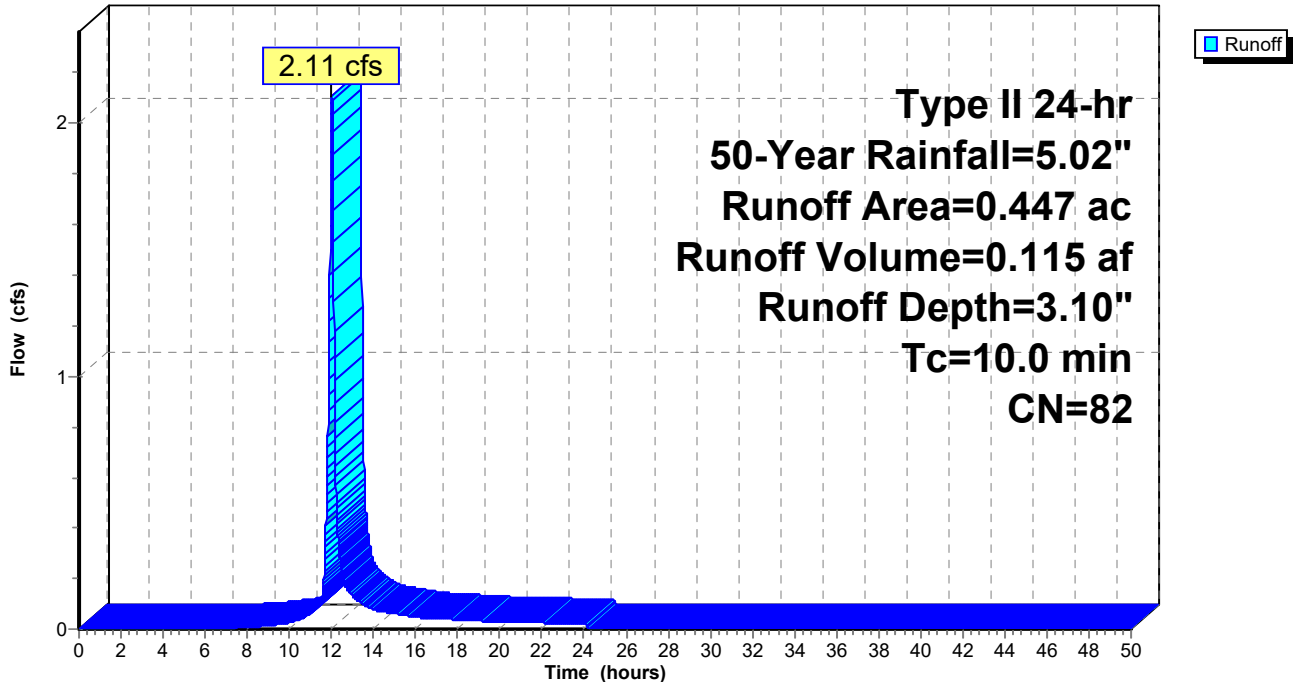
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

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Type II 24-hr 50-Year Rainfall=5.02"

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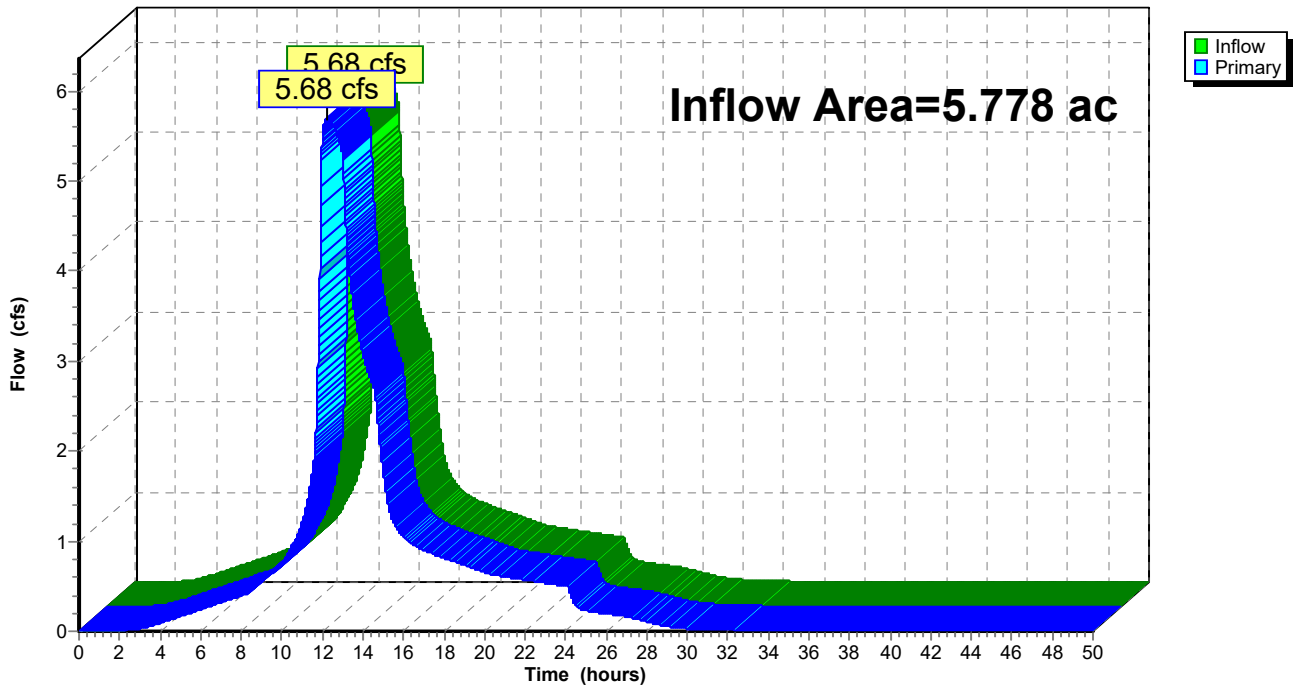
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 4.33" for 50-Year event
Inflow = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af
Primary = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 3E: STR3

Runoff = 2.61 cfs @ 12.01 hrs, Volume= 0.155 af, Depth= 4.33"

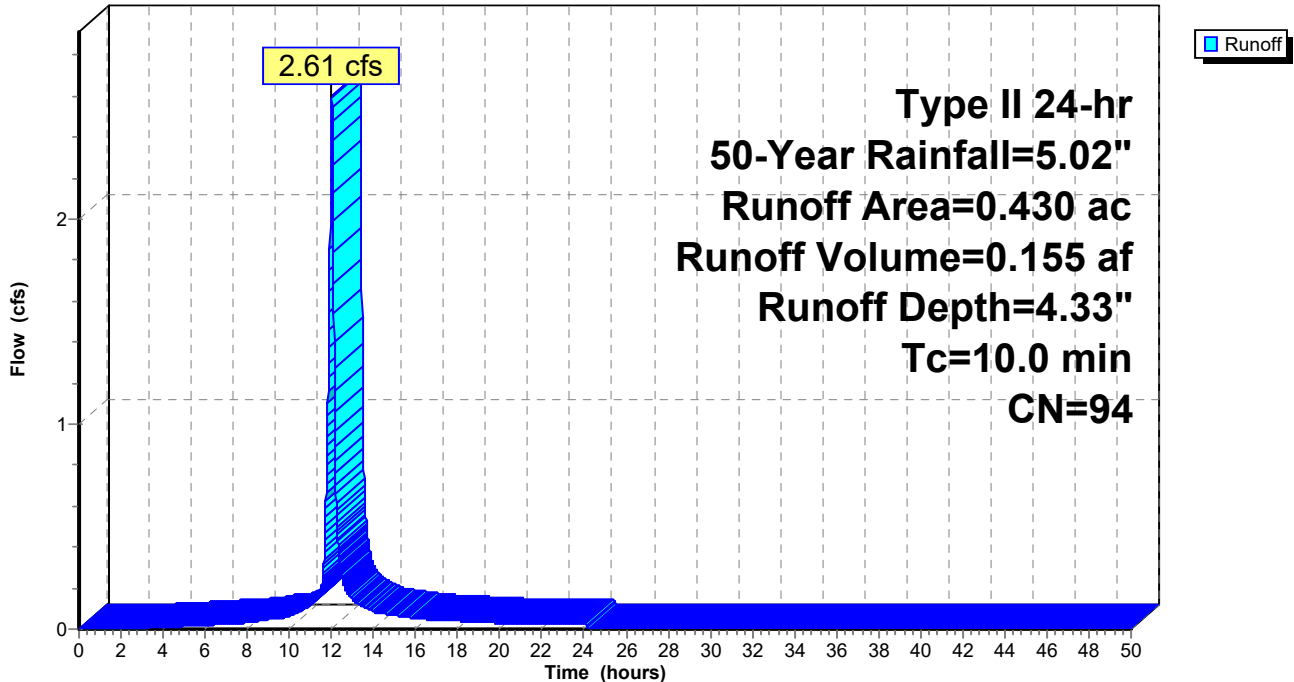
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 4E: STR4

Runoff = 2.57 cfs @ 12.01 hrs, Volume= 0.151 af, Depth= 4.22"

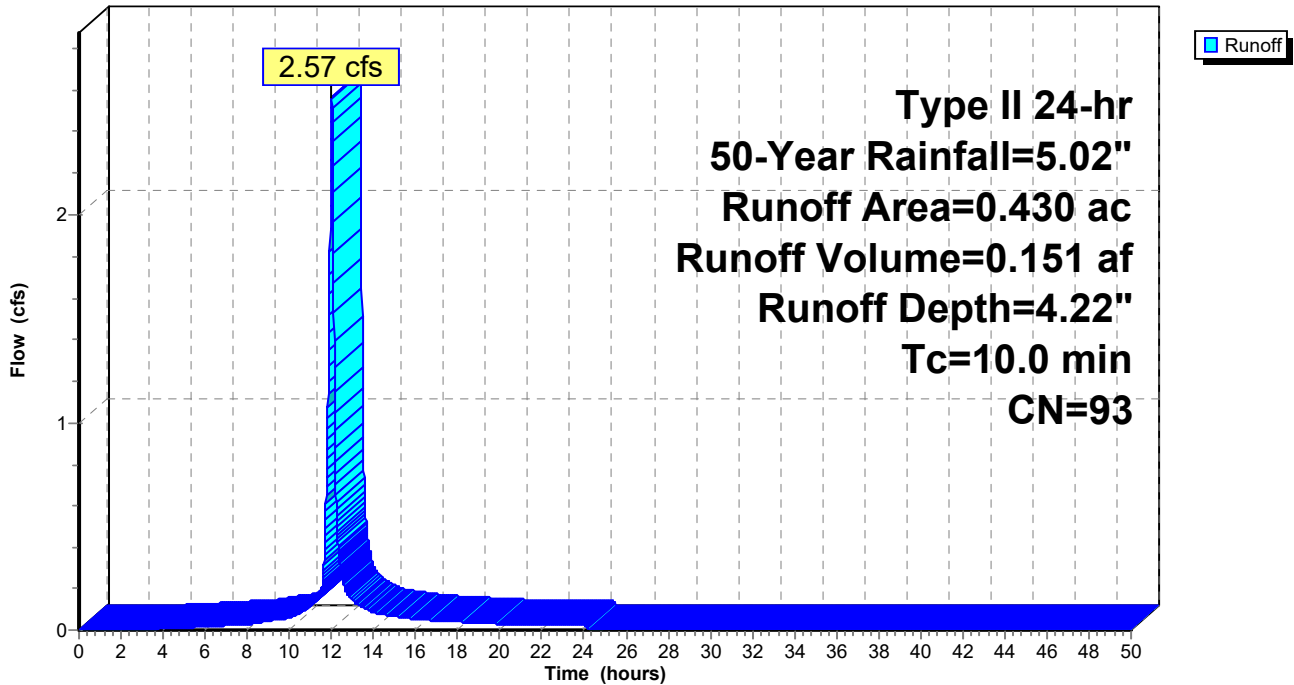
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 5E: STR5

Runoff = 3.30 cfs @ 12.01 hrs, Volume= 0.188 af, Depth= 3.90"

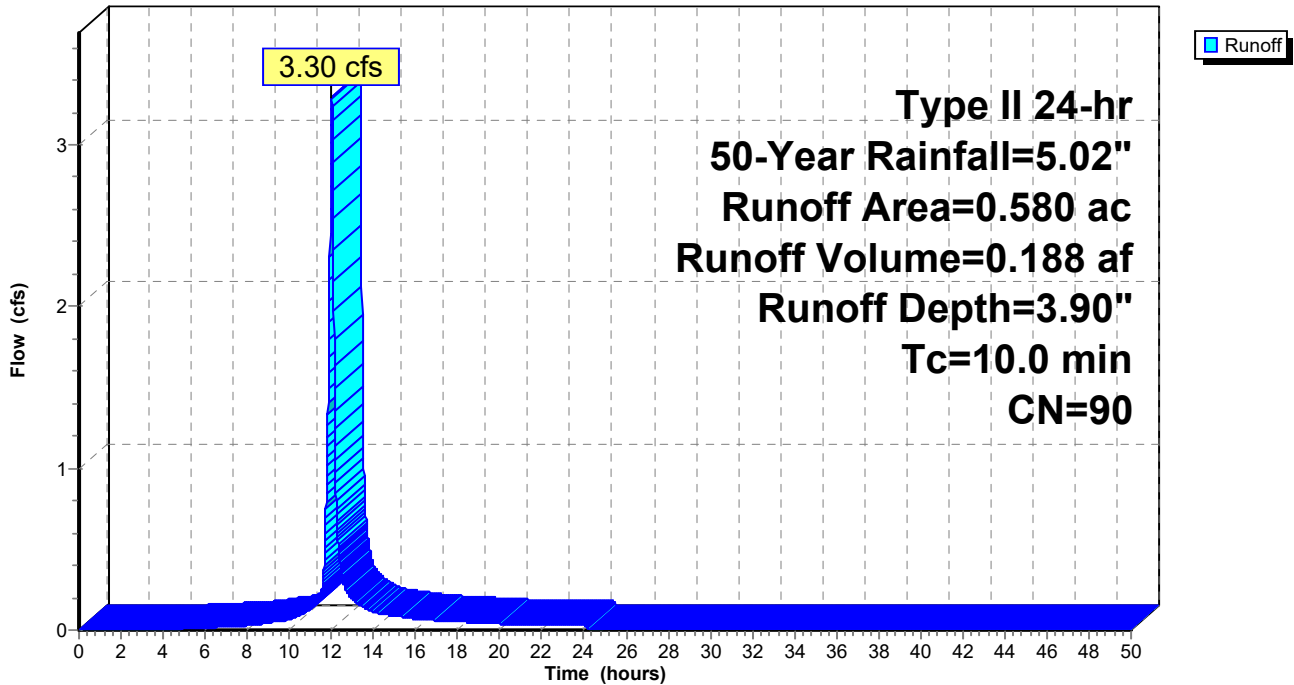
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 8E: STR8

Runoff = 2.03 cfs @ 12.01 hrs, Volume= 0.122 af, Depth= 4.44"

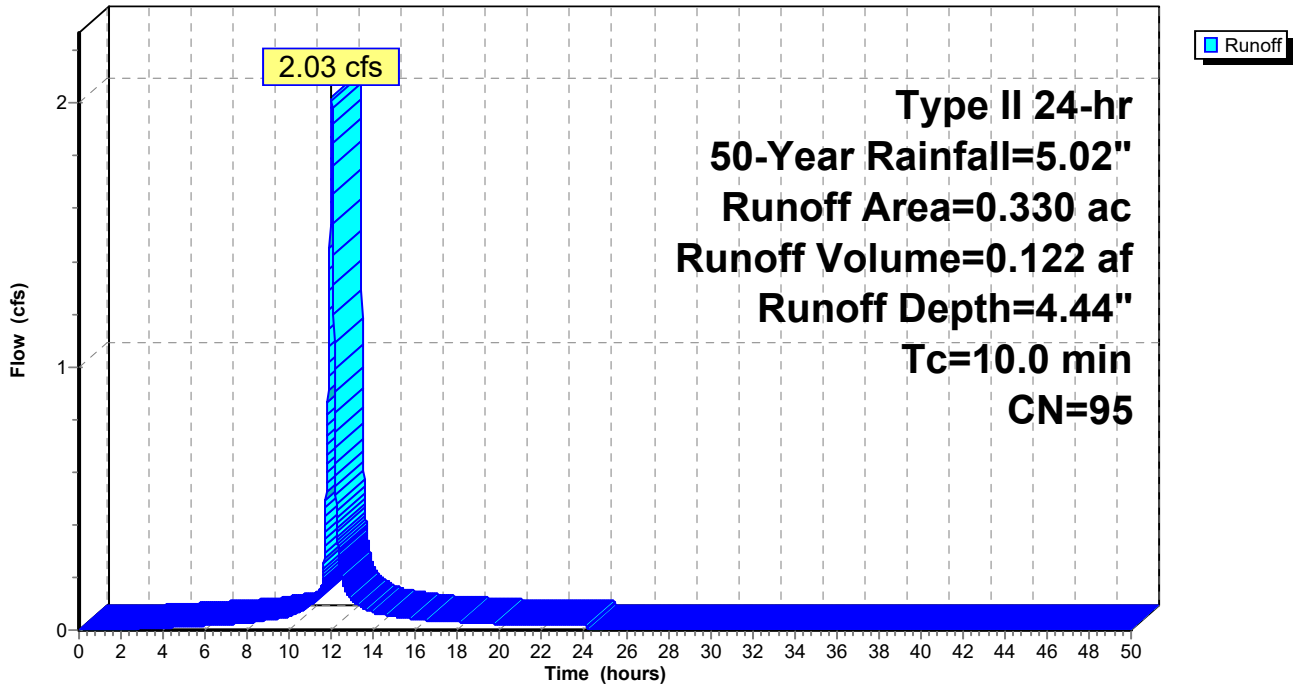
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 4.48" for 50-Year event
 Inflow = 8.83 cfs @ 12.01 hrs, Volume= 0.537 af
 Outflow = 1.69 cfs @ 12.26 hrs, Volume= 0.537 af, Atten= 81%, Lag= 15.1 min
 Primary = 1.55 cfs @ 13.97 hrs, Volume= 0.514 af
 Secondary = 0.89 cfs @ 12.26 hrs, Volume= 0.023 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.43' @ 12.26 hrs Surf.Area= 16,209 sf Storage= 7,427 cf

Plug-Flow detention time= 35.2 min calculated for 0.537 af (100% of inflow)
 Center-of-Mass det. time= 34.9 min (799.1 - 764.2)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.55 cfs @ 13.97 hrs HW=912.10' TW=908.90' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 1.55 cfs @ 8.62 fps)

Secondary OutFlow Max=0.89 cfs @ 12.26 hrs HW=912.43' TW=911.59' (Dynamic Tailwater)
 ←2=Broad-Crested Rectangular Weir (Weir Controls 0.89 cfs @ 0.51 fps)

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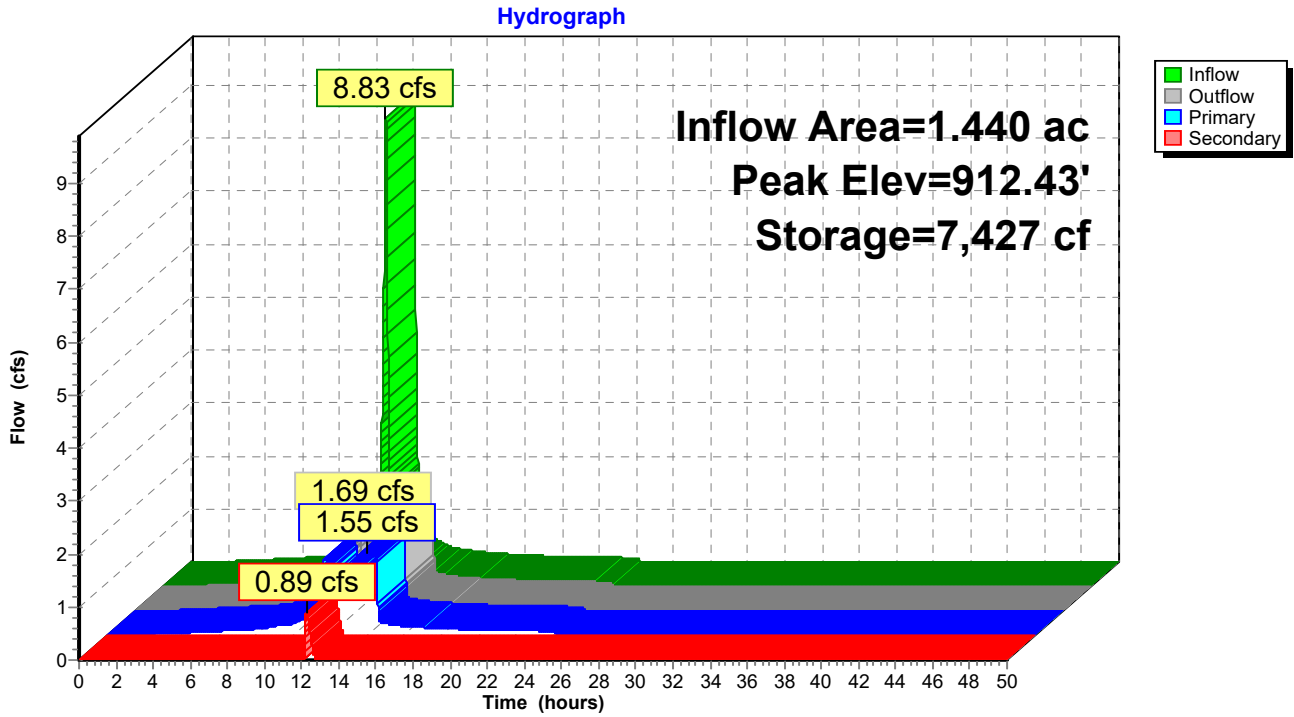
PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

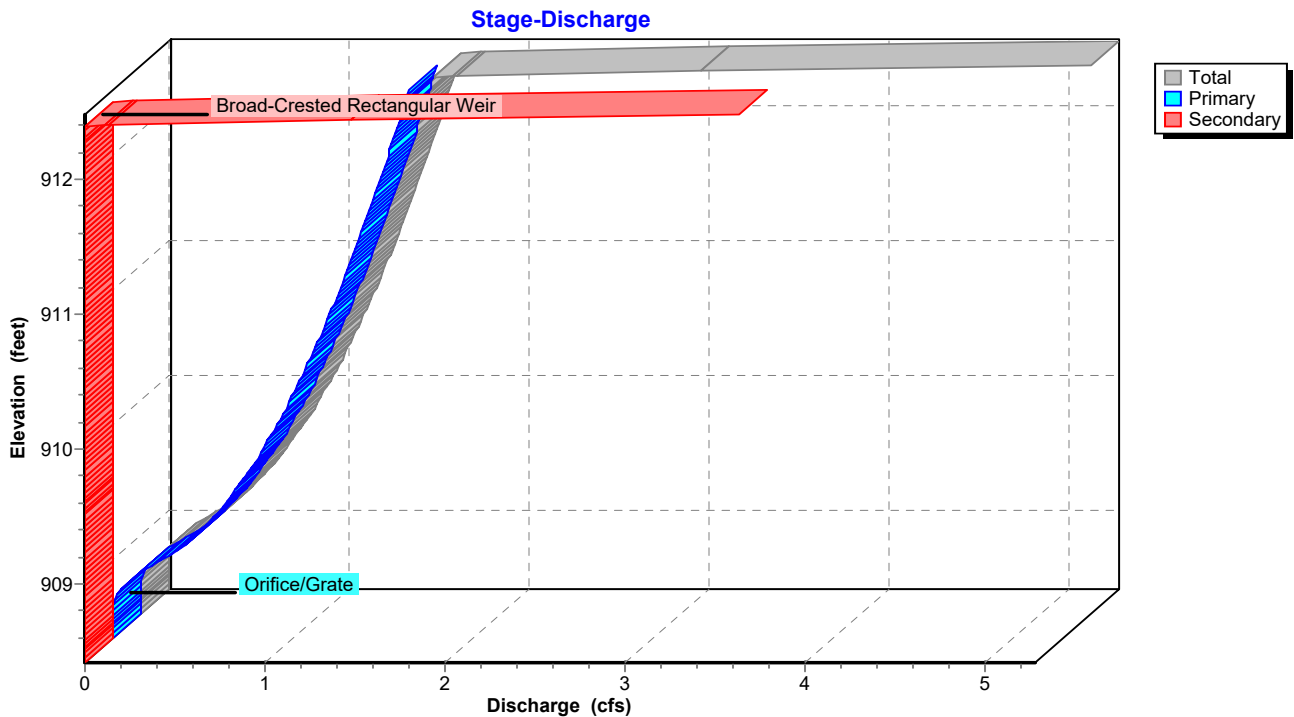
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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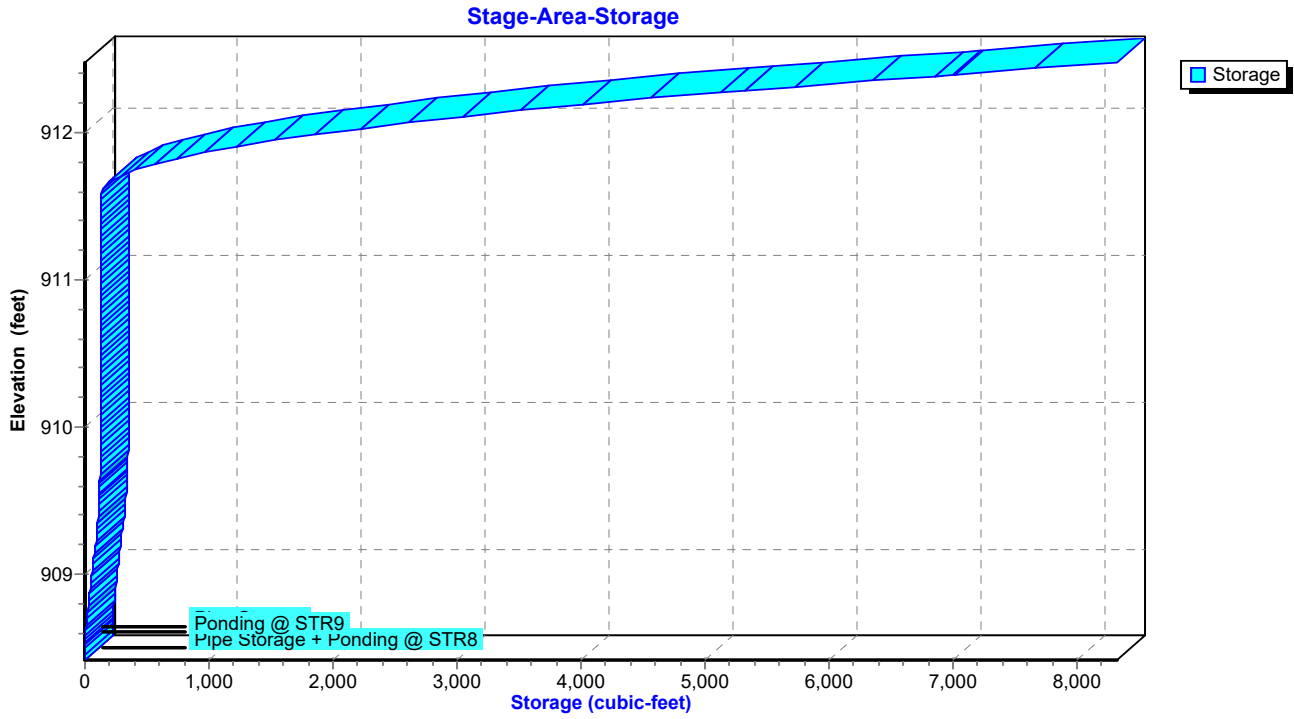
PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 9E: STR9

Runoff = 2.67 cfs @ 12.01 hrs, Volume= 0.159 af, Depth= 4.33"

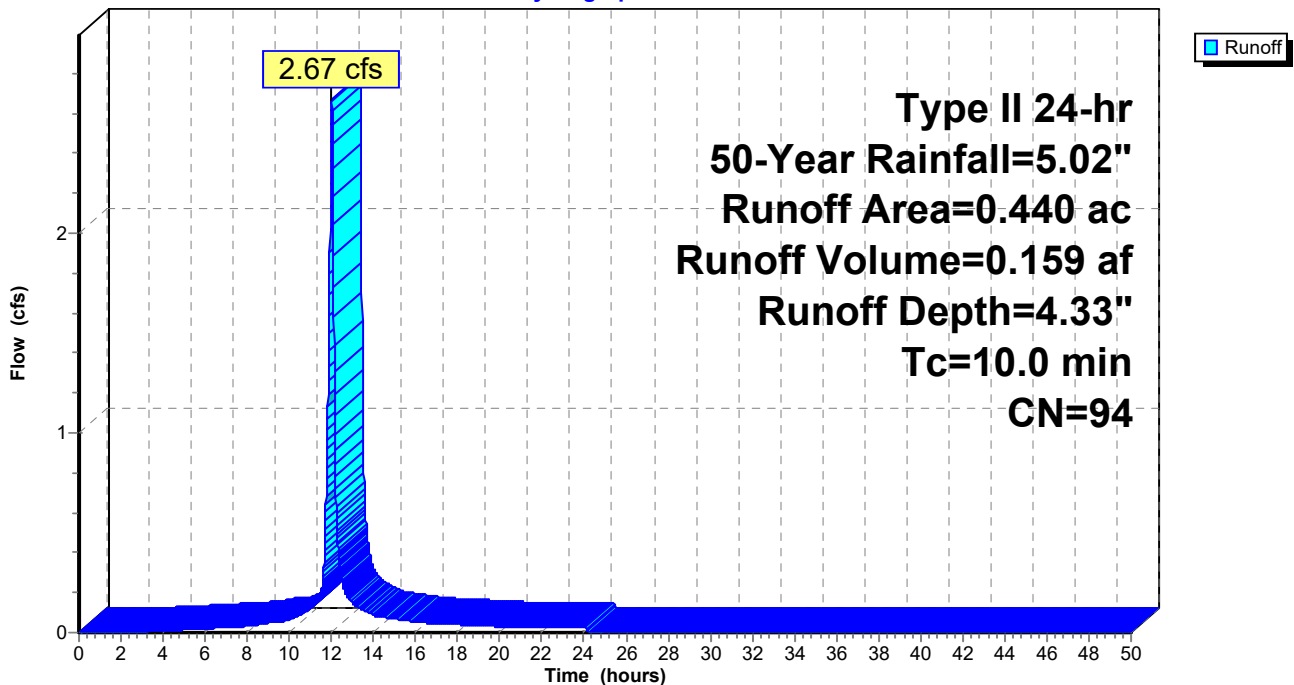
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 10E: STR10

Runoff = 3.02 cfs @ 12.01 hrs, Volume= 0.191 af, Depth= 4.78"

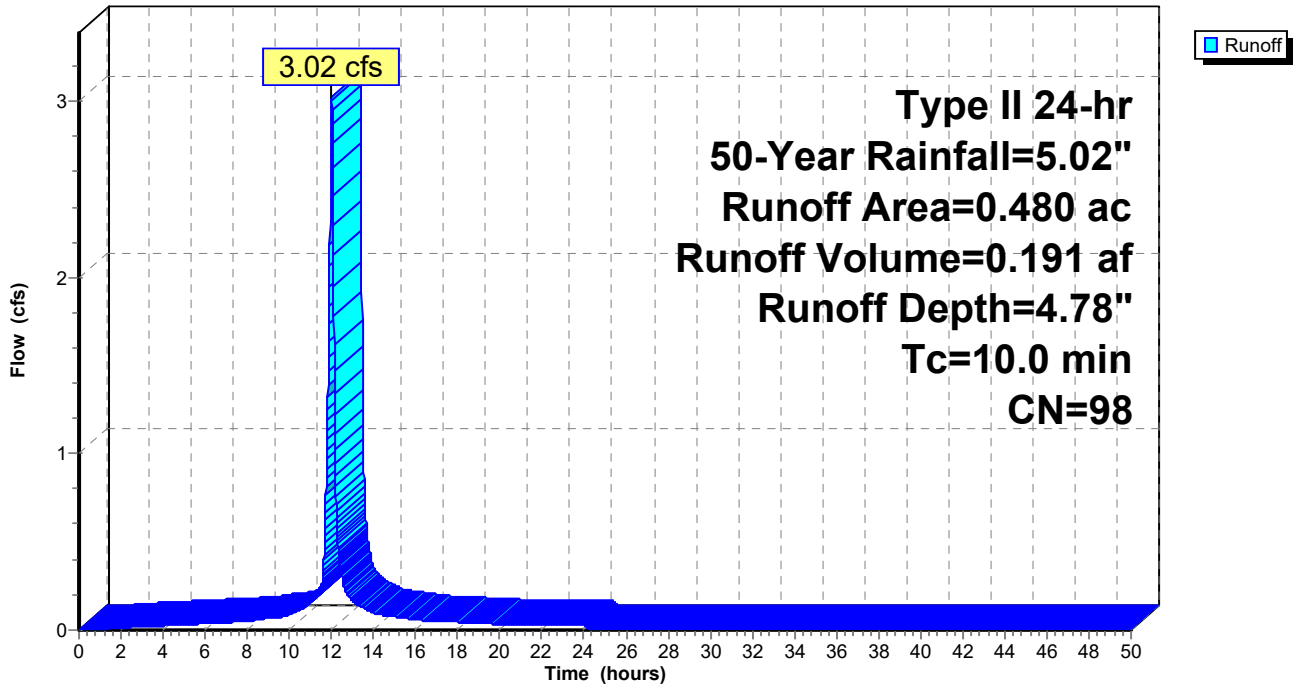
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 11E: STR11

Runoff = 1.12 cfs @ 12.01 hrs, Volume= 0.065 af, Depth= 4.11"

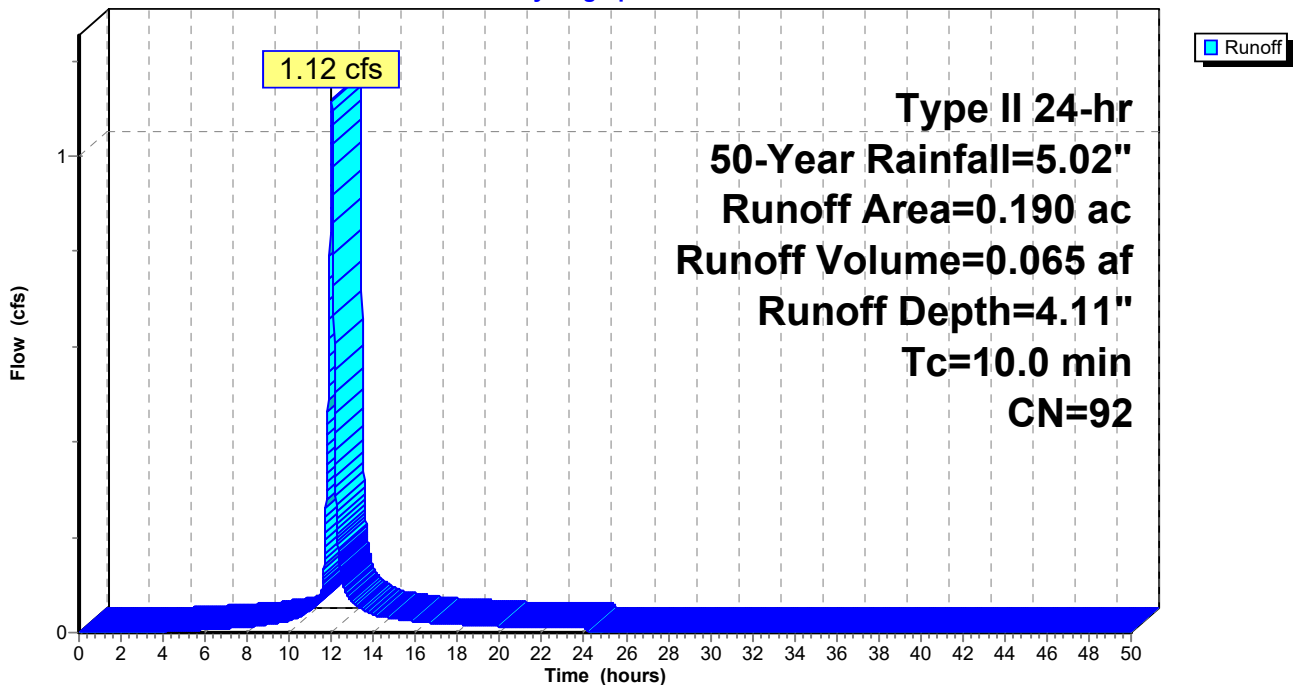
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 13S: STR13

Runoff = 4.57 cfs @ 12.01 hrs, Volume= 0.284 af, Depth= 4.67"

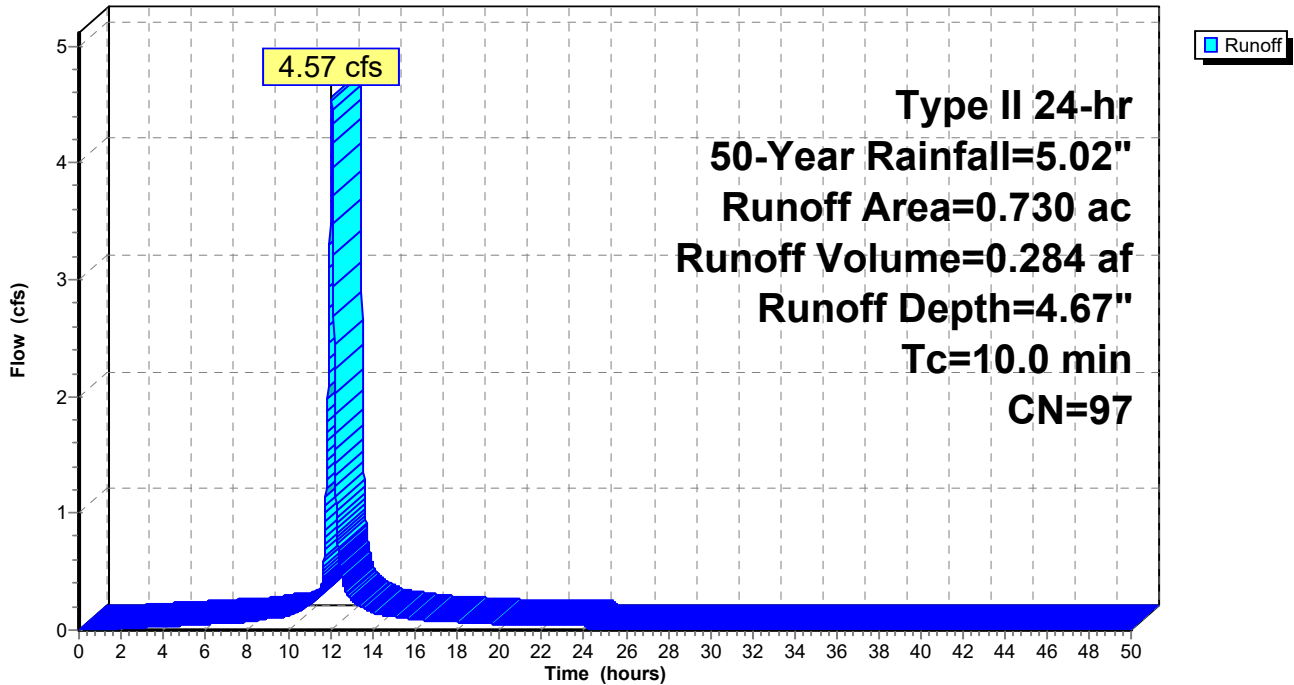
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

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PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 4.49 cfs @ 12.01 hrs, Volume= 0.267 af, Depth= 4.33"

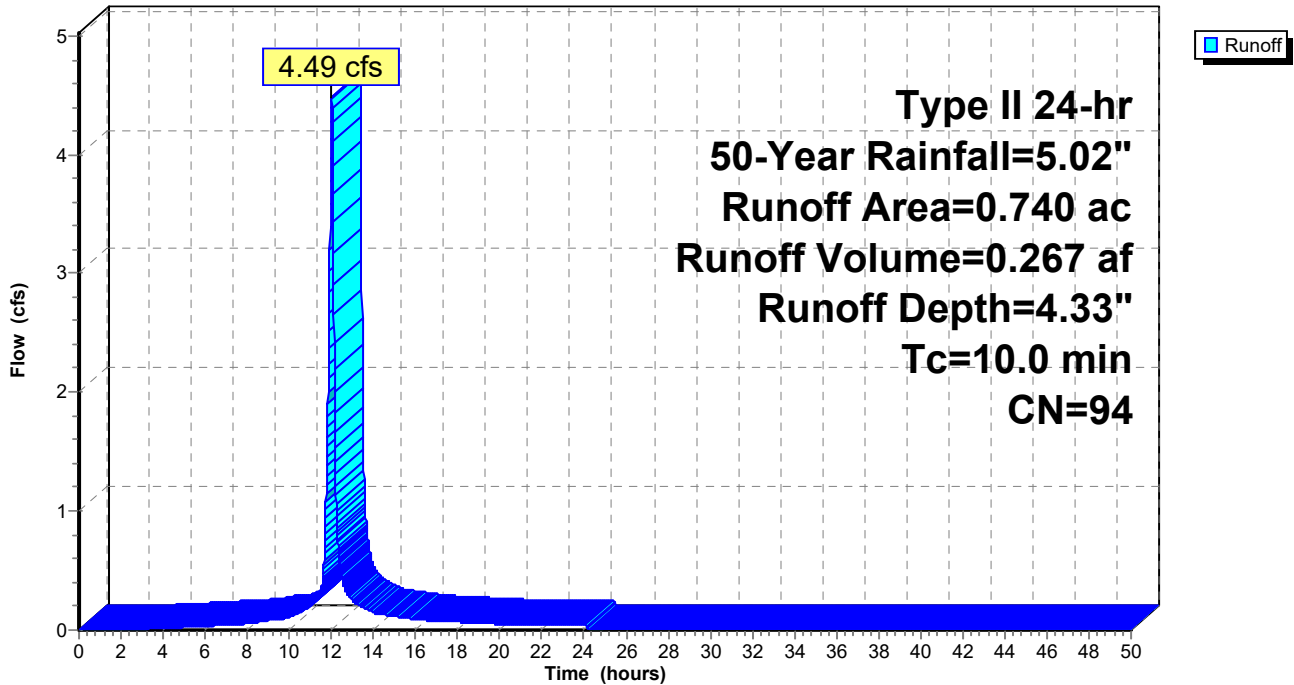
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 3.07 cfs @ 12.01 hrs, Volume= 0.194 af, Depth= 4.78"

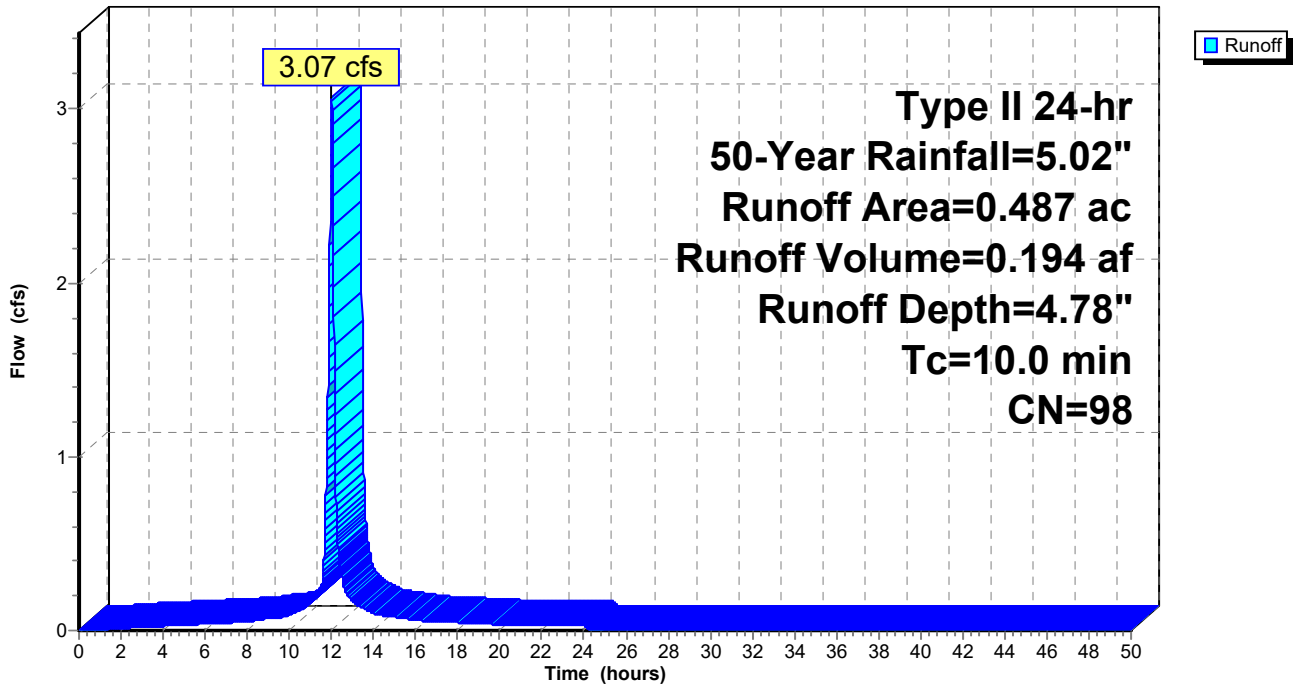
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 1.46 cfs @ 12.01 hrs, Volume= 0.091 af, Depth= 4.67"

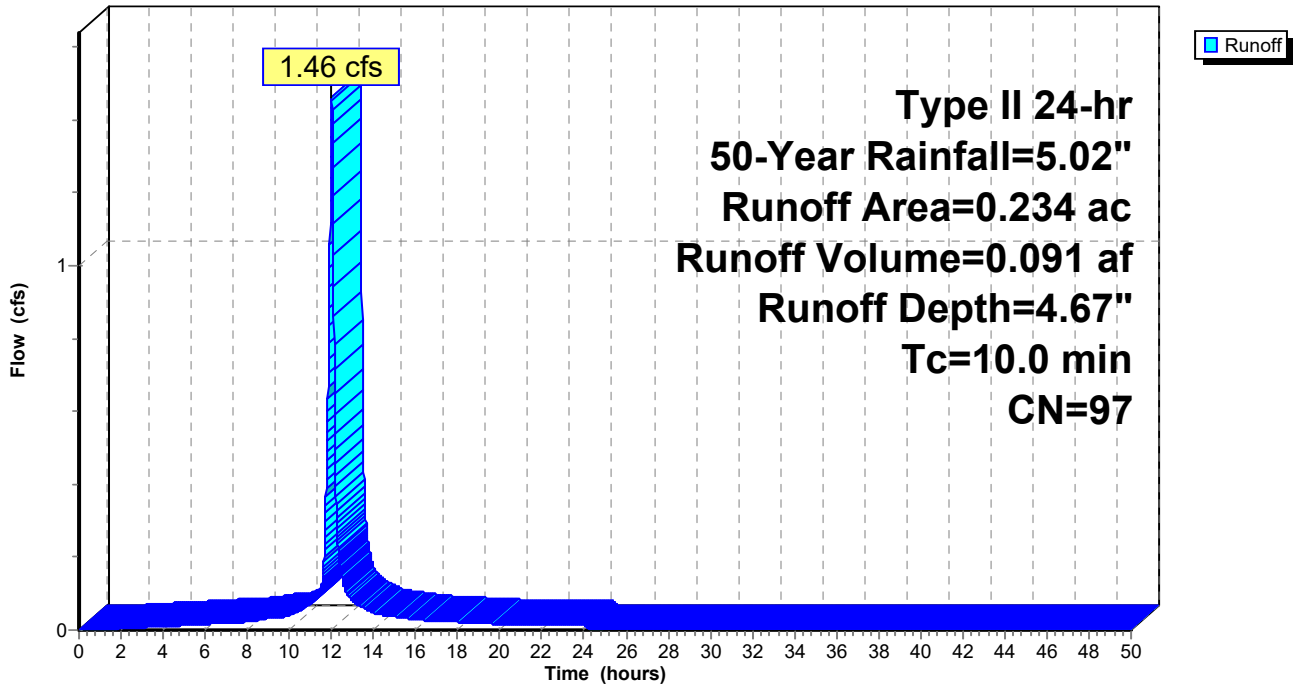
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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 Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.87 cfs @ 12.01 hrs, Volume= 0.053 af, Depth= 4.55"

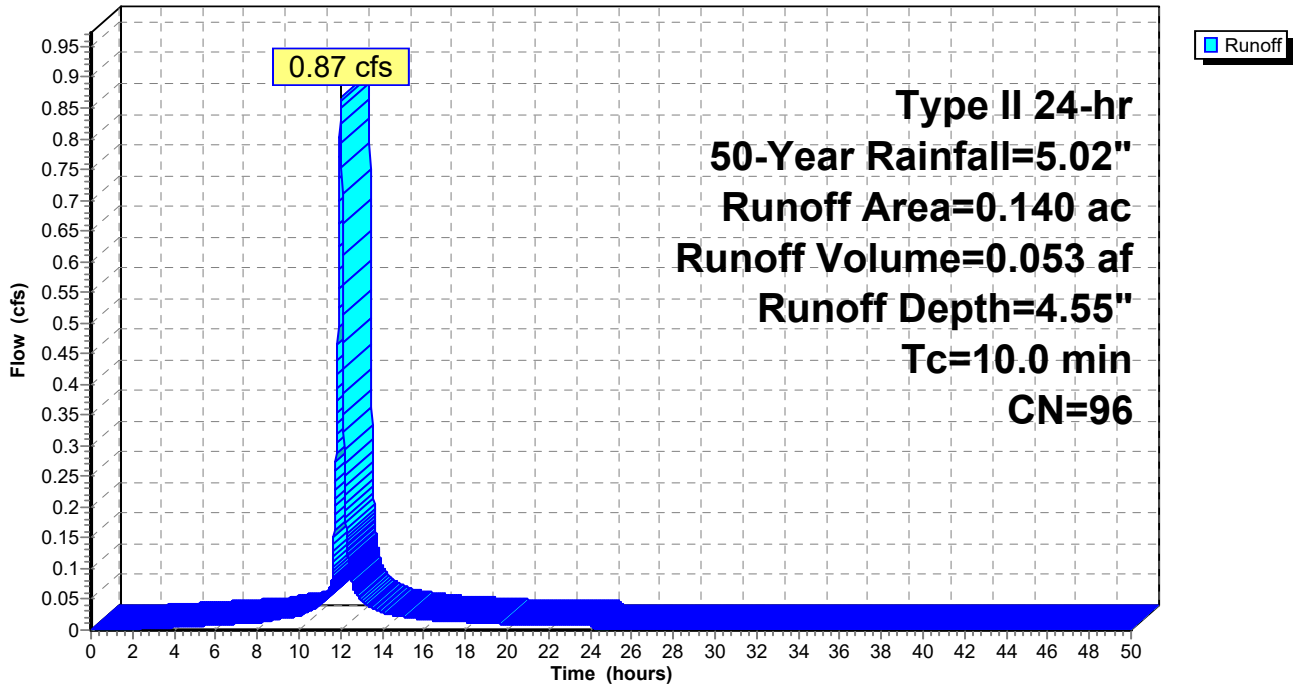
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 4.33" for 50-Year event
 Inflow = 18.97 cfs @ 12.01 hrs, Volume= 2.083 af
 Outflow = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af, Atten= 70%, Lag= 13.4 min
 Primary = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.60' @ 12.23 hrs Surf.Area= 26,259 sf Storage= 15,146 cf

Plug-Flow detention time= 22.0 min calculated for 2.083 af (100% of inflow)
 Center-of-Mass det. time= 22.0 min (873.3 - 851.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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Type II 24-hr 50-Year Rainfall=5.02"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

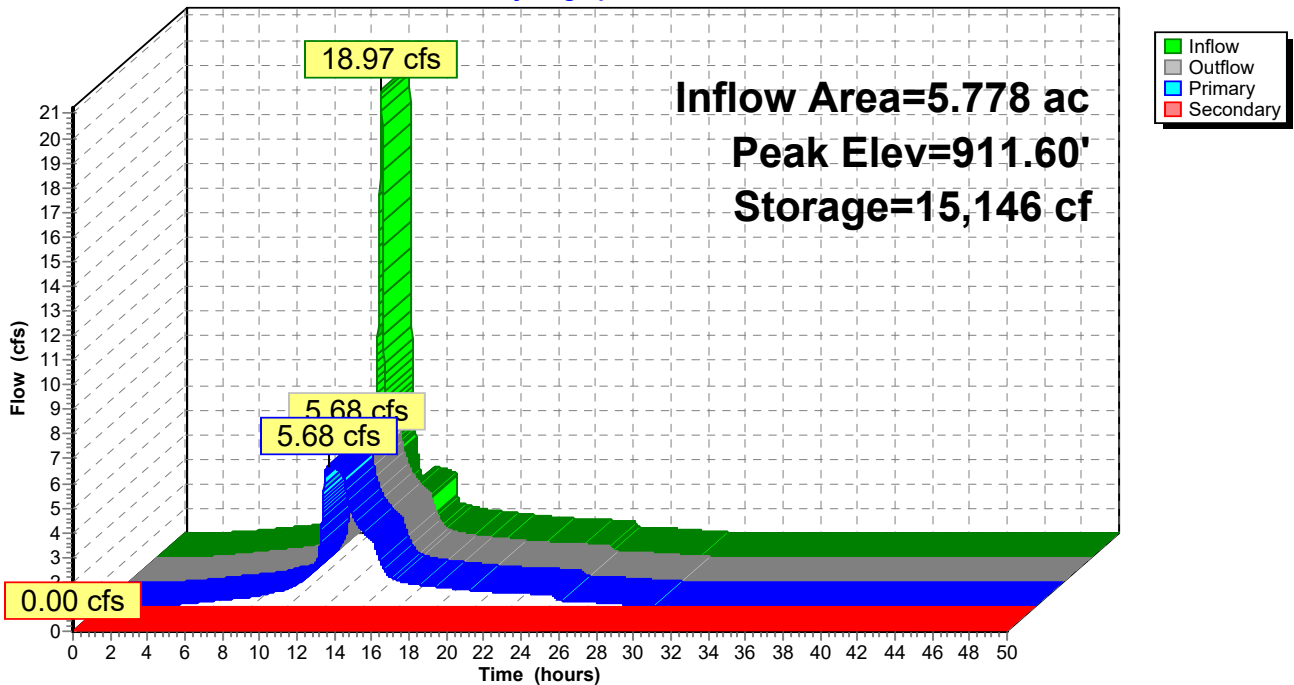
Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=5.68 cfs @ 12.23 hrs HW=911.59' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 5.68 cfs @ 9.44 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING

Hydrograph



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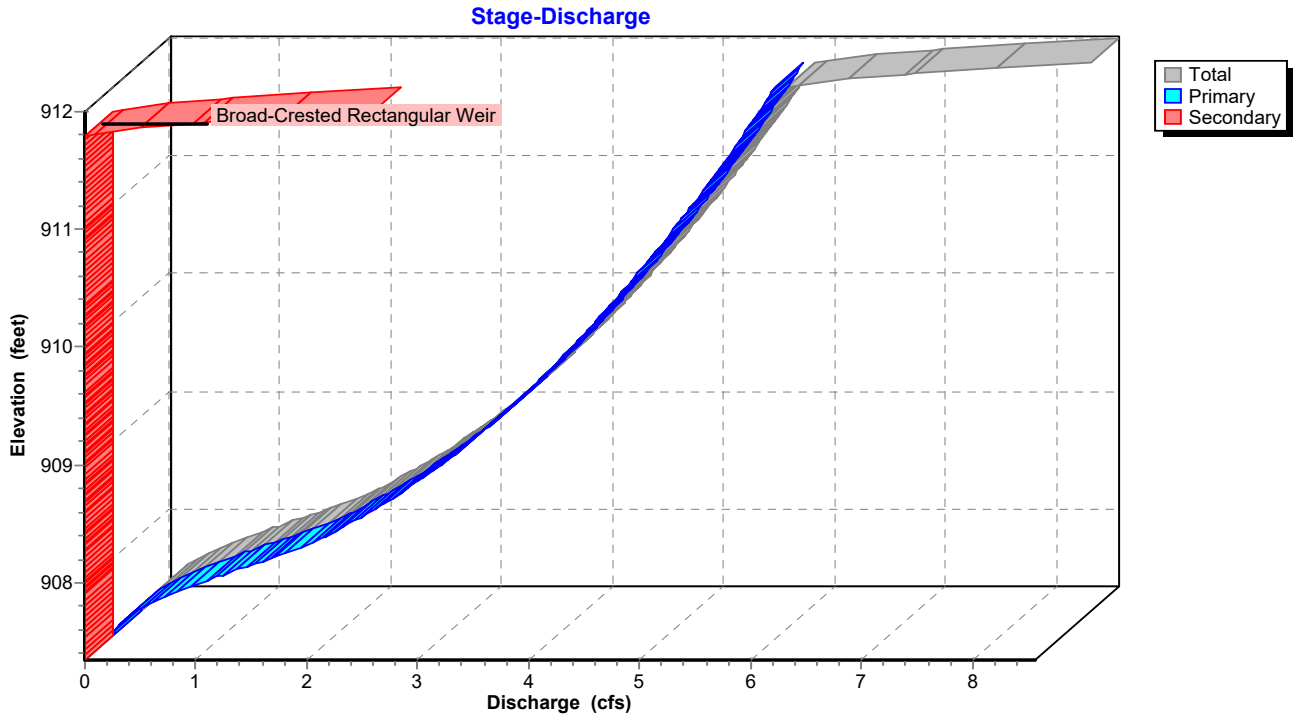
PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

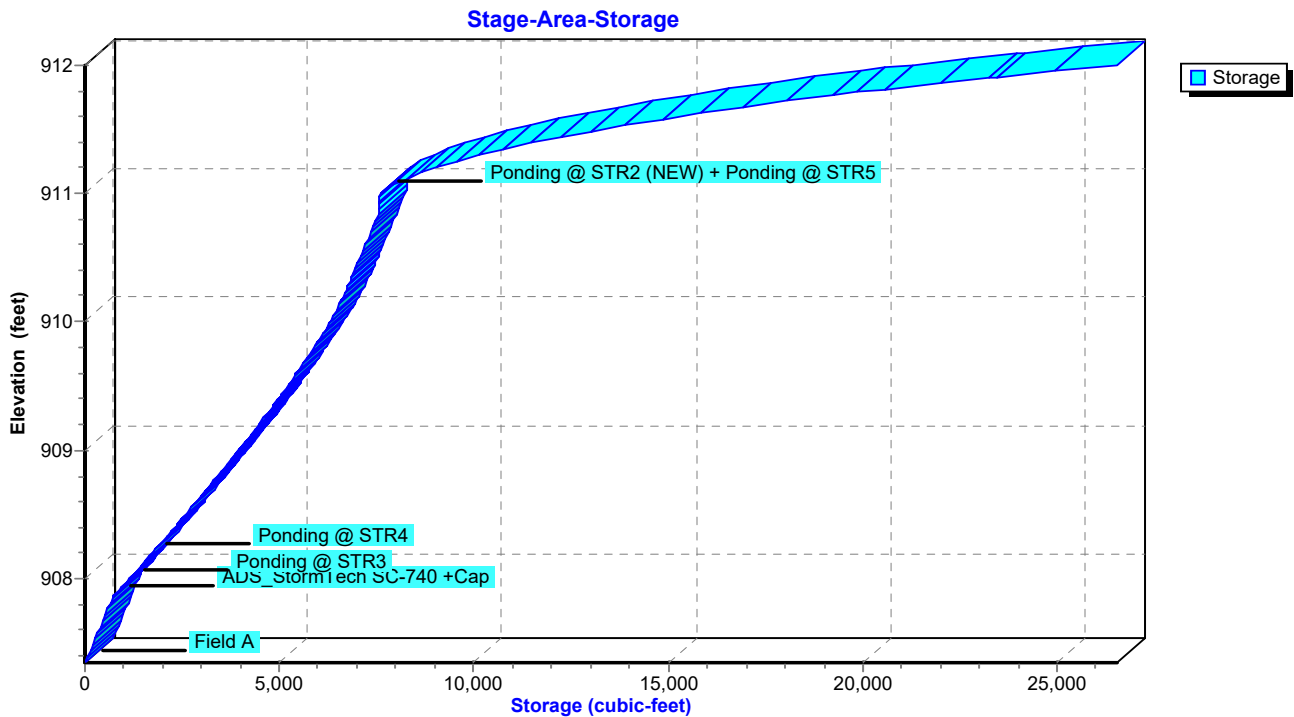
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 4.71" for 50-Year event
 Inflow = 7.64 cfs @ 12.01 hrs, Volume= 0.478 af
 Outflow = 0.48 cfs @ 14.97 hrs, Volume= 0.477 af, Atten= 94%, Lag= 177.7 min
 Primary = 0.48 cfs @ 14.97 hrs, Volume= 0.477 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.70' @ 13.22 hrs Surf.Area= 8,713 sf Storage= 12,474 cf

Plug-Flow detention time= 321.3 min calculated for 0.477 af (100% of inflow)
 Center-of-Mass det. time= 320.4 min (1,072.7 - 752.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.48 cfs @ 14.97 hrs HW=911.14' TW=908.14' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.48 cfs @ 8.34 fps)

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PROPOSED EAST TRIB

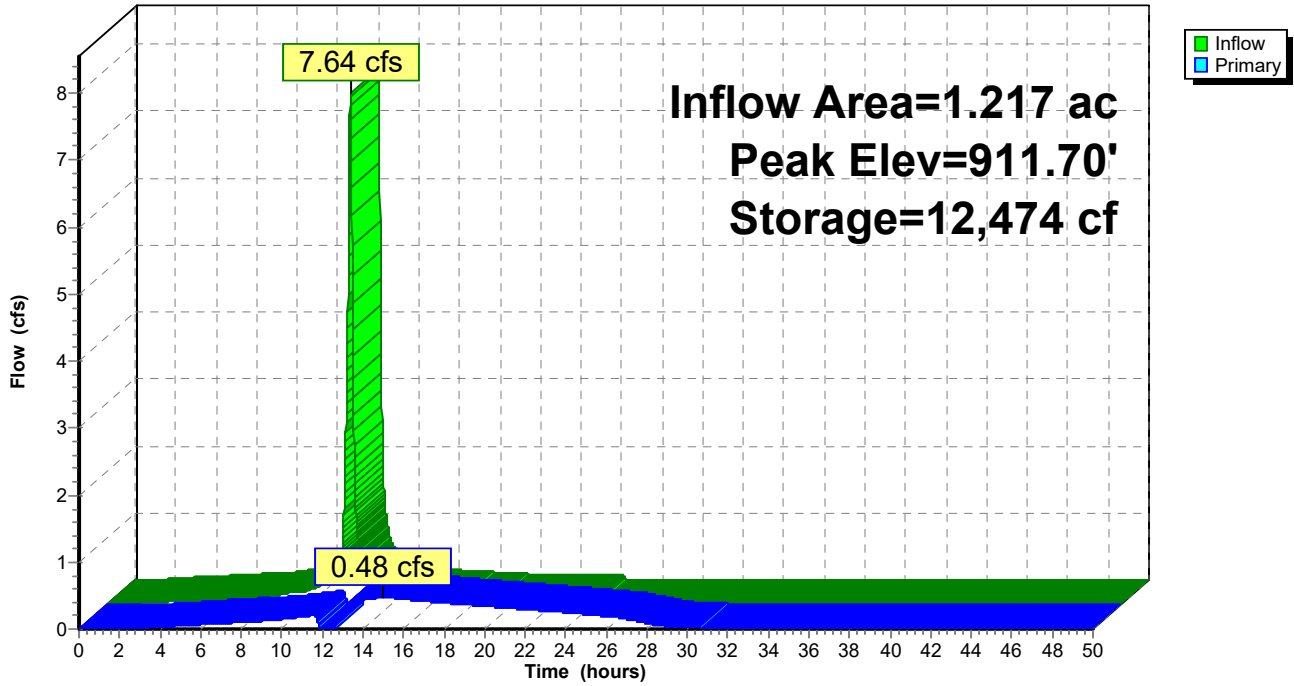
Type II 24-hr 50-Year Rainfall=5.02"

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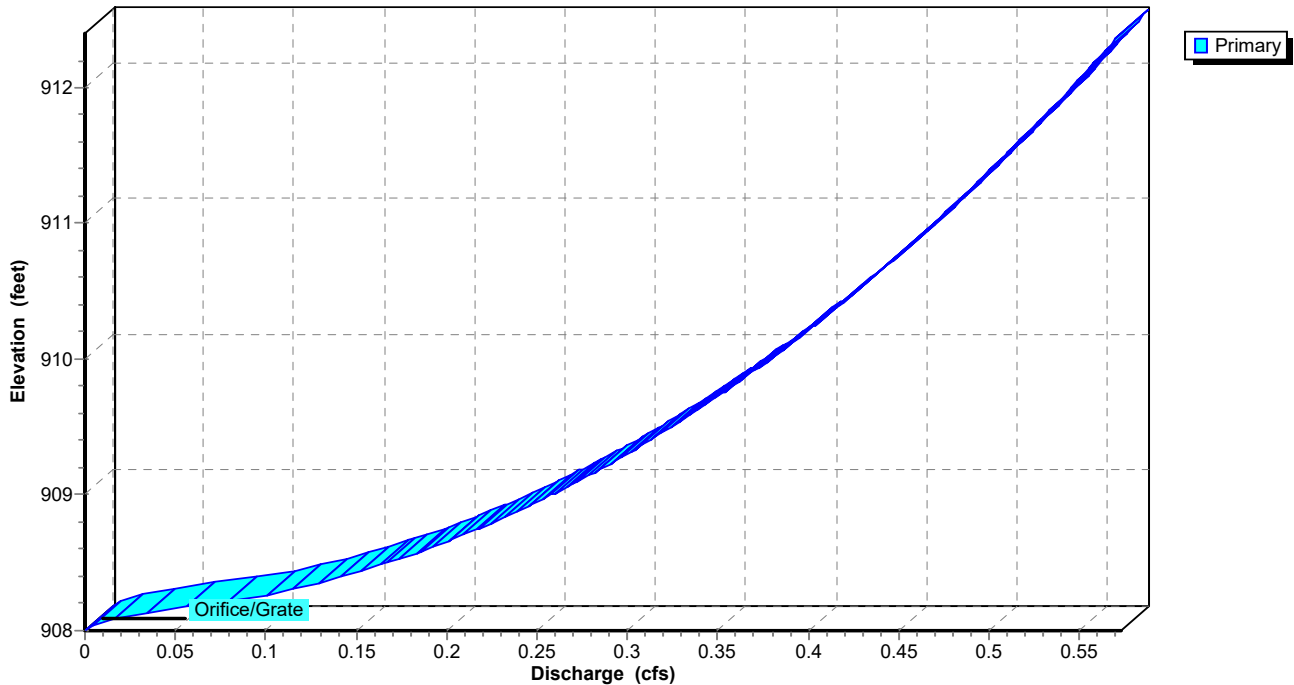
Pond PP: PORSCHE PONDING

Hydrograph



Pond PP: PORSCHE PONDING

Stage-Discharge



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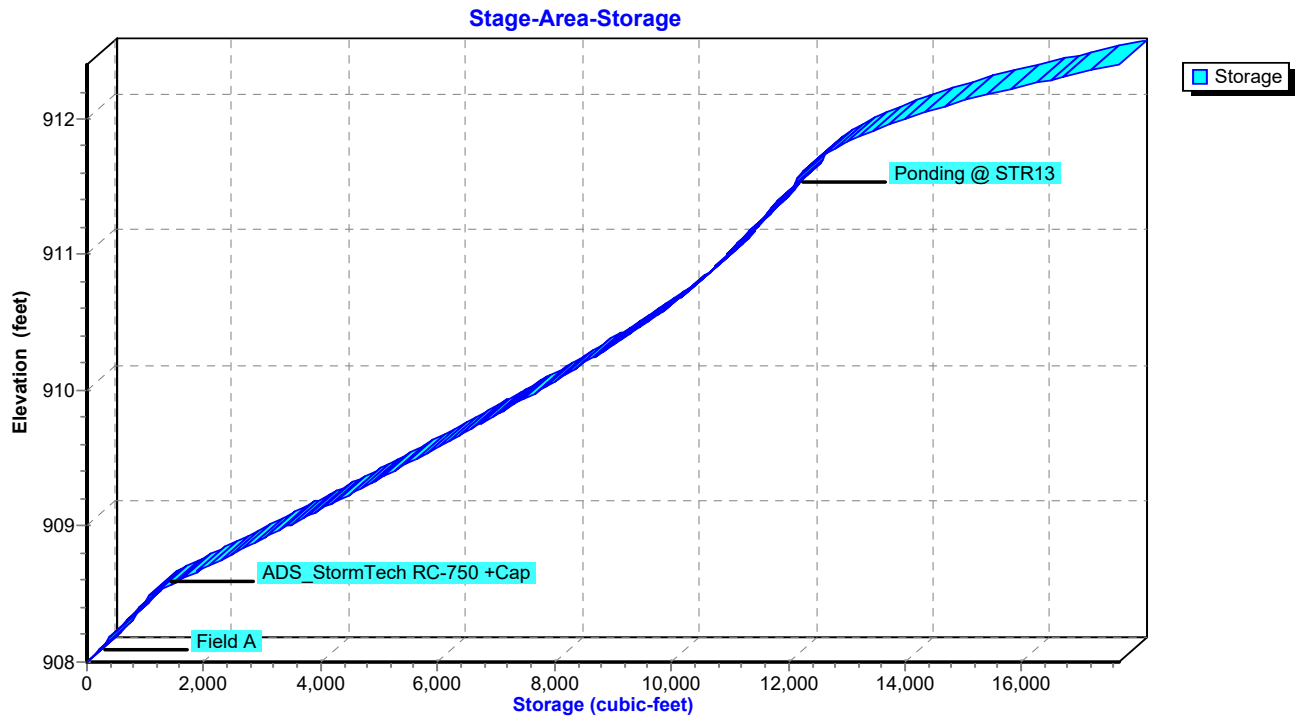
PROPOSED EAST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment XE: STRX

Runoff = 0.76 cfs @ 12.01 hrs, Volume= 0.048 af, Depth= 4.78"

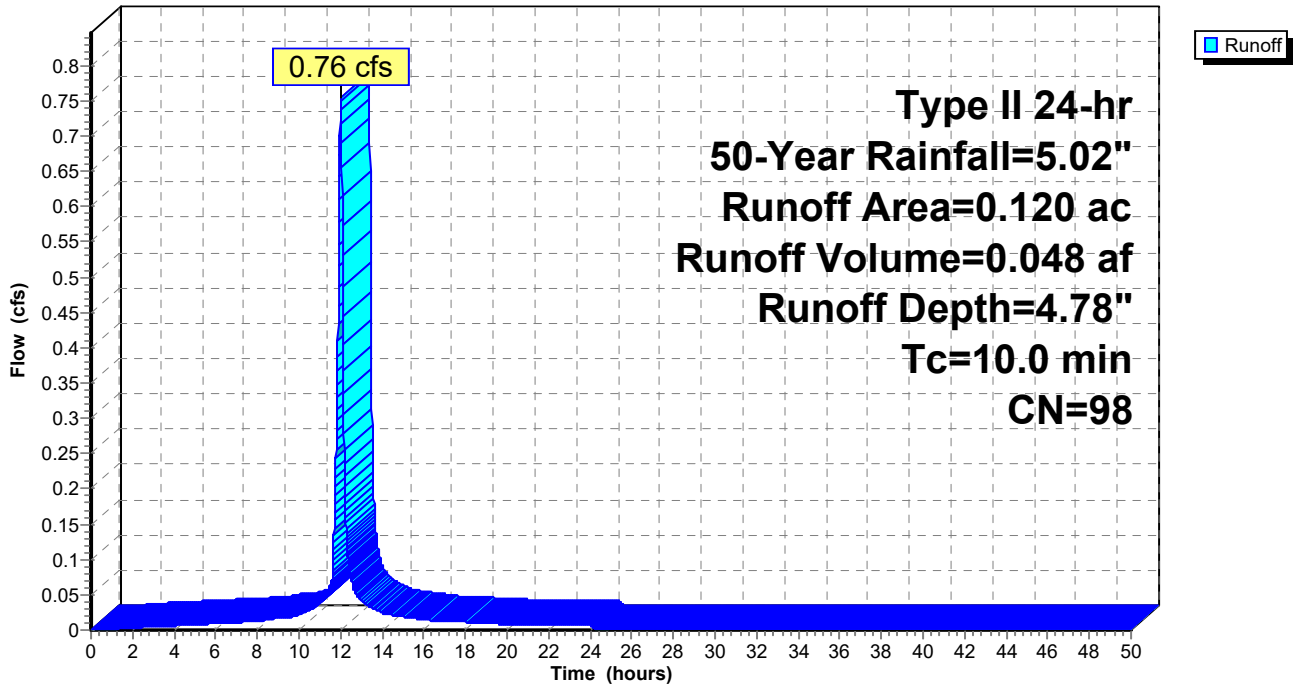
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 1E: STR1

Runoff = 2.47 cfs @ 12.01 hrs, Volume= 0.136 af, Depth= 3.65"

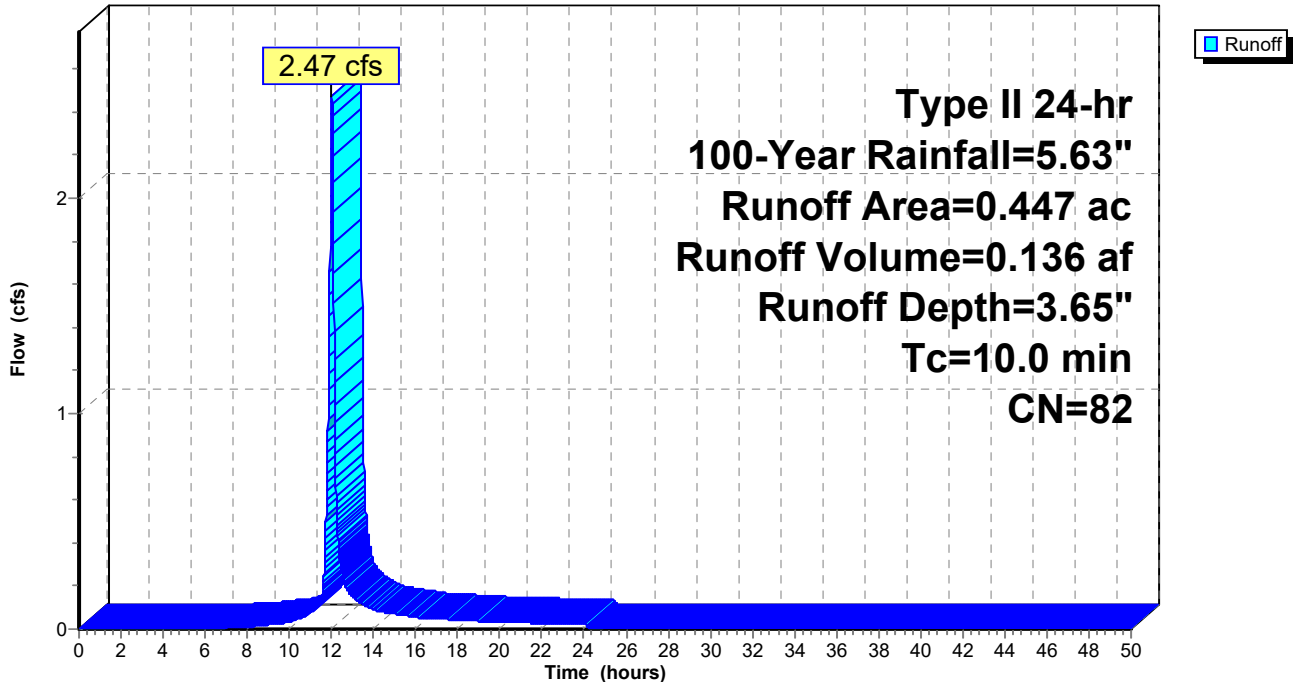
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.021	98	Paved parking, HSG C
0.090	98	Paved parking, HSG C
* 0.006	77	>75% Grass cover, Good, HSG C
* 0.330	77	>75% Grass cover, Good, HSG C
0.447	82	Weighted Average
0.336		75.17% Pervious Area
0.111		24.83% Impervious Area

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

Subcatchment 1E: STR1

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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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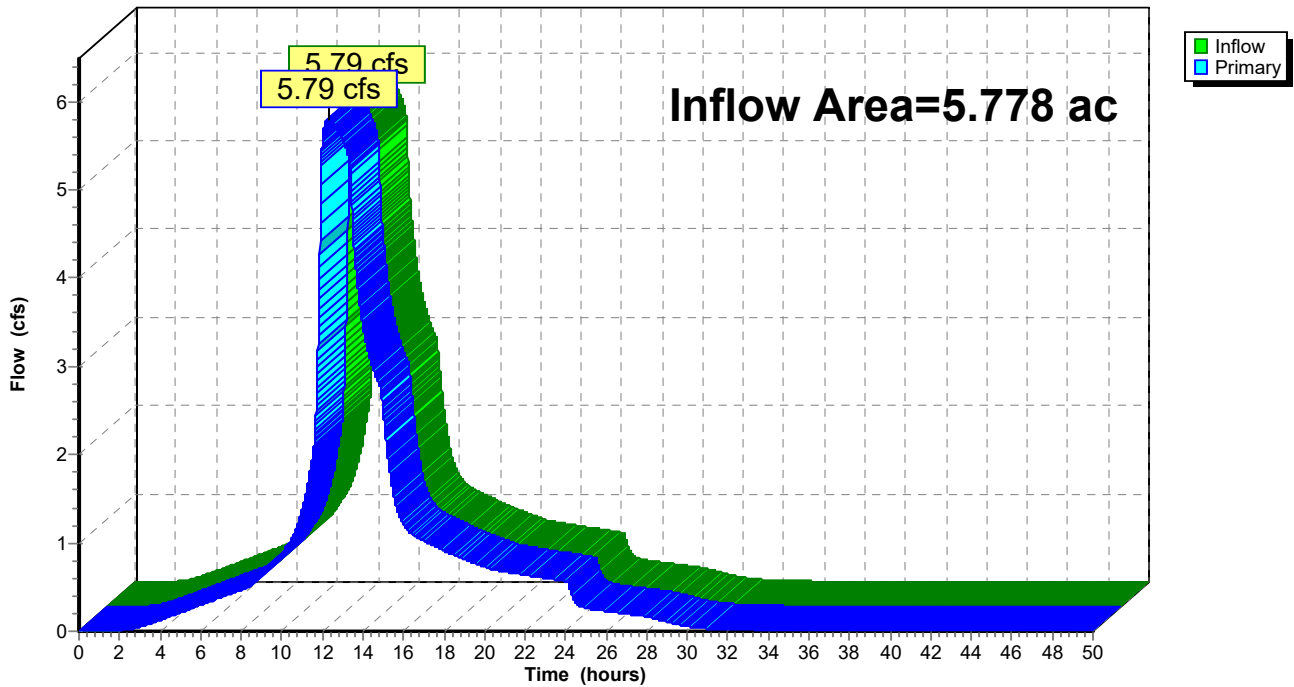
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 4.93" for 100-Year event
Inflow = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af
Primary = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 3E: STR3

Runoff = 2.95 cfs @ 12.01 hrs, Volume= 0.177 af, Depth= 4.93"

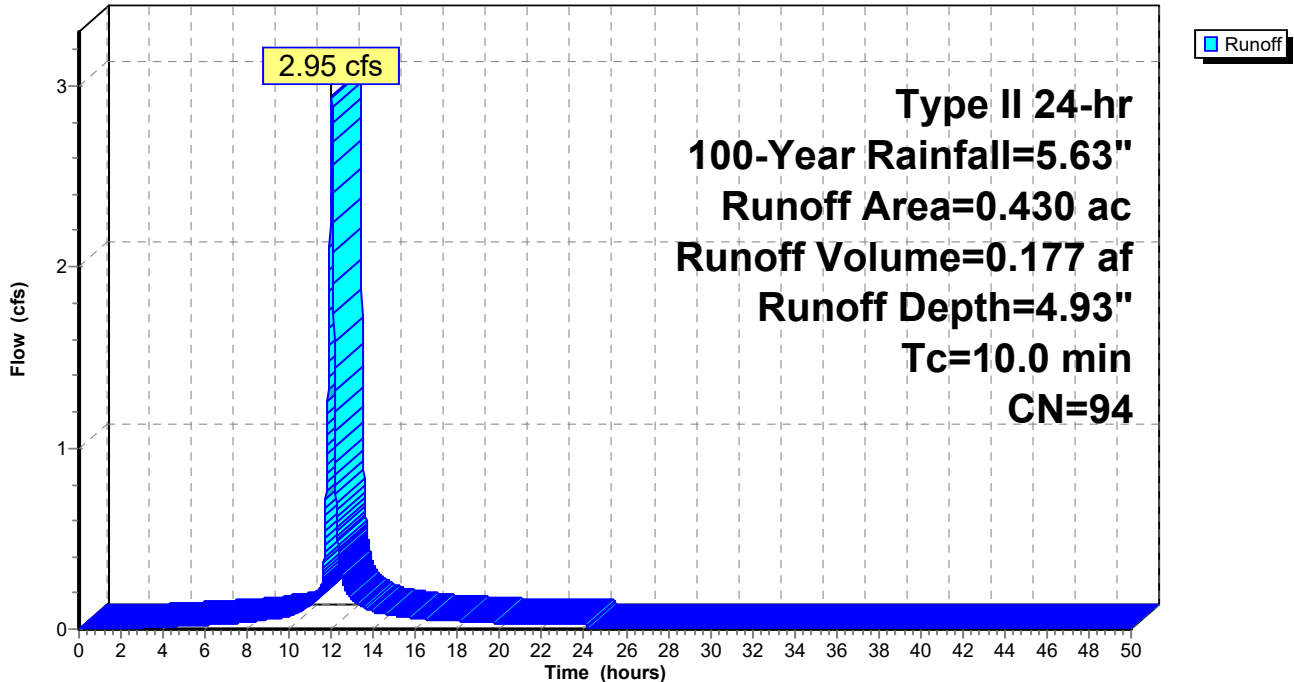
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.340	98	Paved parking, HSG C
0.009	98	Paved parking, HSG C
* 0.021	77	>75% Grass cover, Good, HSG C
* 0.060	77	>75% Grass cover, Good, HSG C
0.430	94	Weighted Average
0.081		18.84% Pervious Area
0.349		81.16% Impervious Area

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

Subcatchment 3E: STR3

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 4E: STR4

Runoff = 2.91 cfs @ 12.01 hrs, Volume= 0.173 af, Depth= 4.82"

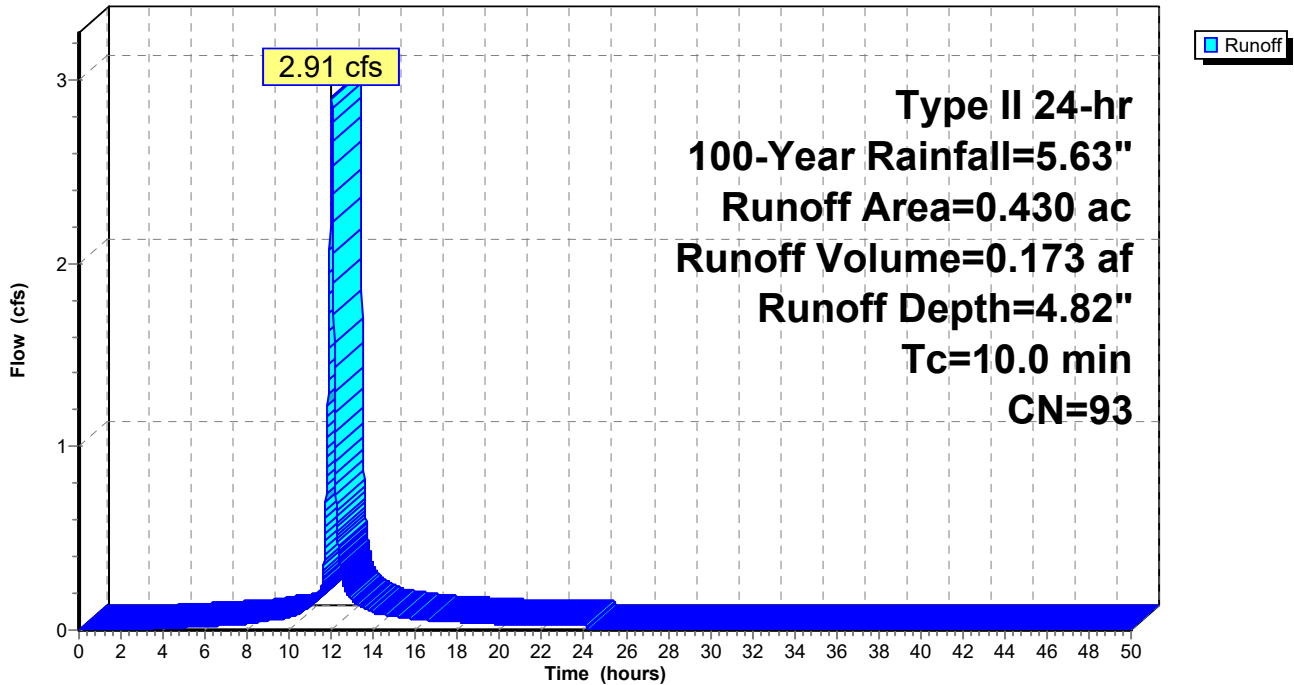
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.330	98	Paved parking, HSG C
* 0.100	77	>75% Grass cover, Good, HSG C
0.430	93	Weighted Average
0.100		23.26% Pervious Area
0.330		76.74% Impervious Area

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

Subcatchment 4E: STR4

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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 5E: STR5

Runoff = 3.76 cfs @ 12.01 hrs, Volume= 0.217 af, Depth= 4.49"

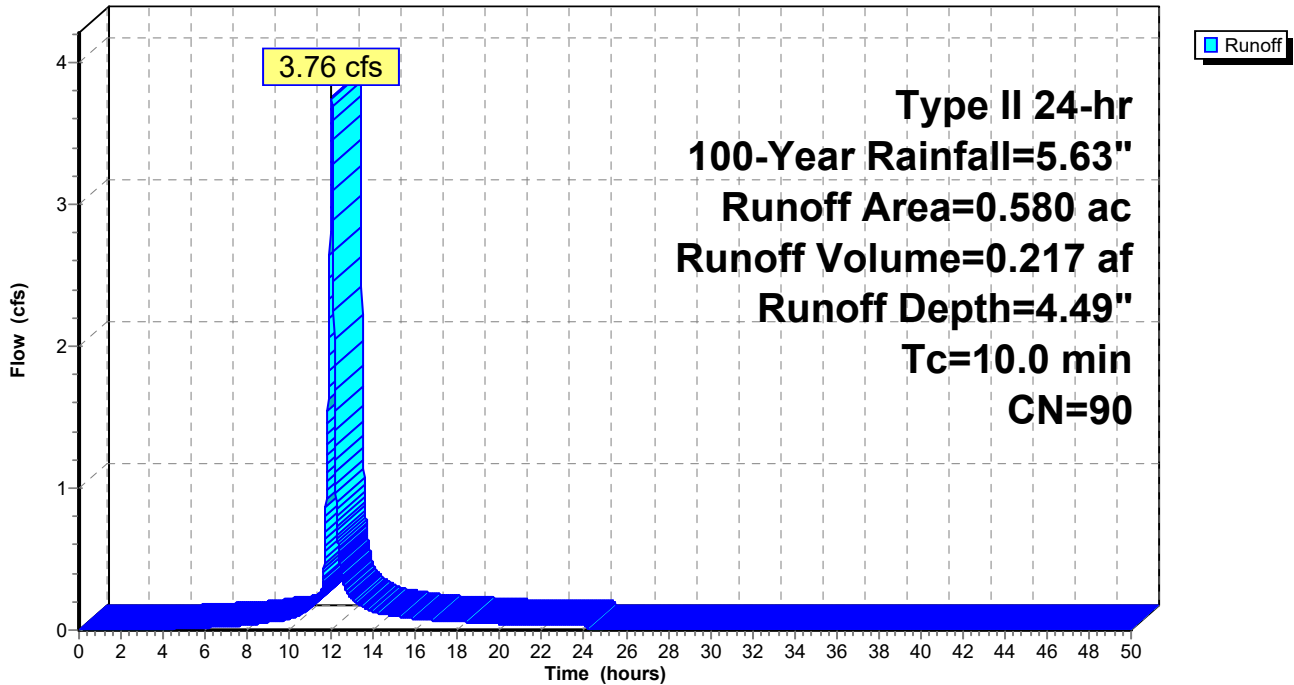
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.360	98	Paved parking, HSG C
* 0.220	77	>75% Grass cover, Good, HSG C
0.580	90	Weighted Average
0.220		37.93% Pervious Area
0.360		62.07% Impervious Area

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

Subcatchment 5E: STR5

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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 8E: STR8

Runoff = 2.28 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 5.04"

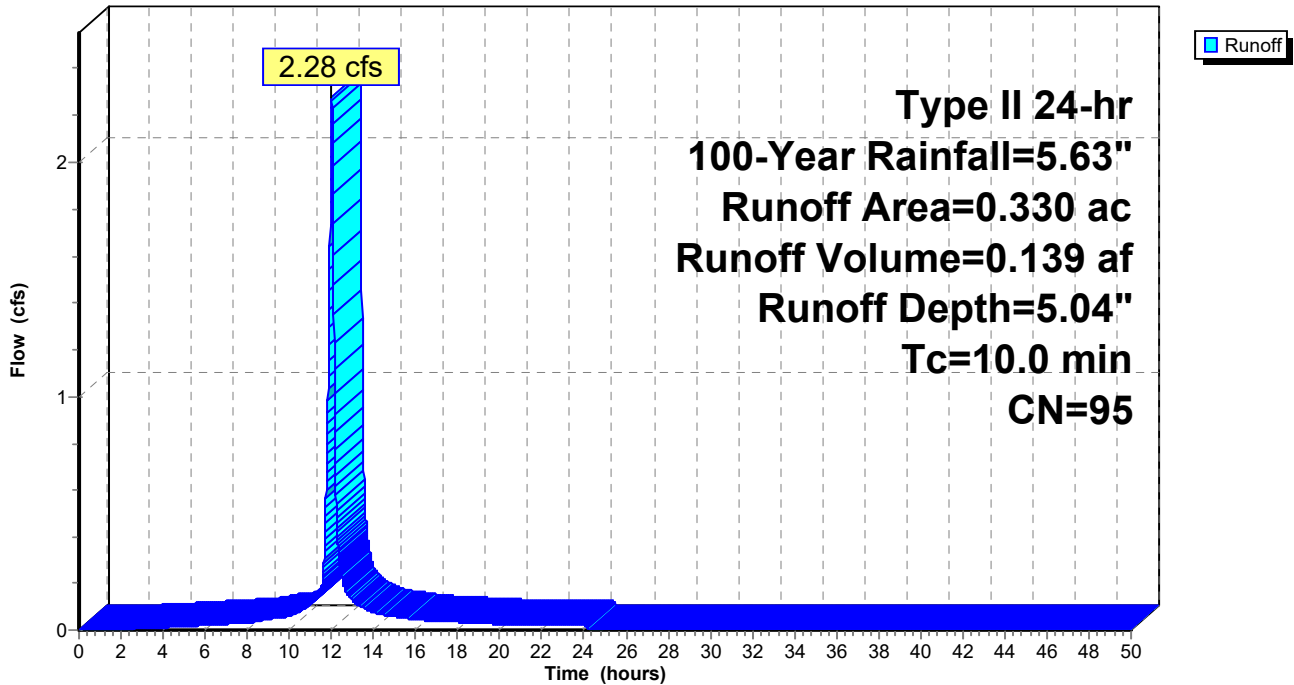
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.280	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.330	95	Weighted Average
0.050		15.15% Pervious Area
0.280		84.85% Impervious Area

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

Subcatchment 8E: STR8

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond 8P: PONDING STR 8-11

Inflow Area = 1.440 ac, 87.50% Impervious, Inflow Depth = 5.08" for 100-Year event
 Inflow = 9.96 cfs @ 12.01 hrs, Volume= 0.610 af
 Outflow = 3.17 cfs @ 12.18 hrs, Volume= 0.609 af, Atten= 68%, Lag= 10.0 min
 Primary = 1.55 cfs @ 14.32 hrs, Volume= 0.549 af
 Secondary = 2.43 cfs @ 12.18 hrs, Volume= 0.061 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.46' @ 12.18 hrs Surf.Area= 16,387 sf Storage= 7,972 cf

Plug-Flow detention time= 36.5 min calculated for 0.609 af (100% of inflow)
 Center-of-Mass det. time= 36.0 min (797.6 - 761.6)

Volume	Invert	Avail.Storage	Storage Description
#1	908.42'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0016 ''
#2	908.56'	56 cf	12.00" Round Pipe Storage L= 71.0' S= 0.0008 ''
#3	908.42'	5,502 cf	Ponding @ STR8 (Prismatic) Listed below (Recalc)
#4	908.53'	2,707 cf	Ponding @ STR9 (Prismatic) Listed below (Recalc)
		8,321 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.42	4	0	0
911.59	4	13	13
912.29	10,027	3,511	3,524
912.48	10,800	1,979	5,502

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.53	4	0	0
911.59	4	12	12
912.29	4,774	1,672	1,685
912.40	5,600	571	2,255
912.48	5,700	452	2,707

Device	Routing	Invert	Outlet Devices
#1	Primary	908.66'	5.75" Vert. Orifice/Grate C= 0.600
#2	Secondary	912.39'	50.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=1.55 cfs @ 14.32 hrs HW=912.08' TW=908.90' (Dynamic Tailwater)
 ↖1=Orifice/Grate (Orifice Controls 1.55 cfs @ 8.58 fps)

Secondary OutFlow Max=2.43 cfs @ 12.18 hrs HW=912.46' TW=911.72' (Dynamic Tailwater)
 ↖2=Broad-Crested Rectangular Weir (Weir Controls 2.43 cfs @ 0.71 fps)

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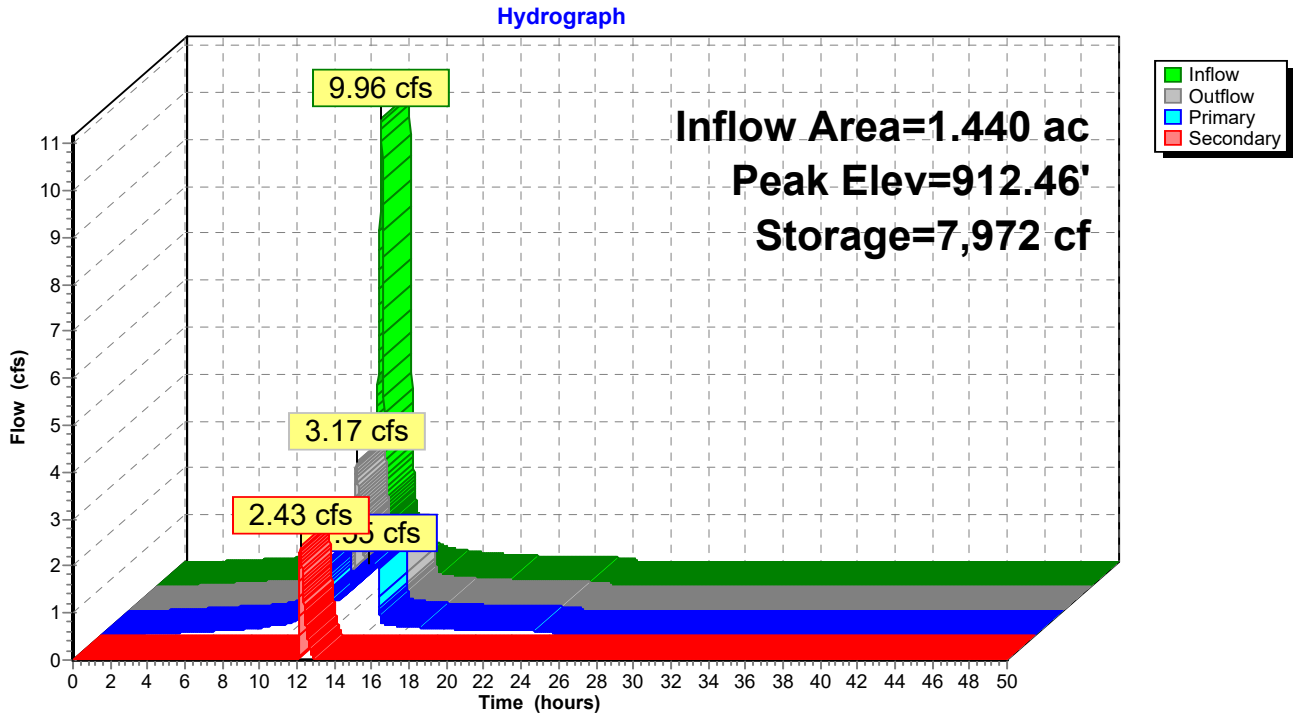
PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

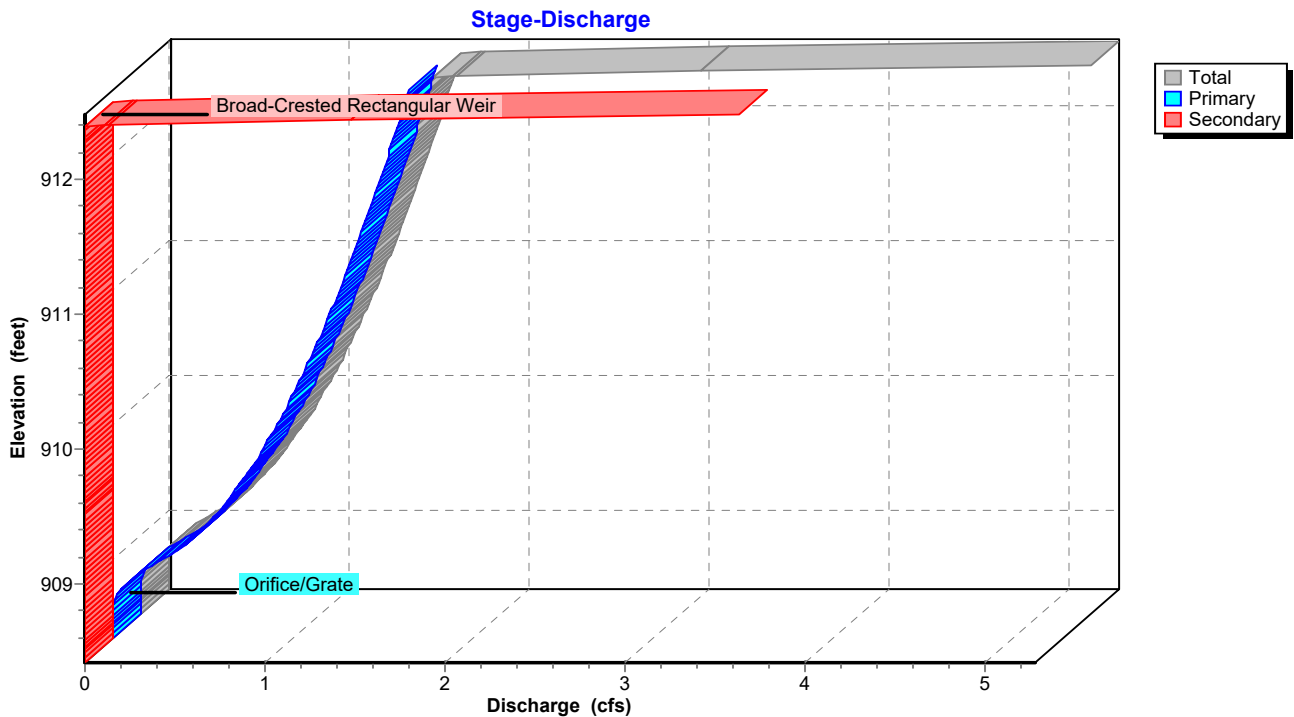
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Pond 8P: PONDING STR 8-11



Pond 8P: PONDING STR 8-11



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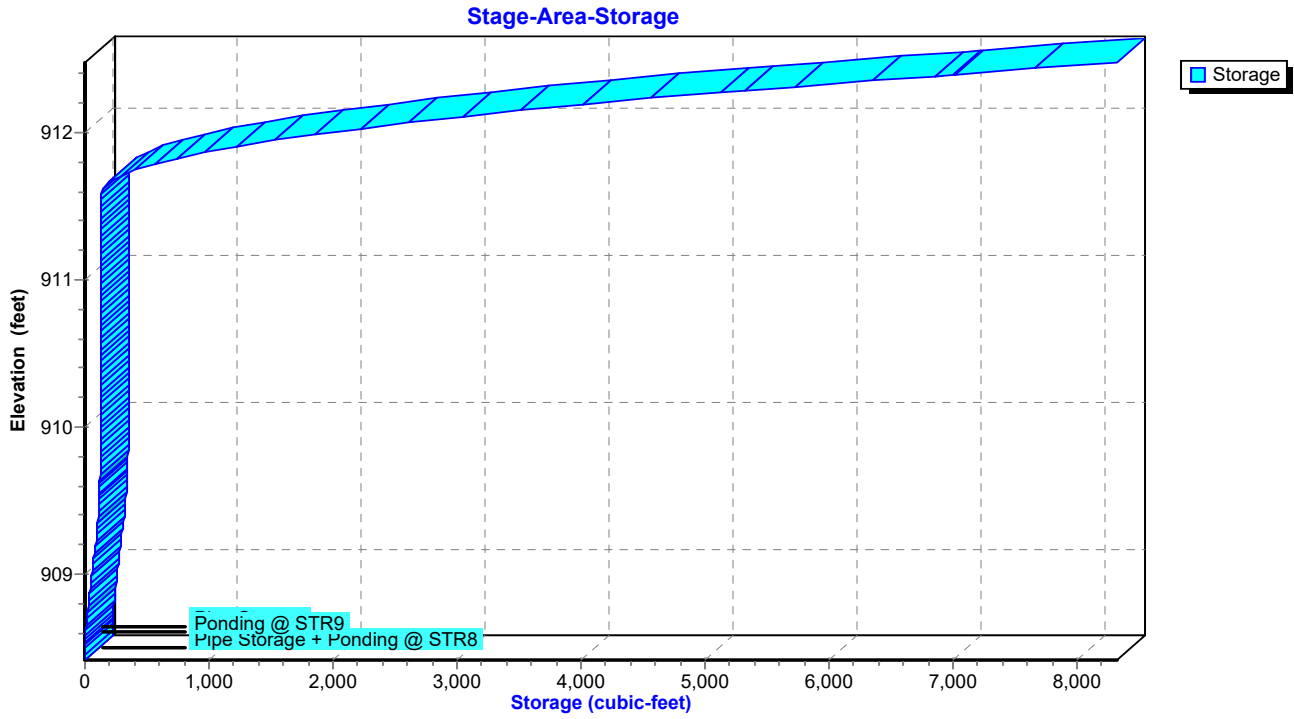
PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Pond 8P: PONDING STR 8-11



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 9E: STR9

Runoff = 3.01 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 4.93"

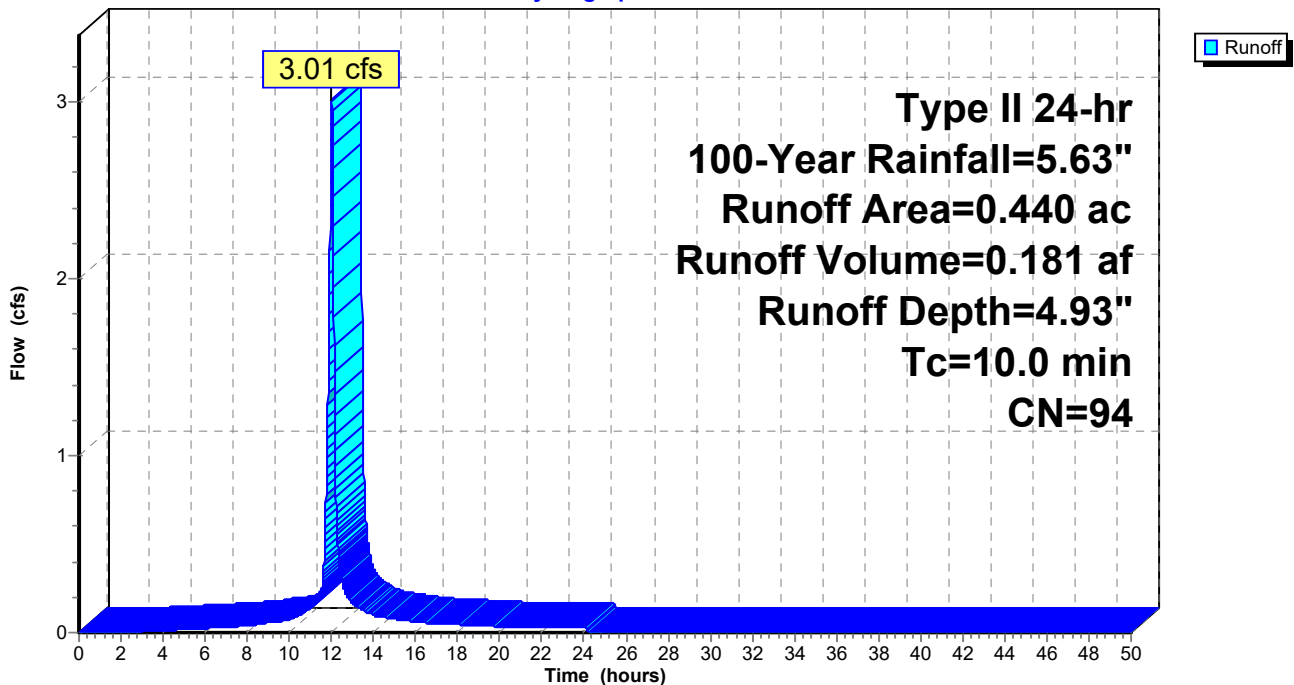
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.150	98	Roofs, HSG C
0.210	98	Paved parking, HSG C
* 0.080	77	>75% Grass cover, Good, HSG C
0.440	94	Weighted Average
0.080		18.18% Pervious Area
0.360		81.82% Impervious Area

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

Subcatchment 9E: STR9

Hydrograph



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Summary for Subcatchment 10E: STR10

Runoff = 3.39 cfs @ 12.01 hrs, Volume= 0.216 af, Depth= 5.39"

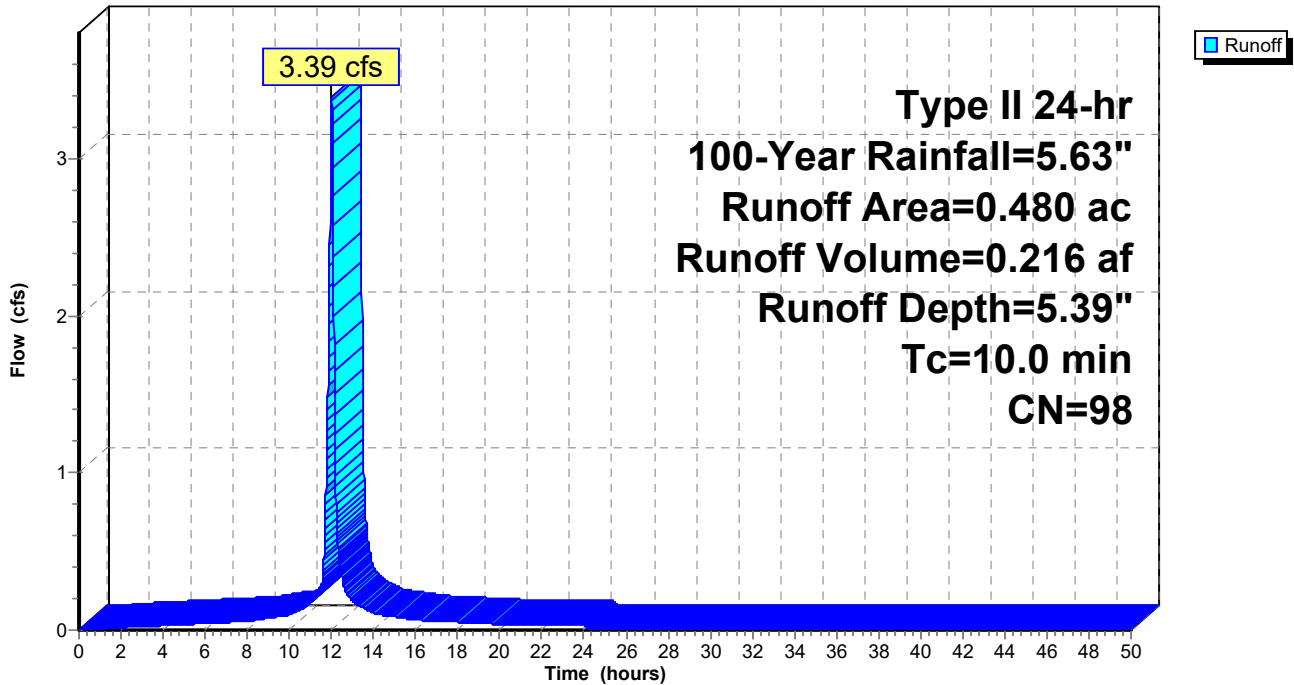
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.480	98	Roofs, HSG C
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.480	98	Weighted Average
0.480		100.00% Impervious Area

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

Subcatchment 10E: STR10

Hydrograph



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Summary for Subcatchment 11E: STR11

Runoff = 1.27 cfs @ 12.01 hrs, Volume= 0.075 af, Depth= 4.71"

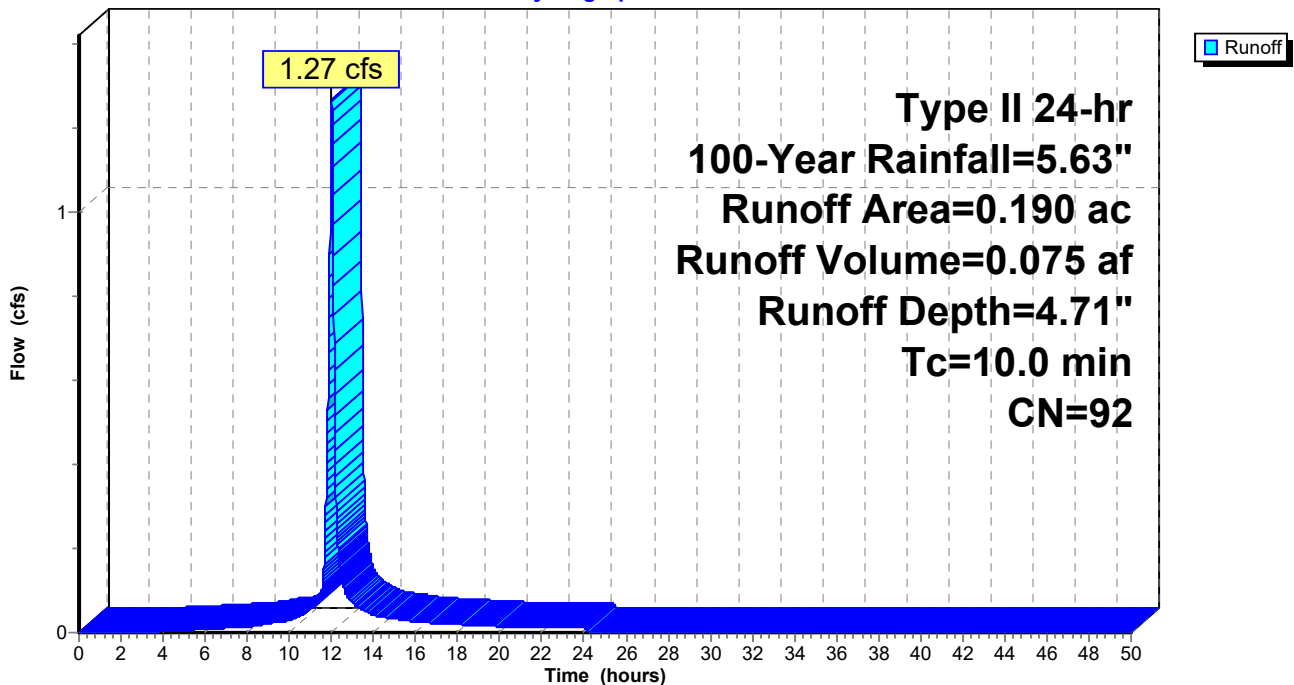
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.100	98	Roofs, HSG C
0.040	98	Paved parking, HSG C
* 0.050	77	>75% Grass cover, Good, HSG C
0.190	92	Weighted Average
0.050		26.32% Pervious Area
0.140		73.68% Impervious Area

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

Subcatchment 11E: STR11

Hydrograph



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Summary for Subcatchment 13S: STR13

Runoff = 5.14 cfs @ 12.01 hrs, Volume= 0.321 af, Depth= 5.28"

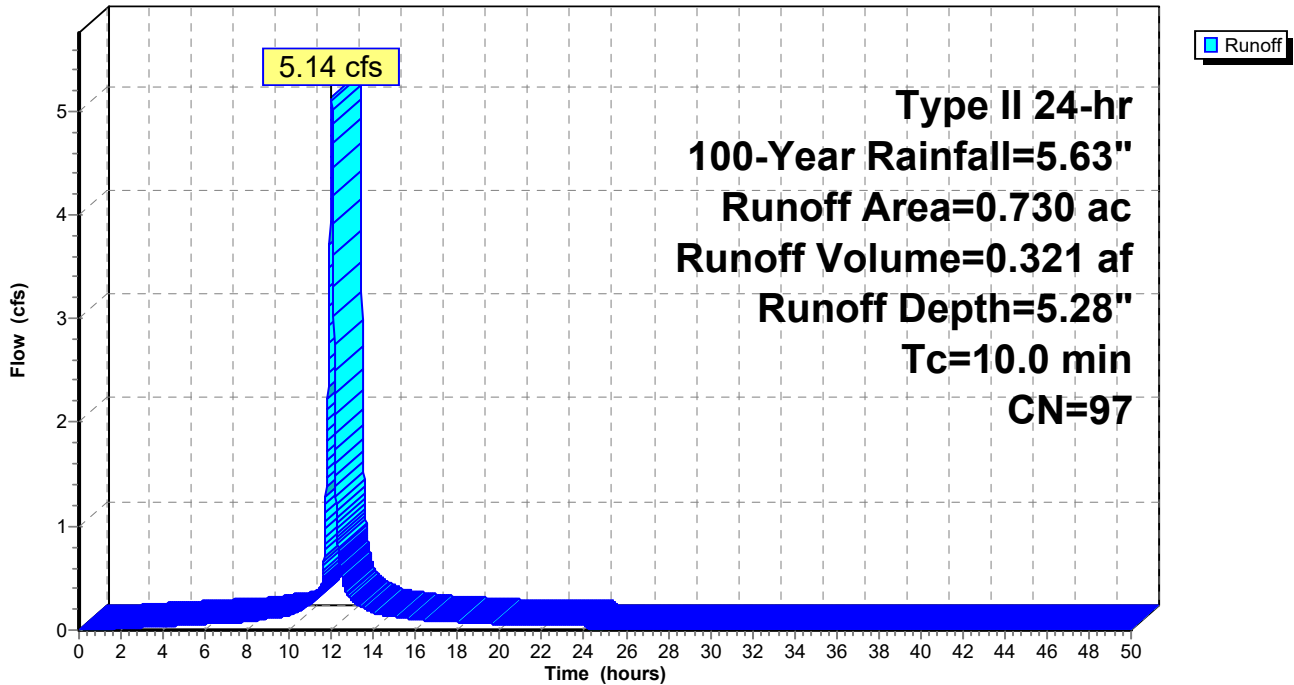
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.700	98	Paved parking, HSG C
0.030	74	>75% Grass cover, Good, HSG C
0.730	97	Weighted Average
0.030		4.11% Pervious Area
0.700		95.89% Impervious Area

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

Subcatchment 13S: STR13

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Summary for Subcatchment 19S: FERRARI TRIB

Runoff = 5.07 cfs @ 12.01 hrs, Volume= 0.304 af, Depth= 4.93"

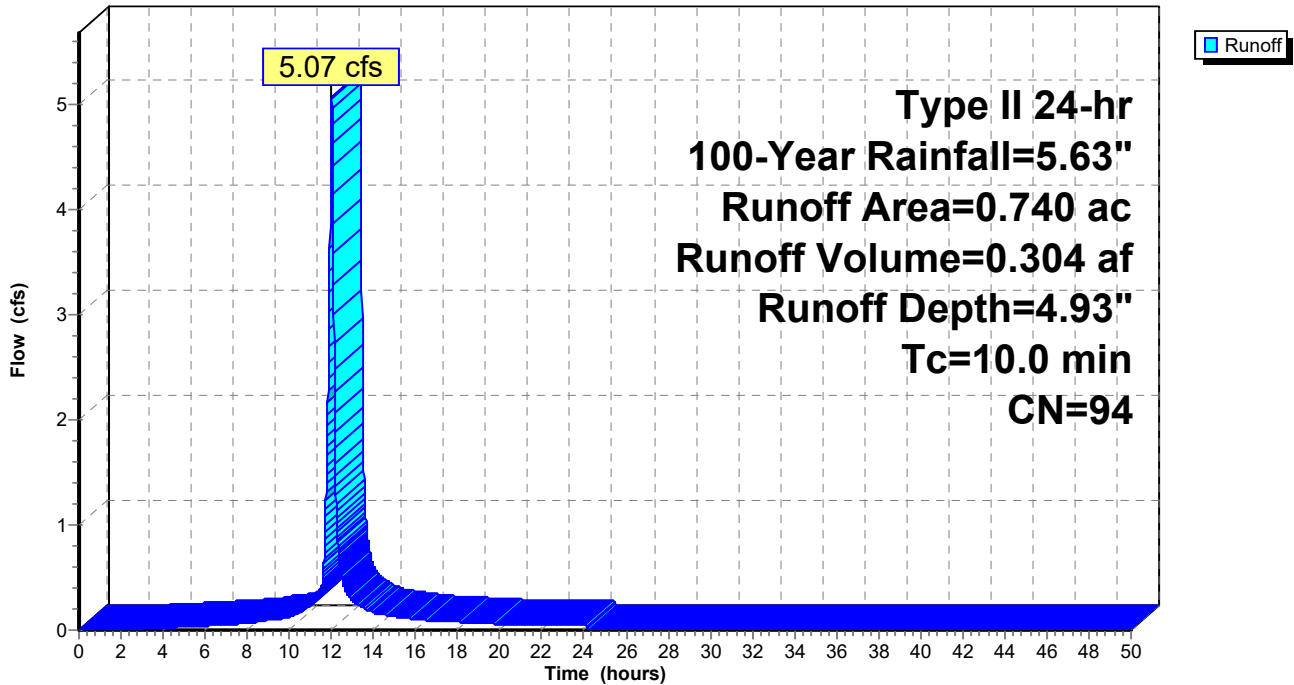
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.603	98	Paved parking, HSG C
* 0.137	77	>75% Grass cover, Good, HSG C
0.740	94	Weighted Average
0.137		18.51% Pervious Area
0.603		81.49% Impervious Area

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

Subcatchment 19S: FERRARI TRIB

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 20S: Porsche Bldg

Runoff = 3.44 cfs @ 12.01 hrs, Volume= 0.219 af, Depth= 5.39"

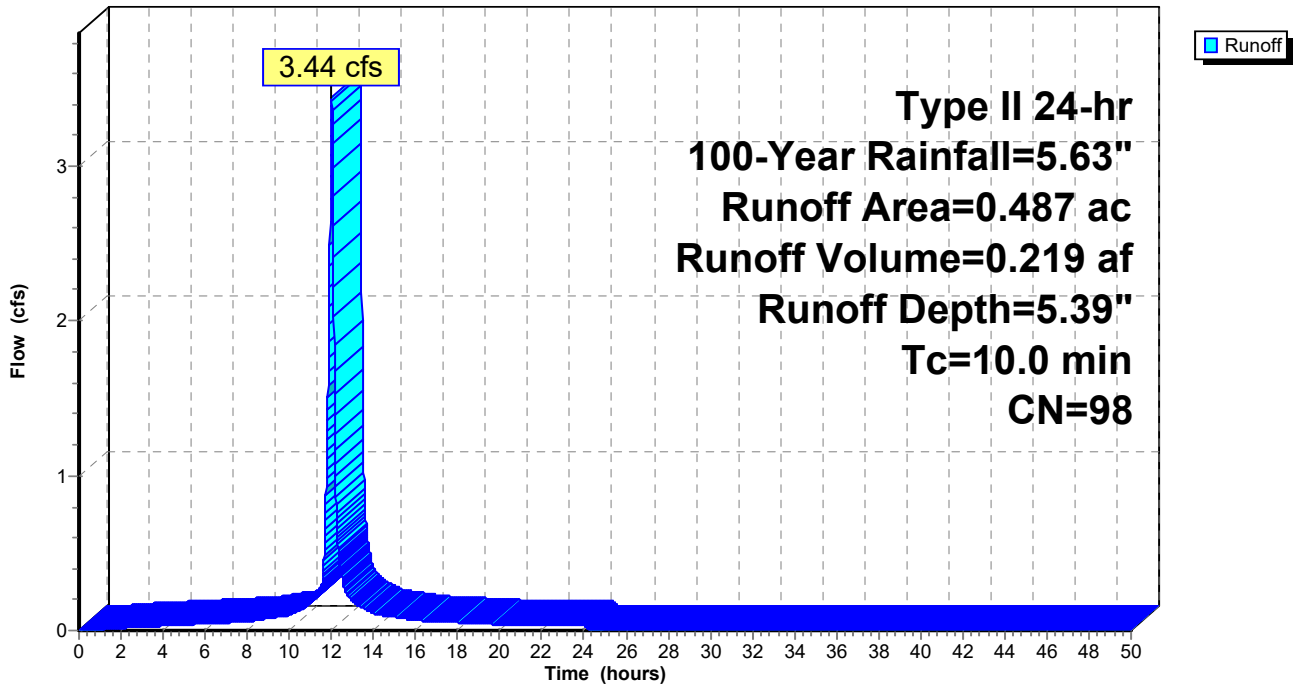
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.487	98	Roofs, HSG C
0.487		100.00% Impervious Area

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

Subcatchment 20S: Porsche Bldg

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Summary for Subcatchment 22S: Undisturbed to Prop CB 3

Runoff = 1.65 cfs @ 12.01 hrs, Volume= 0.103 af, Depth= 5.28"

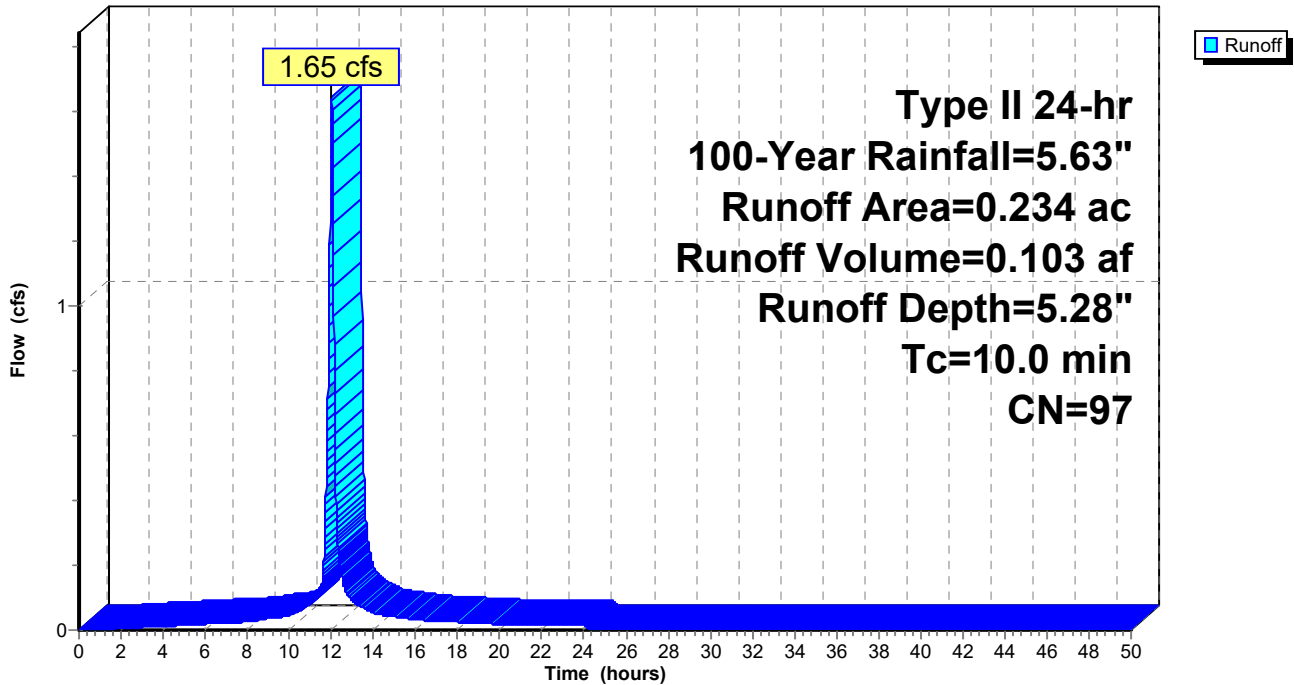
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.224	98	Paved parking, HSG C
* 0.010	77	>75% Grass cover, Good, HSG C
0.234	97	Weighted Average
0.010		4.27% Pervious Area
0.224		95.73% Impervious Area

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

Subcatchment 22S: Undisturbed to Prop CB 3

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 23S: Undisturbed to Prop CB 4

Runoff = 0.98 cfs @ 12.01 hrs, Volume= 0.060 af, Depth= 5.16"

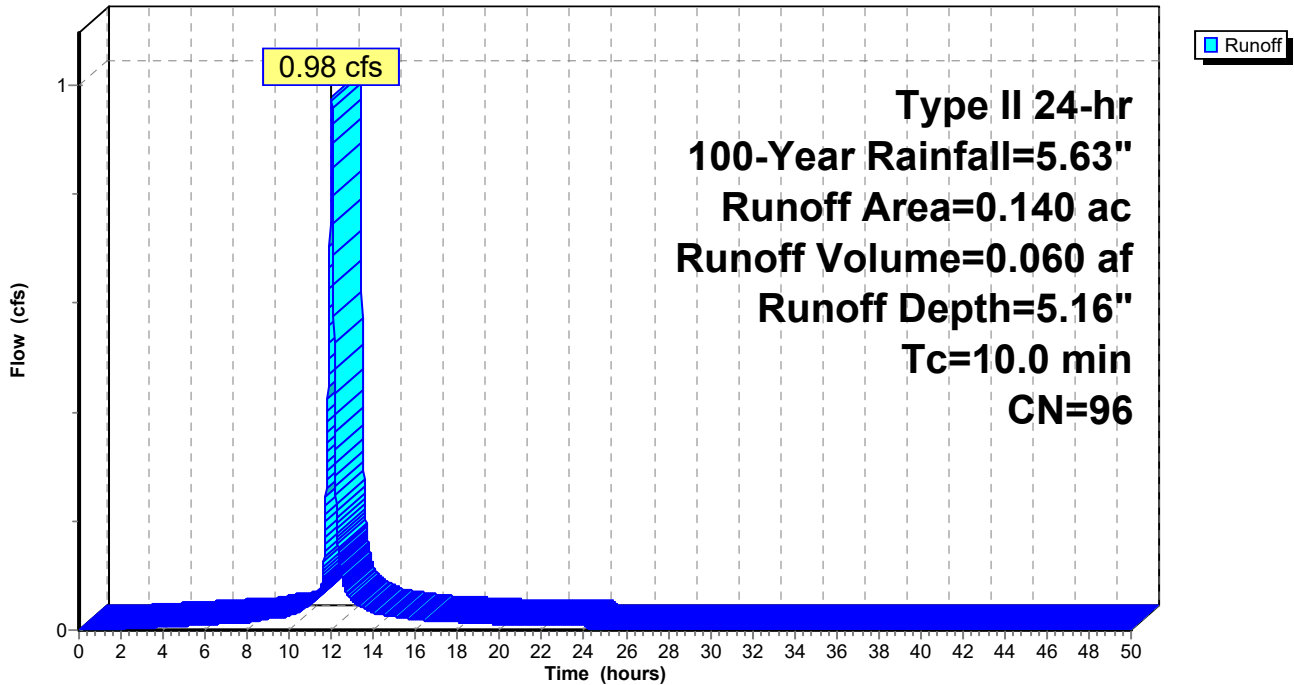
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.126	98	Paved parking, HSG C
* 0.014	77	>75% Grass cover, Good, HSG C
0.140	96	Weighted Average
0.014		10.00% Pervious Area
0.126		90.00% Impervious Area

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

Subcatchment 23S: Undisturbed to Prop CB 4

Hydrograph



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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond FP: FERRARI PONDING

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 4.93" for 100-Year event
 Inflow = 21.43 cfs @ 12.01 hrs, Volume= 2.372 af
 Outflow = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af, Atten= 73%, Lag= 17.2 min
 Primary = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.75' @ 12.30 hrs Surf.Area= 31,883 sf Storage= 18,786 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 24.4 min (877.3 - 852.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	907.34'	3,164 cf	25.25'W x 138.90'L x 3.50'H Field A 12,275 cf Overall - 4,364 cf Embedded = 7,911 cf x 40.0% Voids
#2A	907.84'	4,364 cf	ADS_StormTech SC-740 +Cap x 95 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 19 Chambers
#3	911.00'	3,698 cf	Ponding @ STR2 (NEW) (Prismatic) Listed below (Recalc)
#4	907.97'	5,923 cf	Ponding @ STR3 (Prismatic) Listed below (Recalc)
#5	908.17'	5,669 cf	Ponding @ STR4 (Prismatic) Listed below (Recalc)
#6	911.00'	3,713 cf	Ponding @ STR5 (Prismatic) Listed below
		26,531 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	8	0	0
912.00	7,388	3,698	3,698

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
907.97	4	0	0
910.92	4	12	12
911.79	9,040	3,934	3,946
911.90	9,209	1,004	4,950
912.00	10,251	973	5,923

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
908.17	4	0	0
910.97	4	11	11
911.79	8,990	3,688	3,699
911.90	9,200	1,000	4,699
912.00	10,200	970	5,669

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Type II 24-hr 100-Year Rainfall=5.63"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.00	0	0	0
911.79	5,955	2,352	2,352
912.00	7,000	1,360	3,713

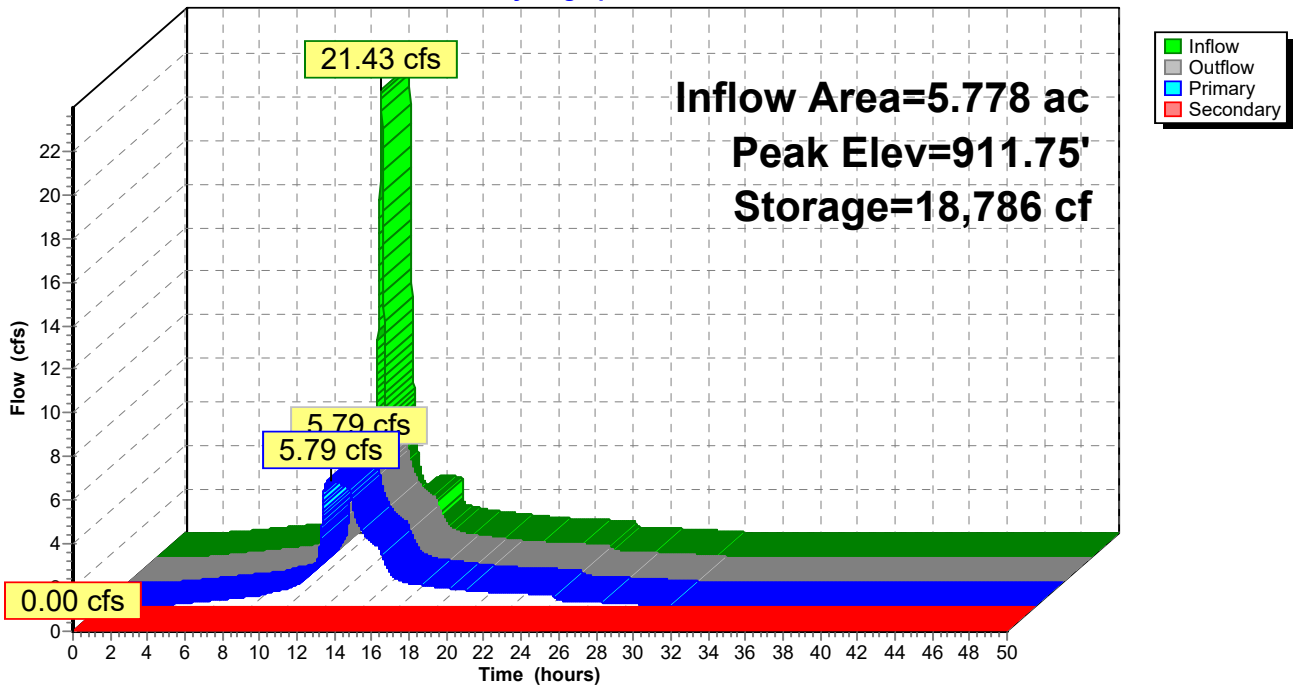
Device	Routing	Invert	Outlet Devices
#1	Primary	907.31'	10.50" Vert. Orifice/Grate C= 0.600
#2	Secondary	911.79'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Primary OutFlow Max=5.79 cfs @ 12.30 hrs HW=911.75' TW=0.00' (Dynamic Tailwater)
 ↳1=Orifice/Grate (Orifice Controls 5.79 cfs @ 9.63 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=907.34' TW=0.00' (Dynamic Tailwater)
 ↳2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond FP: FERRARI PONDING

Hydrograph



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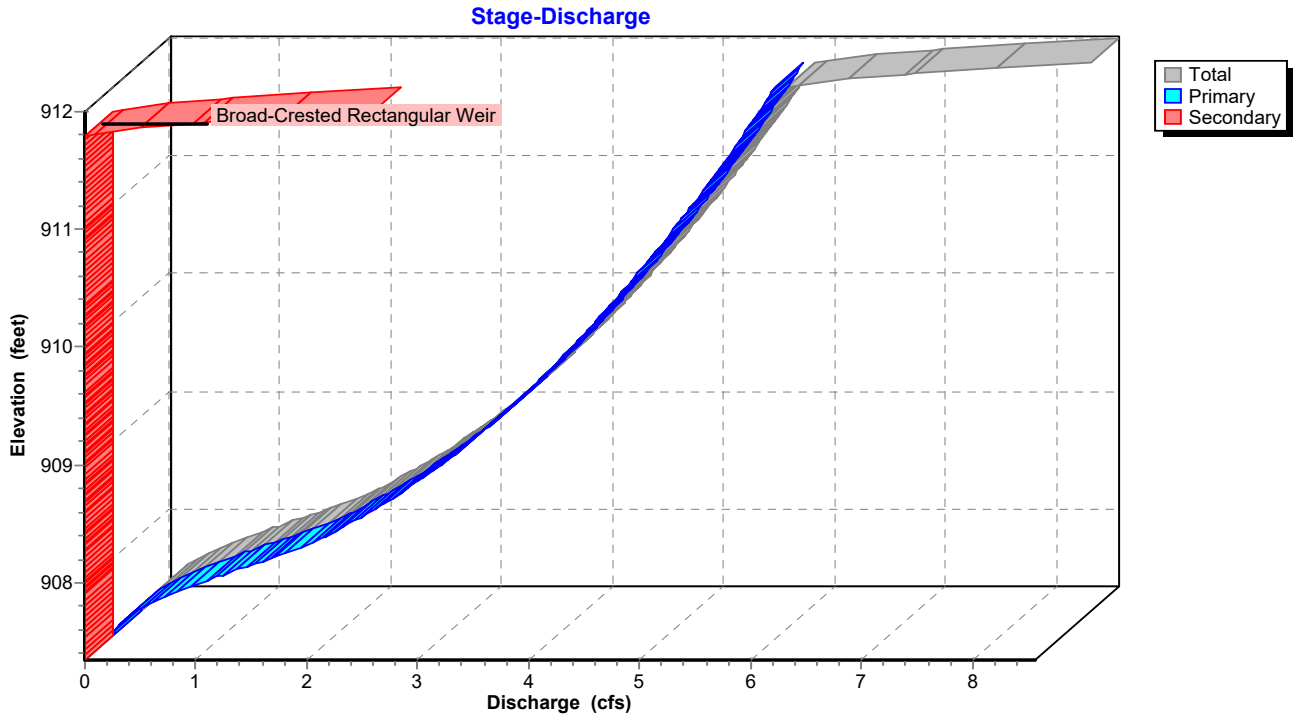
PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

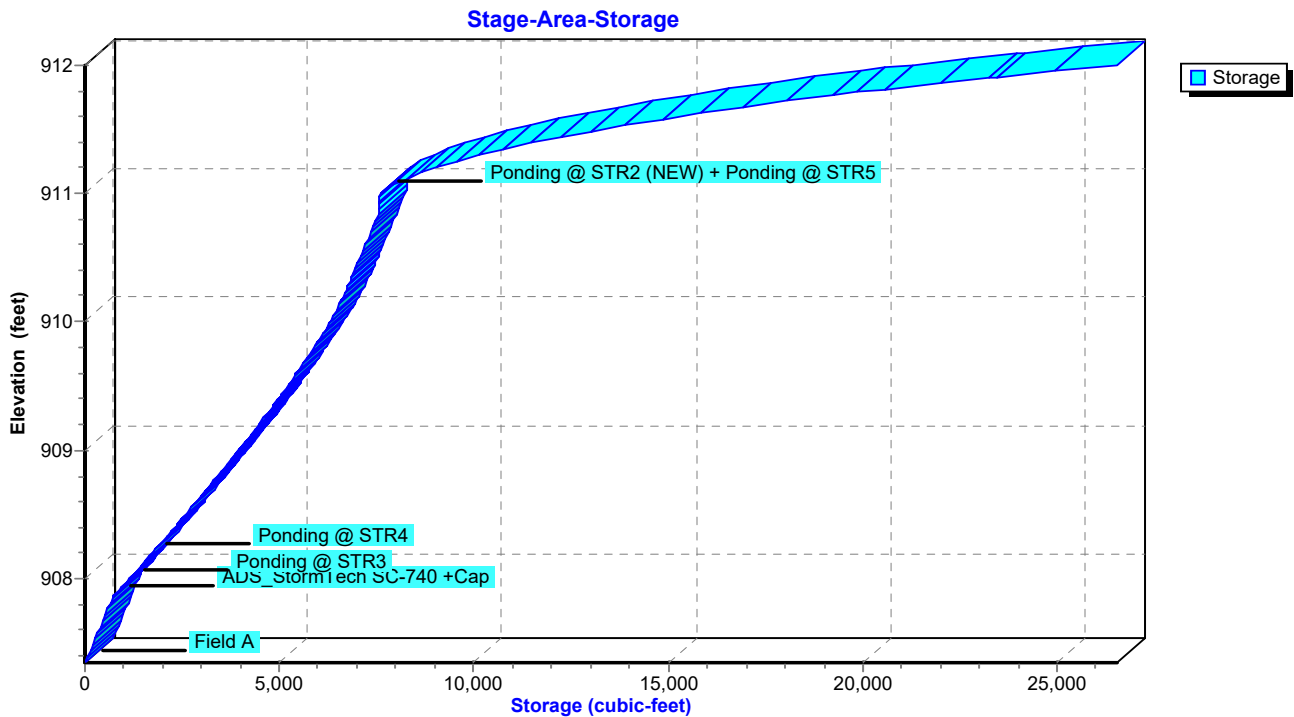
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Pond FP: FERRARI PONDING



Pond FP: FERRARI PONDING



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PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond PP: PORSCHE PONDING

Inflow Area = 1.217 ac, 97.53% Impervious, Inflow Depth = 5.32" for 100-Year event
 Inflow = 8.58 cfs @ 12.01 hrs, Volume= 0.540 af
 Outflow = 0.53 cfs @ 15.33 hrs, Volume= 0.539 af, Atten= 94%, Lag= 199.1 min
 Primary = 0.53 cfs @ 15.33 hrs, Volume= 0.539 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.03' @ 13.48 hrs Surf.Area= 12,810 sf Storage= 14,219 cf

Plug-Flow detention time= 341.6 min calculated for 0.539 af (100% of inflow)
 Center-of-Mass det. time= 341.0 min (1,091.1 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	908.00'	4,948 cf	34.75'W x 160.26'L x 3.50'H Field A 19,491 cf Overall - 7,121 cf Embedded = 12,370 cf x 40.0% Voids
#2A	908.50'	7,121 cf	ADS_StormTech RC-750 +Cap x 154 Inside #1 Effective Size= 45.4"W x 30.0"H => 6.49 sf x 7.12'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 7 Rows of 22 Chambers
#3	911.44'	5,594 cf	Ponding @ STR13 (Prismatic) Listed below (Recalc)
		17,663 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
911.44	16	0	0
912.29	10,379	4,418	4,418
912.40	11,000	1,176	5,594

Device	Routing	Invert	Outlet Devices
#1	Primary	908.00'	3.25" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.53 cfs @ 15.33 hrs HW=911.77' TW=908.13' (Dynamic Tailwater)
 ←1=Orifice/Grate (Orifice Controls 0.53 cfs @ 9.18 fps)

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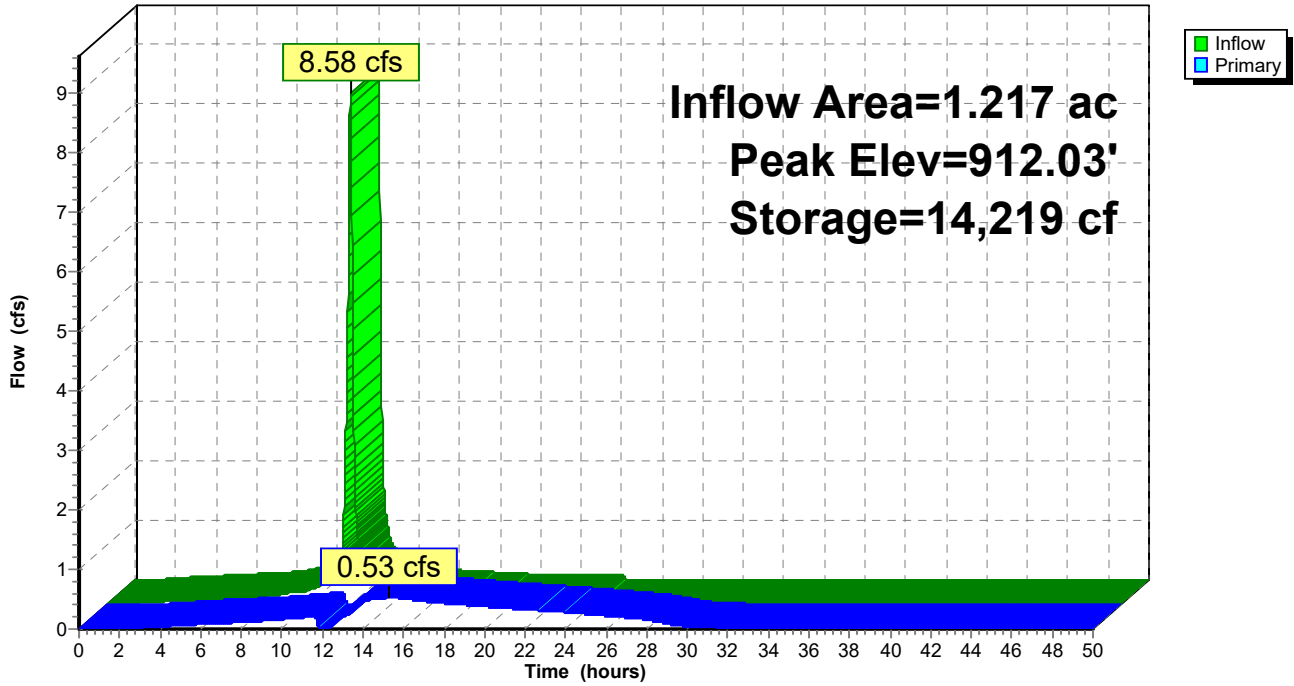
Type II 24-hr 100-Year Rainfall=5.63"

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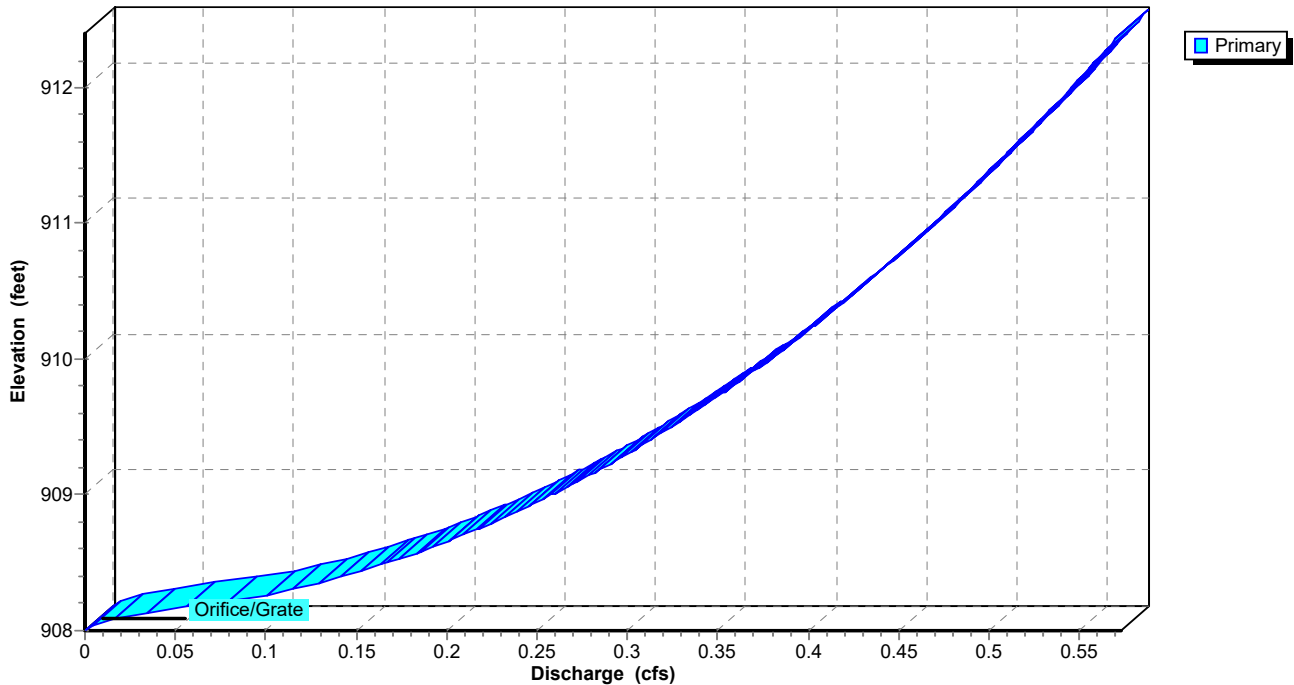
Pond PP: PORSCHE PONDING

Hydrograph



Pond PP: PORSCHE PONDING

Stage-Discharge



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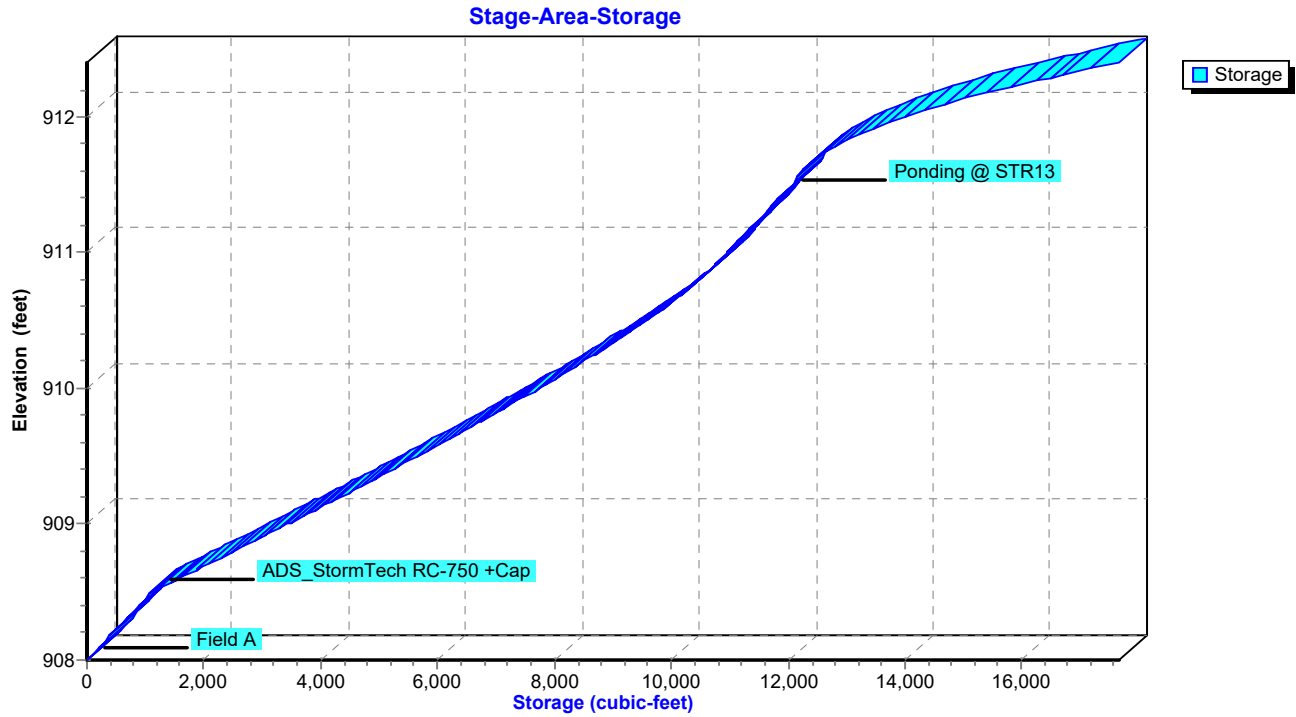
PROPOSED EAST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Pond PP: PORSCHE PONDING



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment XE: STRX

Runoff = 0.85 cfs @ 12.01 hrs, Volume= 0.054 af, Depth= 5.39"

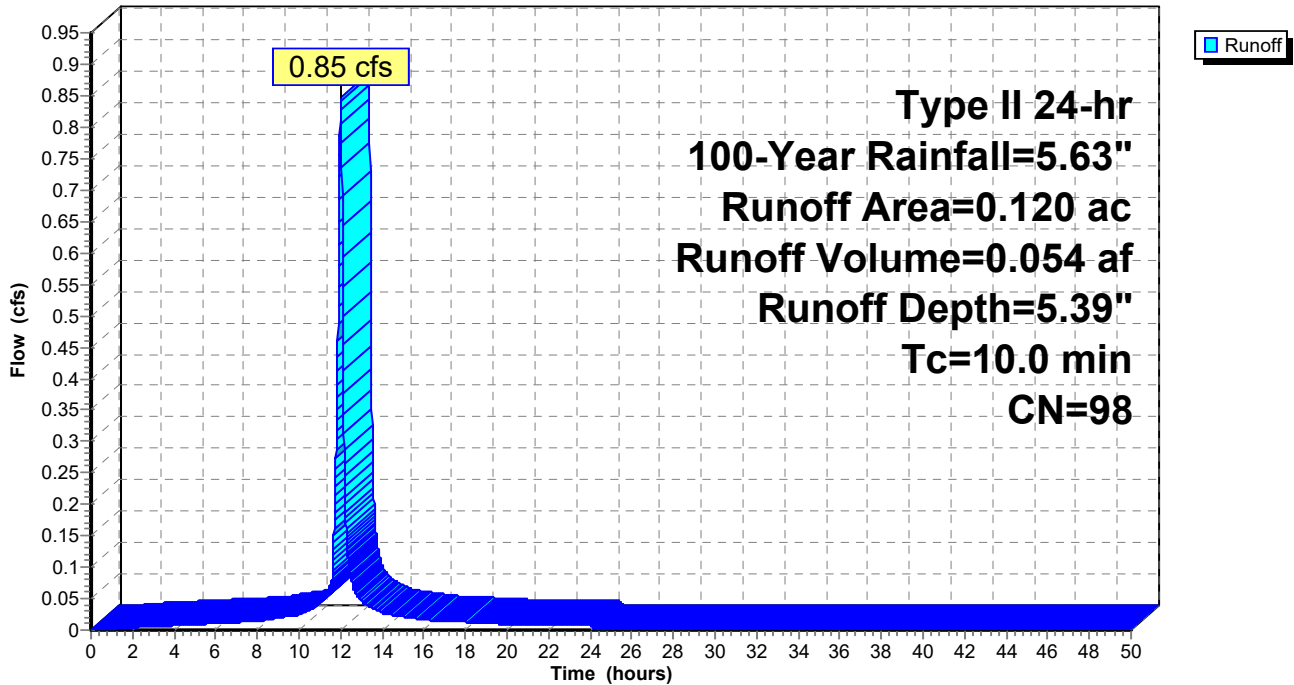
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

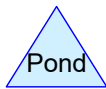
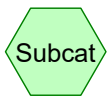
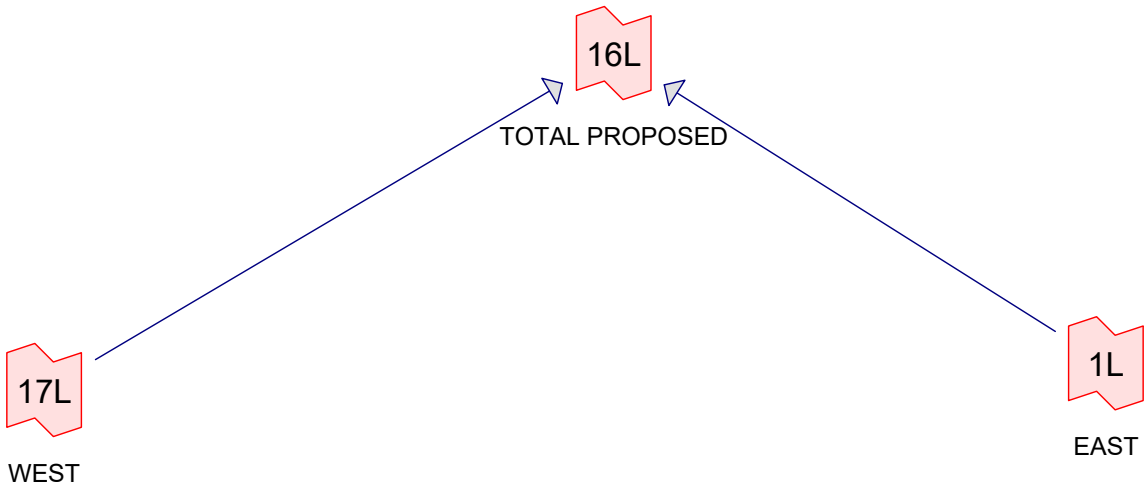
Area (ac)	CN	Description
0.000	98	Paved parking, HSG C
* 0.000	77	>75% Grass cover, Good, HSG C
0.120	98	Roofs, HSG C
0.120	98	Weighted Average
0.120		100.00% Impervious Area

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

Subcatchment XE: STRX

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Type II 24-hr 1-Year Rainfall=2.20"

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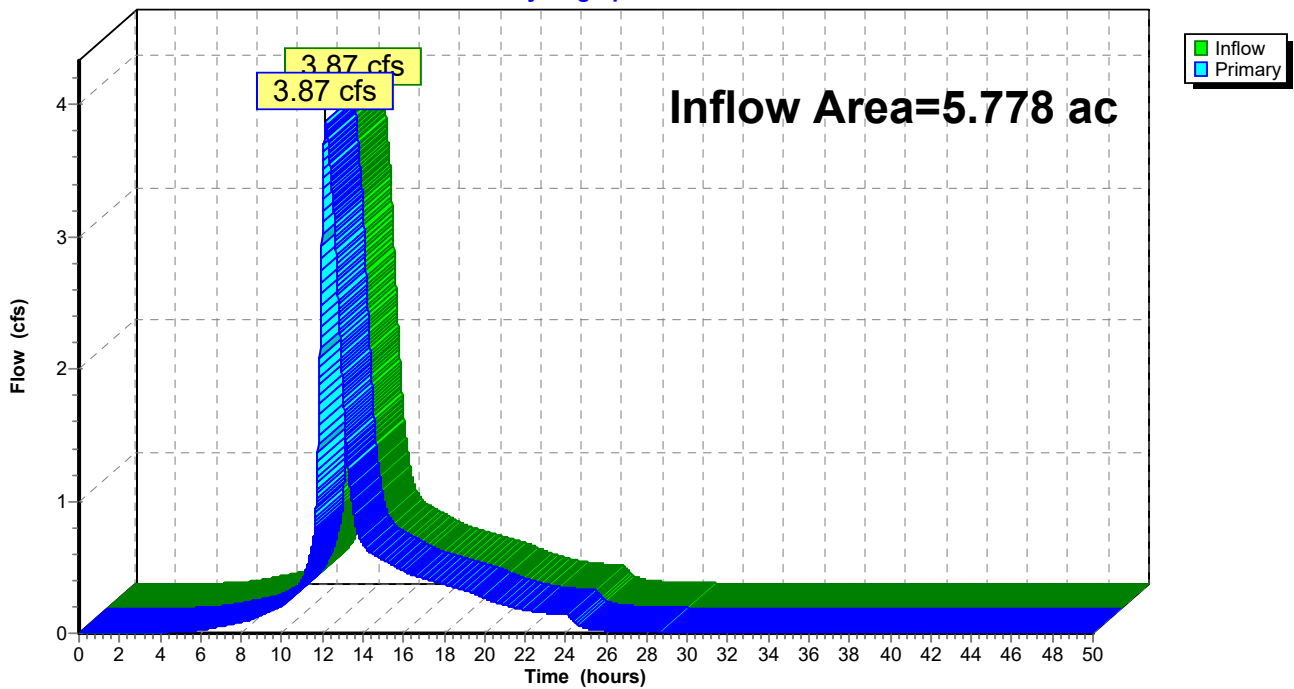
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 1.61" for 1-Year event
Inflow = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af
Primary = 3.87 cfs @ 12.16 hrs, Volume= 0.774 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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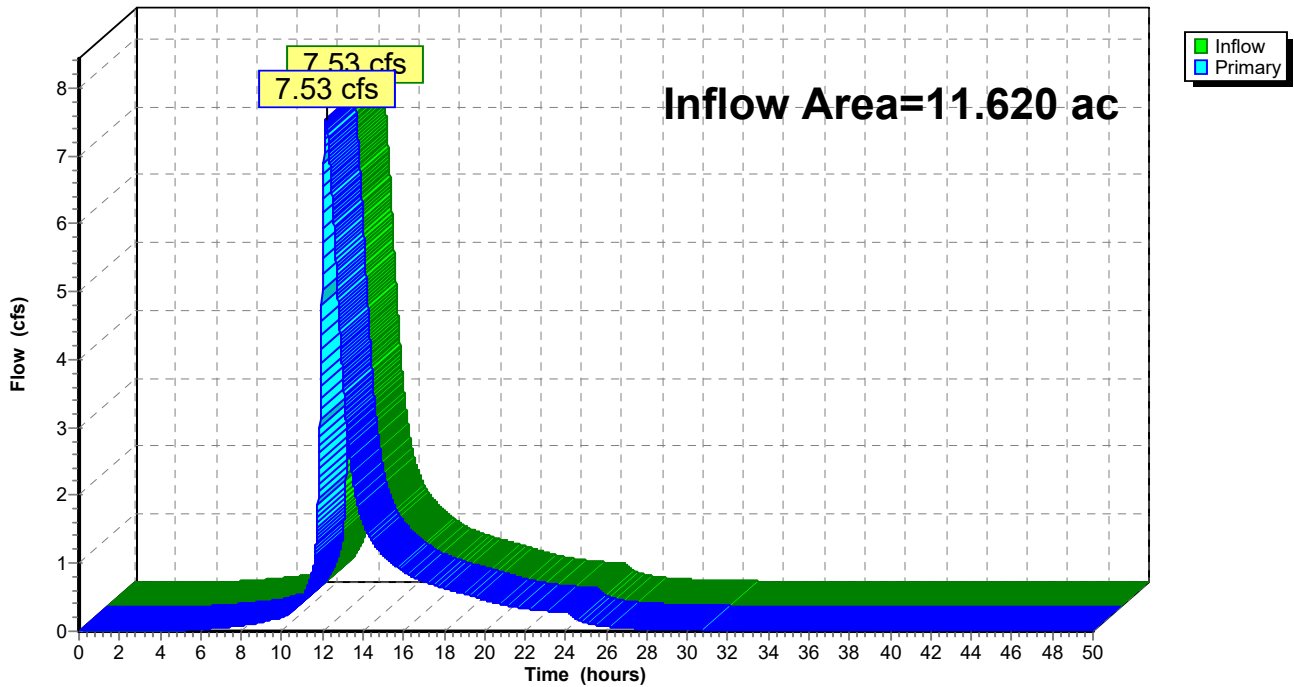
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth > 1.47" for 1-Year event
Inflow = 7.53 cfs @ 12.18 hrs, Volume= 1.426 af
Primary = 7.53 cfs @ 12.18 hrs, Volume= 1.426 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 1-Year Rainfall=2.20"

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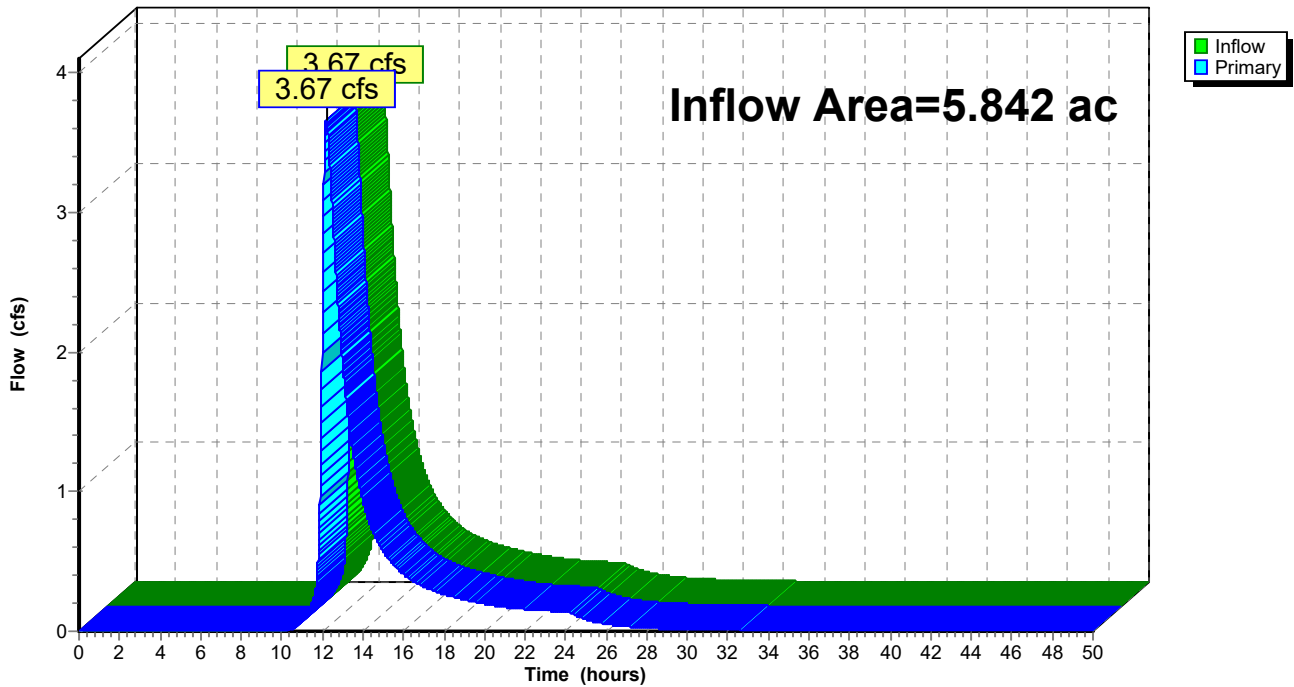
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth > 1.34" for 1-Year event
Inflow = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af
Primary = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 2-Year Rainfall=2.63"

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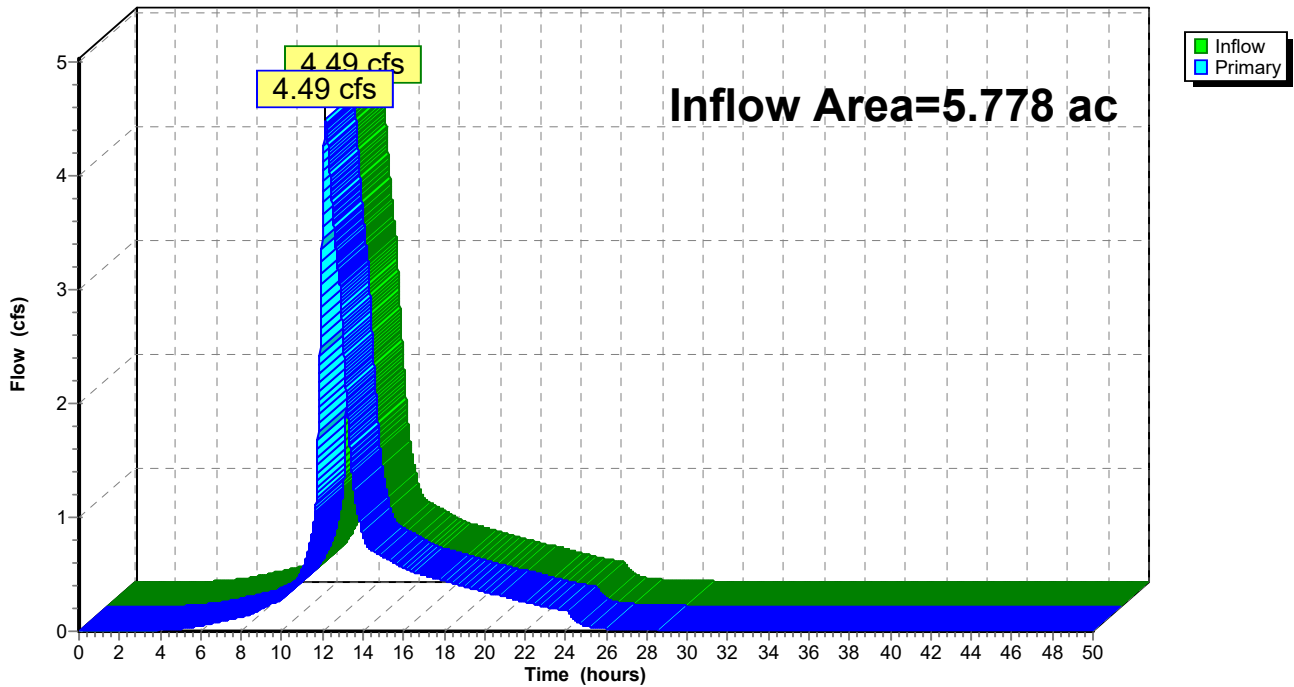
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 2.01" for 2-Year event
Inflow = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af
Primary = 4.49 cfs @ 12.16 hrs, Volume= 0.969 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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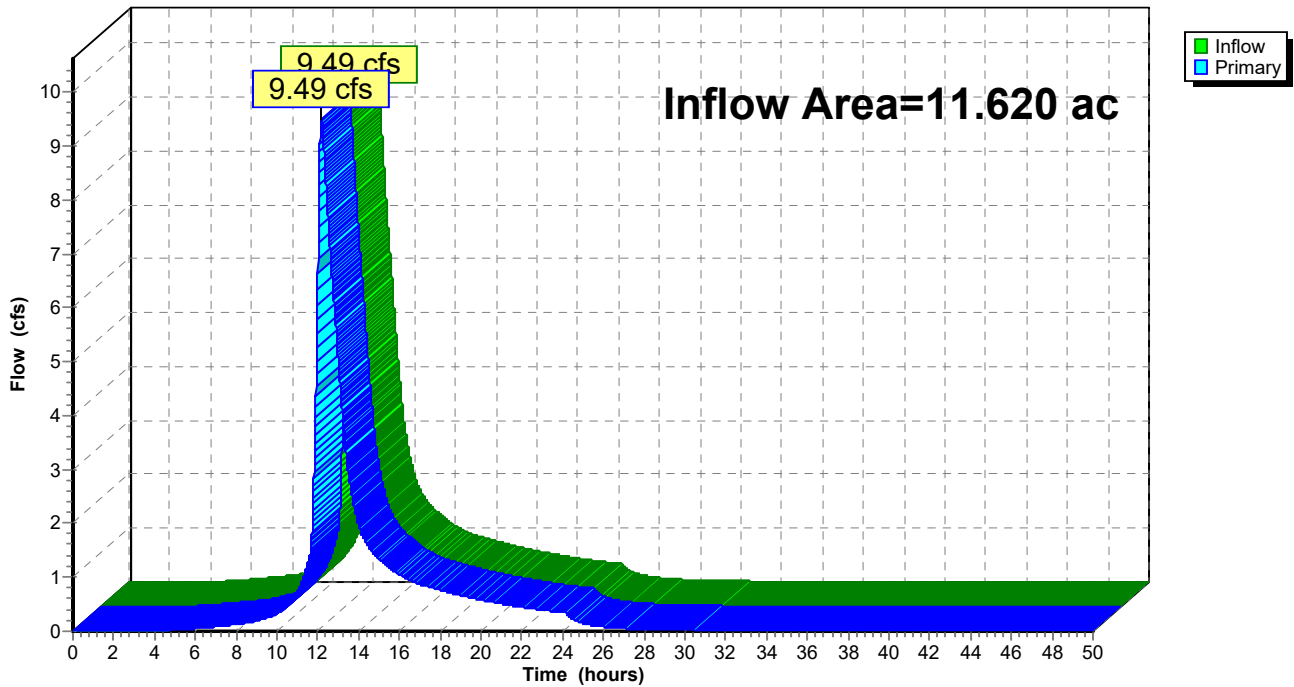
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth > 1.87" for 2-Year event
Inflow = 9.49 cfs @ 12.17 hrs, Volume= 1.810 af
Primary = 9.49 cfs @ 12.17 hrs, Volume= 1.810 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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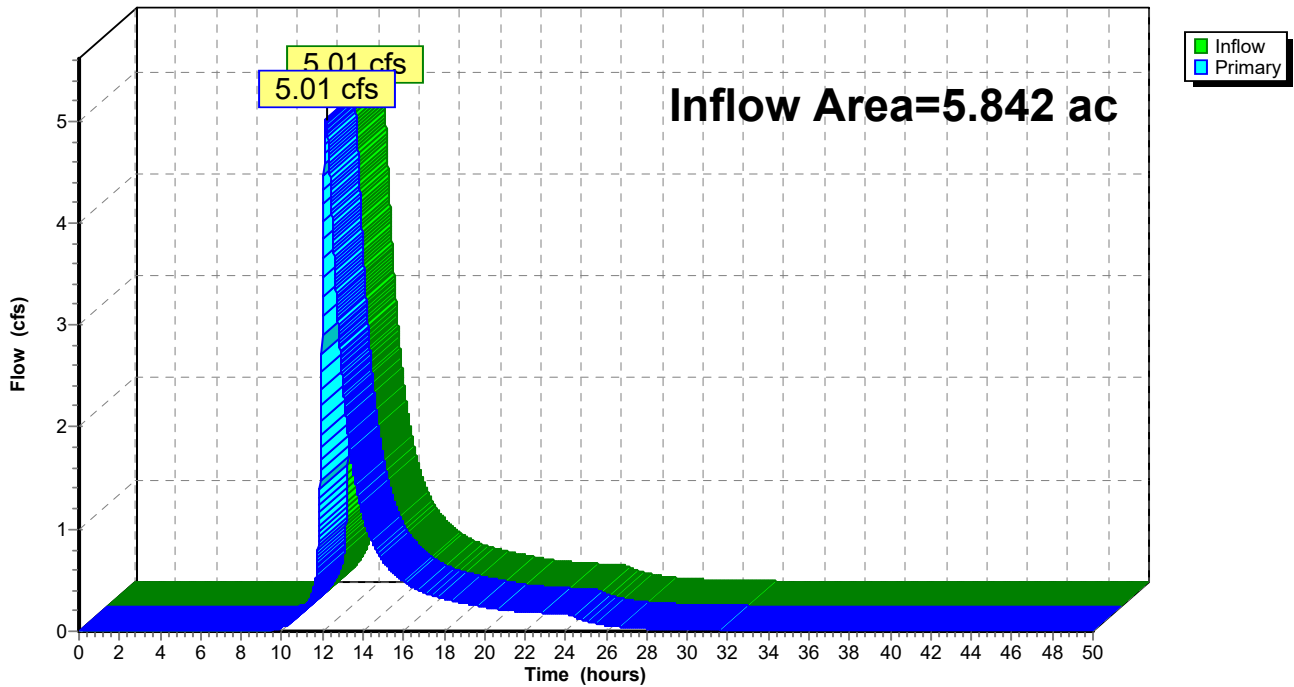
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth > 1.73" for 2-Year event
Inflow = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af
Primary = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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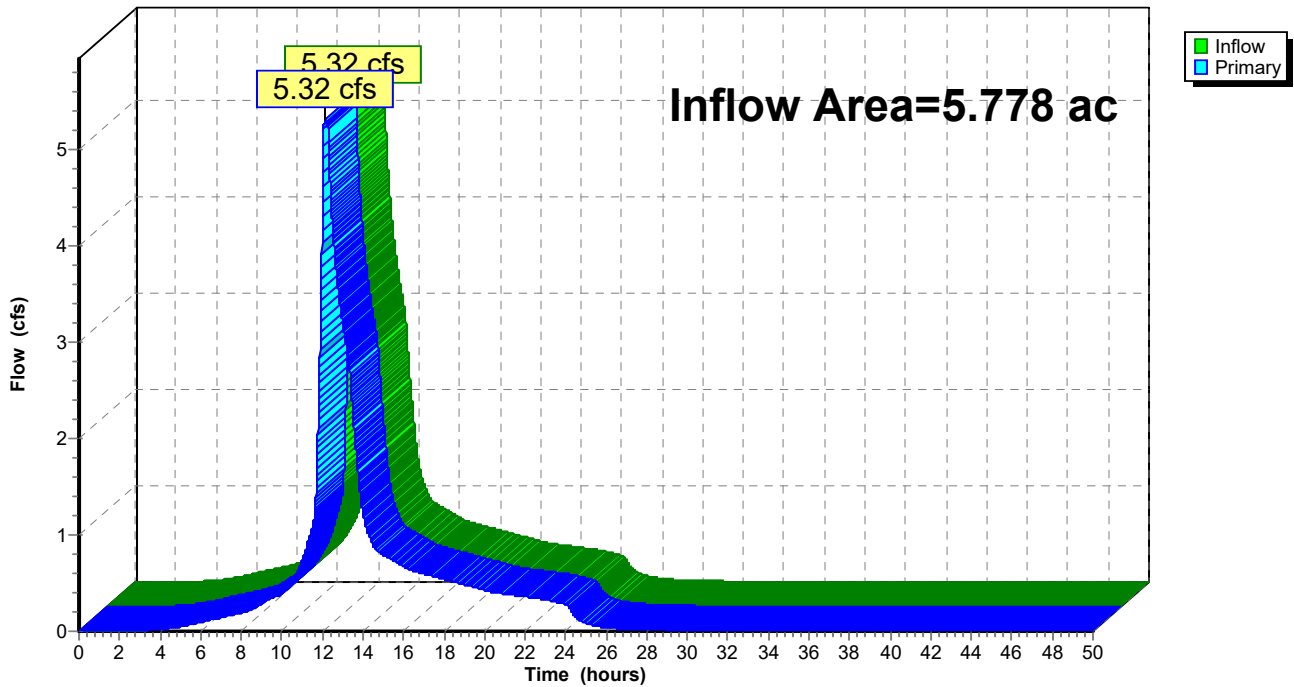
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 2.59" for 5-Year event
Inflow = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af
Primary = 5.32 cfs @ 12.15 hrs, Volume= 1.249 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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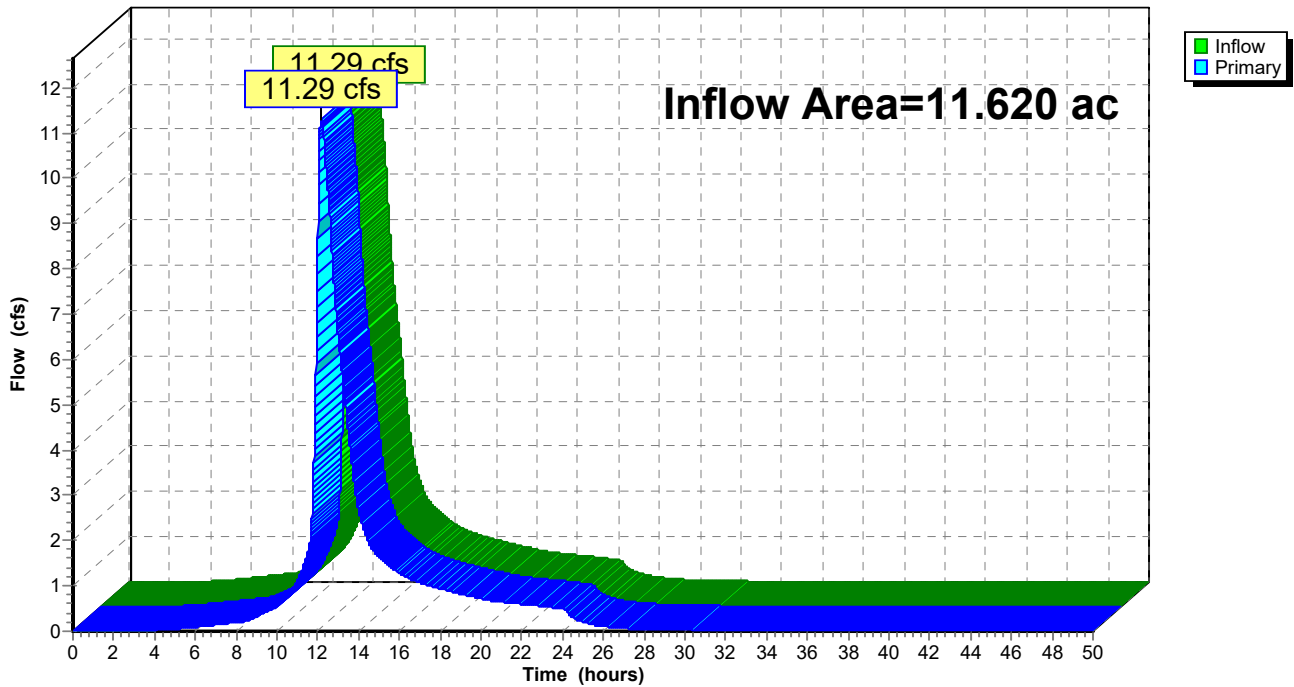
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth = 2.44" for 5-Year event
Inflow = 11.29 cfs @ 12.18 hrs, Volume= 2.366 af
Primary = 11.29 cfs @ 12.18 hrs, Volume= 2.366 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

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Type II 24-hr 5-Year Rainfall=3.24"

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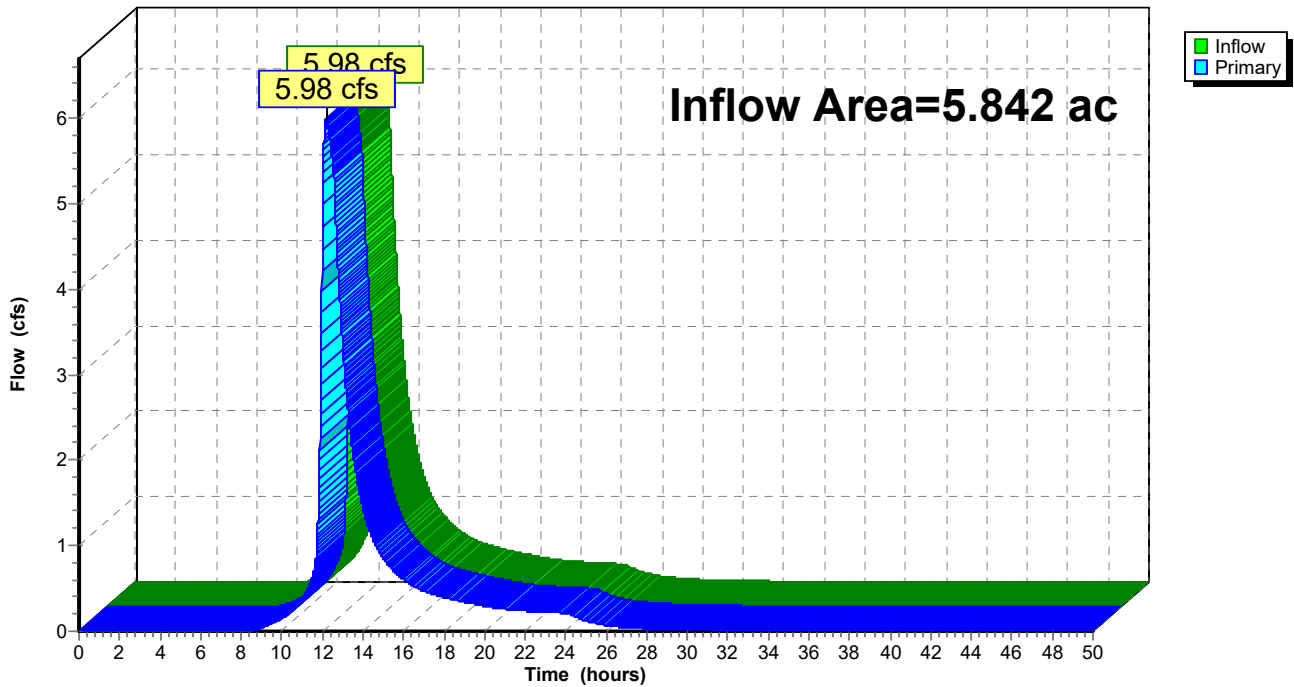
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.29" for 5-Year event
Inflow = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af
Primary = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 10-Year Rainfall=3.74"

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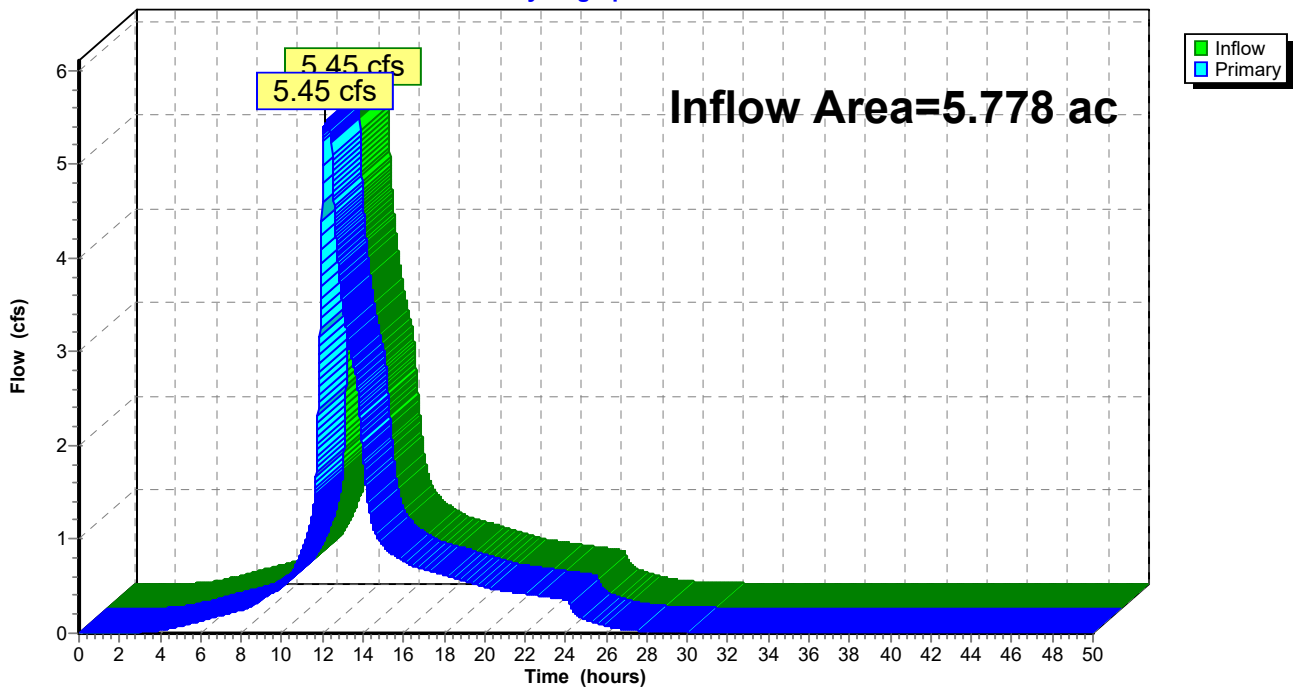
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth = 3.08" for 10-Year event
Inflow = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af
Primary = 5.45 cfs @ 12.17 hrs, Volume= 1.482 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 10-Year Rainfall=3.74"

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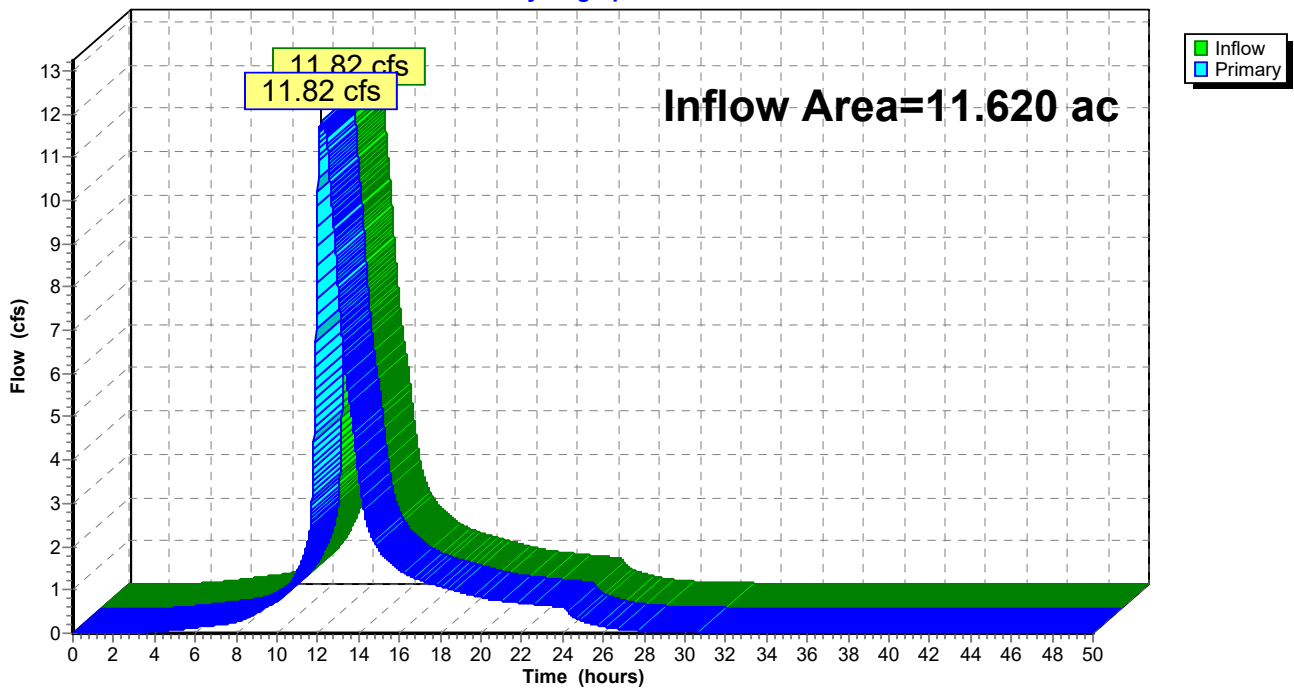
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth = 2.92" for 10-Year event
Inflow = 11.82 cfs @ 12.19 hrs, Volume= 2.829 af
Primary = 11.82 cfs @ 12.19 hrs, Volume= 2.829 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 10-Year Rainfall=3.74"

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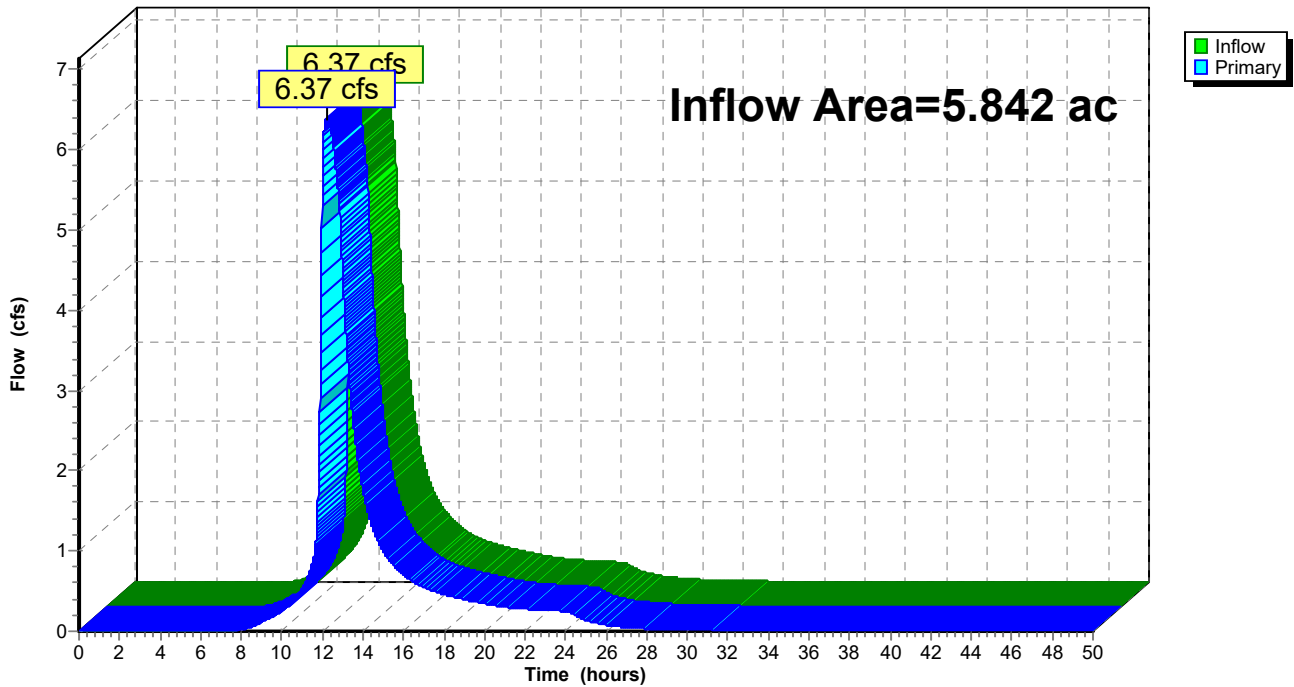
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.77" for 10-Year event
Inflow = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af
Primary = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 25-Year Rainfall=4.44"

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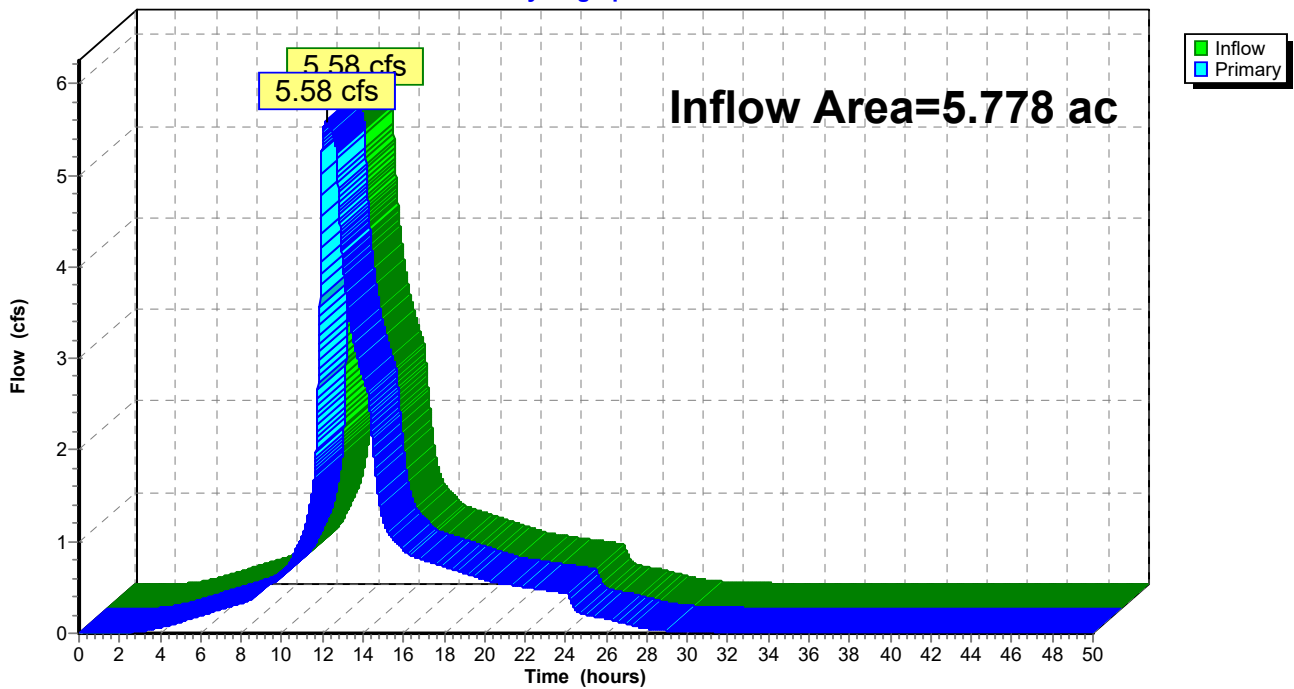
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 3.76" for 25-Year event
Inflow = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af
Primary = 5.58 cfs @ 12.19 hrs, Volume= 1.810 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 25-Year Rainfall=4.44"

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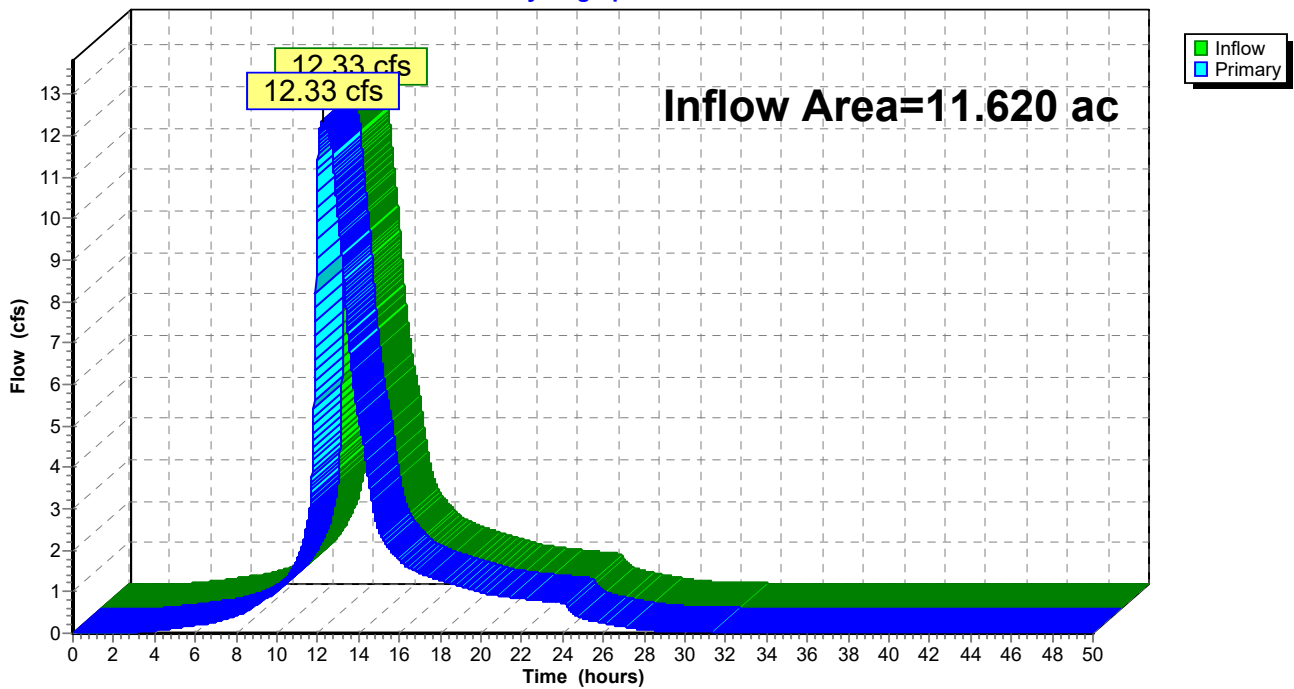
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth = 3.60" for 25-Year event
Inflow = 12.33 cfs @ 12.21 hrs, Volume= 3.483 af
Primary = 12.33 cfs @ 12.21 hrs, Volume= 3.483 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 25-Year Rainfall=4.44"

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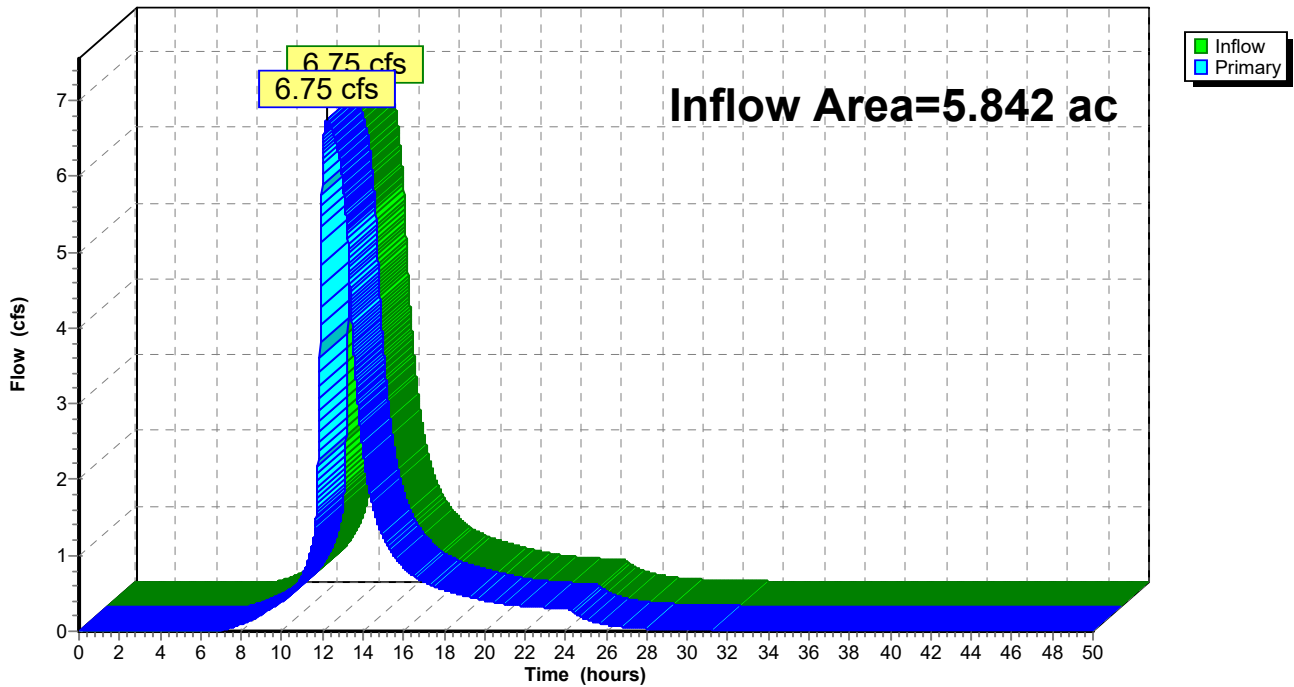
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 3.44" for 25-Year event
Inflow = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af
Primary = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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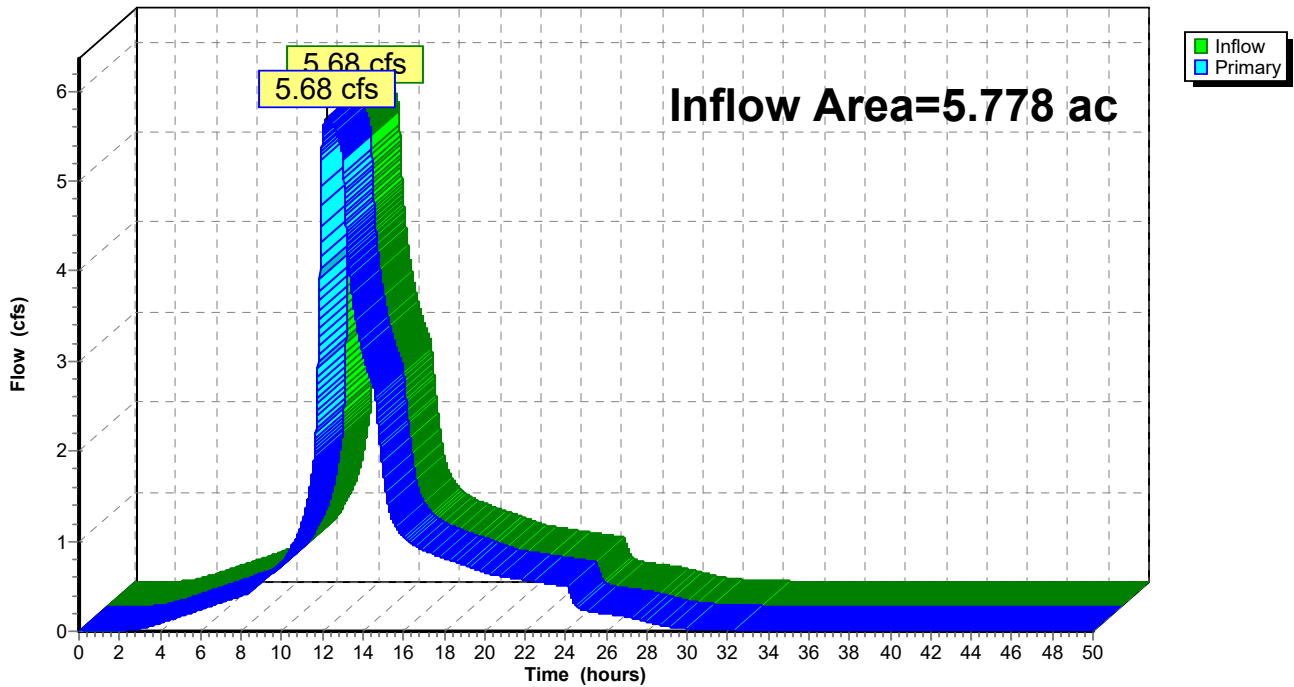
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 4.33" for 50-Year event
Inflow = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af
Primary = 5.68 cfs @ 12.23 hrs, Volume= 2.083 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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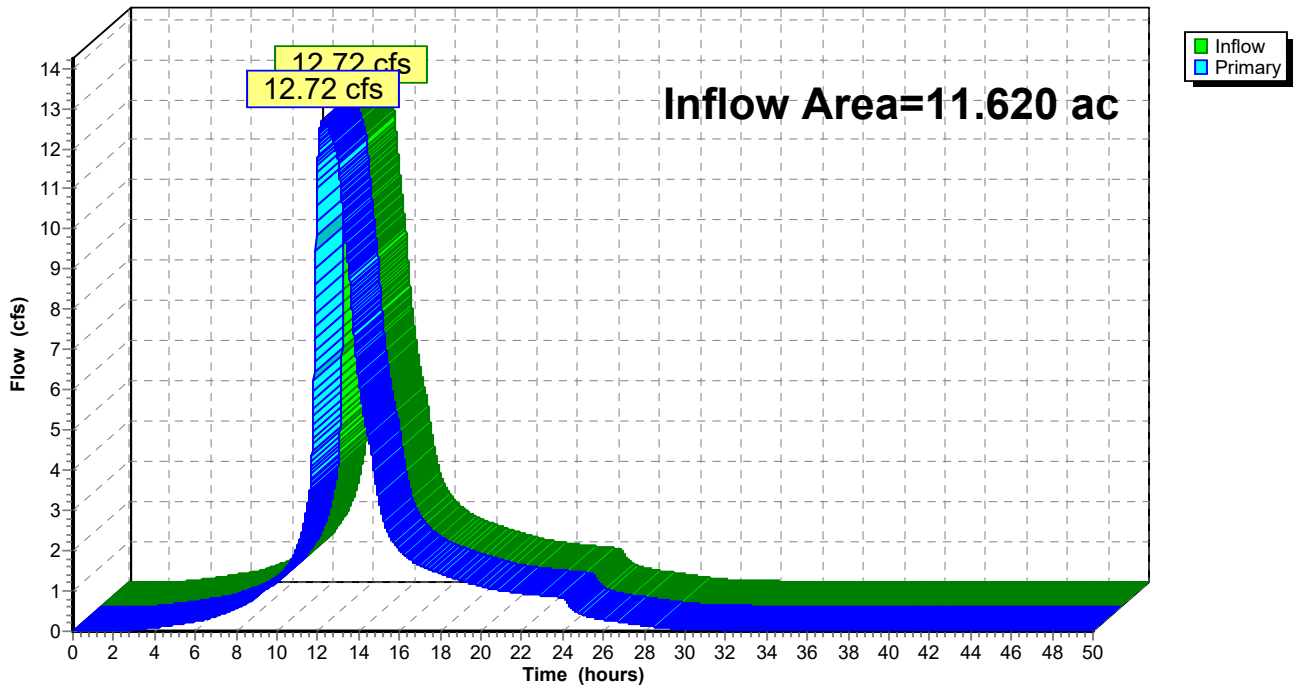
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth = 4.16" for 50-Year event
Inflow = 12.72 cfs @ 12.24 hrs, Volume= 4.029 af
Primary = 12.72 cfs @ 12.24 hrs, Volume= 4.029 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 50-Year Rainfall=5.02"

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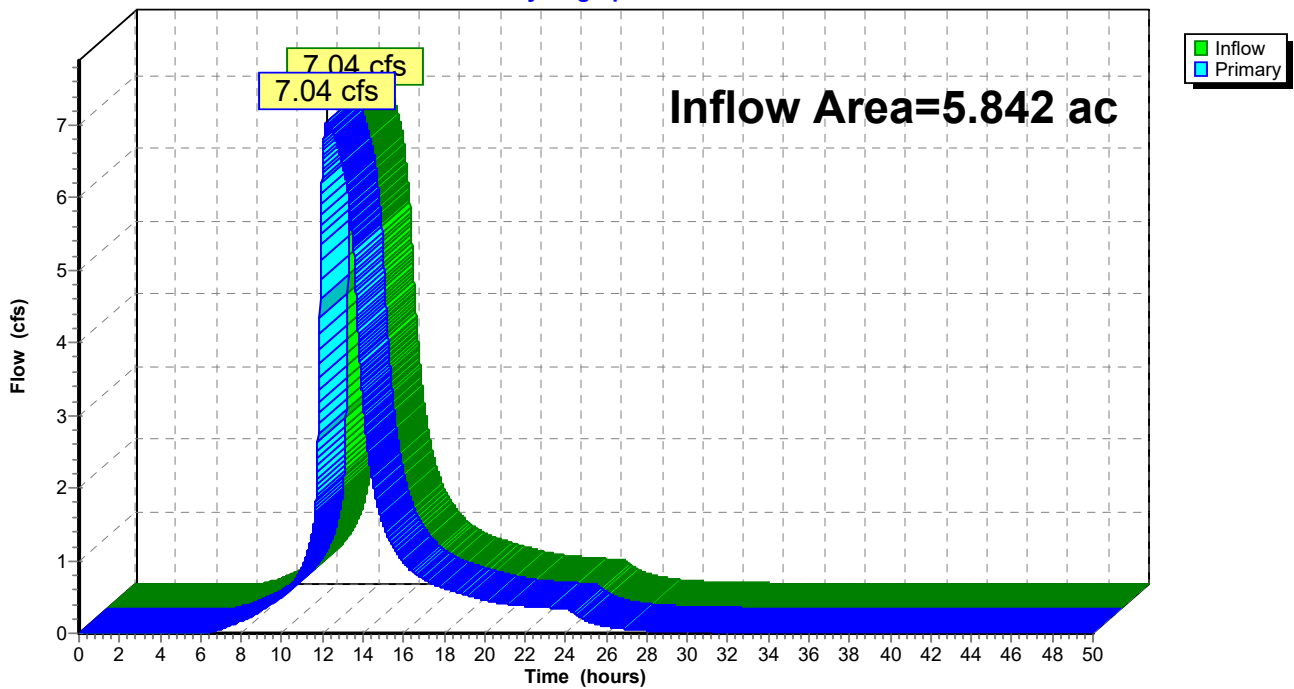
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.00" for 50-Year event
Inflow = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af
Primary = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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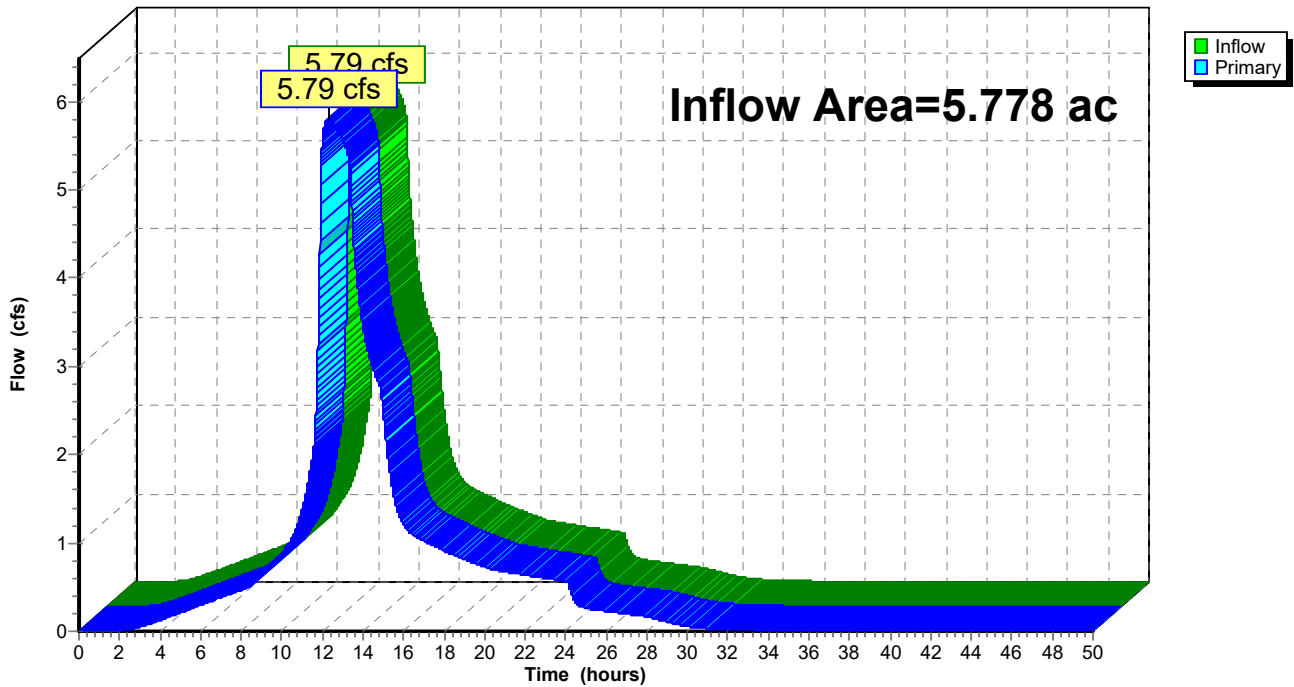
Summary for Link 1L: EAST

Inflow Area = 5.778 ac, 80.82% Impervious, Inflow Depth > 4.93" for 100-Year event
Inflow = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af
Primary = 5.79 cfs @ 12.30 hrs, Volume= 2.372 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: EAST

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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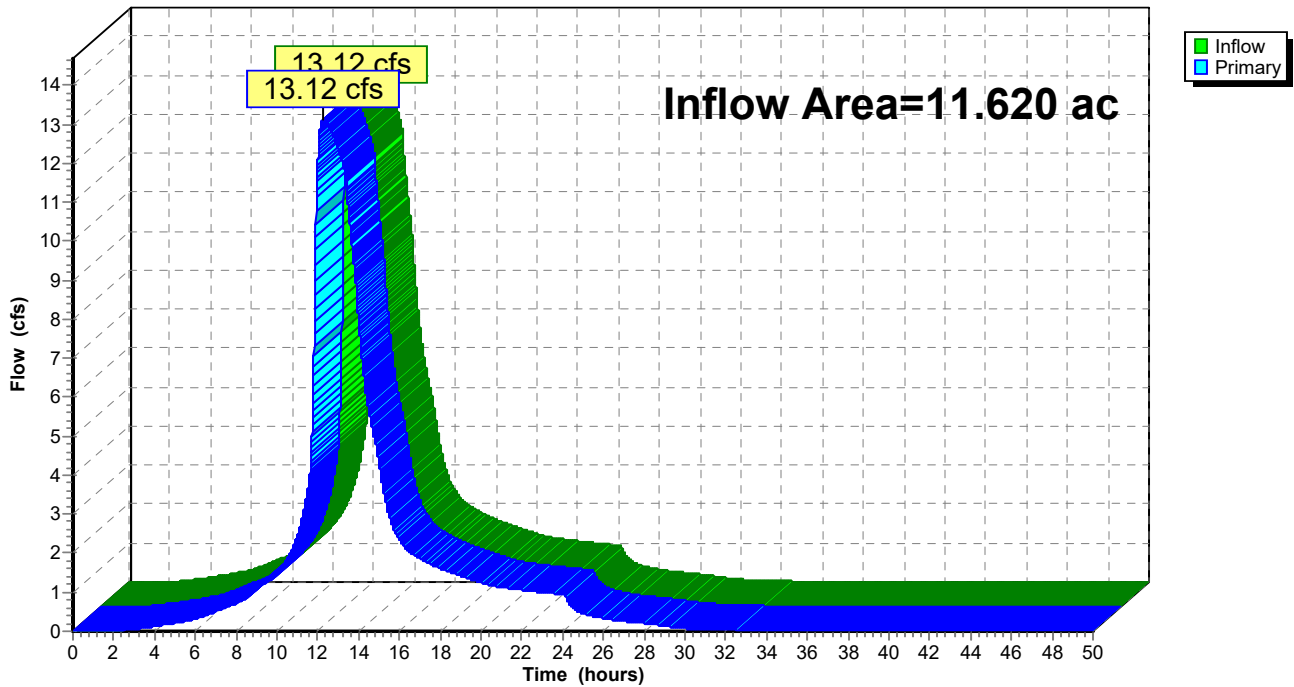
Summary for Link 16L: TOTAL PROPOSED

Inflow Area = 11.620 ac, 74.97% Impervious, Inflow Depth = 4.76" for 100-Year event
Inflow = 13.12 cfs @ 12.27 hrs, Volume= 4.606 af
Primary = 13.12 cfs @ 12.27 hrs, Volume= 4.606 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 16L: TOTAL PROPOSED

Hydrograph



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PROPOSED TOTAL

Type II 24-hr 100-Year Rainfall=5.63"

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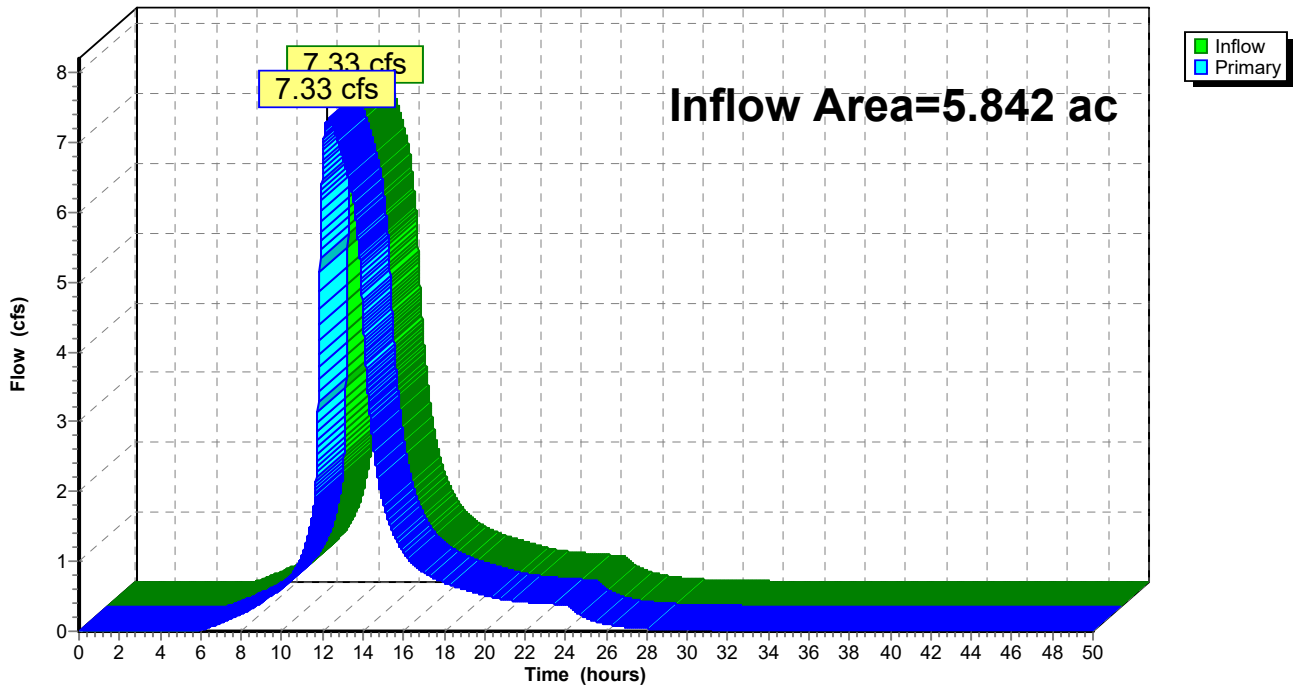
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.59" for 100-Year event
Inflow = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af
Primary = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af, Atten= 0%, Lag= 0.0 min

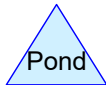
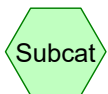
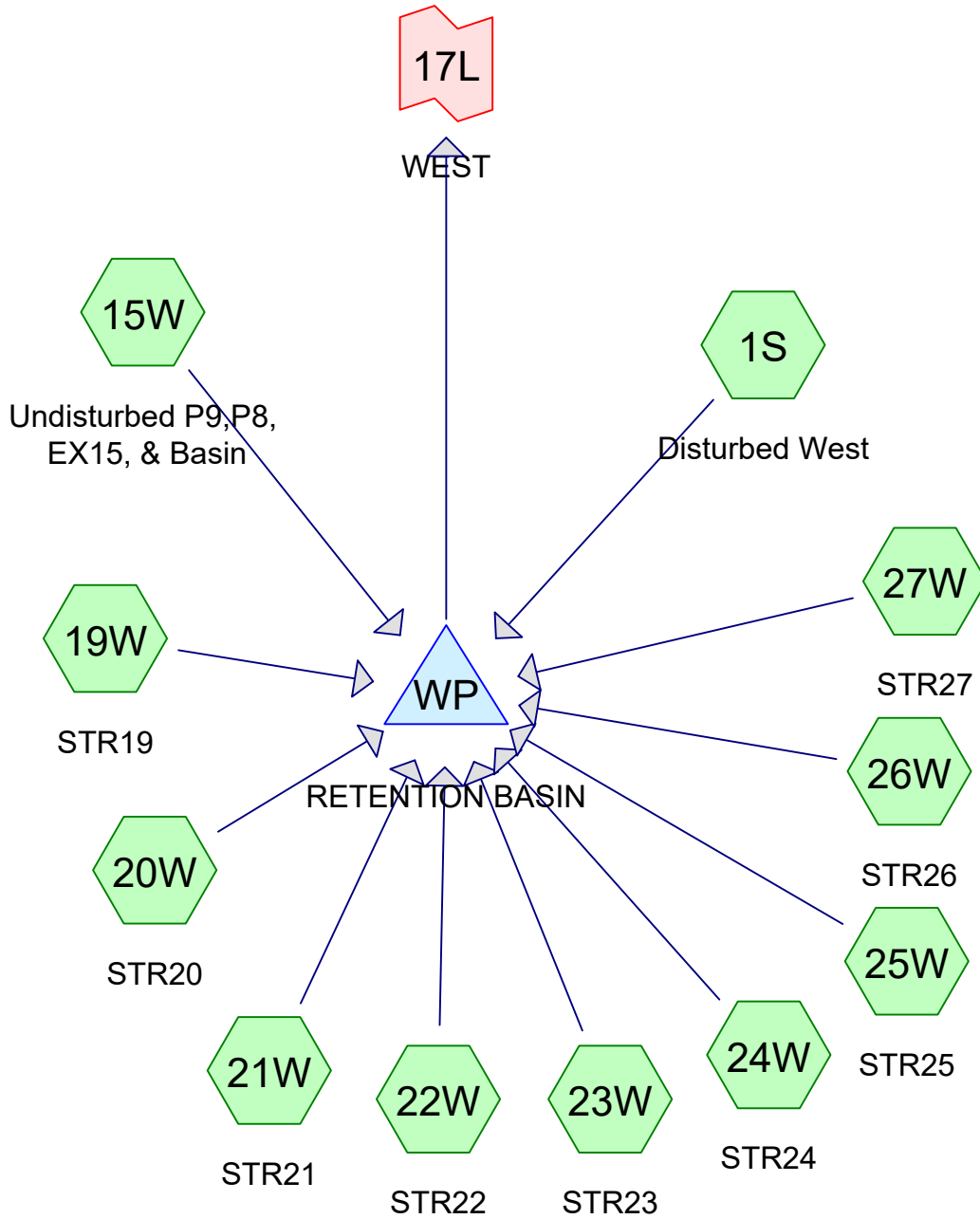
Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



PROP WEST TRIB



Routing Diagram for 3481 MAG PORSCHE - PROPOSED
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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 0.53 cfs @ 12.01 hrs, Volume= 0.029 af, Depth= 1.42"

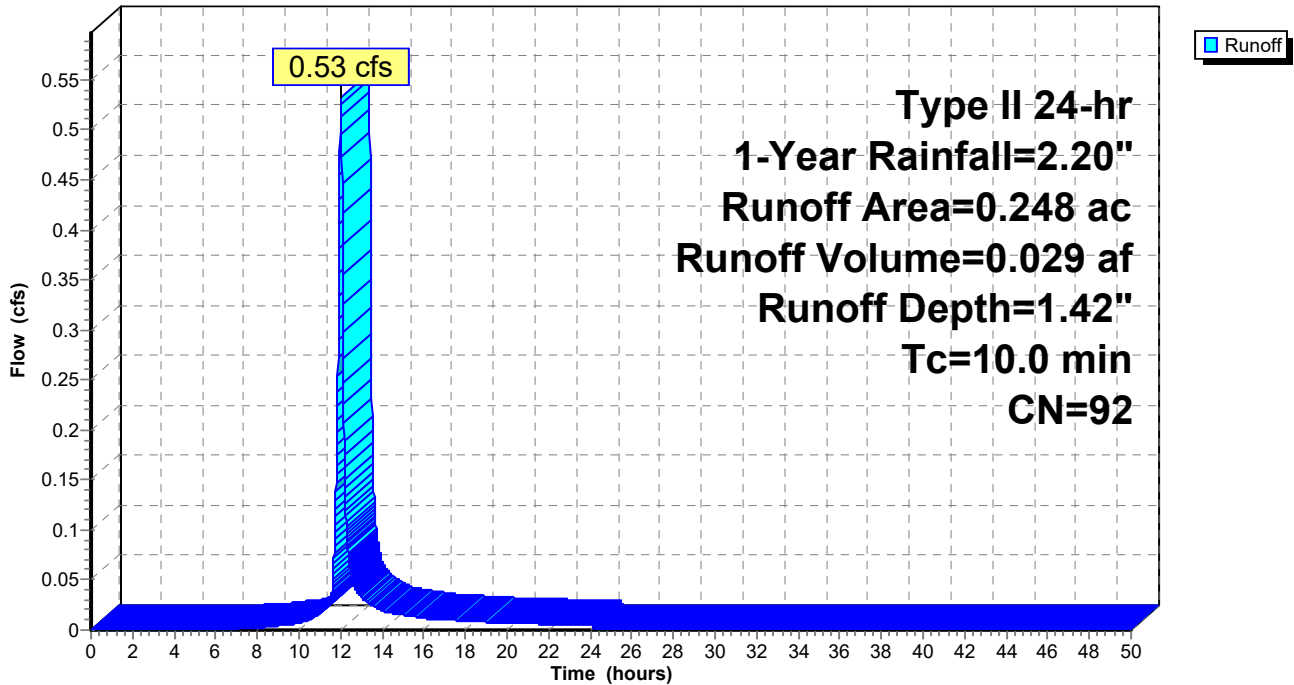
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 2.85 cfs @ 12.02 hrs, Volume= 0.154 af, Depth= 1.00"

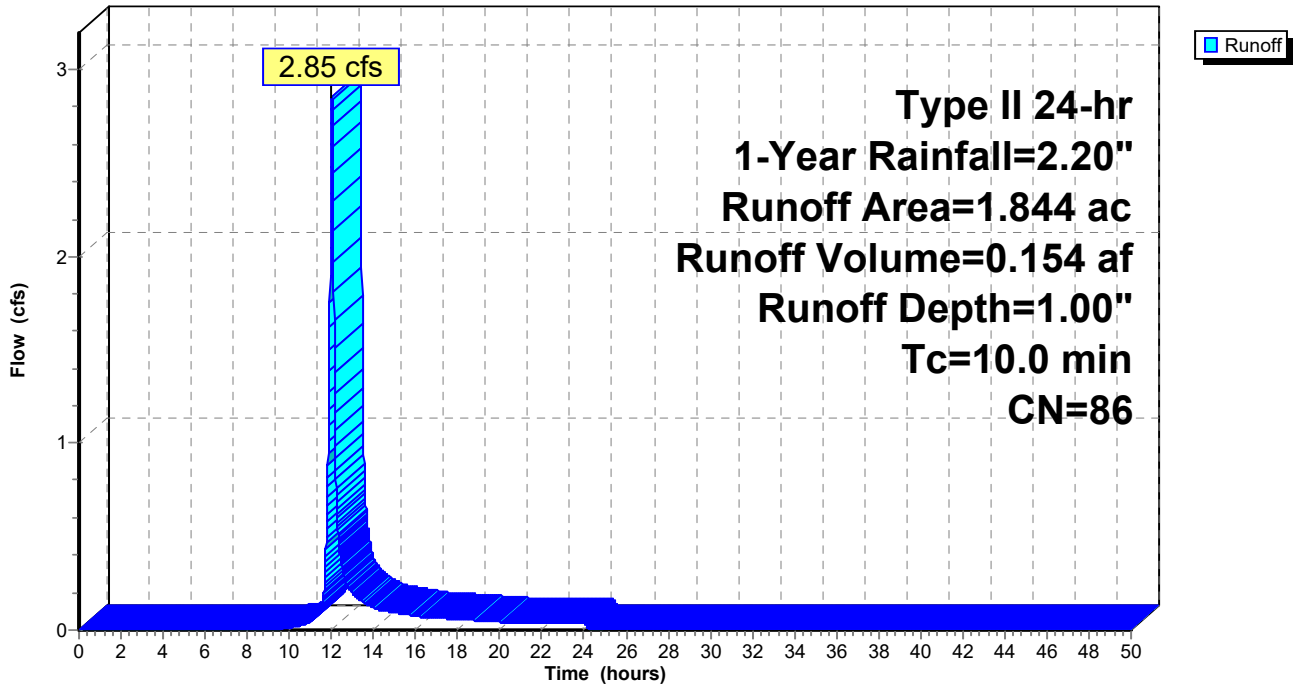
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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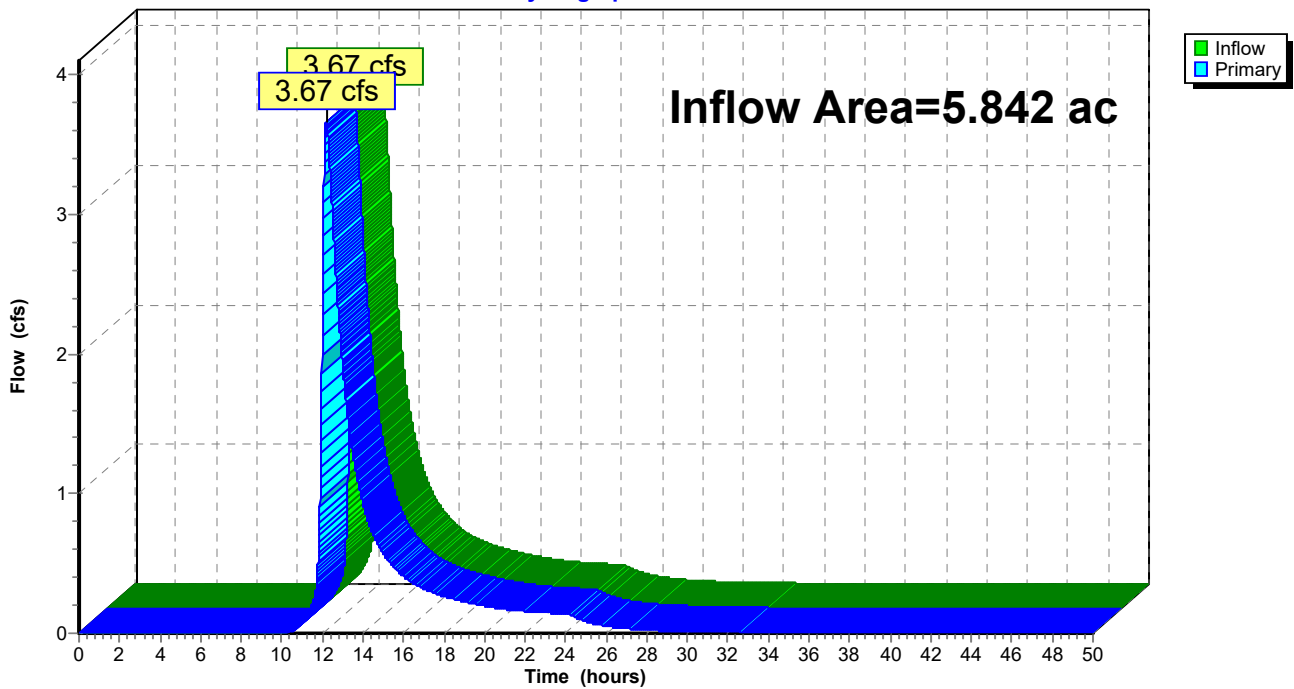
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth > 1.34" for 1-Year event
Inflow = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af
Primary = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 19W: STR19

Runoff = 0.95 cfs @ 12.01 hrs, Volume= 0.052 af, Depth= 1.50"

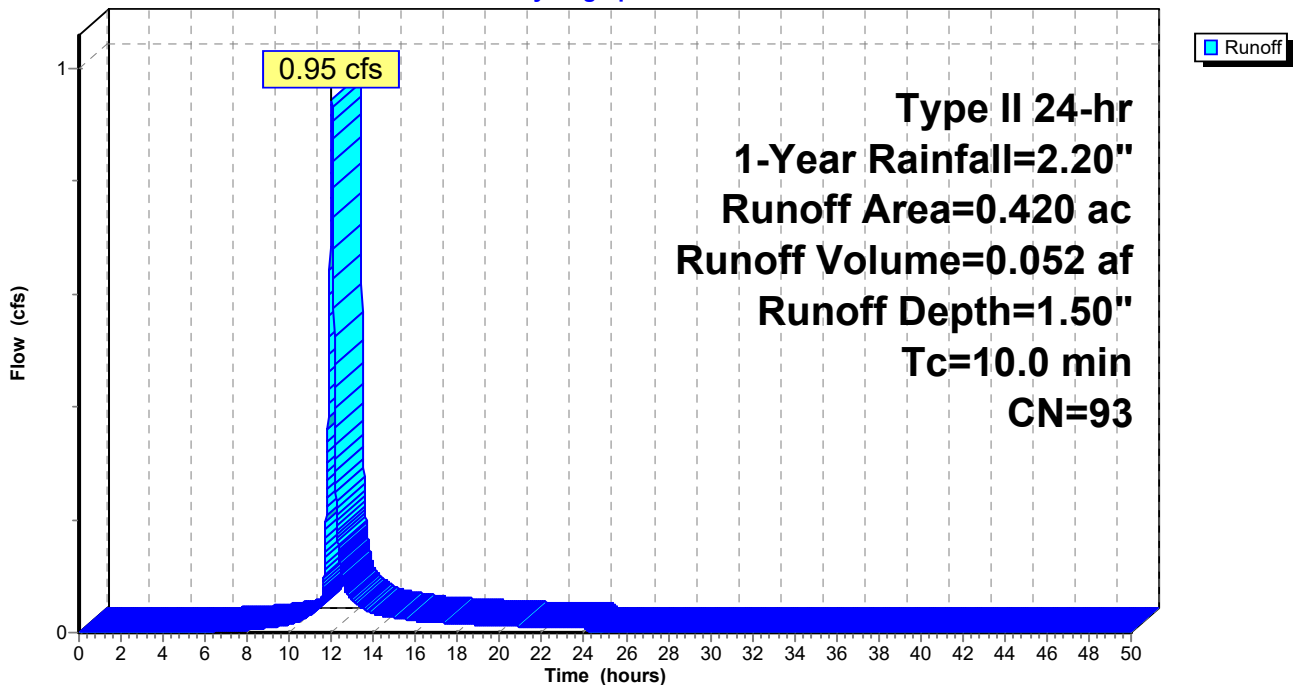
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 20W: STR20

Runoff = 1.29 cfs @ 12.01 hrs, Volume= 0.070 af, Depth= 1.34"

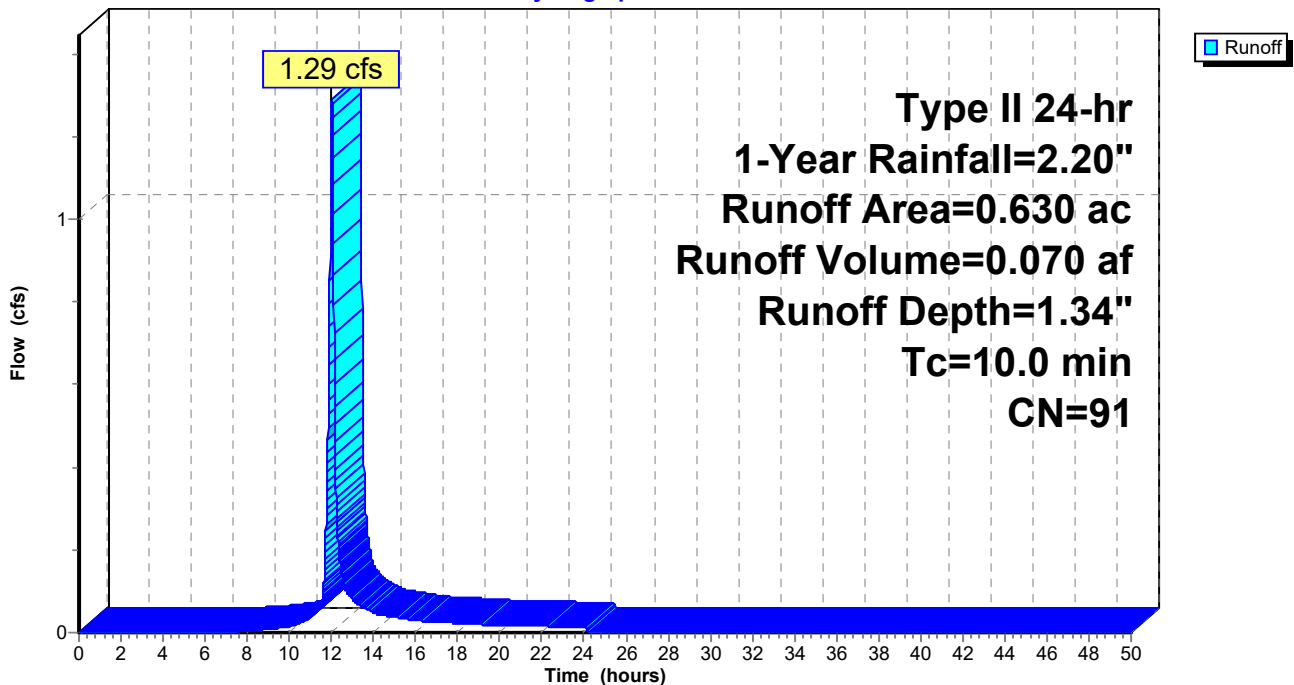
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 21W: STR21

Runoff = 1.53 cfs @ 12.01 hrs, Volume= 0.088 af, Depth= 1.77"

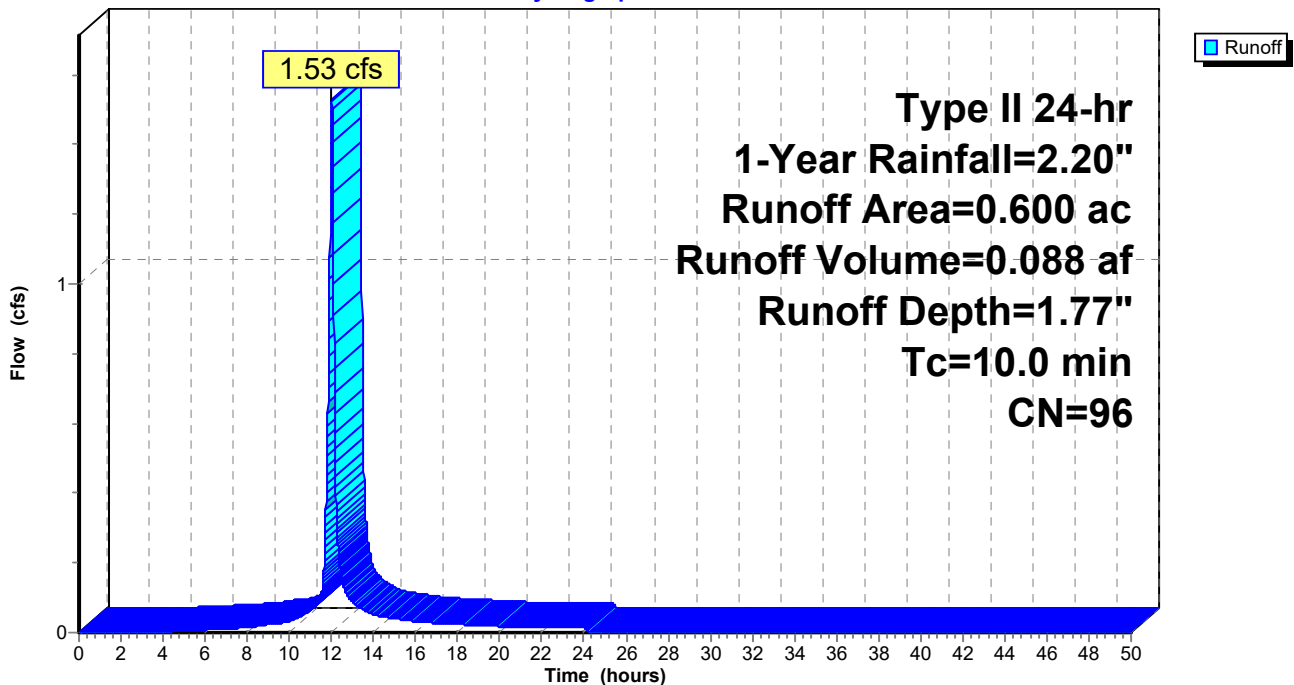
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 22W: STR22

Runoff = 1.99 cfs @ 12.01 hrs, Volume= 0.113 af, Depth= 1.67"

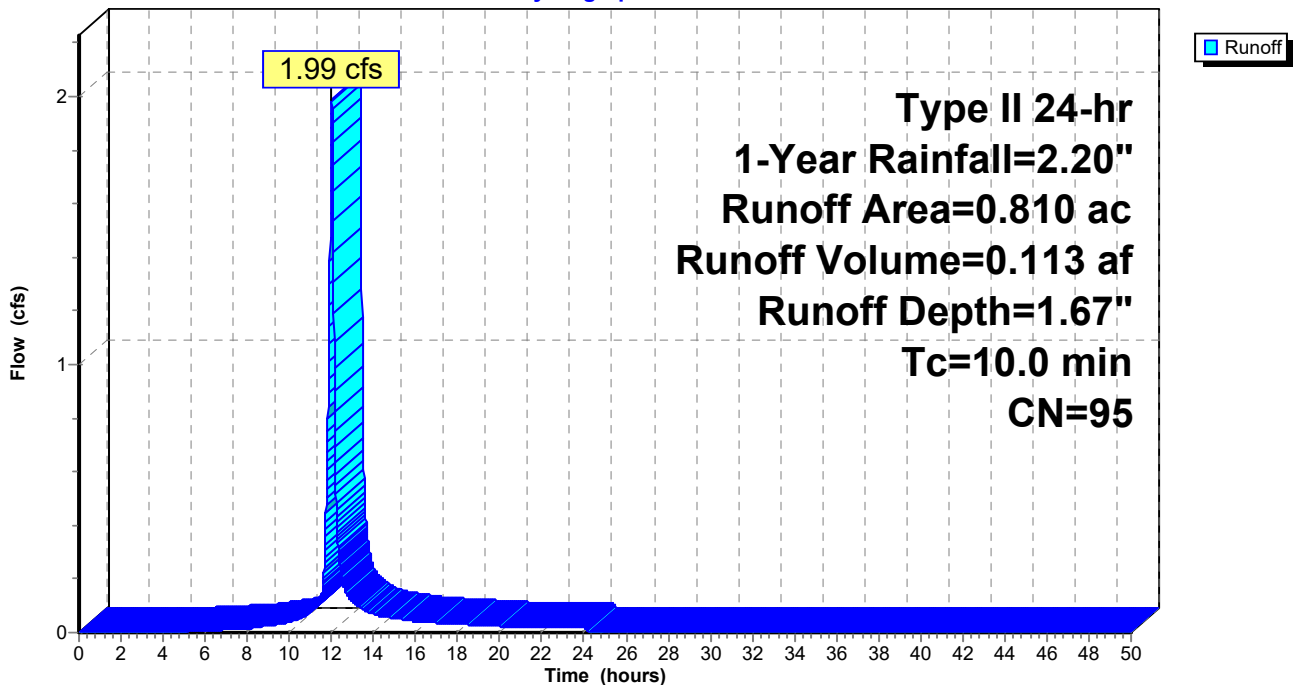
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 23W: STR23

Runoff = 1.63 cfs @ 12.01 hrs, Volume= 0.091 af, Depth= 1.58"

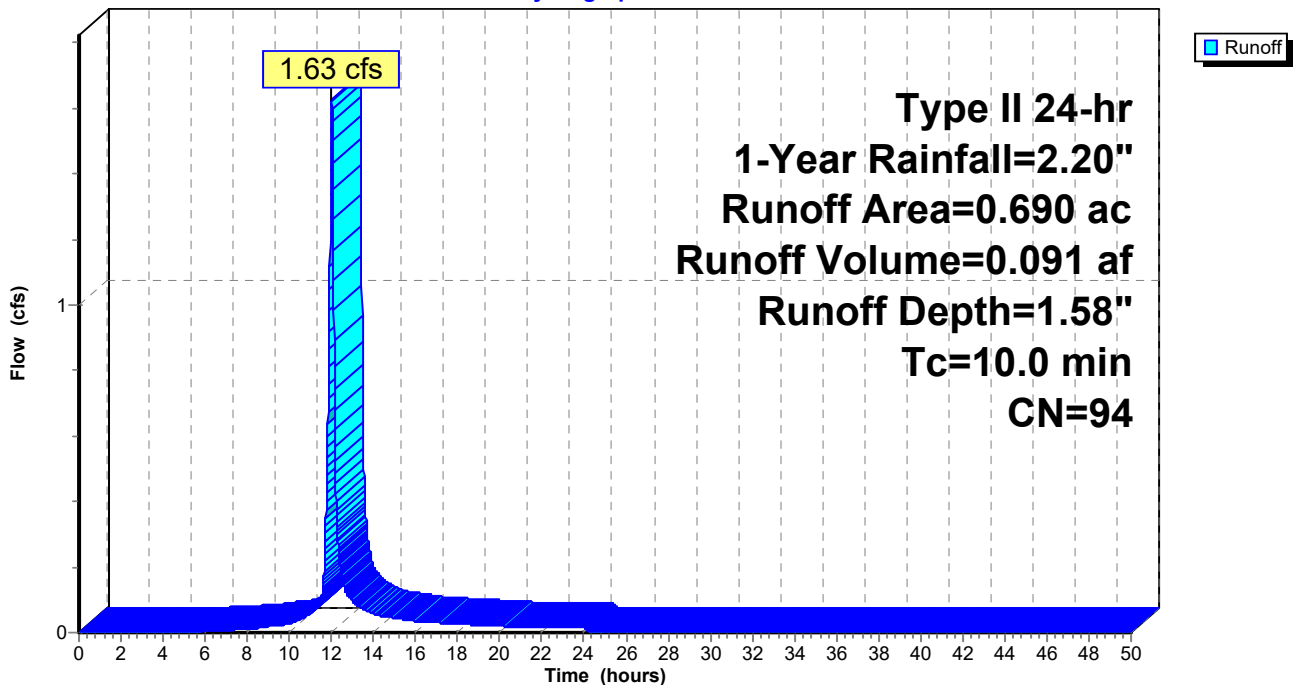
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 24W: STR24

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

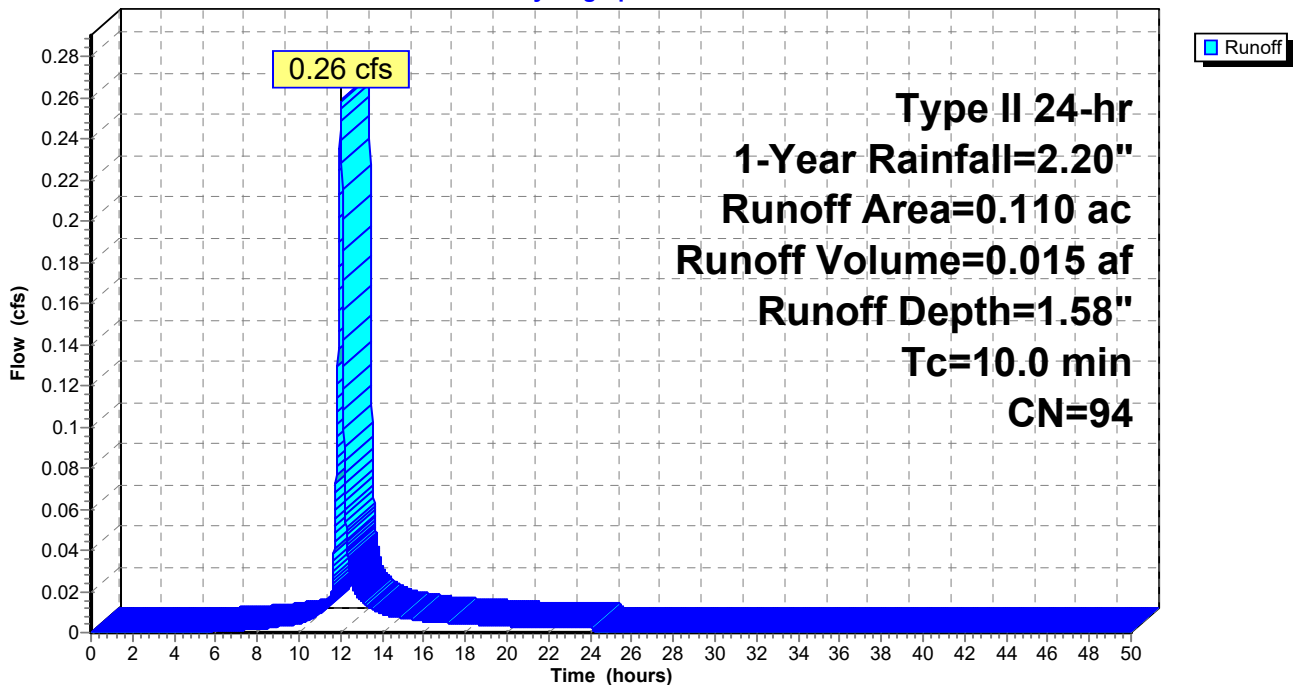
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 25W: STR25

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

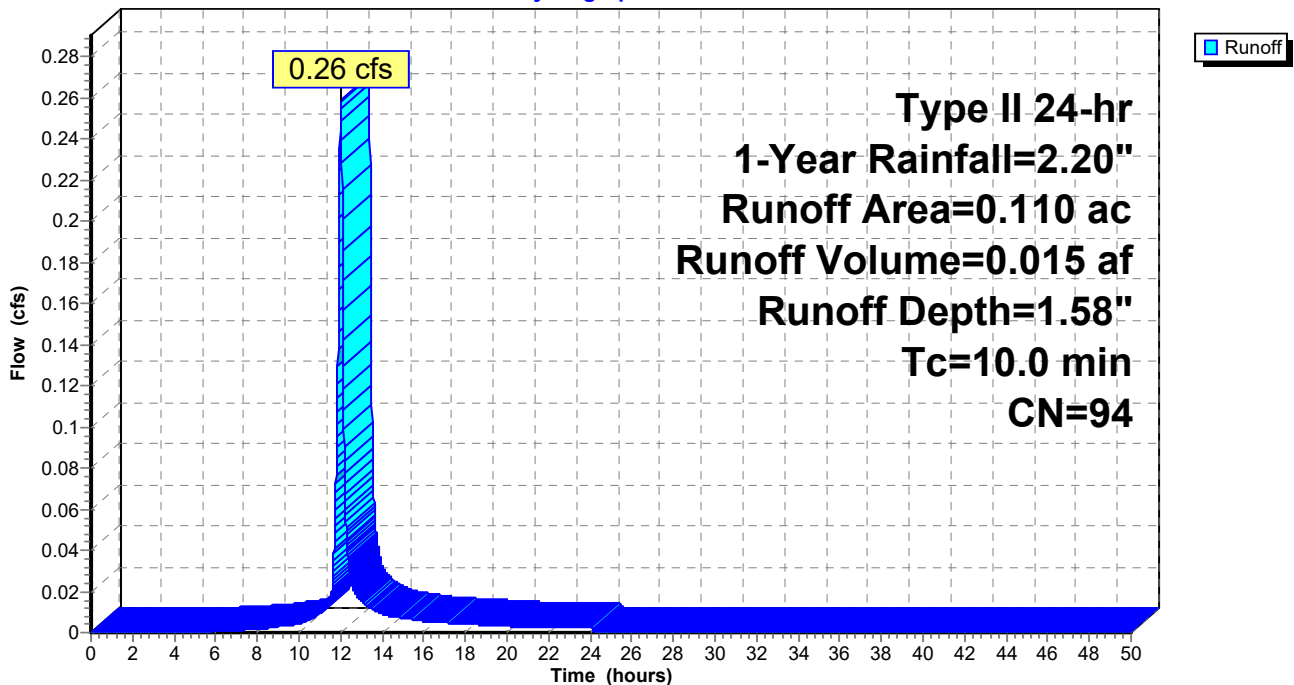
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 26W: STR26

Runoff = 0.26 cfs @ 12.01 hrs, Volume= 0.015 af, Depth= 1.58"

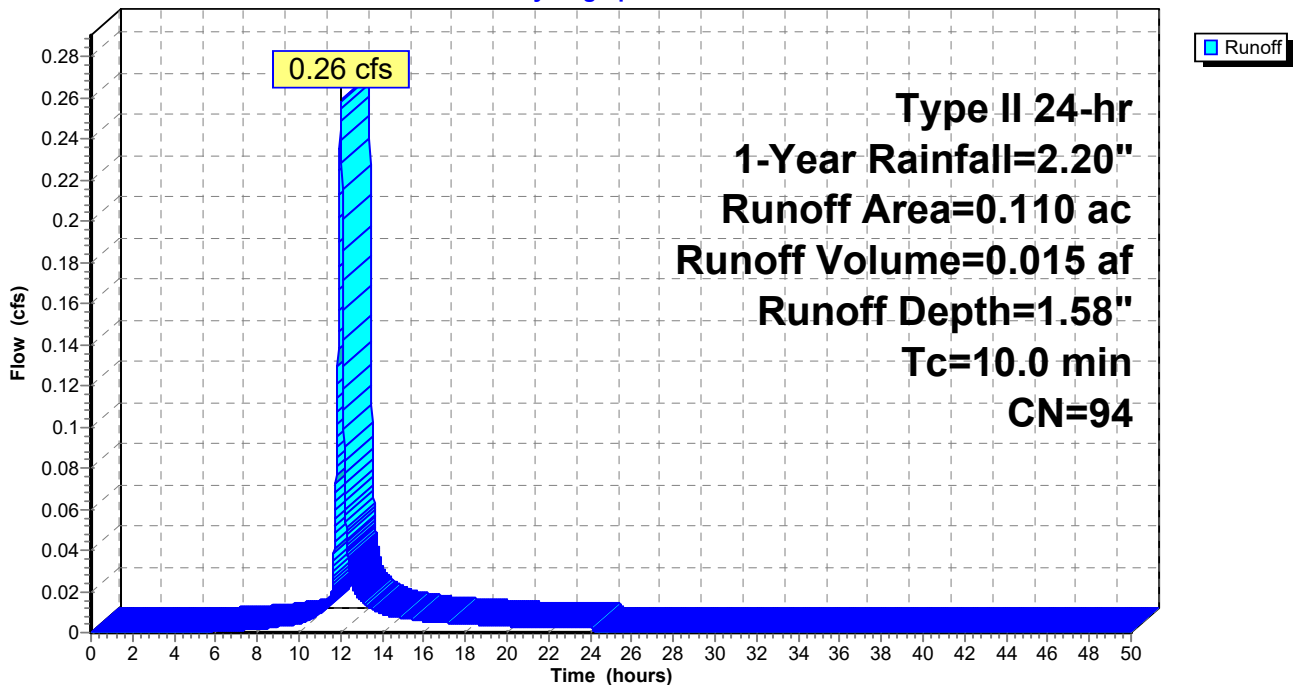
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Subcatchment 27W: STR27

Runoff = 0.69 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 1.77"

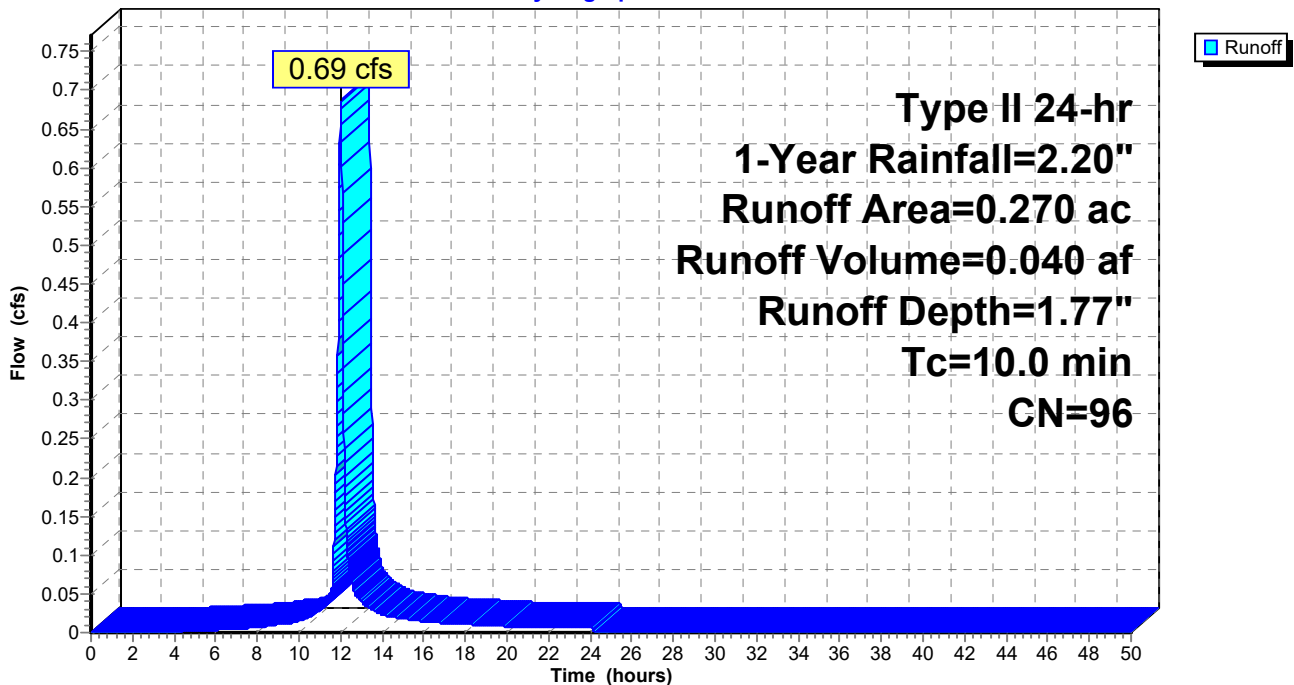
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=2.20"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 1-Year Rainfall=2.20"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 1.40" for 1-Year event
 Inflow = 12.23 cfs @ 12.01 hrs, Volume= 0.682 af
 Outflow = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af, Atten= 70%, Lag= 10.7 min
 Primary = 3.67 cfs @ 12.19 hrs, Volume= 0.652 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.28' @ 12.19 hrs Surf.Area= 16,253 sf Storage= 12,410 cf

Plug-Flow detention time= 122.4 min calculated for 0.652 af (96% of inflow)
 Center-of-Mass det. time= 97.2 min (905.7 - 808.5)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=3.67 cfs @ 12.19 hrs HW=911.28' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 3.67 cfs of 6.20 cfs potential flow)

↑2=**Culvert** (Passes 3.67 cfs of 4.57 cfs potential flow)

↑3=**Sharp-Crested Rectangular Weir** (Weir Controls 3.67 cfs @ 2.76 fps)

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PROPOSED WEST TRIB

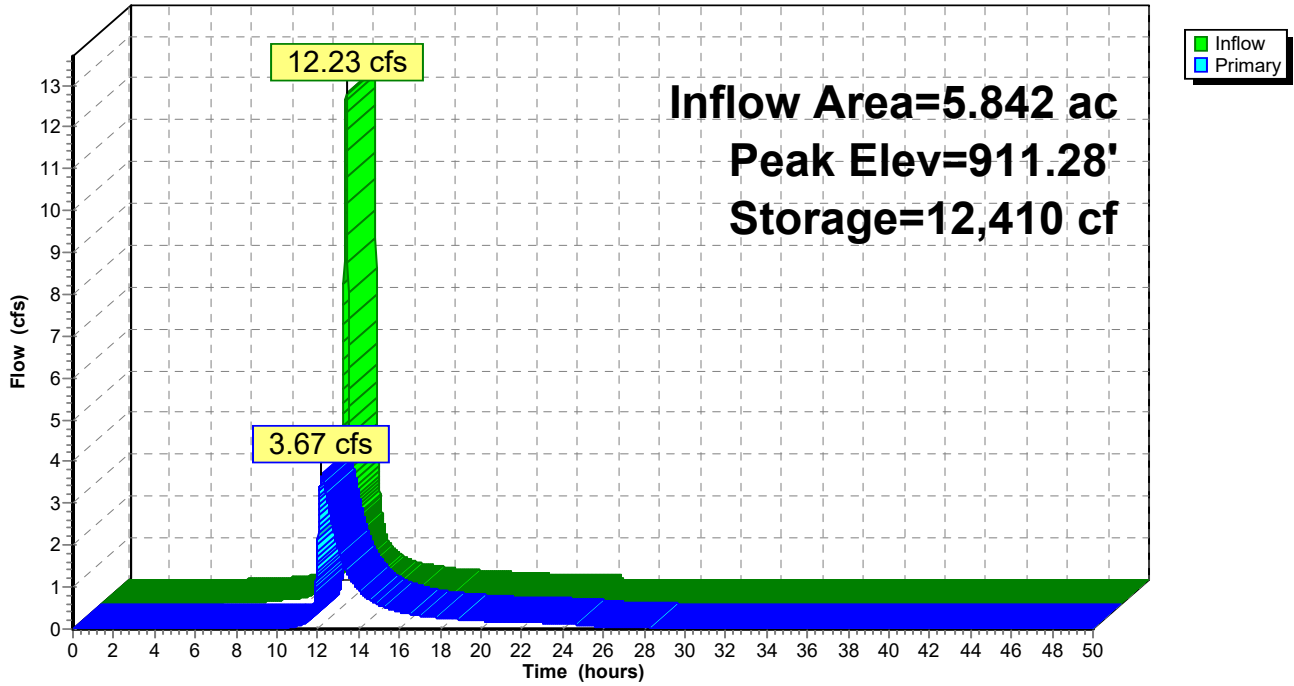
Type II 24-hr 1-Year Rainfall=2.20"

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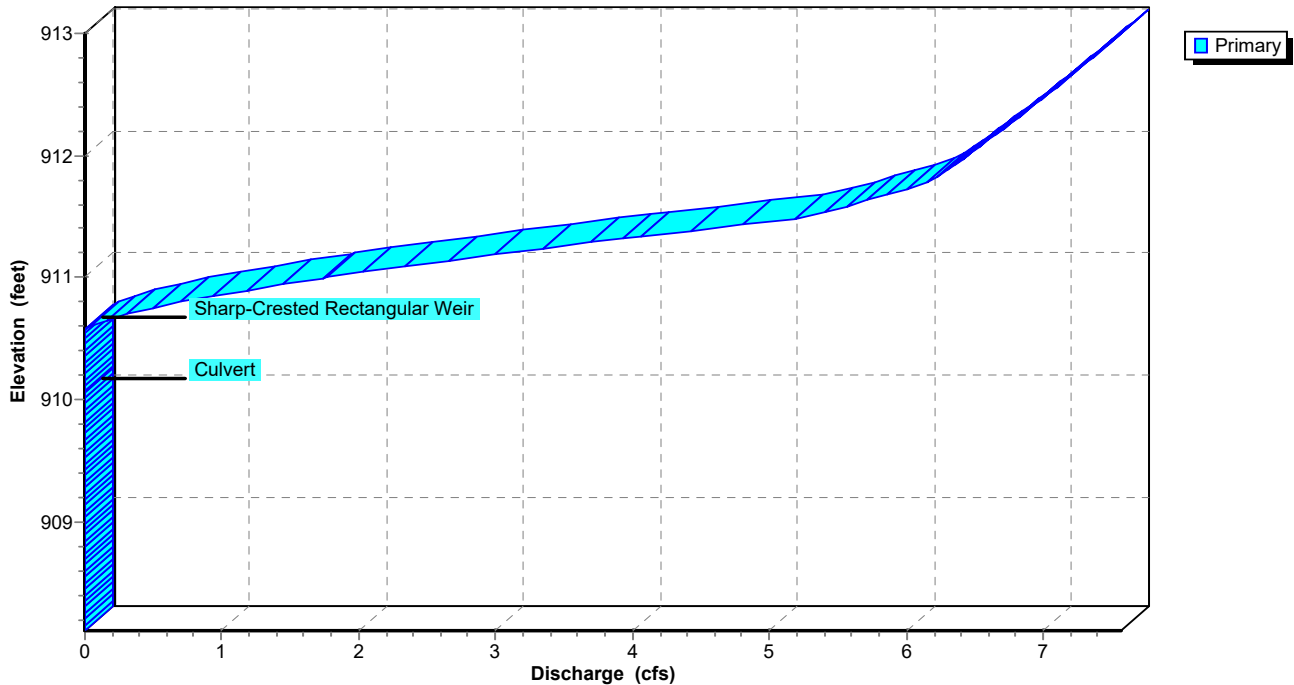
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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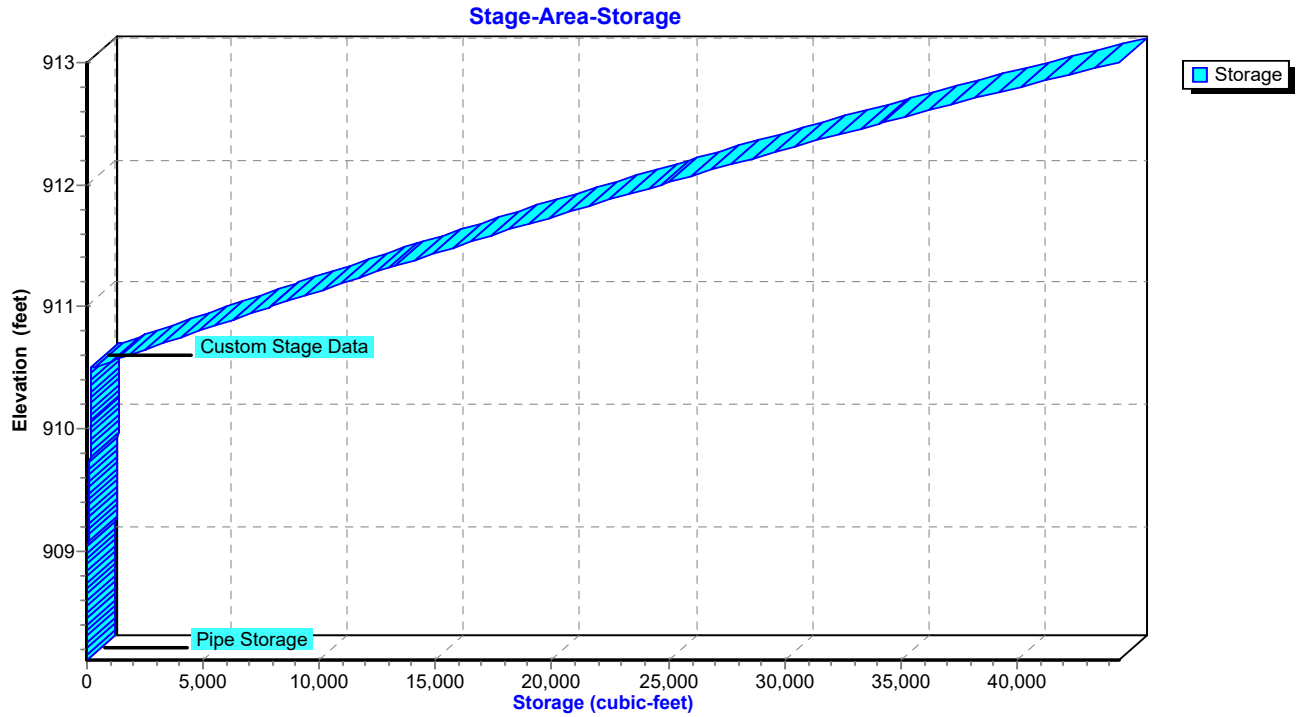
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PROPOSED WEST TRIB
Type II 24-hr 1-Year Rainfall=2.20"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.037 af, Depth= 1.81"

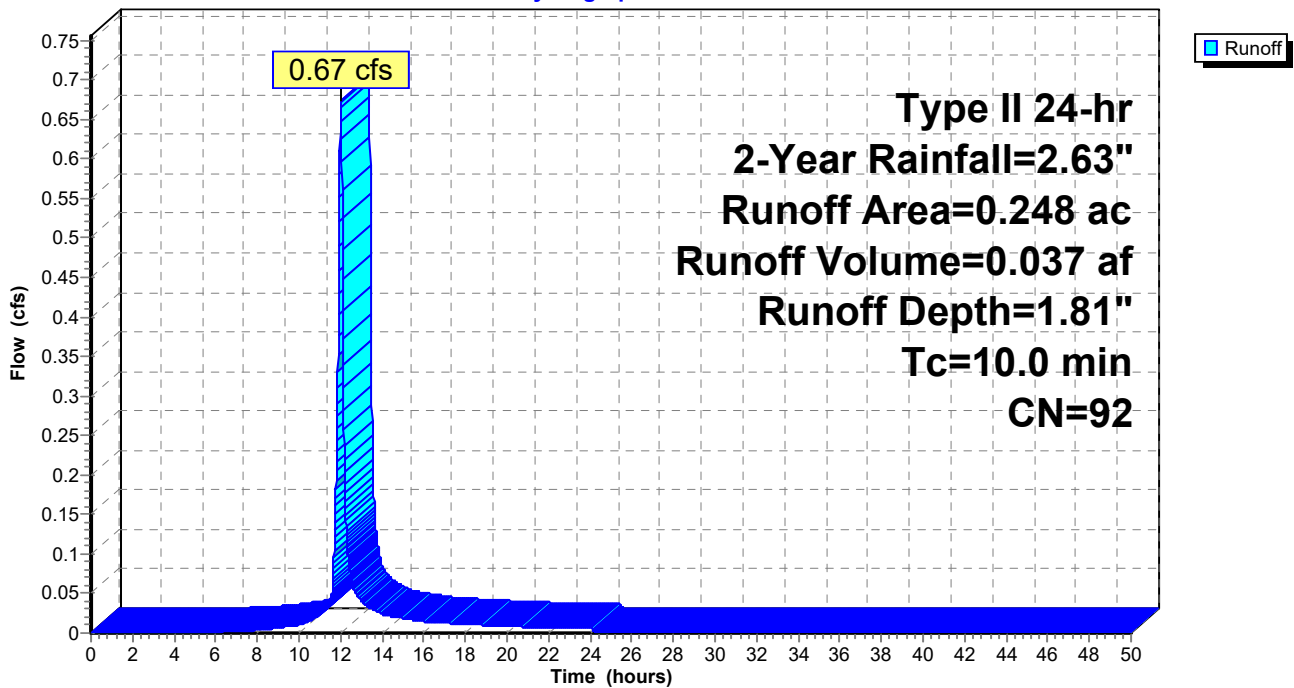
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 3.84 cfs @ 12.02 hrs, Volume= 0.208 af, Depth= 1.35"

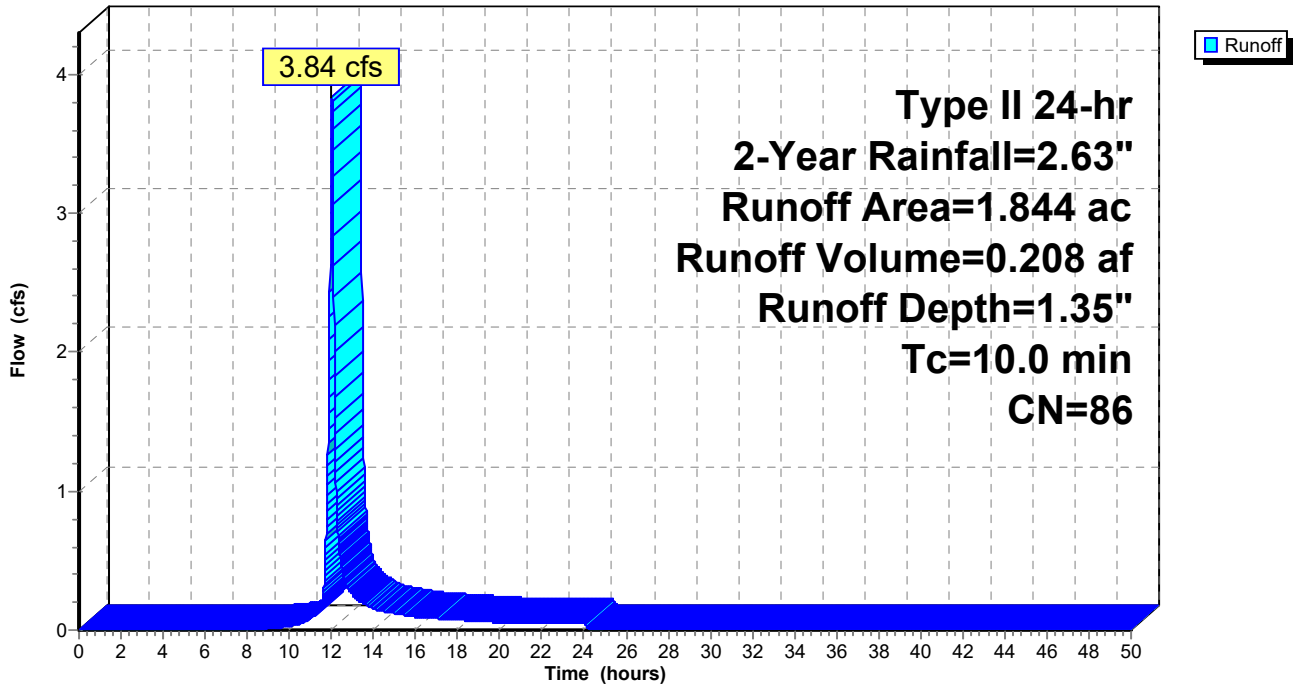
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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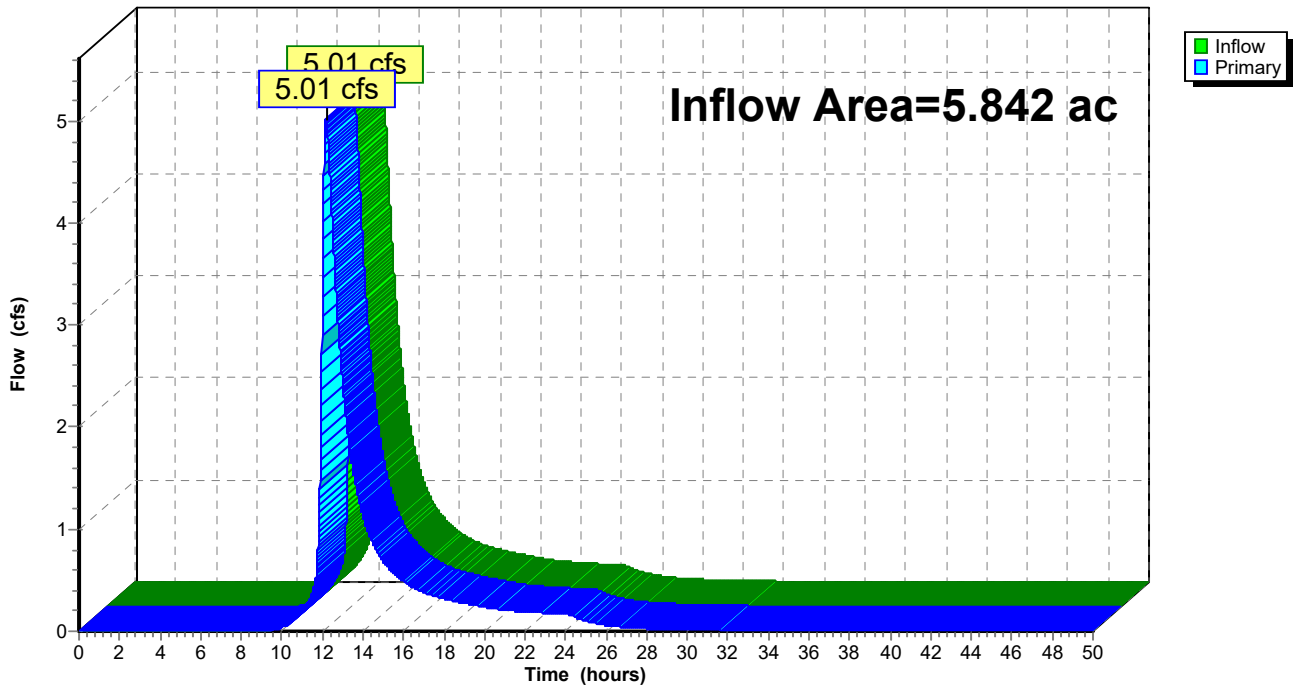
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth > 1.73" for 2-Year event
Inflow = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af
Primary = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 19W: STR19

Runoff = 1.19 cfs @ 12.01 hrs, Volume= 0.067 af, Depth= 1.90"

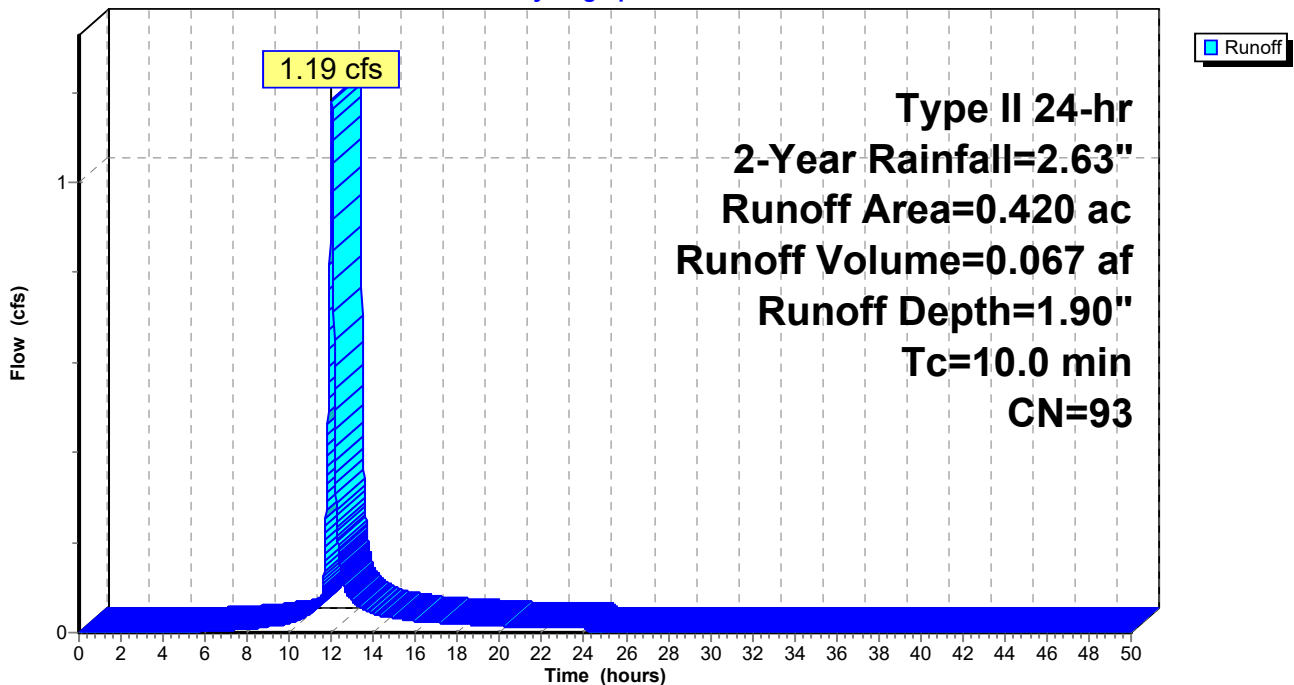
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 20W: STR20

Runoff = 1.65 cfs @ 12.01 hrs, Volume= 0.091 af, Depth= 1.73"

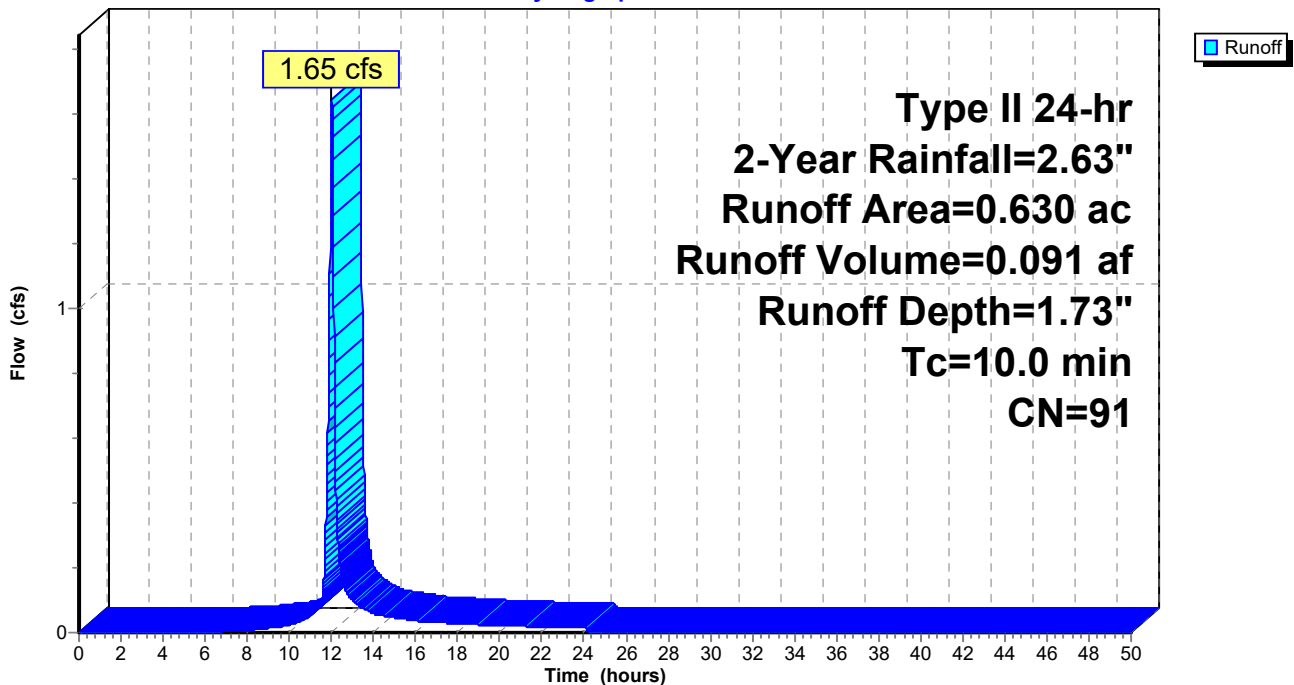
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 21W: STR21

Runoff = 1.87 cfs @ 12.01 hrs, Volume= 0.109 af, Depth= 2.19"

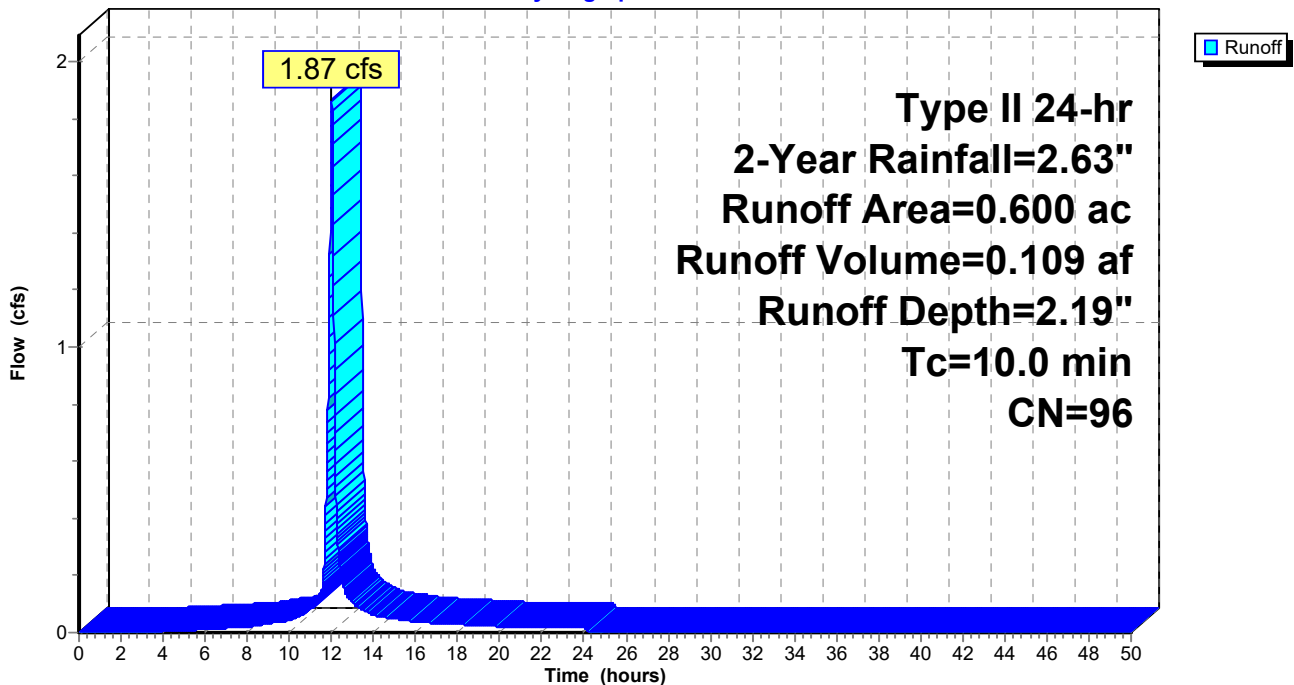
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 22W: STR22

Runoff = 2.45 cfs @ 12.01 hrs, Volume= 0.141 af, Depth= 2.09"

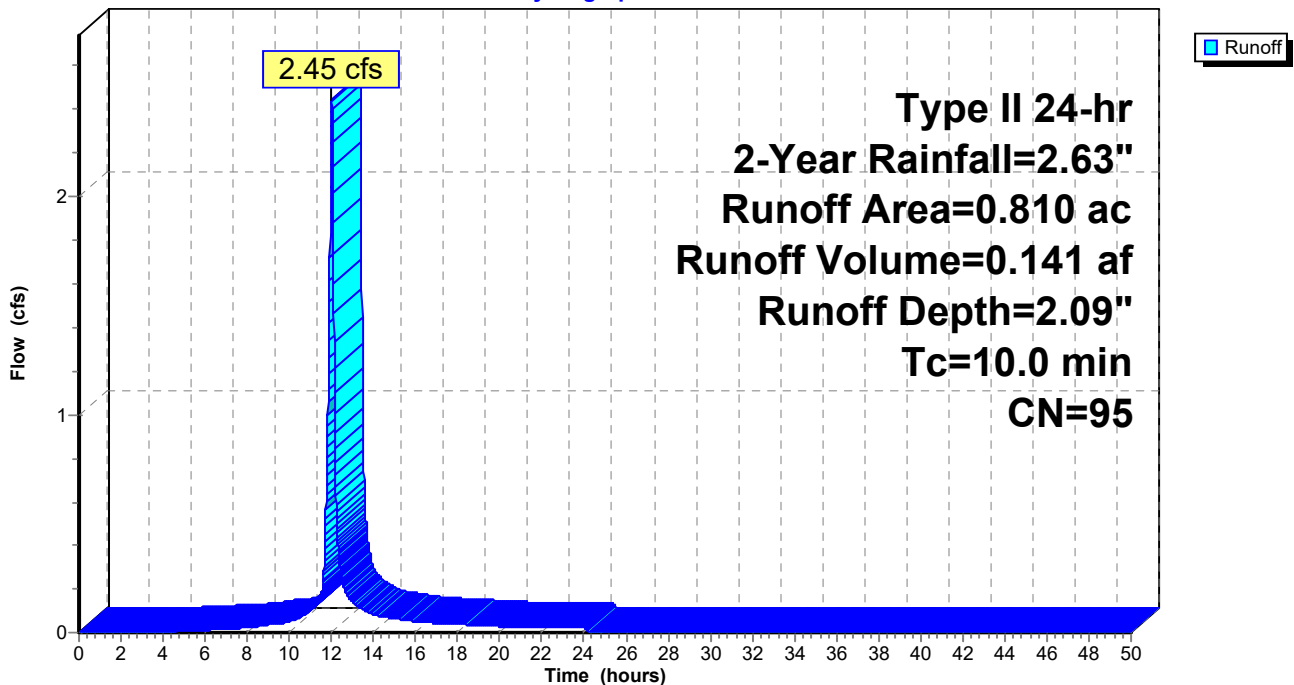
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 23W: STR23

Runoff = 2.02 cfs @ 12.01 hrs, Volume= 0.115 af, Depth= 1.99"

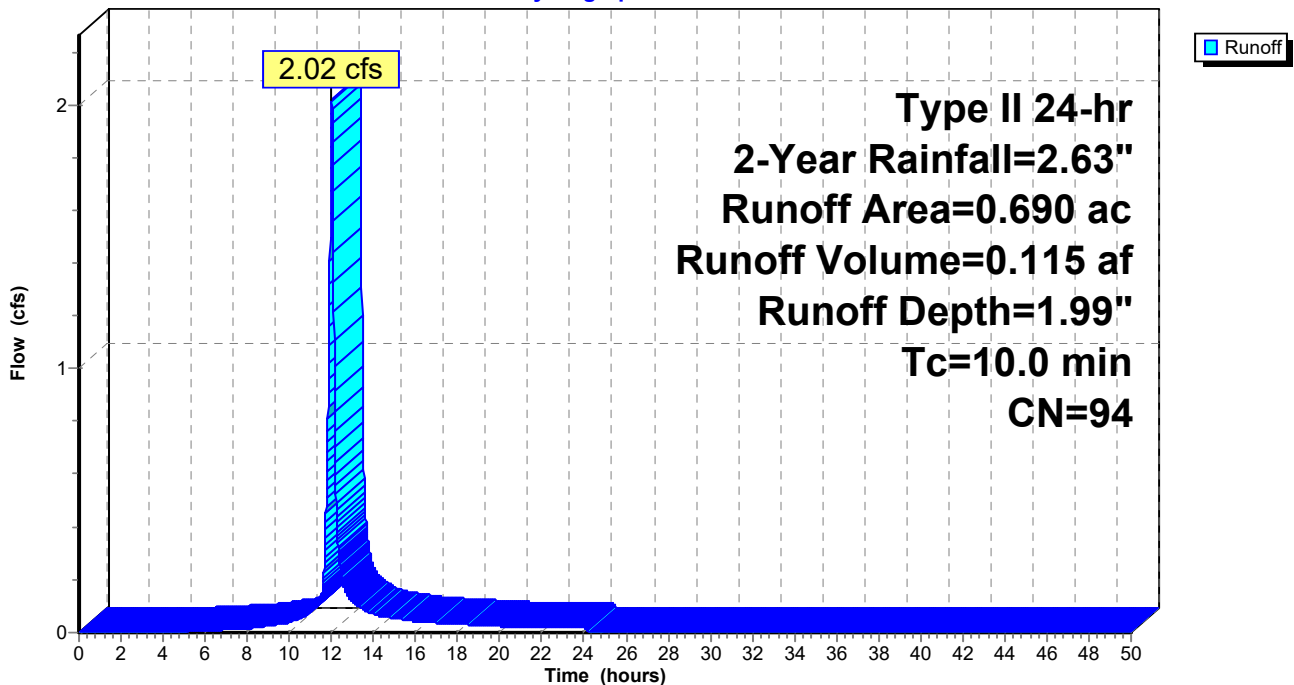
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 24W: STR24

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

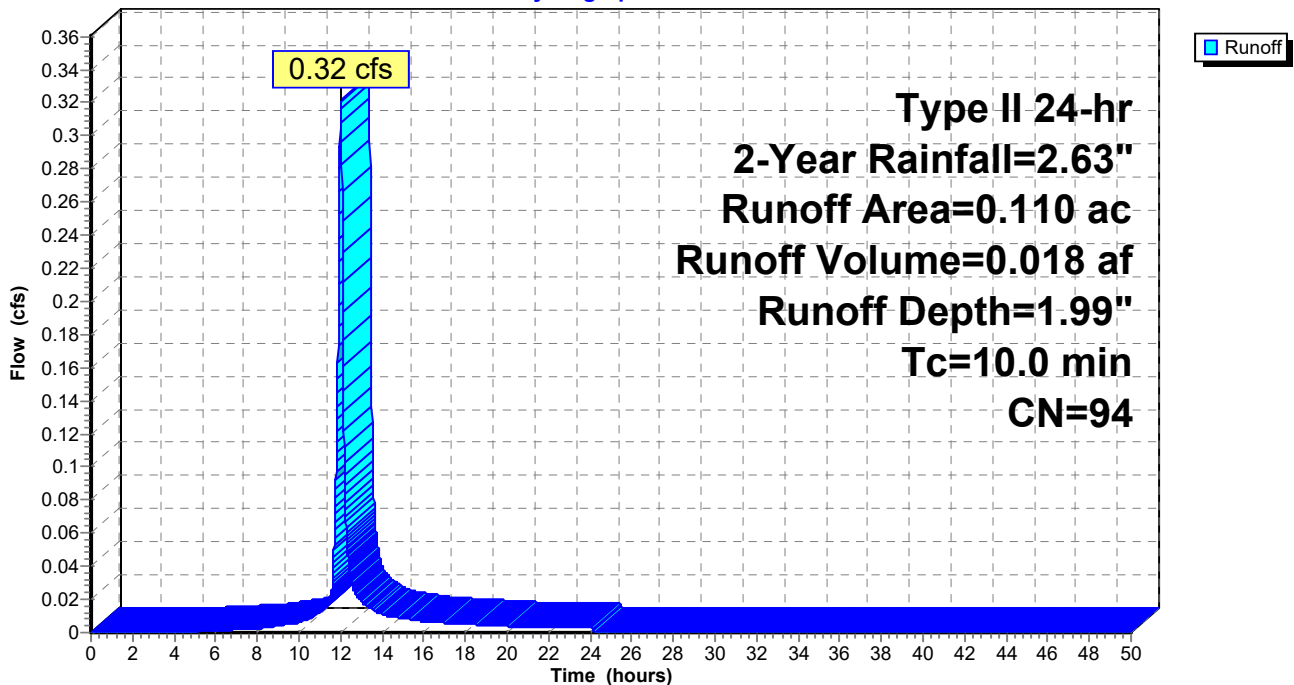
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 25W: STR25

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

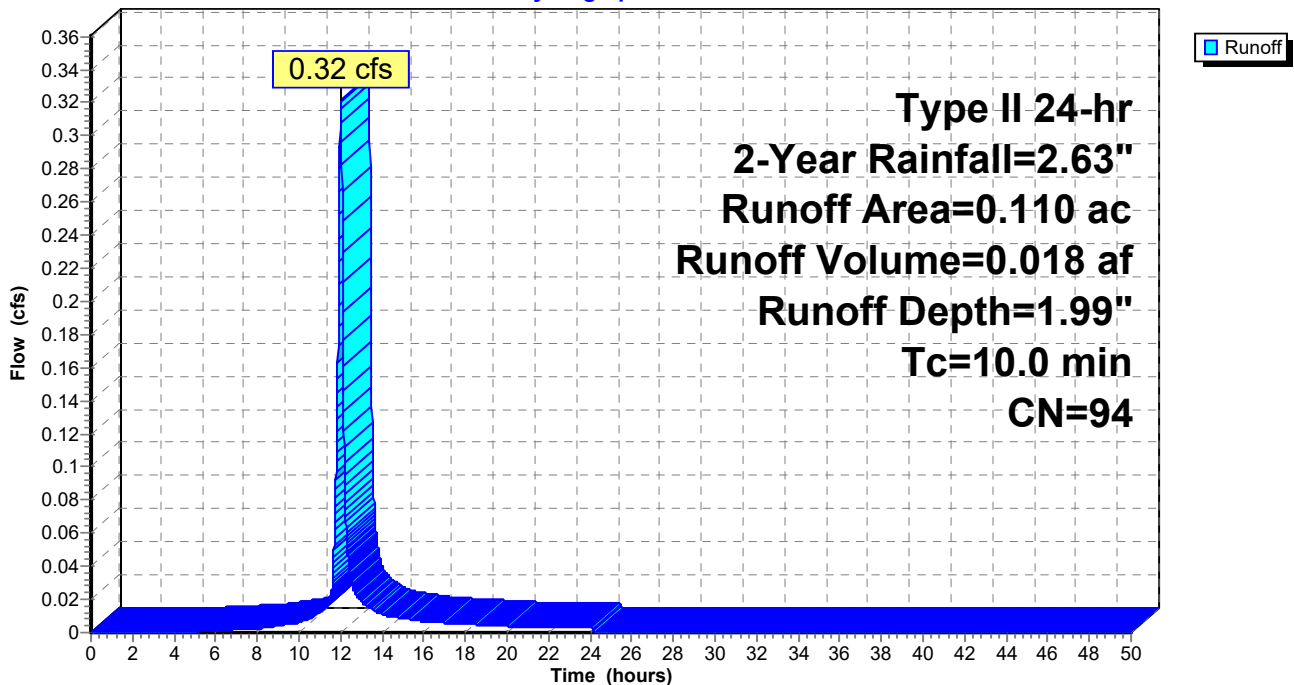
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 26W: STR26

Runoff = 0.32 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 1.99"

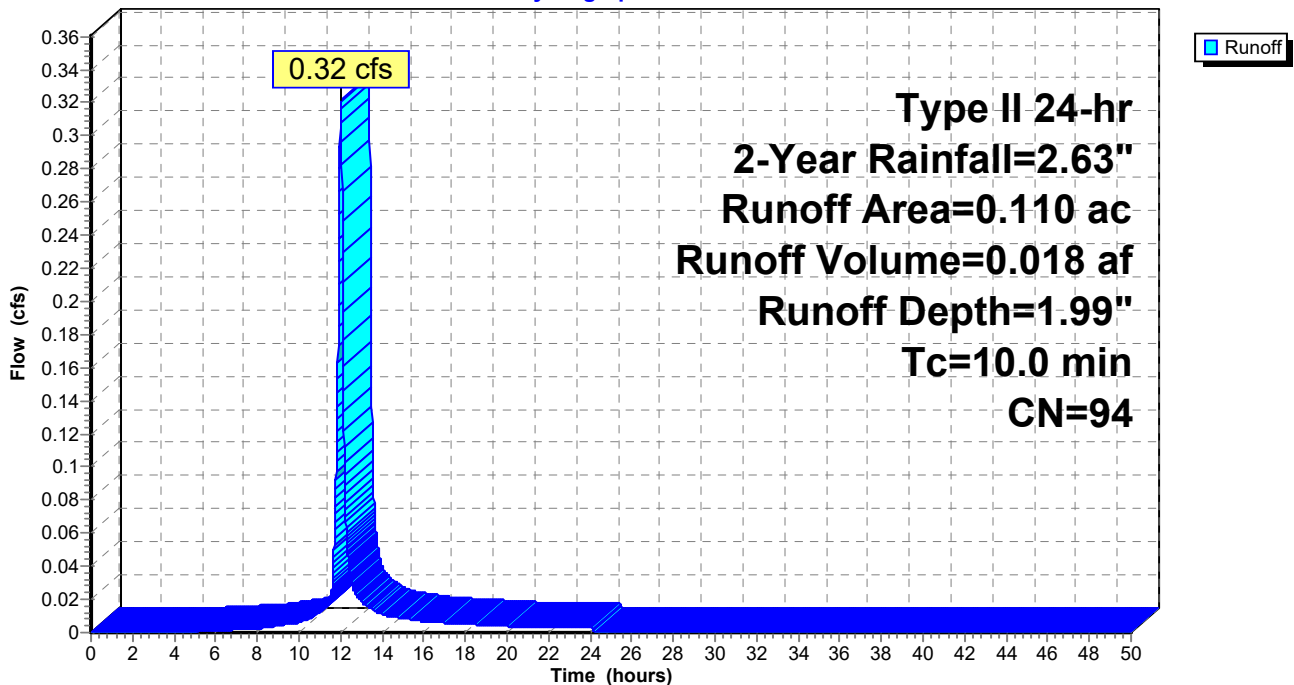
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Subcatchment 27W: STR27

Runoff = 0.84 cfs @ 12.01 hrs, Volume= 0.049 af, Depth= 2.19"

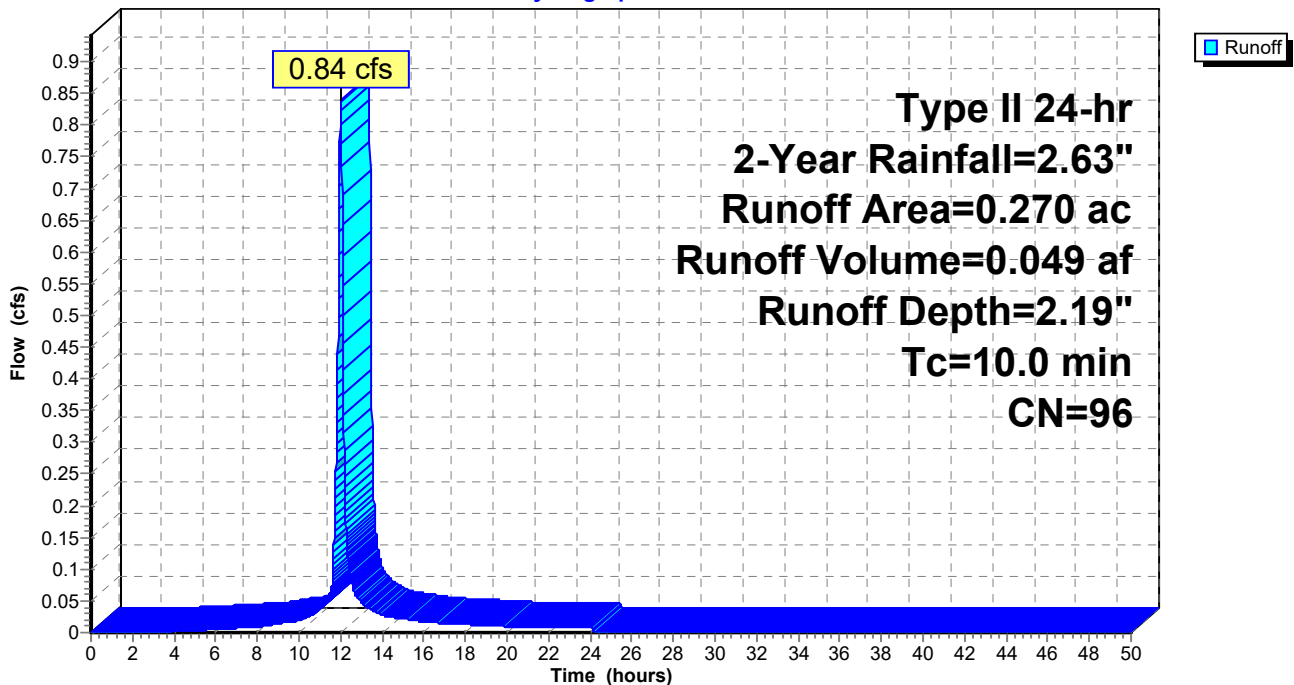
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-Year Rainfall=2.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 2-Year Rainfall=2.63"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 1.79" for 2-Year event
 Inflow = 15.49 cfs @ 12.01 hrs, Volume= 0.872 af
 Outflow = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af, Atten= 68%, Lag= 10.1 min
 Primary = 5.01 cfs @ 12.18 hrs, Volume= 0.842 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.46' @ 12.18 hrs Surf.Area= 16,677 sf Storage= 15,324 cf

Plug-Flow detention time= 110.1 min calculated for 0.842 af (97% of inflow)
 Center-of-Mass det. time= 89.6 min (891.8 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=5.01 cfs @ 12.18 hrs HW=911.46' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 5.01 cfs of 6.40 cfs potential flow)

↑2=**Culvert** (Passes 5.01 cfs of 5.17 cfs potential flow)

↑3=**Sharp-Crested Rectangular Weir** (Weir Controls 5.01 cfs @ 3.09 fps)

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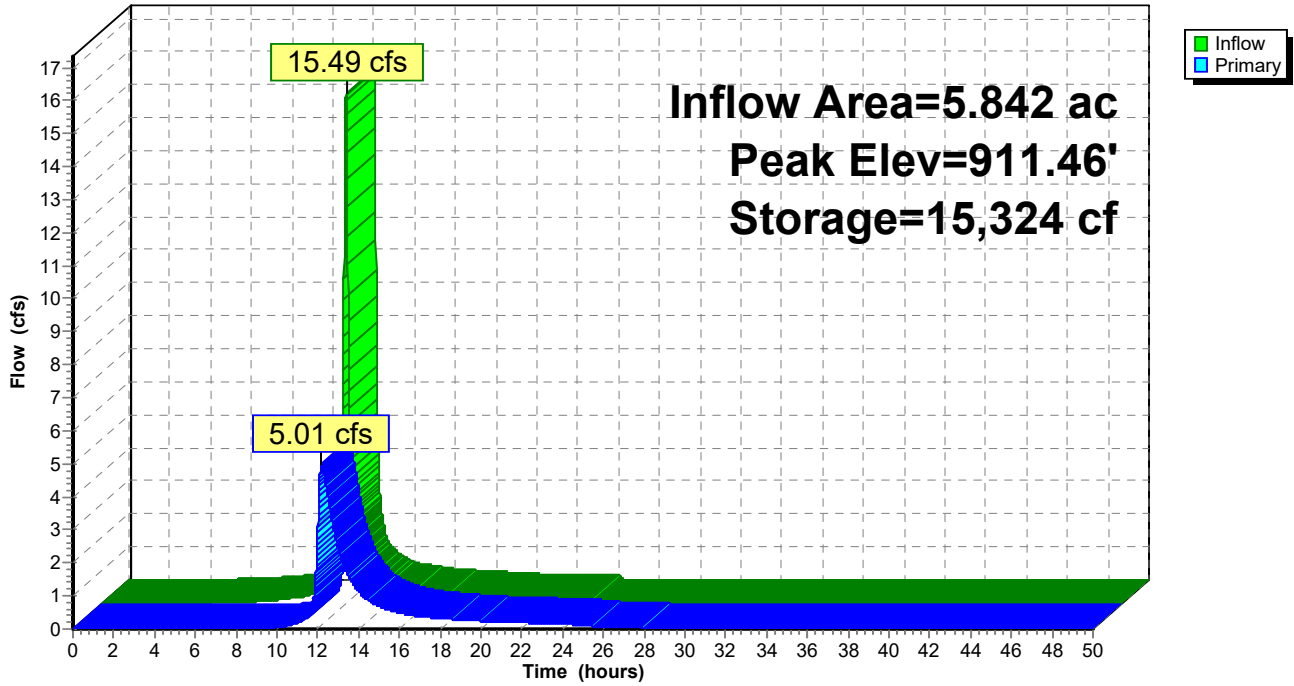
Type II 24-hr 2-Year Rainfall=2.63"

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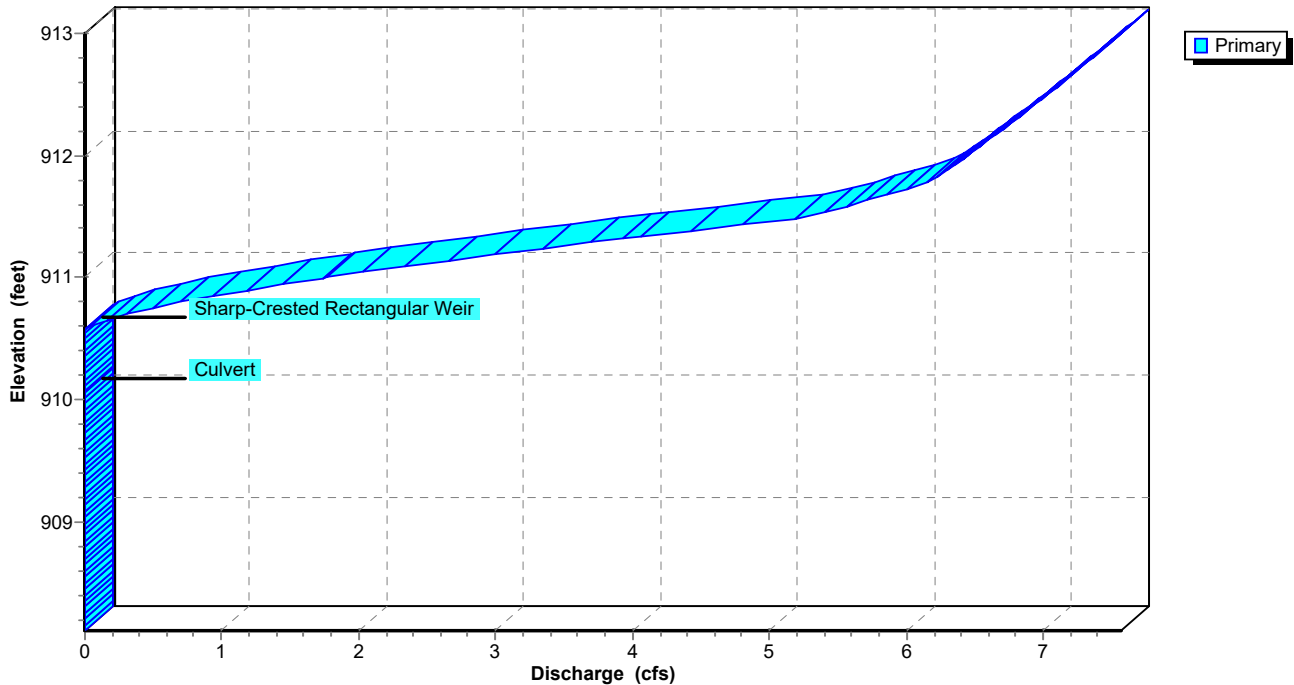
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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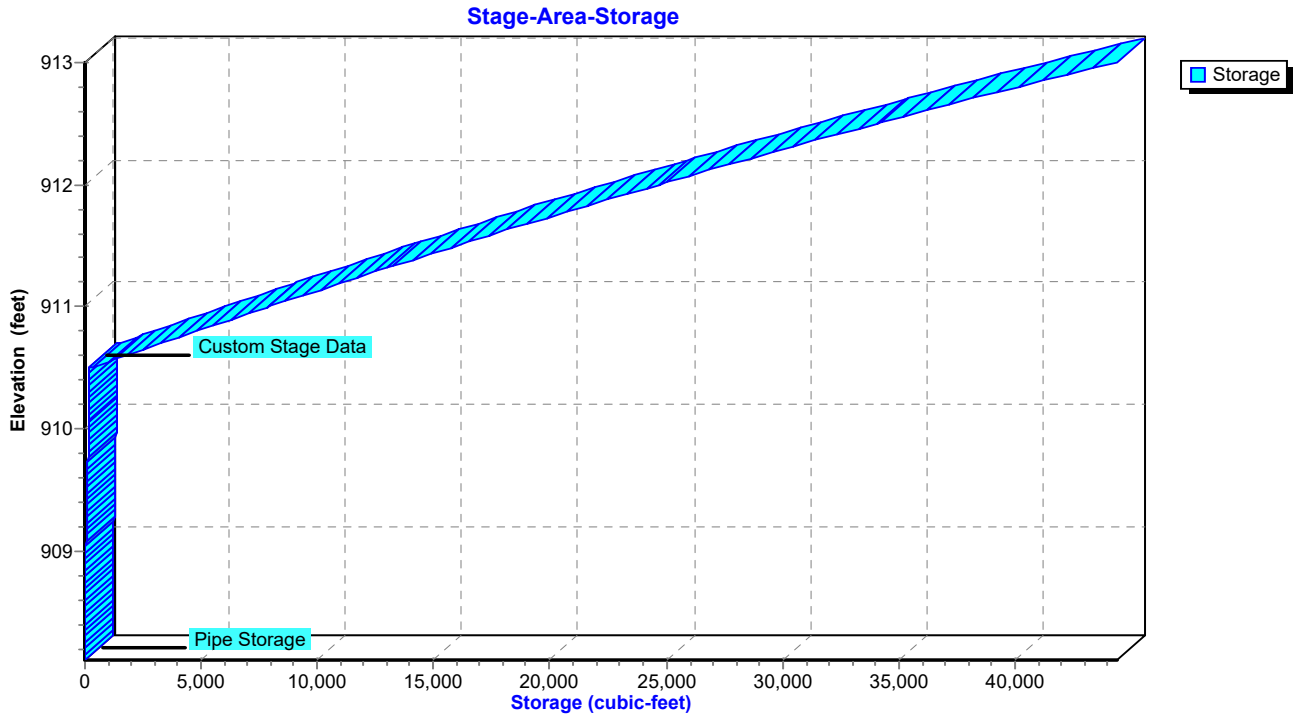
PROPOSED WEST TRIB

Type II 24-hr 2-Year Rainfall=2.63"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 0.88 cfs @ 12.01 hrs, Volume= 0.049 af, Depth= 2.39"

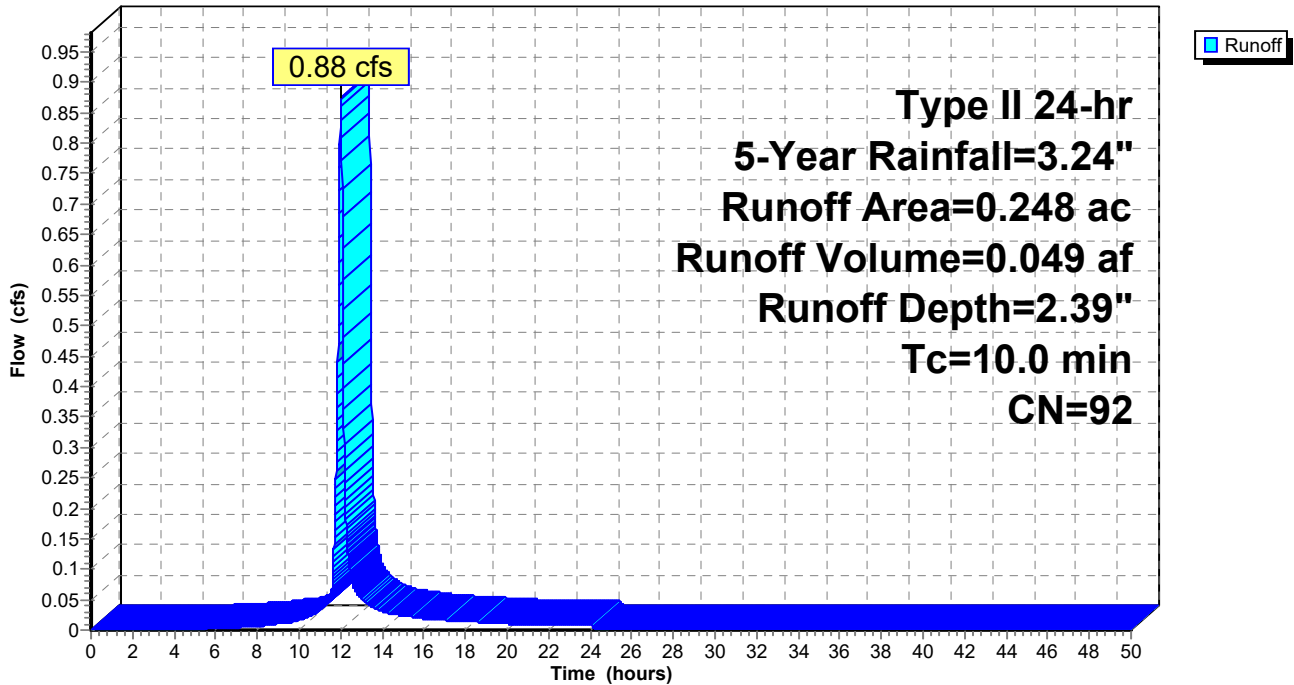
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 5.28 cfs @ 12.02 hrs, Volume= 0.287 af, Depth= 1.87"

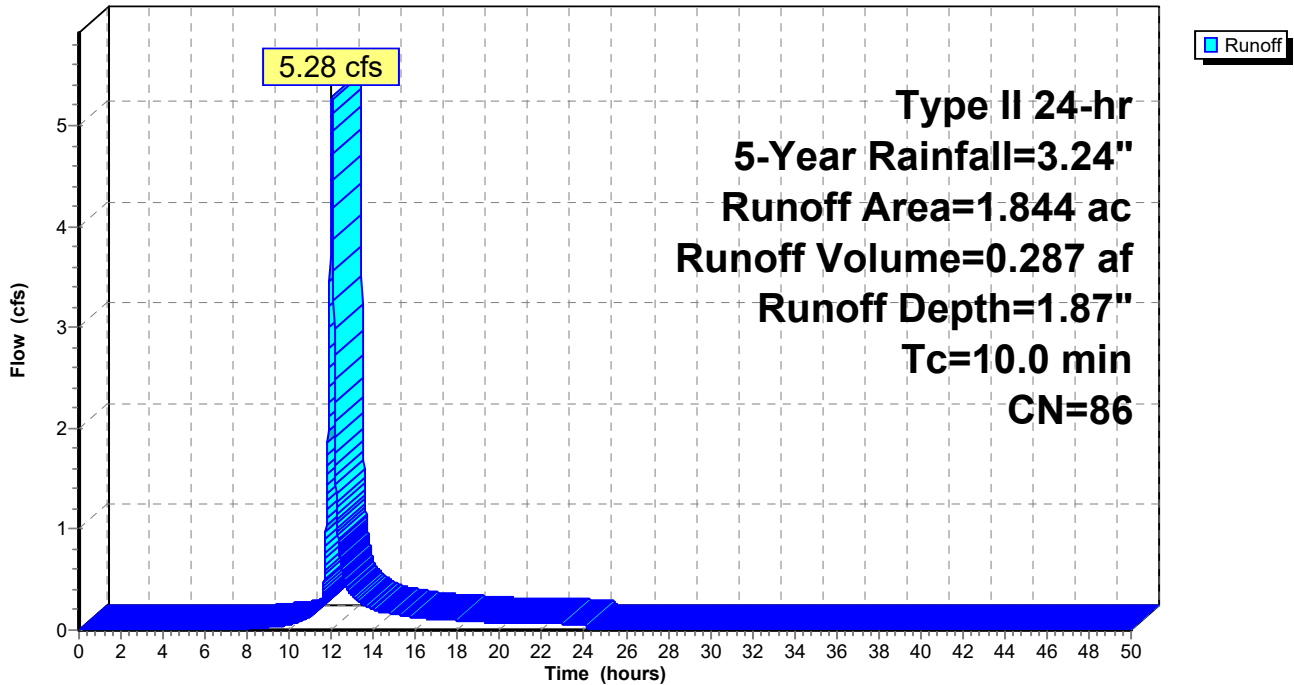
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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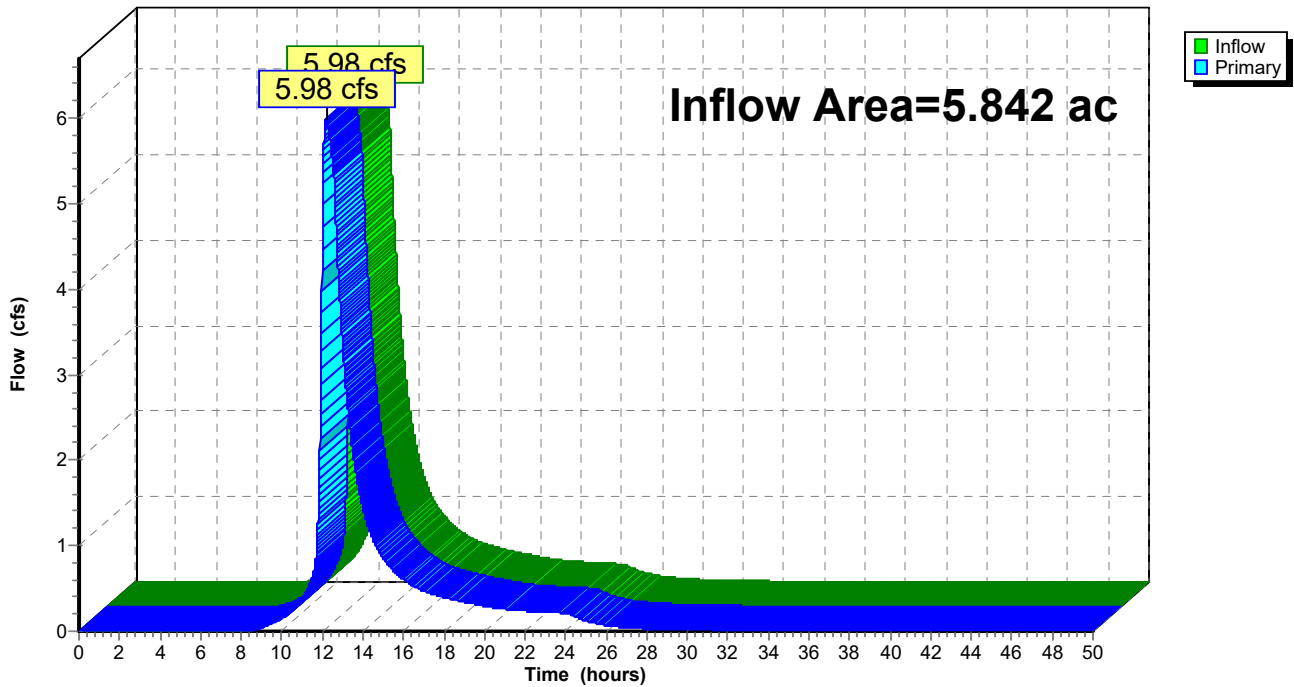
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.29" for 5-Year event
Inflow = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af
Primary = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 19W: STR19

Runoff = 1.53 cfs @ 12.01 hrs, Volume= 0.087 af, Depth= 2.48"

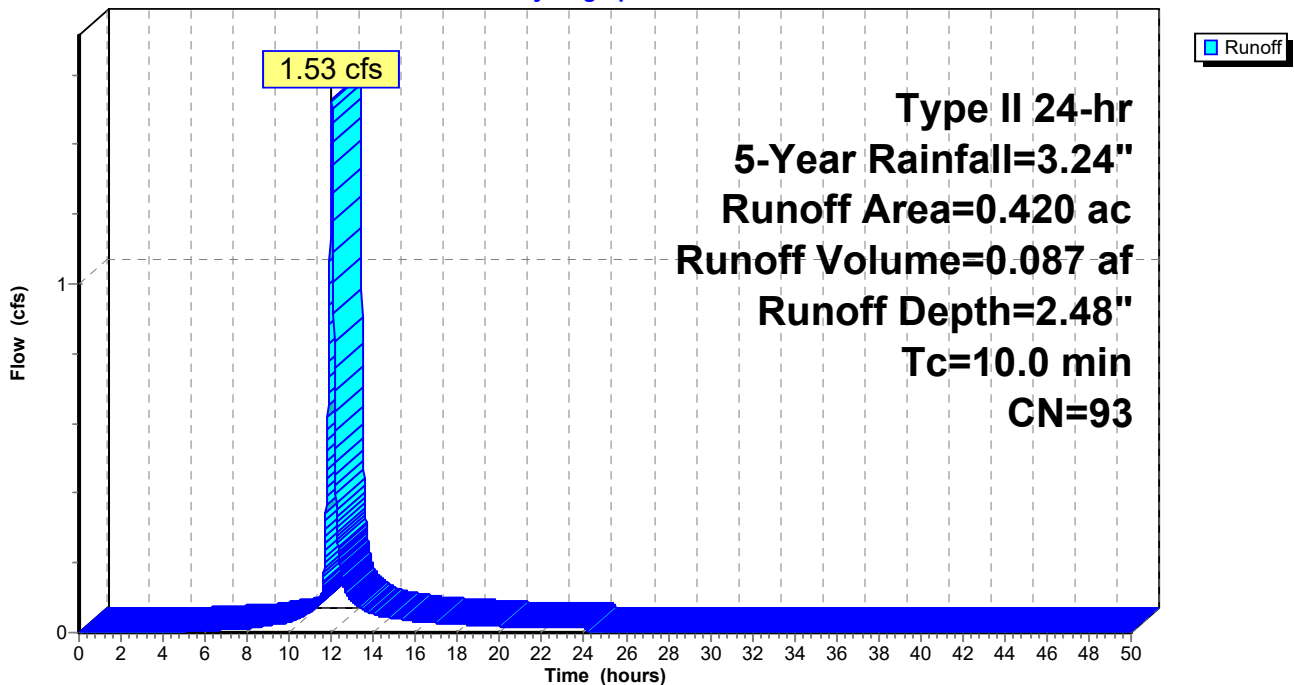
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 20W: STR20

Runoff = 2.16 cfs @ 12.01 hrs, Volume= 0.121 af, Depth= 2.30"

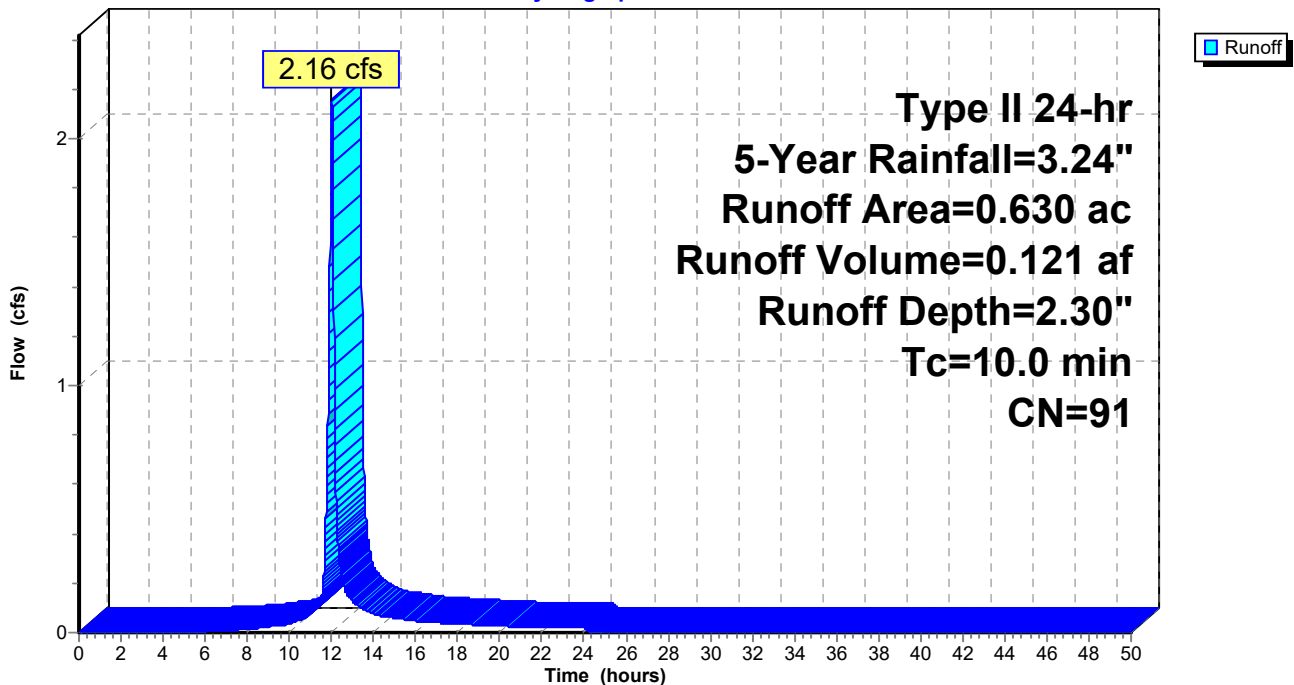
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 21W: STR21

Runoff = 2.35 cfs @ 12.01 hrs, Volume= 0.139 af, Depth= 2.79"

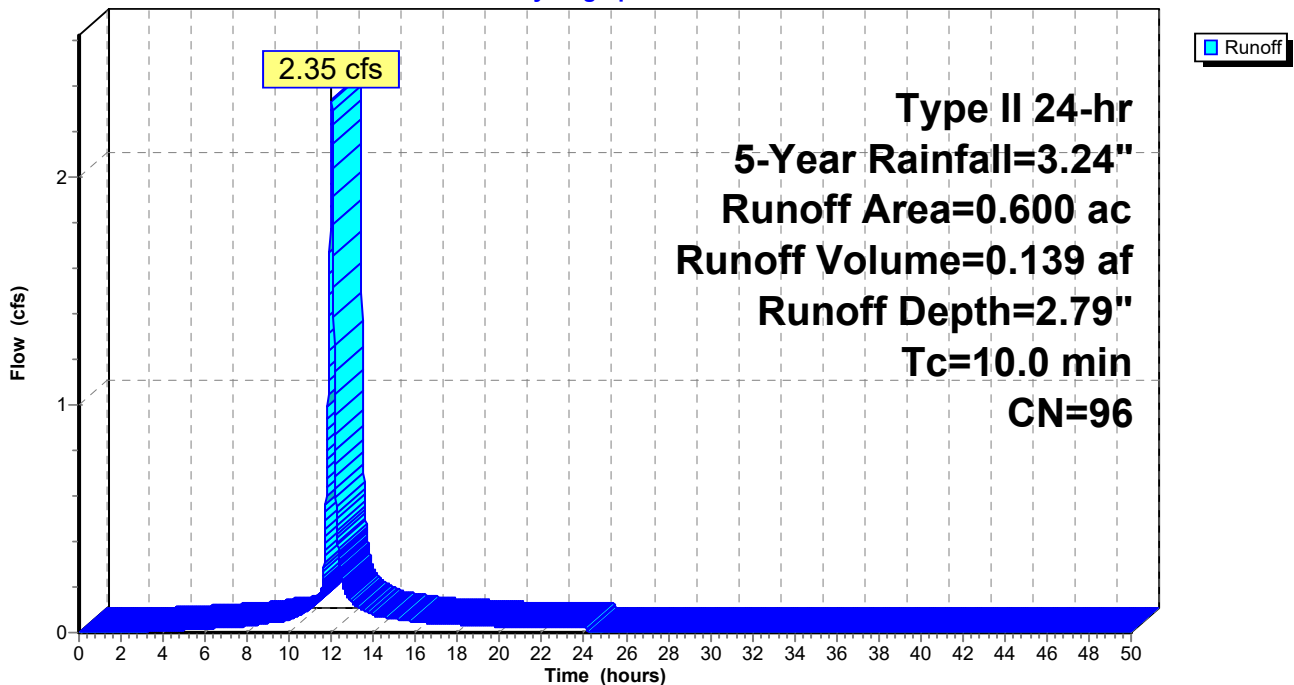
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 22W: STR22

Runoff = 3.10 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 2.68"

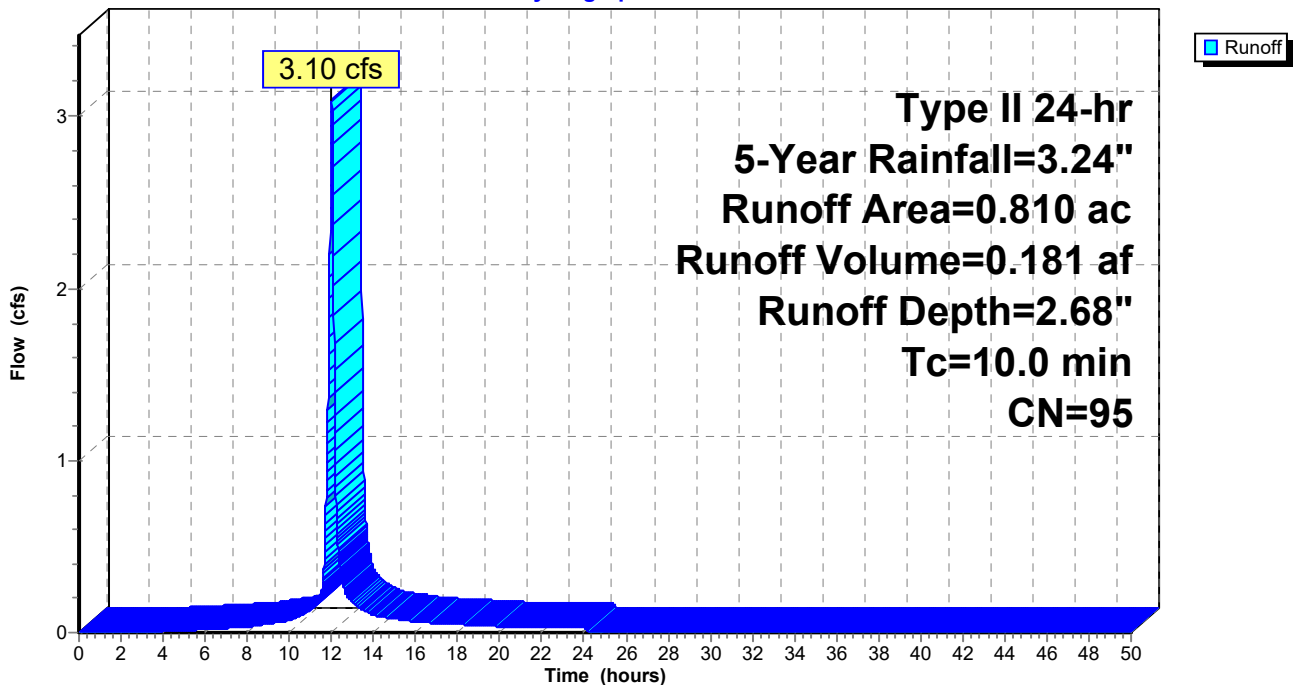
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 23W: STR23

Runoff = 2.58 cfs @ 12.01 hrs, Volume= 0.149 af, Depth= 2.58"

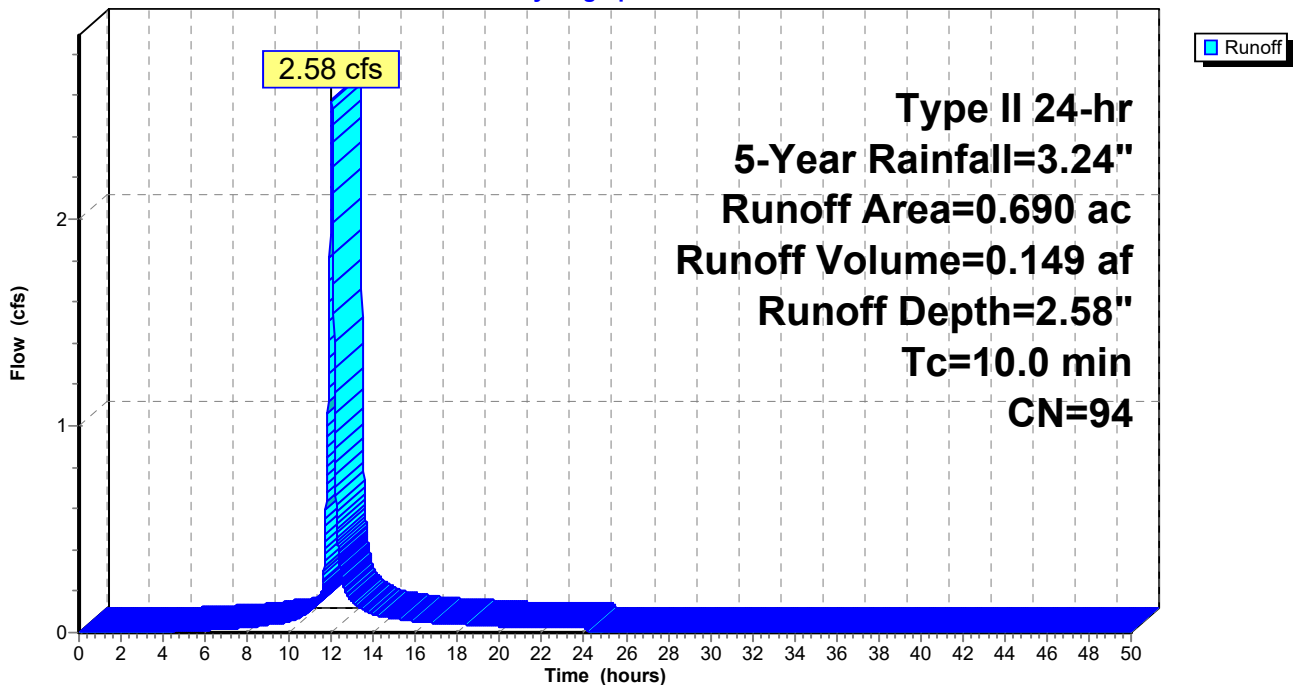
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 24W: STR24

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

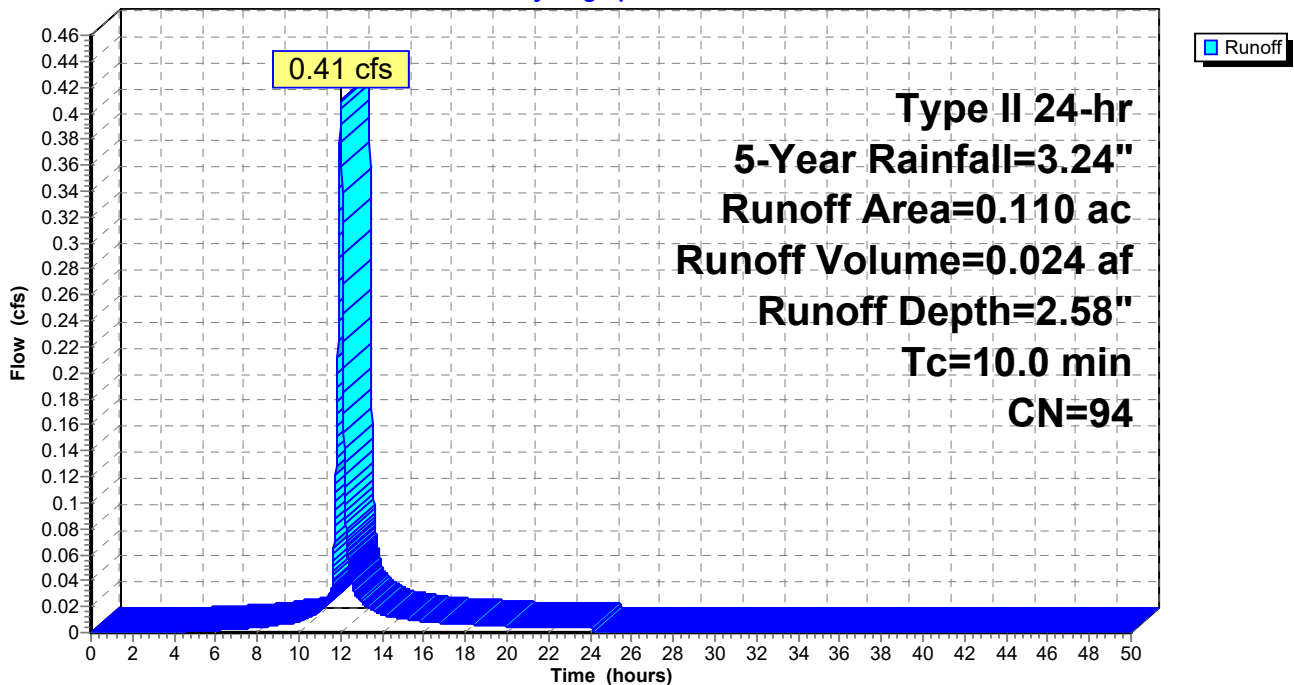
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 25W: STR25

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

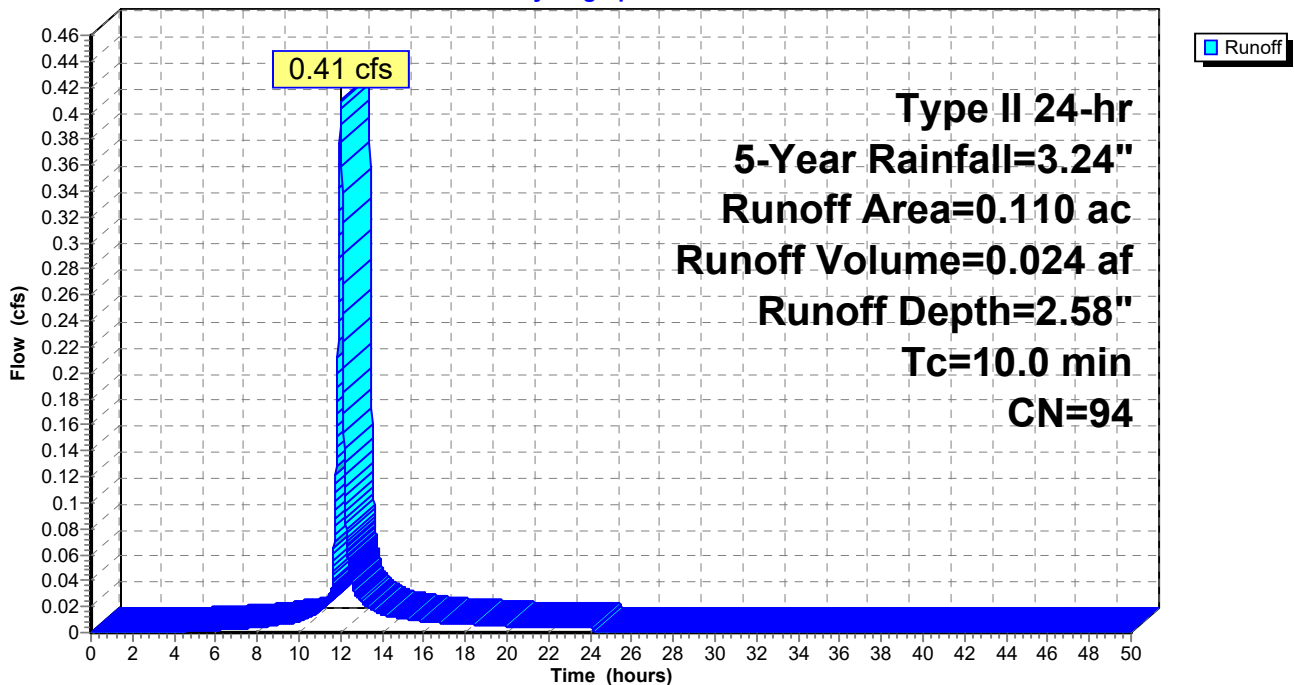
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 26W: STR26

Runoff = 0.41 cfs @ 12.01 hrs, Volume= 0.024 af, Depth= 2.58"

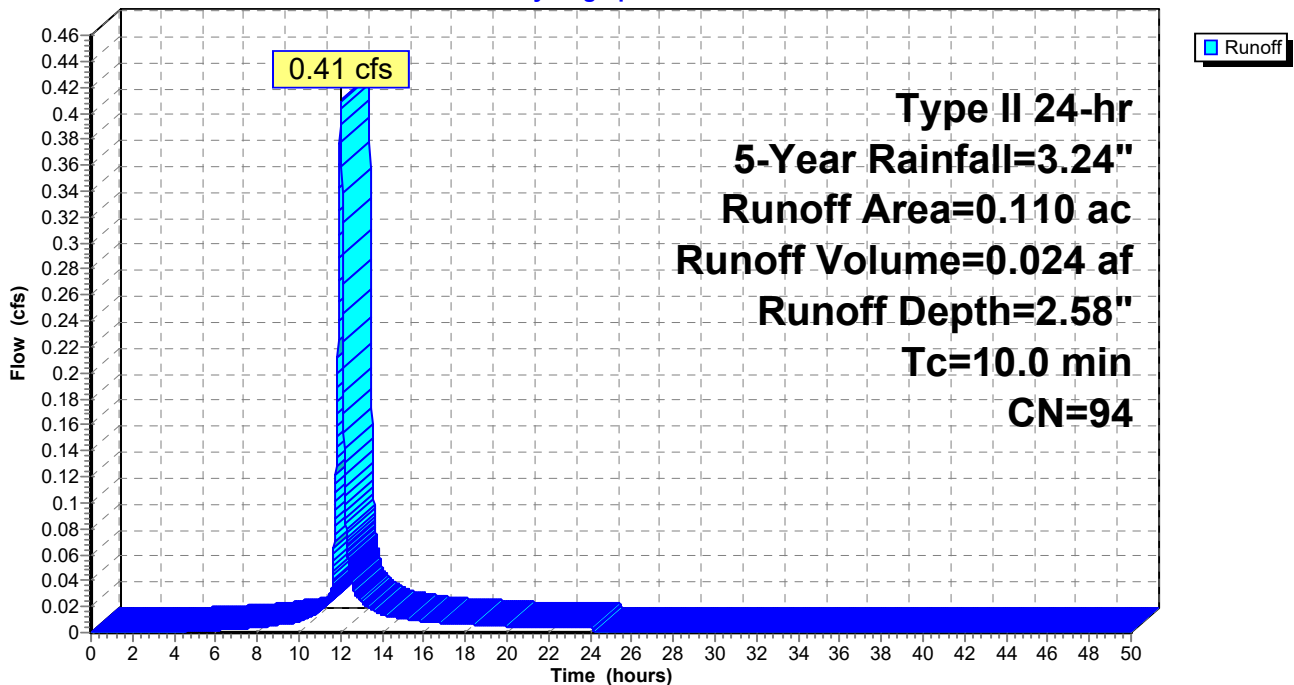
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Subcatchment 27W: STR27

Runoff = 1.06 cfs @ 12.01 hrs, Volume= 0.063 af, Depth= 2.79"

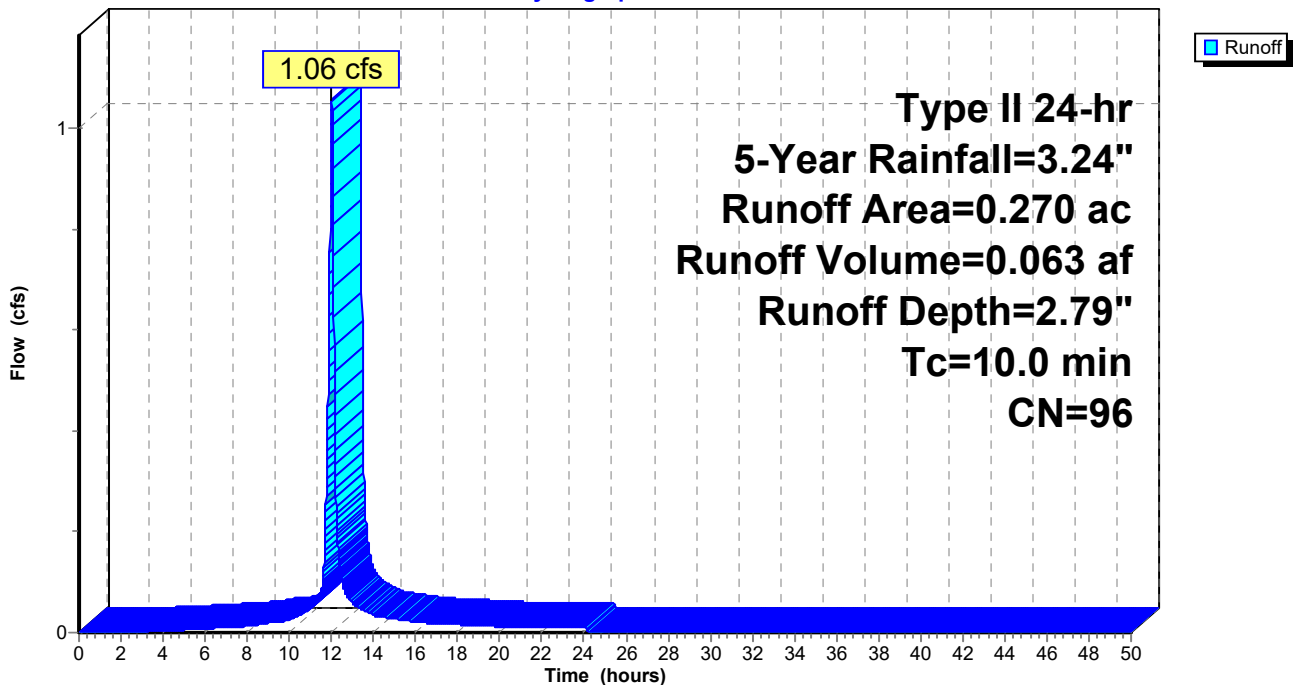
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=3.24"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.36" for 5-Year event
 Inflow = 20.15 cfs @ 12.01 hrs, Volume= 1.147 af
 Outflow = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af, Atten= 70%, Lag= 10.7 min
 Primary = 5.98 cfs @ 12.19 hrs, Volume= 1.117 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.72' @ 12.19 hrs Surf.Area= 17,296 sf Storage= 19,708 cf

Plug-Flow detention time= 99.2 min calculated for 1.117 af (97% of inflow)
 Center-of-Mass det. time= 83.2 min (878.4 - 795.2)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=5.98 cfs @ 12.19 hrs HW=911.72' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 5.98 cfs of 6.68 cfs potential flow)

↑2=**Culvert** (Inlet Controls 5.98 cfs @ 4.87 fps)

↑3=**Sharp-Crested Rectangular Weir** (Passes 5.98 cfs of 7.13 cfs potential flow)

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PROPOSED WEST TRIB

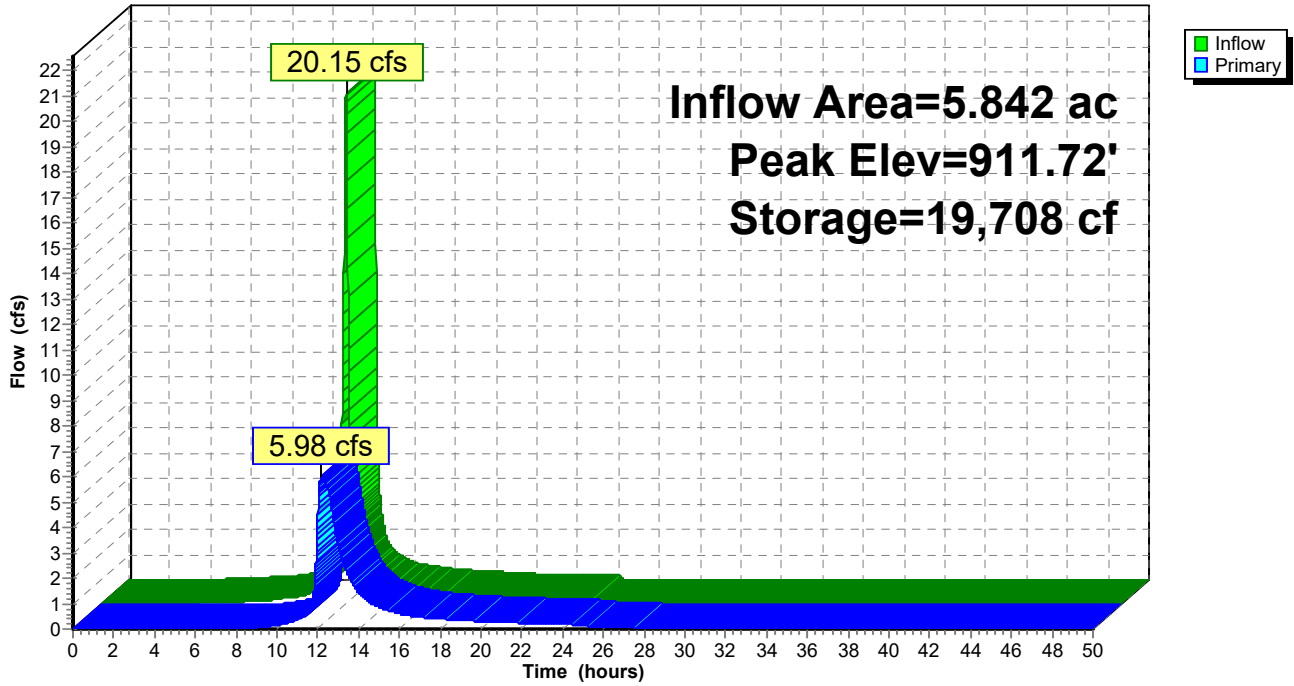
Type II 24-hr 5-Year Rainfall=3.24"

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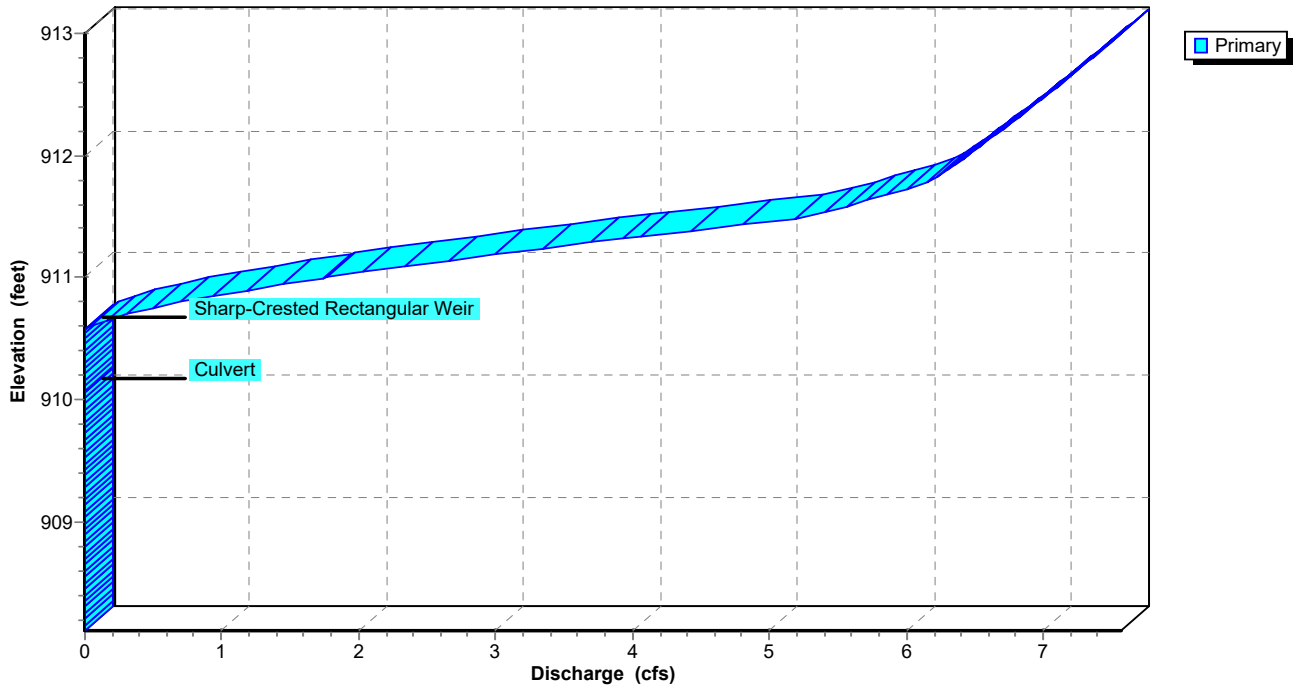
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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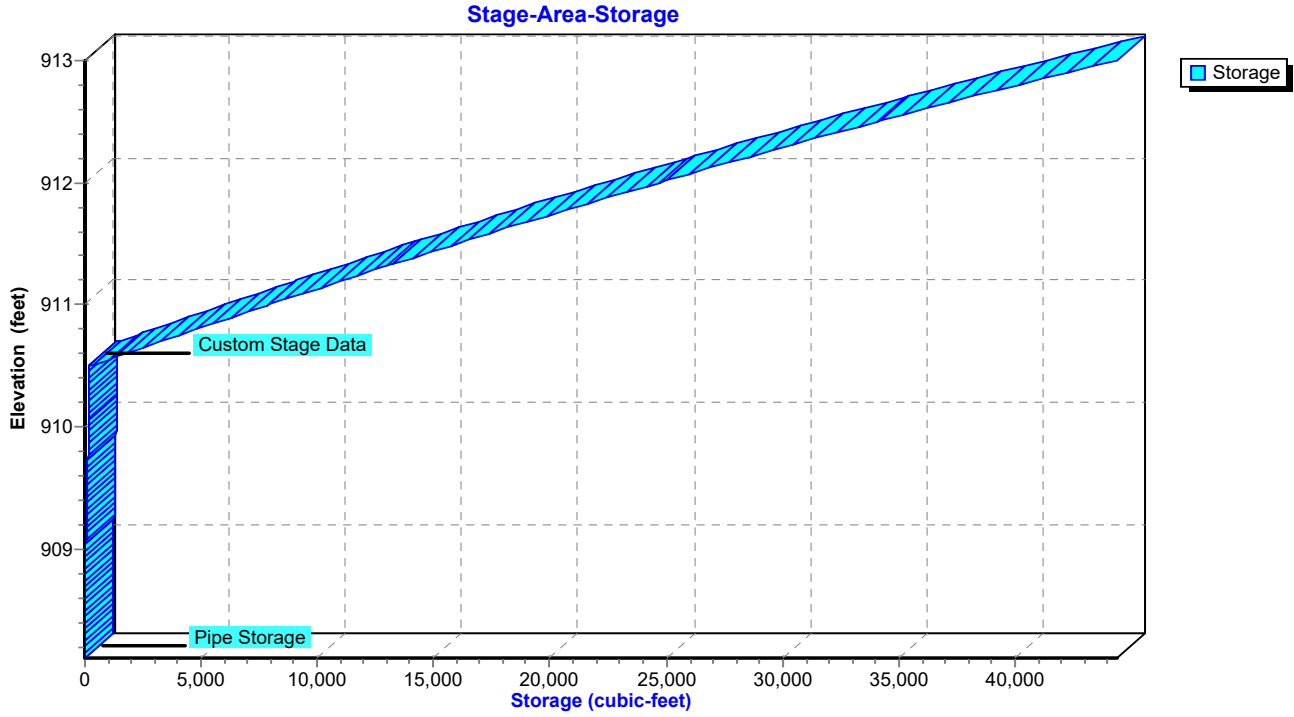
PROPOSED WEST TRIB

Type II 24-hr 5-Year Rainfall=3.24"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 1.04 cfs @ 12.01 hrs, Volume= 0.059 af, Depth= 2.87"

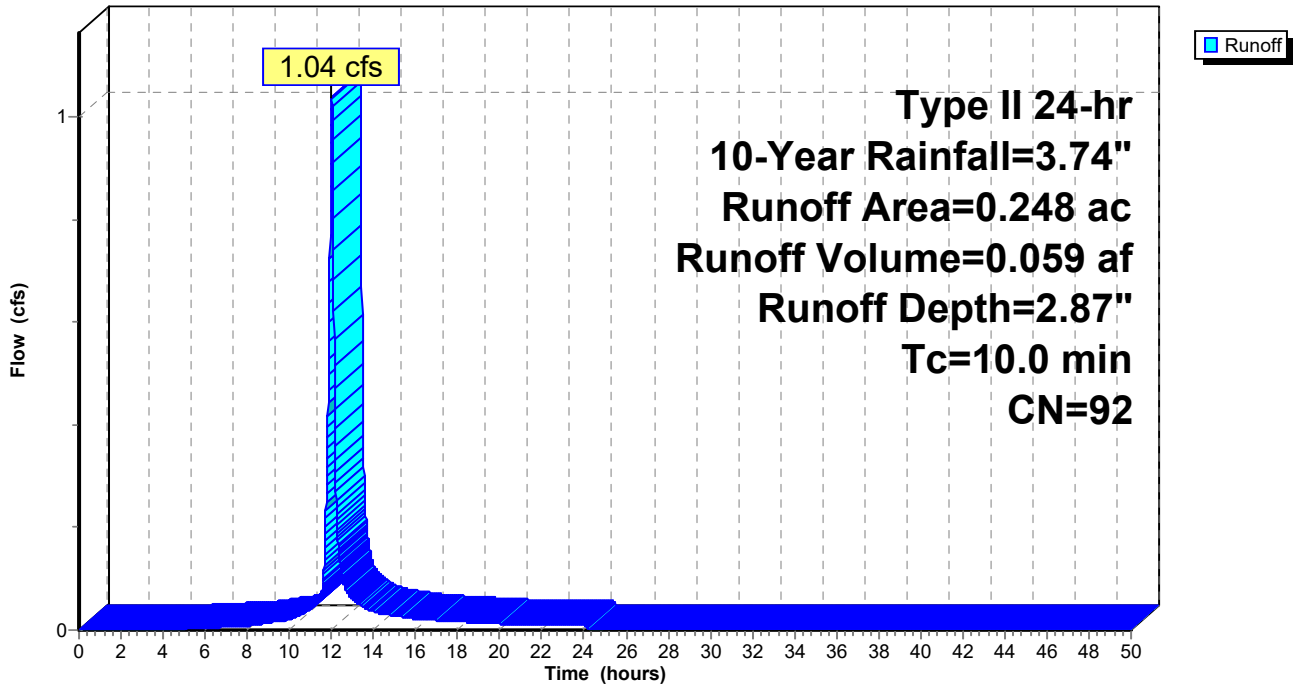
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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PROPOSED WEST TRIB
Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 6.50 cfs @ 12.01 hrs, Volume= 0.355 af, Depth= 2.31"

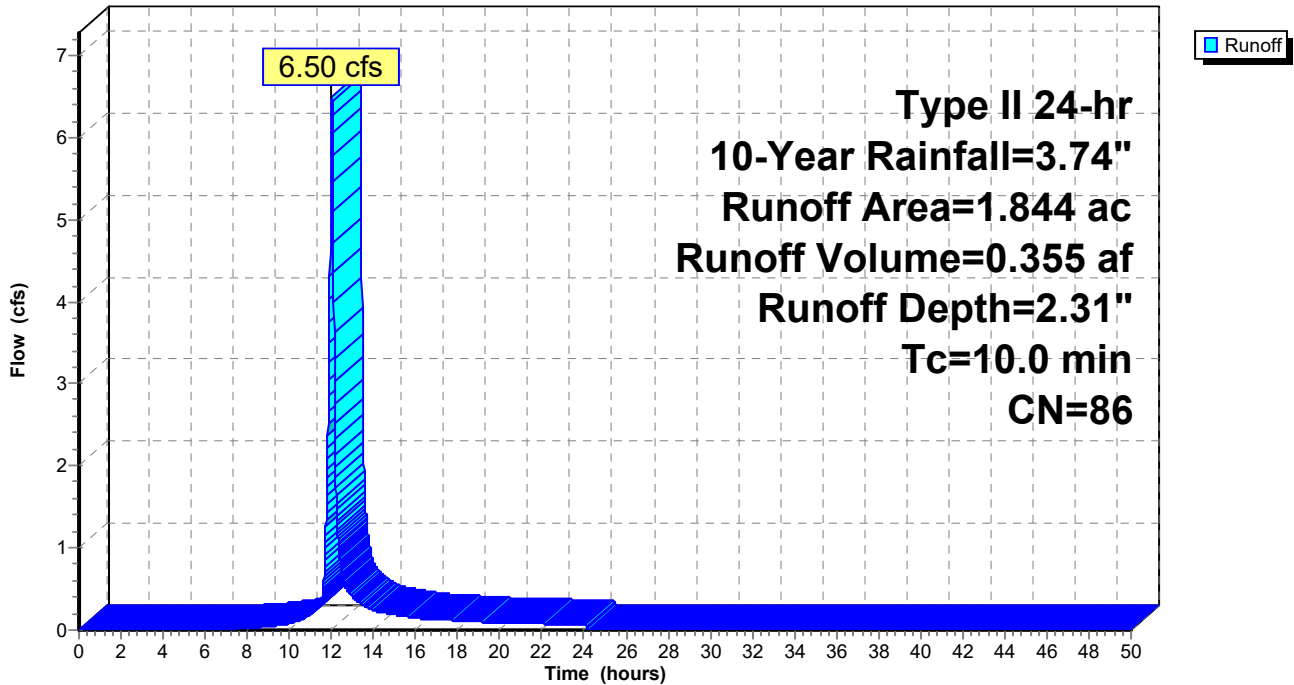
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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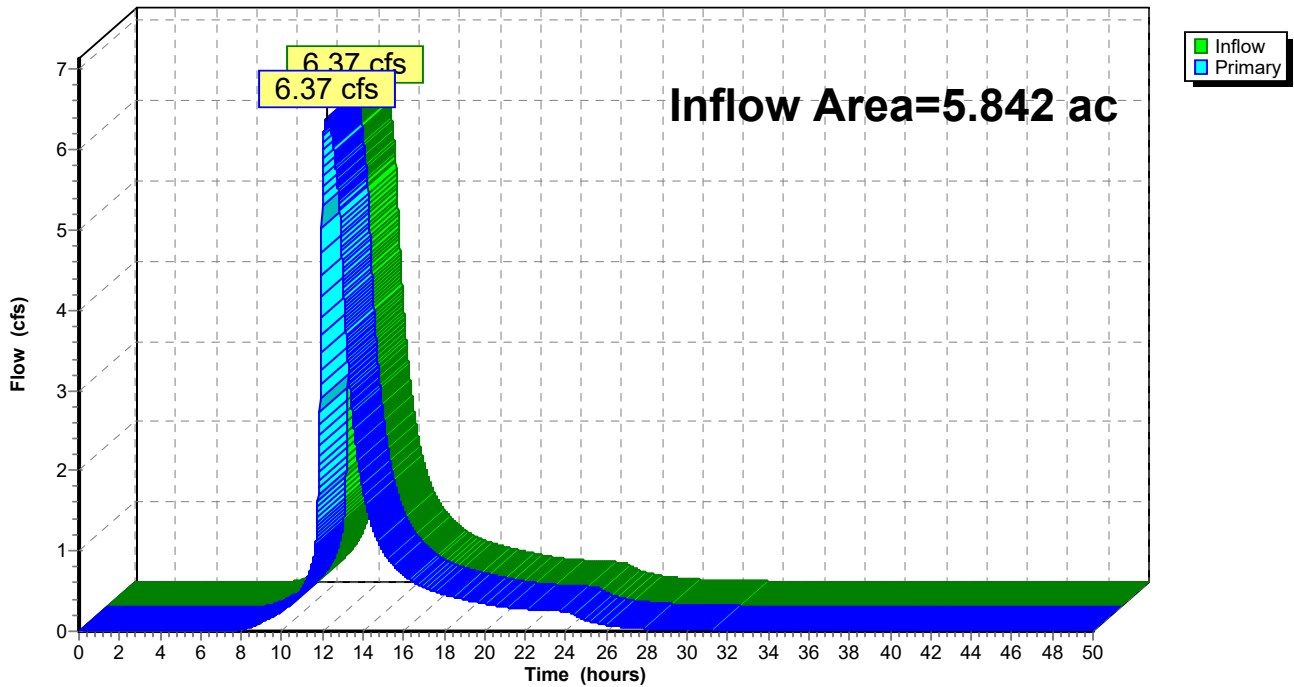
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.77" for 10-Year event
Inflow = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af
Primary = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 19W: STR19

Runoff = 1.81 cfs @ 12.01 hrs, Volume= 0.104 af, Depth= 2.97"

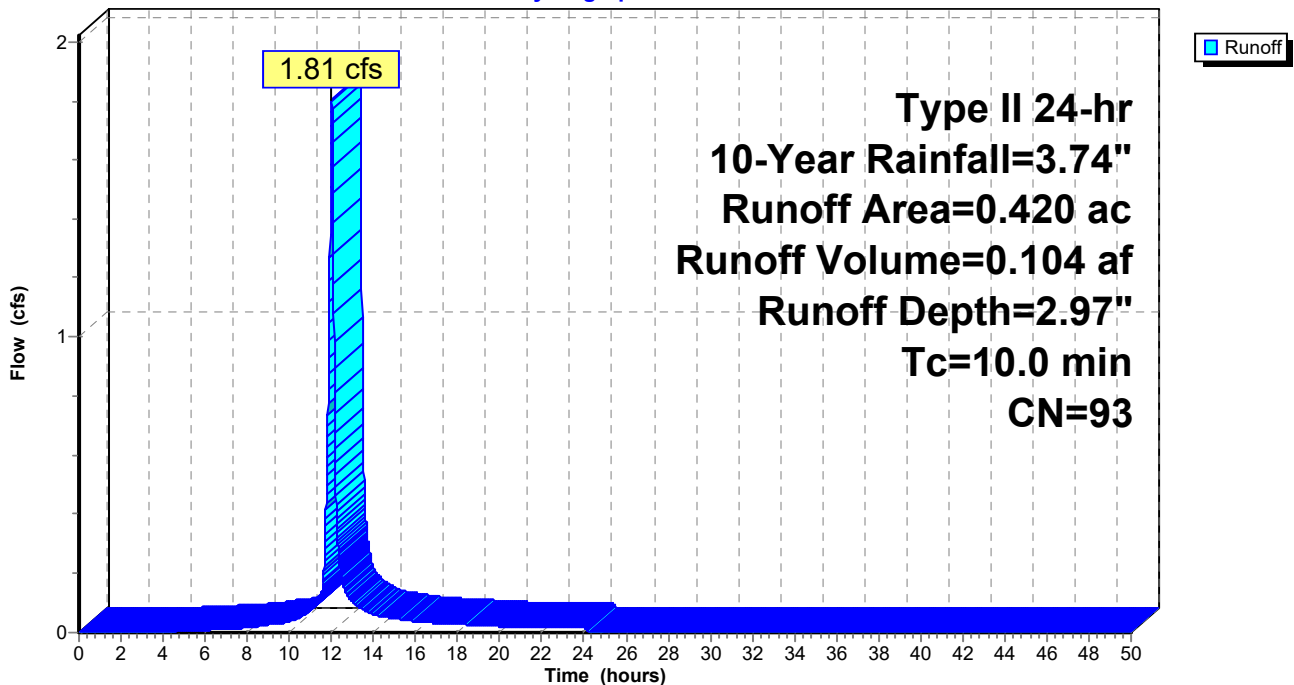
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 20W: STR20

Runoff = 2.58 cfs @ 12.01 hrs, Volume= 0.145 af, Depth= 2.77"

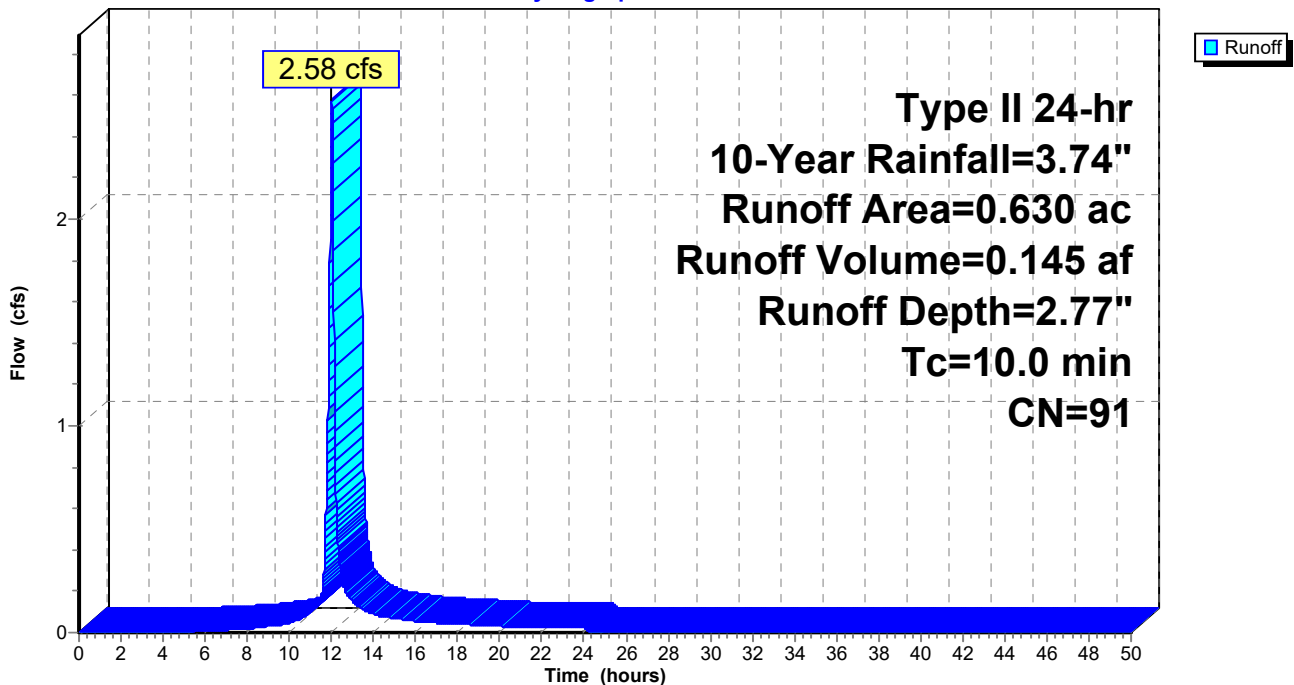
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 21W: STR21

Runoff = 2.73 cfs @ 12.01 hrs, Volume= 0.164 af, Depth= 3.28"

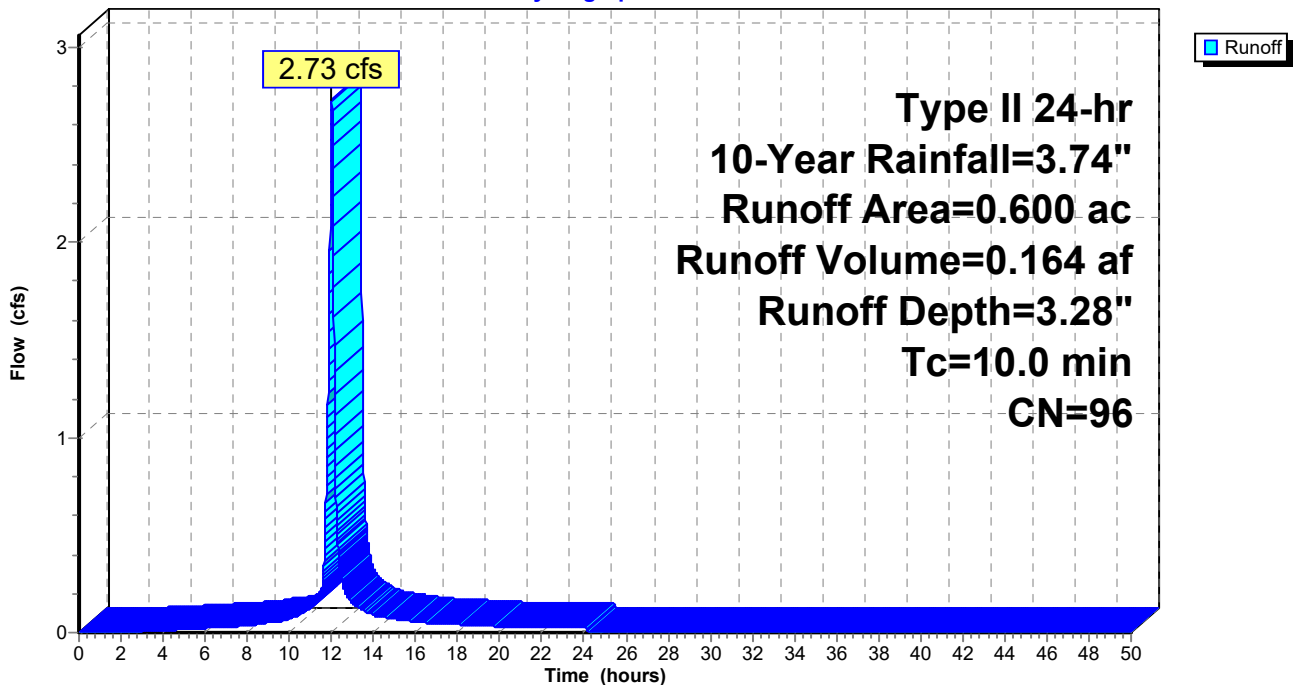
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 22W: STR22

Runoff = 3.63 cfs @ 12.01 hrs, Volume= 0.214 af, Depth= 3.17"

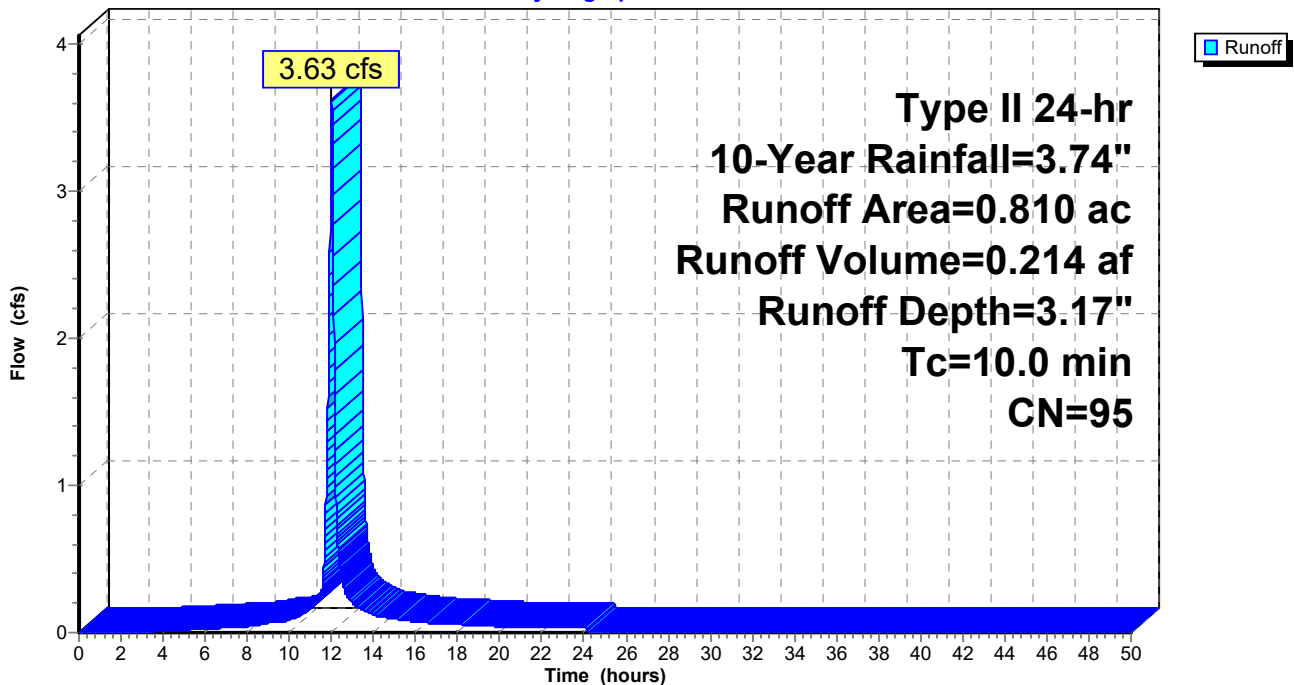
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 23W: STR23

Runoff = 3.03 cfs @ 12.01 hrs, Volume= 0.177 af, Depth= 3.07"

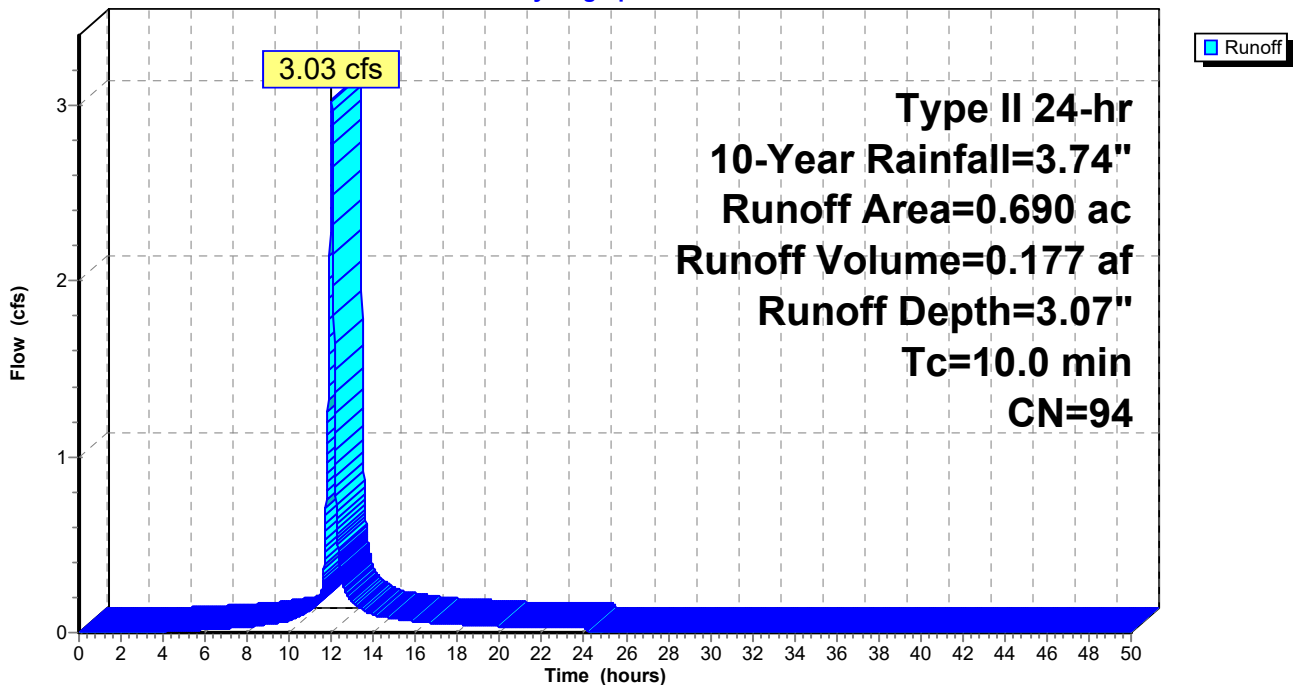
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 24W: STR24

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

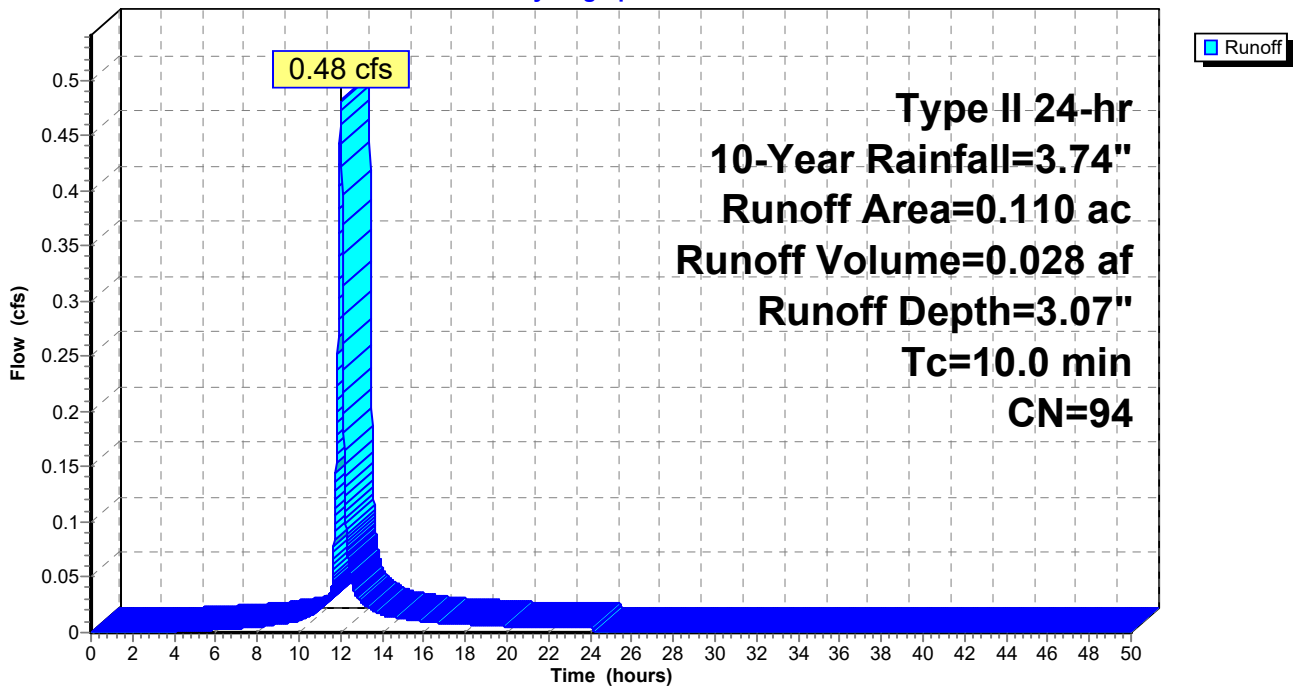
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 25W: STR25

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

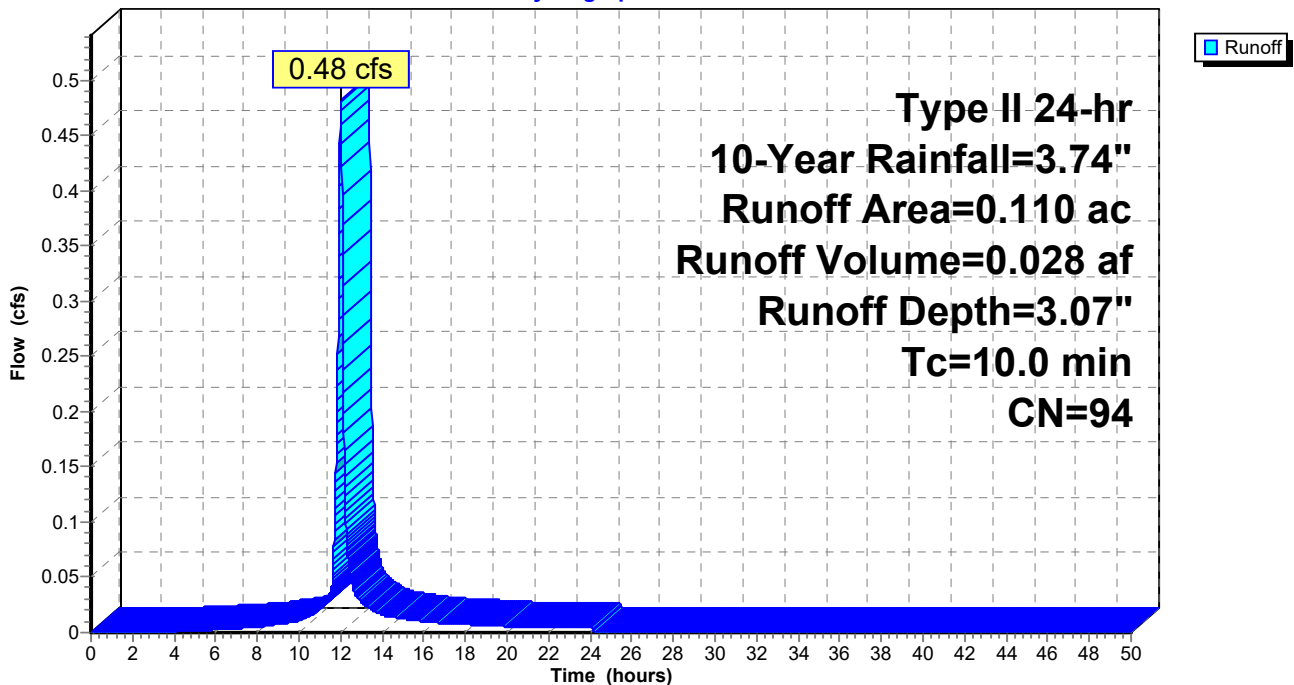
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 26W: STR26

Runoff = 0.48 cfs @ 12.01 hrs, Volume= 0.028 af, Depth= 3.07"

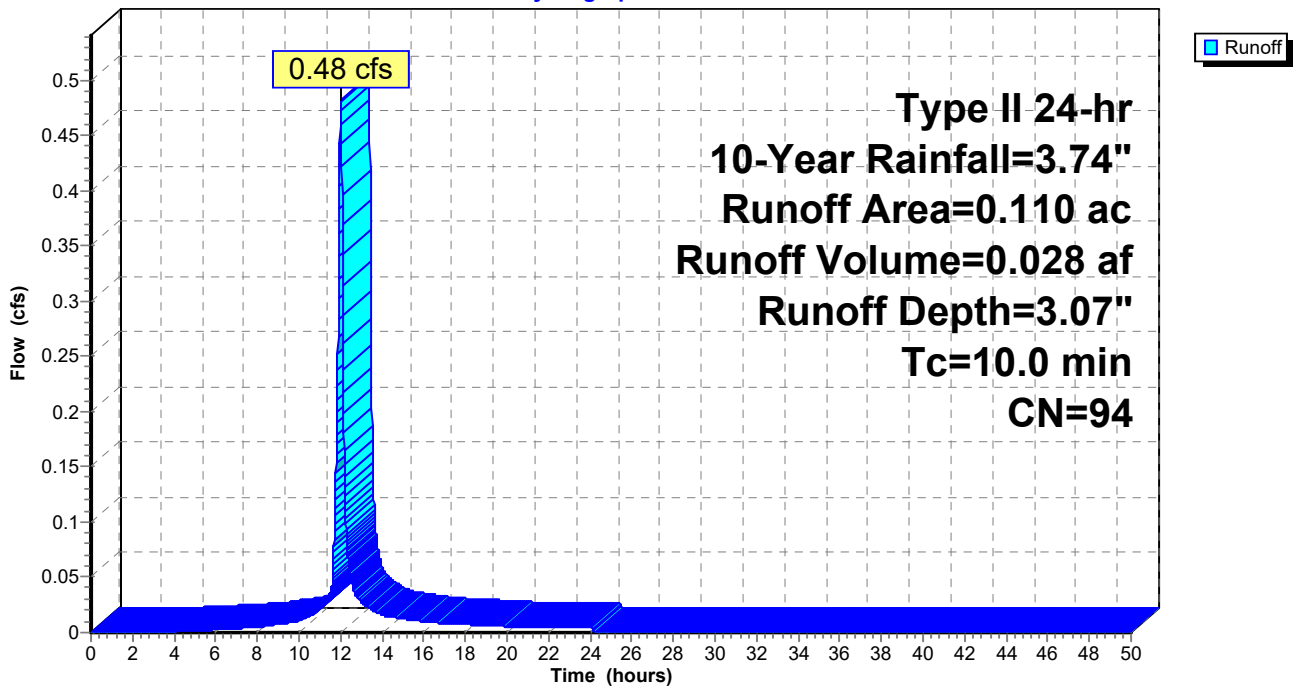
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Subcatchment 27W: STR27

Runoff = 1.23 cfs @ 12.01 hrs, Volume= 0.074 af, Depth= 3.28"

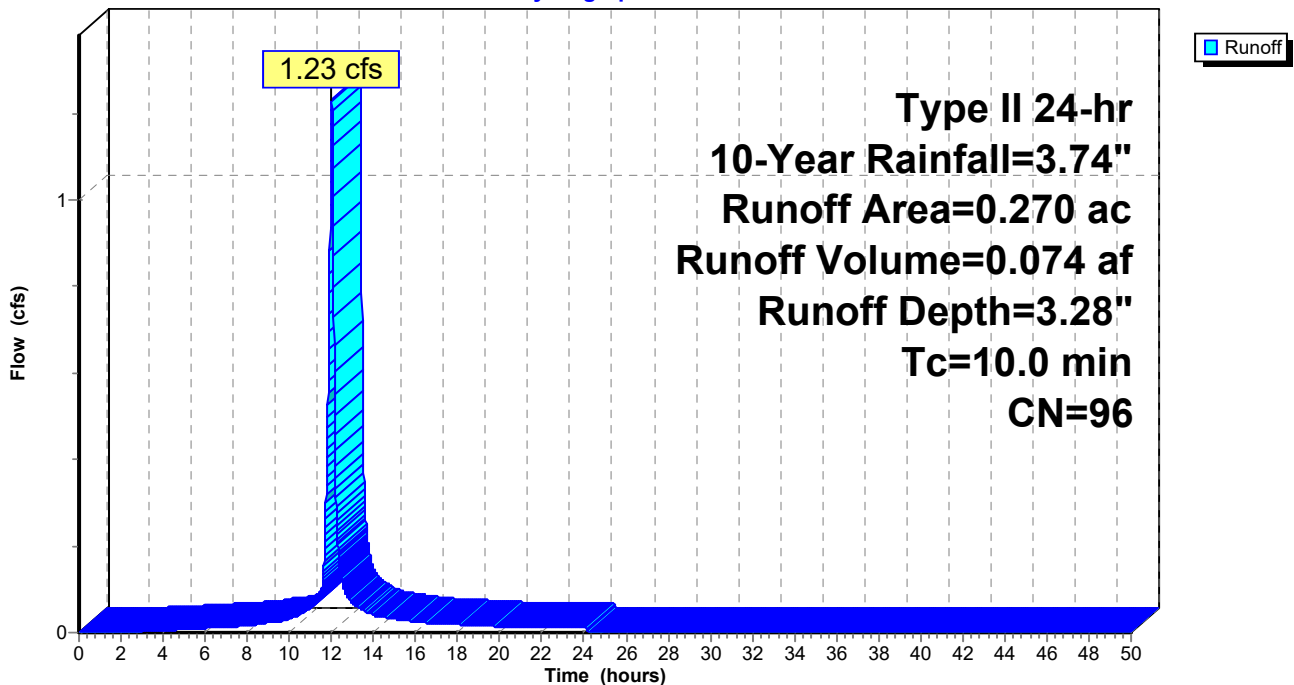
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.74"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 10-Year Rainfall=3.74"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 2.83" for 10-Year event
 Inflow = 23.99 cfs @ 12.01 hrs, Volume= 1.377 af
 Outflow = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af, Atten= 73%, Lag= 11.7 min
 Primary = 6.37 cfs @ 12.21 hrs, Volume= 1.347 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 911.94' @ 12.21 hrs Surf.Area= 17,827 sf Storage= 23,589 cf

Plug-Flow detention time= 94.1 min calculated for 1.347 af (98% of inflow)
 Center-of-Mass det. time= 80.5 min (871.1 - 790.6)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=6.37 cfs @ 12.21 hrs HW=911.94' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 6.37 cfs of 6.91 cfs potential flow)

↑2=**Culvert** (Barrel Controls 6.37 cfs @ 5.19 fps)

↑3=**Sharp-Crested Rectangular Weir** (Passes 6.37 cfs of 9.05 cfs potential flow)

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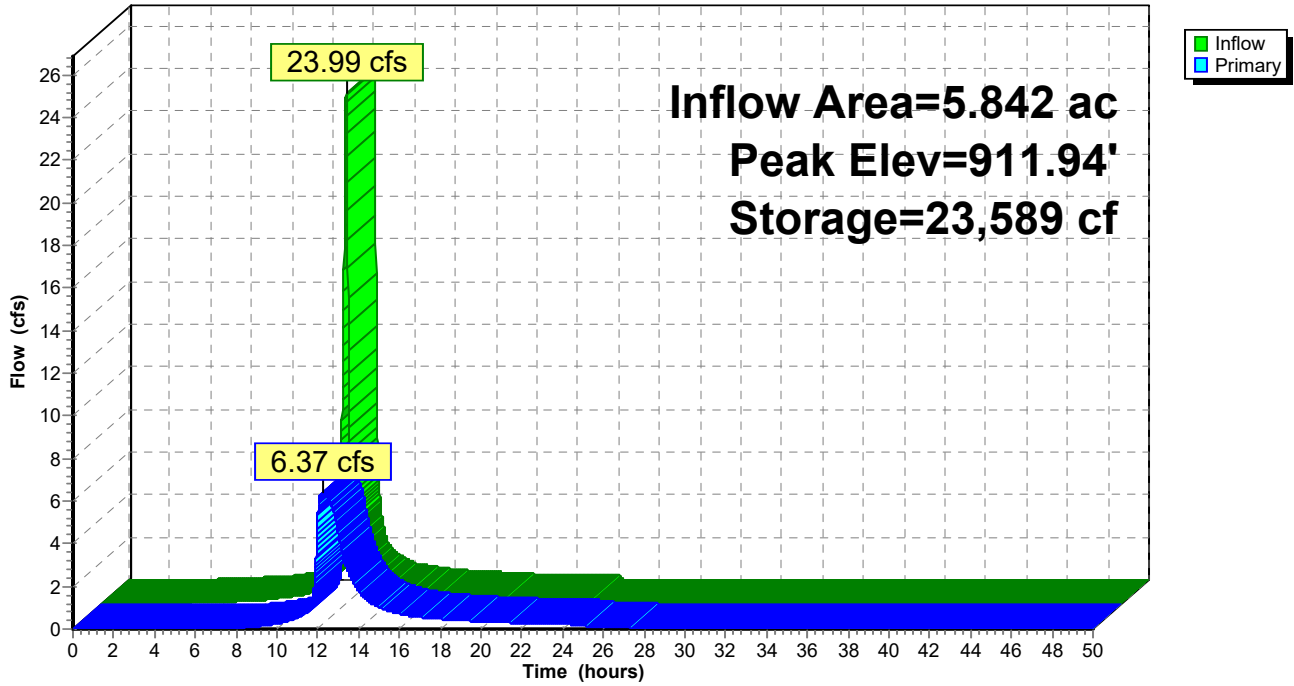
PROPOSED WEST TRIB
Type II 24-hr 10-Year Rainfall=3.74"

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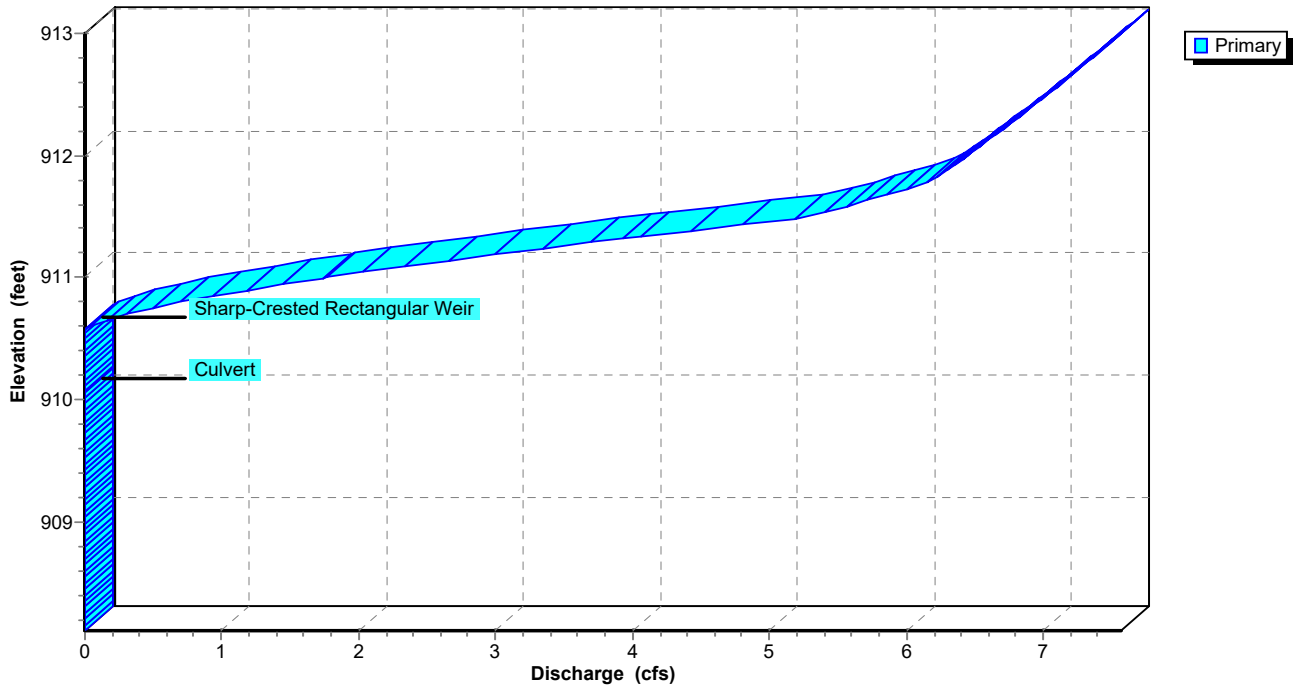
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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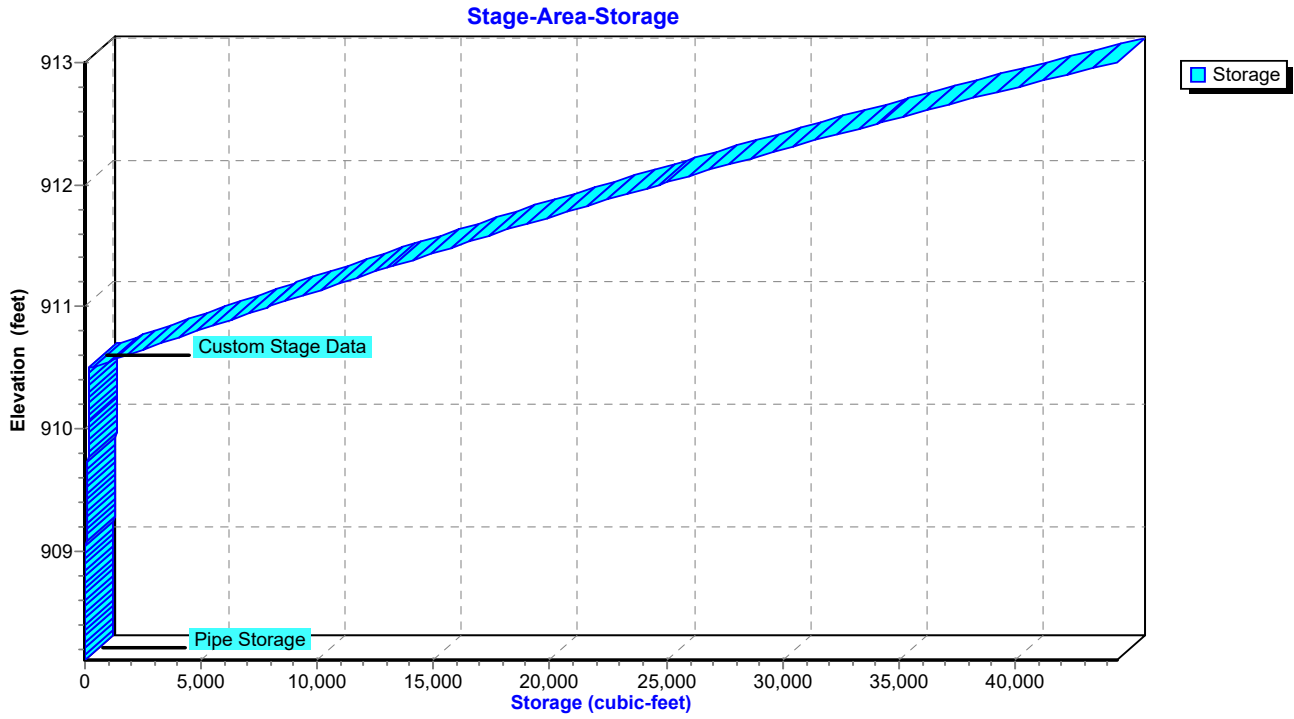
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Type II 24-hr 10-Year Rainfall=3.74"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 1.27 cfs @ 12.01 hrs, Volume= 0.073 af, Depth= 3.54"

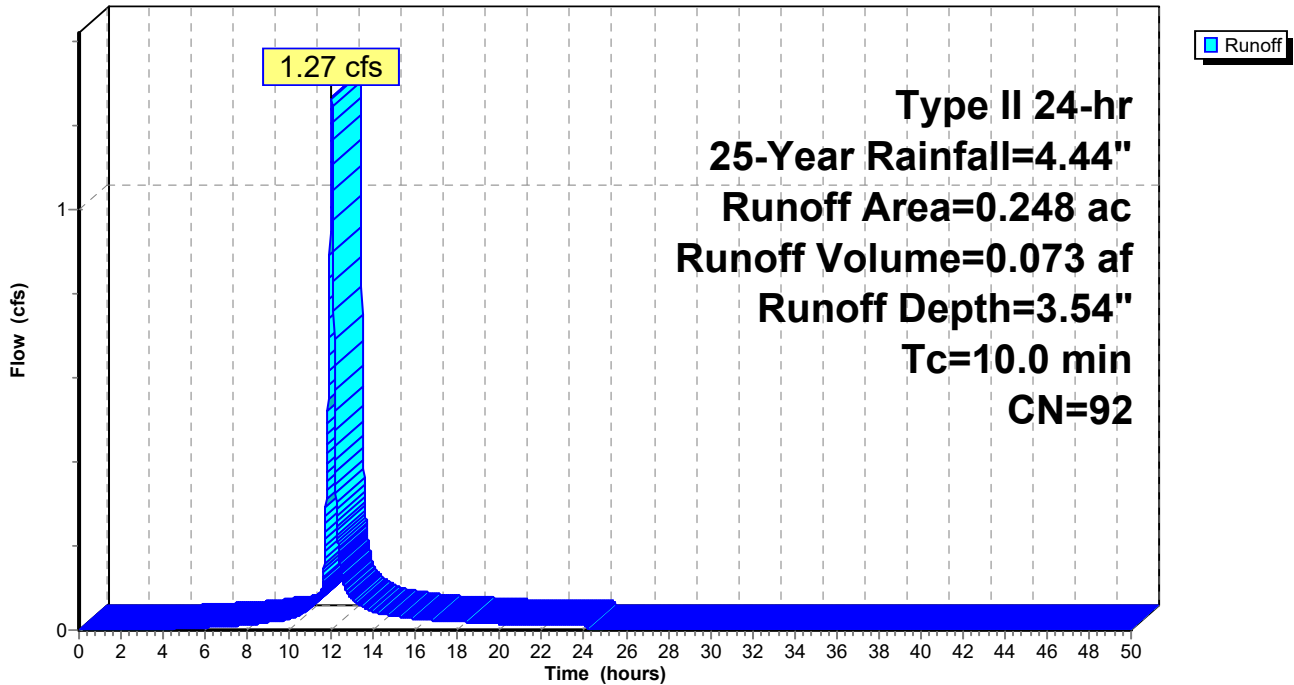
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 8.21 cfs @ 12.01 hrs, Volume= 0.453 af, Depth= 2.95"

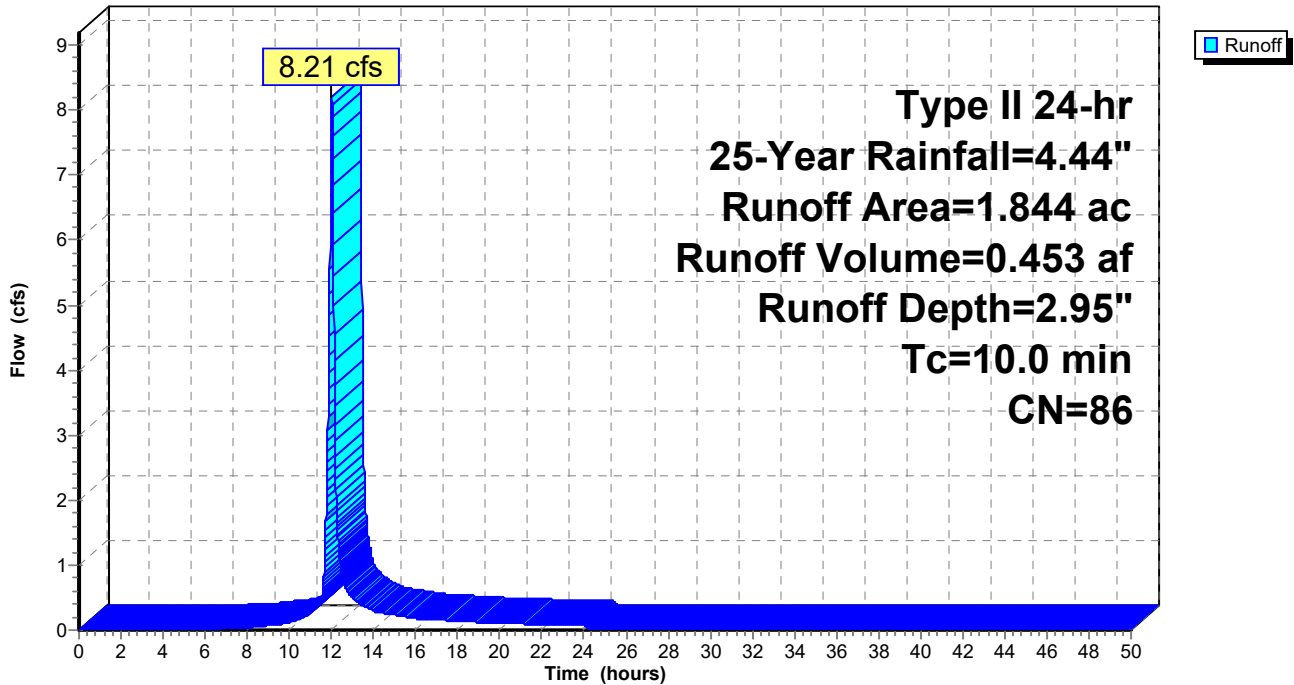
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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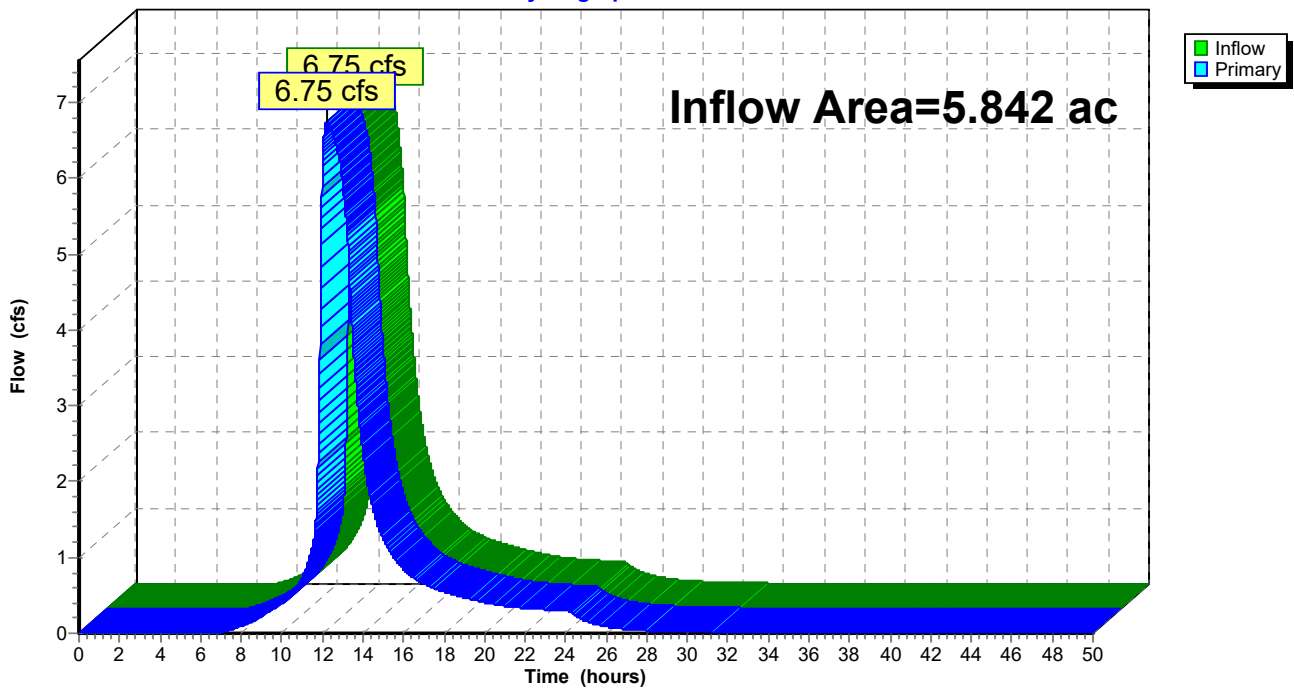
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 3.44" for 25-Year event
Inflow = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af
Primary = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 19W: STR19

Runoff = 2.19 cfs @ 12.01 hrs, Volume= 0.128 af, Depth= 3.65"

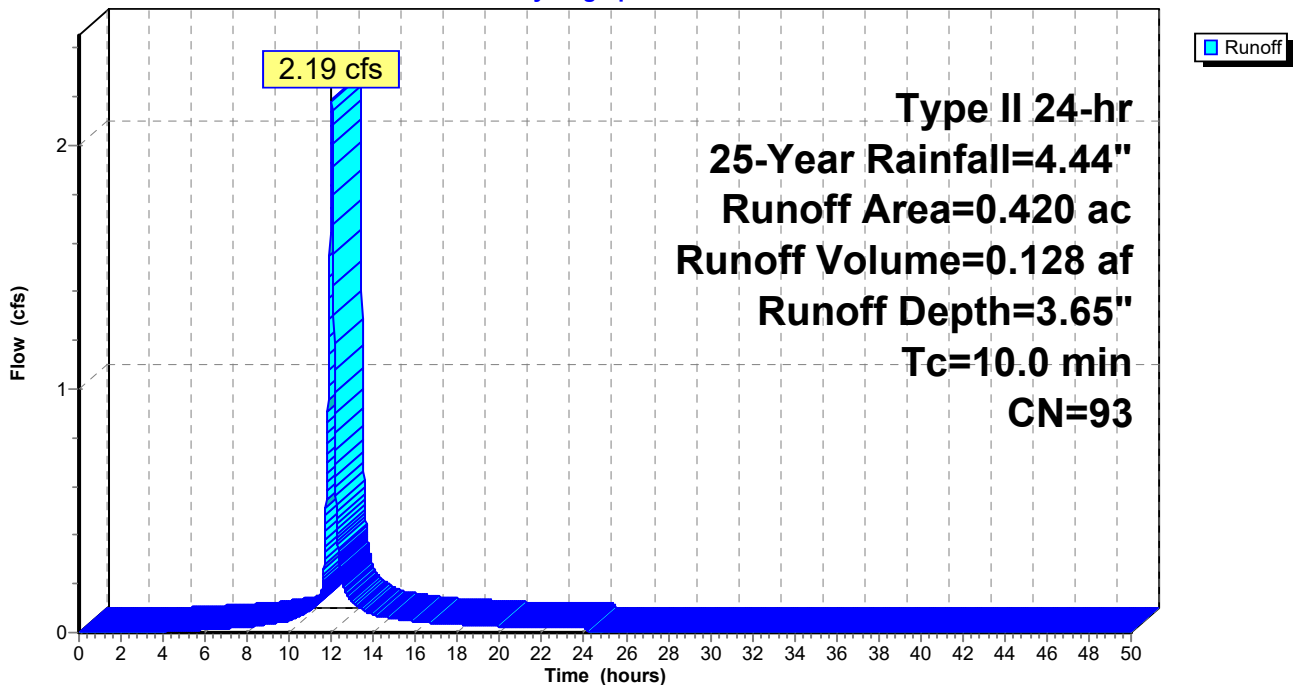
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 20W: STR20

Runoff = 3.16 cfs @ 12.01 hrs, Volume= 0.181 af, Depth= 3.44"

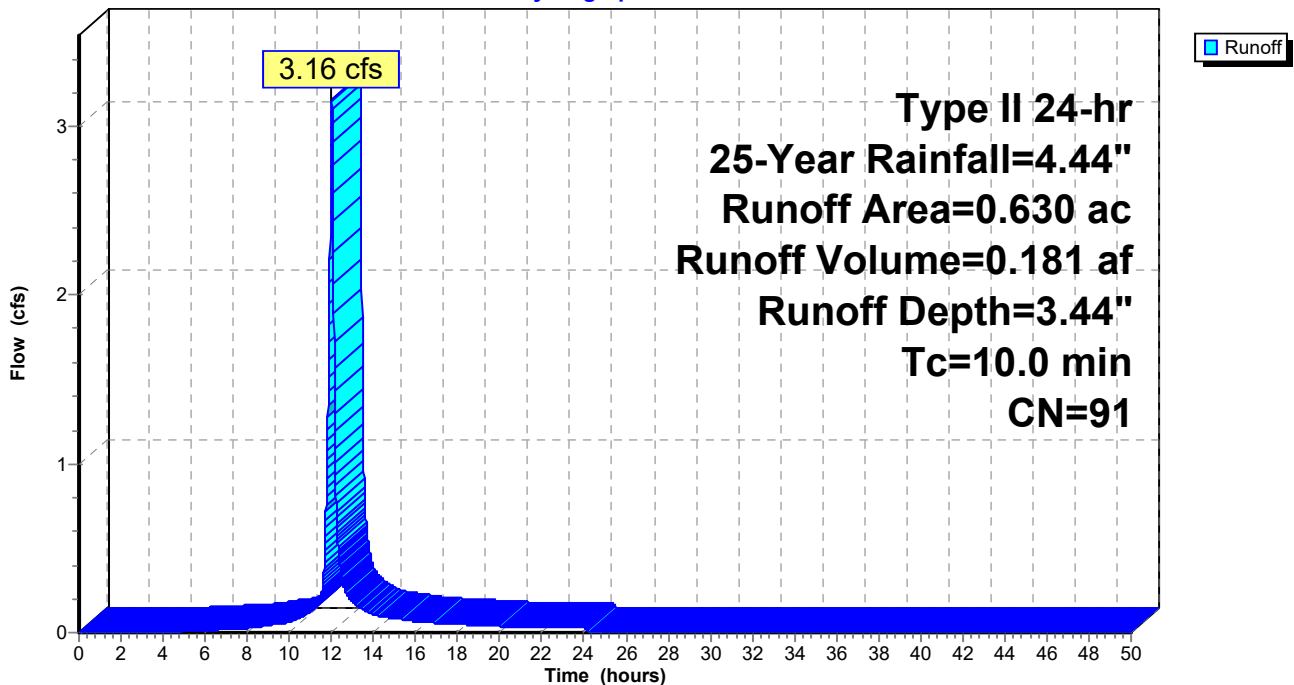
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 21W: STR21

Runoff = 3.28 cfs @ 12.01 hrs, Volume= 0.199 af, Depth= 3.98"

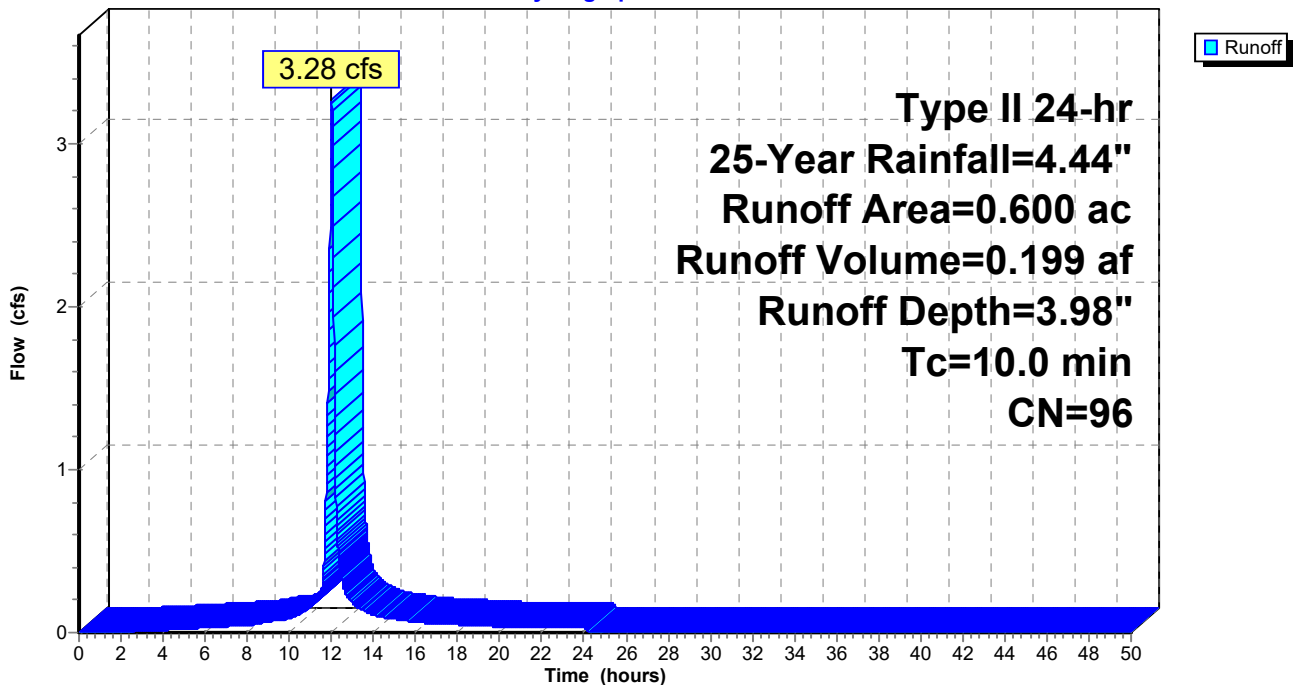
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 22W: STR22

Runoff = 4.36 cfs @ 12.01 hrs, Volume= 0.261 af, Depth= 3.87"

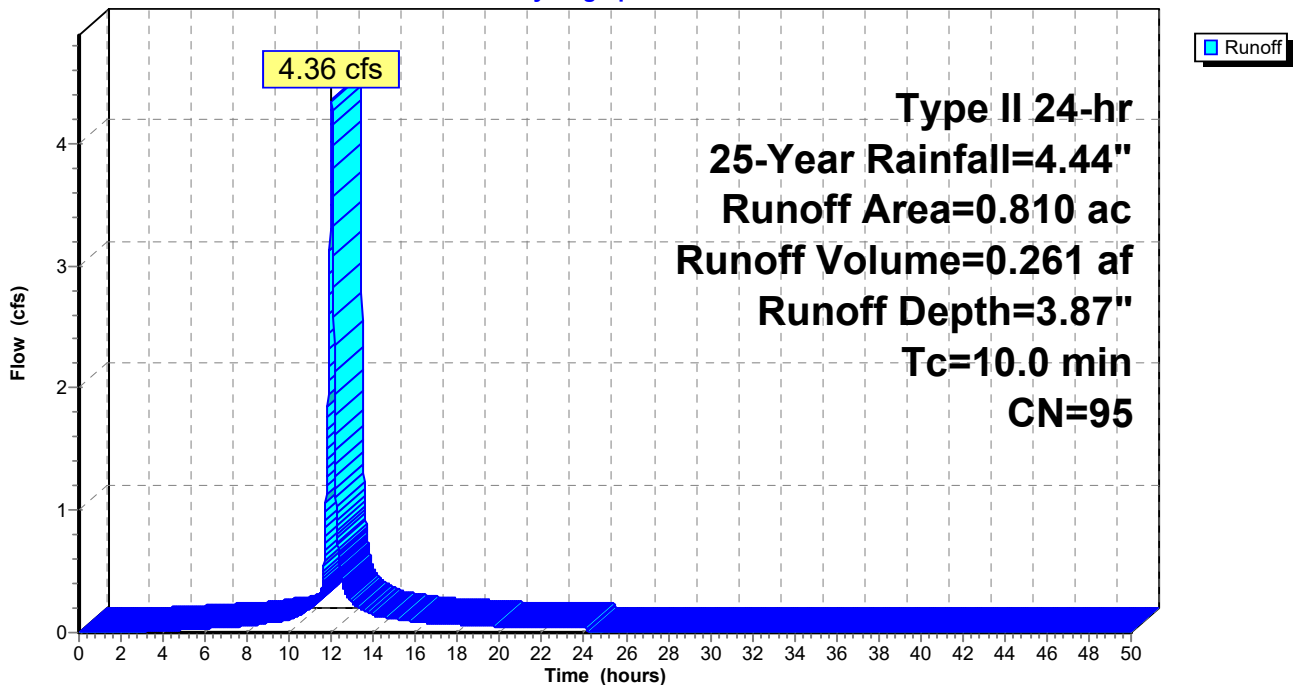
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 23W: STR23

Runoff = 3.66 cfs @ 12.01 hrs, Volume= 0.216 af, Depth= 3.76"

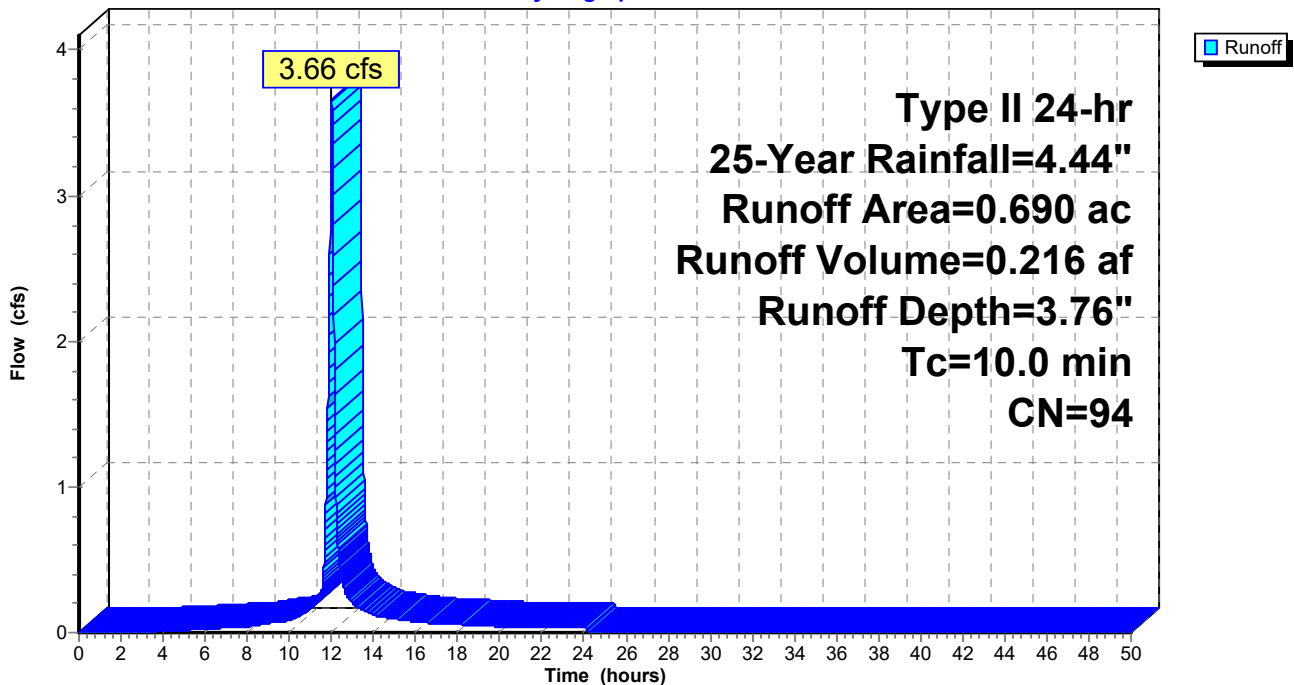
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 24W: STR24

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

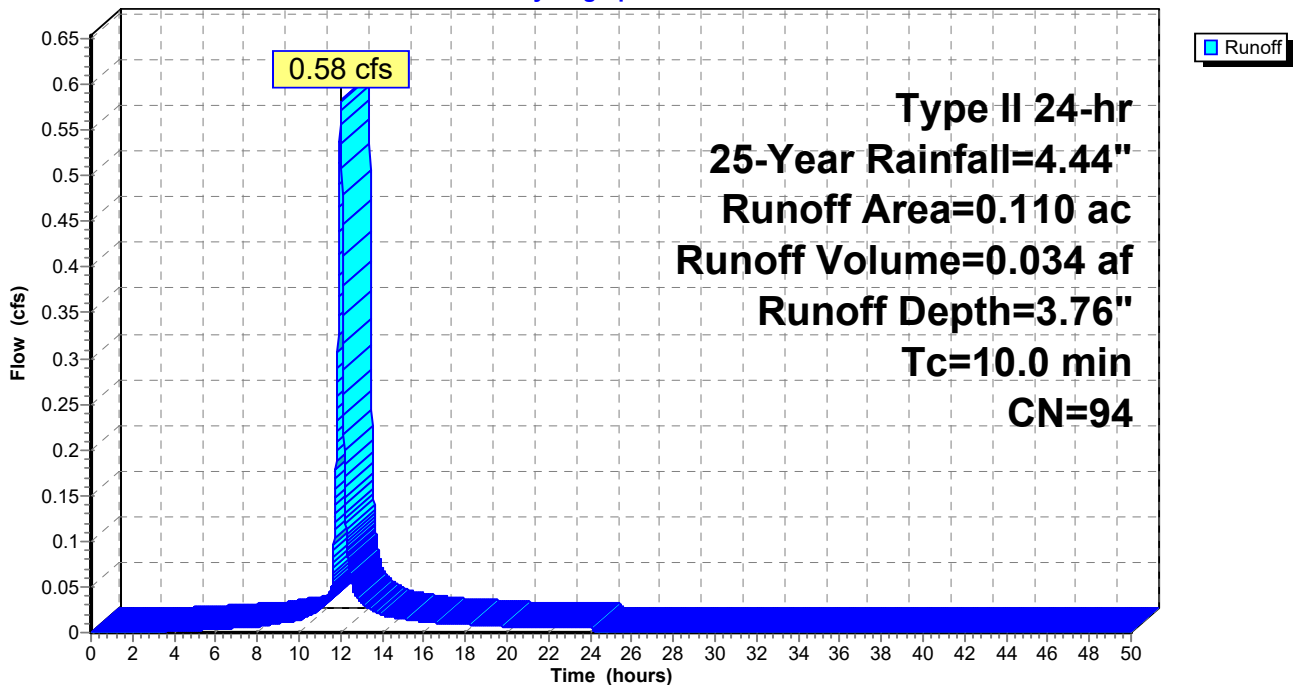
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 25W: STR25

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

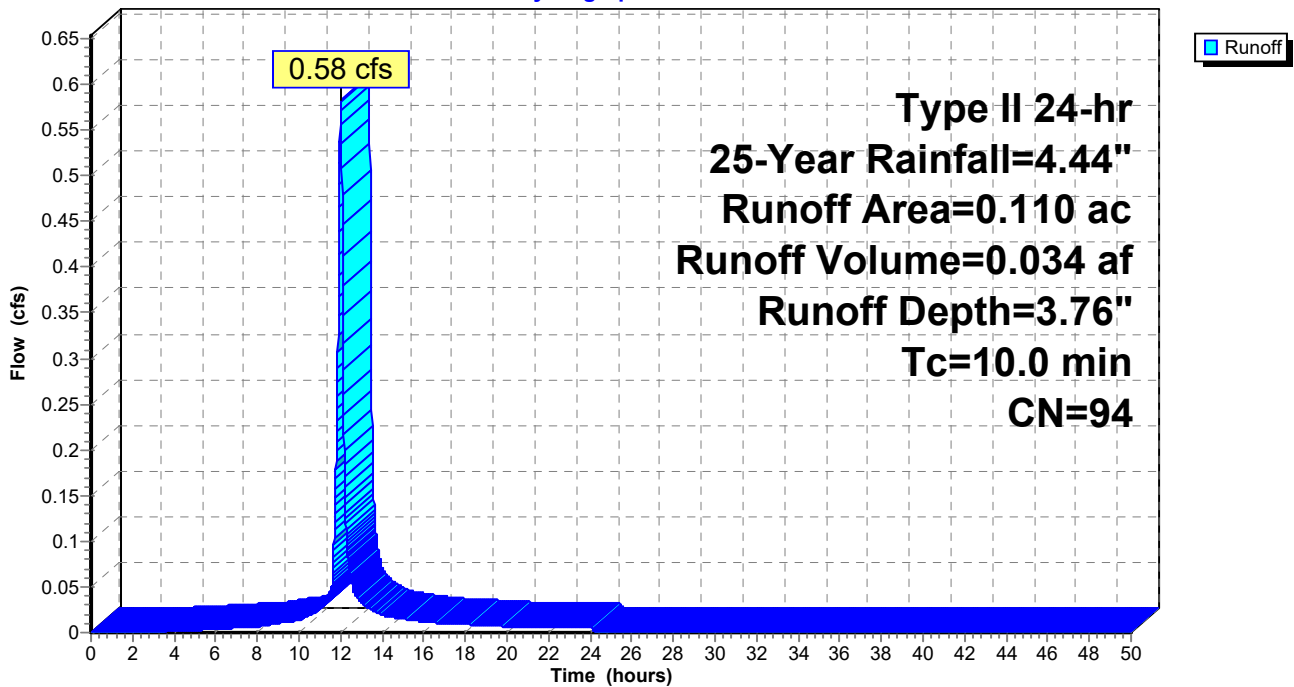
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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PROPOSED WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 26W: STR26

Runoff = 0.58 cfs @ 12.01 hrs, Volume= 0.034 af, Depth= 3.76"

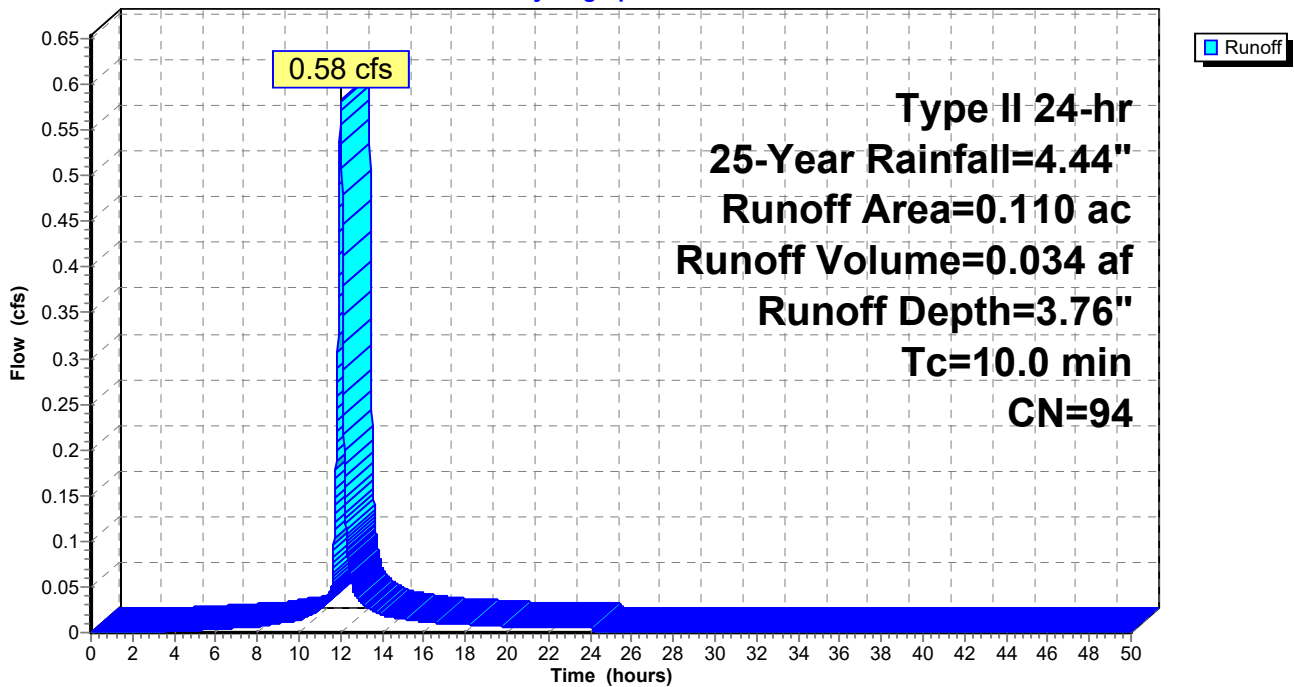
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Subcatchment 27W: STR27

Runoff = 1.47 cfs @ 12.01 hrs, Volume= 0.089 af, Depth= 3.98"

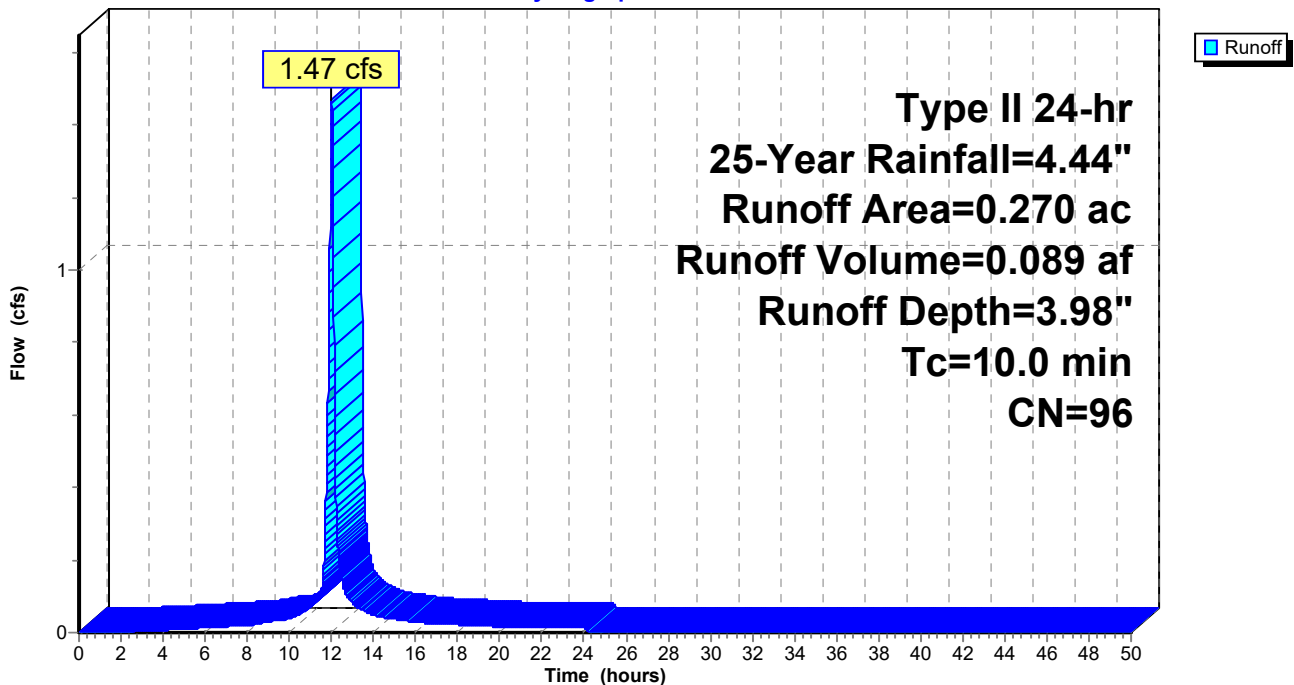
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-Year Rainfall=4.44"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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PROPOSED WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 3.50" for 25-Year event
 Inflow = 29.36 cfs @ 12.01 hrs, Volume= 1.703 af
 Outflow = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af, Atten= 77%, Lag= 13.0 min
 Primary = 6.75 cfs @ 12.23 hrs, Volume= 1.673 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.25' @ 12.23 hrs Surf.Area= 18,794 sf Storage= 29,333 cf

Plug-Flow detention time= 90.1 min calculated for 1.673 af (98% of inflow)
 Center-of-Mass det. time= 79.3 min (864.5 - 785.2)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=6.75 cfs @ 12.23 hrs HW=912.25' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 6.75 cfs of 7.23 cfs potential flow)

↑2=**Culvert** (Barrel Controls 6.75 cfs @ 5.50 fps)

↑3=**Sharp-Crested Rectangular Weir** (Passes 6.75 cfs of 11.89 cfs potential flow)

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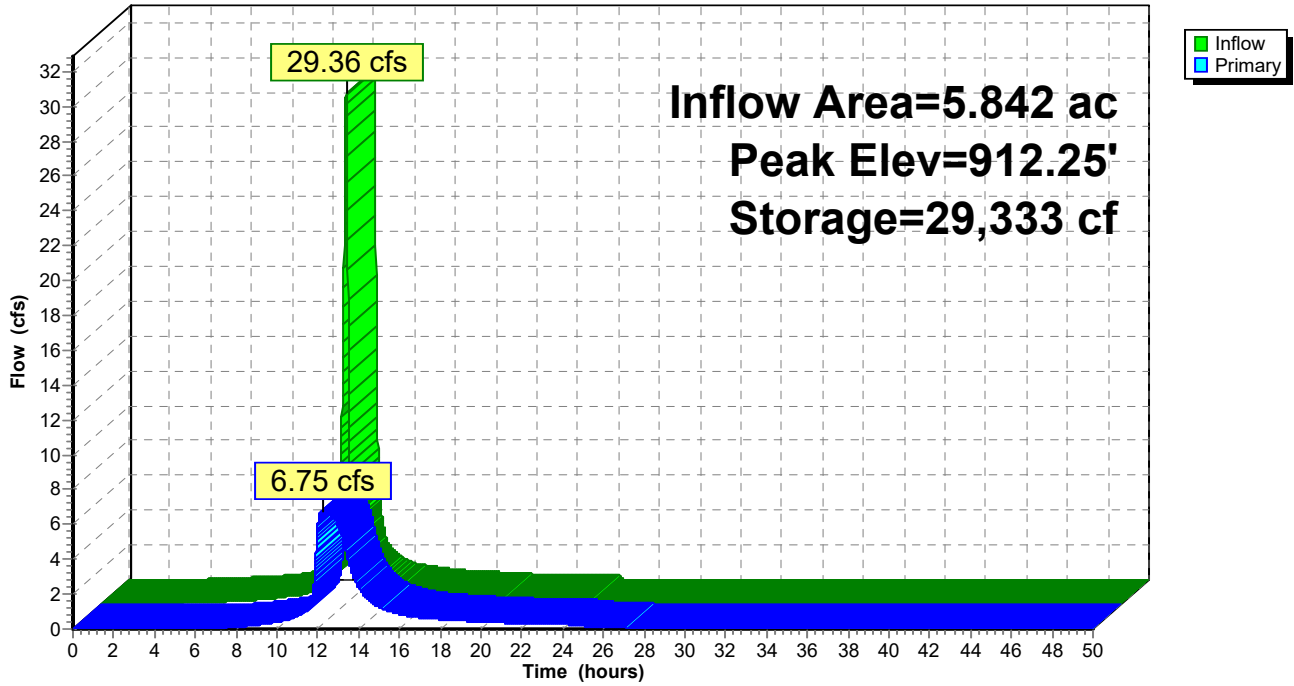
PROPOSED WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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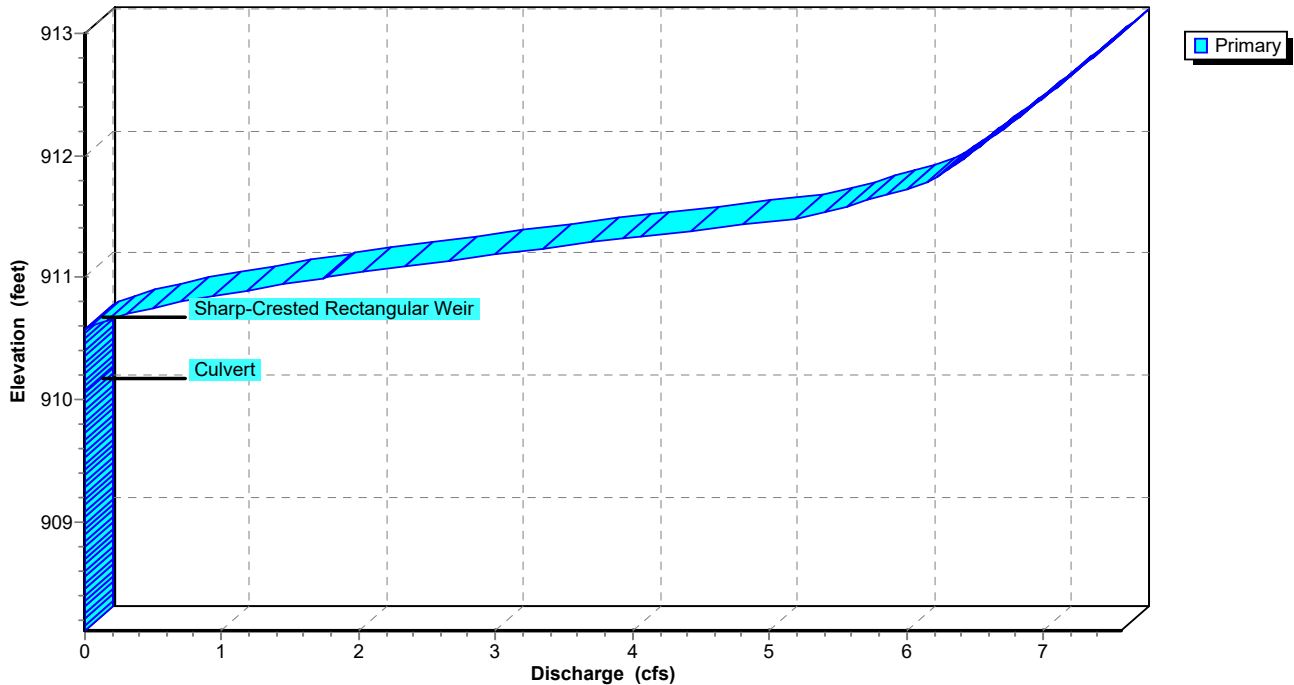
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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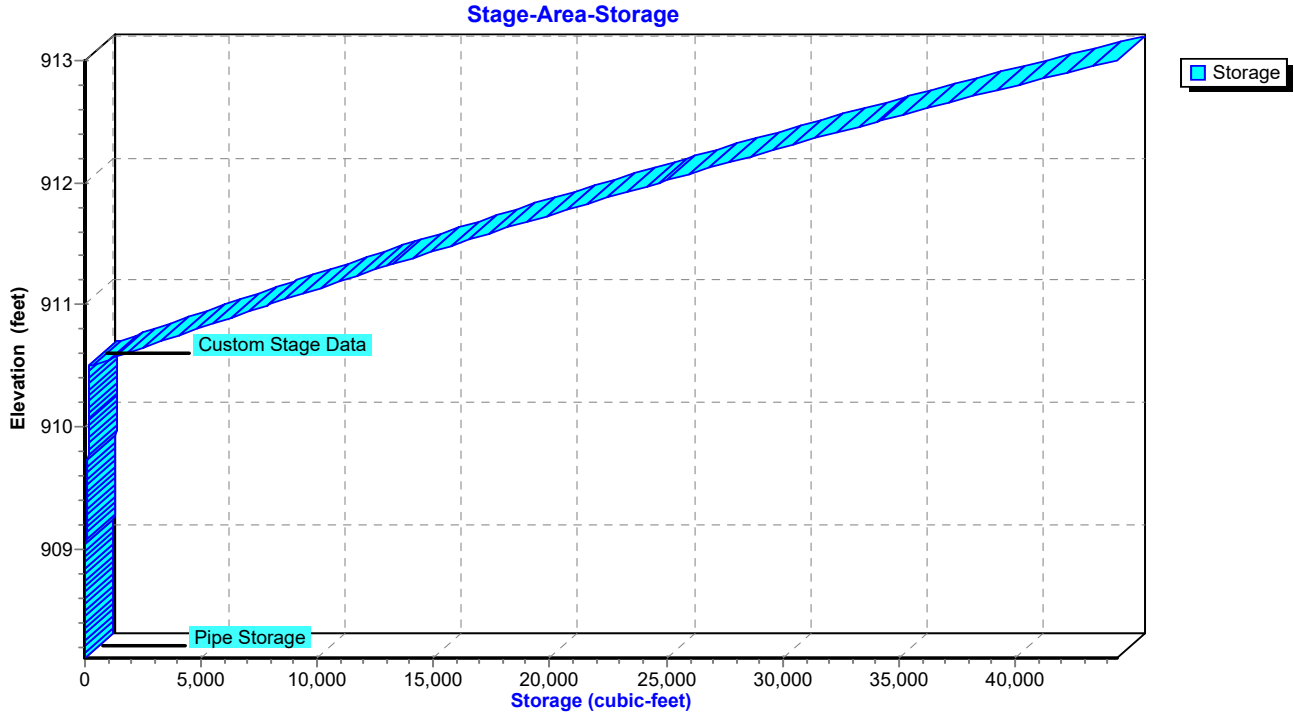
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PROPOSED WEST TRIB
Type II 24-hr 25-Year Rainfall=4.44"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB
 Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 1.46 cfs @ 12.01 hrs, Volume= 0.085 af, Depth= 4.11"

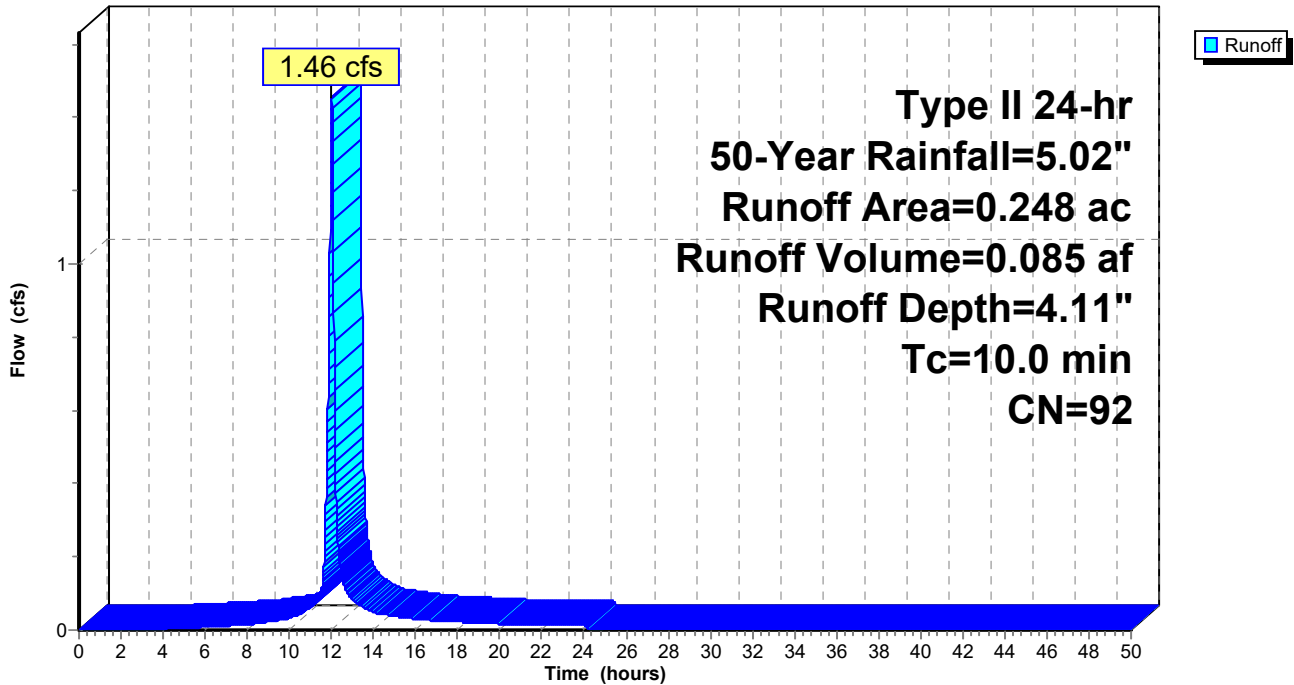
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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PROPOSED WEST TRIB
Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 9.63 cfs @ 12.01 hrs, Volume= 0.536 af, Depth= 3.49"

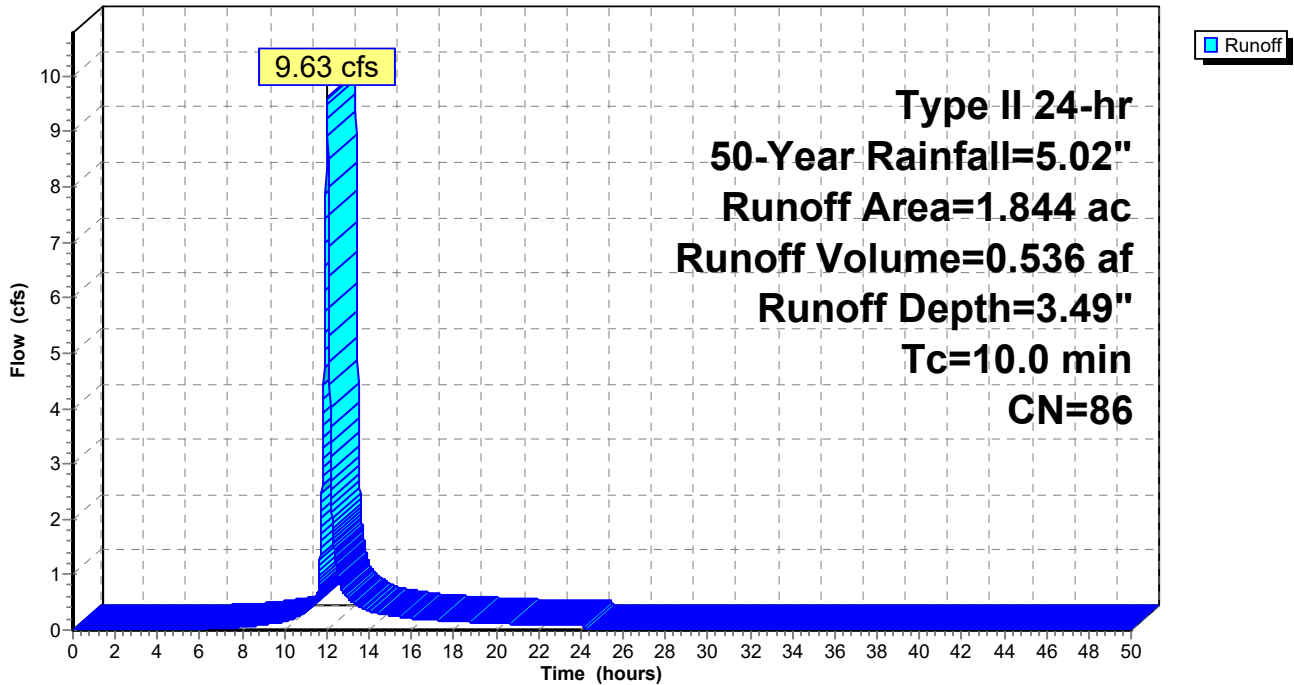
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 50-Year Rainfall=5.02"

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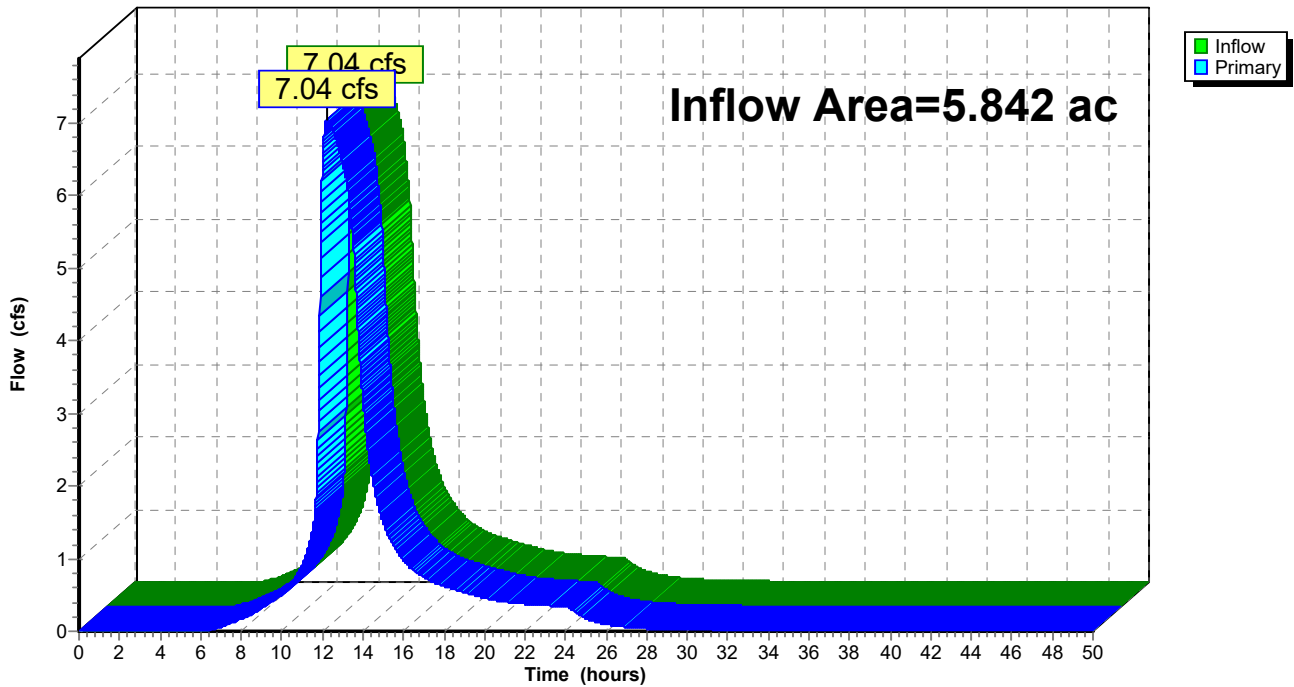
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.00" for 50-Year event
Inflow = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af
Primary = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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 Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 19W: STR19

Runoff = 2.51 cfs @ 12.01 hrs, Volume= 0.148 af, Depth= 4.22"

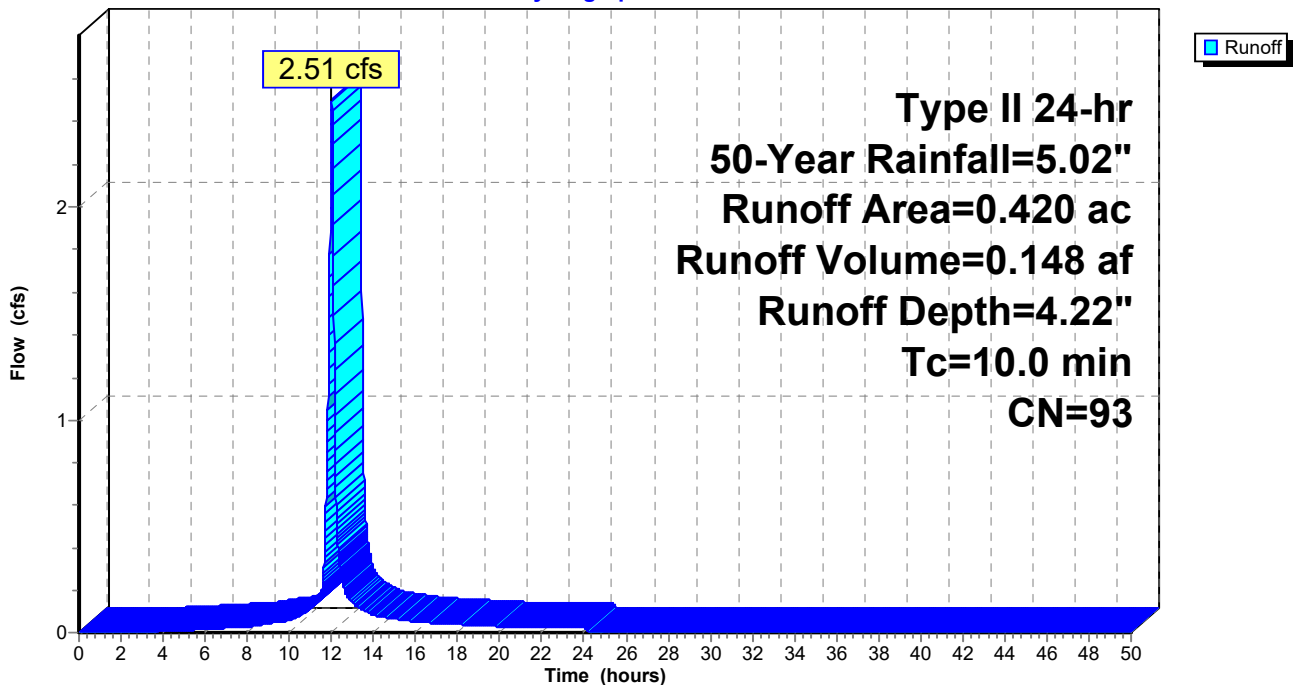
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 20W: STR20

Runoff = 3.65 cfs @ 12.01 hrs, Volume= 0.210 af, Depth= 4.00"

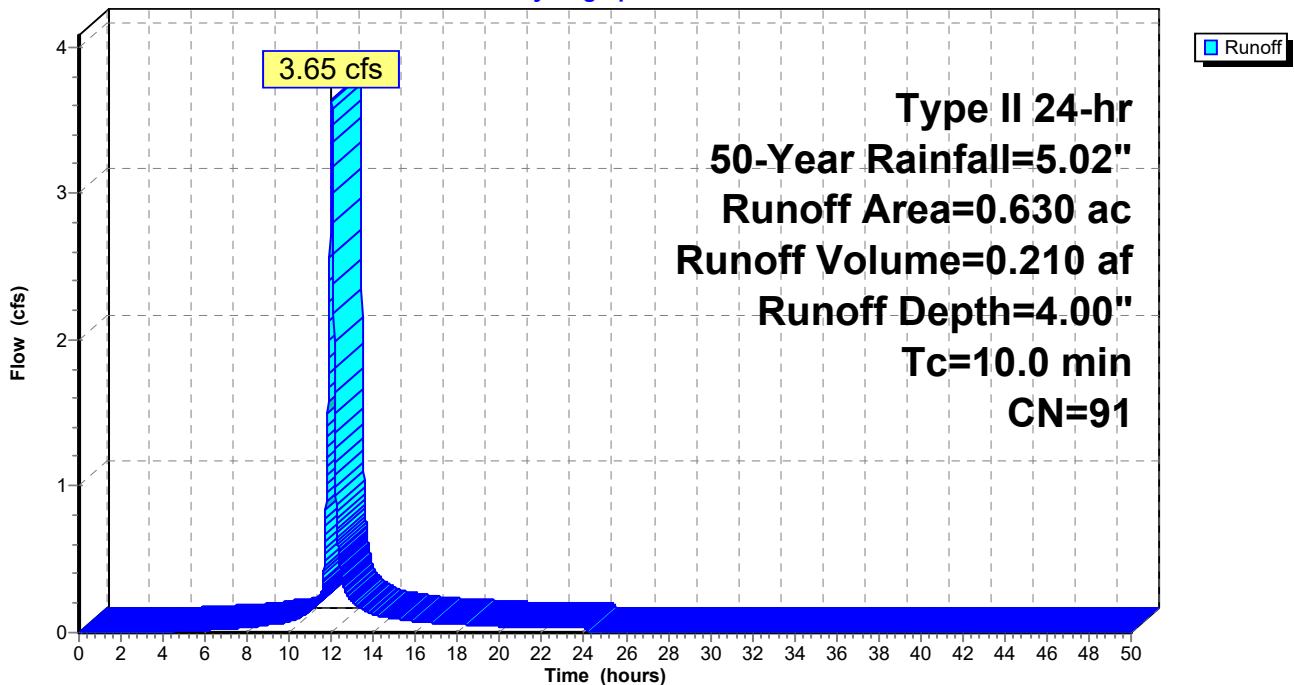
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 21W: STR21

Runoff = 3.72 cfs @ 12.01 hrs, Volume= 0.228 af, Depth= 4.55"

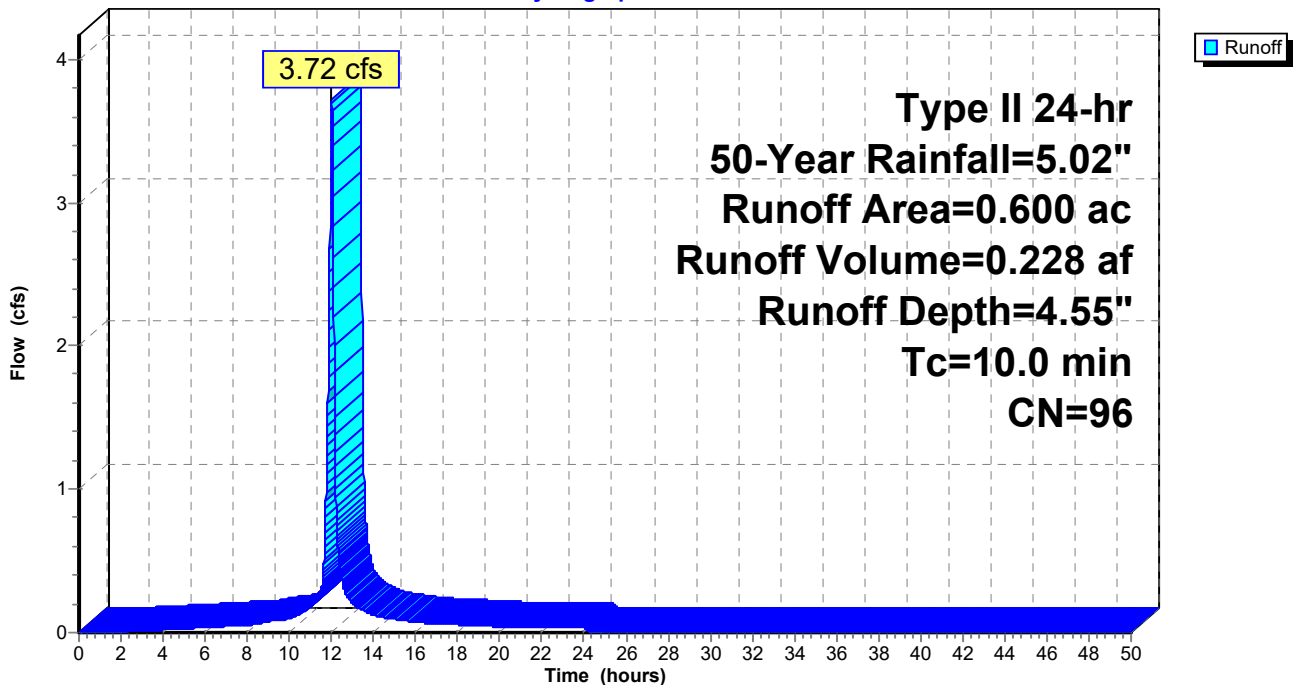
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 22W: STR22

Runoff = 4.97 cfs @ 12.01 hrs, Volume= 0.300 af, Depth= 4.44"

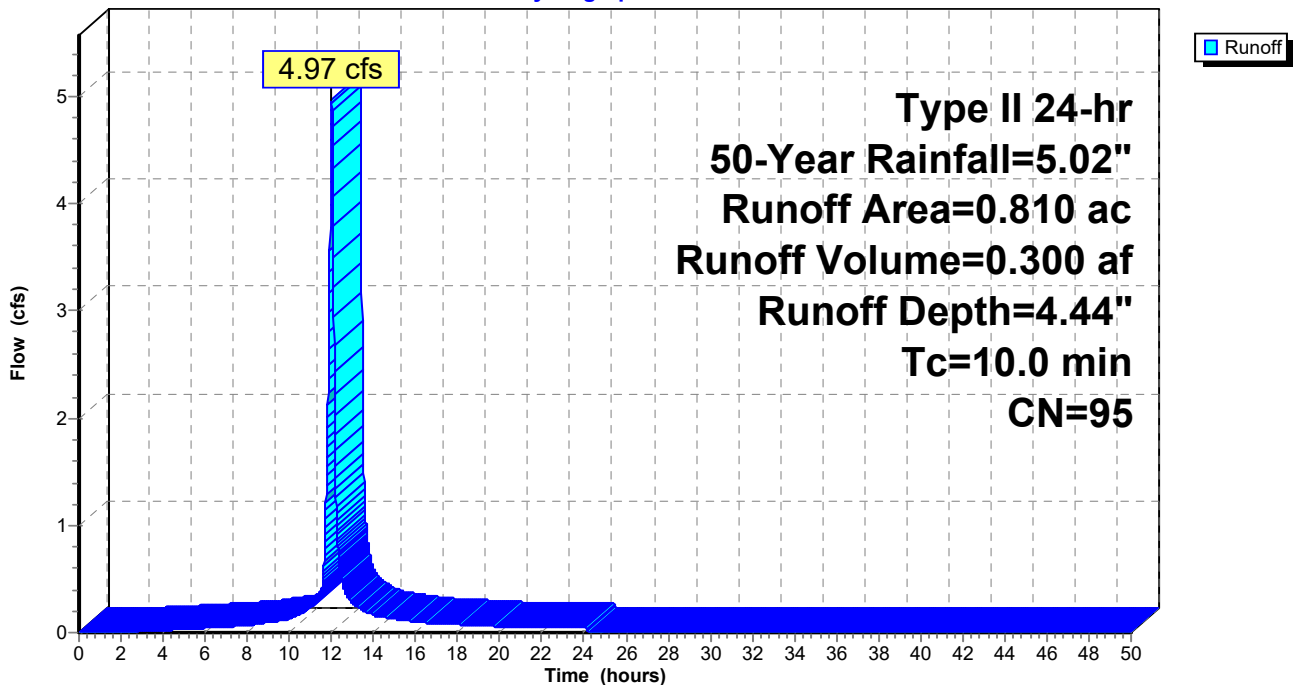
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 23W: STR23

Runoff = 4.18 cfs @ 12.01 hrs, Volume= 0.249 af, Depth= 4.33"

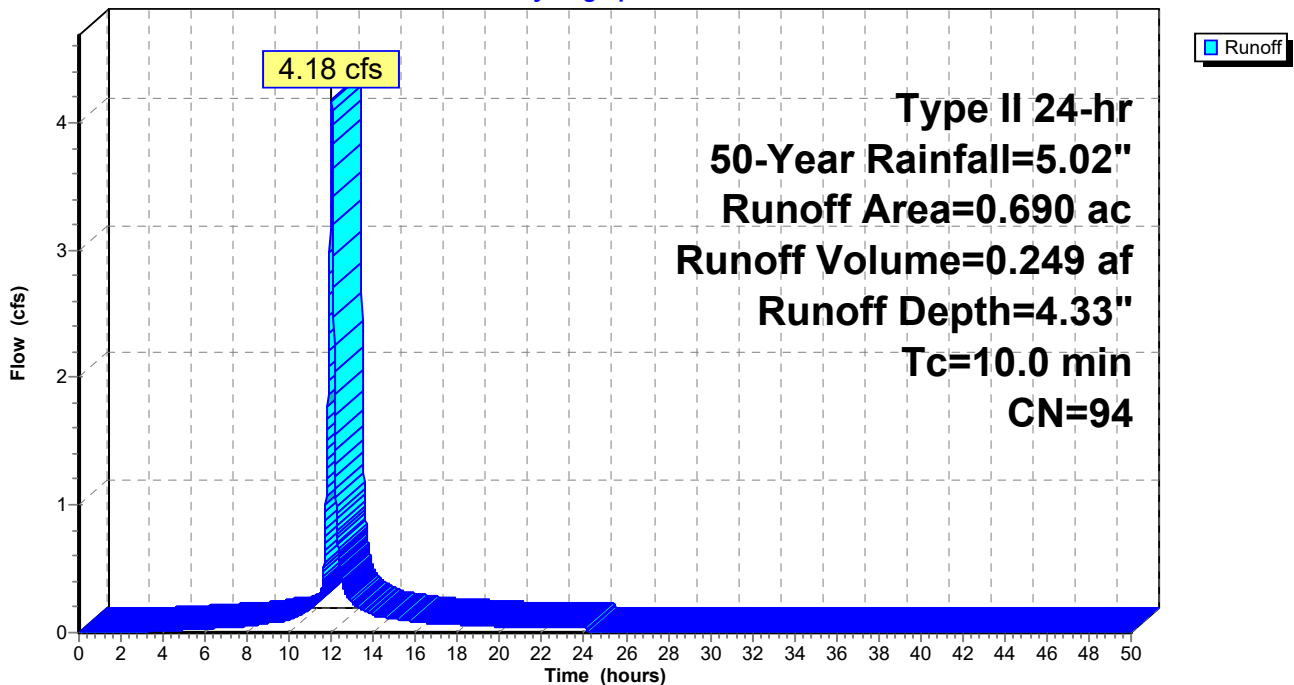
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 24W: STR24

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

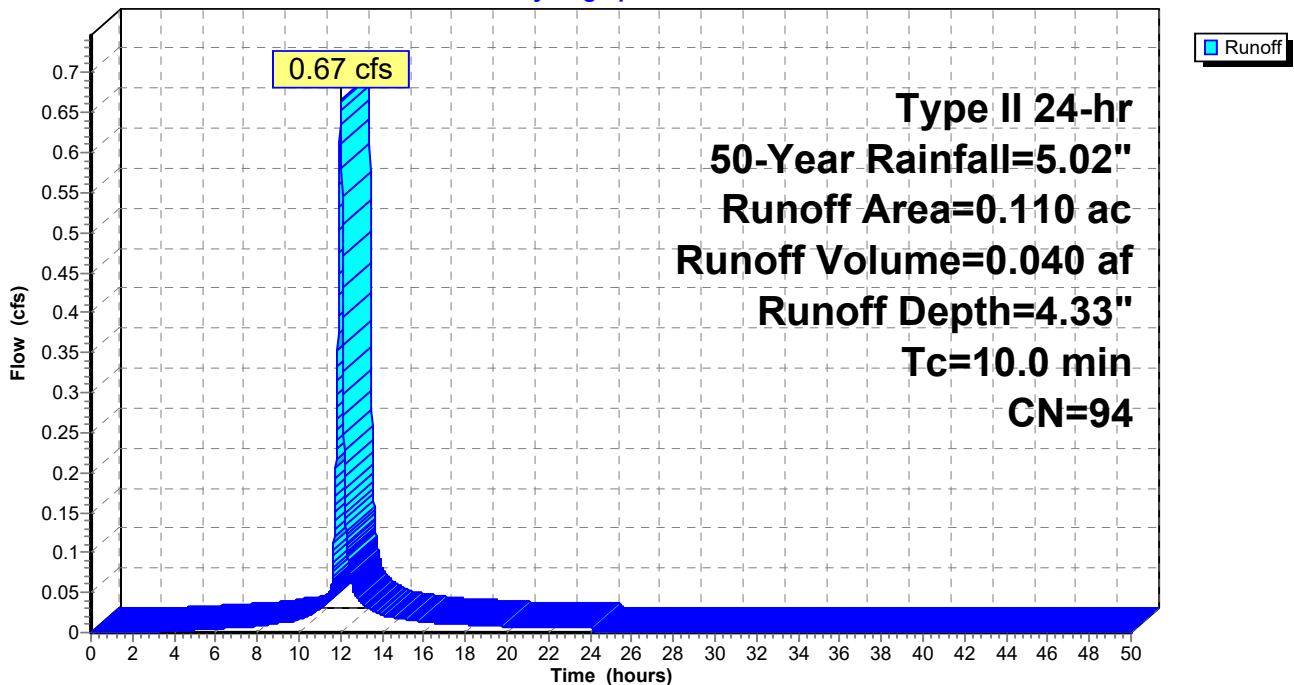
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 25W: STR25

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

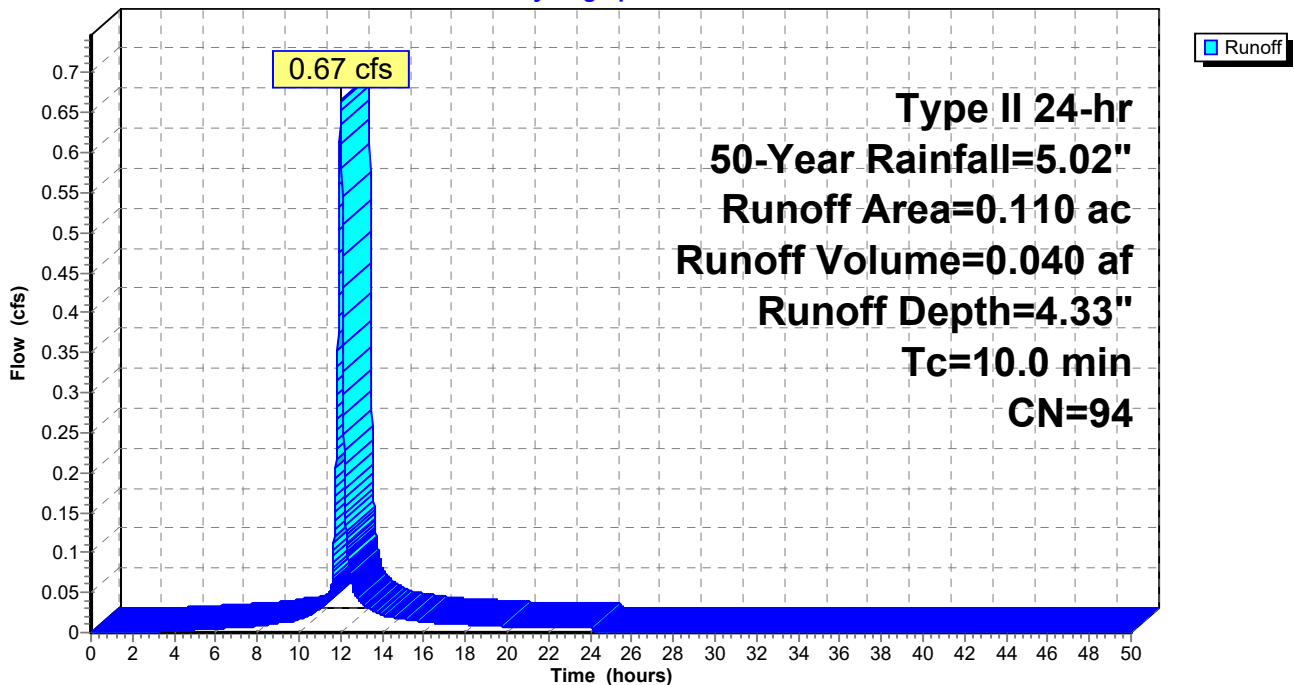
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 26W: STR26

Runoff = 0.67 cfs @ 12.01 hrs, Volume= 0.040 af, Depth= 4.33"

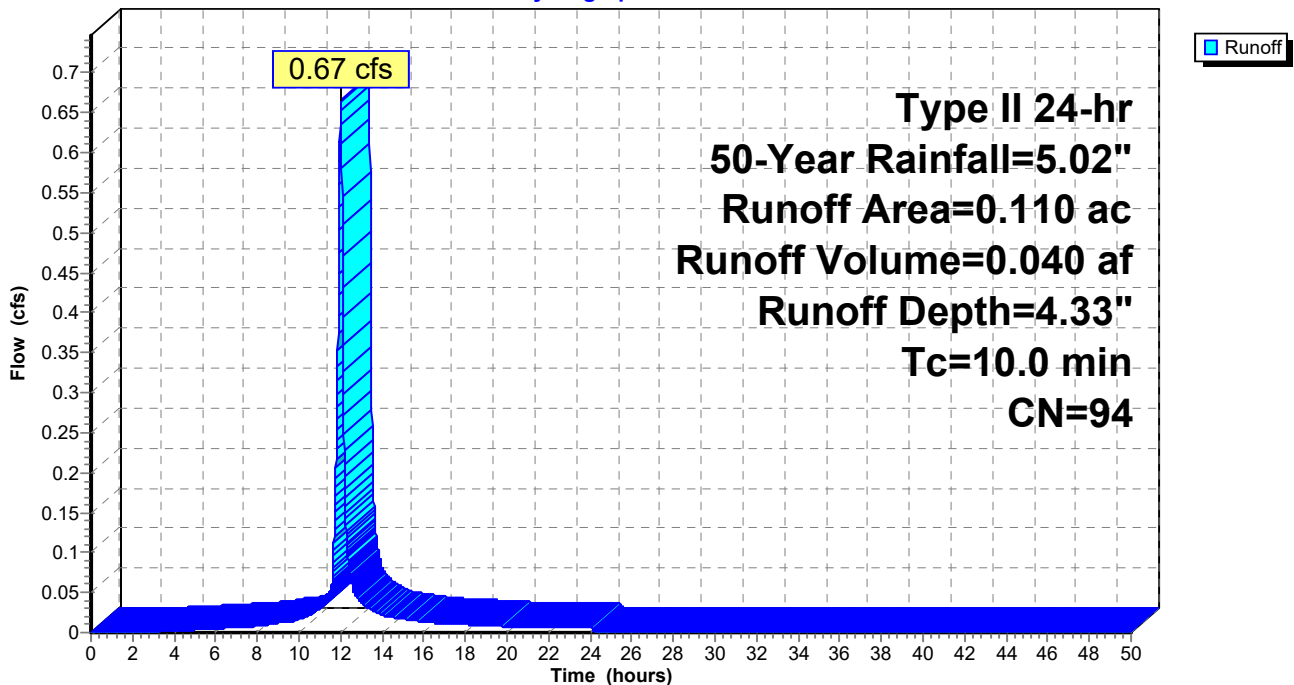
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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 Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Subcatchment 27W: STR27

Runoff = 1.67 cfs @ 12.01 hrs, Volume= 0.102 af, Depth= 4.55"

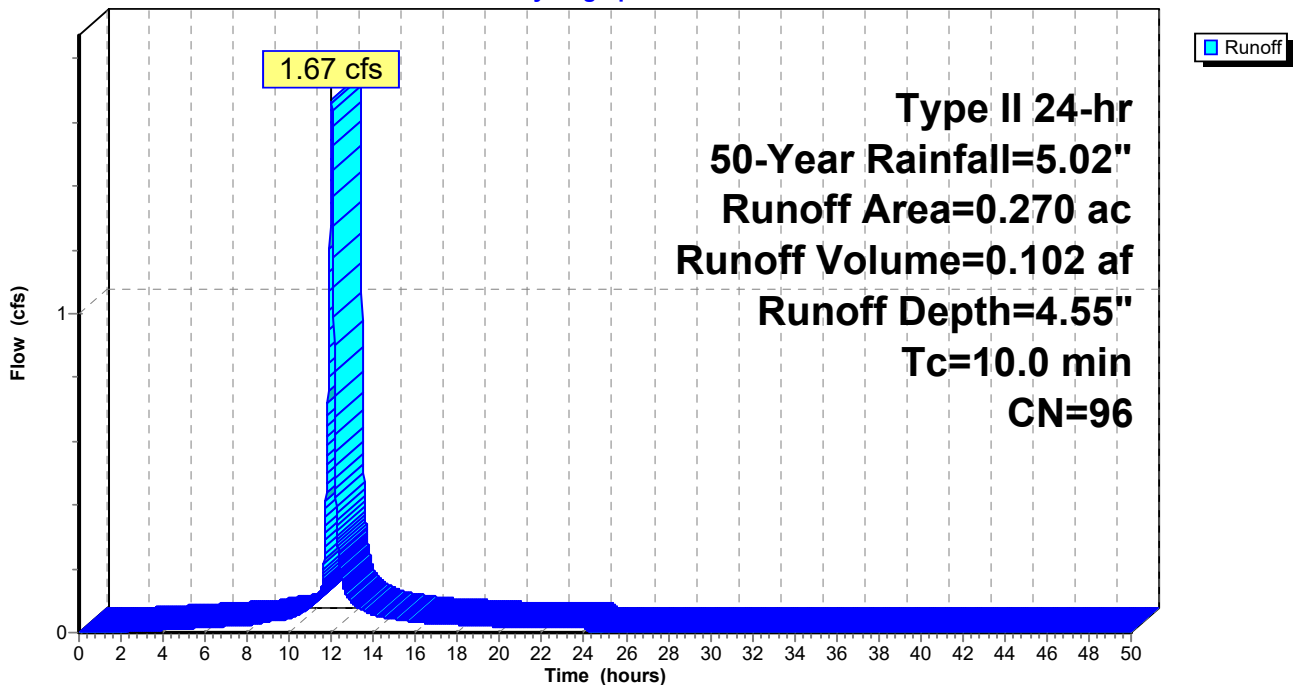
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-Year Rainfall=5.02"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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Type II 24-hr 50-Year Rainfall=5.02"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.06" for 50-Year event
 Inflow = 33.79 cfs @ 12.01 hrs, Volume= 1.976 af
 Outflow = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af, Atten= 79%, Lag= 14.1 min
 Primary = 7.04 cfs @ 12.25 hrs, Volume= 1.946 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.51' @ 12.25 hrs Surf.Area= 19,632 sf Storage= 34,238 cf

Plug-Flow detention time= 89.1 min calculated for 1.946 af (98% of inflow)
 Center-of-Mass det. time= 79.4 min (861.0 - 781.6)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.04 cfs @ 12.25 hrs HW=912.51' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 7.04 cfs of 7.48 cfs potential flow)

↑2=**Culvert** (Barrel Controls 7.04 cfs @ 5.74 fps)

↑3=**Sharp-Crested Rectangular Weir** (Passes 7.04 cfs of 14.24 cfs potential flow)

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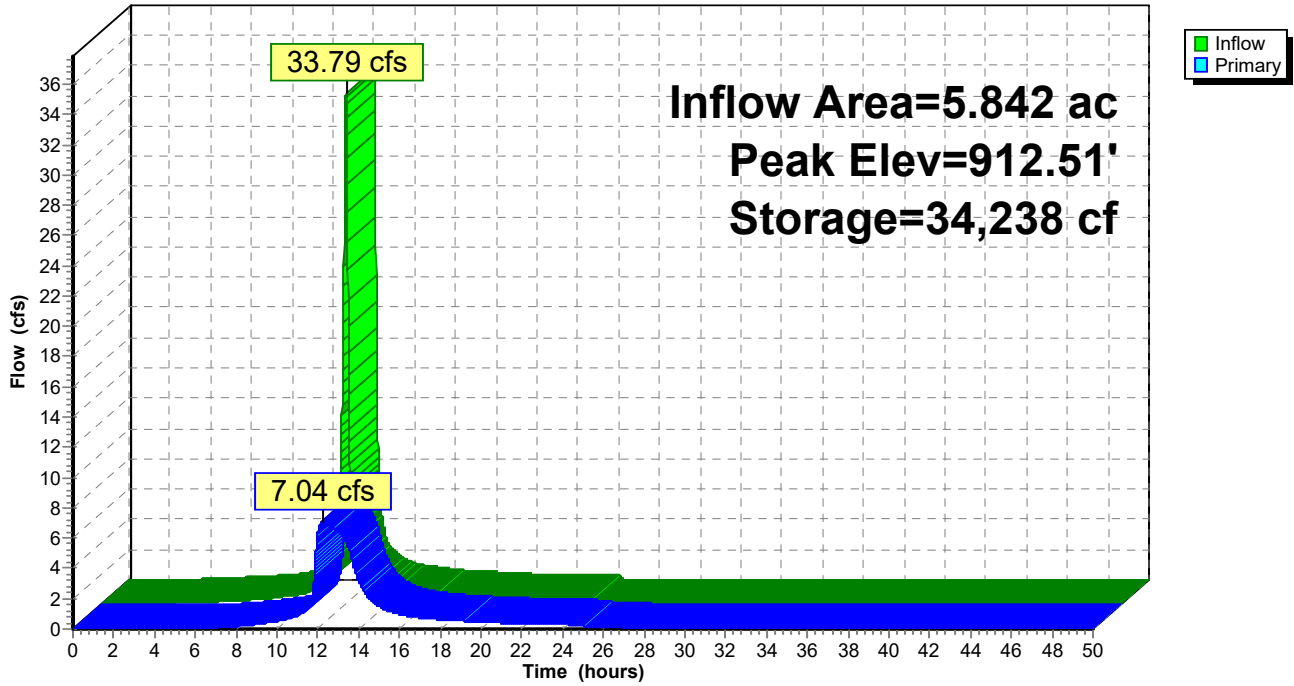
PROPOSED WEST TRIB
Type II 24-hr 50-Year Rainfall=5.02"

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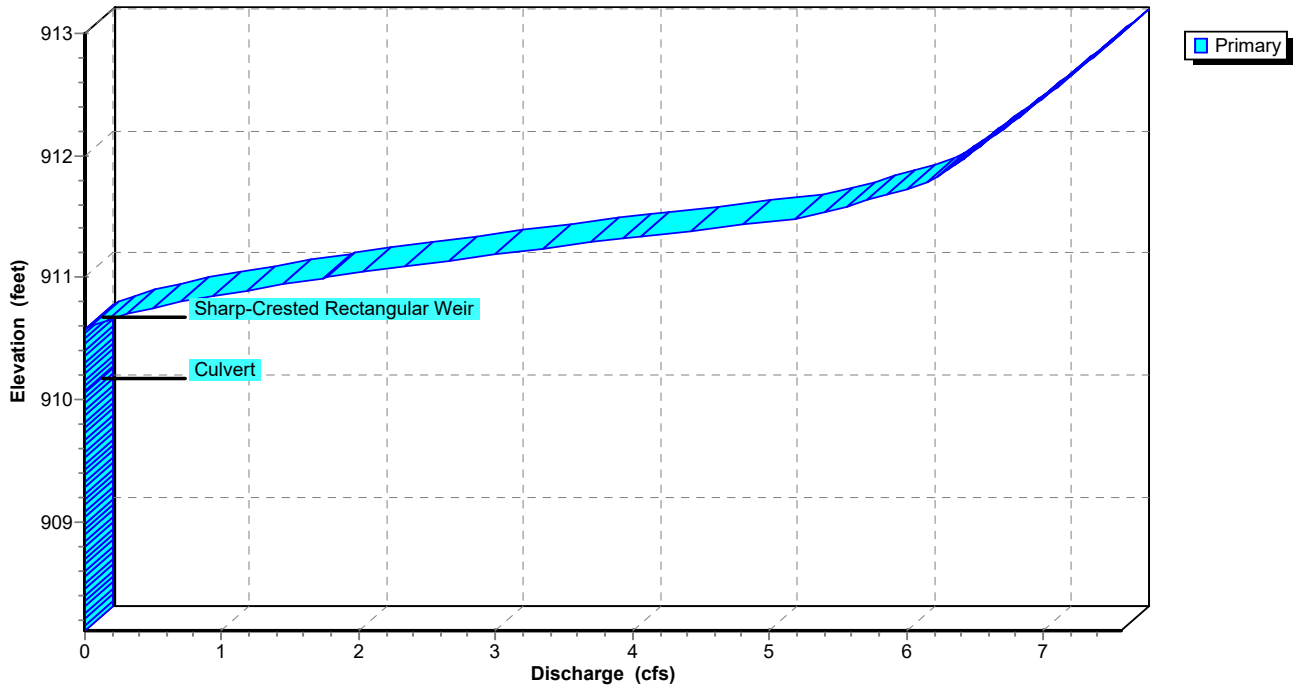
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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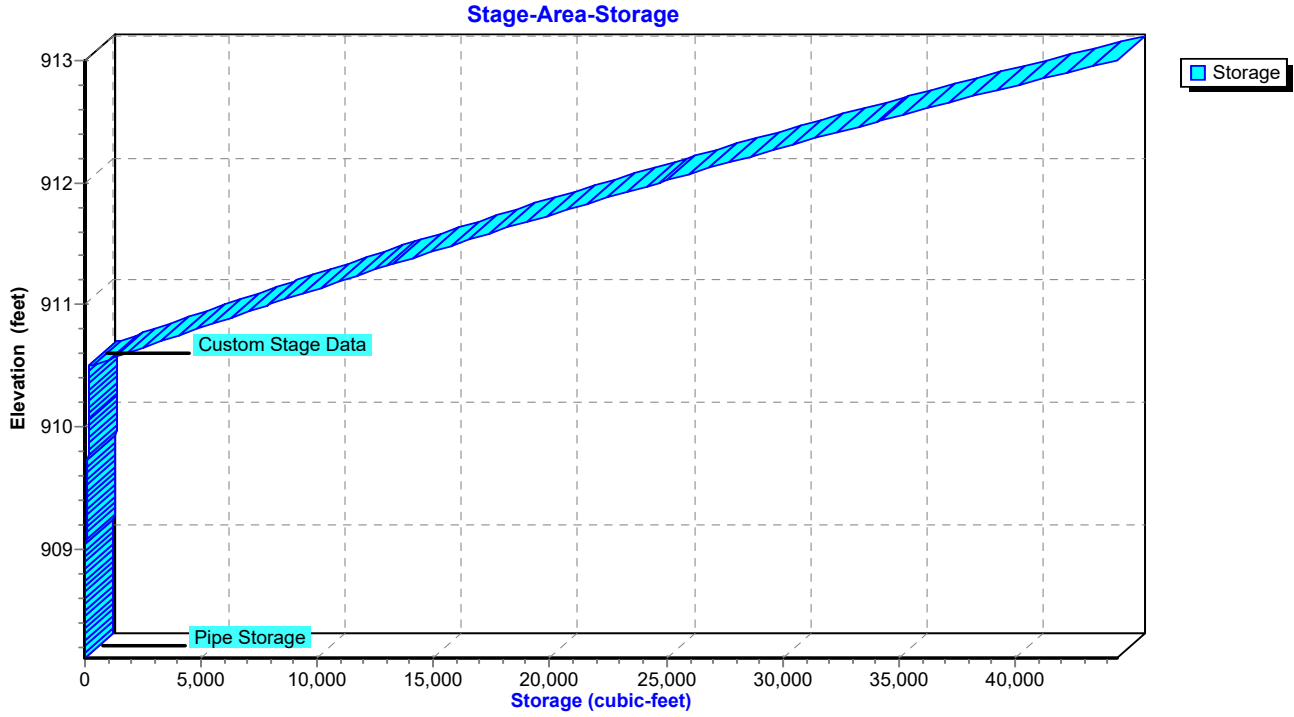
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PROPOSED WEST TRIB
Type II 24-hr 50-Year Rainfall=5.02"

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Pond WP: RETENTION BASIN



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 1S: Disturbed West

Runoff = 1.66 cfs @ 12.01 hrs, Volume= 0.097 af, Depth= 4.71"

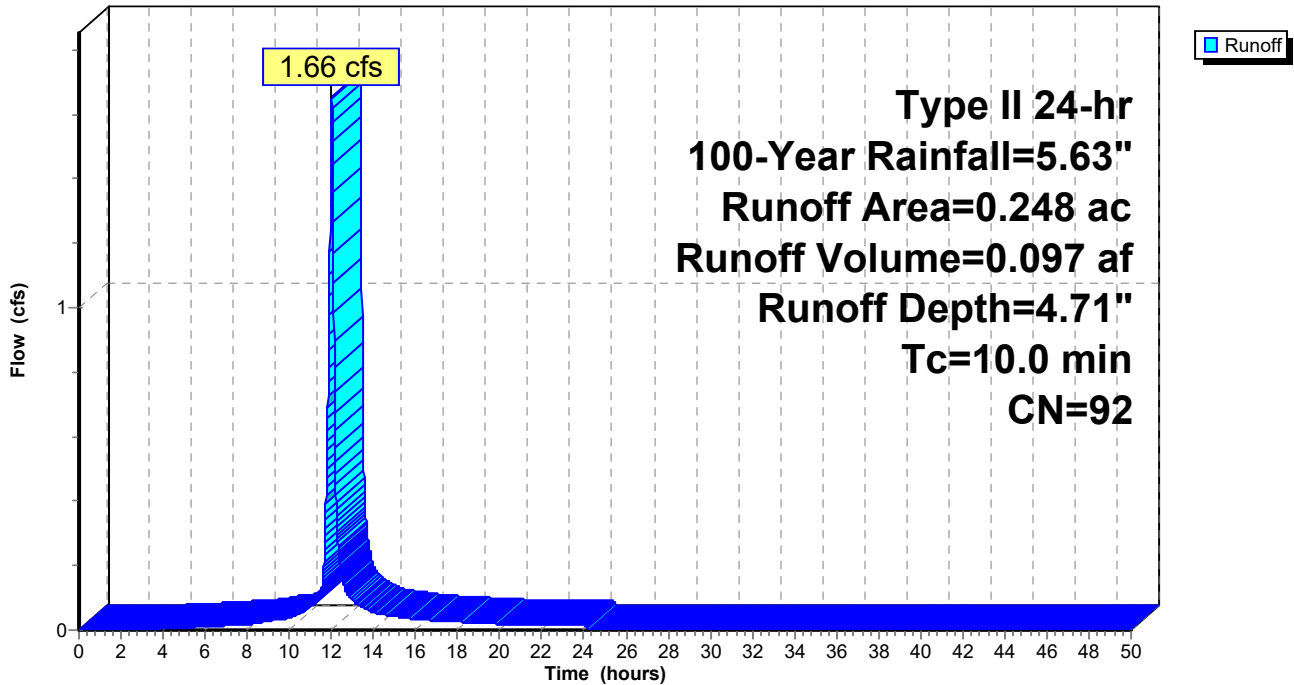
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
* 0.172	98	Paved parking, HSG C
* 0.076	77	>75% Grass cover, Good, HSG C
0.248	92	Weighted Average
0.076		30.65% Pervious Area
0.172		69.35% Impervious Area

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

Subcatchment 1S: Disturbed West

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Runoff = 11.13 cfs @ 12.01 hrs, Volume= 0.624 af, Depth= 4.06"

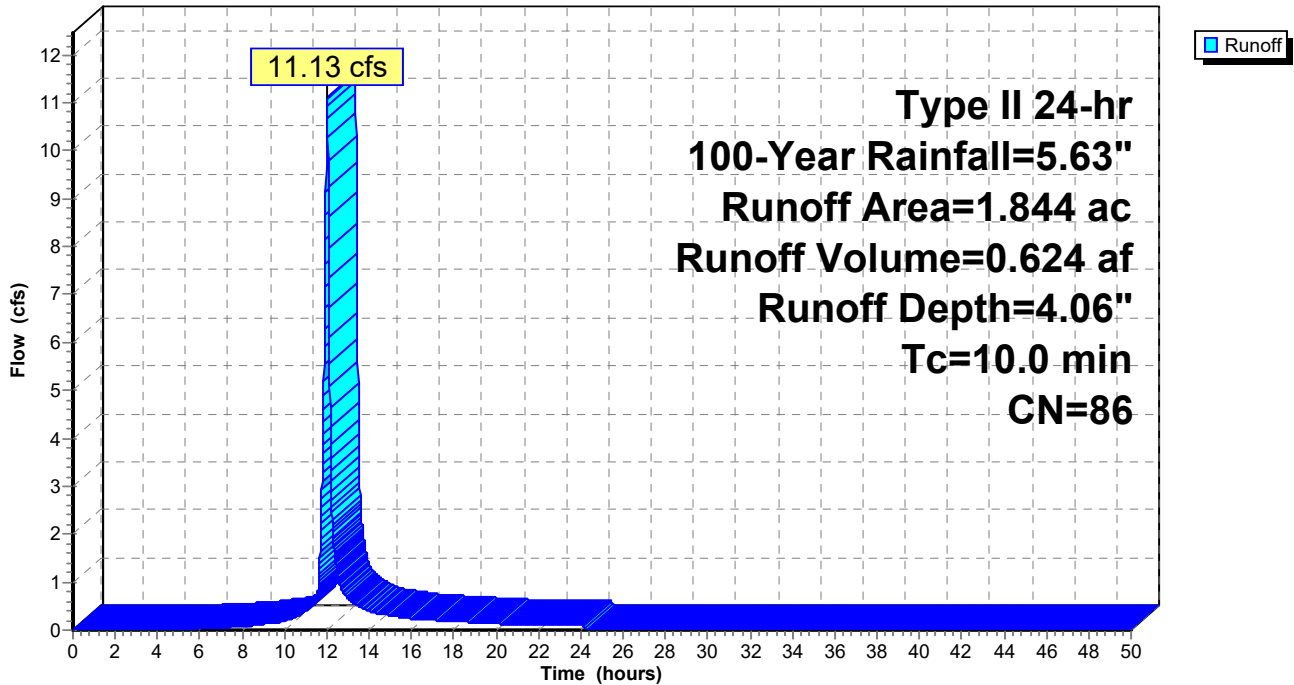
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.819	98	Paved parking, HSG C
* 1.025	77	>75% Grass cover, Good, HSG C
1.844	86	Weighted Average
1.025		55.59% Pervious Area
0.819		44.41% Impervious Area

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

Subcatchment 15W: Undisturbed P9,P8, EX15, & Basin

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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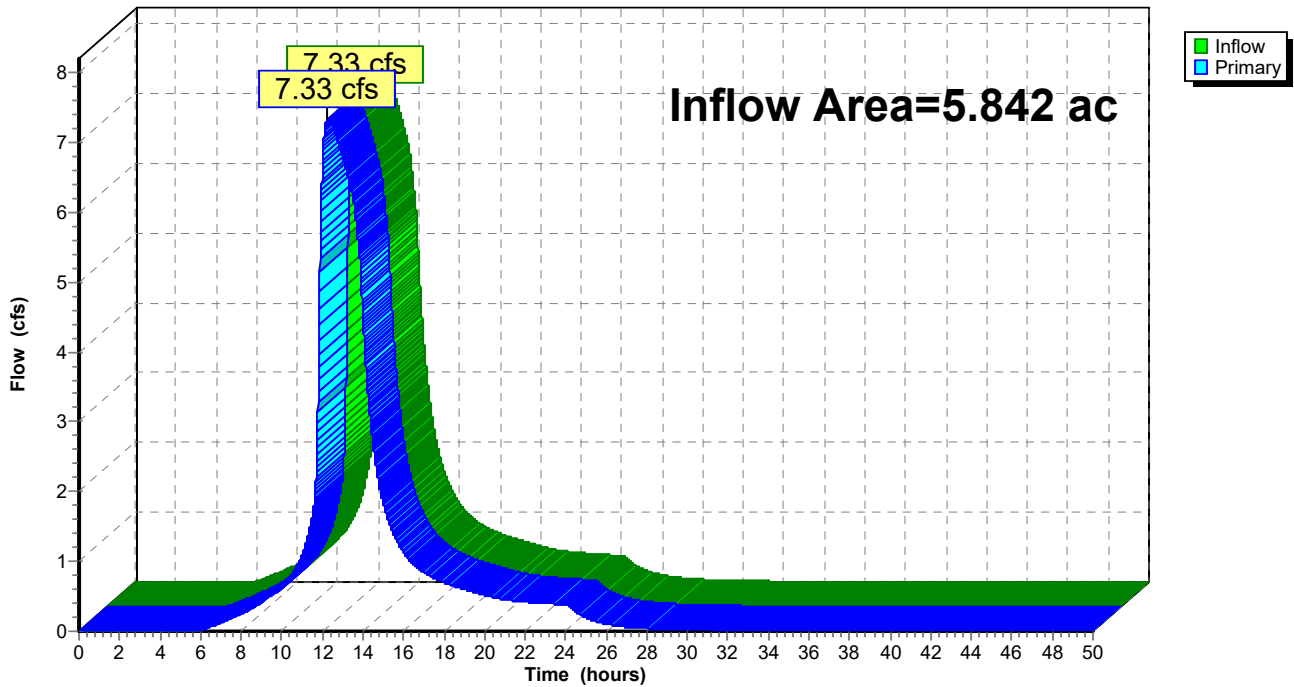
Summary for Link 17L: WEST

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.59" for 100-Year event
Inflow = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af
Primary = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 17L: WEST

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 19W: STR19

Runoff = 2.84 cfs @ 12.01 hrs, Volume= 0.169 af, Depth= 4.82"

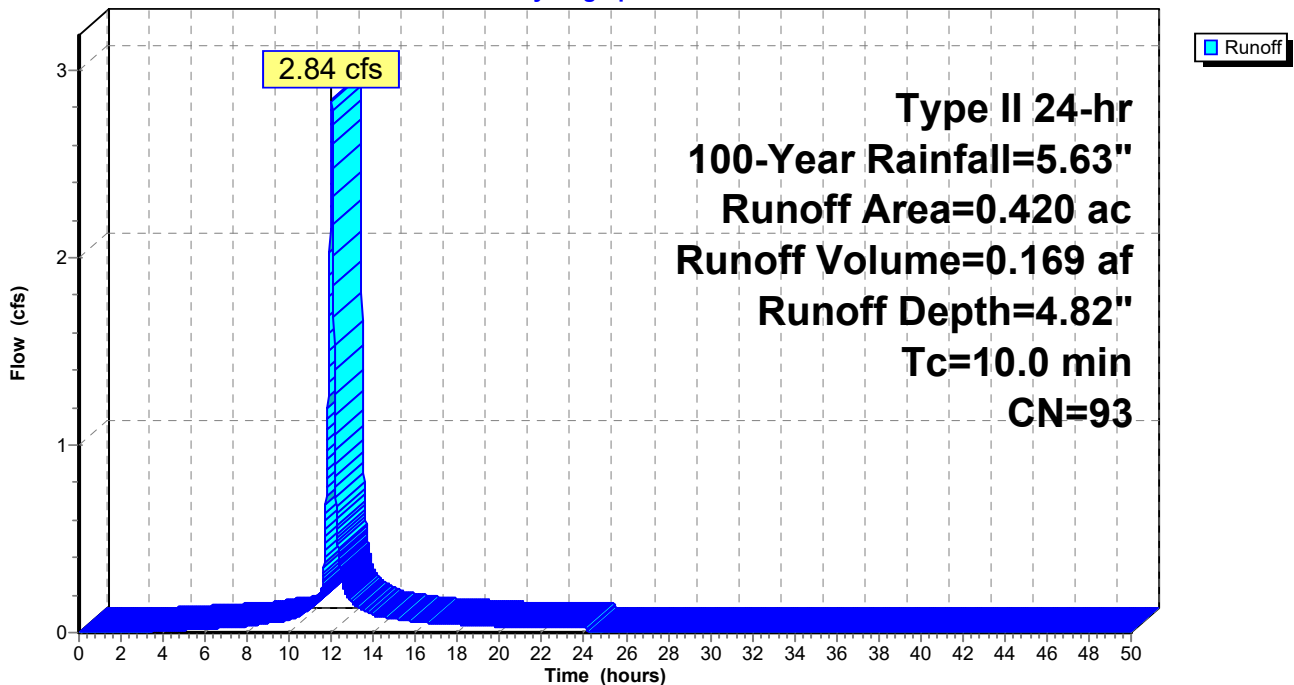
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.310	98	Paved parking, HSG C
* 0.110	77	>75% Grass cover, Good, HSG C
0.420	93	Weighted Average
0.110		26.19% Pervious Area
0.310		73.81% Impervious Area

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

Subcatchment 19W: STR19

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 20W: STR20

Runoff = 4.15 cfs @ 12.01 hrs, Volume= 0.241 af, Depth= 4.60"

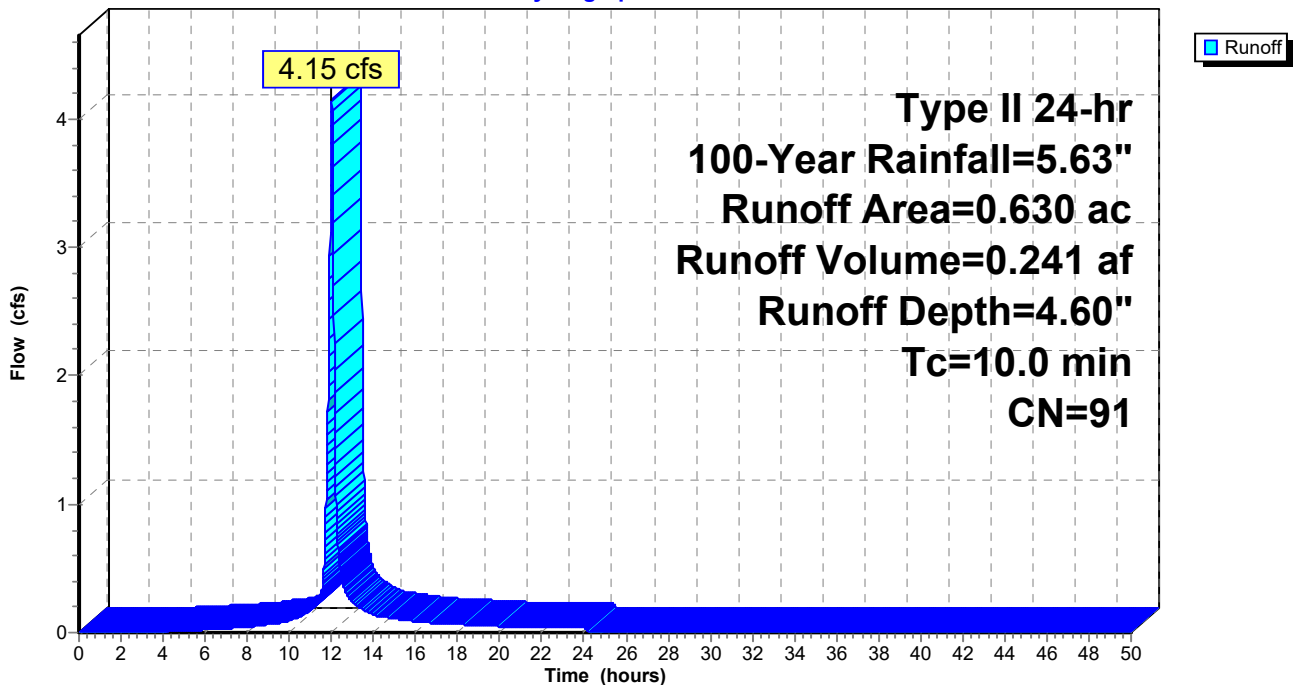
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.020	98	Roofs, HSG C
0.410	98	Paved parking, HSG C
* 0.200	77	>75% Grass cover, Good, HSG C
0.630	91	Weighted Average
0.200		31.75% Pervious Area
0.430		68.25% Impervious Area

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

Subcatchment 20W: STR20

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 21W: STR21

Runoff = 4.19 cfs @ 12.01 hrs, Volume= 0.258 af, Depth= 5.16"

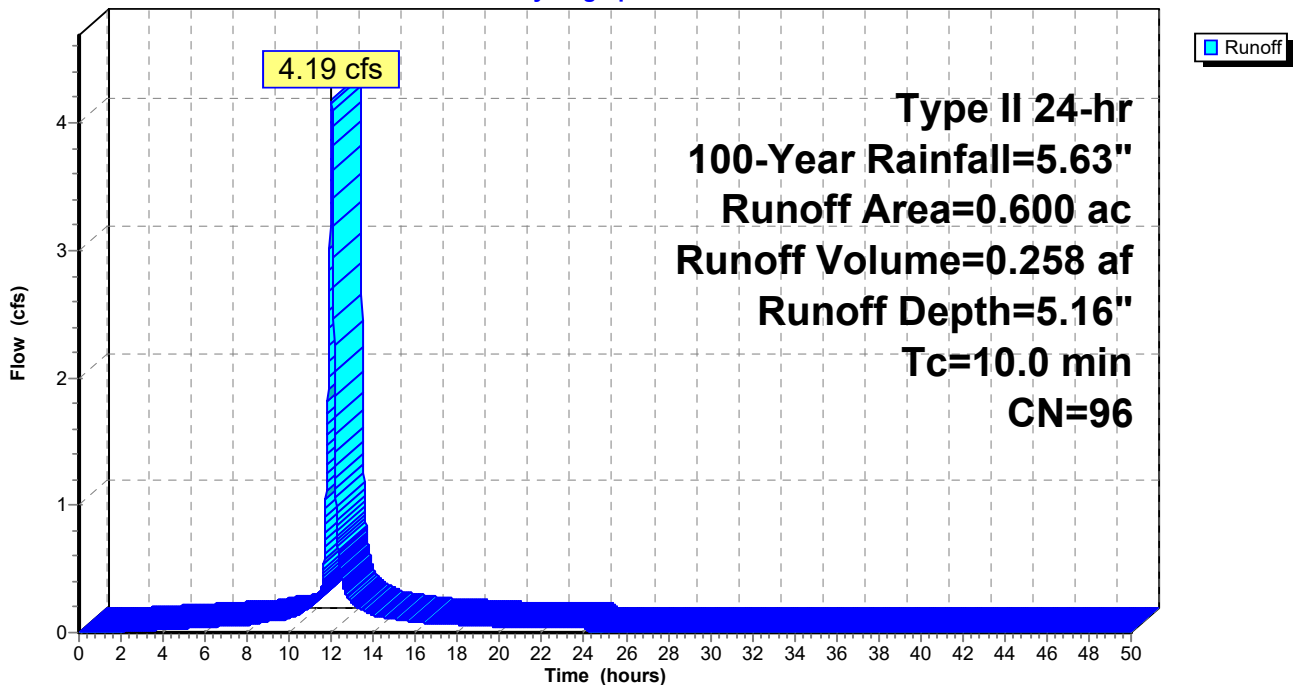
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.400	98	Paved parking, HSG C
* 0.070	77	>75% Grass cover, Good, HSG C
0.600	96	Weighted Average
0.070		11.67% Pervious Area
0.530		88.33% Impervious Area

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

Subcatchment 21W: STR21

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 22W: STR22

Runoff = 5.61 cfs @ 12.01 hrs, Volume= 0.340 af, Depth= 5.04"

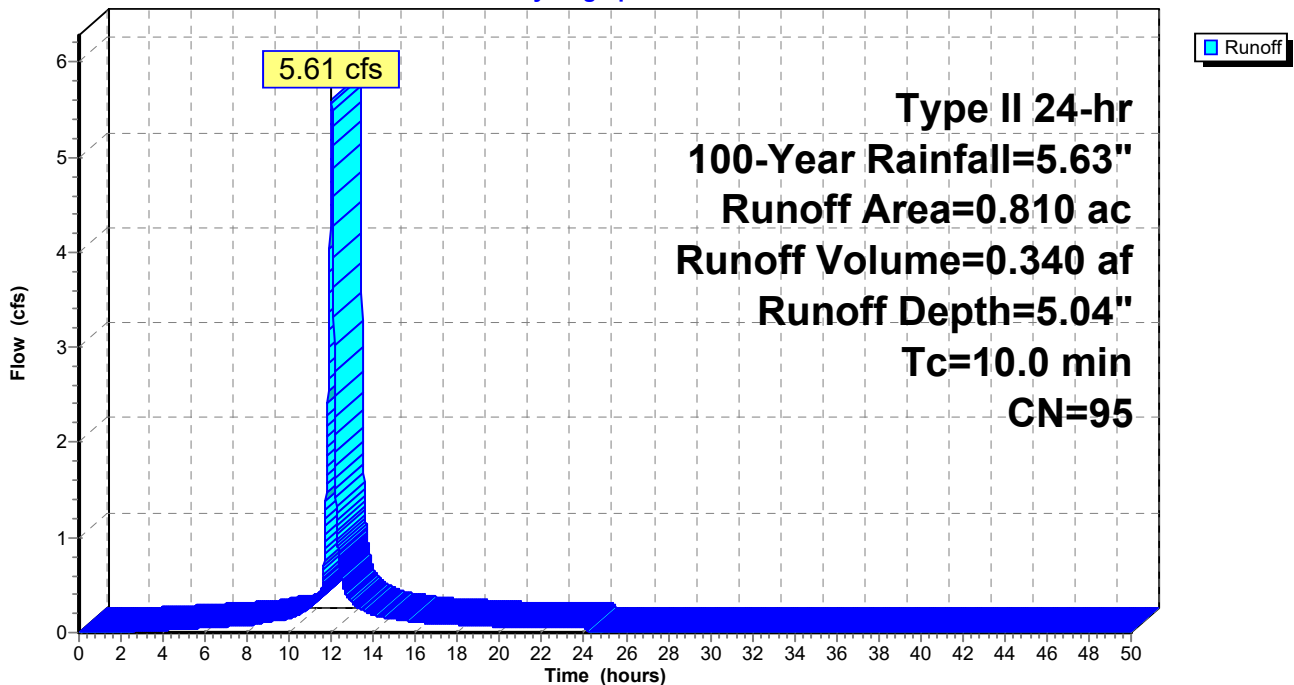
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.130	98	Roofs, HSG C
0.560	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.810	95	Weighted Average
0.120		14.81% Pervious Area
0.690		85.19% Impervious Area

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

Subcatchment 22W: STR22

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 23W: STR23

Runoff = 4.73 cfs @ 12.01 hrs, Volume= 0.283 af, Depth= 4.93"

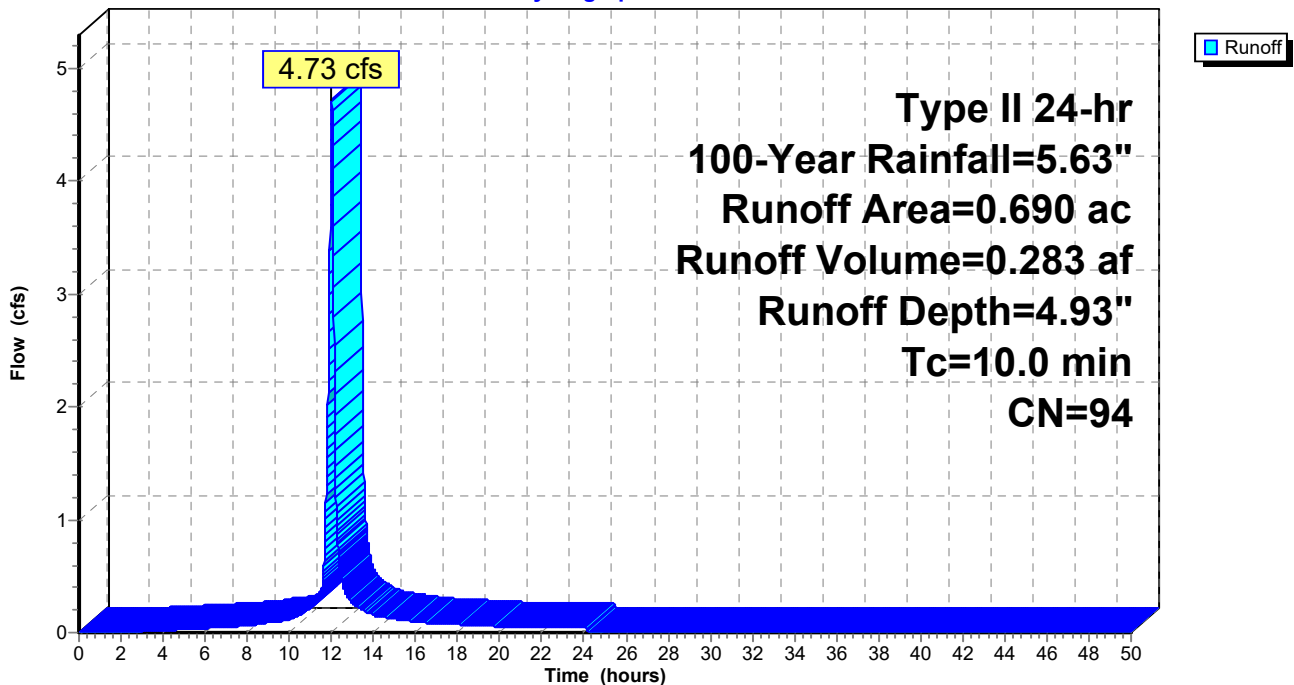
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.430	98	Paved parking, HSG C
* 0.120	77	>75% Grass cover, Good, HSG C
0.690	94	Weighted Average
0.120		17.39% Pervious Area
0.570		82.61% Impervious Area

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

Subcatchment 23W: STR23

Hydrograph



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Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 24W: STR24

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

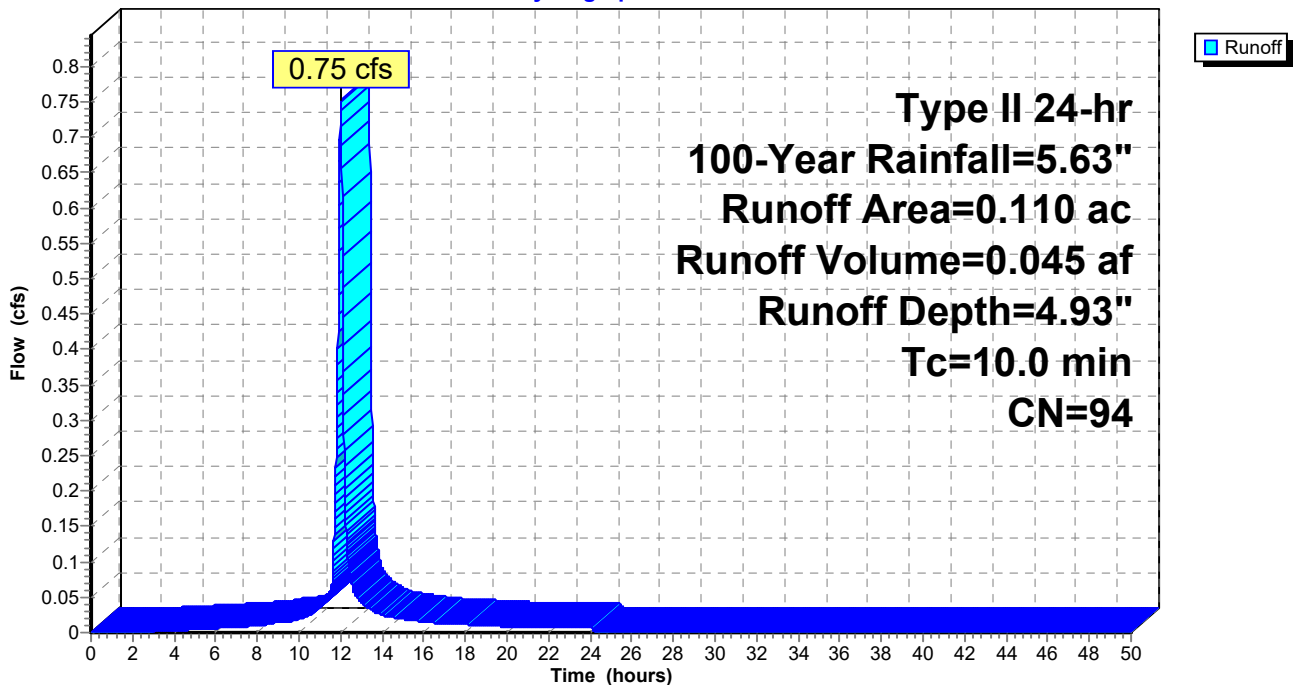
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 24W: STR24

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 25W: STR25

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

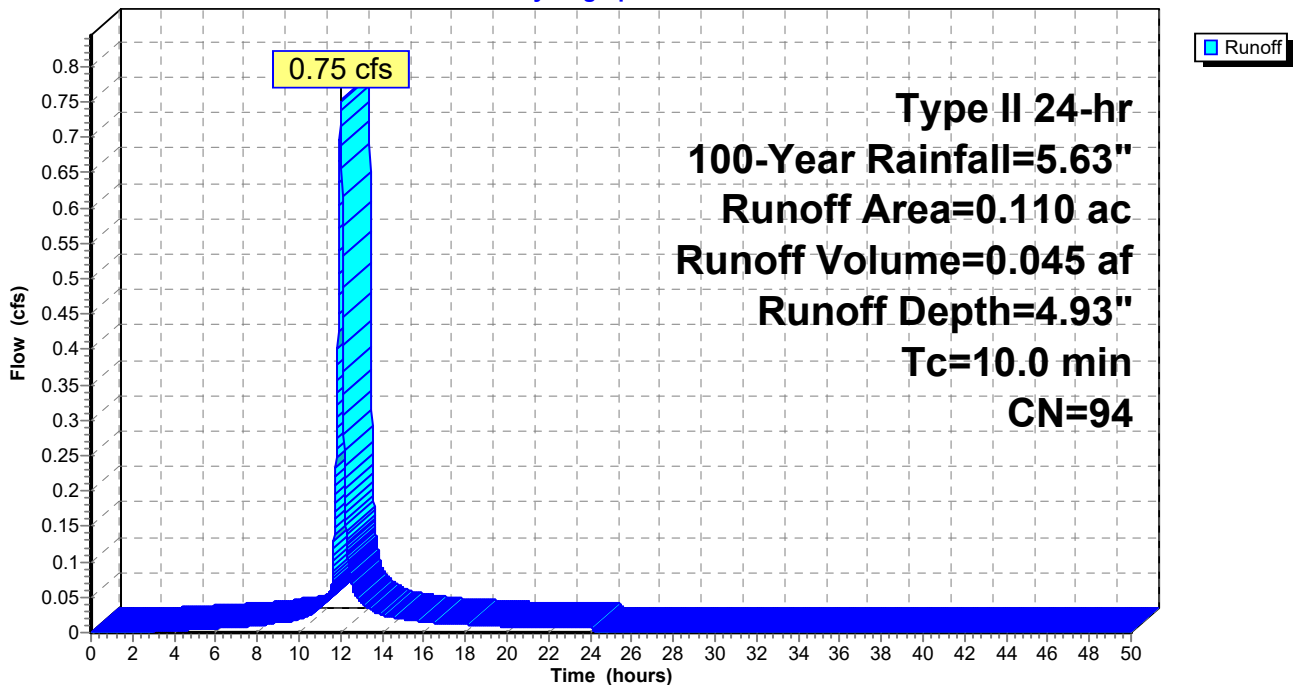
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 25W: STR25

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 26W: STR26

Runoff = 0.75 cfs @ 12.01 hrs, Volume= 0.045 af, Depth= 4.93"

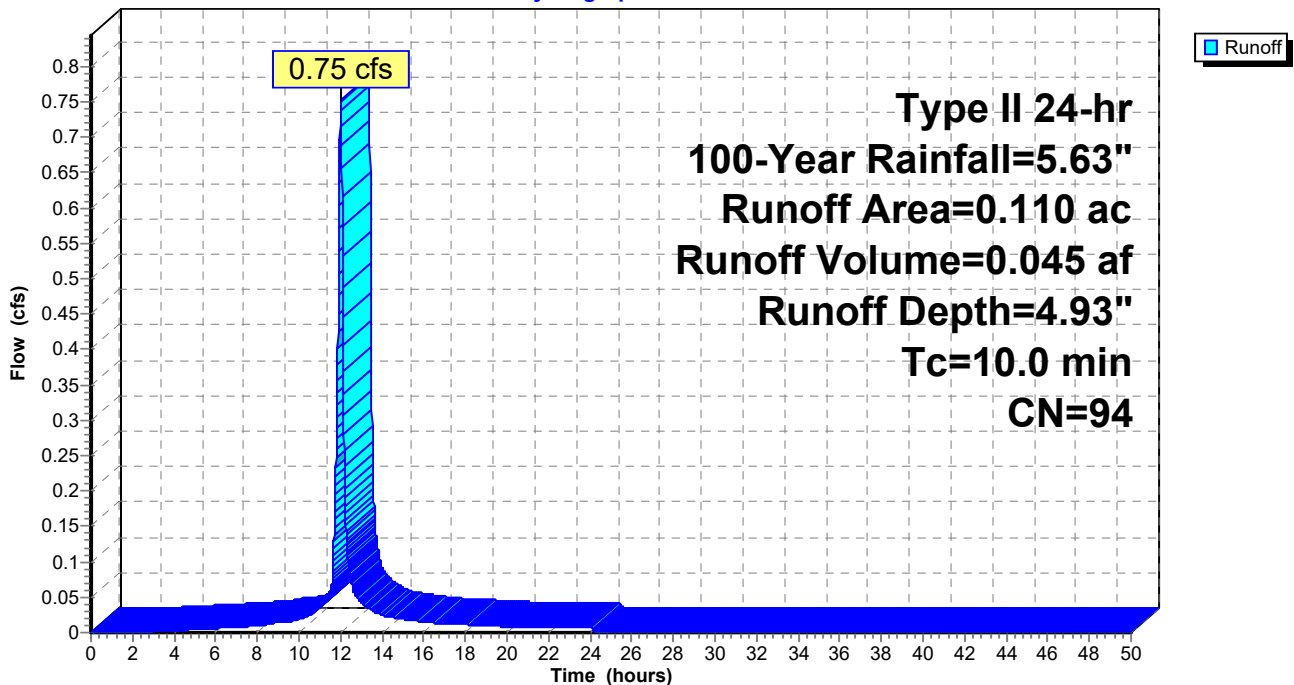
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.090	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.110	94	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

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

Subcatchment 26W: STR26

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Subcatchment 27W: STR27

Runoff = 1.89 cfs @ 12.01 hrs, Volume= 0.116 af, Depth= 5.16"

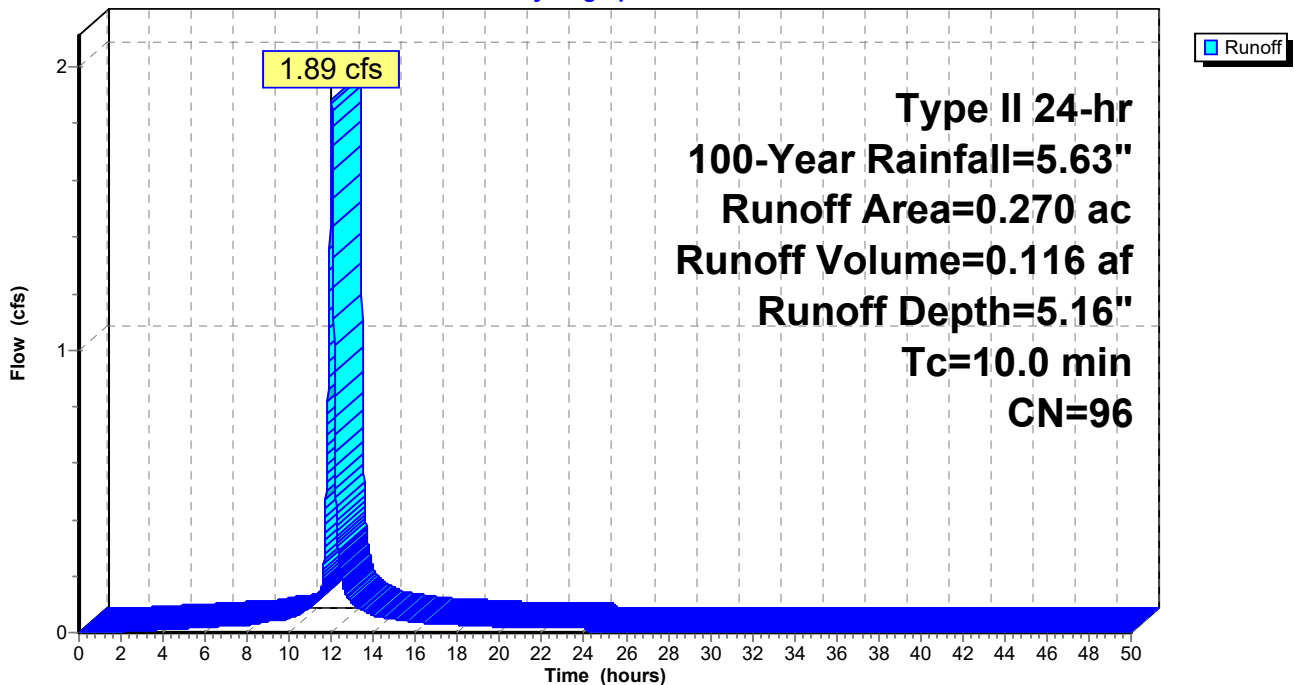
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.63"

Area (ac)	CN	Description
0.000	98	Roofs, HSG C
0.250	98	Paved parking, HSG C
* 0.020	77	>75% Grass cover, Good, HSG C
0.270	96	Weighted Average
0.020		7.41% Pervious Area
0.250		92.59% Impervious Area

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

Subcatchment 27W: STR27

Hydrograph



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PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Summary for Pond WP: RETENTION BASIN

Inflow Area = 5.842 ac, 69.17% Impervious, Inflow Depth = 4.65" for 100-Year event
 Inflow = 38.45 cfs @ 12.01 hrs, Volume= 2.264 af
 Outflow = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af, Atten= 81%, Lag= 15.2 min
 Primary = 7.33 cfs @ 12.26 hrs, Volume= 2.235 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 912.77' @ 12.26 hrs Surf.Area= 20,781 sf Storage= 39,505 cf

Plug-Flow detention time= 88.6 min calculated for 2.234 af (99% of inflow)
 Center-of-Mass det. time= 80.3 min (858.6 - 778.2)

Volume	Invert	Avail.Storage	Storage Description
#1	910.50'	44,147 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
#2	908.11'	245 cf	15.00" Round Pipe Storage L= 200.0' S= 0.0098 '/'
		44,392 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
910.50	14,996	0	0
911.00	15,570	7,642	7,642
912.00	17,970	16,770	24,412
912.50	19,589	9,390	33,801
913.00	21,793	10,346	44,147

Device	Routing	Invert	Outlet Devices
#1	Primary	908.10'	12.00" Vert. Orifice/Grate C= 0.600
#2	Device 1	910.07'	15.00" Round Culvert L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 910.07' / 908.11' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	910.57'	2.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=7.33 cfs @ 12.26 hrs HW=912.77' TW=0.00' (Dynamic Tailwater)

↑1=**Orifice/Grate** (Passes 7.33 cfs of 7.72 cfs potential flow)

↑2=**Culvert** (Barrel Controls 7.33 cfs @ 5.97 fps)

↑3=**Sharp-Crested Rectangular Weir** (Passes 7.33 cfs of 16.65 cfs potential flow)

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PROPOSED WEST TRIB

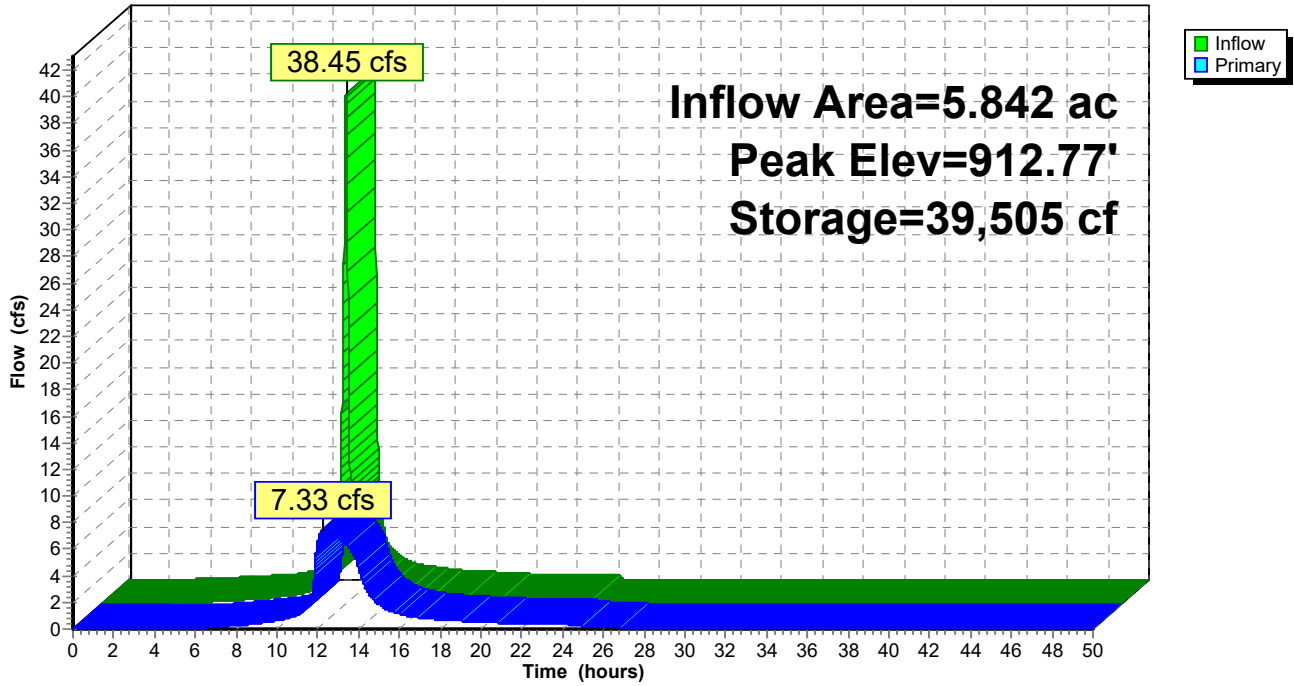
Type II 24-hr 100-Year Rainfall=5.63"

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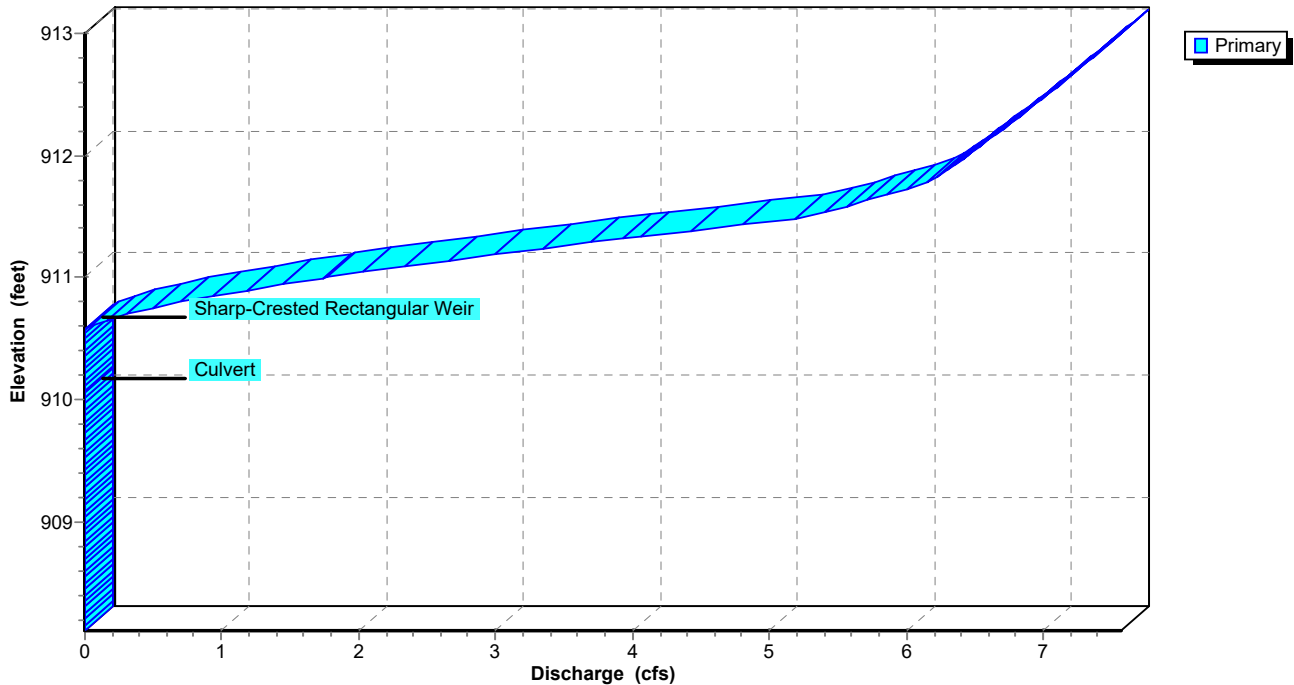
Pond WP: RETENTION BASIN

Hydrograph



Pond WP: RETENTION BASIN

Stage-Discharge



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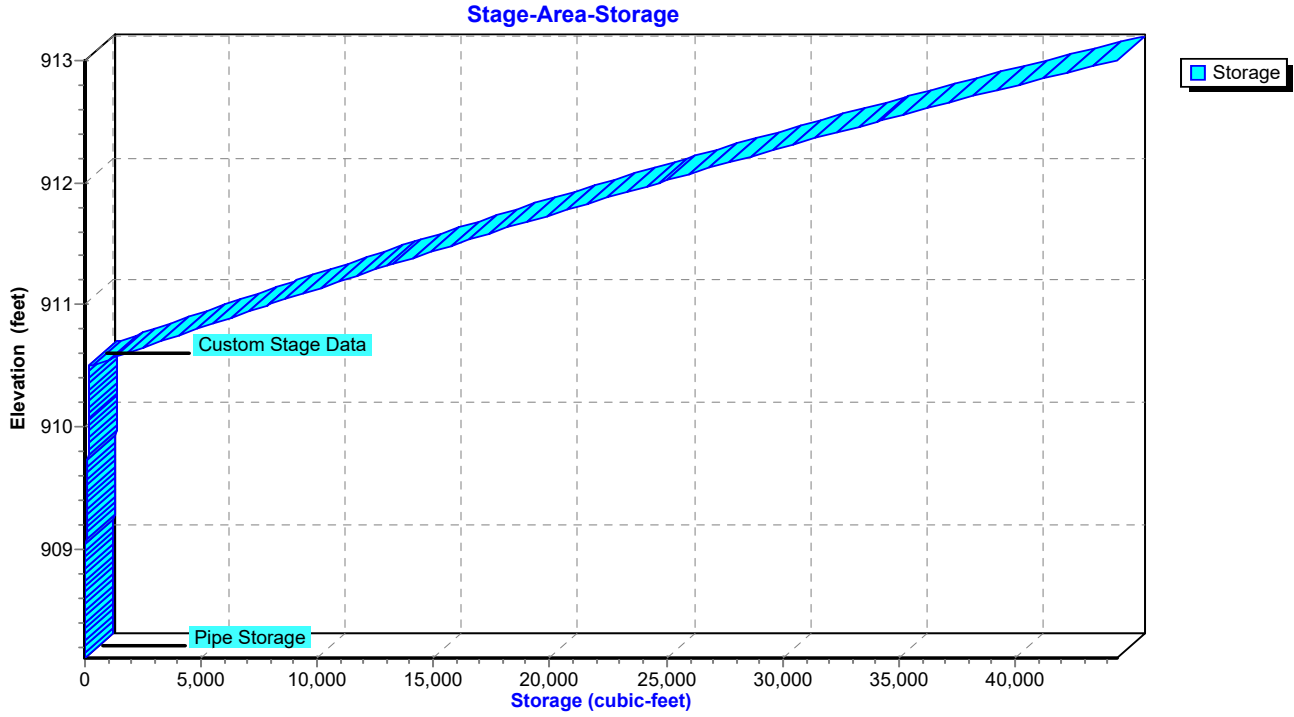
PROPOSED WEST TRIB

Type II 24-hr 100-Year Rainfall=5.63"

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Pond WP: RETENTION BASIN



Hydrologic Soil Group—Franklin County, Ohio



MAP LEGEND

Area of Interest (AOI)
 Area of Interest (AOI)

Soils
Soil Rating Polygons
 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Water Features
 Streams and Canals

Transportation
 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background
 Aerial Photography

Soil Rating Lines
 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points
 A
 A/D
 B
 B/D

C
C/D
D
 Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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: Franklin County, Ohio
 Survey Area Data: Version 15, Oct 5, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2014—Aug 27, 2014

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ko	Kokomo silty clay loam, 0 to 2 percent slopes	C/D	13.4	37.4%
LeB	Lewisburg-Crosby complex, 2 to 6 percent slopes	D	20.2	56.7%
Ut	Udorthents-Urban land complex, gently rolling		2.1	5.9%
Totals for Area of Interest			35.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

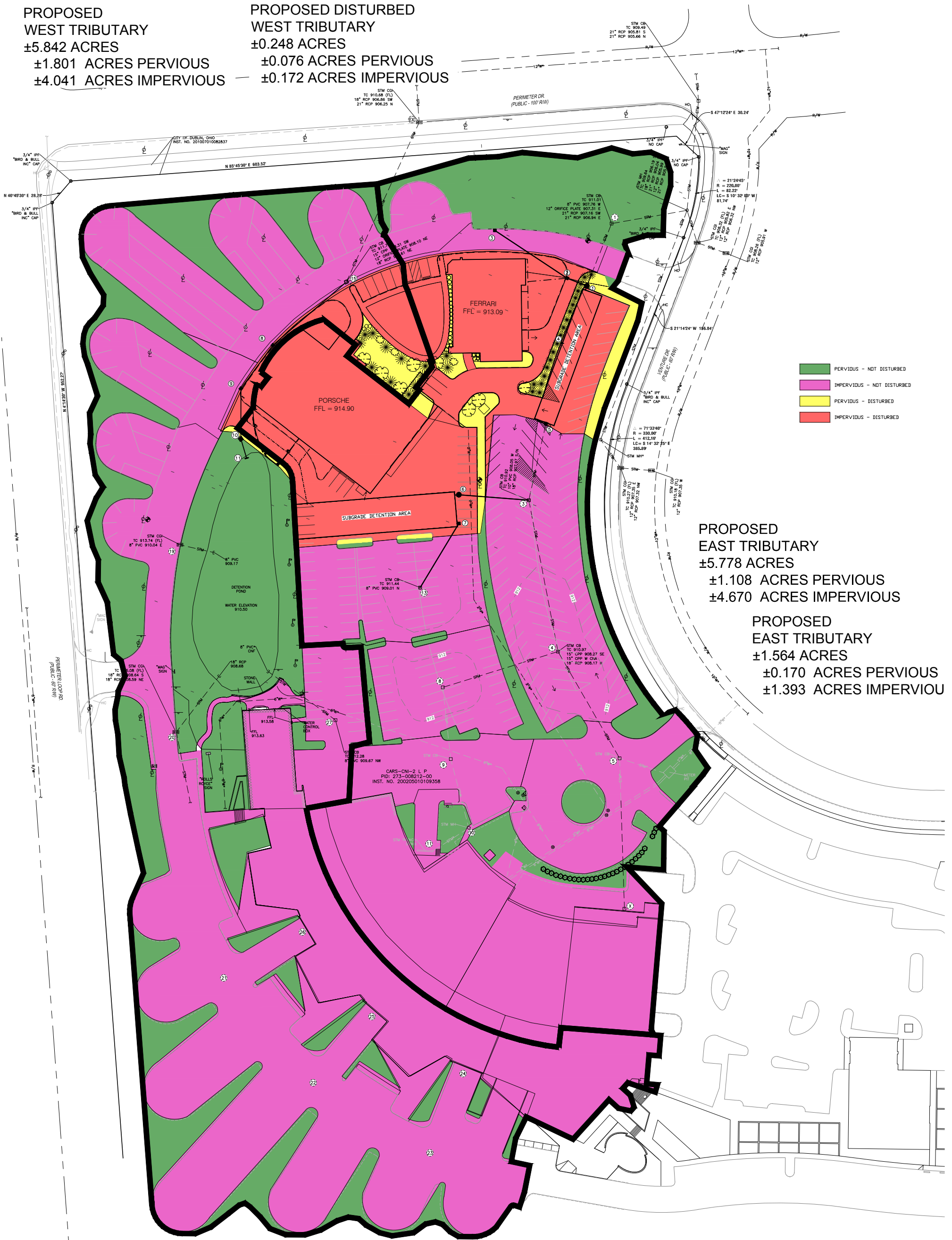
Tie-break Rule: Higher

PROPOSED
WEST TRIBUTARY
±5.842 ACRES

±1.801 ACRES PERVIOUS
±4.041 ACRES IMPERVIOUS

PROPOSED DISTURBED
WEST TRIBUTARY
±0.248 ACRES

±0.076 ACRES PERVIOUS
±0.172 ACRES IMPERVIOUS



- PERVIOUS - NOT DISTURBED
- IMPERVIOUS - NOT DISTURBED
- PERVIOUS - DISTURBED
- IMPERVIOUS - DISTURBED

PROPOSED
EAST TRIBUTARY
±5.778 ACRES
±1.108 ACRES PERVIOUS
±4.670 ACRES IMPERVIOUS

PROPOSED
EAST TRIBUTARY
±1.564 ACRES
±0.170 ACRES PERVIOUS
±1.393 ACRES IMPERVIOUS

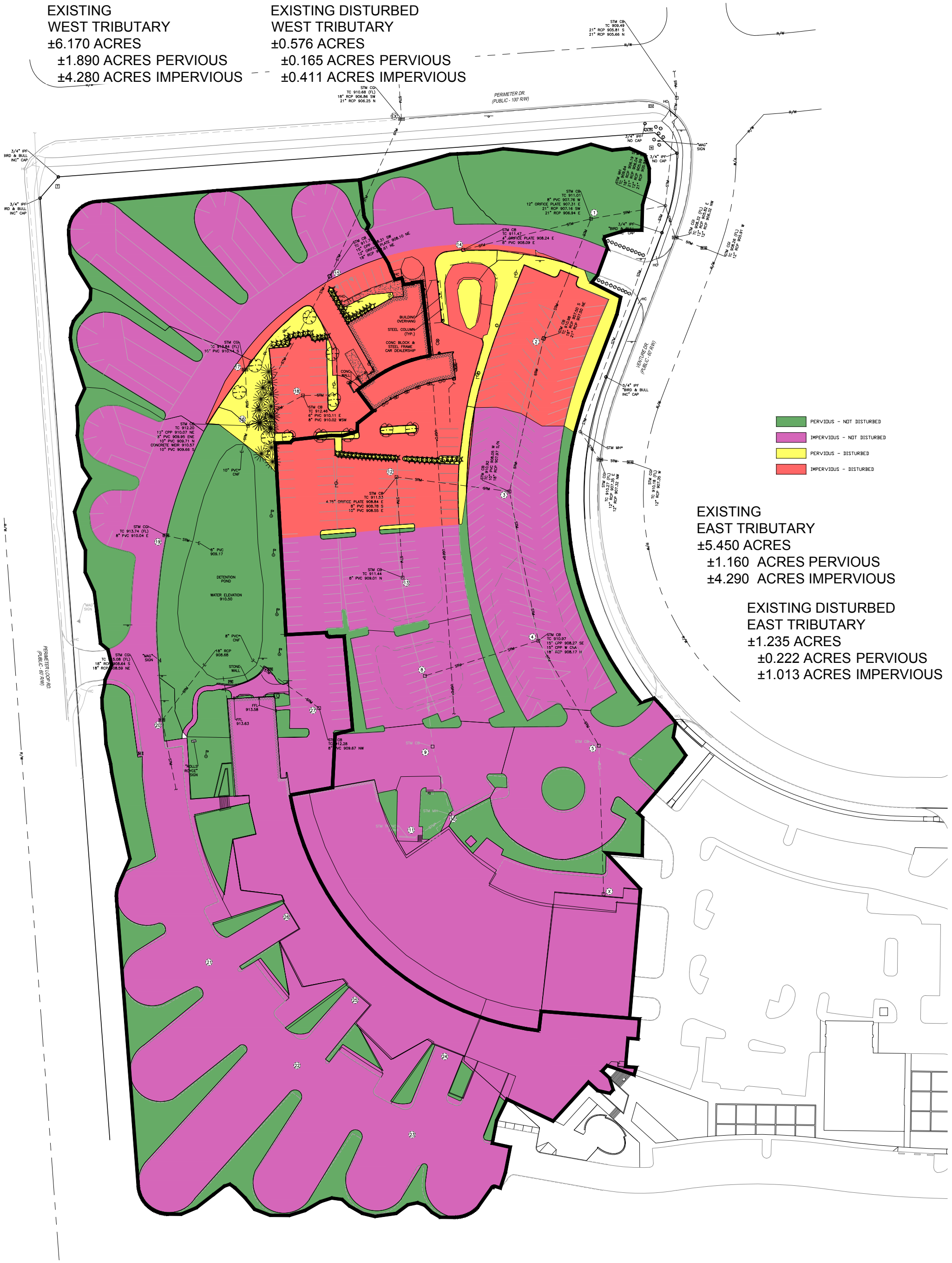
PROPOSED
±11.620 ACRES
±2.909 ACRES PERVIOUS
±8.711 ACRES IMPERVIOUS

EXISTING
WEST TRIBUTARY
±6.170 ACRES

±1.890 ACRES PERVIOUS
±4.280 ACRES IMPERVIOUS

EXISTING DISTURBED
WEST TRIBUTARY
±0.576 ACRES

±0.165 ACRES PERVIOUS
±0.411 ACRES IMPERVIOUS



- PERVIOUS - NOT DISTURBED
- IMPERVIOUS - NOT DISTURBED
- PERVIOUS - DISTURBED
- IMPERVIOUS - DISTURBED

EXISTING
EAST TRIBUTARY
±5.450 ACRES
±1.160 ACRES PERVIOUS
±4.290 ACRES IMPERVIOUS

EXISTING DISTURBED
EAST TRIBUTARY
±1.235 ACRES
±0.222 ACRES PERVIOUS
±1.013 ACRES IMPERVIOUS

EXISTING
±11.620 ACRES
±3.050 ACRES PERVIOUS
±8.570 ACRES IMPERVIOUS

PORSCHE & FERRARI

