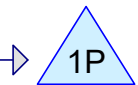




Sub-Catchment 1



Outfall # 1 - Resource
Area West



Sub-Catchment 2



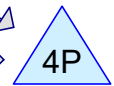
Outfall #2 to CB



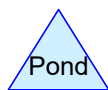
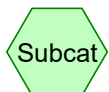
(new Pond)



Sub-Catchment 4



Outfall # 4 - Resource
Area North Corner



Routing Diagram for Pret Development Analysis - MS 11-2-25
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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.171	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S)
0.037	98	Paved parking, HSG D (3S)
0.084	98	Unconnected pavement, HSG D (2S)
4.292	81	TOTAL AREA

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Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
4.292	HSG D	1S, 2S, 3S
0.000	Other	
4.292		TOTAL AREA

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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	0.000	0.000	4.171	0.000	4.171	>75% Grass cover, Good	1S, 2S, 3S
0.000	0.000	0.000	0.037	0.000	0.037	Paved parking	3S
0.000	0.000	0.000	0.084	0.000	0.084	Unconnected pavement	2S
0.000	0.000	0.000	4.292	0.000	4.292	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	2P	134.36	132.70	215.0	0.0077	0.011	12.0	0.0	0.0
2	5P	129.50	127.39	430.0	0.0049	0.011	21.0	0.0	0.0

Pret Development Analysis - MS 11-2-25*Type III 24-hr 2-Year Rainfall=3.28"*

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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 1S: Sub-Catchment 1 Runoff Area=0.967 ac 0.00% Impervious Runoff Depth=1.46"
Flow Length=388' Slope=0.0150 '/' Tc=13.0 min CN=80 Runoff=1.31 cfs 0.118 af

Subcatchment 2S: Sub-Catchment 2 Runoff Area=0.585 ac 14.36% Impervious Runoff Depth=1.53"
Flow Length=128' Tc=3.9 min UI Adjusted CN=81 Runoff=1.13 cfs 0.075 af

Subcatchment 3S: Sub-Catchment 4 Runoff Area=2.740 ac 1.35% Impervious Runoff Depth=1.46"
Flow Length=460' Slope=0.0150 '/' Tc=14.4 min CN=80 Runoff=3.57 cfs 0.334 af

Pond 1P: Outfall # 1 - Resource Area West Inflow=1.31 cfs 0.118 af
Primary=1.31 cfs 0.118 af

Pond 2P: Outfall #2 to CB Peak Elev=134.88' Inflow=1.13 cfs 0.075 af
12.0" Round Culvert n=0.011 L=215.0' S=0.0077 '/' Outflow=1.13 cfs 0.075 af

Pond 4P: Outfall # 4 - Resource Area North Corner Inflow=4.12 cfs 0.409 af
Primary=4.12 cfs 0.409 af

Pond 5P: (new Pond) Peak Elev=129.97' Inflow=1.13 cfs 0.075 af
21.0" Round Culvert n=0.011 L=430.0' S=0.0049 '/' Outflow=1.13 cfs 0.075 af

Total Runoff Area = 4.292 ac Runoff Volume = 0.527 af Average Runoff Depth = 1.47"
97.18% Pervious = 4.171 ac 2.82% Impervious = 0.121 ac

Pret Development Analysis - MS 11-2-25

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Type III 24-hr 2-Year Rainfall=3.28"

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Summary for Subcatchment 1S: Sub-Catchment 1

Runoff = 1.31 cfs @ 12.18 hrs, Volume= 0.118 af, Depth= 1.46"

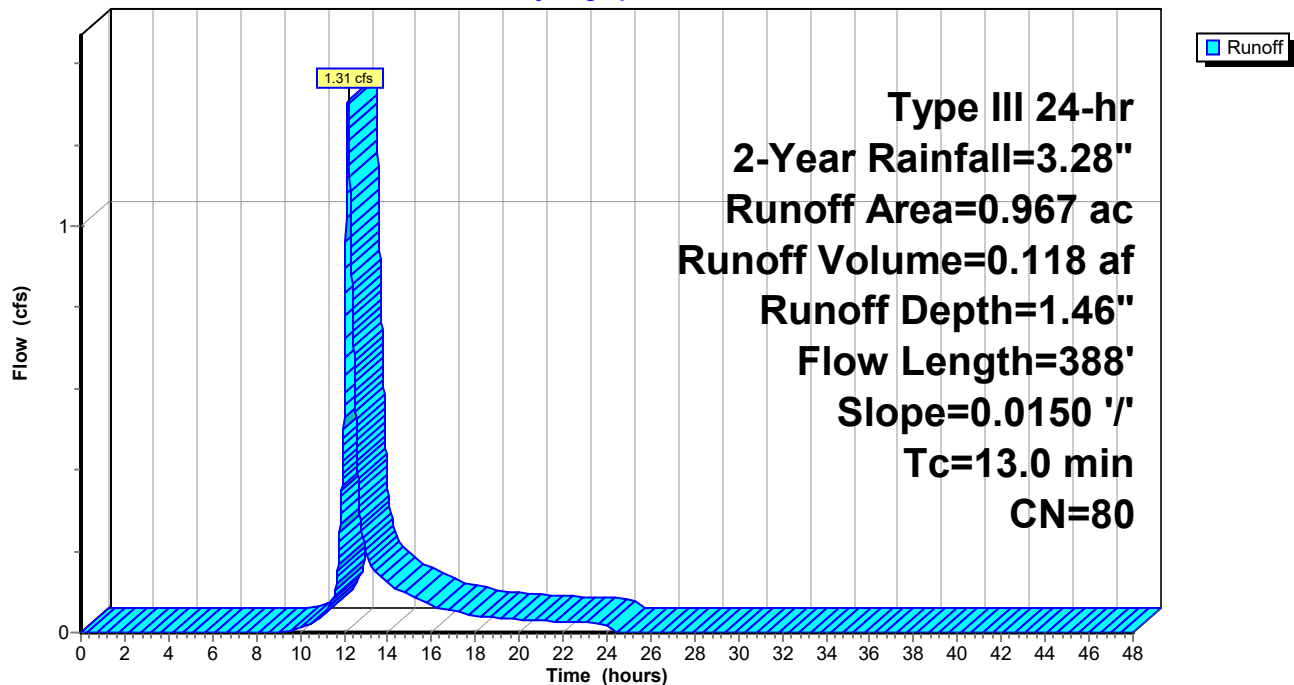
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.28"

Area (ac)	CN	Description
0.967	80	>75% Grass cover, Good, HSG D
0.967		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Greass Area Grass: Short n= 0.150 P2= 3.10"
6.6	338	0.0150	0.86		Shallow Concentrated Flow, Grass Field Short Grass Pasture Kv= 7.0 fps
13.0	388	Total			

Subcatchment 1S: Sub-Catchment 1

Hydrograph



Pret Development Analysis - MS 11-2-25

Type III 24-hr 2-Year Rainfall=3.28"

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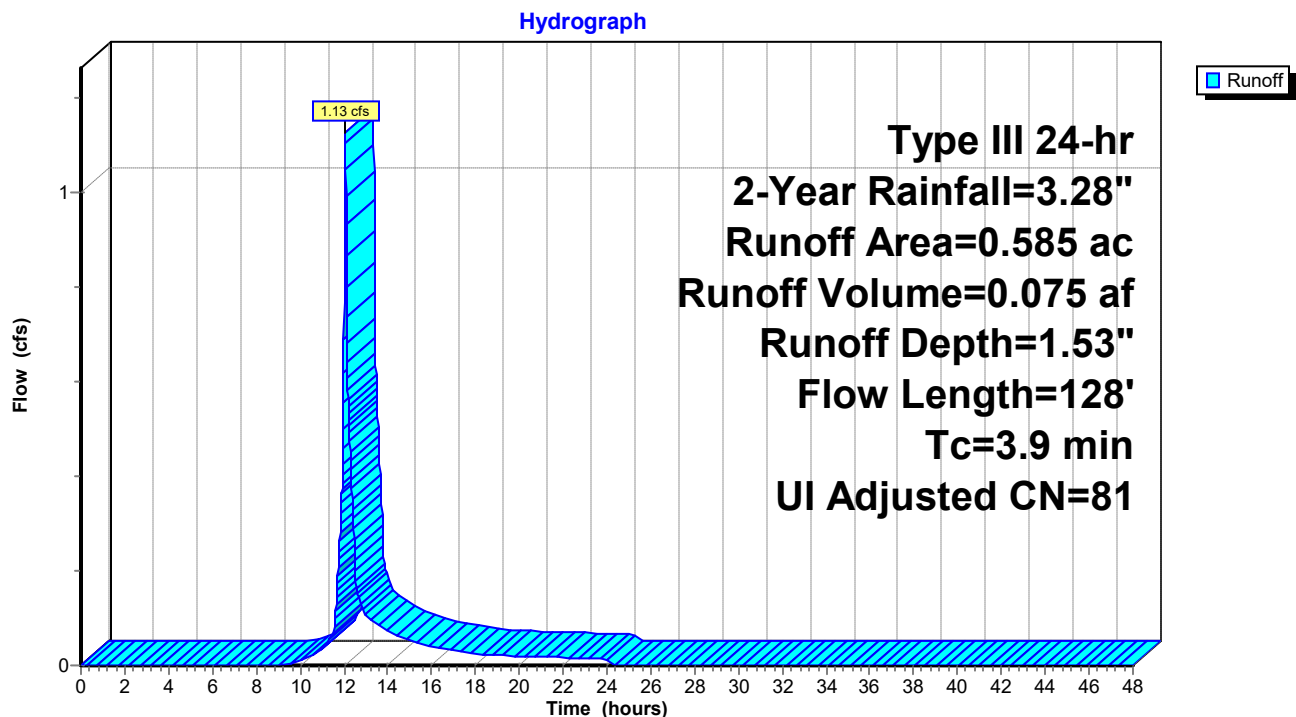
Summary for Subcatchment 2S: Sub-Catchment 2

Runoff = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.28"

Area (ac)	CN	Adj	Description
0.084	98		Unconnected pavement, HSG D
0.501	80		>75% Grass cover, Good, HSG D
0.585	83	81	Weighted Average, UI Adjusted
0.501			85.64% Pervious Area
0.084			14.36% Impervious Area
0.084			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		Sheet Flow, Grass Hill
					Grass: Short n= 0.150 P2= 3.10"
0.6	78	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.9	128	Total			

Subcatchment 2S: Sub-Catchment 2

Pret Development Analysis - MS 11-2-25

Type III 24-hr 2-Year Rainfall=3.28"

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Summary for Subcatchment 3S: Sub-Catchment 4

Runoff = 3.57 cfs @ 12.21 hrs, Volume= 0.334 af, Depth= 1.46"

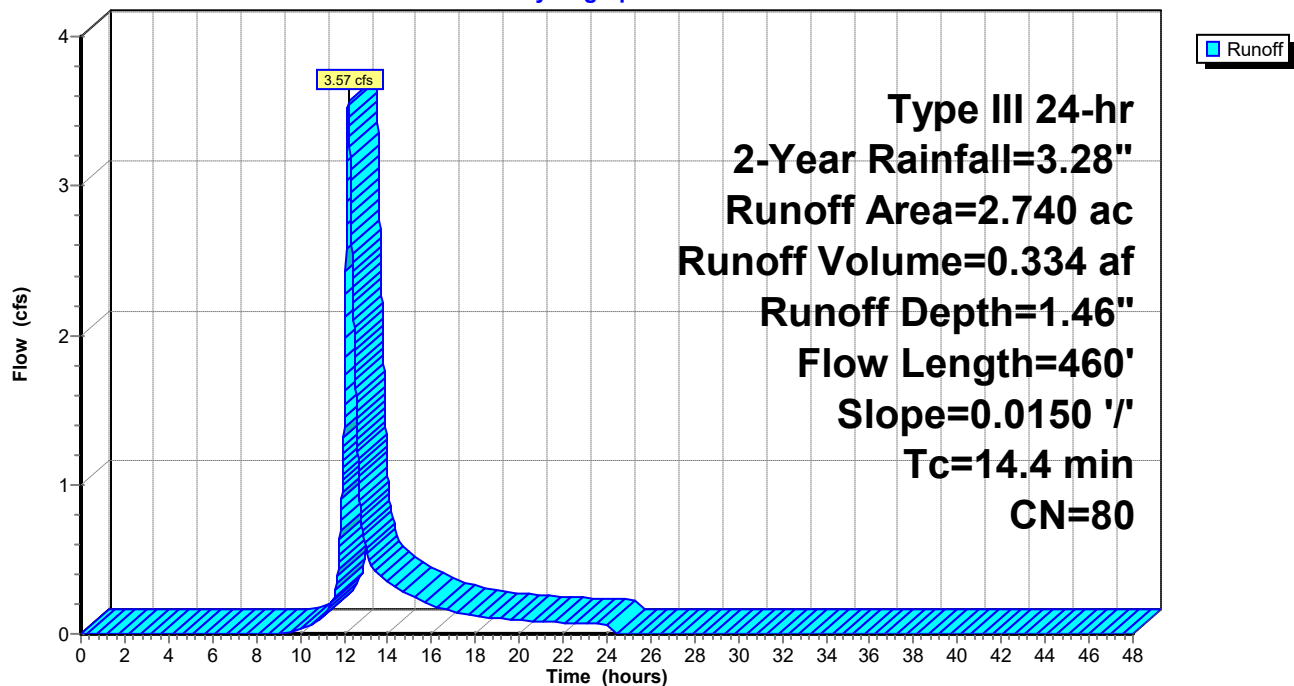
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.28"

Area (ac)	CN	Description
0.037	98	Paved parking, HSG D
2.703	80	>75% Grass cover, Good, HSG D
2.740	80	Weighted Average
2.703		98.65% Pervious Area
0.037		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Clay Infield
					Grass: Short n= 0.150 P2= 3.10"
8.0	410	0.0150	0.86		Shallow Concentrated Flow, Grass Field
					Short Grass Pasture Kv= 7.0 fps
14.4	460	Total			

Subcatchment 3S: Sub-Catchment 4

Hydrograph



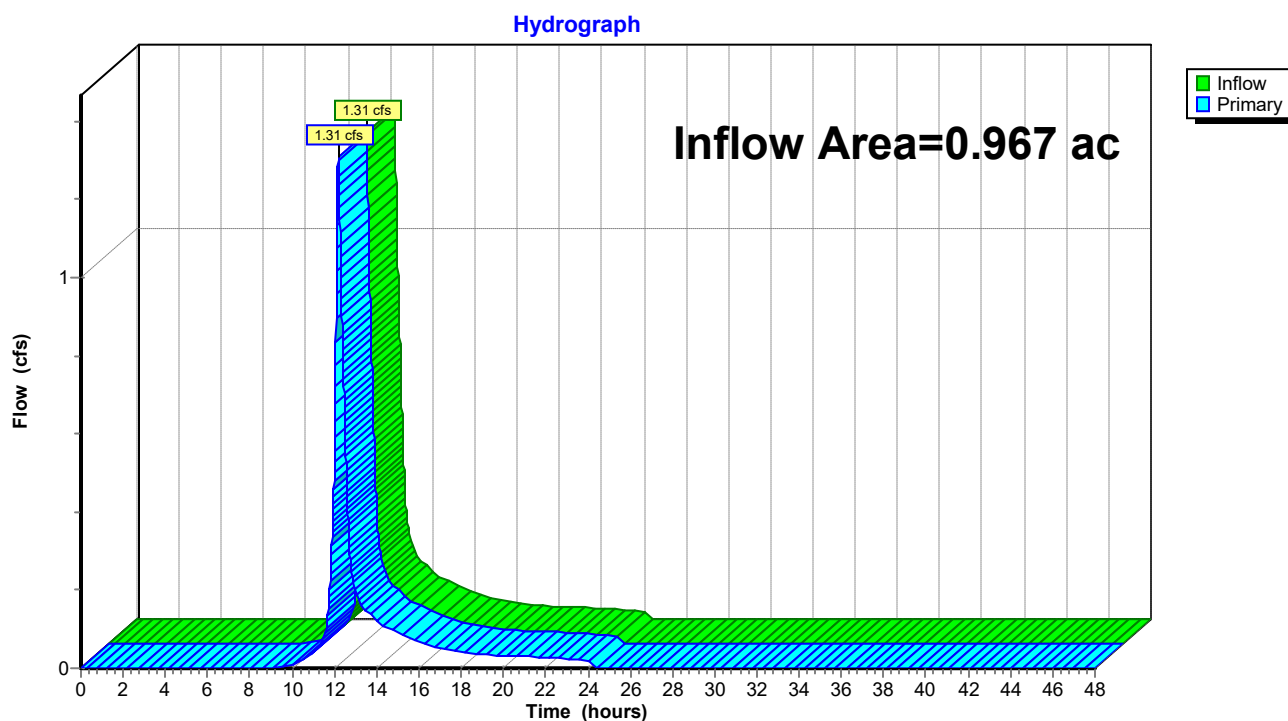
Summary for Pond 1P: Outfall # 1 - Resource Area West

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.967 ac, 0.00% Impervious, Inflow Depth = 1.46" for 2-Year event
 Inflow = 1.31 cfs @ 12.18 hrs, Volume= 0.118 af
 Primary = 1.31 cfs @ 12.18 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 1P: Outfall # 1 - Resource Area West



Summary for Pond 2P: Outfall #2 to CB

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 1.53" for 2-Year event
 Inflow = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af
 Outflow = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 134.88' @ 12.06 hrs

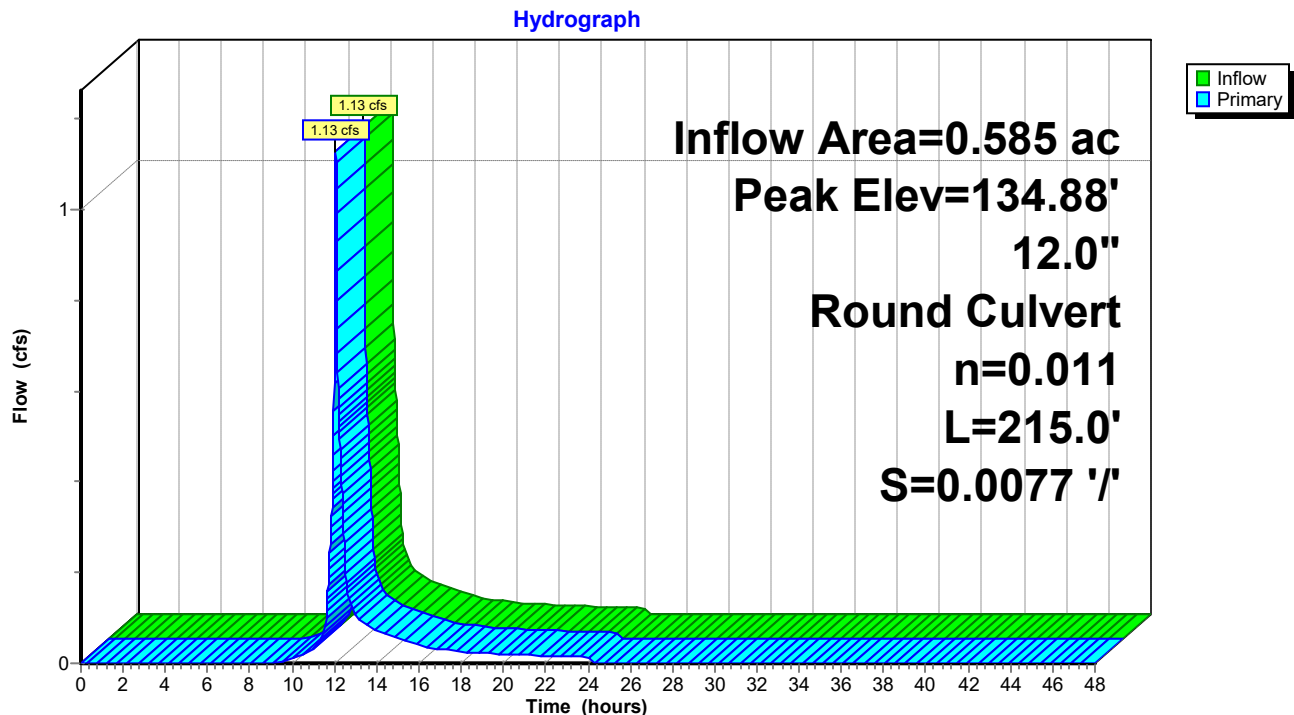
Flood Elev= 138.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	134.36'	12.0" Round Culvert L= 215.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 134.36' / 132.70' S= 0.0077 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=1.13 cfs @ 12.06 hrs HW=134.88' (Free Discharge)

↑1=Culvert (Barrel Controls 1.13 cfs @ 3.98 fps)

Pond 2P: Outfall #2 to CB



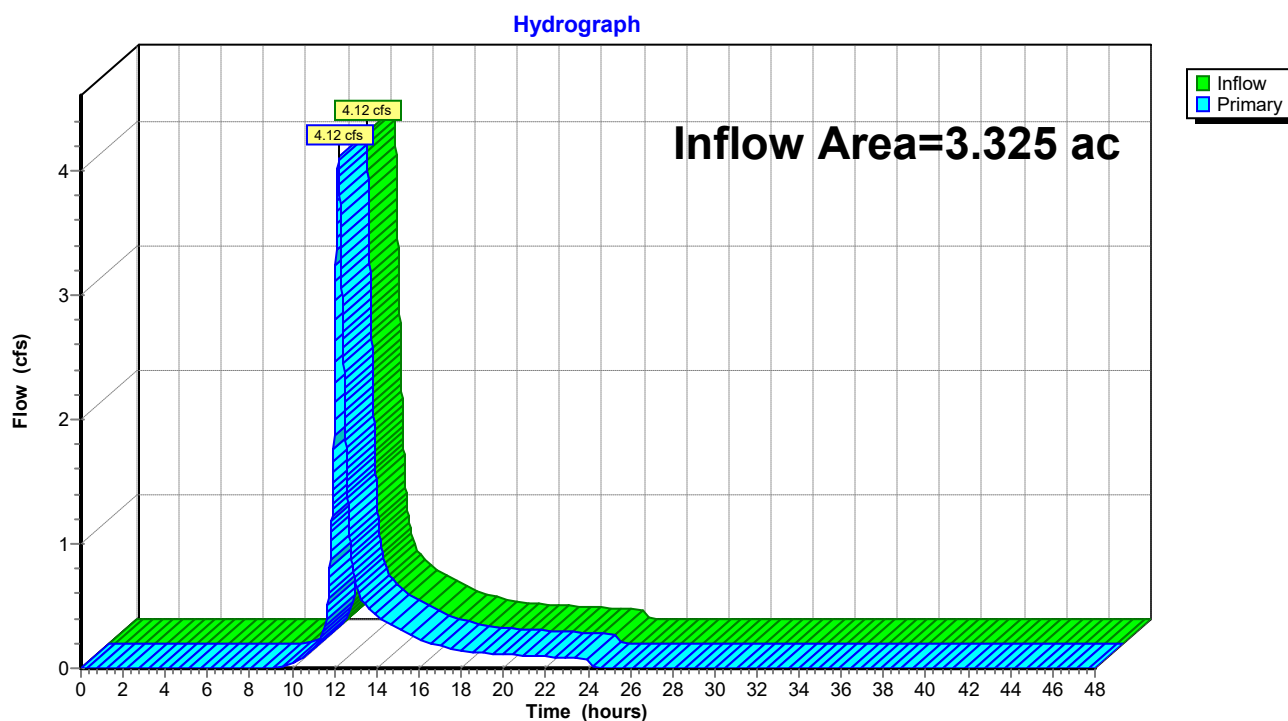
Summary for Pond 4P: Outfall # 4 - Resource Area North Corner

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.325 ac, 3.64% Impervious, Inflow Depth = 1.48" for 2-Year event
 Inflow = 4.12 cfs @ 12.20 hrs, Volume= 0.409 af
 Primary = 4.12 cfs @ 12.20 hrs, Volume= 0.409 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 4P: Outfall # 4 - Resource Area North Corner



Summary for Pond 5P: (new Pond)

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 1.53" for 2-Year event
 Inflow = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af
 Outflow = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.13 cfs @ 12.06 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 129.97' @ 12.06 hrs

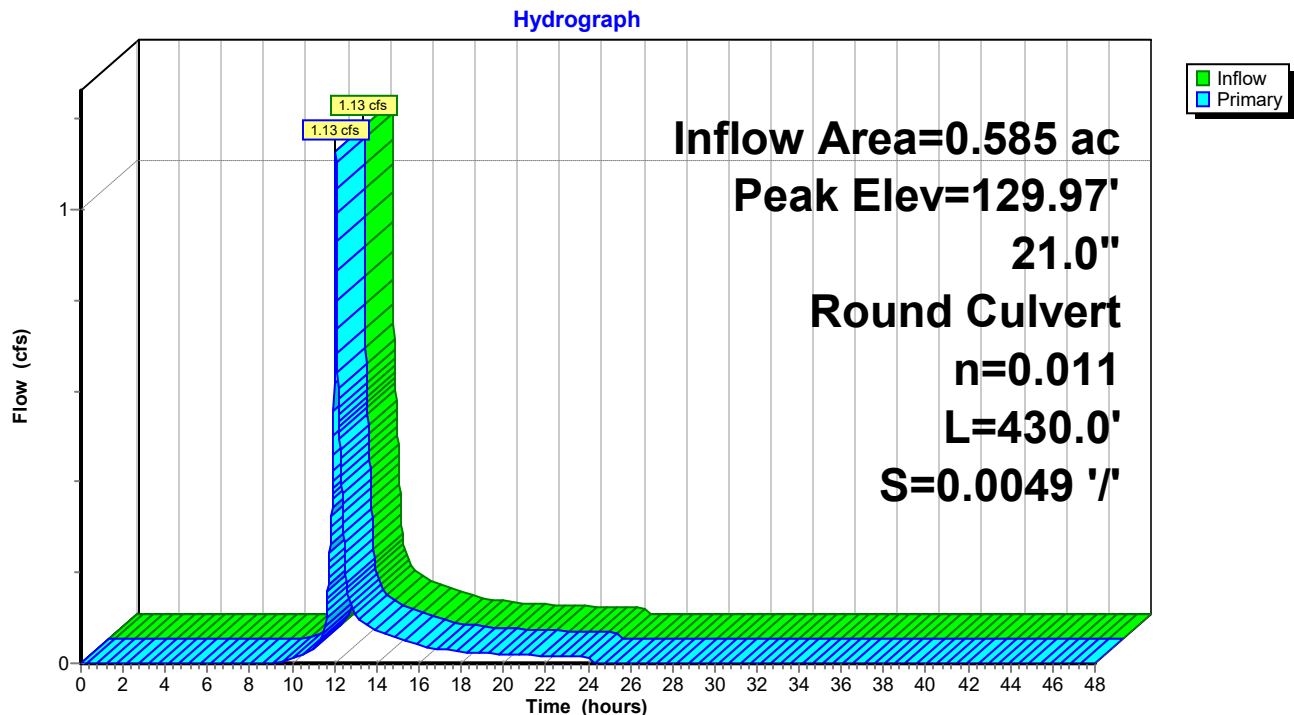
Flood Elev= 138.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	21.0" Round Culvert L= 430.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 129.50' / 127.39' S= 0.0049 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 2.41 sf

Primary OutFlow Max=1.13 cfs @ 12.06 hrs HW=129.97' (Free Discharge)

↑1=Culvert (Barrel Controls 1.13 cfs @ 3.28 fps)

Pond 5P: (new Pond)



Pret Development Analysis - MS 11-2-25*Type III 24-hr 10-Year Rainfall=5.18"*

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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 1S: Sub-Catchment 1 Runoff Area=0.967 ac 0.00% Impervious Runoff Depth=3.05"
Flow Length=388' Slope=0.0150 '/' Tc=13.0 min CN=80 Runoff=2.76 cfs 0.246 af

Subcatchment 2S: Sub-Catchment 2 Runoff Area=0.585 ac 14.36% Impervious Runoff Depth=3.14"
Flow Length=128' Tc=3.9 min UI Adjusted CN=81 Runoff=2.32 cfs 0.153 af

Subcatchment 3S: Sub-Catchment 4 Runoff Area=2.740 ac 1.35% Impervious Runoff Depth=3.05"
Flow Length=460' Slope=0.0150 '/' Tc=14.4 min CN=80 Runoff=7.53 cfs 0.697 af

Pond 1P: Outfall # 1 - Resource Area West Inflow=2.76 cfs 0.246 af
Primary=2.76 cfs 0.246 af

Pond 2P: Outfall #2 to CB Peak Elev=135.16' Inflow=2.32 cfs 0.153 af
12.0" Round Culvert n=0.011 L=215.0' S=0.0077 '/' Outflow=2.32 cfs 0.153 af

Pond 4P: Outfall # 4 - Resource Area North Corner Inflow=8.63 cfs 0.850 af
Primary=8.63 cfs 0.850 af

Pond 5P: (new Pond) Peak Elev=130.18' Inflow=2.32 cfs 0.153 af
21.0" Round Culvert n=0.011 L=430.0' S=0.0049 '/' Outflow=2.32 cfs 0.153 af

Total Runoff Area = 4.292 ac Runoff Volume = 1.096 af Average Runoff Depth = 3.06"
97.18% Pervious = 4.171 ac 2.82% Impervious = 0.121 ac

Pret Development Analysis - MS 11-2-25

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Type III 24-hr 10-Year Rainfall=5.18"

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Summary for Subcatchment 1S: Sub-Catchment 1

Runoff = 2.76 cfs @ 12.18 hrs, Volume= 0.246 af, Depth= 3.05"

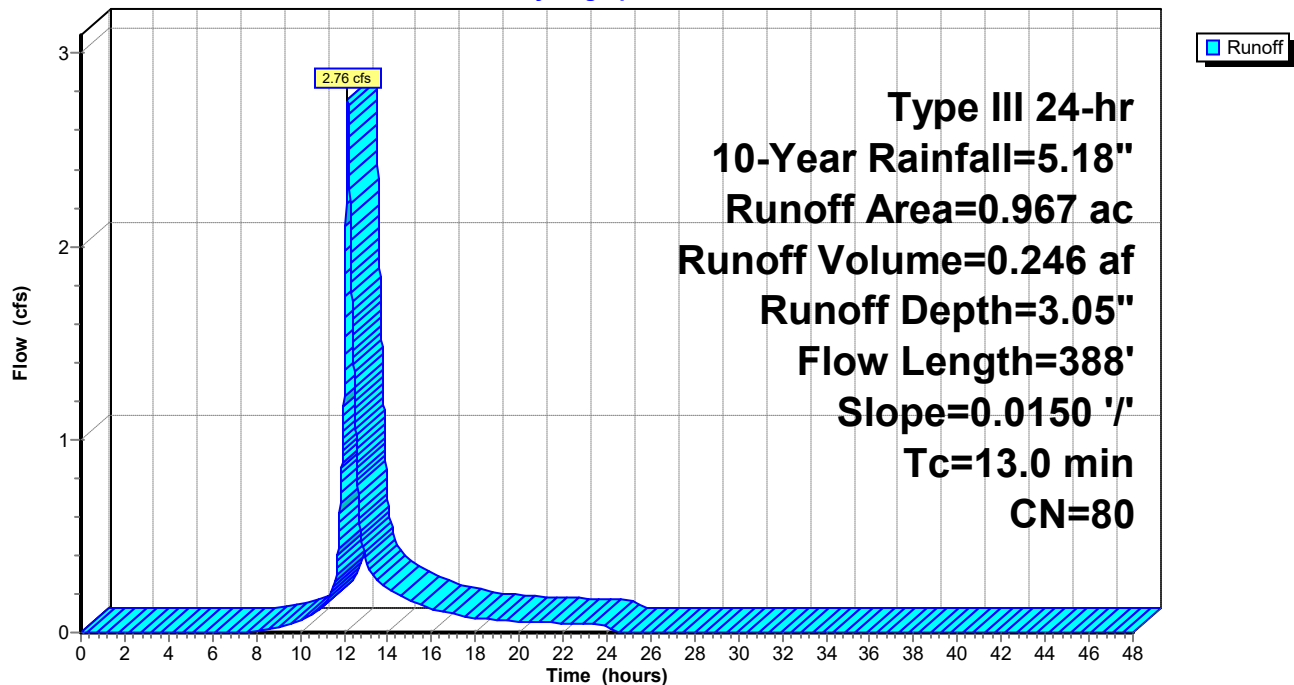
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.18"

Area (ac)	CN	Description
0.967	80	>75% Grass cover, Good, HSG D
0.967		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Greass Area Grass: Short n= 0.150 P2= 3.10"
6.6	338	0.0150	0.86		Shallow Concentrated Flow, Grass Field Short Grass Pasture Kv= 7.0 fps
13.0	388	Total			

Subcatchment 1S: Sub-Catchment 1

Hydrograph



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Type III 24-hr 10-Year Rainfall=5.18"

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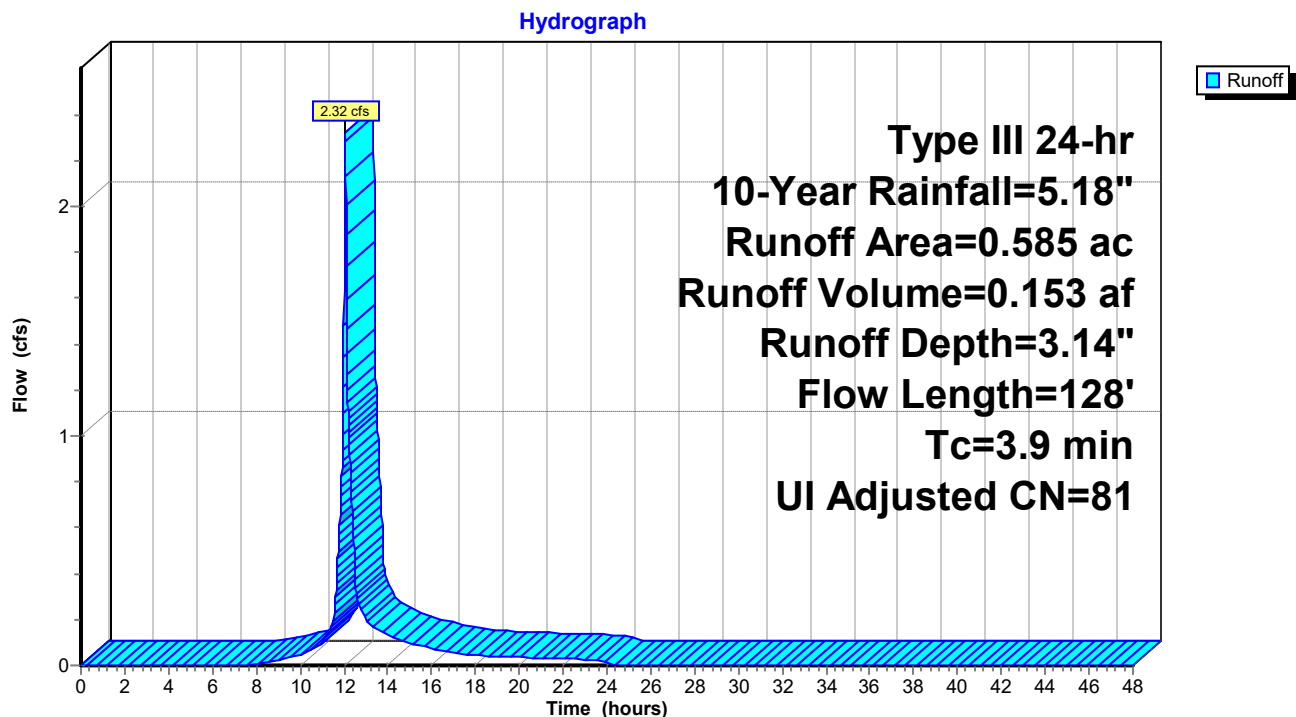
Summary for Subcatchment 2S: Sub-Catchment 2

Runoff = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.18"

Area (ac)	CN	Adj	Description
0.084	98		Unconnected pavement, HSG D
0.501	80		>75% Grass cover, Good, HSG D
0.585	83	81	Weighted Average, UI Adjusted
0.501			85.64% Pervious Area
0.084			14.36% Impervious Area
0.084			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		Sheet Flow, Grass Hill
					Grass: Short n= 0.150 P2= 3.10"
0.6	78	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.9	128	Total			

Subcatchment 2S: Sub-Catchment 2

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Type III 24-hr 10-Year Rainfall=5.18"

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Summary for Subcatchment 3S: Sub-Catchment 4

Runoff = 7.53 cfs @ 12.20 hrs, Volume= 0.697 af, Depth= 3.05"

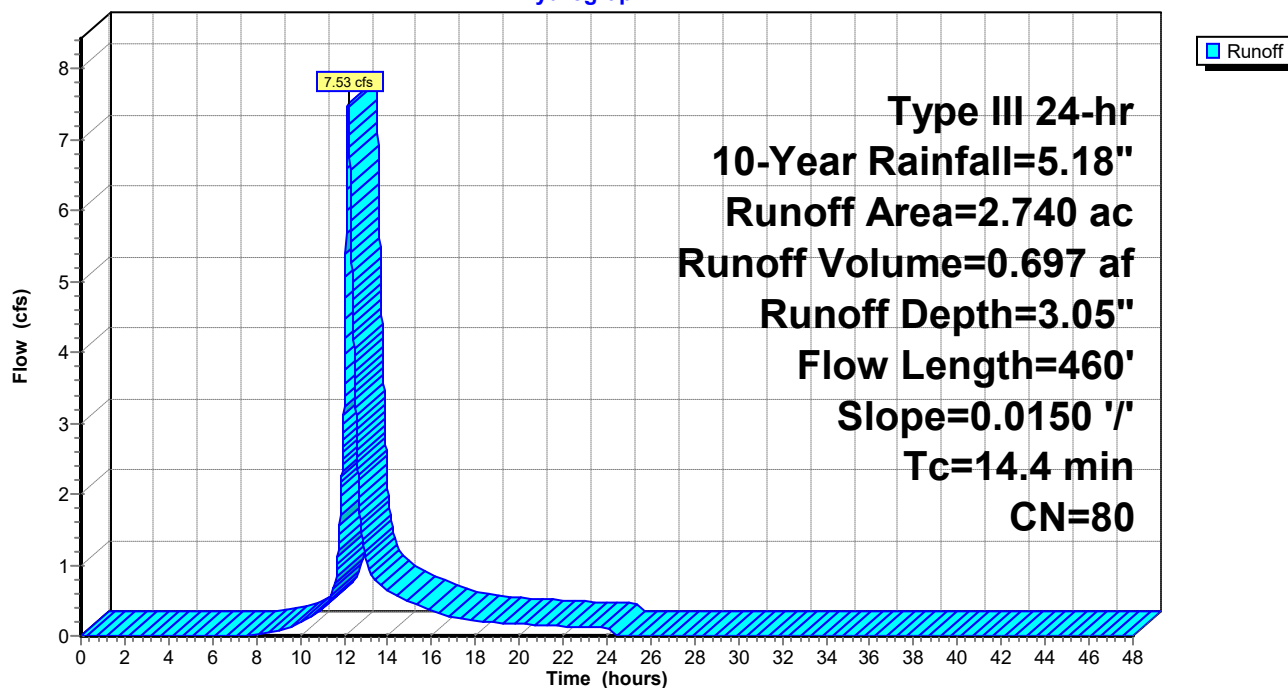
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.18"

Area (ac)	CN	Description
0.037	98	Paved parking, HSG D
2.703	80	>75% Grass cover, Good, HSG D
2.740	80	Weighted Average
2.703		98.65% Pervious Area
0.037		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Clay Infield
					Grass: Short n= 0.150 P2= 3.10"
8.0	410	0.0150	0.86		Shallow Concentrated Flow, Grass Field
					Short Grass Pasture Kv= 7.0 fps
14.4	460	Total			

Subcatchment 3S: Sub-Catchment 4

Hydrograph



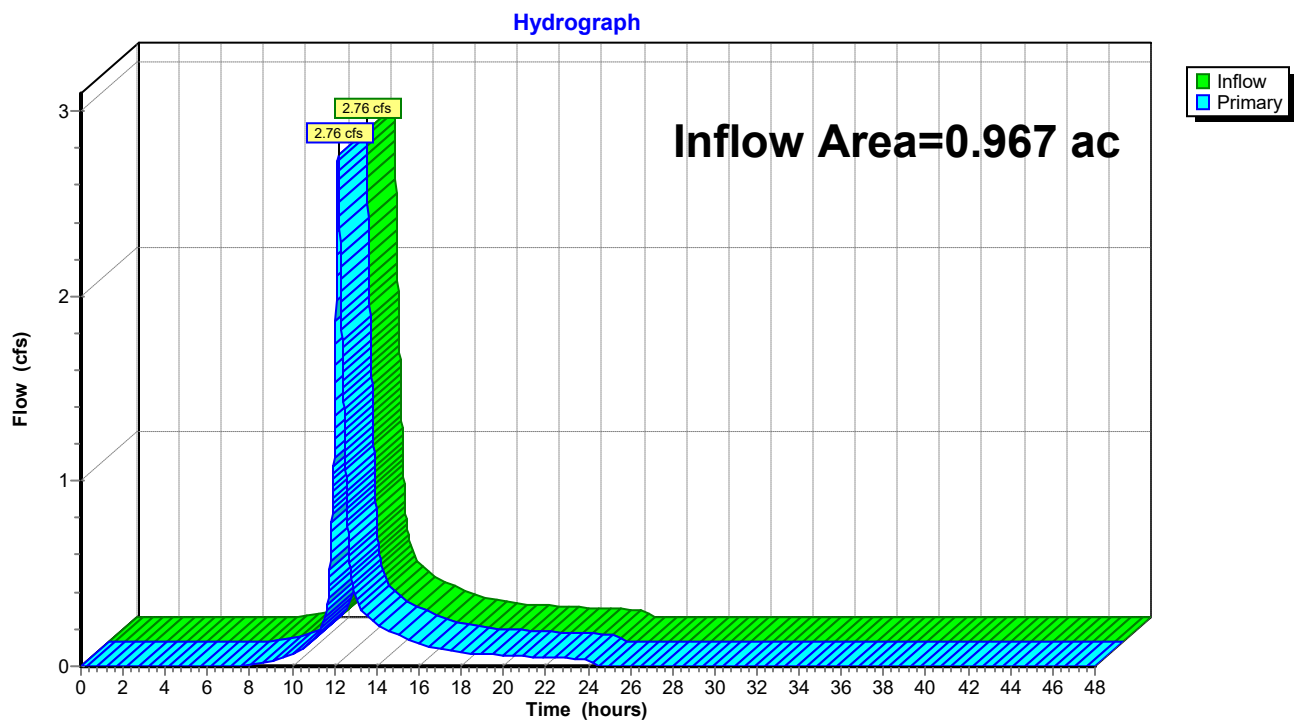
Summary for Pond 1P: Outfall # 1 - Resource Area West

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.967 ac, 0.00% Impervious, Inflow Depth = 3.05" for 10-Year event
 Inflow = 2.76 cfs @ 12.18 hrs, Volume= 0.246 af
 Primary = 2.76 cfs @ 12.18 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 1P: Outfall # 1 - Resource Area West



Summary for Pond 2P: Outfall #2 to CB

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 3.14" for 10-Year event
 Inflow = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af
 Outflow = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 135.16' @ 12.06 hrs

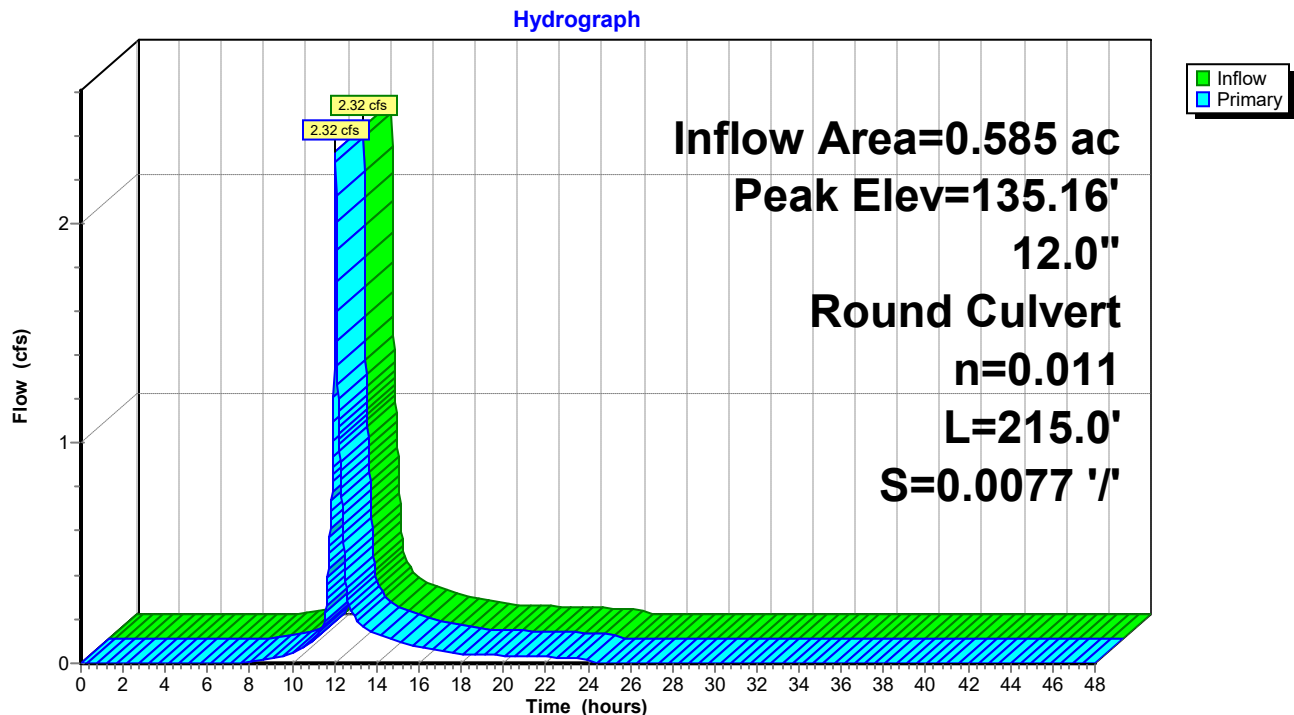
Flood Elev= 138.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	134.36'	12.0" Round Culvert L= 215.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 134.36' / 132.70' S= 0.0077 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=2.32 cfs @ 12.06 hrs HW=135.16' (Free Discharge)

↑1=Culvert (Barrel Controls 2.32 cfs @ 4.71 fps)

Pond 2P: Outfall #2 to CB



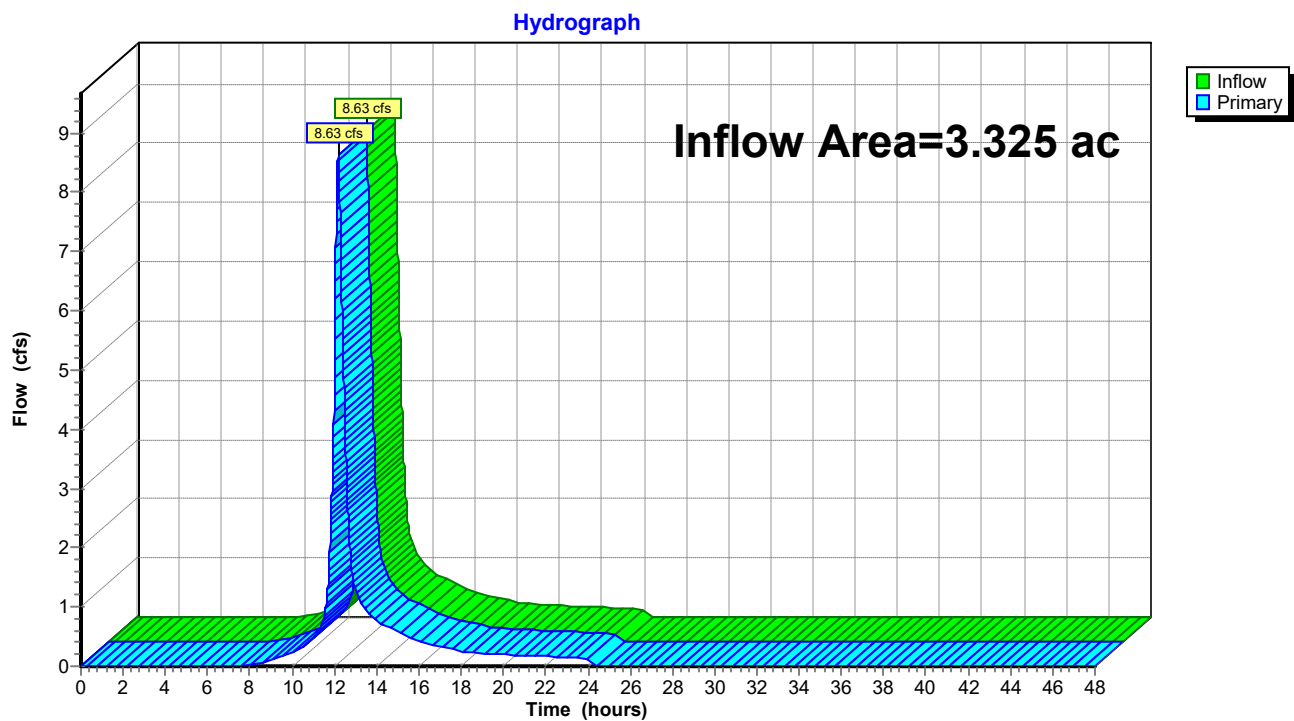
Summary for Pond 4P: Outfall # 4 - Resource Area North Corner

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.325 ac, 3.64% Impervious, Inflow Depth = 3.07" for 10-Year event
Inflow = 8.63 cfs @ 12.18 hrs, Volume= 0.850 af
Primary = 8.63 cfs @ 12.18 hrs, Volume= 0.850 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 4P: Outfall # 4 - Resource Area North Corner



Pret Development Analysis - MS 11-2-25

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Type III 24-hr 10-Year Rainfall=5.18"

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Summary for Pond 5P: (new Pond)

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 3.14" for 10-Year event
Inflow = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af
Outflow = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min
Primary = 2.32 cfs @ 12.06 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 130.18' @ 12.06 hrs

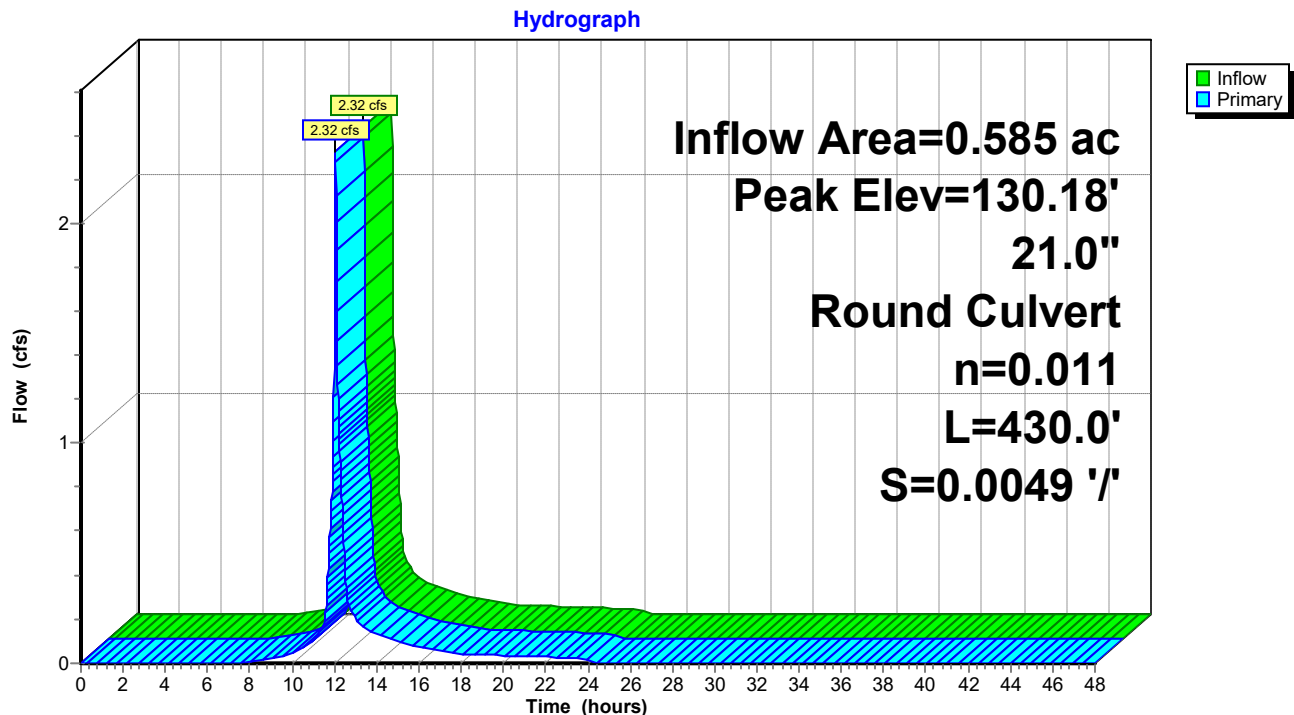
Flood Elev= 138.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	21.0" Round Culvert L= 430.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 129.50' / 127.39' S= 0.0049 '/ Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 2.41 sf

Primary OutFlow Max=2.32 cfs @ 12.06 hrs HW=130.18' (Free Discharge)

↑1=Culvert (Barrel Controls 2.32 cfs @ 4.01 fps)

Pond 5P: (new Pond)



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Type III 24-hr 25-Year Rainfall=6.37"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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 1S: Sub-Catchment 1 Runoff Area=0.967 ac 0.00% Impervious Runoff Depth=4.12"
Flow Length=388' Slope=0.0150 '/' Tc=13.0 min CN=80 Runoff=3.71 cfs 0.332 af

Subcatchment 2S: Sub-Catchment 2 Runoff Area=0.585 ac 14.36% Impervious Runoff Depth=4.22"
Flow Length=128' Tc=3.9 min UI Adjusted CN=81 Runoff=3.10 cfs 0.206 af

Subcatchment 3S: Sub-Catchment 4 Runoff Area=2.740 ac 1.35% Impervious Runoff Depth=4.12"
Flow Length=460' Slope=0.0150 '/' Tc=14.4 min CN=80 Runoff=10.12 cfs 0.940 af

Pond 1P: Outfall # 1 - Resource Area West Inflow=3.71 cfs 0.332 af
Primary=3.71 cfs 0.332 af

Pond 2P: Outfall #2 to CB Peak Elev=135.35' Inflow=3.10 cfs 0.206 af
12.0" Round Culvert n=0.011 L=215.0' S=0.0077 '/' Outflow=3.10 cfs 0.206 af

Pond 4P: Outfall # 4 - Resource Area North Corner Inflow=11.58 cfs 1.146 af
Primary=11.58 cfs 1.146 af

Pond 5P: (new Pond) Peak Elev=130.29' Inflow=3.10 cfs 0.206 af
21.0" Round Culvert n=0.011 L=430.0' S=0.0049 '/' Outflow=3.10 cfs 0.206 af

Total Runoff Area = 4.292 ac Runoff Volume = 1.478 af Average Runoff Depth = 4.13"
97.18% Pervious = 4.171 ac 2.82% Impervious = 0.121 ac

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Type III 24-hr 25-Year Rainfall=6.37"

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Summary for Subcatchment 1S: Sub-Catchment 1

Runoff = 3.71 cfs @ 12.18 hrs, Volume= 0.332 af, Depth= 4.12"

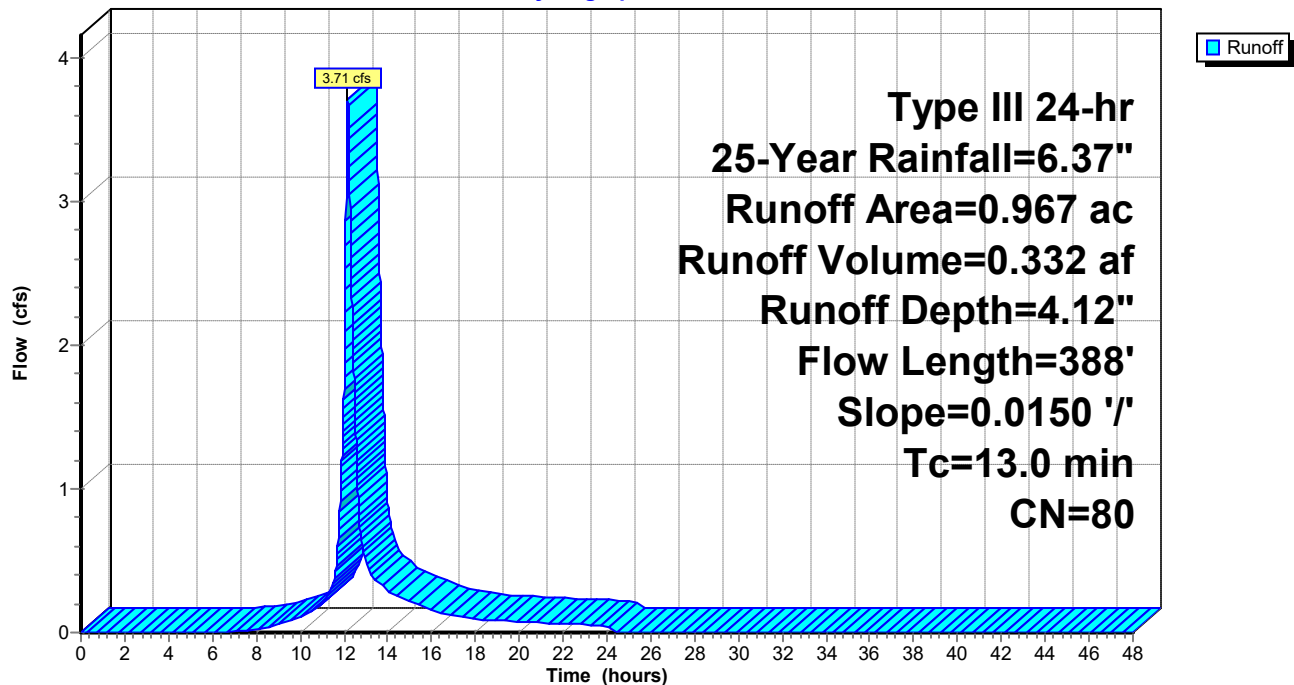
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.37"

Area (ac)	CN	Description
0.967	80	>75% Grass cover, Good, HSG D
0.967		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Greass Area Grass: Short n= 0.150 P2= 3.10"
6.6	338	0.0150	0.86		Shallow Concentrated Flow, Grass Field Short Grass Pasture Kv= 7.0 fps
13.0	388	Total			

Subcatchment 1S: Sub-Catchment 1

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.37"

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Summary for Subcatchment 2S: Sub-Catchment 2

Runoff = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af, Depth= 4.22"

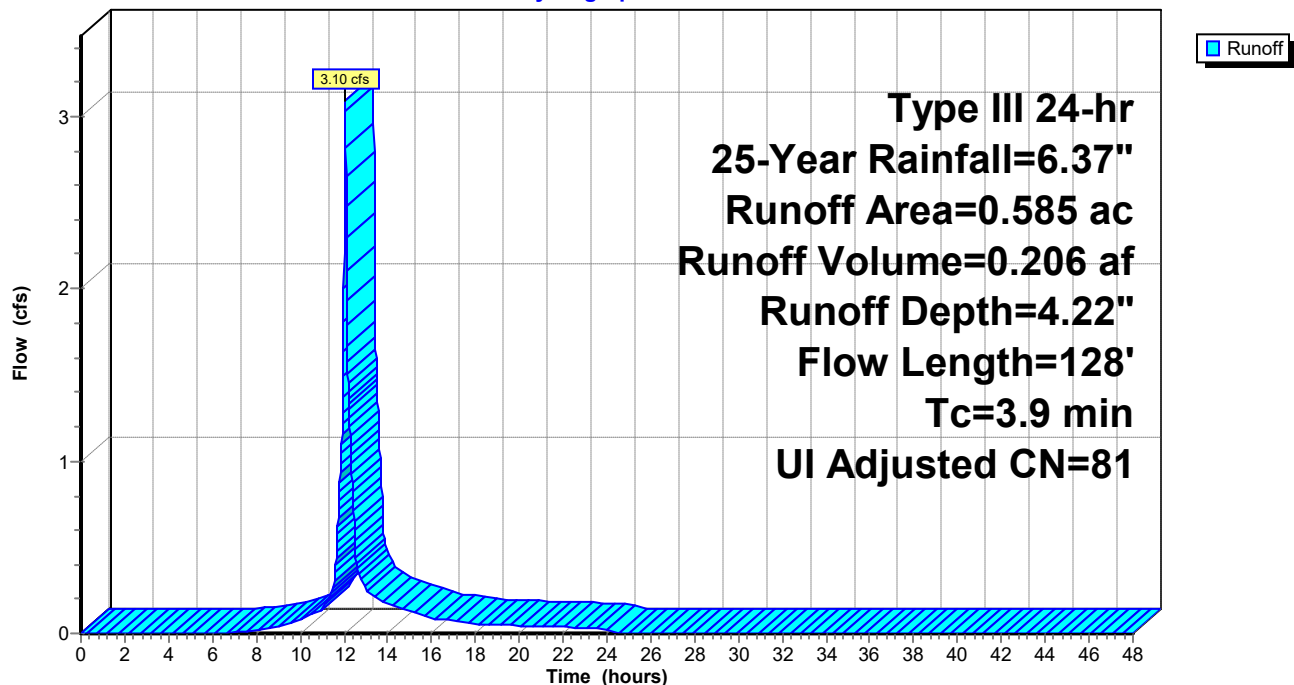
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.37"

Area (ac)	CN	Adj	Description
0.084	98		Unconnected pavement, HSG D
0.501	80		>75% Grass cover, Good, HSG D
0.585	83	81	Weighted Average, UI Adjusted
0.501			85.64% Pervious Area
0.084			14.36% Impervious Area
0.084			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		Sheet Flow, Grass Hill
					Grass: Short n= 0.150 P2= 3.10"
0.6	78	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.9	128	Total			

Subcatchment 2S: Sub-Catchment 2

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.37"

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Summary for Subcatchment 3S: Sub-Catchment 4

Runoff = 10.12 cfs @ 12.20 hrs, Volume= 0.940 af, Depth= 4.12"

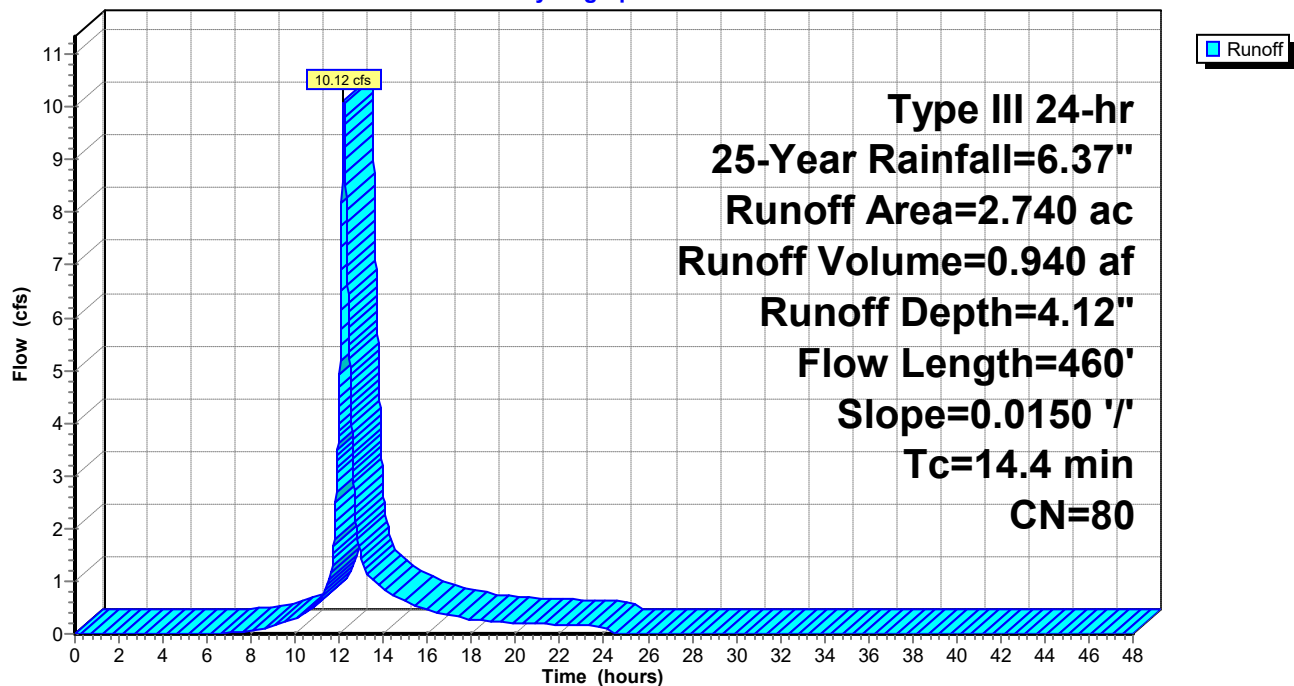
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.37"

Area (ac)	CN	Description
0.037	98	Paved parking, HSG D
2.703	80	>75% Grass cover, Good, HSG D
2.740	80	Weighted Average
2.703		98.65% Pervious Area
0.037		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Clay Infield
					Grass: Short n= 0.150 P2= 3.10"
8.0	410	0.0150	0.86		Shallow Concentrated Flow, Grass Field
					Short Grass Pasture Kv= 7.0 fps
14.4	460	Total			

Subcatchment 3S: Sub-Catchment 4

Hydrograph



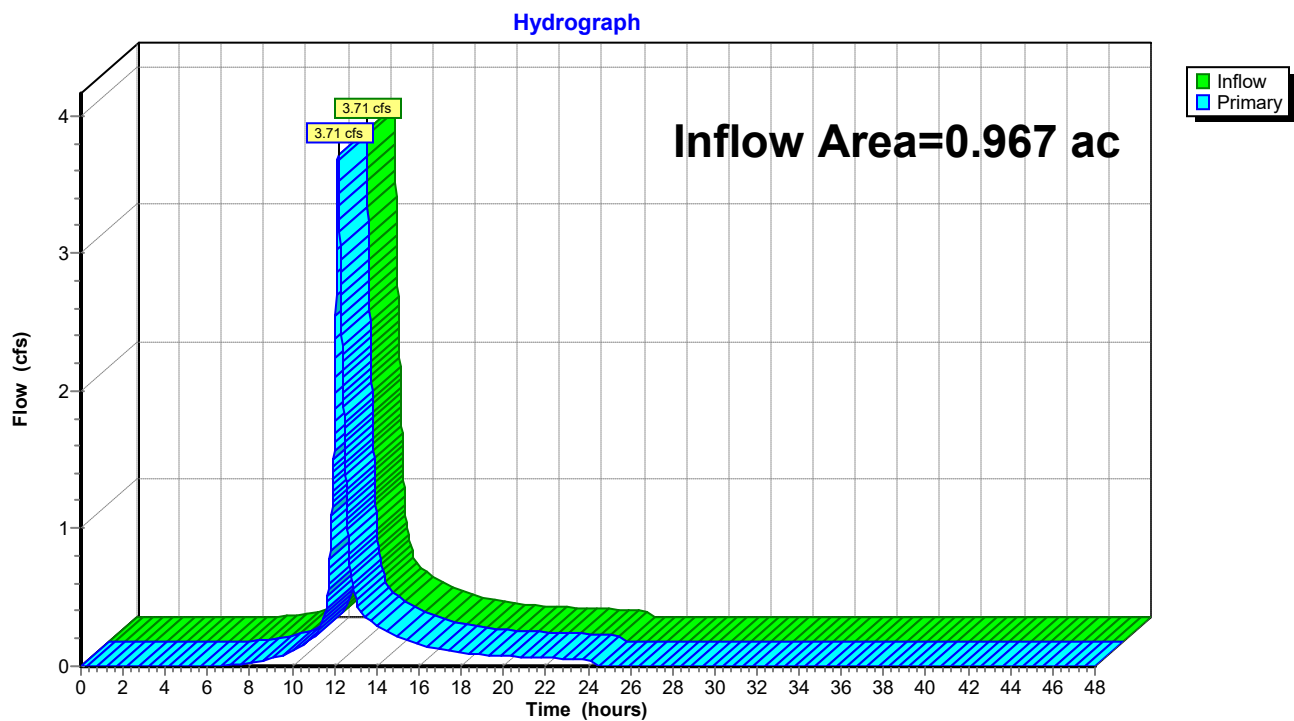
Summary for Pond 1P: Outfall # 1 - Resource Area West

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.967 ac, 0.00% Impervious, Inflow Depth = 4.12" for 25-Year event
 Inflow = 3.71 cfs @ 12.18 hrs, Volume= 0.332 af
 Primary = 3.71 cfs @ 12.18 hrs, Volume= 0.332 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 1P: Outfall # 1 - Resource Area West



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Type III 24-hr 25-Year Rainfall=6.37"

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Summary for Pond 2P: Outfall #2 to CB

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 4.22" for 25-Year event
Inflow = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af
Outflow = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min
Primary = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 135.35' @ 12.06 hrs

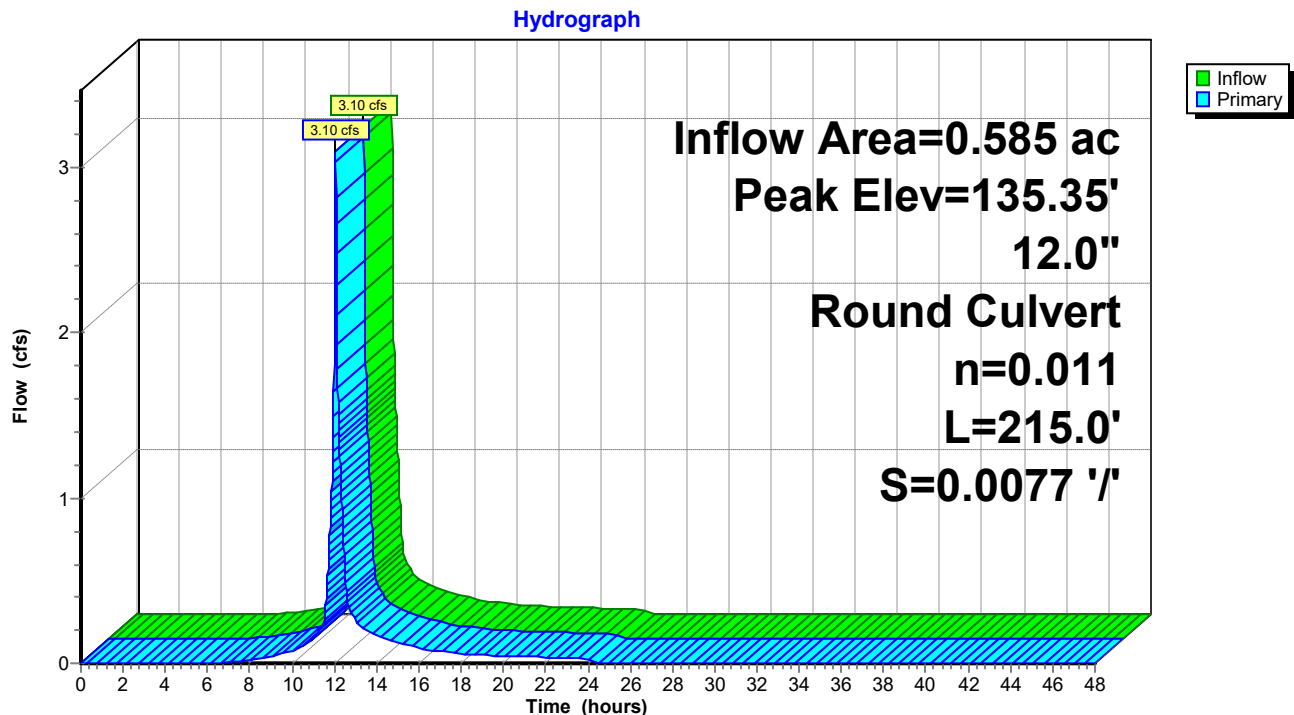
Flood Elev= 138.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	134.36'	12.0" Round Culvert L= 215.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 134.36' / 132.70' S= 0.0077 ' / Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=3.09 cfs @ 12.06 hrs HW=135.35' (Free Discharge)

↑1=Culvert (Barrel Controls 3.09 cfs @ 4.97 fps)

Pond 2P: Outfall #2 to CB



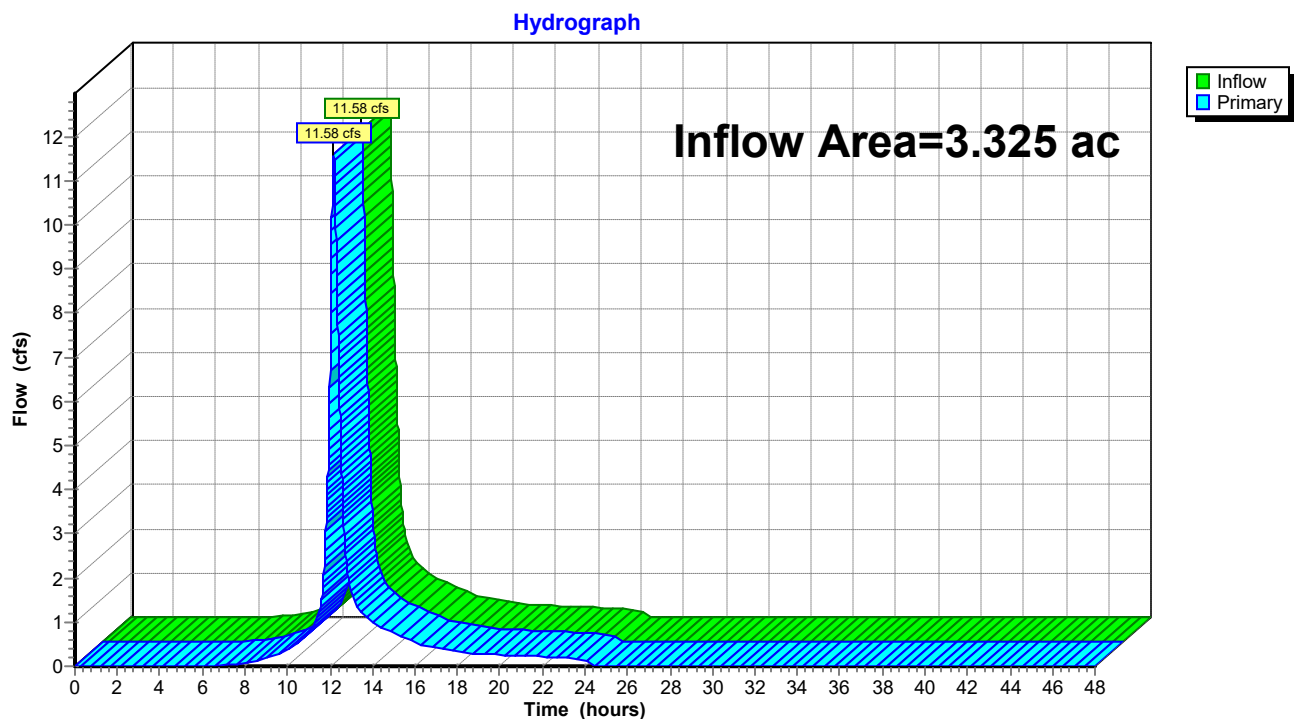
Summary for Pond 4P: Outfall # 4 - Resource Area North Corner

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.325 ac, 3.64% Impervious, Inflow Depth = 4.14" for 25-Year event
Inflow = 11.58 cfs @ 12.18 hrs, Volume= 1.146 af
Primary = 11.58 cfs @ 12.18 hrs, Volume= 1.146 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 4P: Outfall # 4 - Resource Area North Corner



Summary for Pond 5P: (new Pond)

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 4.22" for 25-Year event
 Inflow = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af
 Outflow = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.10 cfs @ 12.06 hrs, Volume= 0.206 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 130.29' @ 12.06 hrs

Flood Elev= 138.90'

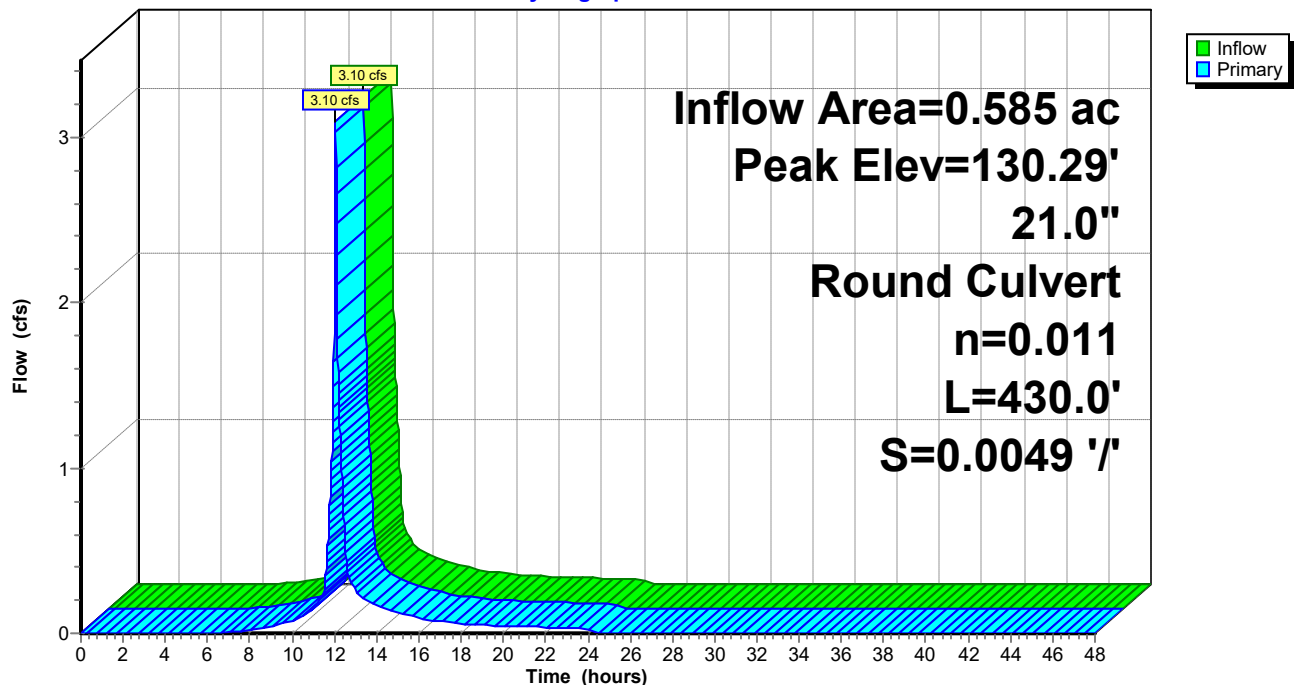
Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	21.0" Round Culvert L= 430.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 129.50' / 127.39' S= 0.0049 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 2.41 sf

Primary OutFlow Max=3.09 cfs @ 12.06 hrs HW=130.29' (Free Discharge)

↑1=Culvert (Barrel Controls 3.09 cfs @ 4.33 fps)

Pond 5P: (new Pond)

Hydrograph



Pret Development Analysis - MS 11-2-25*Type III 24-hr 100-Year Rainfall=8.20"*

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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 1S: Sub-Catchment 1 Runoff Area=0.967 ac 0.00% Impervious Runoff Depth=5.81"
Flow Length=388' Slope=0.0150 '/' Tc=13.0 min CN=80 Runoff=5.19 cfs 0.468 af

Subcatchment 2S: Sub-Catchment 2 Runoff Area=0.585 ac 14.36% Impervious Runoff Depth=5.93"
Flow Length=128' Tc=3.9 min UI Adjusted CN=81 Runoff=4.30 cfs 0.289 af

Subcatchment 3S: Sub-Catchment 4 Runoff Area=2.740 ac 1.35% Impervious Runoff Depth=5.81"
Flow Length=460' Slope=0.0150 '/' Tc=14.4 min CN=80 Runoff=14.15 cfs 1.327 af

Pond 1P: Outfall # 1 - Resource Area West Inflow=5.19 cfs 0.468 af
Primary=5.19 cfs 0.468 af

Pond 2P: Outfall #2 to CB Peak Elev=136.50' Inflow=4.30 cfs 0.289 af
12.0" Round Culvert n=0.011 L=215.0' S=0.0077 '/' Outflow=4.30 cfs 0.289 af

Pond 4P: Outfall # 4 - Resource Area North Corner Inflow=16.17 cfs 1.616 af
Primary=16.17 cfs 1.616 af

Pond 5P: (new Pond) Peak Elev=130.44' Inflow=4.30 cfs 0.289 af
21.0" Round Culvert n=0.011 L=430.0' S=0.0049 '/' Outflow=4.30 cfs 0.289 af

Total Runoff Area = 4.292 ac Runoff Volume = 2.085 af Average Runoff Depth = 5.83"
97.18% Pervious = 4.171 ac 2.82% Impervious = 0.121 ac

Pret Development Analysis - MS 11-2-25

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Type III 24-hr 100-Year Rainfall=8.20"

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Summary for Subcatchment 1S: Sub-Catchment 1

Runoff = 5.19 cfs @ 12.18 hrs, Volume= 0.468 af, Depth= 5.81"

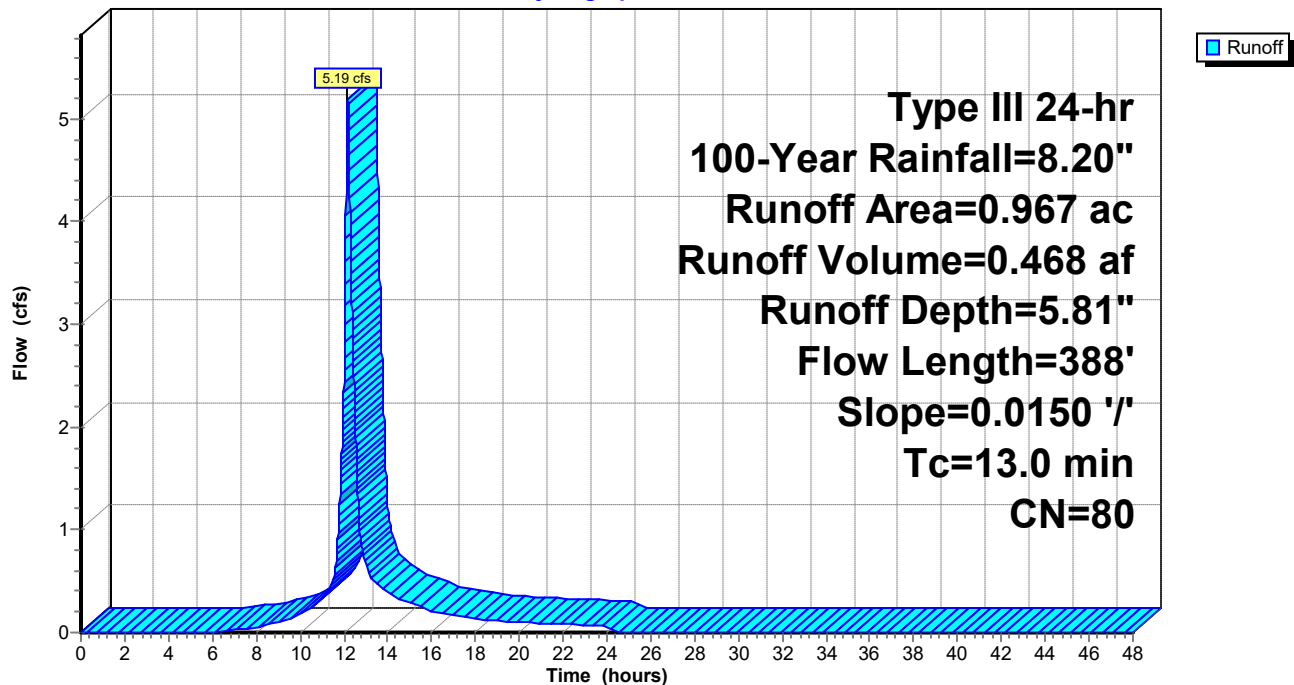
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (ac)	CN	Description
0.967	80	>75% Grass cover, Good, HSG D
0.967		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Greass Area Grass: Short n= 0.150 P2= 3.10"
6.6	338	0.0150	0.86		Shallow Concentrated Flow, Grass Field Short Grass Pasture Kv= 7.0 fps
13.0	388	Total			

Subcatchment 1S: Sub-Catchment 1

Hydrograph



Pret Development Analysis - MS 11-2-25

Type III 24-hr 100-Year Rainfall=8.20"

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Summary for Subcatchment 2S: Sub-Catchment 2

Runoff = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af, Depth= 5.93"

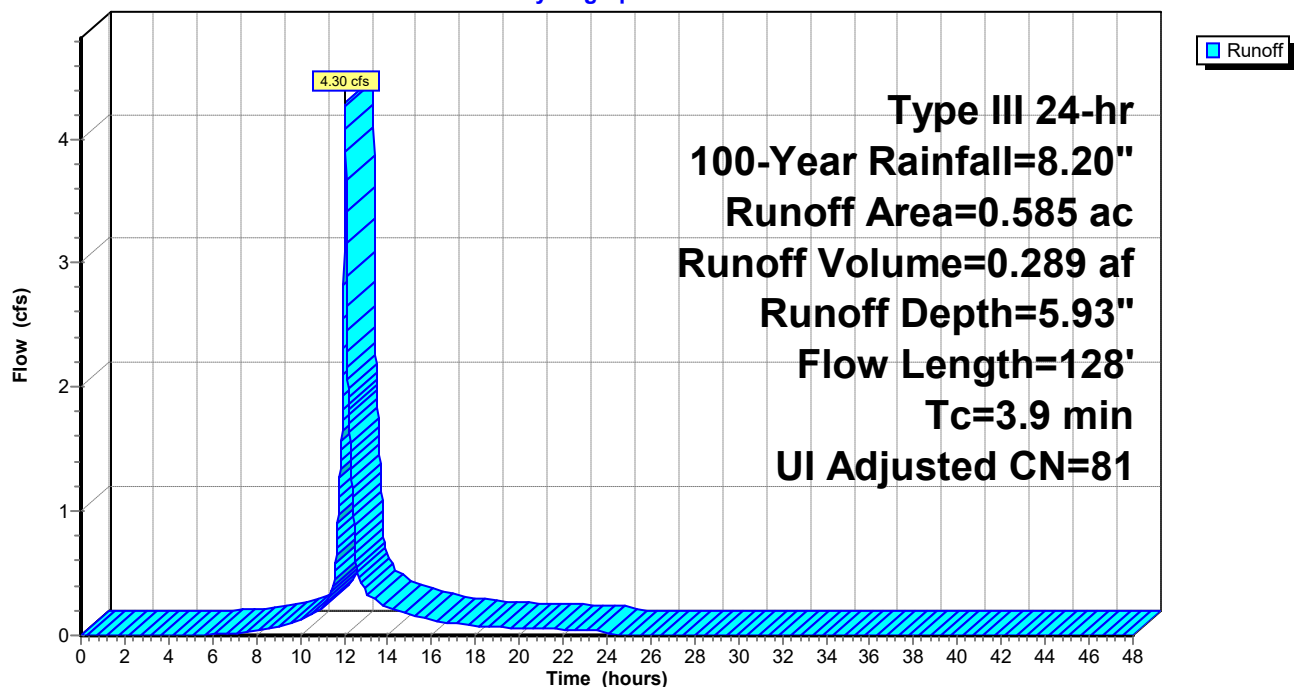
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (ac)	CN	Adj	Description
0.084	98		Unconnected pavement, HSG D
0.501	80		>75% Grass cover, Good, HSG D
0.585	83	81	Weighted Average, UI Adjusted
0.501			85.64% Pervious Area
0.084			14.36% Impervious Area
0.084			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	50	0.0800	0.25		Sheet Flow, Grass Hill
					Grass: Short n= 0.150 P2= 3.10"
0.6	78	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.9	128	Total			

Subcatchment 2S: Sub-Catchment 2

Hydrograph



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Type III 24-hr 100-Year Rainfall=8.20"

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Summary for Subcatchment 3S: Sub-Catchment 4

Runoff = 14.15 cfs @ 12.19 hrs, Volume= 1.327 af, Depth= 5.81"

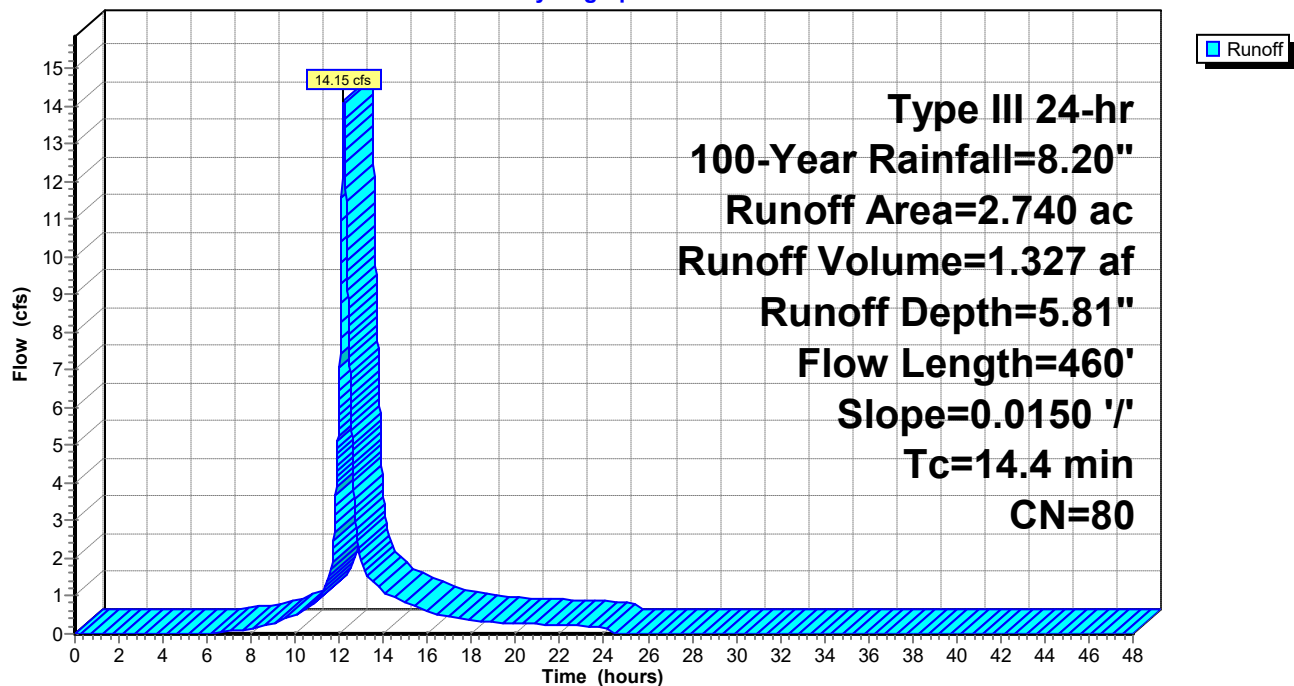
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.20"

Area (ac)	CN	Description
0.037	98	Paved parking, HSG D
2.703	80	>75% Grass cover, Good, HSG D
2.740	80	Weighted Average
2.703		98.65% Pervious Area
0.037		1.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.0150	0.13		Sheet Flow, Clay Infield
					Grass: Short n= 0.150 P2= 3.10"
8.0	410	0.0150	0.86		Shallow Concentrated Flow, Grass Field
					Short Grass Pasture Kv= 7.0 fps
14.4	460	Total			

Subcatchment 3S: Sub-Catchment 4

Hydrograph



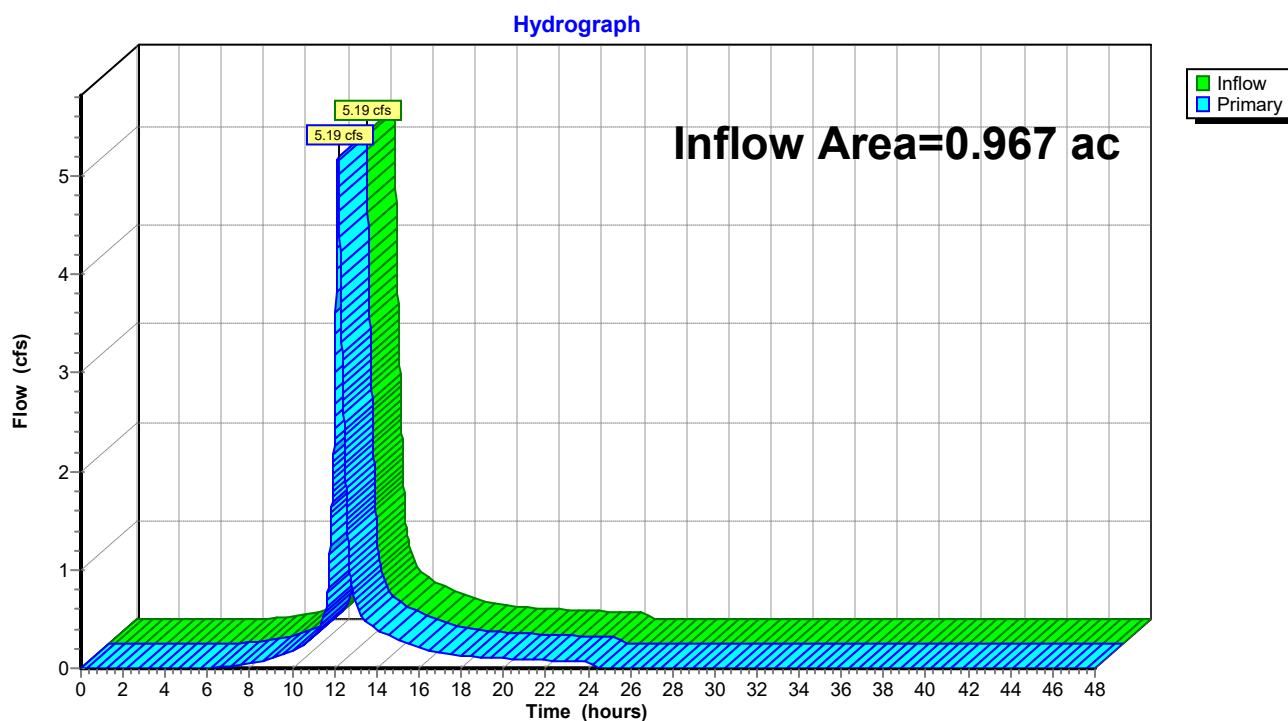
Summary for Pond 1P: Outfall # 1 - Resource Area West

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.967 ac, 0.00% Impervious, Inflow Depth = 5.81" for 100-Year event
 Inflow = 5.19 cfs @ 12.18 hrs, Volume= 0.468 af
 Primary = 5.19 cfs @ 12.18 hrs, Volume= 0.468 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 1P: Outfall # 1 - Resource Area West



Summary for Pond 2P: Outfall #2 to CB

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 5.93" for 100-Year event
 Inflow = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af
 Outflow = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 136.50' @ 12.06 hrs

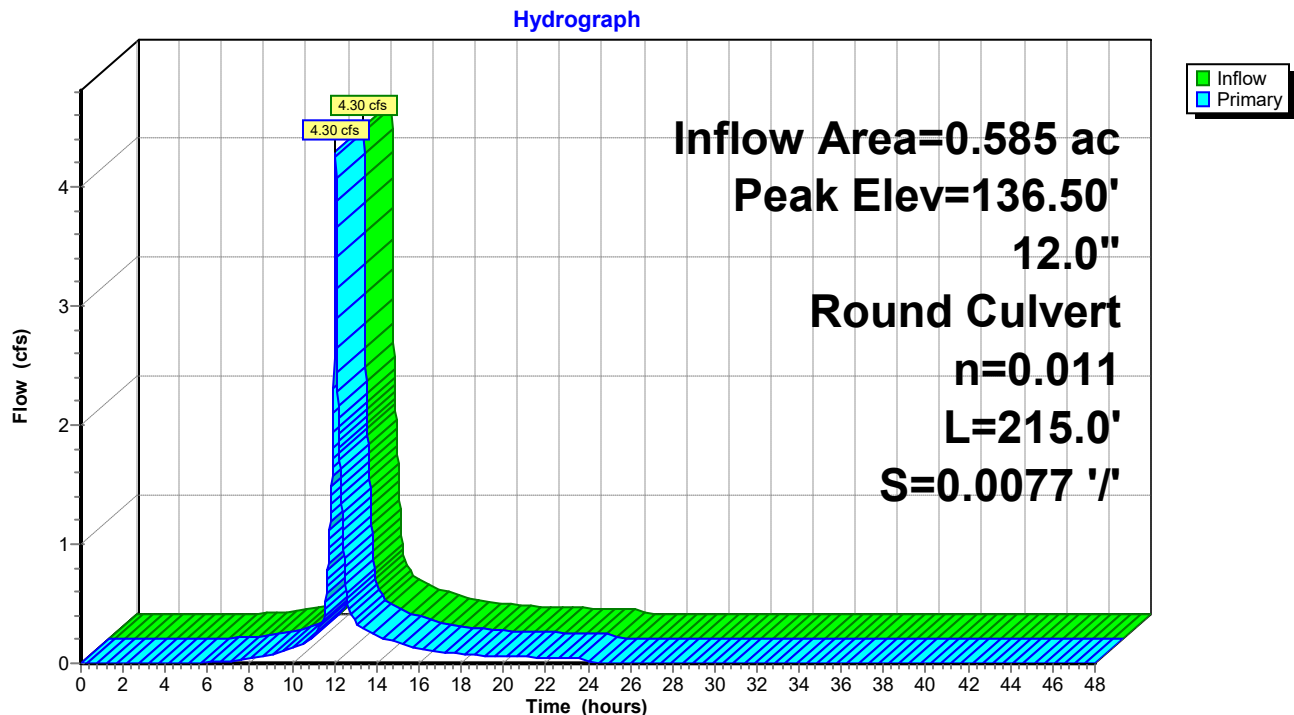
Flood Elev= 138.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	134.36'	12.0" Round Culvert L= 215.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 134.36' / 132.70' S= 0.0077 ' / Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=4.29 cfs @ 12.06 hrs HW=136.49' (Free Discharge)

↑1=Culvert (Barrel Controls 4.29 cfs @ 5.46 fps)

Pond 2P: Outfall #2 to CB



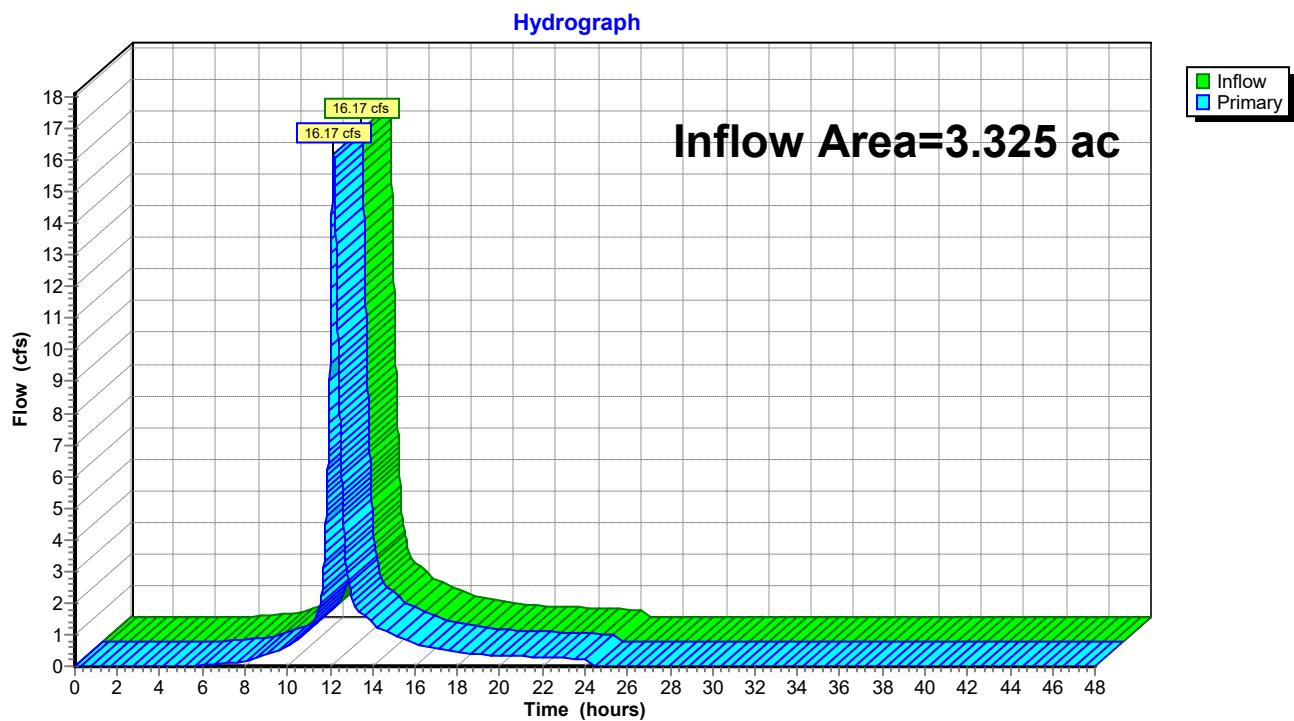
Summary for Pond 4P: Outfall # 4 - Resource Area North Corner

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 3.325 ac, 3.64% Impervious, Inflow Depth = 5.83" for 100-Year event
 Inflow = 16.17 cfs @ 12.18 hrs, Volume= 1.616 af
 Primary = 16.17 cfs @ 12.18 hrs, Volume= 1.616 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Pond 4P: Outfall # 4 - Resource Area North Corner



Summary for Pond 5P: (new Pond)

Inflow Area = 0.585 ac, 14.36% Impervious, Inflow Depth = 5.93" for 100-Year event
 Inflow = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af
 Outflow = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.30 cfs @ 12.06 hrs, Volume= 0.289 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 130.44' @ 12.06 hrs

Flood Elev= 138.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	21.0" Round Culvert L= 430.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 129.50' / 127.39' S= 0.0049 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 2.41 sf

Primary OutFlow Max=4.29 cfs @ 12.06 hrs HW=130.44' (Free Discharge)

↑1=Culvert (Barrel Controls 4.29 cfs @ 4.72 fps)

Pond 5P: (new Pond)

