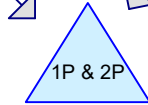


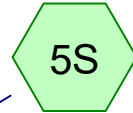
Proposed Area 1 from
CB 1



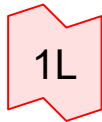
Proposed Area 2 from
CB 2



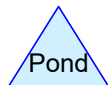
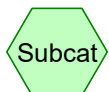
4' x 4' Infiltration
Galleries



Areas Not Routed to
Retention



Combined Hydrograph



Routing Diagram for Proposed Stormwater Analysis 2026 July 18

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Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type III 24-hr		Default	24.00	1	3.39	2
2	5-Year	Type III 24-hr		Default	24.00	1	4.24	2
3	10-Year	Type III 24-hr		Default	24.00	1	5.03	2
4	25-Year	Type III 24-hr		Default	24.00	1	6.30	2
5	50-Year	Type III 24-hr		Default	24.00	1	7.48	2
6	100-Year	Type III 24-hr		Default	24.00	1	8.88	2

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Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.593	48	Brush, Good, HSG B (3S, 4S, 5S)
0.366	98	Paved parking, HSG B (3S, 4S)
0.240	98	Roofs, HSG B (4S, 5S)
2.199	62	TOTAL AREA

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Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.199	HSG B	3S, 4S, 5S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.199		TOTAL AREA

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Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	1.593	0.000	0.000	0.000	1.593	Brush, Good	3S, 4S, 5S
0.000	0.366	0.000	0.000	0.000	0.366	Paved parking	3S, 4S
0.000	0.240	0.000	0.000	0.000	0.240	Roofs	4S, 5S
0.000	2.199	0.000	0.000	0.000	2.199	TOTAL AREA	

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Type III 24-hr 2-Year Rainfall=3.39"

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Page 6

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=1.11"
Tc=5.0 min CN=73 Runoff=0.46 cfs 0.033 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=2.26"
Tc=5.0 min CN=89 Runoff=1.04 cfs 0.072 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=0.22"
Tc=8.2 min CN=52 Runoff=0.11 cfs 0.027 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=97.73' Storage=988 cf Inflow=1.49 cfs 0.105 af
Discarded=0.23 cfs 0.088 af Primary=0.25 cfs 0.016 af Secondary=0.00 cfs 0.000 af Outflow=0.48 cfs 0.105 af

Link 1L: Combined Hydrograph

Inflow=0.37 cfs 0.043 af
Primary=0.37 cfs 0.043 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.132 af Average Runoff Depth = 0.72"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 2-Year Rainfall=3.39"

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Page 7

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

Runoff = 0.46 cfs @ 12.08 hrs, Volume= 0.033 af, Depth= 1.11"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

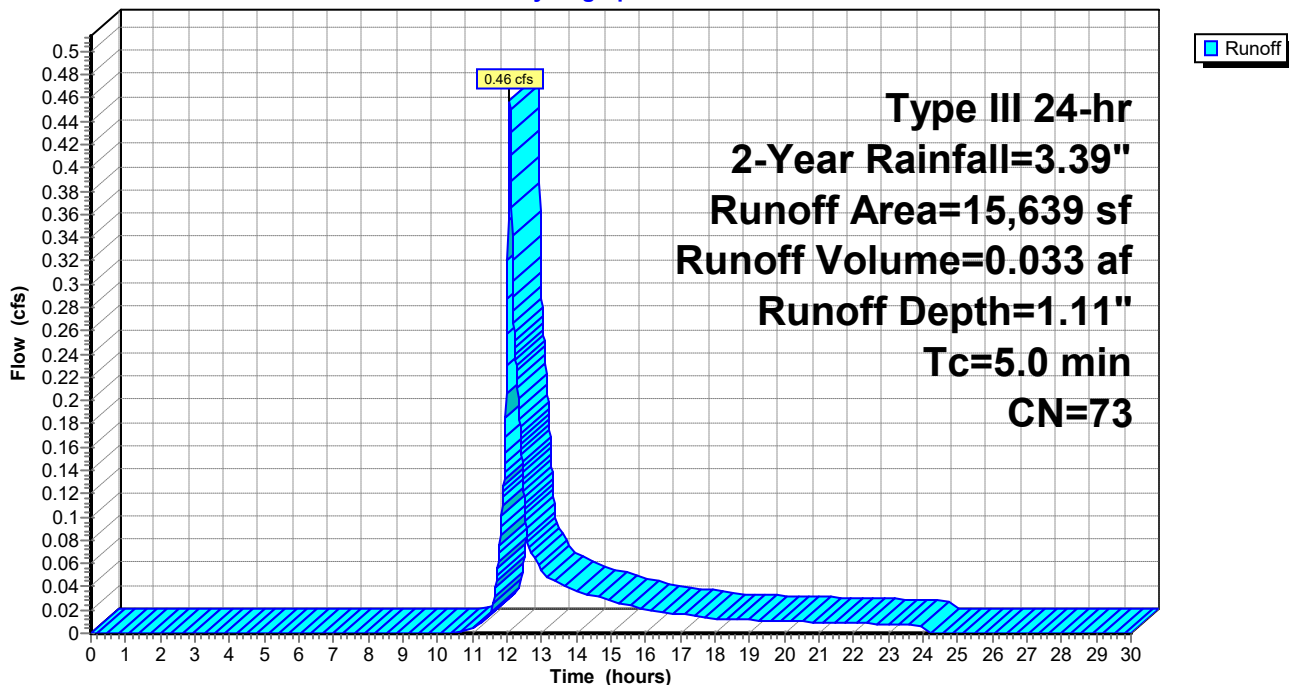
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.39"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2

Hydrograph



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Type III 24-hr 2-Year Rainfall=3.39"

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Page 8

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

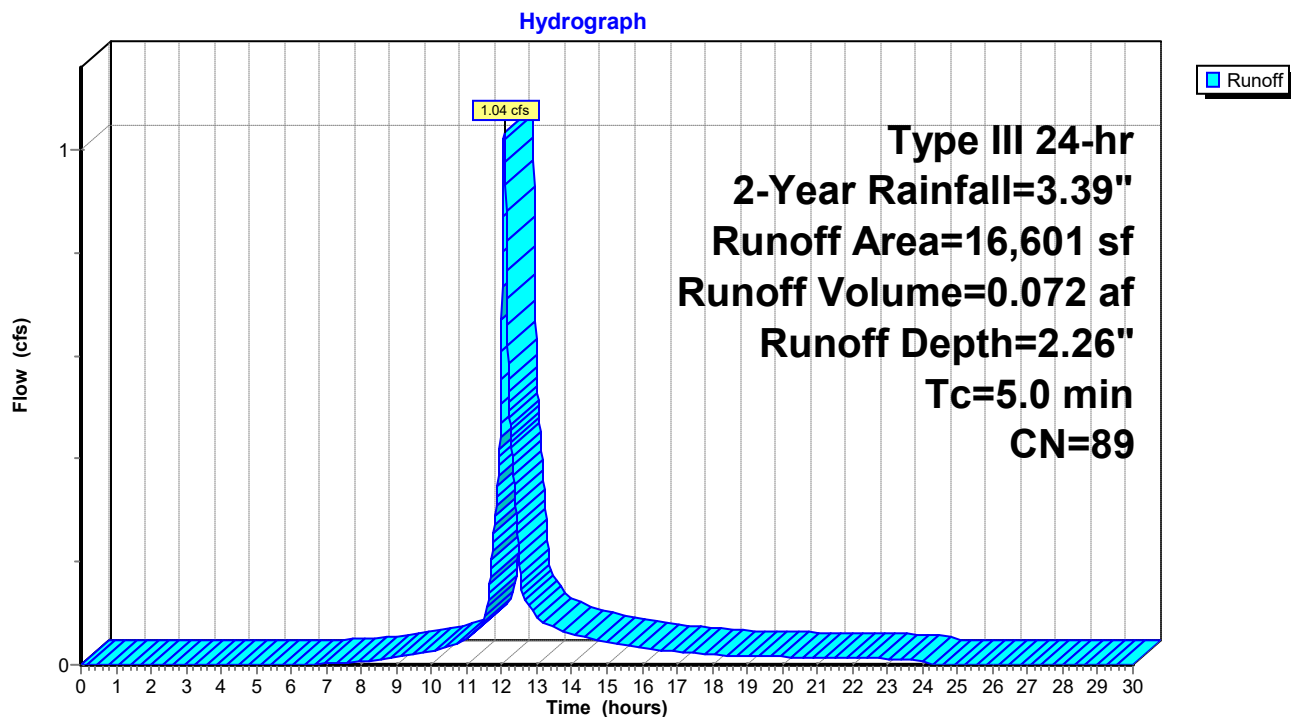
Runoff = 1.04 cfs @ 12.07 hrs, Volume= 0.072 af, Depth= 2.26"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.39"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 2-Year Rainfall=3.39"

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Page 9

Summary for Subcatchment 5S: Areas Not Routed to Retention

Runoff = 0.11 cfs @ 12.40 hrs, Volume= 0.027 af, Depth= 0.22"
Routed to Link 1L : Combined Hydrograph

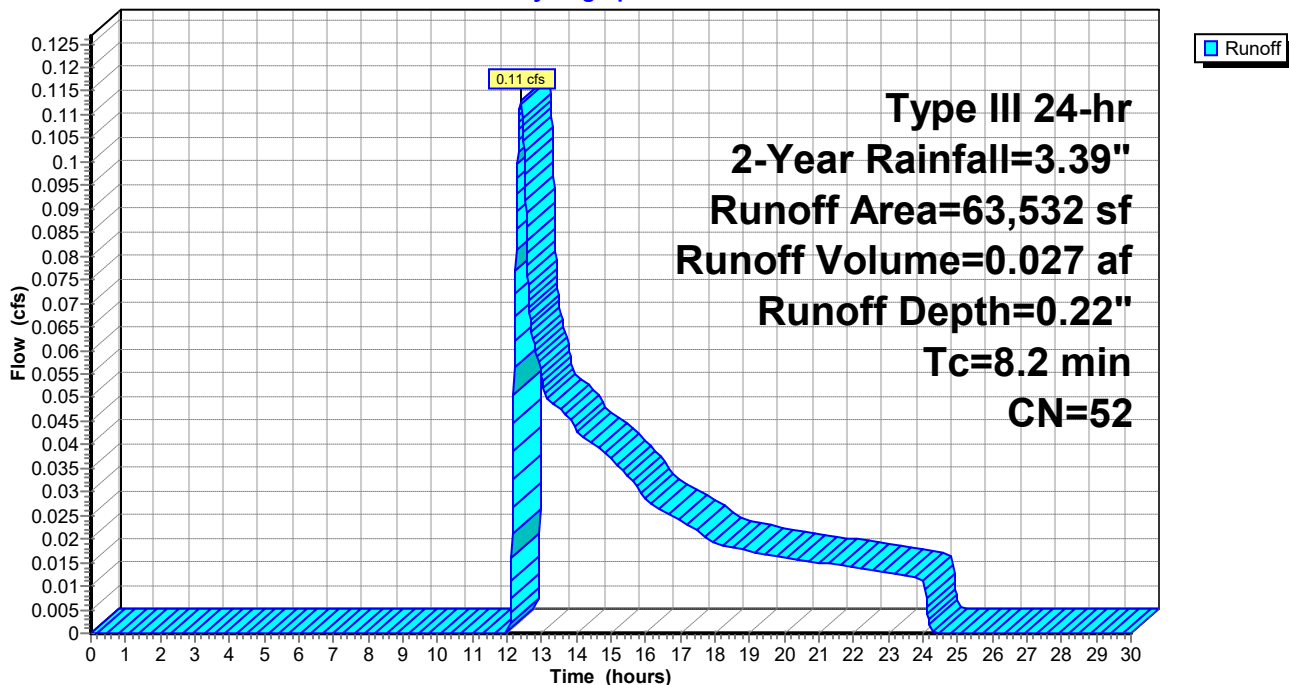
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.39"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention

Hydrograph



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Type III 24-hr 2-Year Rainfall=3.39"

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Page 10

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 1.70" for 2-Year event
Inflow = 1.49 cfs @ 12.08 hrs, Volume= 0.105 af
Outflow = 0.48 cfs @ 12.39 hrs, Volume= 0.105 af, Atten= 68%, Lag= 19.0 min
Discarded = 0.23 cfs @ 11.74 hrs, Volume= 0.088 af
Primary = 0.25 cfs @ 12.39 hrs, Volume= 0.016 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 97.73' @ 12.39 hrs Surf.Area= 1,655 sf Storage= 988 cf

Plug-Flow detention time= 16.4 min calculated for 0.105 af (100% of inflow)
Center-of-Mass det. time= 16.4 min (841.0 - 824.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
5,141 cf			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 11.74 hrs HW=96.75' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=0.25 cfs @ 12.39 hrs HW=97.73' (Free Discharge)

↑ **1=Orifice/Grate** (Orifice Controls 0.25 cfs @ 2.92 fps)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Type III 24-hr 2-Year Rainfall=3.39"

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Page 11

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

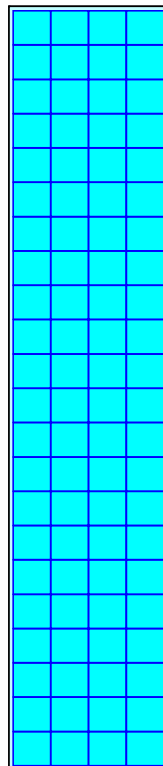
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

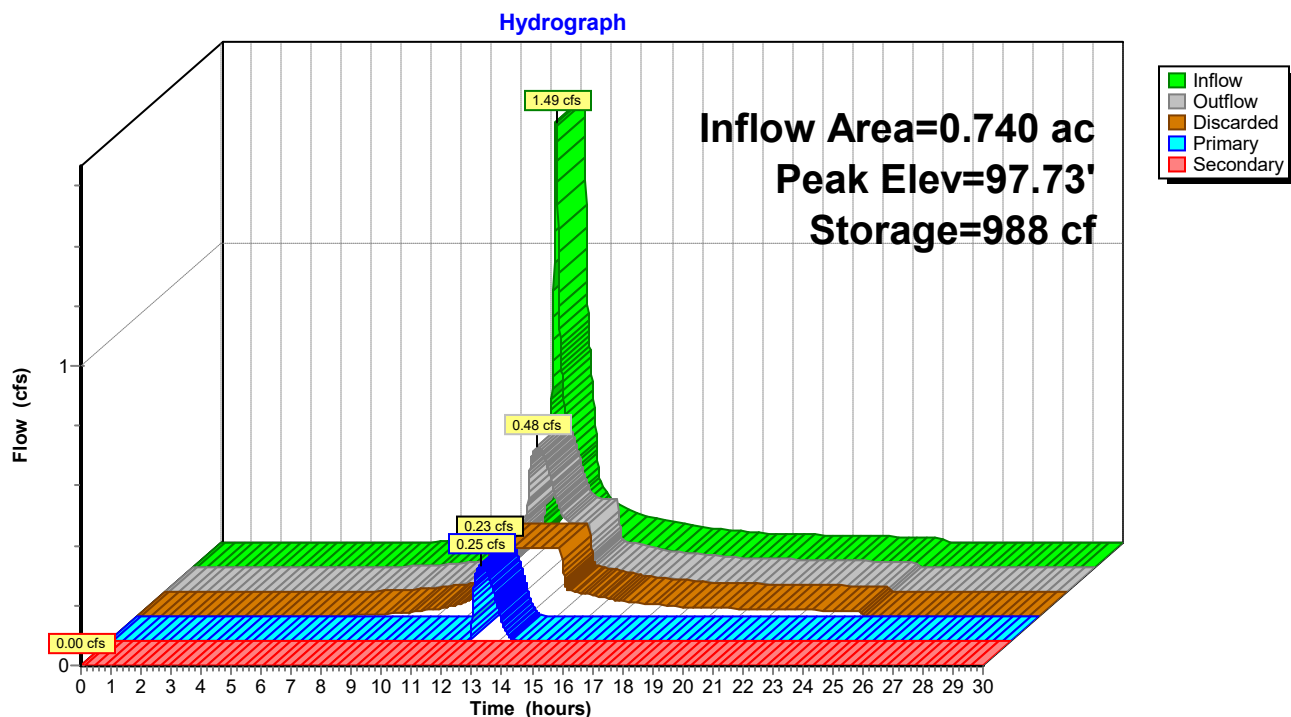
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries

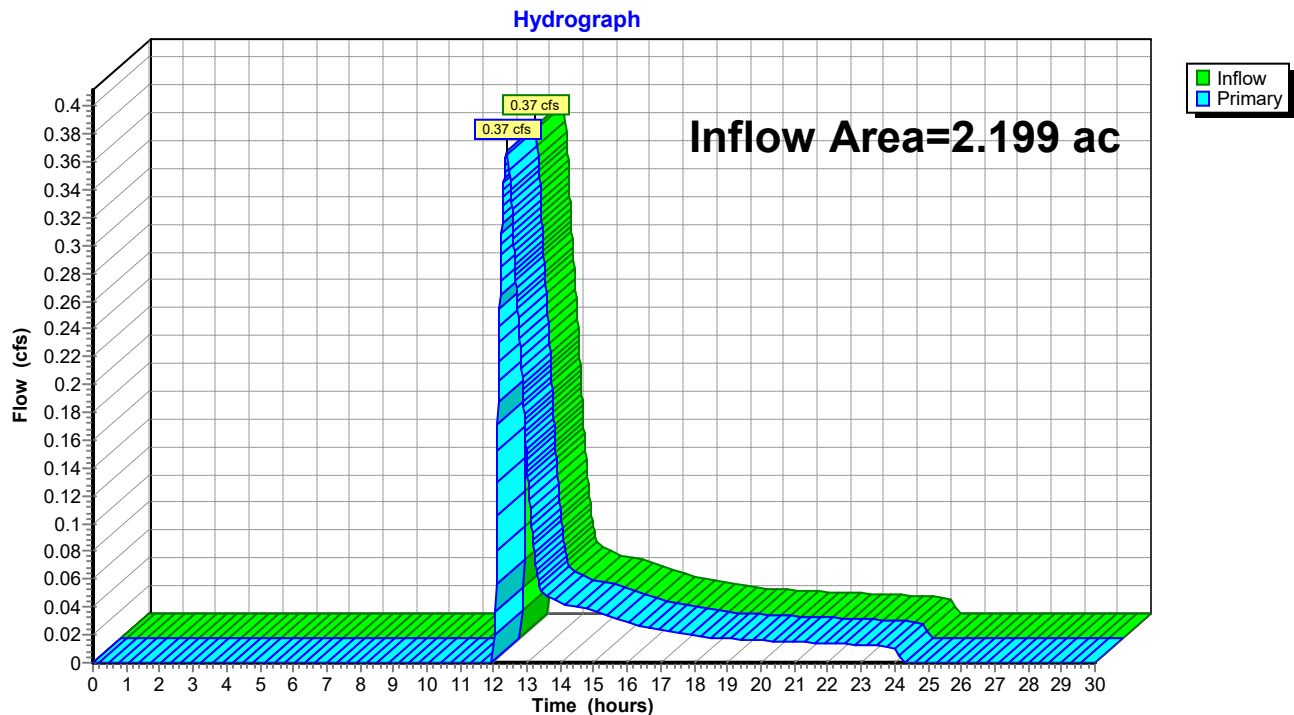


Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 0.24" for 2-Year event
Inflow = 0.37 cfs @ 12.40 hrs, Volume= 0.043 af
Primary = 0.37 cfs @ 12.40 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 5-Year Rainfall=4.24"

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Page 14

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=1.70"
Tc=5.0 min CN=73 Runoff=0.73 cfs 0.051 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=3.05"
Tc=5.0 min CN=89 Runoff=1.38 cfs 0.097 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=0.49"
Tc=8.2 min CN=52 Runoff=0.40 cfs 0.060 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=98.21' Storage=1,575 cf Inflow=2.11 cfs 0.148 af
Discarded=0.23 cfs 0.112 af Primary=0.38 cfs 0.036 af Secondary=0.00 cfs 0.000 af Outflow=0.61 cfs 0.148 af

Link 1L: Combined Hydrograph

Inflow=0.75 cfs 0.096 af
Primary=0.75 cfs 0.096 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.208 af Average Runoff Depth = 1.13"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

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Type III 24-hr 5-Year Rainfall=4.24"

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Page 15

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

Runoff = 0.73 cfs @ 12.08 hrs, Volume= 0.051 af, Depth= 1.70"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

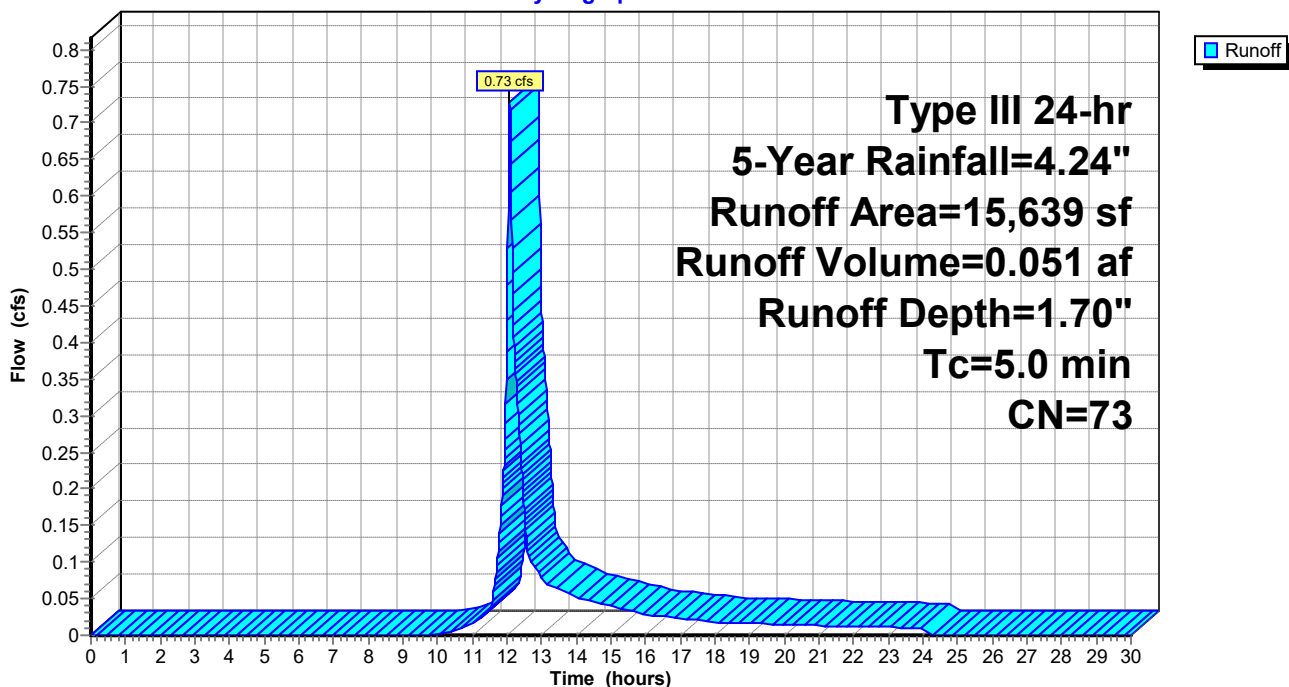
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.24"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2

Hydrograph



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Type III 24-hr 5-Year Rainfall=4.24"

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Page 16

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

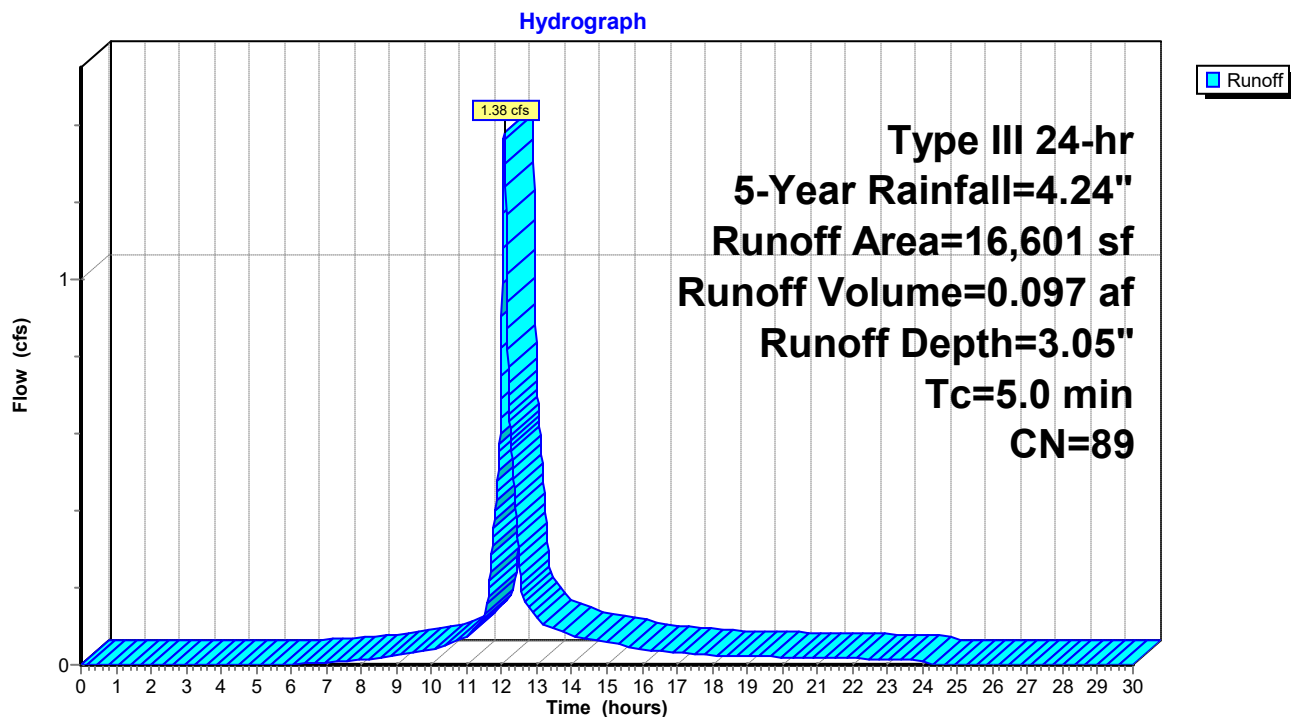
Runoff = 1.38 cfs @ 12.07 hrs, Volume= 0.097 af, Depth= 3.05"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.24"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 5-Year Rainfall=4.24"

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Page 17

Summary for Subcatchment 5S: Areas Not Routed to Retention

Runoff = 0.40 cfs @ 12.18 hrs, Volume= 0.060 af, Depth= 0.49"
Routed to Link 1L : Combined Hydrograph

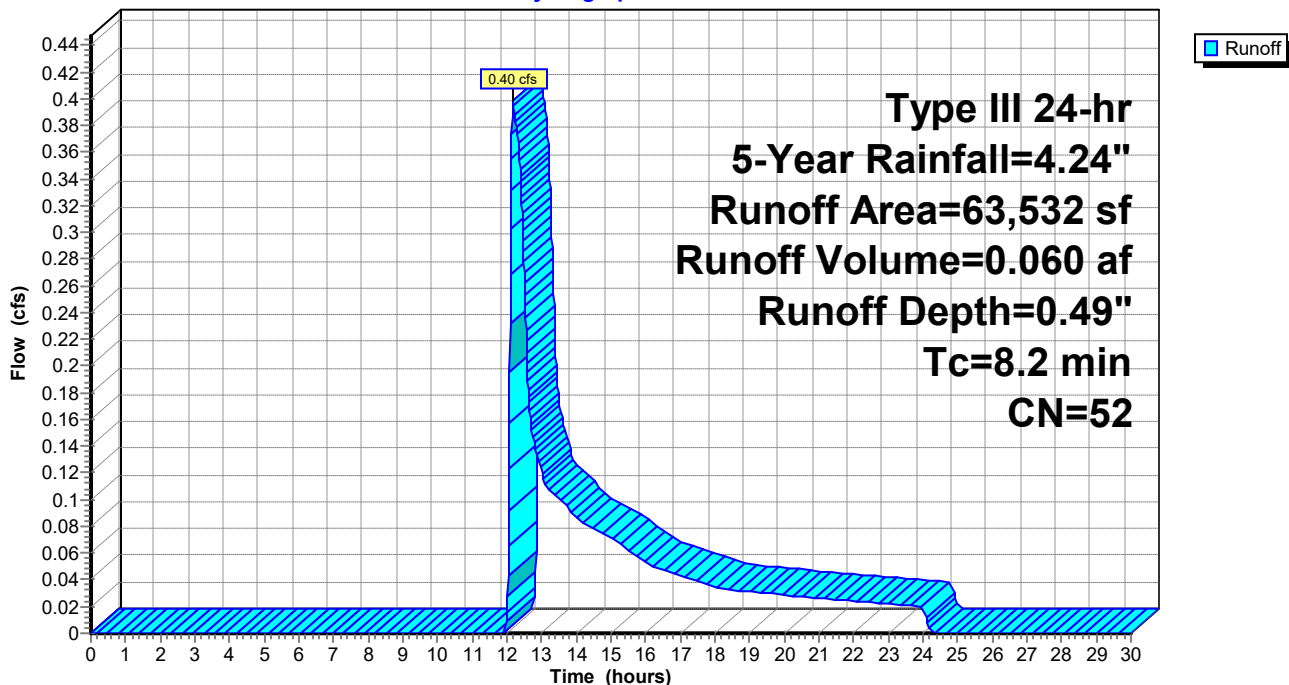
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.24"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention

Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 5-Year Rainfall=4.24"

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Page 18

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 2.40" for 5-Year event
Inflow = 2.11 cfs @ 12.07 hrs, Volume= 0.148 af
Outflow = 0.61 cfs @ 12.42 hrs, Volume= 0.148 af, Atten= 71%, Lag= 20.6 min
Discarded = 0.23 cfs @ 11.65 hrs, Volume= 0.112 af
Primary = 0.38 cfs @ 12.42 hrs, Volume= 0.036 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 98.21' @ 12.42 hrs Surf.Area= 1,655 sf Storage= 1,575 cf

Plug-Flow detention time= 21.1 min calculated for 0.148 af (100% of inflow)
Center-of-Mass det. time= 21.0 min (837.1 - 816.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
5,141 cf			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 11.65 hrs HW=96.75' (Free Discharge)
↑**4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=0.38 cfs @ 12.42 hrs HW=98.21' (Free Discharge)
↑**1=Orifice/Grate** (Orifice Controls 0.38 cfs @ 4.41 fps)
↑**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)
↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Type III 24-hr 5-Year Rainfall=4.24"

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Page 19

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

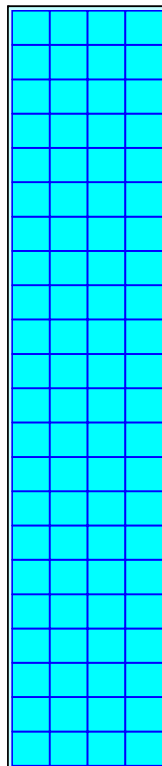
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

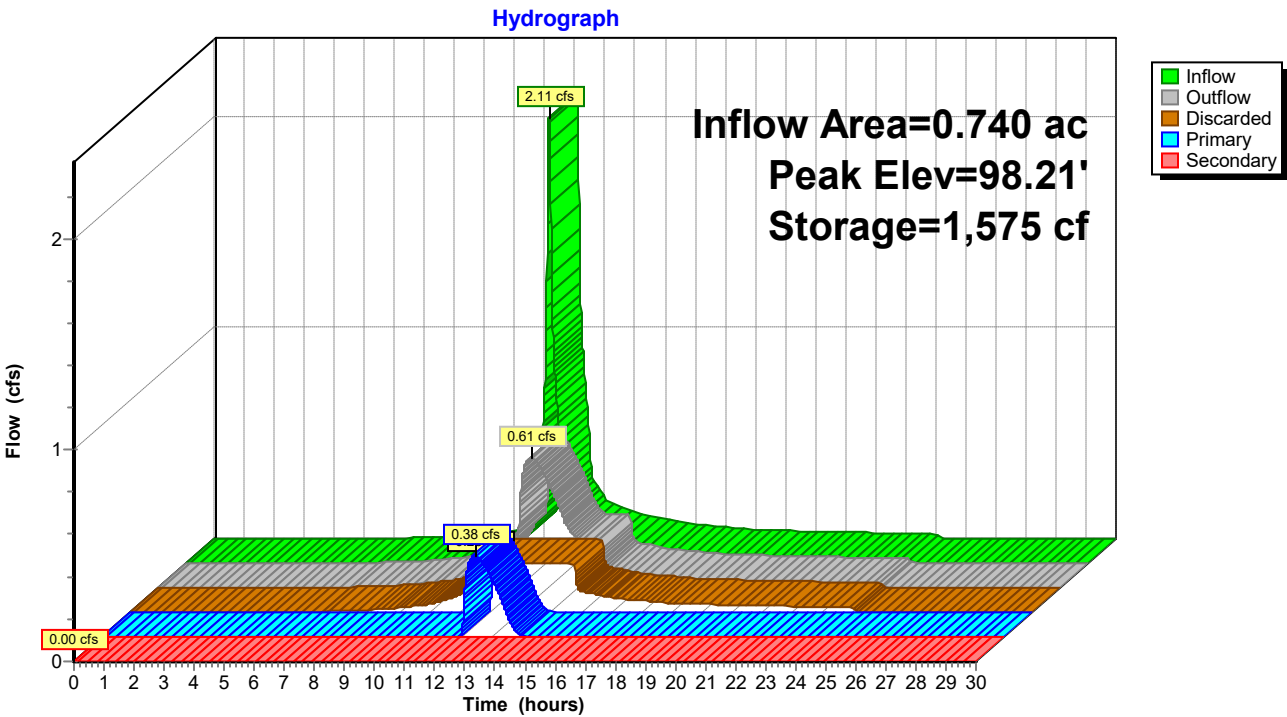
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries

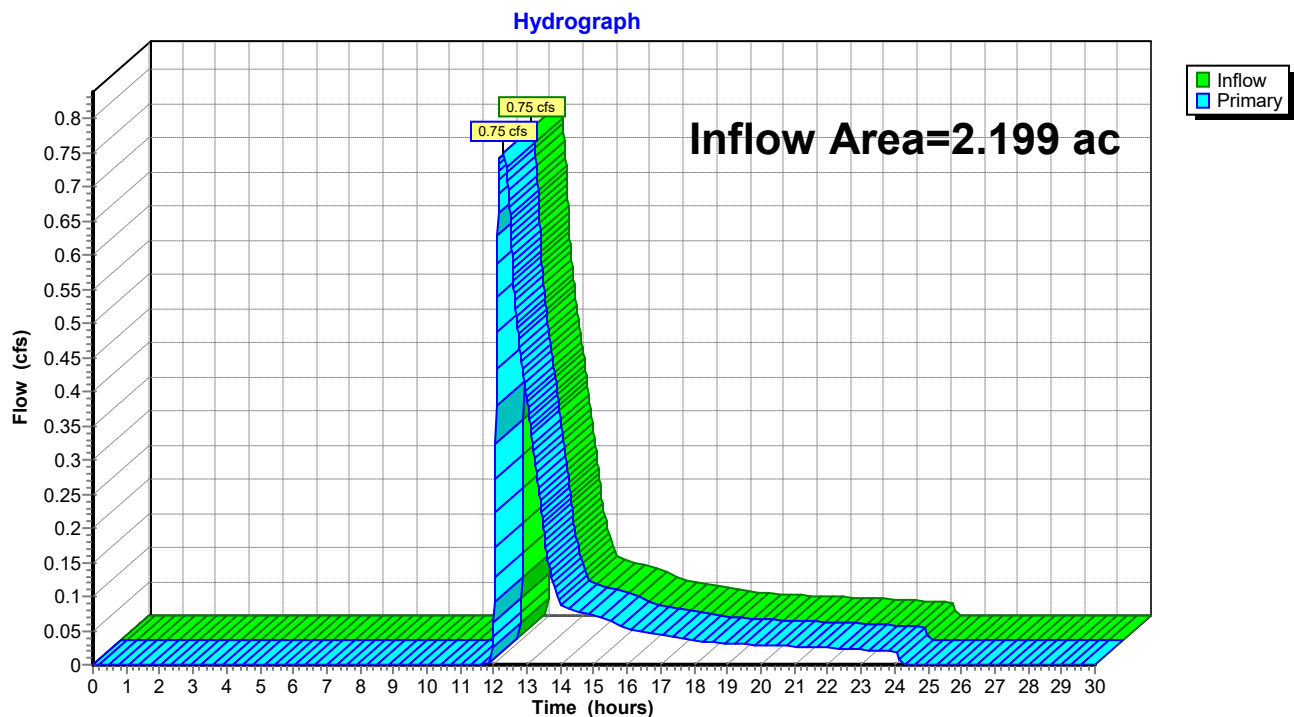


Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 0.52" for 5-Year event
Inflow = 0.75 cfs @ 12.29 hrs, Volume= 0.096 af
Primary = 0.75 cfs @ 12.29 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 10-Year Rainfall=5.03"

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Page 22

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=2.30"
Tc=5.0 min CN=73 Runoff=1.00 cfs 0.069 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=3.80"
Tc=5.0 min CN=89 Runoff=1.71 cfs 0.121 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=0.82"
Tc=8.2 min CN=52 Runoff=0.91 cfs 0.099 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=98.70' Storage=2,185 cf Inflow=2.71 cfs 0.190 af
Discarded=0.23 cfs 0.132 af Primary=0.48 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.71 cfs 0.190 af

Link 1L: Combined Hydrograph

Inflow=1.33 cfs 0.157 af
Primary=1.33 cfs 0.157 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.289 af Average Runoff Depth = 1.58"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 10-Year Rainfall=5.03"

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Page 23

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

Runoff = 1.00 cfs @ 12.08 hrs, Volume= 0.069 af, Depth= 2.30"

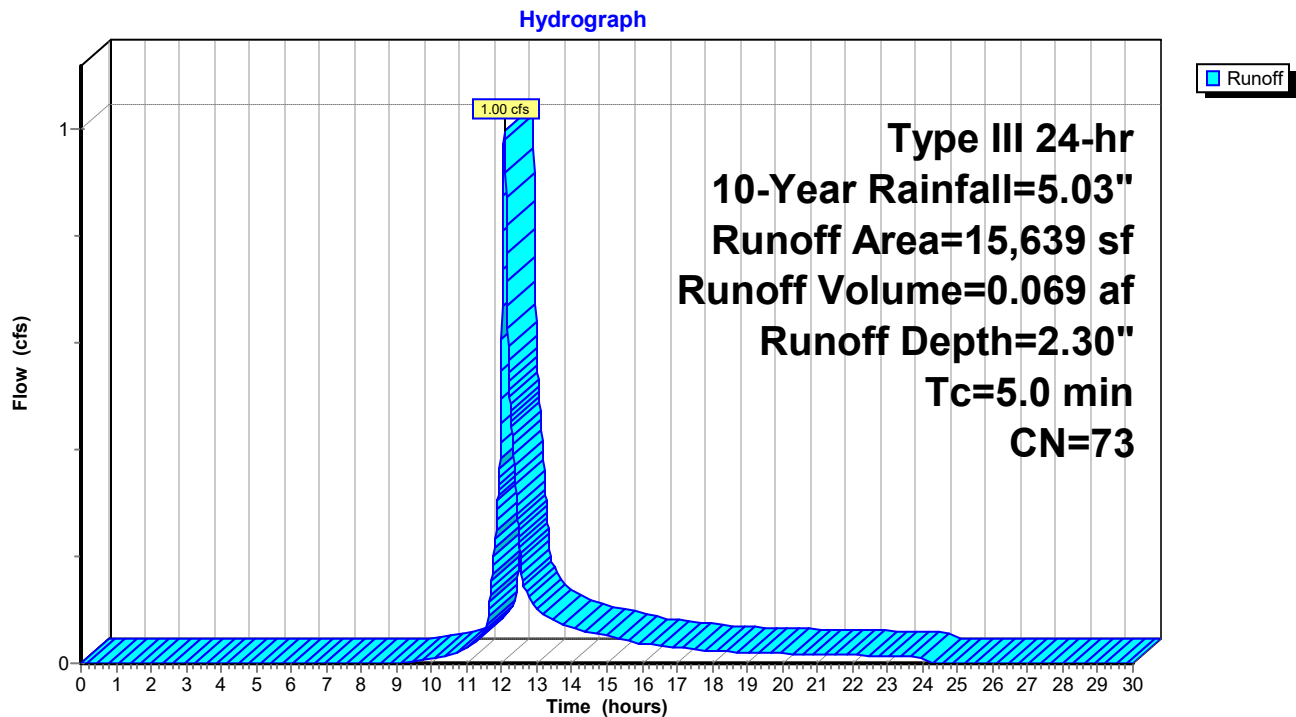
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.03"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2



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Type III 24-hr 10-Year Rainfall=5.03"

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Page 24

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

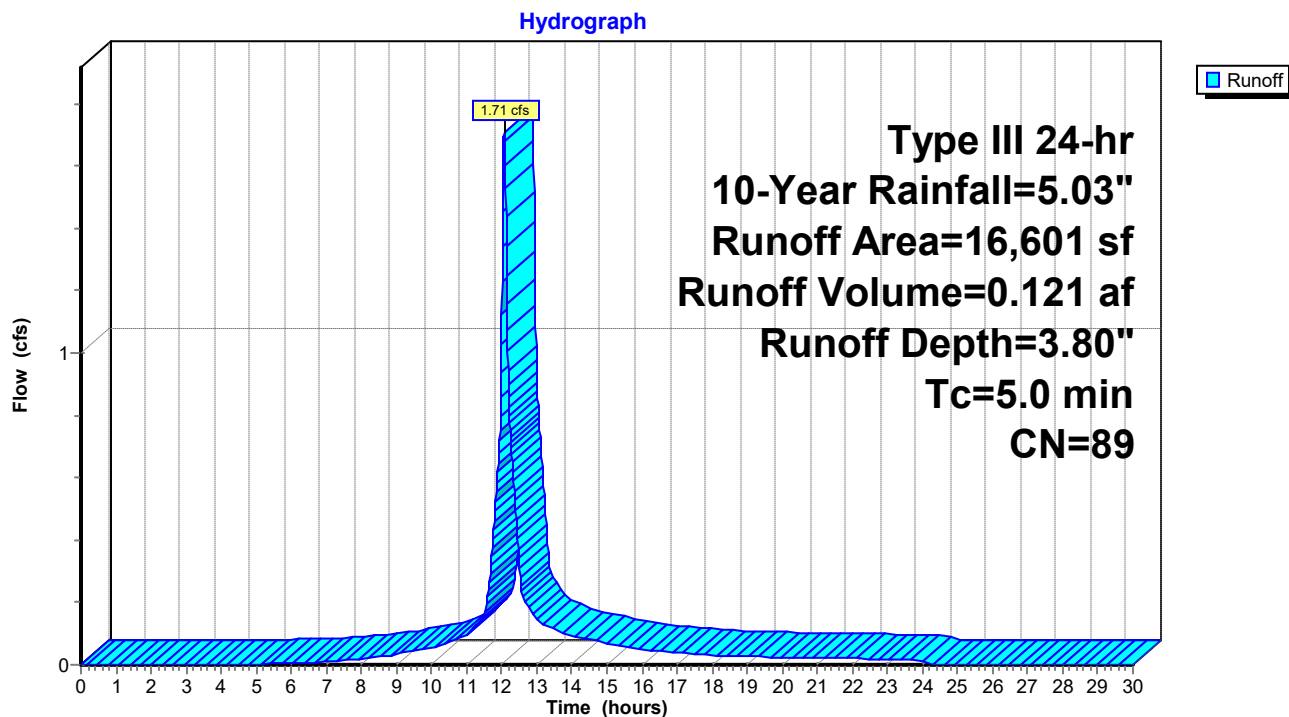
Runoff = 1.71 cfs @ 12.07 hrs, Volume= 0.121 af, Depth= 3.80"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.03"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 10-Year Rainfall=5.03"

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Page 25

Summary for Subcatchment 5S: Areas Not Routed to Retention

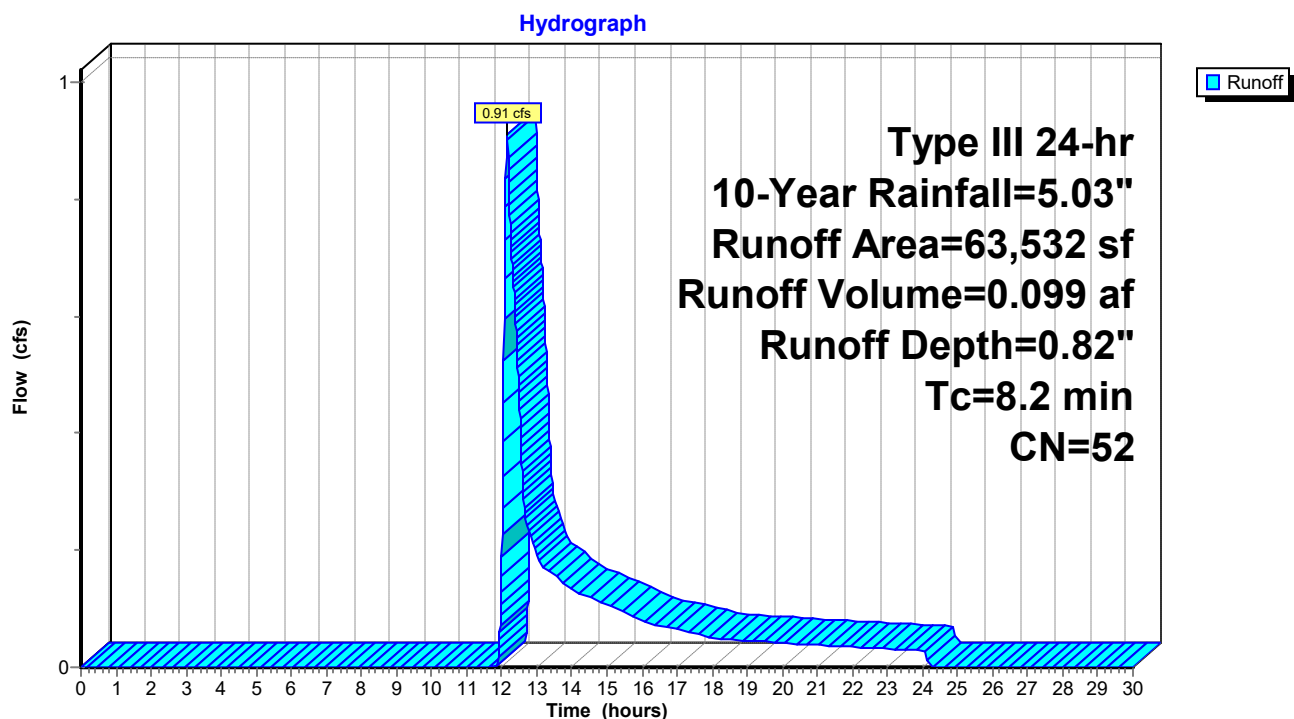
Runoff = 0.91 cfs @ 12.15 hrs, Volume= 0.099 af, Depth= 0.82"
Routed to Link 1L : Combined Hydrograph

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.03"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention



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Type III 24-hr 10-Year Rainfall=5.03"

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Page 26

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 3.07" for 10-Year event
Inflow = 2.71 cfs @ 12.07 hrs, Volume= 0.190 af
Outflow = 0.71 cfs @ 12.44 hrs, Volume= 0.190 af, Atten= 74%, Lag= 22.0 min
Discarded = 0.23 cfs @ 11.57 hrs, Volume= 0.132 af
Primary = 0.48 cfs @ 12.44 hrs, Volume= 0.058 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 98.70' @ 12.44 hrs Surf.Area= 1,655 sf Storage= 2,185 cf

Plug-Flow detention time= 25.3 min calculated for 0.190 af (100% of inflow)
Center-of-Mass det. time= 25.2 min (835.0 - 809.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
5,141 cf			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 11.57 hrs HW=96.75' (Free Discharge)
↑**4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=0.48 cfs @ 12.44 hrs HW=98.70' (Free Discharge)
↑**1=Orifice/Grate** (Orifice Controls 0.48 cfs @ 5.55 fps)
↑**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)
↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 10-Year Rainfall=5.03"

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Page 27

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

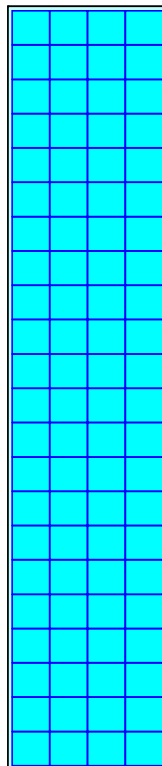
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

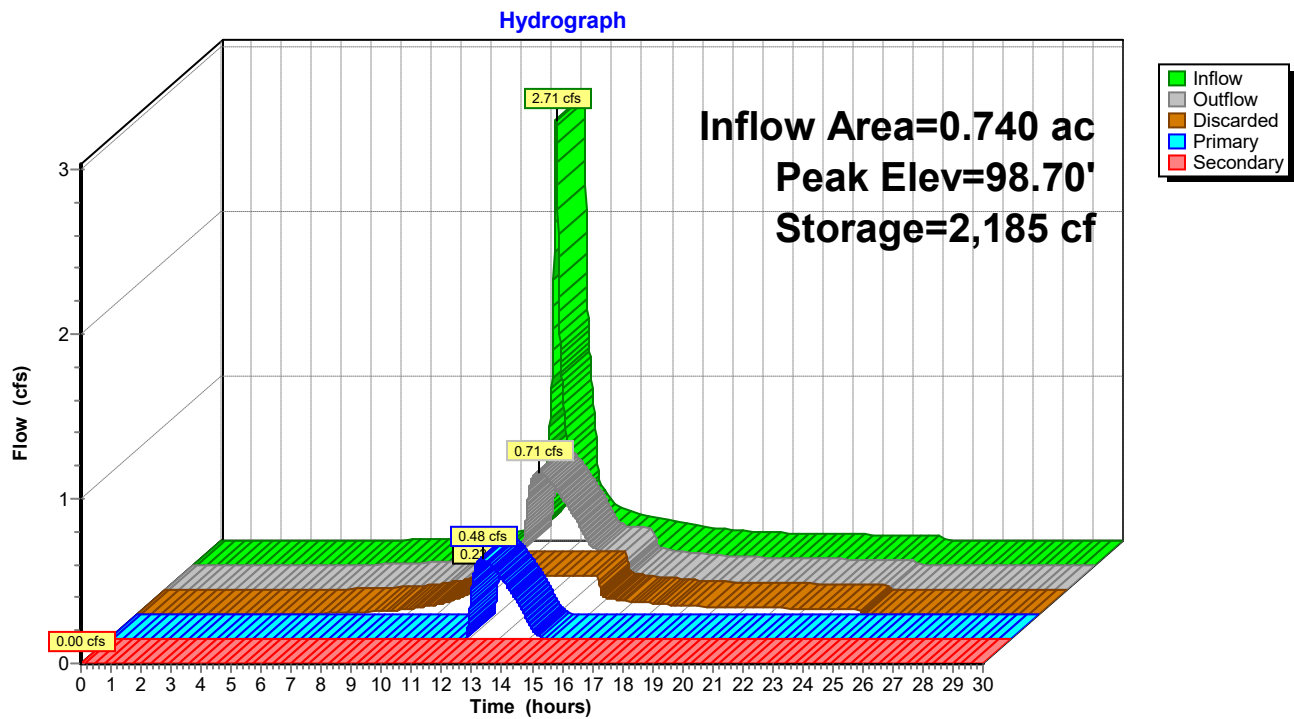
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries

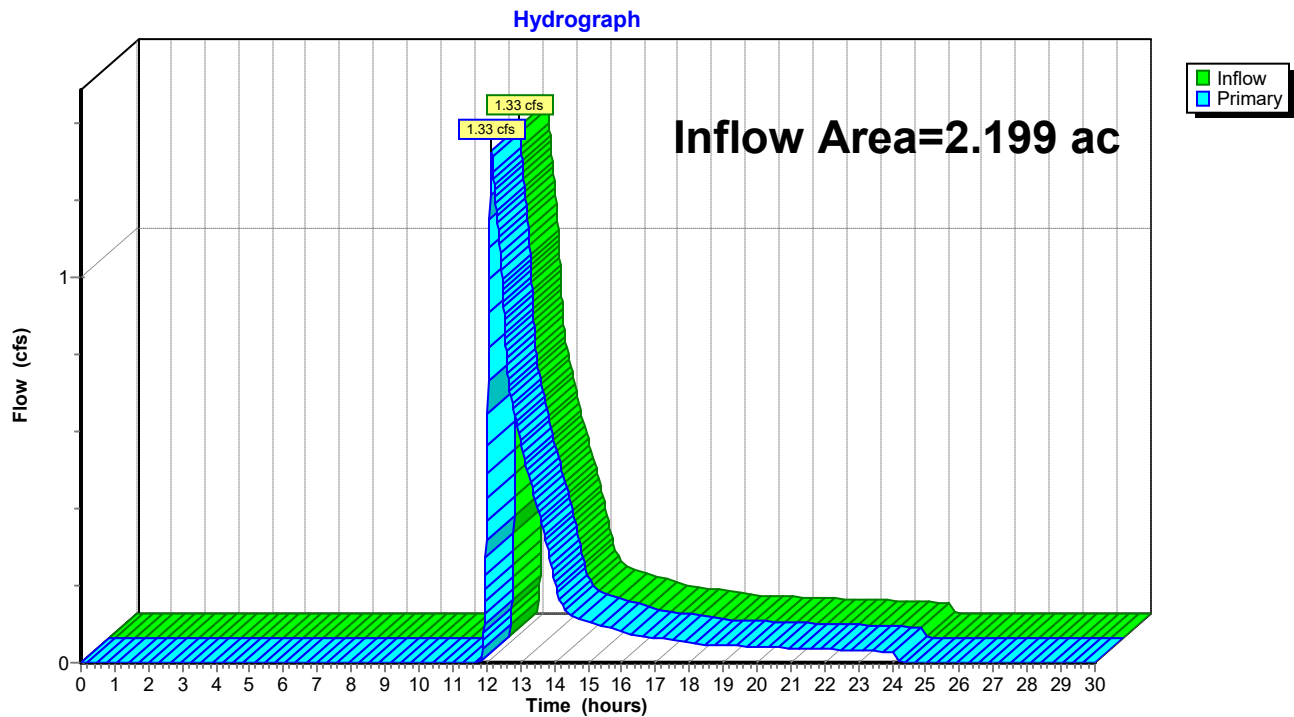


Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 0.86" for 10-Year event
Inflow = 1.33 cfs @ 12.15 hrs, Volume= 0.157 af
Primary = 1.33 cfs @ 12.15 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 25-Year Rainfall=6.30"

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Page 30

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=3.34"
Tc=5.0 min CN=73 Runoff=1.46 cfs 0.100 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=5.03"
Tc=5.0 min CN=89 Runoff=2.23 cfs 0.160 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=1.45"
Tc=8.2 min CN=52 Runoff=1.96 cfs 0.176 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=99.39' Storage=3,045 cf Inflow=3.68 cfs 0.260 af
Discarded=0.23 cfs 0.161 af Primary=0.95 cfs 0.098 af Secondary=0.00 cfs 0.000 af Outflow=1.18 cfs 0.260 af

Link 1L: Combined Hydrograph

Inflow=2.49 cfs 0.275 af
Primary=2.49 cfs 0.275 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.436 af Average Runoff Depth = 2.38"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 25-Year Rainfall=6.30"

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Page 31

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

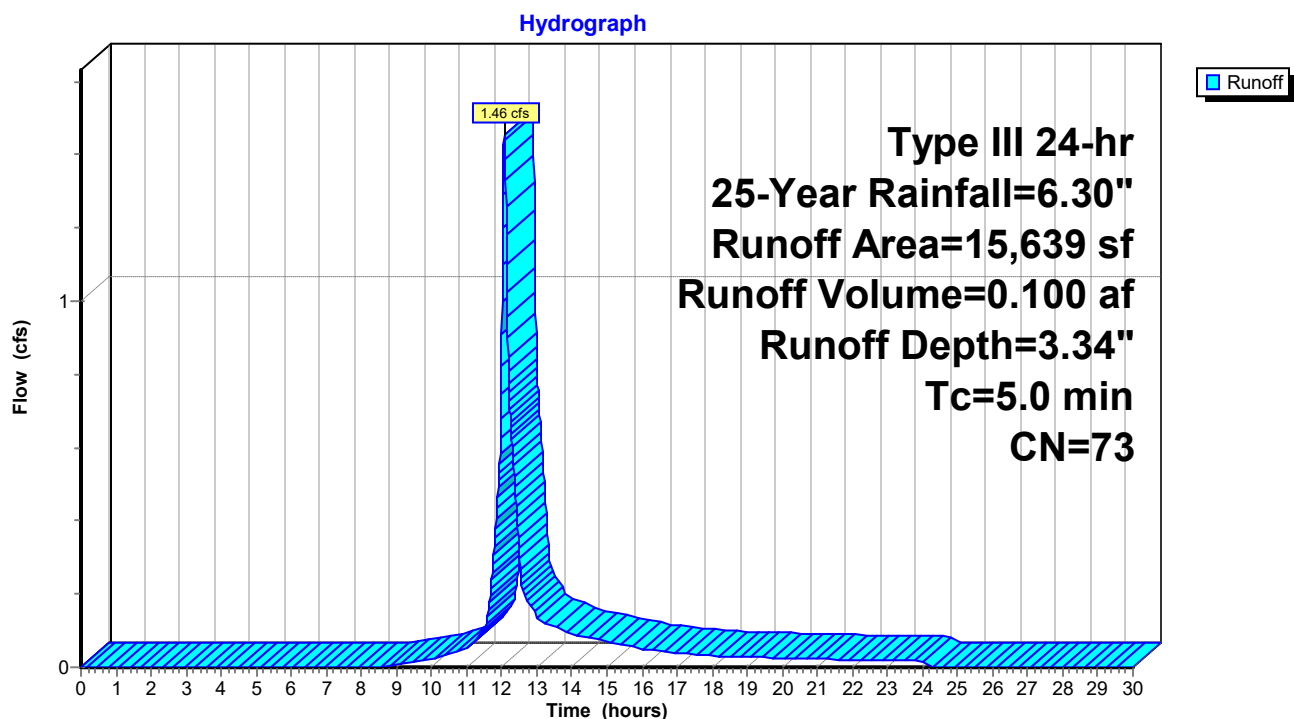
Runoff = 1.46 cfs @ 12.08 hrs, Volume= 0.100 af, Depth= 3.34"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.30"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2



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Type III 24-hr 25-Year Rainfall=6.30"

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Page 32

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

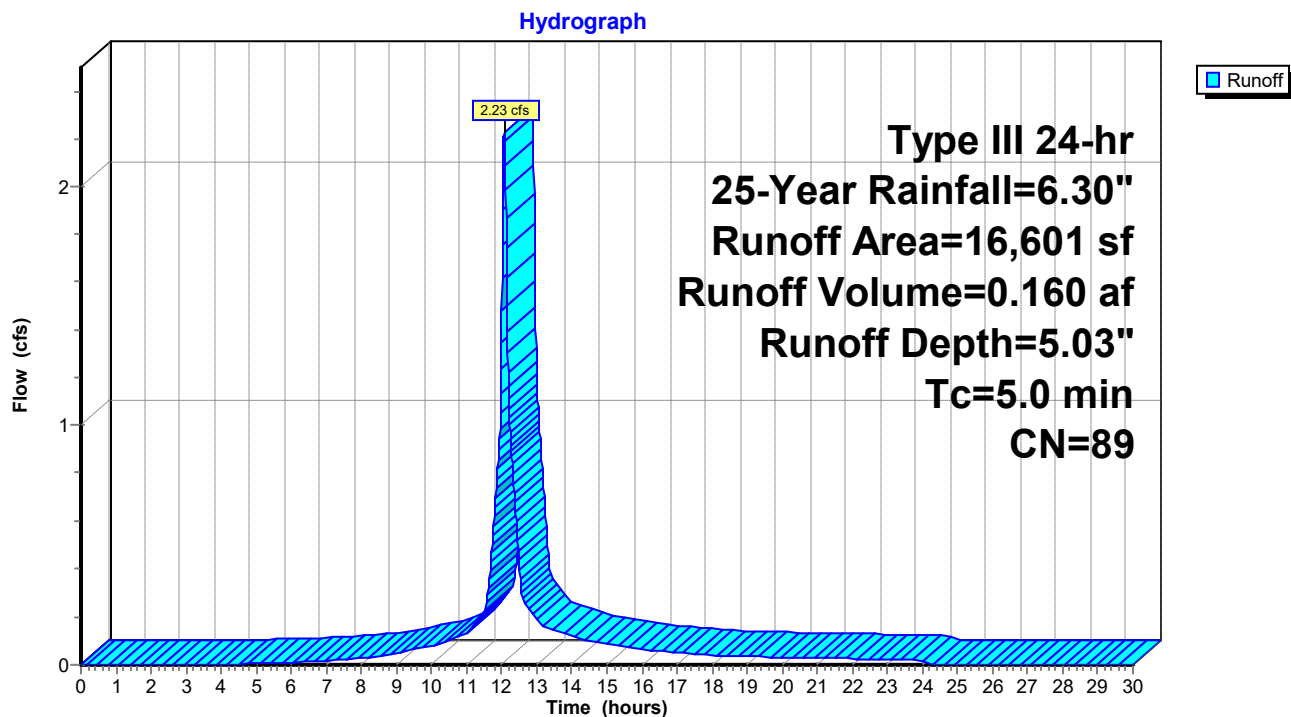
Runoff = 2.23 cfs @ 12.07 hrs, Volume= 0.160 af, Depth= 5.03"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.30"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 25-Year Rainfall=6.30"

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Page 33

Summary for Subcatchment 5S: Areas Not Routed to Retention

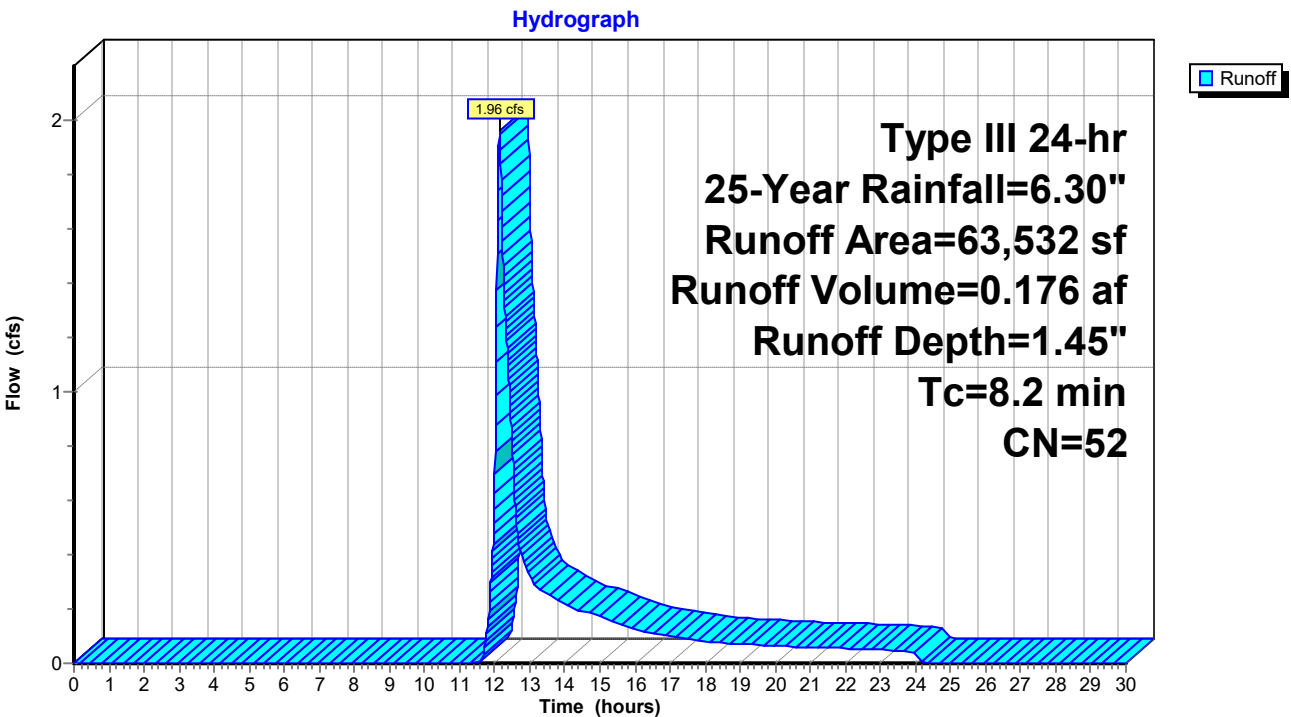
Runoff = 1.96 cfs @ 12.13 hrs, Volume= 0.176 af, Depth= 1.45"
Routed to Link 1L : Combined Hydrograph

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.30"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention



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Type III 24-hr 25-Year Rainfall=6.30"

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Page 34

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 4.21" for 25-Year event
Inflow = 3.68 cfs @ 12.07 hrs, Volume= 0.260 af
Outflow = 1.18 cfs @ 12.37 hrs, Volume= 0.260 af, Atten= 68%, Lag= 17.9 min
Discarded = 0.23 cfs @ 11.26 hrs, Volume= 0.161 af
Primary = 0.95 cfs @ 12.37 hrs, Volume= 0.098 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 99.39' @ 12.37 hrs Surf.Area= 1,655 sf Storage= 3,045 cf

Plug-Flow detention time= 28.9 min calculated for 0.260 af (100% of inflow)
Center-of-Mass det. time= 28.9 min (830.9 - 801.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
		5,141 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 11.26 hrs HW=96.75' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=0.95 cfs @ 12.37 hrs HW=99.39' (Free Discharge)

↑ **1=Orifice/Grate** (Orifice Controls 0.60 cfs @ 6.86 fps)

↑ **2=Orifice/Grate** (Orifice Controls 0.35 cfs @ 2.14 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Type III 24-hr 25-Year Rainfall=6.30"

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Page 35

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

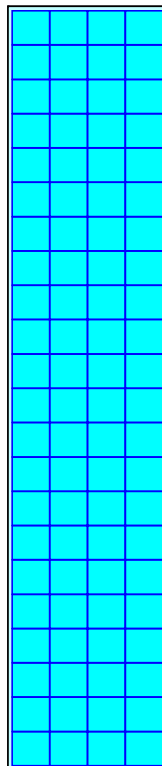
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

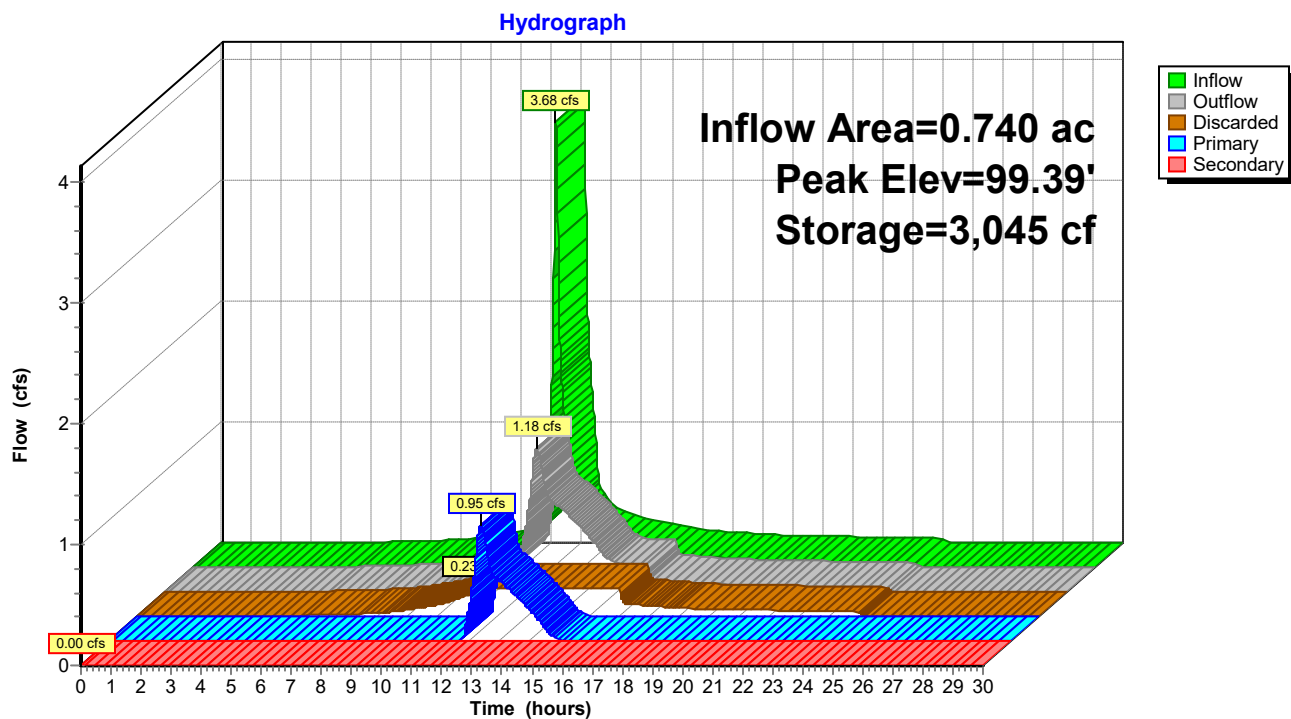
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries

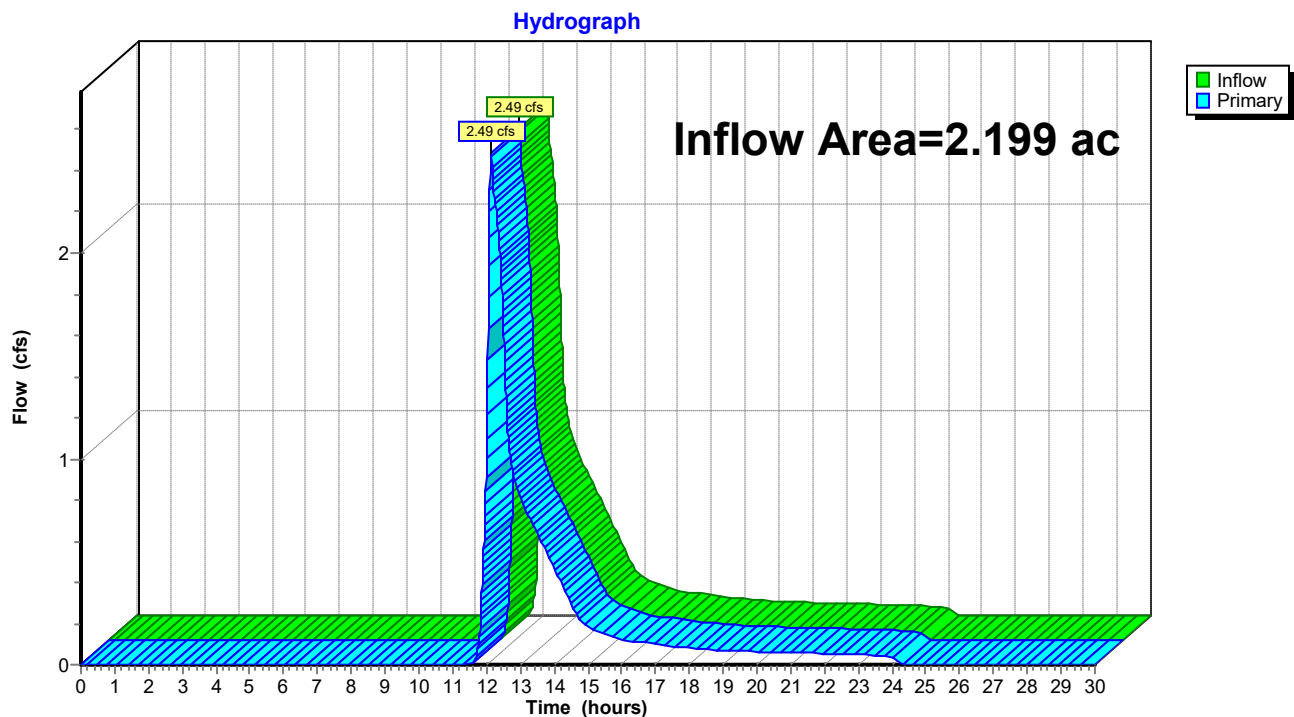


Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 1.50" for 25-Year event
Inflow = 2.49 cfs @ 12.14 hrs, Volume= 0.275 af
Primary = 2.49 cfs @ 12.14 hrs, Volume= 0.275 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 50-Year Rainfall=7.48"

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Page 38

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=4.35"
Tc=5.0 min CN=73 Runoff=1.90 cfs 0.130 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=6.18"
Tc=5.0 min CN=89 Runoff=2.70 cfs 0.196 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=2.14"
Tc=8.2 min CN=52 Runoff=3.10 cfs 0.260 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=99.90' Storage=3,672 cf Inflow=4.60 cfs 0.326 af
Discarded=0.23 cfs 0.185 af Primary=1.43 cfs 0.141 af Secondary=0.00 cfs 0.000 af Outflow=1.66 cfs 0.326 af

Link 1L: Combined Hydrograph

Inflow=4.23 cfs 0.401 af
Primary=4.23 cfs 0.401 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.586 af Average Runoff Depth = 3.20"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 50-Year Rainfall=7.48"

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Page 39

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

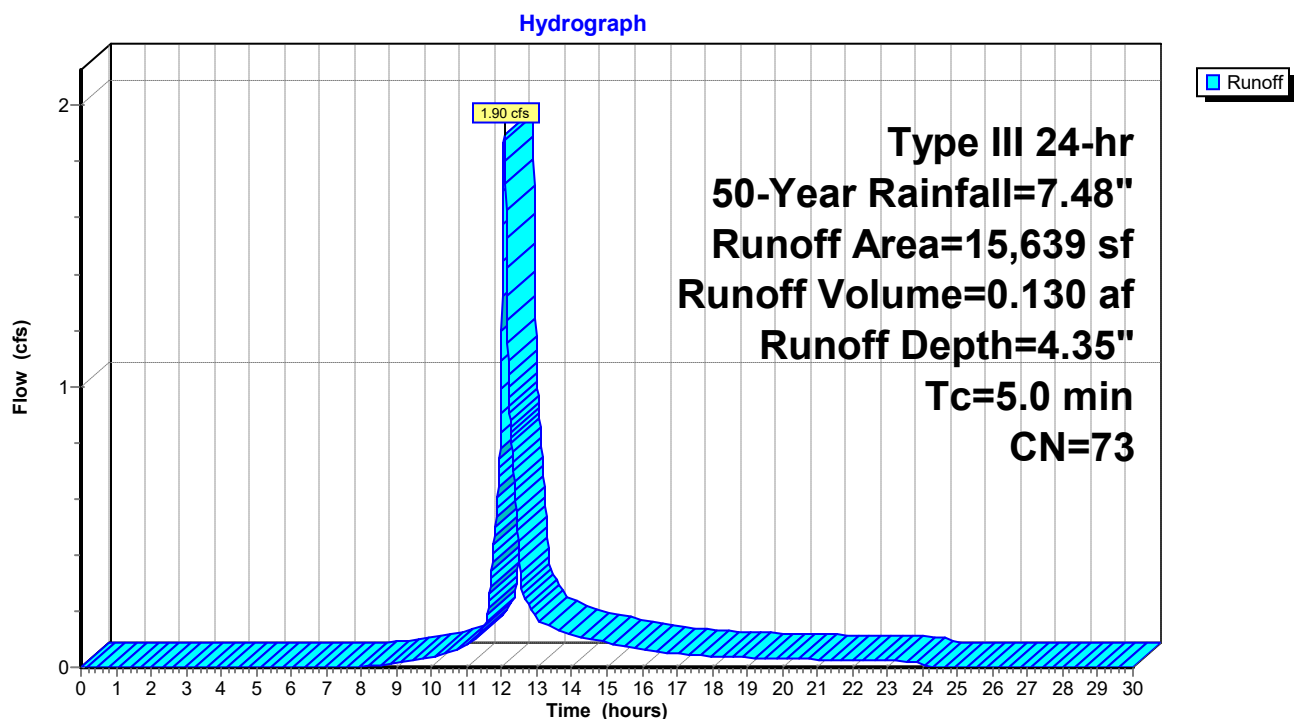
Runoff = 1.90 cfs @ 12.07 hrs, Volume= 0.130 af, Depth= 4.35"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.48"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2



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Type III 24-hr 50-Year Rainfall=7.48"

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Page 40

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

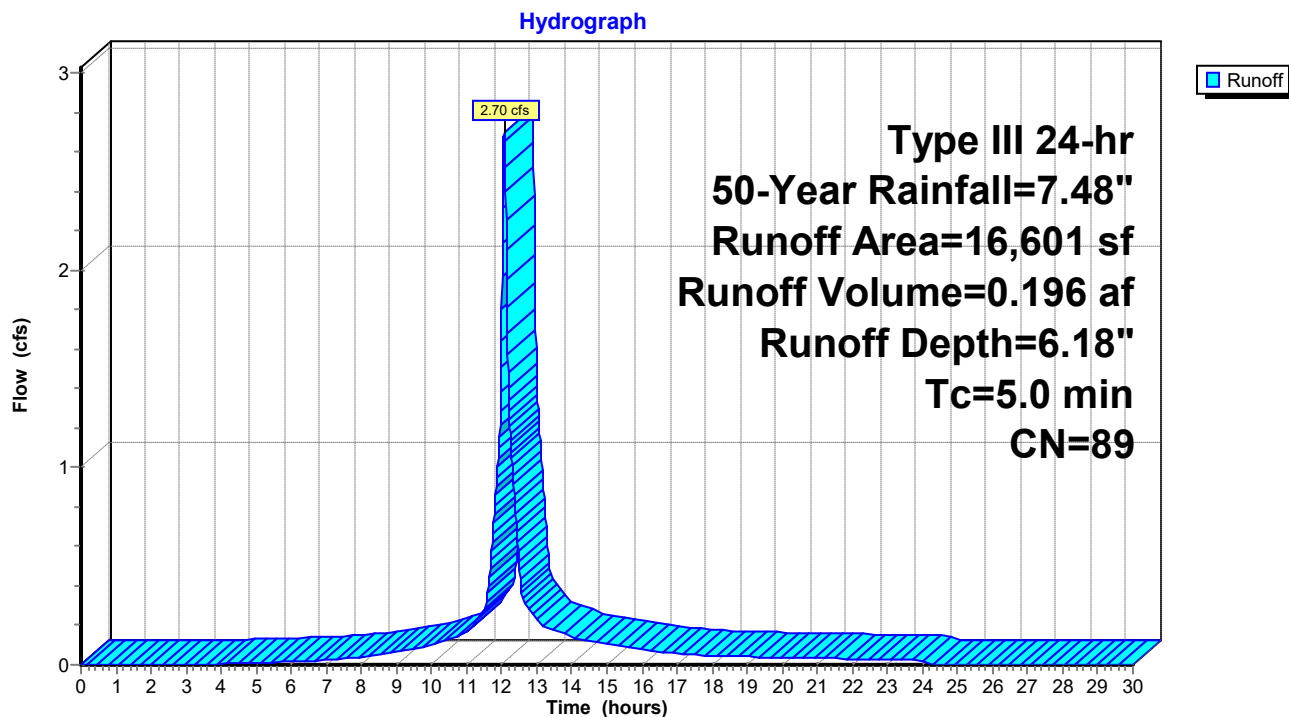
Runoff = 2.70 cfs @ 12.07 hrs, Volume= 0.196 af, Depth= 6.18"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.48"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 50-Year Rainfall=7.48"

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Page 41

Summary for Subcatchment 5S: Areas Not Routed to Retention

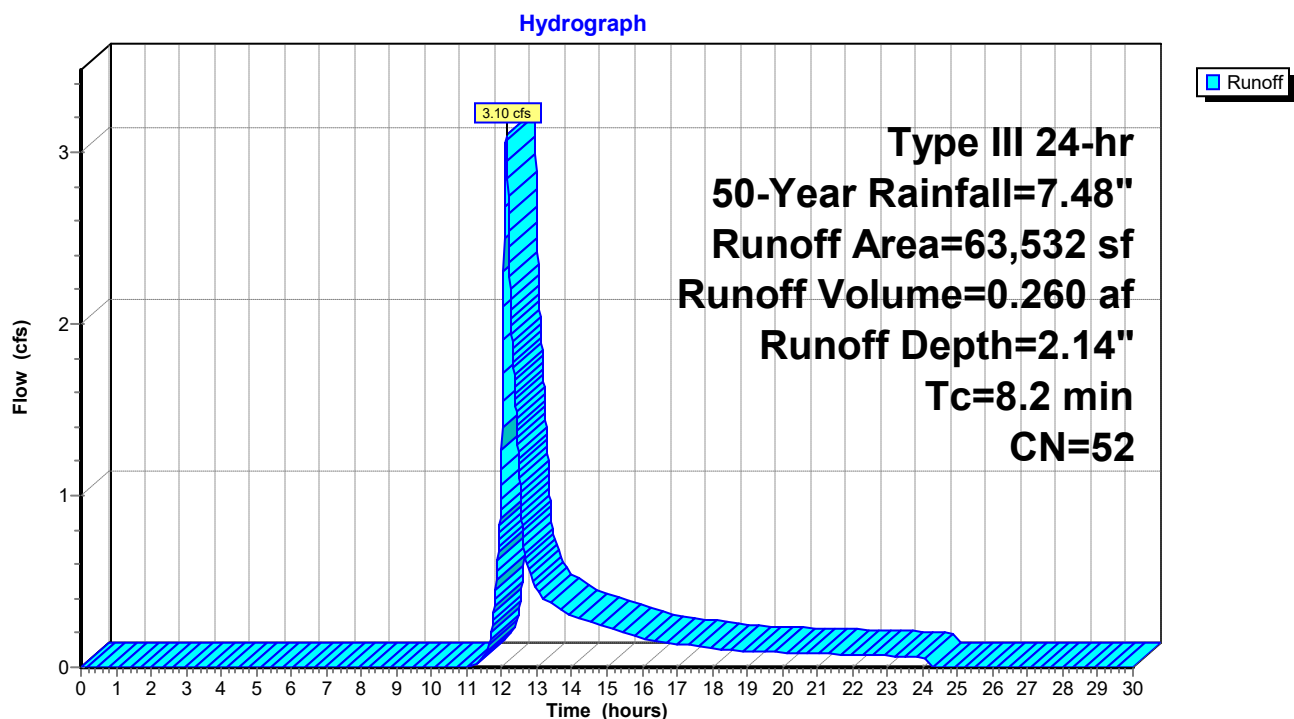
Runoff = 3.10 cfs @ 12.13 hrs, Volume= 0.260 af, Depth= 2.14"
Routed to Link 1L : Combined Hydrograph

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.48"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention



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Type III 24-hr 50-Year Rainfall=7.48"

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Page 42

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 5.29" for 50-Year event
Inflow = 4.60 cfs @ 12.07 hrs, Volume= 0.326 af
Outflow = 1.66 cfs @ 12.32 hrs, Volume= 0.326 af, Atten= 64%, Lag= 15.0 min
Discarded = 0.23 cfs @ 10.94 hrs, Volume= 0.185 af
Primary = 1.43 cfs @ 12.32 hrs, Volume= 0.141 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 99.90' @ 12.32 hrs Surf.Area= 1,655 sf Storage= 3,672 cf

Plug-Flow detention time= 28.8 min calculated for 0.326 af (100% of inflow)
Center-of-Mass det. time= 28.8 min (825.0 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
5,141 cf			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 10.94 hrs HW=96.75' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=1.43 cfs @ 12.32 hrs HW=99.90' (Free Discharge)

↑ **1=Orifice/Grate** (Orifice Controls 0.67 cfs @ 7.67 fps)

↑ **2=Orifice/Grate** (Orifice Controls 0.76 cfs @ 3.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)

↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 50-Year Rainfall=7.48"

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Page 43

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

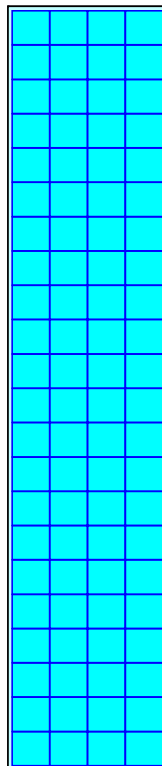
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

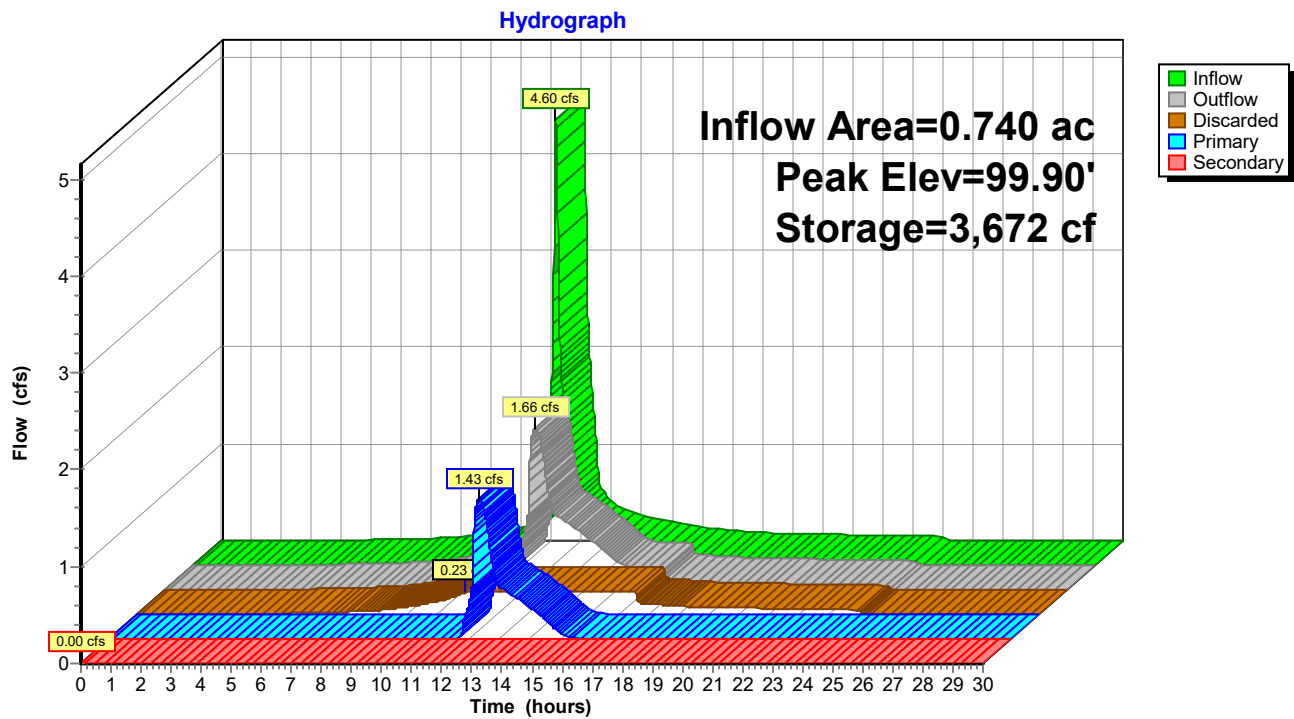
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries

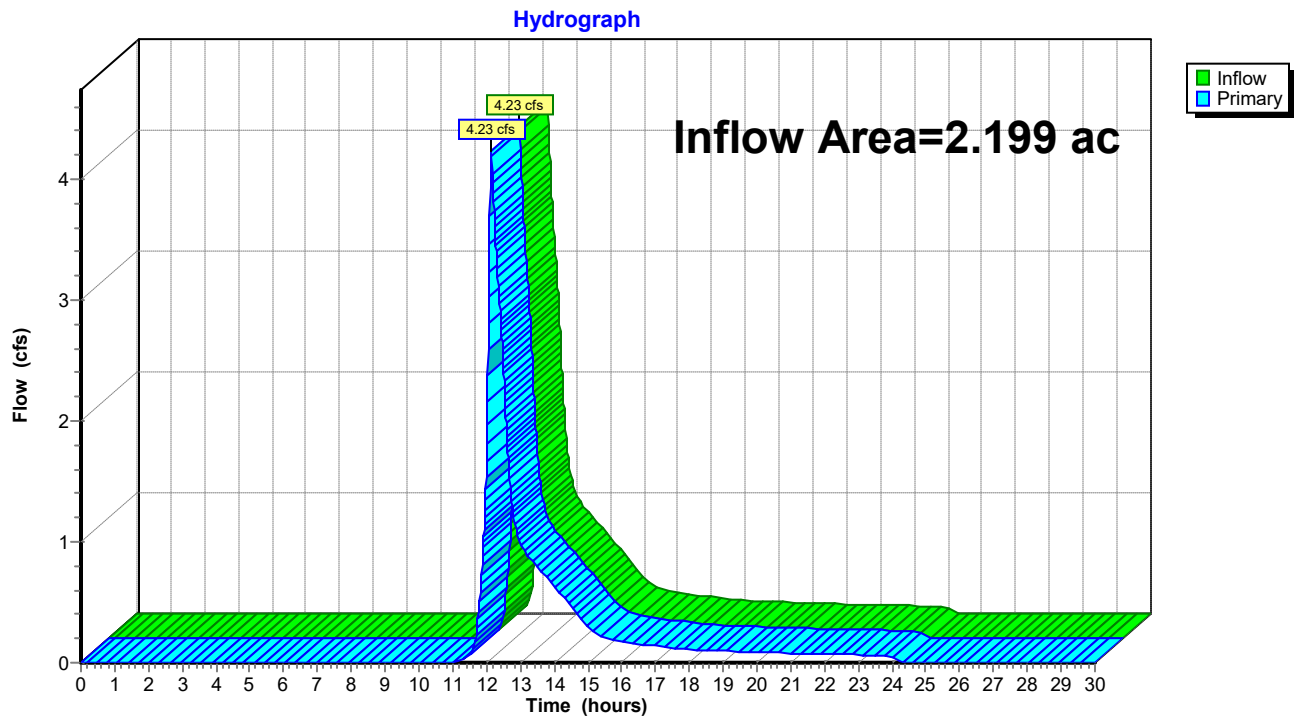


Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 2.19" for 50-Year event
Inflow = 4.23 cfs @ 12.14 hrs, Volume= 0.401 af
Primary = 4.23 cfs @ 12.14 hrs, Volume= 0.401 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 100-Year Rainfall=8.88"

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Page 46

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 3S: Proposed Area 2 from Runoff Area=15,639 sf 50.28% Impervious Runoff Depth=5.60"
Tc=5.0 min CN=73 Runoff=2.43 cfs 0.167 af

Subcatchment 4S: Proposed Area 1 from Runoff Area=16,601 sf 82.30% Impervious Runoff Depth=7.55"
Tc=5.0 min CN=89 Runoff=3.27 cfs 0.240 af

Subcatchment 5S: Areas Not Routed to Runoff Area=63,532 sf 7.66% Impervious Runoff Depth=3.04"
Tc=8.2 min CN=52 Runoff=4.60 cfs 0.370 af

Pond 1P & 2P: 4' x 4' Infiltration Galleries Peak Elev=100.65' Storage=4,580 cf Inflow=5.70 cfs 0.407 af
Discarded=0.23 cfs 0.210 af Primary=1.88 cfs 0.197 af Secondary=0.00 cfs 0.000 af Outflow=2.11 cfs 0.407 af

Link 1L: Combined Hydrograph

Inflow=6.23 cfs 0.567 af
Primary=6.23 cfs 0.567 af

Total Runoff Area = 2.199 ac Runoff Volume = 0.777 af Average Runoff Depth = 4.24"
72.44% Pervious = 1.593 ac 27.56% Impervious = 0.606 ac

Proposed Stormwater Analysis 2026 July 18

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Type III 24-hr 100-Year Rainfall=8.88"

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Page 47

Summary for Subcatchment 3S: Proposed Area 2 from CB 2

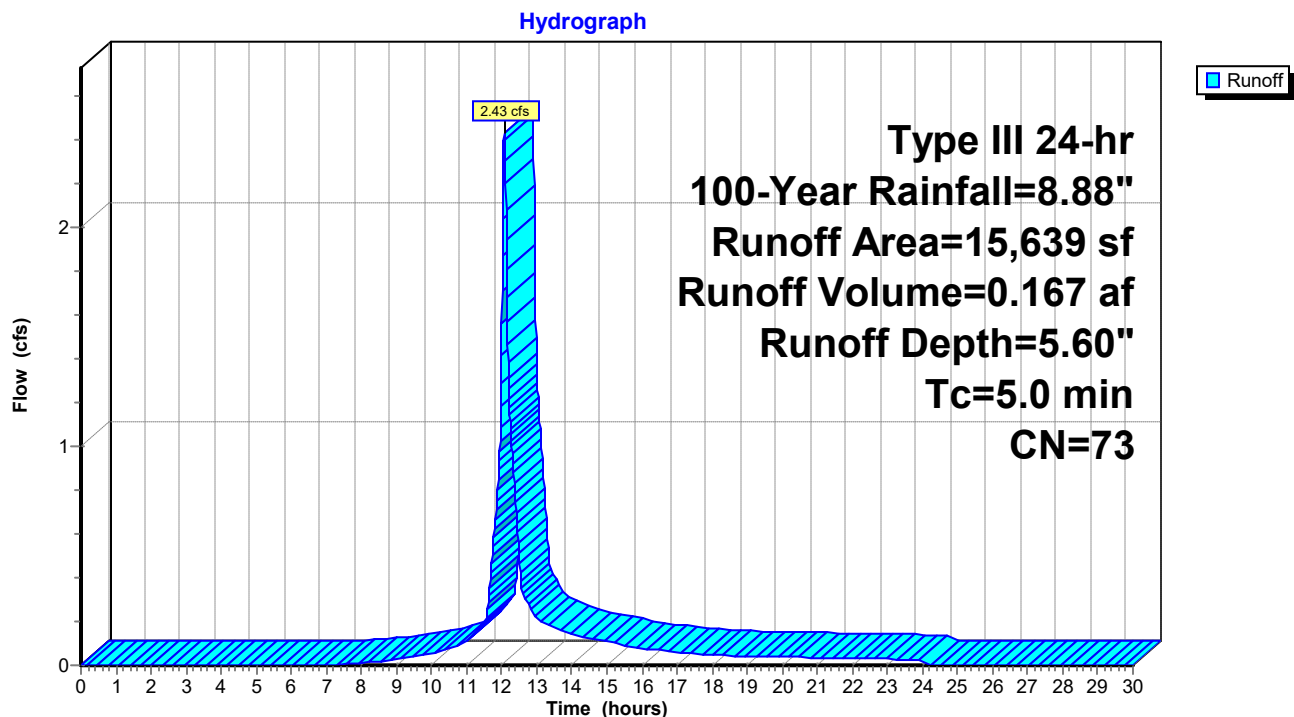
Runoff = 2.43 cfs @ 12.07 hrs, Volume= 0.167 af, Depth= 5.60"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.88"

Area (sf)	CN	Description
7,864	98	Paved parking, HSG B
7,775	48	Brush, Good, HSG B
15,639	73	Weighted Average
7,775		49.72% Pervious Area
7,864		50.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 2 to CB 2

Subcatchment 3S: Proposed Area 2 from CB 2



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Type III 24-hr 100-Year Rainfall=8.88"

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Page 48

Summary for Subcatchment 4S: Proposed Area 1 from CB 1

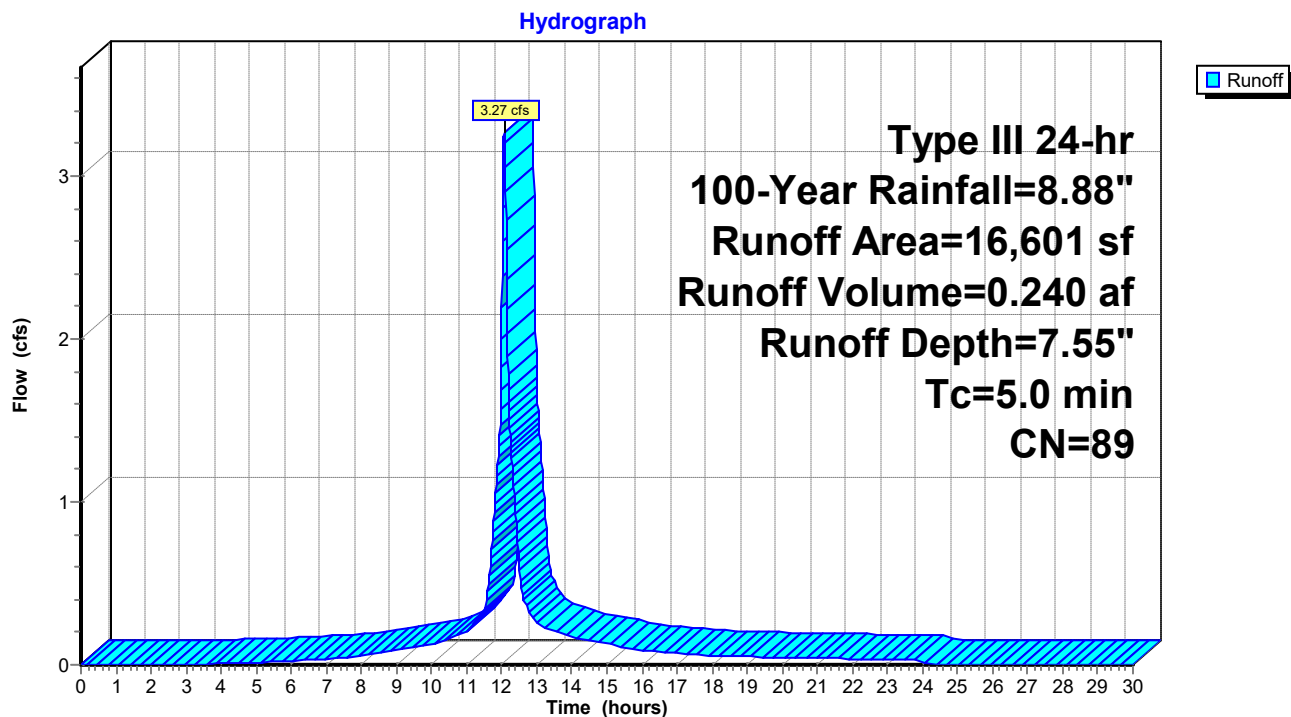
Runoff = 3.27 cfs @ 12.07 hrs, Volume= 0.240 af, Depth= 7.55"
Routed to Pond 1P & 2P : 4' x 4' Infiltration Galleries

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.88"

Area (sf)	CN	Description
2,939	48	Brush, Good, HSG B
8,092	98	Paved parking, HSG B
5,570	98	Roofs, HSG B
16,601	89	Weighted Average
2,939		17.70% Pervious Area
13,662		82.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Area 1 to CB 1

Subcatchment 4S: Proposed Area 1 from CB 1



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Type III 24-hr 100-Year Rainfall=8.88"

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Page 49

Summary for Subcatchment 5S: Areas Not Routed to Retention

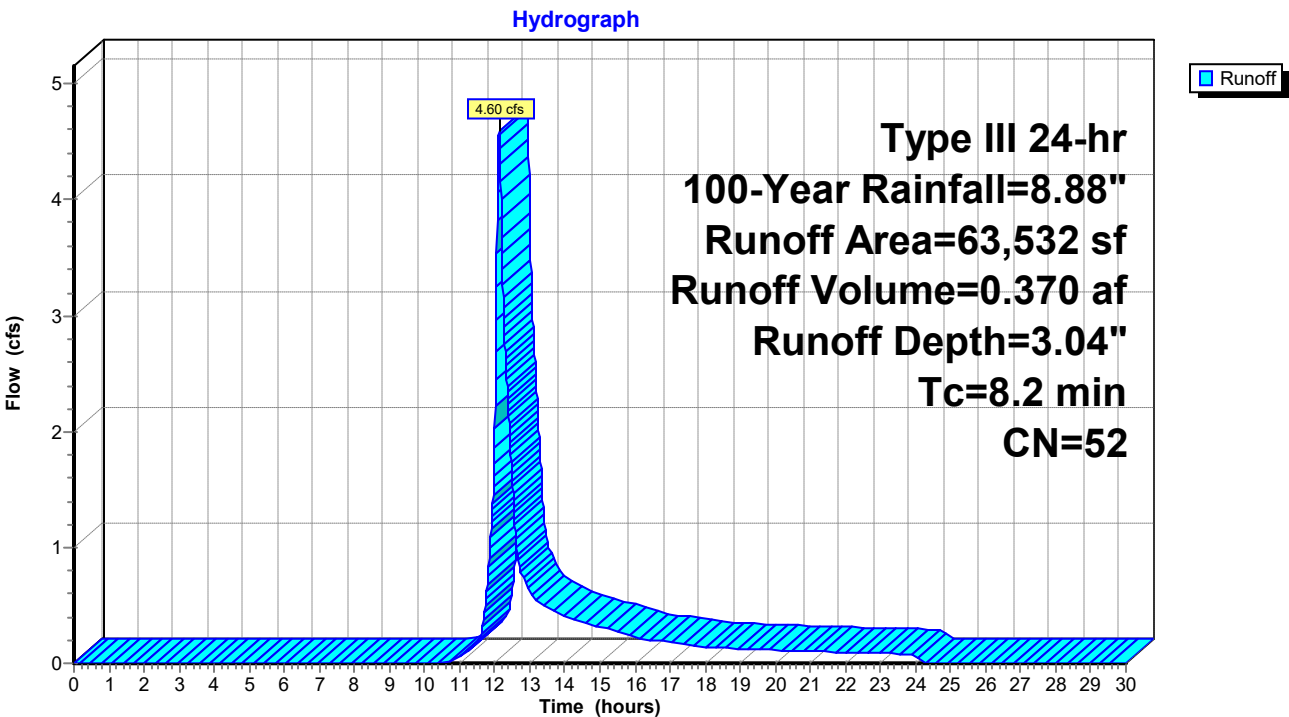
Runoff = 4.60 cfs @ 12.12 hrs, Volume= 0.370 af, Depth= 3.04"
Routed to Link 1L : Combined Hydrograph

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.88"

Area (sf)	CN	Description
58,665	48	Brush, Good, HSG B
4,867	98	Roofs, HSG B
63,532	52	Weighted Average
58,665		92.34% Pervious Area
4,867		7.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2					Direct Entry, Parking area to Catch Basin

Subcatchment 5S: Areas Not Routed to Retention



Proposed Stormwater Analysis 2026 July 18

Type III 24-hr 100-Year Rainfall=8.88"

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Page 50

Summary for Pond 1P & 2P: 4' x 4' Infiltration Galleries

Inflow Area = 0.740 ac, 66.77% Impervious, Inflow Depth = 6.60" for 100-Year event
Inflow = 5.70 cfs @ 12.07 hrs, Volume= 0.407 af
Outflow = 2.11 cfs @ 12.31 hrs, Volume= 0.407 af, Atten= 63%, Lag= 14.2 min
Discarded = 0.23 cfs @ 10.44 hrs, Volume= 0.210 af
Primary = 1.88 cfs @ 12.31 hrs, Volume= 0.197 af
Routed to Link 1L : Combined Hydrograph
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 1L : Combined Hydrograph

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 100.65' @ 12.31 hrs Surf.Area= 1,655 sf Storage= 4,580 cf

Plug-Flow detention time= 29.5 min calculated for 0.407 af (100% of inflow)
Center-of-Mass det. time= 29.5 min (820.2 - 790.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	96.70'	1,238 cf	18.60'W x 89.00'L x 5.00'H Field A 8,277 cf Overall - 5,181 cf Embedded = 3,096 cf x 40.0% Voids
#2A	97.20'	3,902 cf	Concrete Galley 4x4x4 x 88 Inside #1 Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf 88 Chambers in 4 Rows
		5,141 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	97.20'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Primary	99.00'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	101.00'	4.0' 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
#4	Discarded	96.70'	6.000 in/hr Exfiltration over Horizontal area

Discarded OutFlow Max=0.23 cfs @ 10.44 hrs HW=96.75' (Free Discharge)
↑ **4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=1.88 cfs @ 12.31 hrs HW=100.65' (Free Discharge)
↑ **1=Orifice/Grate** (Orifice Controls 0.76 cfs @ 8.72 fps)
↑ **2=Orifice/Grate** (Orifice Controls 1.12 cfs @ 5.69 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=96.70' (Free Discharge)
↑ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Type III 24-hr 100-Year Rainfall=8.88"

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Page 51

Pond 1P & 2P: 4' x 4' Infiltration Galleries - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x4x4 (Concrete Galley, UCPI 4x4x4 Galley or equivalent)

Inside= 42.0"W x 43.0"H => 12.67 sf x 3.50'L = 44.3 cf

Outside= 52.8"W x 48.0"H => 14.72 sf x 4.00'L = 58.9 cf

22 Chambers/Row x 4.00' Long = 88.00' Row Length +6.0" End Stone x 2 = 89.00' Base Length

4 Rows x 52.8" Wide + 6.0" Side Stone x 2 = 18.60' Base Width

6.0" Stone Base + 48.0" Chamber Height + 6.0" Stone Cover = 5.00' Field Height

88 Chambers x 44.3 cf = 3,902.3 cf Chamber Storage

88 Chambers x 58.9 cf = 5,181.1 cf Displacement

8,277.0 cf Field - 5,181.1 cf Chambers = 3,095.9 cf Stone x 40.0% Voids = 1,238.4 cf Stone Storage

Chamber Storage + Stone Storage = 5,140.7 cf = 0.118 af

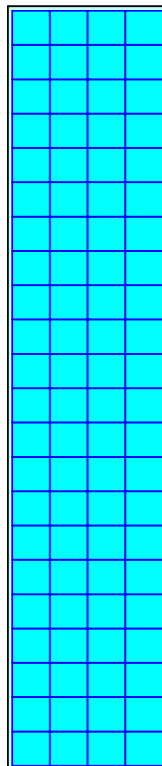
Overall Storage Efficiency = 62.1%

Overall System Size = 89.00' x 18.60' x 5.00'

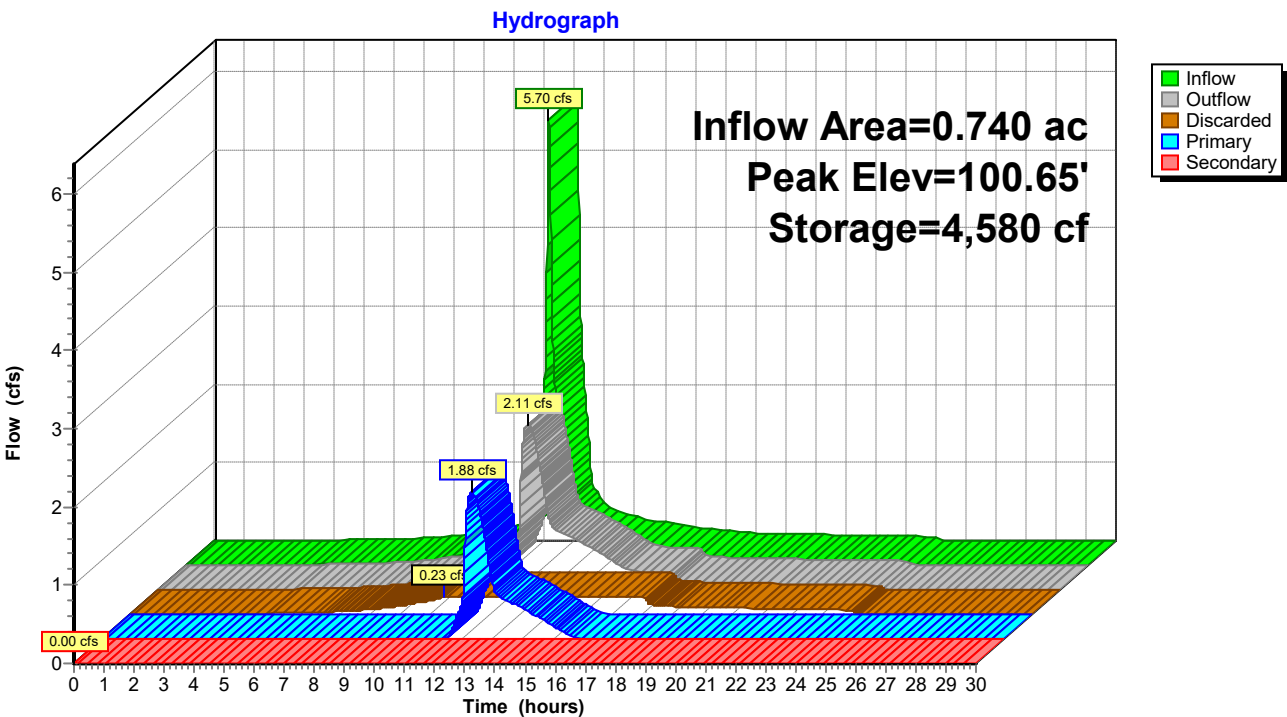
88 Chambers

306.6 cy Field

114.7 cy Stone



Pond 1P & 2P: 4' x 4' Infiltration Galleries



Summary for Link 1L: Combined Hydrograph

Inflow Area = 2.199 ac, 27.56% Impervious, Inflow Depth = 3.10" for 100-Year event
Inflow = 6.23 cfs @ 12.13 hrs, Volume= 0.567 af
Primary = 6.23 cfs @ 12.13 hrs, Volume= 0.567 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 3L

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link 1L: Combined Hydrograph

