Kousidis Engineering, LLC
Land Development Consultants & Site Design

DRAINAGE ANALYSIS

LOCATED AT
58 TURKEY HILL ROAD SOUTH
WESTPORT, CONNECTICUT

PREPARED FOR
GLEN GATE

September 10, 2025
Revised: February 26, 2026

Jim Kousidis, P.E.
CT License No. 26830

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www.kousidisengineering.com, jim@kousidisengineering.com

Note: This drainage analysis has been adjusted to reflect the removal of the proposed shed and attached patio, with associated site improvements, per client request.

1. EXISTING CONDITIONS

This 80,926-sq. ft. residential property is currently developed with a single-family residence, attached garage and driveway, with recently installed subsurface drainage systems. Test pits at the site indicate highly pervious soils that are adequate to accept a subsurface storm drain system. The topography of the property slopes to the north and west, into the wetlands area on the property. According to the Web Soil Survey website (map and soil table attached) the soils in the subject area consist of Canton and Charlton fine sandy loams, 8 to 15 percent slopes, a well-drained soil with a Hydrologic Soil Group "B".

2. PROPOSED CONDITIONS

The owner is proposing to construct a residential addition to the existing garage, a new covered porch, altered driveway and new patios, with associated site improvements. The total proposed impervious surface is 7,650-sq.ft. Stormwater retention systems have recently been installed on site and will be expanded as needed to satisfy the Town of Westport's requirements of zero increase in runoff for a 24-hour, type III rainfall, 25-year storm event. The new roof area, the driveway drains and patio drains must be directed to the proposed retention systems.

3. DRAINAGE

Under existing conditions, the peak runoff from the site is 7.49 cfs for the 25-year storm. The Town's requirement for zero increase in runoff is satisfied by collecting the entire roof and the driveway drain inlets. The runoff from impervious surface area #1 generates a peak 25-year flow of 0.43 cfs. The runoff from impervious surface area #2 generates a peak 25-year flow of 0.28 cfs. The runoff from impervious surface area #3 generates a peak 25-year flow of 0.47 cfs. The overall post conditions runoff is 6.96 cfs. Subsurface drainage system #1 shall be expanded by 40 LF so that it consists of 120 LF of 12" high precast concrete galleries surrounded by 1 foot of clean crushed stone. Subsurface drainage system #2 shall be expanded by 16 LF so that it consists of 80 LF of 18" high precast concrete galleries surrounded by 1 foot of clean crushed stone. Subsurface drainage system #3 shall be expanded by 56 LF so that it consists of 112 LF of 18" high precast concrete galleries surrounded by 1 foot of clean crushed stone. In addition to the above, the drainage systems were checked for the capacity to hold the first flush from all the new impervious surfaces. The runoff volume from 1.3" of rainfall directed to the subsurface drainage systems is (7,650 sq. ft. x 1.3"/12"/ft. = 829 cu. ft.). The holding capacity of the three sets of concrete galleries is 1,419 cu.ft. which well exceeds the 1.3" minimum requirement of pure storage volume.

4. CONCLUSION

The proposed development will increase the amount of impervious area to this site, resulting in higher peak runoff rates. However, with the installation of the proposed stormwater retention systems, the original flow patterns will be maintained and there will be no increase in peak runoff for the 25-year storm event. In addition to controlling stormwater peak runoff, the proposed design incorporates stormwater treatment to control pollution and provide groundwater recharge capacity. The implementation of these techniques and the overall site design layout will result in a finished project that will minimize sediment and erosion impacts during construction and will have no adverse impacts to adjoining properties upon completion.

EXISTING DRAINAGE CONDITIONS

EXHIBIT "A"

58 TURKEY HILL ROAD SOUTH, WESTPORT, CT

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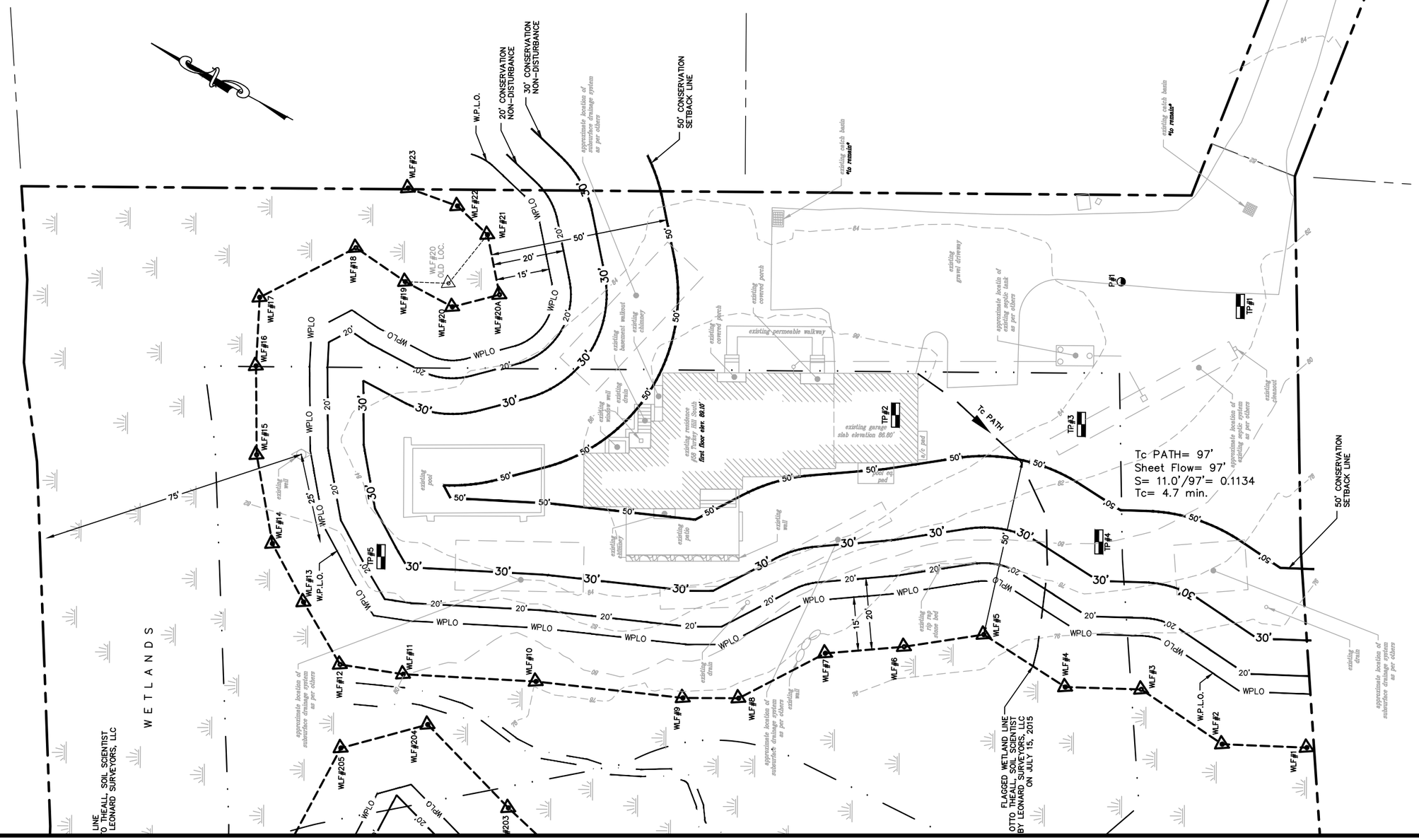
SCALE:

1" = 30'



PROPOSED DRAINAGE CONDITIONS

EXHIBIT "B"

58 TURKEY HILL ROAD SOUTH, WESTPORT, CT

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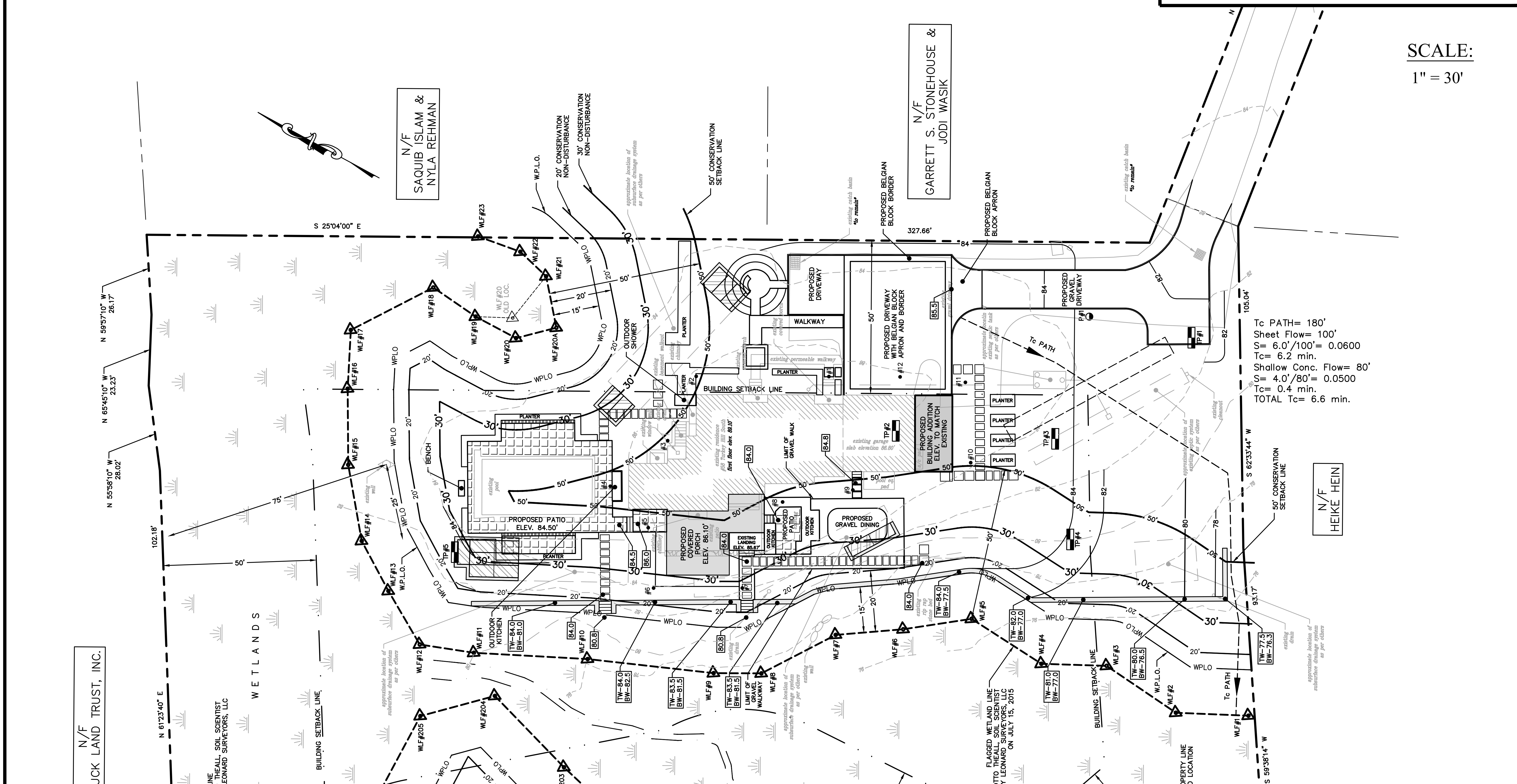

SCALE:
1" = 30'
N/F SAQUIB ISLAM & NYLA REHMAN
N/F GARRETT S. STONEHOUSE & JODI WASIK
N/F HEIKE HEIN
N/F ...TUCK LAND TRUST, INC.
W E T L A N D S
S 25°04'00" E
327.66'
N 59°57'10" W 26.17'
N 65°45'10" W 23.23'
N 55°58'10" W 28.02'
102.18'
N 61°23'40" E
S 62°33'44" W
105.04'
93.17'
S 59°38'14" W
W.P.L.O.
20' CONSERVATION NON-DISTURBANCE
30' CONSERVATION NON-DISTURBANCE
50' CONSERVATION SETBACK LINE
PROPOSED BELGIAN BLOCK BORDER
PROPOSED BELGIAN BLOCK APRON
PROPOSED DRIVEWAY
PROPOSED DRIVEWAY WITH BELGIAN BLOCK APRON AND BORDER
PROPOSED GRAVEL DRIVEWAY
WALKWAY
PLANTER
OUTDOOR SHOWER
BUILDING SETBACK LINE
PROPOSED BUILDING ADDITION ELEV. TO MATCH EXISTING
LIMIT OF GRAVEL WALK
PROPOSED PATIO ELEV. 84.50'
PROPOSED COVERED PORCH ELEV. 86.10'
EXISTING LANDING ELEV. 85.67'
OUTDOOR KITCHEN
PROPOSED PATIO
PROPOSED GRAVEL DINING
BENCH
LIMIT OF GRAVEL WALKWAY
FLAGGED WETLAND LINE OTTO THEALL, SOIL SCIENTIST BY LEONARD SURVEYORS, LLC ON JULY 15, 2015
Tc PATH= 180'
Sheet Flow= 100'
S= 6.0'/100'= 0.0600
Tc= 6.2 min.
Shallow Conc. Flow= 80'
S= 4.0'/80'= 0.0500
Tc= 0.4 min.
TOTAL Tc= 6.6 min.
Tc PATH
TP#1
TP#2
TP#3
TP#4
TP#5
TW-84.0 BW-81.0
TW-84.0 BW-82.5
TW-83.5 BW-81.5
TW-82.0 BW-77.0
TW-81.0 BW-77.0
TW-80.0 BW-76.5
TW-77.5 BW-76.3
TW-84.0 BW-77.5

NOTE: NO IMPERVIOUS AREA IS DIRECTED TO THE TOWN OF WESTPORT DRAINAGE SYSTEM UNDER EXISTING CONDITIONS.

EXISTING DIRECTLY CONNECTED IMPERVIOUS AREA

EXHIBIT "C"

58 TURKEY HILL ROAD SOUTH, WESTPORT, CT

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SCALE:

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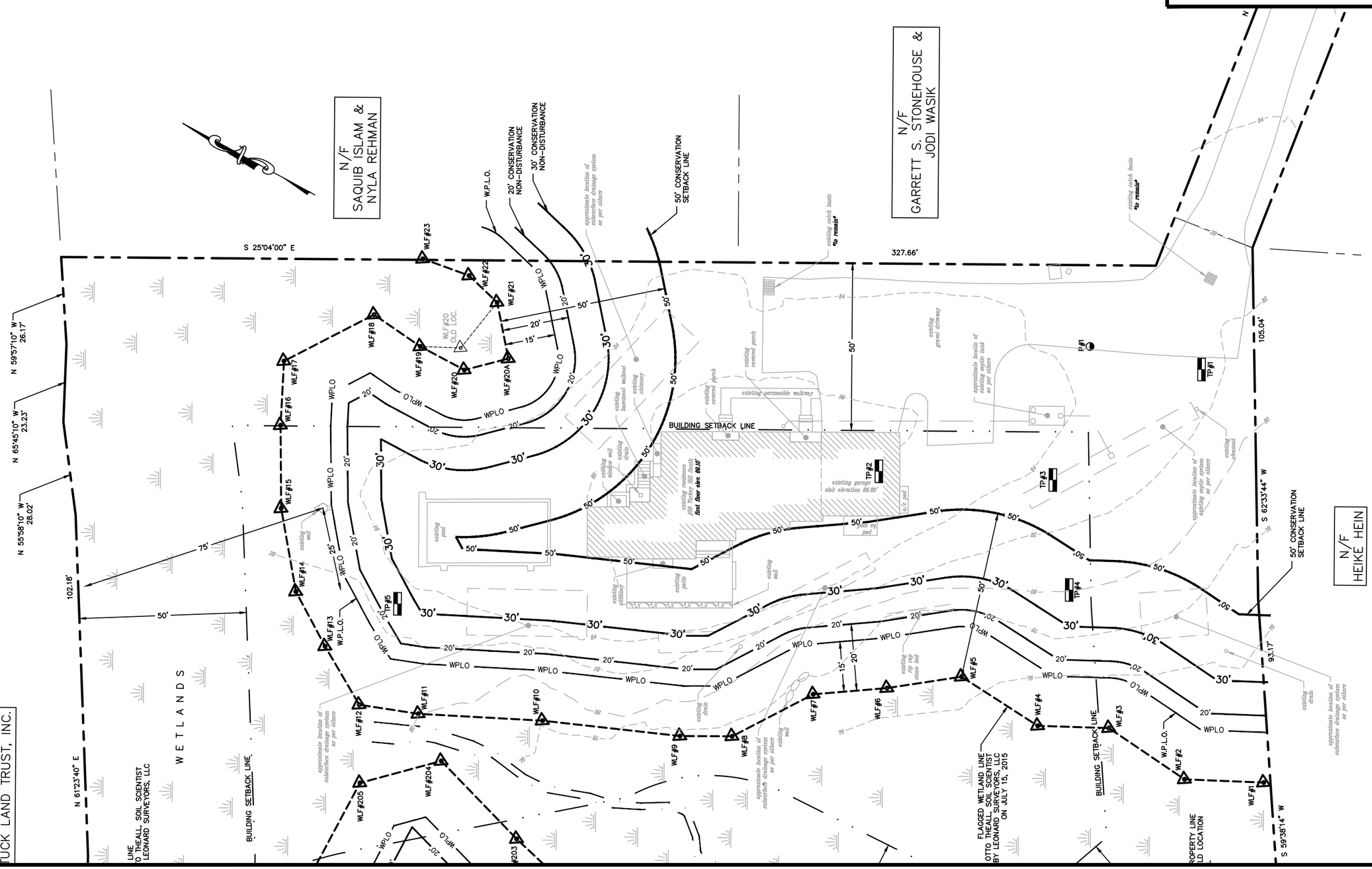

PROPOSED DIRECTLY CONNECTED IMPERVIOUS AREA

EXHIBIT "D"

58 TURKEY HILL ROAD SOUTH, WESTPORT, CT

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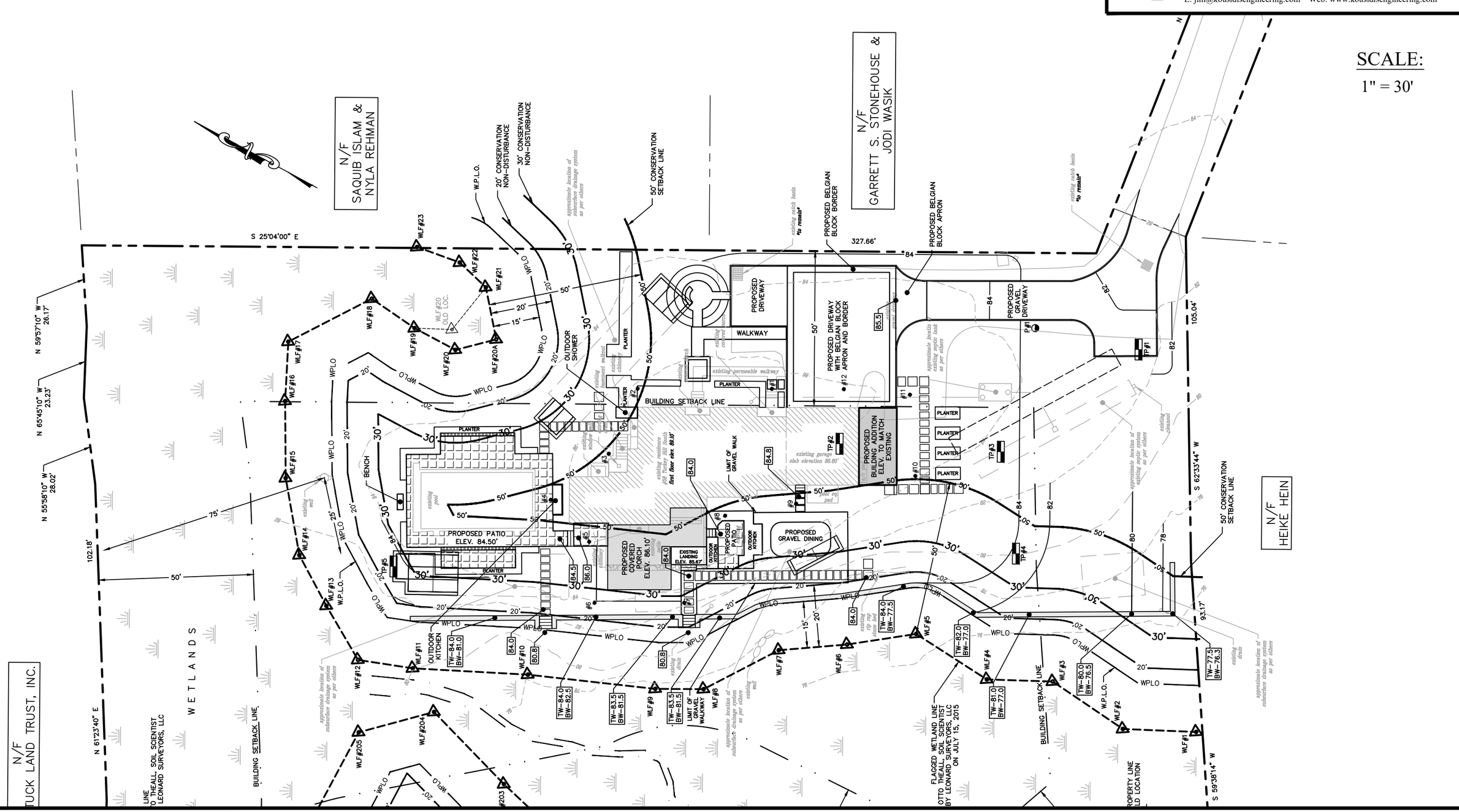
NOTE: NO IMPERVIOUS AREA IS DIRECTED TO THE TOWN OF WESTPORT DRAINAGE SYSTEM UNDER PROPOSED CONDITIONS.

SCALE:

1" = 30'



Kousidis Engineering, LLC
Land Development Consultants & Site Design

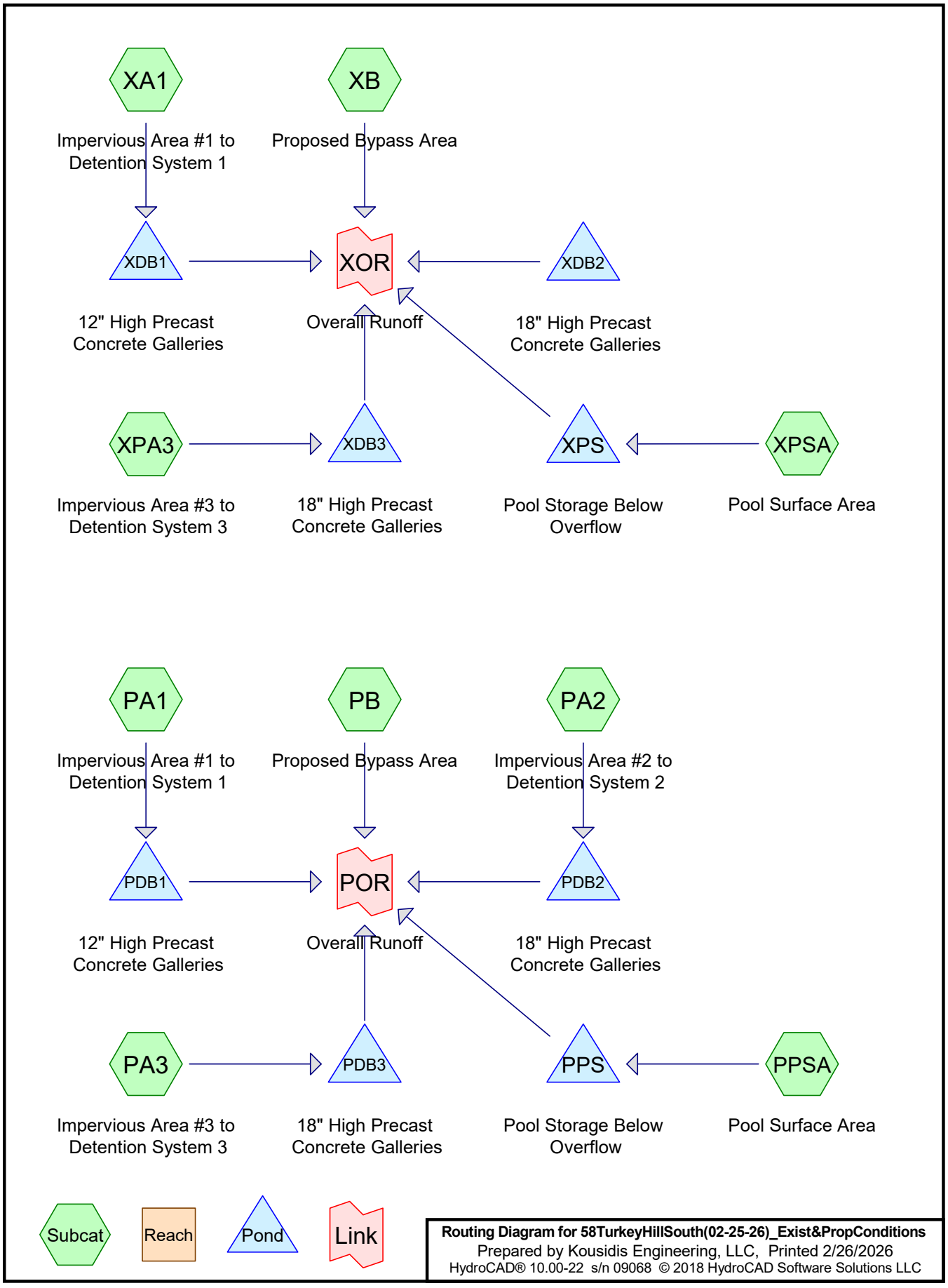
Date: 09/10/2025
Revised: 02/26/2026

MS4 Impervious Cover Tracking Worksheet	
Address:	58 Turkey Hill South
GIS ID #:	G07 / 036 / 000
Lot Area:	80,926 SF

Existing Conditions		
Impervious Area	**Disconnected**	**Connected**
Item	**Area (SF)**	
Building	2672	0
Driveway	4765	0
Patio/Walks	264	0
Pool	655	0
Coping & Equip. Pad	200	0
(Miscellaneous)	0	0
Totals	**8556**	**0**

Proposed Conditions		
Impervious Area	**Disconnected**	**Connected**
Item	**Area (SF)**	
Building	3572	0
Driveway	3650	0
Patio/Walks	3114	0
Pool	655	0
Coping & Equip. Pad	200	0
Proposed Gravel Path	550	0
Totals	**11741**	**0**

Connected Impervious Area Reduction		
Existing Connected Impervious	0	SF
Proposed Connected Impervious	0	SF
Reduction	0	SF
Percent Reduction	N/A	



Routing Diagram for 58TurkeyHillSouth(02-25-26)_Exist&PropConditions
Prepared by Kousidis Engineering, LLC, Printed 2/26/2026

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 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 PA1: Impervious Area #1 to Runoff Area=3,060 sf 100.00% Impervious Runoff Depth>6.16"
Tc=6.0 min CN=98 Runoff=0.43 cfs 1,570 cf

Subcatchment PA2: Impervious Area #2 to Runoff Area=1,975 sf 100.00% Impervious Runoff Depth>6.16"
Tc=6.0 min CN=98 Runoff=0.28 cfs 1,013 cf

Subcatchment PA3: Impervious Area #3 to Runoff Area=3,322 sf 100.00% Impervious Runoff Depth>6.16"
Tc=6.0 min CN=98 Runoff=0.47 cfs 1,705 cf

Subcatchment PB: Proposed Bypass Area Runoff Area=71,914 sf 2.89% Impervious Runoff Depth>3.72"
Flow Length=180' Tc=6.6 min CN=76 Runoff=6.96 cfs 22,317 cf

Subcatchment PPSA: Pool Surface Area Runoff Area=655 sf 100.00% Impervious Runoff Depth>6.16"
Tc=0.0 min CN=98 Runoff=0.11 cfs 336 cf

Subcatchment XA1: Impervious Area #1 to Runoff Area=550 sf 100.00% Impervious Runoff Depth>6.16"
Tc=6.0 min CN=98 Runoff=0.08 cfs 282 cf

Subcatchment XB: Proposed Bypass Area Runoff Area=77,599 sf 0.60% Impervious Runoff Depth>3.52"
Flow Length=97' Slope=0.1134 '/' Tc=4.7 min CN=74 Runoff=7.49 cfs 22,774 cf

Subcatchment XPA3: Impervious Area #3 Runoff Area=2,122 sf 100.00% Impervious Runoff Depth>6.16"
Tc=6.0 min CN=98 Runoff=0.30 cfs 1,089 cf

Subcatchment XPSA: Pool Surface Area Runoff Area=655 sf 100.00% Impervious Runoff Depth>6.16"
Tc=0.0 min CN=98 Runoff=0.11 cfs 336 cf

Pond PDB1: 12" High Precast Concrete Peak Elev=83.54' Storage=386 cf Inflow=0.43 cfs 1,570 cf
Discarded=0.05 cfs 1,433 cf Primary=0.20 cfs 136 cf Outflow=0.25 cfs 1,569 cf

Pond PDB2: 18" High Precast Concrete Peak Elev=80.01' Storage=334 cf Inflow=0.28 cfs 1,013 cf
Discarded=0.04 cfs 1,012 cf Primary=0.00 cfs 0 cf Outflow=0.04 cfs 1,012 cf

Pond PDB3: 18" High Precast Concrete Peak Elev=83.68' Storage=592 cf Inflow=0.47 cfs 1,705 cf
Discarded=0.06 cfs 1,703 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 1,703 cf

Pond PPS: Pool Storage Below Overflow Peak Elev=85.00' Storage=217 cf Inflow=0.11 cfs 336 cf
Outflow=0.03 cfs 120 cf

Pond XDB1: 12" High Precast Concrete Galleries Peak Elev=82.65' Storage=49 cf Inflow=0.08 cfs 282 cf
Discarded=0.02 cfs 282 cf Primary=0.00 cfs 0 cf Outflow=0.02 cfs 282 cf

Pond XDB2: 18" High Precast Concrete Galleries Peak Elev=0.00' Storage=0 cf
Discarded=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Pond XDB3: 18" High Precast Concrete Peak Elev=84.03' Storage=301 cf Inflow=0.30 cfs 1,089 cf
Discarded=0.03 cfs 978 cf Primary=0.16 cfs 109 cf Outflow=0.19 cfs 1,088 cf

Pond XPS: Pool Storage Below Overflow Peak Elev=84.50' Storage=217 cf Inflow=0.11 cfs 336 cf
Outflow=0.03 cfs 120 cf

Link POR: Overall Runoff Inflow=6.96 cfs 22,573 cf
Primary=6.96 cfs 22,573 cf

Link XOR: Overall Runoff Inflow=7.49 cfs 23,003 cf
Primary=7.49 cfs 23,003 cf

Summary for Subcatchment PA1: Impervious Area #1 to Detention System 1

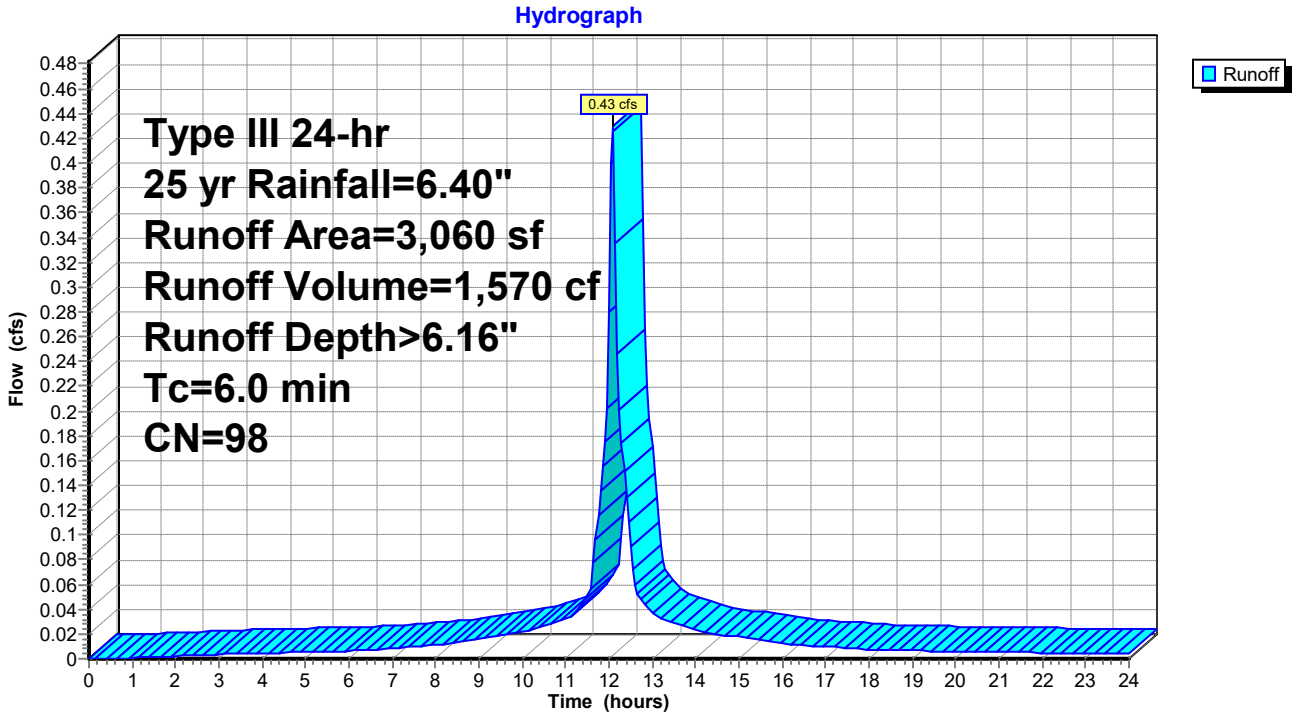
Runoff = 0.43 cfs @ 12.09 hrs, Volume= 1,570 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	550	98	Building
*	2,000	98	Driveway
*	510	98	Pool Patio
	3,060	98	Weighted Average
	3,060		100.00% Impervious Area

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

Subcatchment PA1: Impervious Area #1 to Detention System 1



Summary for Subcatchment PA2: Impervious Area #2 to Detention System 2

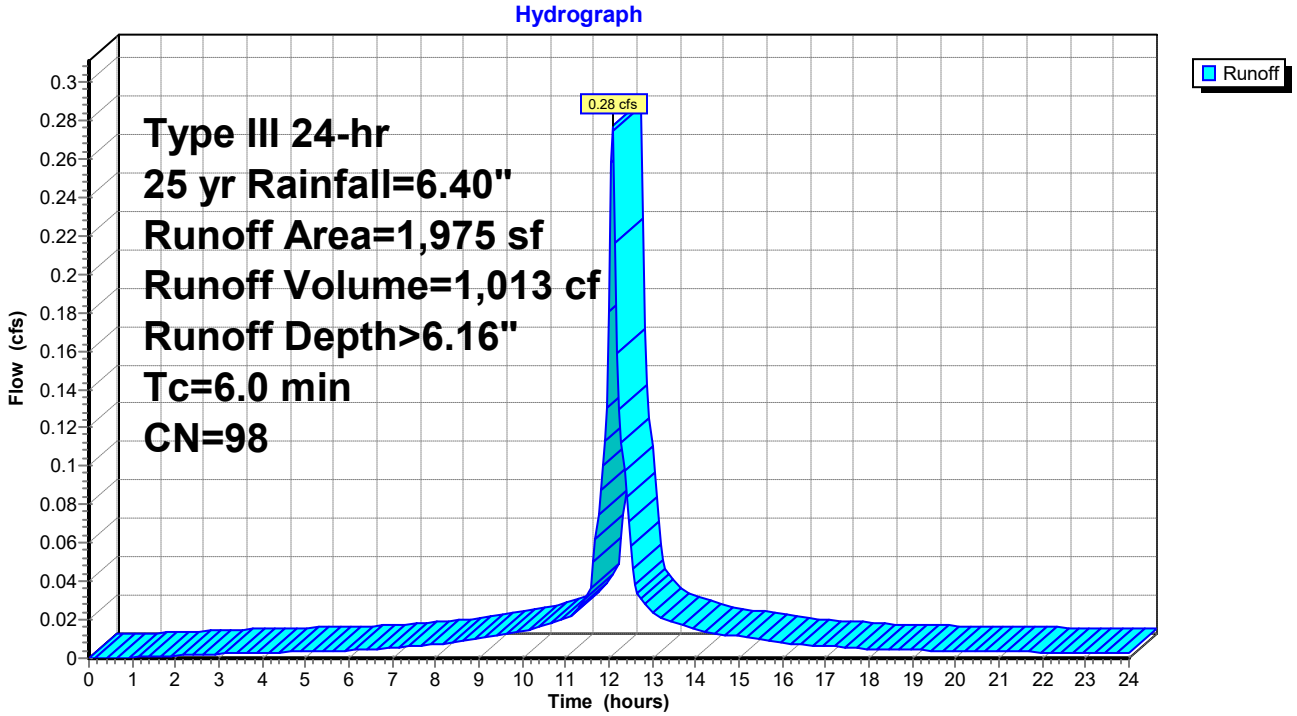
Runoff = 0.28 cfs @ 12.09 hrs, Volume= 1,013 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	1,650	98	Driveway
*	325	98	Proposed Additions
	1,975	98	Weighted Average
	1,975		100.00% Impervious Area

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

Subcatchment PA2: Impervious Area #2 to Detention System 2



Summary for Subcatchment PA3: Impervious Area #3 to Detention System 3

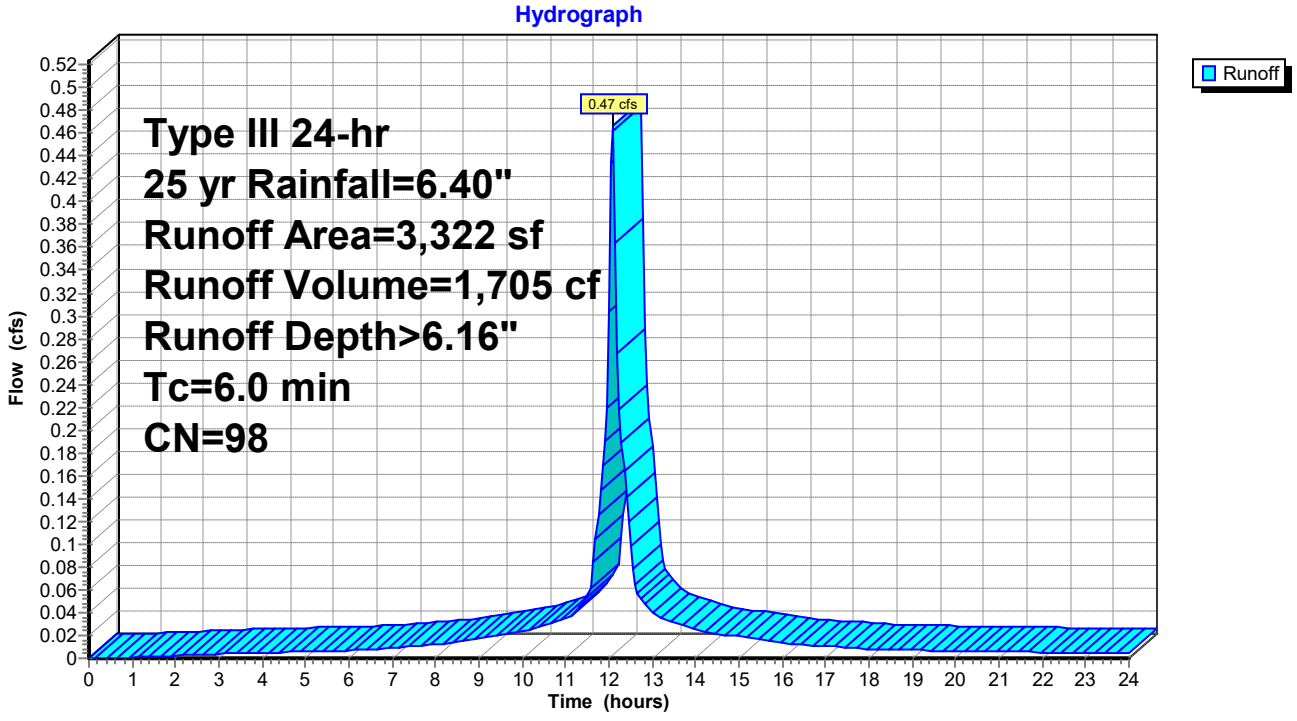
Runoff = 0.47 cfs @ 12.09 hrs, Volume= 1,705 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	2,122	98	Building
*	510	98	Pool Patio
*	575	98	Proposed Additions
*	115	98	Proposed Patio
	3,322	98	Weighted Average
	3,322		100.00% Impervious Area

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

Subcatchment PA3: Impervious Area #3 to Detention System 3



Summary for Subcatchment PB: Proposed Bypass Area

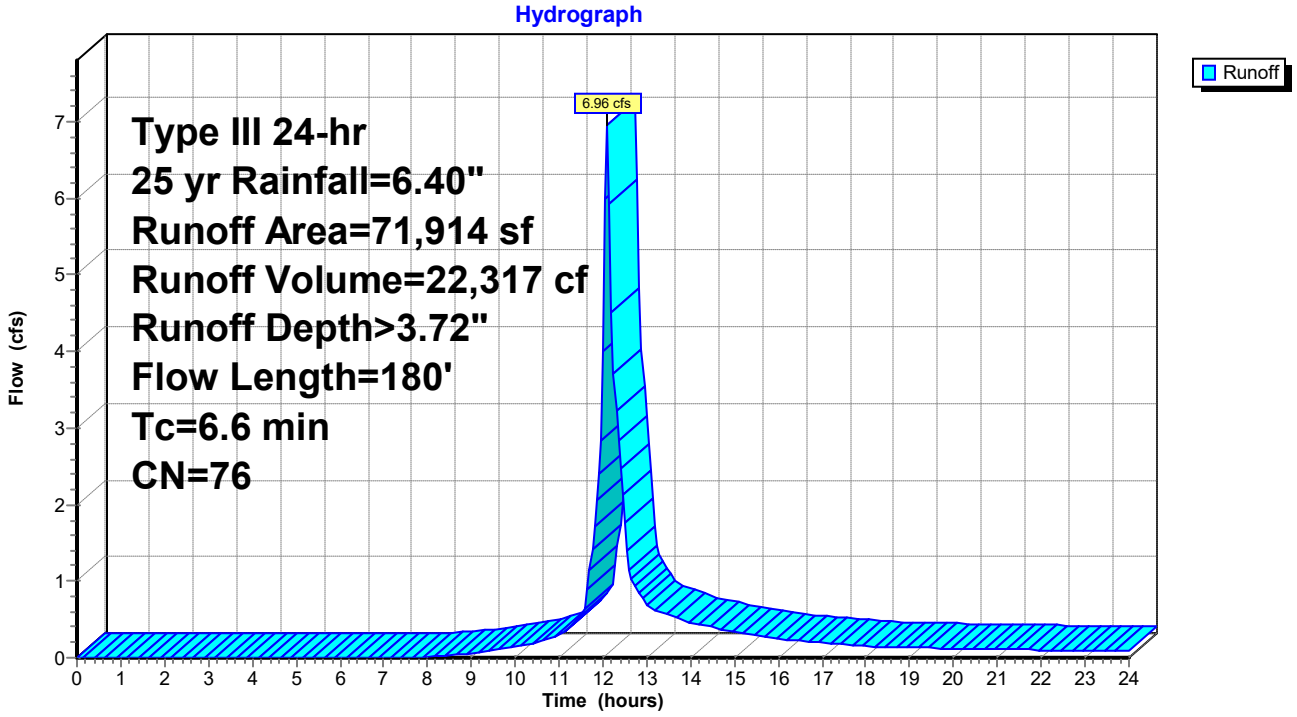
Runoff = 6.96 cfs @ 12.10 hrs, Volume= 22,317 cf, Depth> 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	264	98	Existing Patio
*	1,615	98	Proposed Patio
*	550	89	Proposed Gravel Path
*	200	98	Pool Coping/Equipment
*	35,731	89	<50% Grass cover, Poor, HSG D (Wetlands)
	33,554	61	>75% Grass cover, Good, HSG B
	71,914	76	Weighted Average
	69,835		97.11% Pervious Area
	2,079		2.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0600	0.27		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"
0.4	80	0.0500	3.35		**Shallow Concentrated Flow, Shallow Conc Flow** Grassed Waterway Kv= 15.0 fps
6.6	180	Total			

Subcatchment PB: Proposed Bypass Area



Summary for Subcatchment PPSA: Pool Surface Area

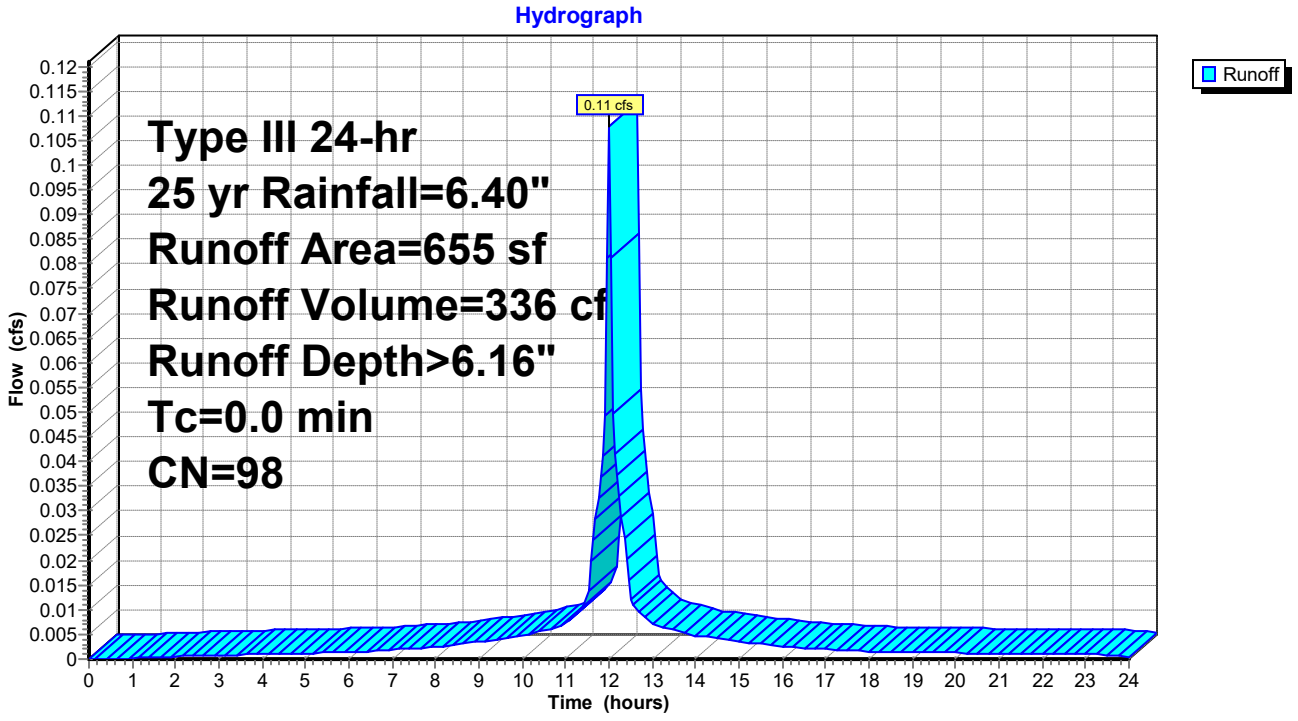
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.11 cfs @ 12.00 hrs, Volume= 336 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	655	98	Pool
	655		100.00% Impervious Area

Subcatchment PPSA: Pool Surface Area



Summary for Subcatchment XA1: Impervious Area #1 to Detention System 1

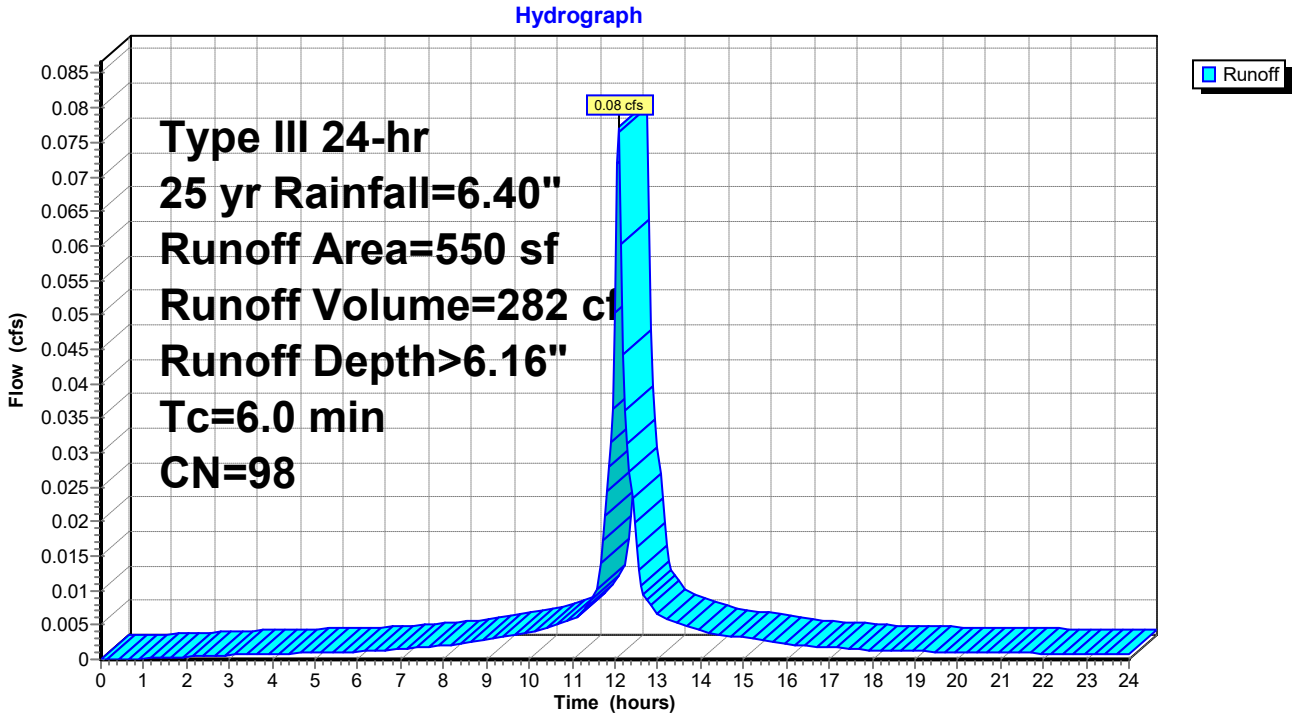
Runoff = 0.08 cfs @ 12.09 hrs, Volume= 282 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	550	98	Building
	550		100.00% Impervious Area

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

Subcatchment XA1: Impervious Area #1 to Detention System 1



Summary for Subcatchment XB: Proposed Bypass Area

[49] Hint: Tc<2dt may require smaller dt

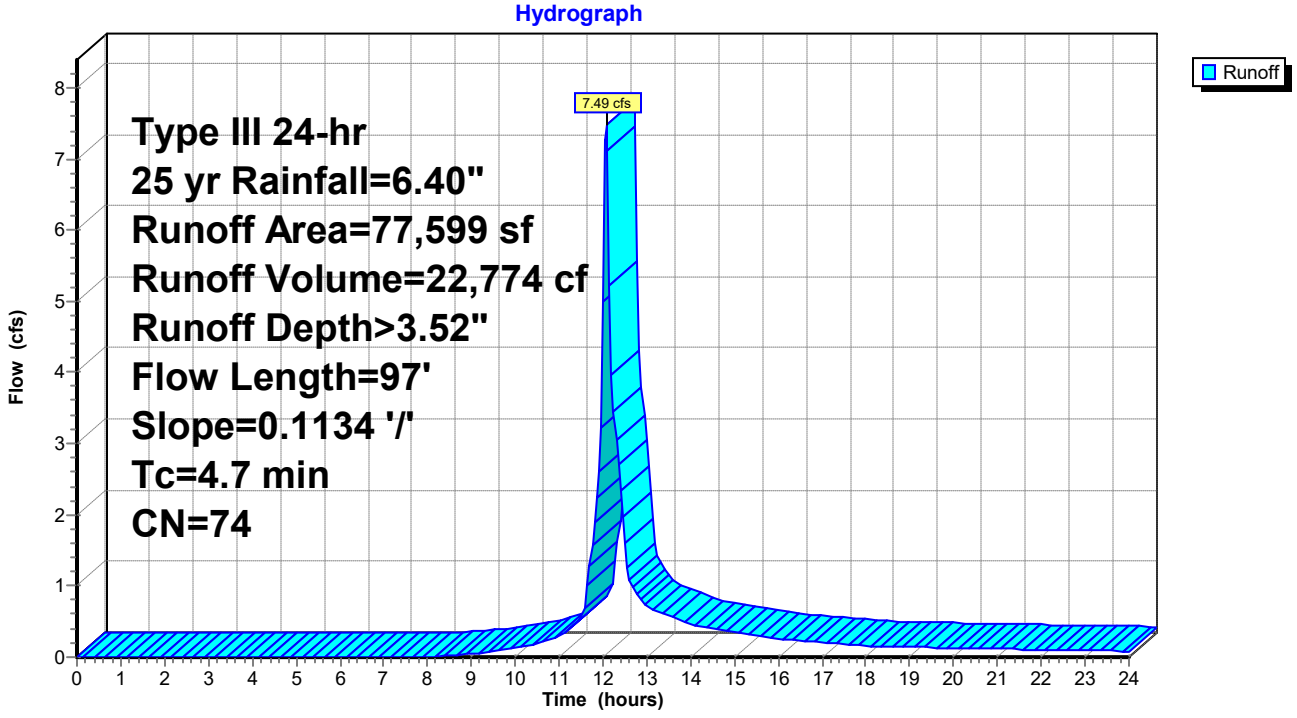
Runoff = 7.49 cfs @ 12.07 hrs, Volume= 22,774 cf, Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	264	98	Patio
*	200	98	Pool Coping/Equipment
	35,731	89	<50% Grass cover, Poor, HSG D
	41,404	61	>75% Grass cover, Good, HSG B
	77,599	74	Weighted Average
	77,135		99.40% Pervious Area
	464		0.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.7	97	0.1134	0.34		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.30"

Subcatchment XB: Proposed Bypass Area



Summary for Subcatchment XPA3: Impervious Area #3 to Detention System 3

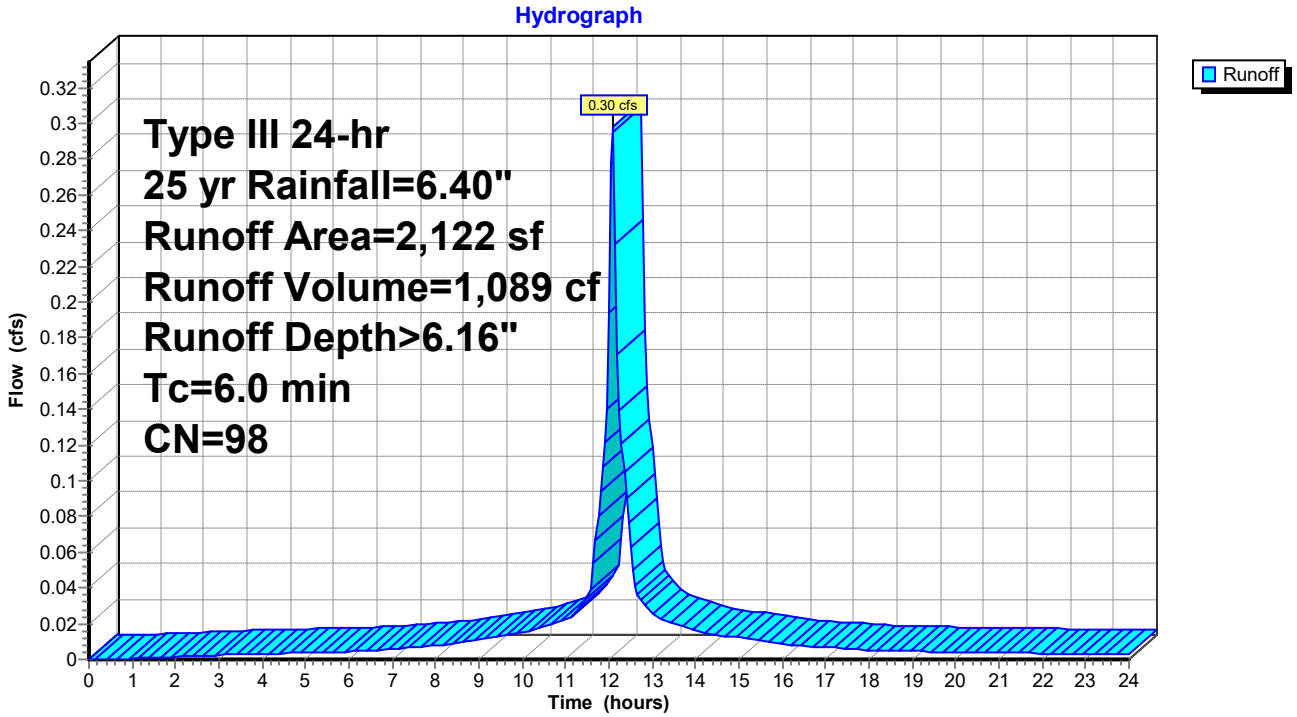
Runoff = 0.30 cfs @ 12.09 hrs, Volume= 1,089 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	2,122	98	Building
	2,122		100.00% Impervious Area

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

Subcatchment XPA3: Impervious Area #3 to Detention System 3



Summary for Subcatchment XPSA: Pool Surface Area

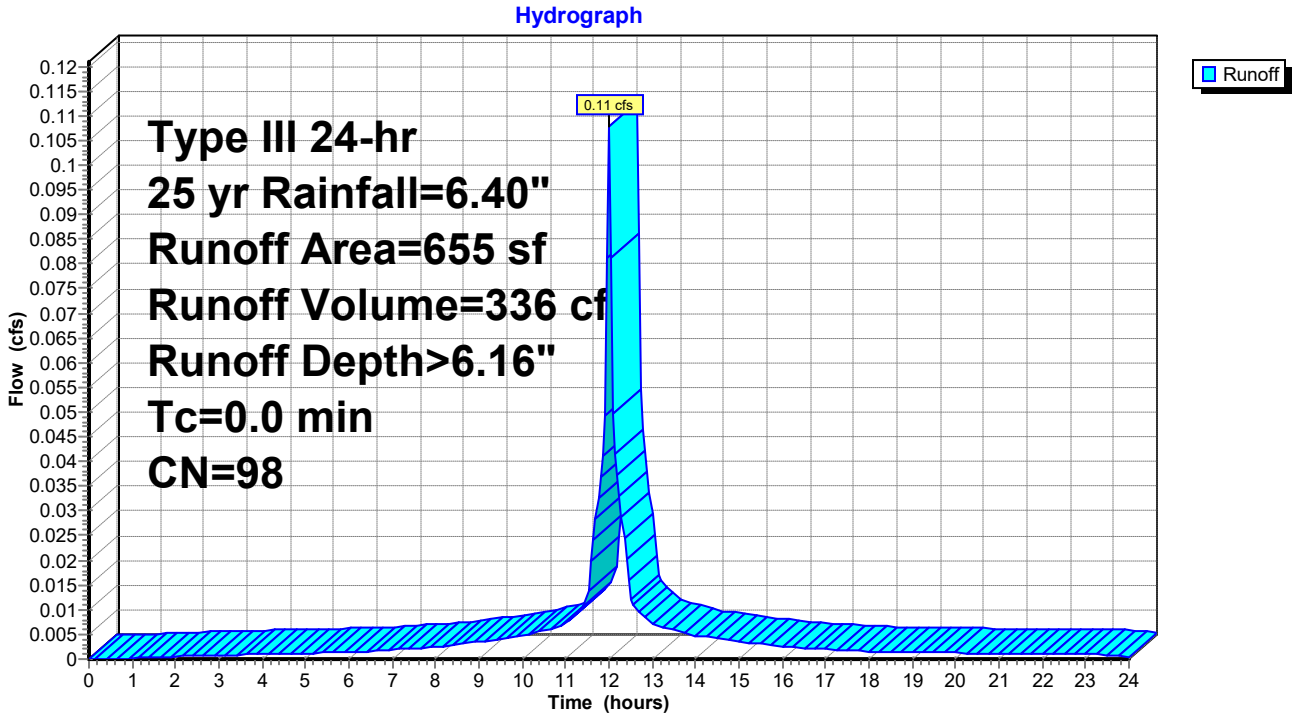
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.11 cfs @ 12.00 hrs, Volume= 336 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 yr Rainfall=6.40"

	Area (sf)	CN	Description
*	655	98	Pool
	655		100.00% Impervious Area

Subcatchment XPSA: Pool Surface Area



Summary for Pond PDB1: 12" High Precast Concrete Galleries

Inflow Area = 3,060 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 1,570 cf
Outflow = 0.25 cfs @ 12.22 hrs, Volume= 1,569 cf, Atten= 41%, Lag= 7.9 min
Discarded = 0.05 cfs @ 12.20 hrs, Volume= 1,433 cf
Primary = 0.20 cfs @ 12.22 hrs, Volume= 136 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 83.54' @ 12.20 hrs Surf.Area= 724 sf Storage= 386 cf

Plug-Flow detention time= 50.6 min calculated for 1,569 cf (100% of inflow)
Center-of-Mass det. time= 50.0 min (793.8 - 743.8)

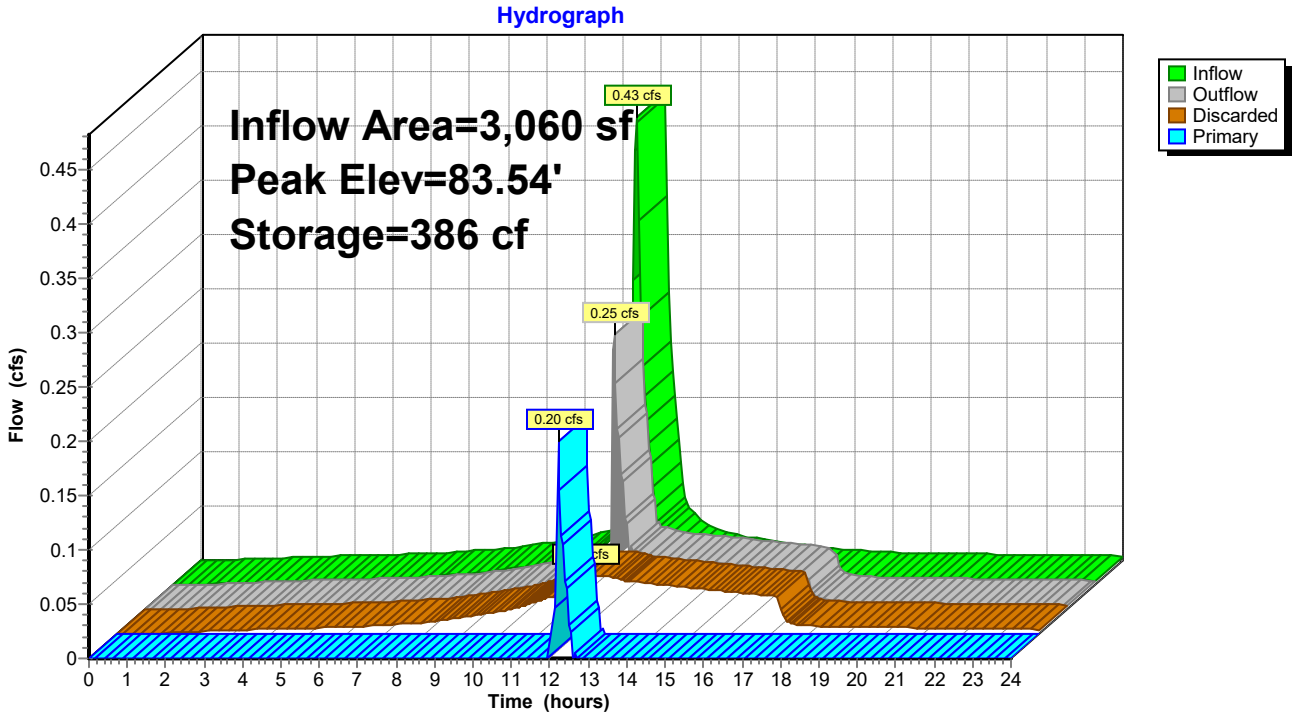
Volume	Invert	Avail.Storage	Storage Description
#1	82.50'	102 cf	**6.00'W x 8.00'L x 1.00'H Stone Bed** x 15 720 cf Overall - 466 cf Embedded = 254 cf x 40.0% Voids
#2	82.50'	280 cf	**Concrete Galley 4x8x1** x 15 Inside #1 Inside= 42.0"W x 9.0"H => 2.49 sf x 7.50'L = 18.7 cf Outside= 48.0"W x 12.0"H => 3.88 sf x 8.00'L = 31.0 cf
#3	82.50'	10 cf	**2.00'W x 2.00'L x 2.50'H Catch Basin Storage**
		392 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	83.50'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Discarded	82.50'	**2.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.05 cfs @ 12.20 hrs HW=83.54' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.17 cfs @ 12.22 hrs HW=83.53' (Free Discharge)
↑—**1=Sharp-Crested Rectangular Weir** (Weir Controls 0.17 cfs @ 0.61 fps)

Pond PDB1: 12" High Precast Concrete Galleries



Stage-Area-Storage for Pond PDB1: 12" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
82.50	724	0
82.55	745	25
82.60	767	49
82.65	788	74
82.70	810	98
82.75	831	123
82.80	852	147
82.85	874	172
82.90	895	197
82.95	917	221
83.00	938	246
83.05	959	270
83.10	981	294
83.15	1,002	316
83.20	1,024	338
83.25	1,045	359
83.30	1,066	365
83.35	1,088	370
83.40	1,109	375
83.45	1,131	381
83.50	1,152	386
83.55	1,152	386
83.60	1,153	386
83.65	1,153	386
83.70	1,154	387
83.75	1,154	387
83.80	1,154	387
83.85	1,155	387
83.90	1,155	387
83.95	1,156	388
84.00	1,156	388
84.05	1,156	388
84.10	1,157	388
84.15	1,157	388
84.20	1,158	389
84.25	1,158	389
84.30	1,158	389
84.35	1,159	389
84.40	1,159	389
84.45	1,160	390
84.50	1,160	390
84.55	1,160	390
84.60	1,161	390
84.65	1,161	390
84.70	1,162	391
84.75	1,162	391
84.80	1,162	391
84.85	1,163	391
84.90	1,163	391
84.95	1,164	392
85.00	**1,164**	**392**

Summary for Pond PDB2: 18" High Precast Concrete Galleries

Inflow Area = 1,975 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.28 cfs @ 12.09 hrs, Volume= 1,013 cf
Outflow = 0.04 cfs @ 12.63 hrs, Volume= 1,012 cf, Atten= 87%, Lag= 32.5 min
Discarded = 0.04 cfs @ 12.63 hrs, Volume= 1,012 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 80.01' @ 12.63 hrs Surf.Area= 484 sf Storage= 334 cf

Plug-Flow detention time= 70.1 min calculated for 1,010 cf (100% of inflow)
Center-of-Mass det. time= 69.2 min (813.0 - 743.8)

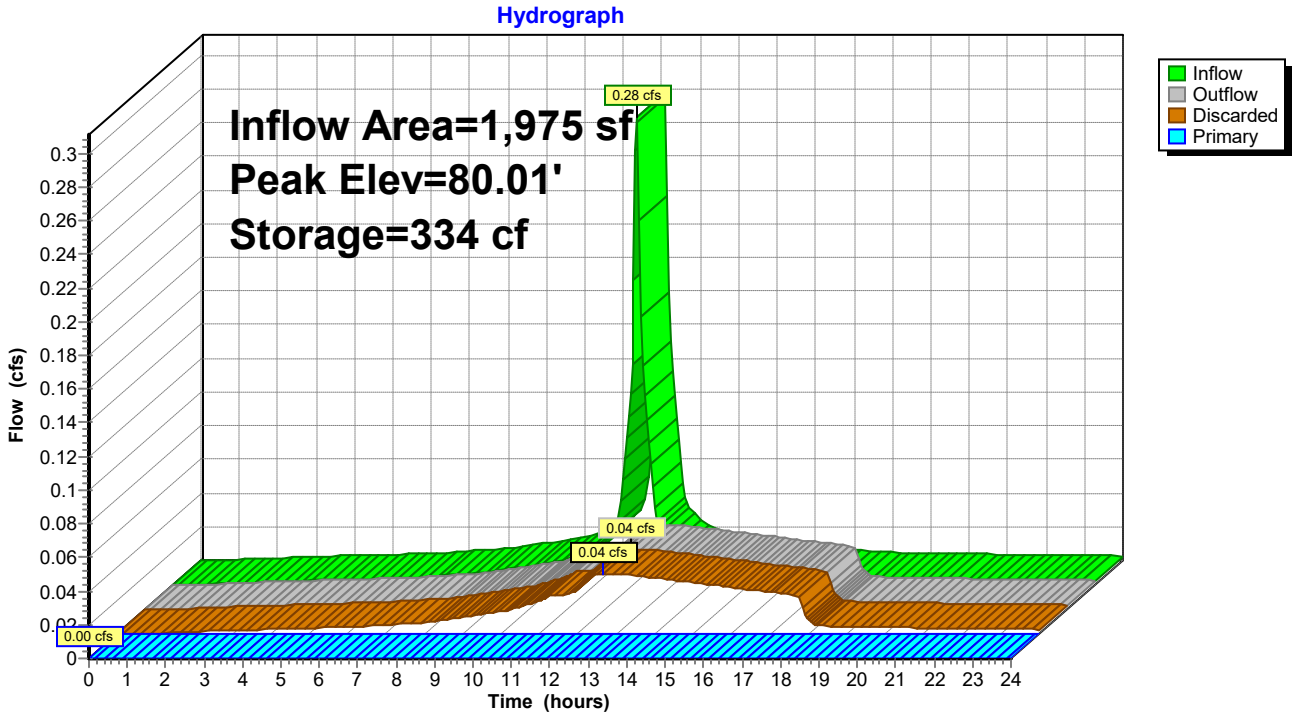
Volume	Invert	Avail.Storage	Storage Description
#1	79.00'	96 cf	**6.00'W x 8.00'L x 1.50'H Stone Bed** x 10 720 cf Overall - 480 cf Embedded = 240 cf x 40.0% Voids
#2	79.00'	322 cf	**Concrete Galley 4x8x1.5** x 10 Inside #1 Inside= 42.0"W x 15.0"H => 4.29 sf x 7.50'L = 32.2 cf Outside= 48.0"W x 18.0"H => 6.00 sf x 8.00'L = 48.0 cf
#3	79.00'	12 cf	**2.00'W x 2.00'L x 3.00'H Catch Basin Storage**
		430 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	79.00'	**2.000 in/hr Exfiltration over Wetted area**
#2	Primary	81.00'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.04 cfs @ 12.63 hrs HW=80.01' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=79.00' (Free Discharge)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PDB2: 18" High Precast Concrete Galleries



Stage-Area-Storage for Pond PDB2: 18" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
79.00	484	0
79.05	498	17
79.10	513	33
79.15	527	50
79.20	542	66
79.25	556	83
79.30	570	99
79.35	585	116
79.40	599	132
79.45	614	149
79.50	628	165
79.55	642	182
79.60	657	198
79.65	671	215
79.70	686	231
79.75	700	248
79.80	714	264
79.85	729	281
79.90	743	297
79.95	758	314
80.00	772	331
80.05	786	347
80.10	801	363
80.15	815	378
80.20	830	392
80.25	844	407
80.30	858	410
80.35	873	414
80.40	887	417
80.45	902	420
80.50	916	424
80.55	916	424
80.60	917	424
80.65	917	424
80.70	918	425
80.75	918	425
80.80	918	425
80.85	919	425
80.90	919	425
80.95	920	426
81.00	920	426
81.05	920	426
81.10	921	426
81.15	921	426
81.20	922	427
81.25	922	427
81.30	922	427
81.35	923	427
81.40	923	427
81.45	924	428
81.50	924	428
81.55	924	428
81.60	925	428
81.65	925	428
81.70	926	429
81.75	926	429
81.80	926	429
81.85	927	429
81.90	927	429
81.95	928	430
82.00	**928**	**430**

Summary for Pond PDB3: 18" High Precast Concrete Galleries

Inflow Area = 3,322 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.47 cfs @ 12.09 hrs, Volume= 1,705 cf
Outflow = 0.06 cfs @ 12.64 hrs, Volume= 1,703 cf, Atten= 87%, Lag= 33.3 min
Discarded = 0.06 cfs @ 12.64 hrs, Volume= 1,703 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 83.68' @ 12.64 hrs Surf.Area= 676 sf Storage= 592 cf

Plug-Flow detention time= 84.6 min calculated for 1,703 cf (100% of inflow)
Center-of-Mass det. time= 83.8 min (827.6 - 743.8)

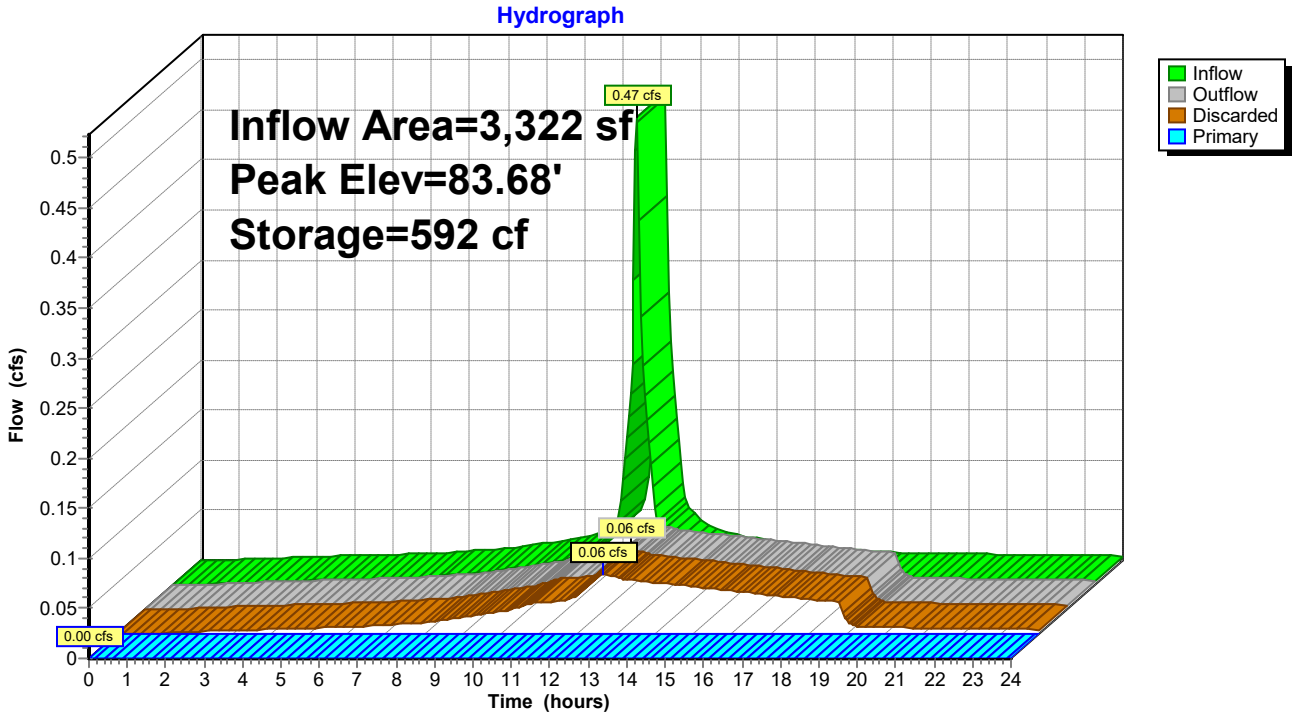
Volume	Invert	Avail.Storage	Storage Description
#1	82.00'	134 cf	**6.00'W x 8.00'L x 1.50'H Stone Bed** x 14 1,008 cf Overall - 672 cf Embedded = 336 cf x 40.0% Voids
#2	82.00'	450 cf	**Concrete Galley 4x8x1.5** x 14 Inside #1 Inside= 42.0"W x 15.0"H => 4.29 sf x 7.50'L = 32.2 cf Outside= 48.0"W x 18.0"H => 6.00 sf x 8.00'L = 48.0 cf
#3	82.00'	12 cf	**2.00'W x 2.00'L x 3.00'H Catch Basin Storage**
		597 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	**2.000 in/hr Exfiltration over Wetted area**
#2	Primary	84.00'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.06 cfs @ 12.64 hrs HW=83.66' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=82.00' (Free Discharge)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PDB3: 18" High Precast Concrete Galleries



Stage-Area-Storage for Pond PDB3: 18" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
82.00	676	0
82.05	696	23
82.10	716	46
82.15	736	69
82.20	756	92
82.25	776	115
82.30	796	138
82.35	816	161
82.40	836	184
82.45	856	207
82.50	876	231
82.55	896	254
82.60	916	277
82.65	936	300
82.70	956	323
82.75	976	346
82.80	996	369
82.85	1,016	392
82.90	1,036	415
82.95	1,056	438
83.00	1,076	461
83.05	1,096	484
83.10	1,116	506
83.15	1,136	527
83.20	1,156	547
83.25	1,176	567
83.30	1,196	572
83.35	1,216	577
83.40	1,236	581
83.45	1,256	586
83.50	1,276	591
83.55	1,276	591
83.60	1,277	591
83.65	1,277	591
83.70	1,278	592
83.75	1,278	592
83.80	1,278	592
83.85	1,279	592
83.90	1,279	592
83.95	1,280	593
84.00	1,280	593
84.05	1,280	593
84.10	1,281	593
84.15	1,281	593
84.20	1,282	594
84.25	1,282	594
84.30	1,282	594
84.35	1,283	594
84.40	1,283	594
84.45	1,284	595
84.50	1,284	595
84.55	1,284	595
84.60	1,285	595
84.65	1,285	595
84.70	1,286	596
84.75	1,286	596
84.80	1,286	596
84.85	1,287	596
84.90	1,287	596
84.95	1,288	597
85.00	**1,288**	**597**

Summary for Pond PPS: Pool Storage Below Overflow

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 655 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.11 cfs @ 12.00 hrs, Volume= 336 cf
Outflow = 0.03 cfs @ 12.35 hrs, Volume= 120 cf, Atten= 69%, Lag= 21.0 min
Primary = 0.03 cfs @ 12.35 hrs, Volume= 120 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 85.00' @ 12.35 hrs Surf.Area= 655 sf Storage= 217 cf

Plug-Flow detention time= 363.5 min calculated for 120 cf (36% of inflow)
Center-of-Mass det. time= 189.3 min (928.0 - 738.6)

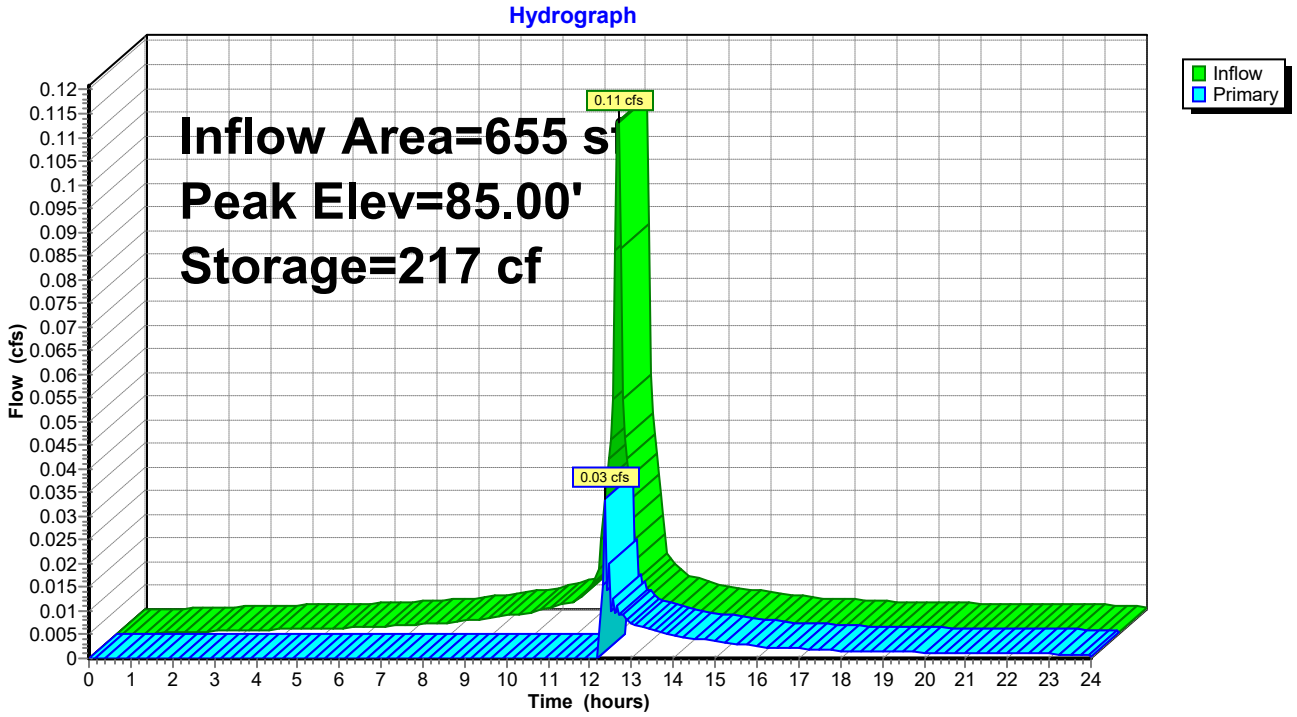
Volume	Invert	Avail.Storage	Storage Description
#1	84.67'	655 cf	**Pool Storage (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.67	655	0	0
85.67	655	655	655

Device	Routing	Invert	Outlet Devices
#1	Primary	85.00'	**108.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.01 cfs @ 12.35 hrs HW=85.00' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 0.01 cfs @ 0.10 fps)

Pond PPS: Pool Storage Below Overflow



Stage-Area-Storage for Pond PPS: Pool Storage Below Overflow

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
84.67	**655**	0
84.68	655	7
84.69	655	13
84.70	655	20
84.71	655	26
84.72	655	33
84.73	655	39
84.74	655	46
84.75	655	52
84.76	655	59
84.77	655	65
84.78	655	72
84.79	655	79
84.80	655	85
84.81	655	92
84.82	655	98
84.83	655	105
84.84	655	111
84.85	655	118
84.86	655	124
84.87	655	131
84.88	655	138
84.89	655	144
84.90	655	151
84.91	655	157
84.92	655	164
84.93	655	170
84.94	655	177
84.95	655	183
84.96	655	190
84.97	655	196
84.98	655	203
84.99	655	210
85.00	655	216
85.01	655	223
85.02	655	229
85.03	655	236
85.04	655	242
85.05	655	249
85.06	655	255
85.07	655	262
85.08	655	269
85.09	655	275
85.10	655	282
85.11	655	288
85.12	655	295
85.13	655	301
85.14	655	308
85.15	655	314
85.16	655	321
85.17	655	328
85.18	655	334
85.19	655	341
85.20	655	347
85.21	655	354
85.22	655	360
85.23	655	367
85.24	655	373
85.25	655	380
85.26	655	386
85.27	655	393
85.28	655	400
85.29	655	406
85.30	655	413
85.31	655	419
85.32	655	426
85.33	655	432
85.34	655	439
85.35	655	445
85.36	655	452
85.37	655	459
85.38	655	465
85.39	655	472
85.40	655	478
85.41	655	485
85.42	655	491
85.43	655	498
85.44	655	504
85.45	655	511
85.46	655	517
85.47	655	524
85.48	655	531
85.49	655	537
85.50	655	544
85.51	655	550
85.52	655	557
85.53	655	563
85.54	655	570
85.55	655	576
85.56	655	583
85.57	655	590
85.58	655	596
85.59	655	603
85.60	655	609
85.61	655	616
85.62	655	622
85.63	655	629
85.64	655	635
85.65	655	642
85.66	655	648
85.67	655	**655**

Summary for Pond XDB1: 12" High Precast Concrete Galleries

Inflow Area = 550 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.08 cfs @ 12.09 hrs, Volume= 282 cf
Outflow = 0.02 cfs @ 12.39 hrs, Volume= 282 cf, Atten= 68%, Lag= 18.1 min
Discarded = 0.02 cfs @ 12.39 hrs, Volume= 282 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 82.65' @ 12.39 hrs Surf.Area= 484 sf Storage= 49 cf

Plug-Flow detention time= 12.7 min calculated for 281 cf (100% of inflow)
Center-of-Mass det. time= 12.1 min (755.8 - 743.8)

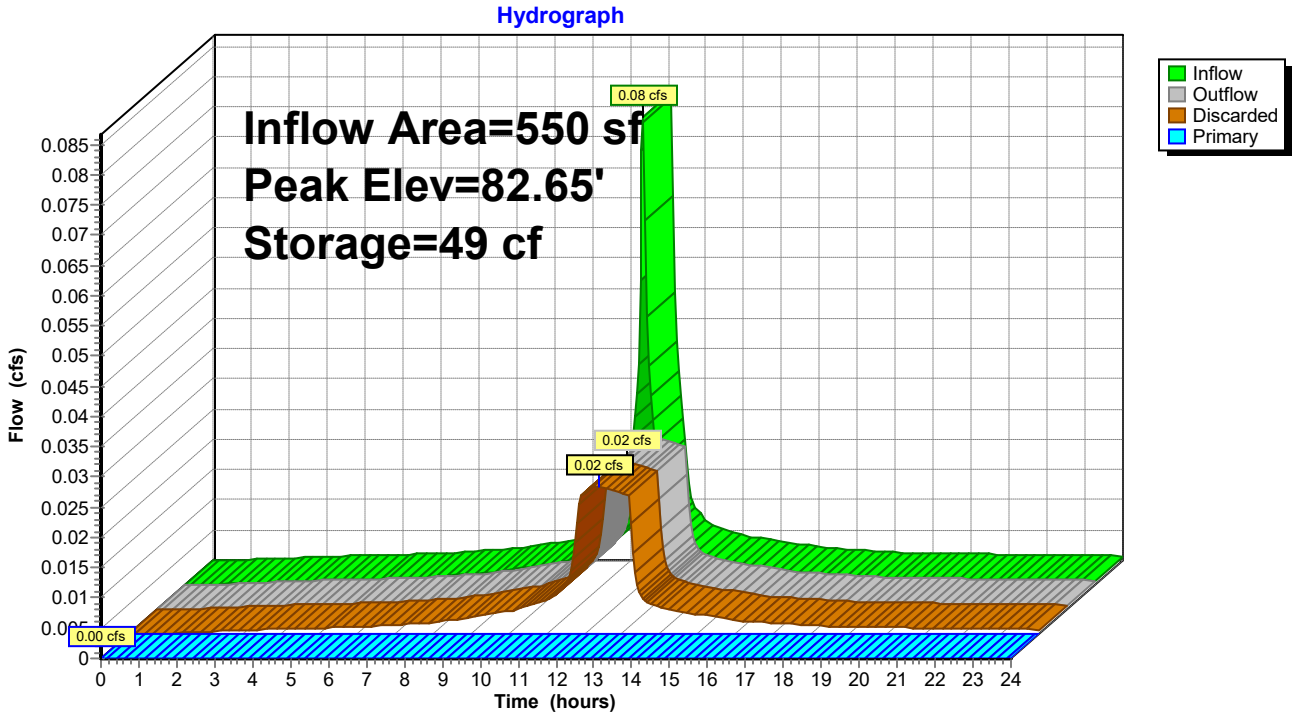
Volume	Invert	Avail.Storage	Storage Description
#1	82.50'	68 cf	**6.00'W x 8.00'L x 1.00'H Stone Bed** x 10 480 cf Overall - 310 cf Embedded = 170 cf x 40.0% Voids
#2	82.50'	187 cf	**Concrete Galley 4x8x1** x 10 Inside #1 Inside= 42.0"W x 9.0"H => 2.49 sf x 7.50'L = 18.7 cf Outside= 48.0"W x 12.0"H => 3.88 sf x 8.00'L = 31.0 cf
#3	82.50'	10 cf	**2.00'W x 2.00'L x 2.50'H Catch Basin Storage**
		265 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	82.50'	**2.000 in/hr Exfiltration over Wetted area**
#2	Primary	83.50'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.02 cfs @ 12.39 hrs HW=82.65' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=82.50' (Free Discharge)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond XDB1: 12" High Precast Concrete Galleries



Stage-Area-Storage for Pond XDB1: 12" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
82.50	484	0
82.55	498	16
82.60	513	33
82.65	527	49
82.70	542	66
82.75	556	82
82.80	570	99
82.85	585	115
82.90	599	132
82.95	614	148
83.00	628	165
83.05	642	181
83.10	657	197
83.15	671	212
83.20	686	226
83.25	700	241
83.30	714	244
83.35	729	248
83.40	743	251
83.45	758	255
83.50	772	259
83.55	772	259
83.60	773	259
83.65	773	259
83.70	774	259
83.75	774	260
83.80	774	260
83.85	775	260
83.90	775	260
83.95	776	260
84.00	776	261
84.05	776	261
84.10	777	261
84.15	777	261
84.20	778	261
84.25	778	262
84.30	778	262
84.35	779	262
84.40	779	262
84.45	780	262
84.50	780	263
84.55	780	263
84.60	781	263
84.65	781	263
84.70	782	263
84.75	782	264
84.80	782	264
84.85	783	264
84.90	783	264
84.95	784	264
85.00	**784**	**265**

Summary for Pond XDB2: 18" High Precast Concrete Galleries

[43] Hint: Has no inflow (Outflow=Zero)

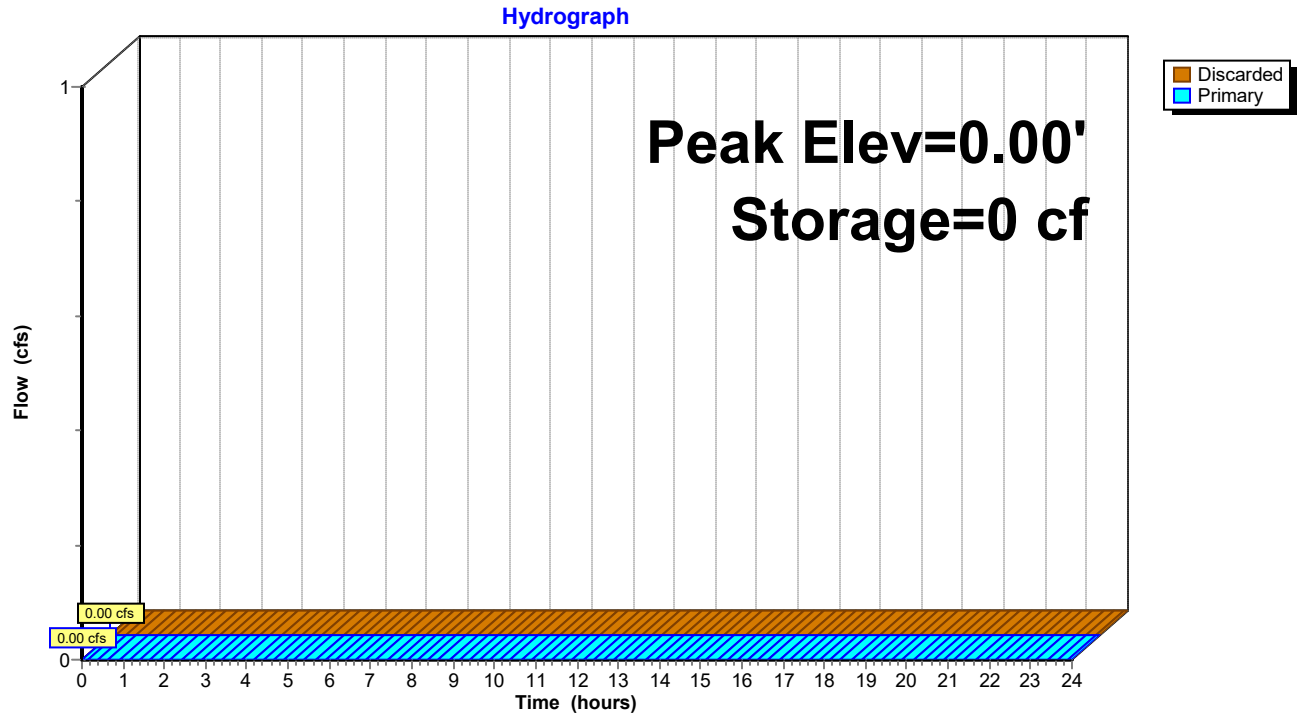
Volume	Invert	Avail.Storage	Storage Description
#1	79.00'	77 cf	**6.00'W x 8.00'L x 1.50'H Stone Bed** x 8 576 cf Overall - 384 cf Embedded = 192 cf x 40.0% Voids
#2	79.00'	257 cf	**Concrete Galley 4x8x1.5** x 8 Inside #1 Inside= 42.0"W x 15.0"H => 4.29 sf x 7.50'L = 32.2 cf Outside= 48.0"W x 18.0"H => 6.00 sf x 8.00'L = 48.0 cf
#3	79.00'	12 cf	**2.00'W x 2.00'L x 3.00'H Catch Basin Storage**
		346 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	79.00'	**2.000 in/hr Exfiltration over Wetted area**
#2	Primary	81.00'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)
└**1=Exfiltration** (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)
└**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond XDB2: 18" High Precast Concrete Galleries



Stage-Area-Storage for Pond XDB2: 18" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
79.00	388	0
79.05	400	13
79.10	411	27
79.15	423	40
79.20	434	53
79.25	446	66
79.30	458	80
79.35	469	93
79.40	481	106
79.45	492	119
79.50	504	133
79.55	516	146
79.60	527	159
79.65	539	172
79.70	550	186
79.75	562	199
79.80	574	212
79.85	585	225
79.90	597	239
79.95	608	252
80.00	620	265
80.05	632	278
80.10	643	291
80.15	655	303
80.20	666	315
80.25	678	326
80.30	690	329
80.35	701	332
80.40	713	335
80.45	724	337
80.50	736	340
80.55	736	340
80.60	737	341
80.65	737	341
80.70	738	341
80.75	738	341
80.80	738	341
80.85	739	342
80.90	739	342
80.95	740	342
81.00	740	342
81.05	740	342
81.10	741	343
81.15	741	343
81.20	742	343
81.25	742	343
81.30	742	343
81.35	743	344
81.40	743	344
81.45	744	344
81.50	744	344
81.55	744	344
81.60	745	345
81.65	745	345
81.70	746	345
81.75	746	345
81.80	746	345
81.85	747	346
81.90	747	346
81.95	748	346
82.00	**748**	**346**

Summary for Pond XDB3: 18" High Precast Concrete Galleries

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=3)

Inflow Area = 2,122 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 1,089 cf
Outflow = 0.19 cfs @ 12.21 hrs, Volume= 1,088 cf, Atten= 37%, Lag= 7.6 min
Discarded = 0.03 cfs @ 12.20 hrs, Volume= 978 cf
Primary = 0.16 cfs @ 12.21 hrs, Volume= 109 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 84.03' @ 12.20 hrs Surf.Area= 340 sf Storage= 301 cf

Plug-Flow detention time= 78.6 min calculated for 1,088 cf (100% of inflow)
Center-of-Mass det. time= 77.8 min (821.6 - 743.8)

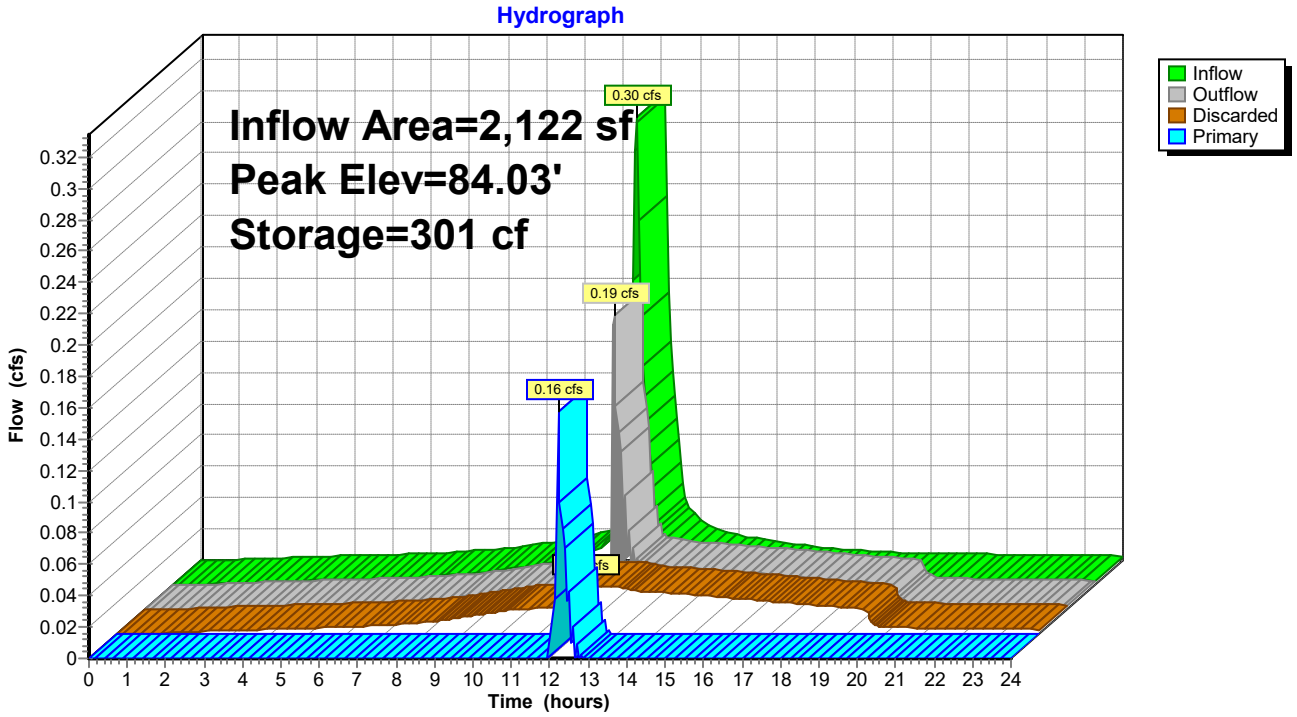
Volume	Invert	Avail.Storage	Storage Description
#1	82.00'	67 cf	**6.00'W x 8.00'L x 1.50'H Stone Bed** x 7 504 cf Overall - 336 cf Embedded = 168 cf x 40.0% Voids
#2	82.00'	225 cf	**Concrete Galley 4x8x1.5** x 7 Inside #1 Inside= 42.0"W x 15.0"H => 4.29 sf x 7.50'L = 32.2 cf Outside= 48.0"W x 18.0"H => 6.00 sf x 8.00'L = 48.0 cf
#3	82.00'	12 cf	**2.00'W x 2.00'L x 3.00'H Catch Basin Storage**
		304 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	**2.000 in/hr Exfiltration over Wetted area**
#2	Primary	84.00'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.03 cfs @ 12.20 hrs HW=84.03' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.13 cfs @ 12.21 hrs HW=84.03' (Free Discharge)
2=Sharp-Crested Rectangular Weir (Weir Controls 0.13 cfs @ 0.55 fps)

Pond XDB3: 18" High Precast Concrete Galleries



Stage-Area-Storage for Pond XDB3: 18" High Precast Concrete Galleries

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
82.00	340	0
82.05	350	12
82.10	360	23
82.15	371	35
82.20	381	47
82.25	391	58
82.30	401	70
82.35	411	81
82.40	422	93
82.45	432	105
82.50	442	116
82.55	452	128
82.60	462	140
82.65	473	151
82.70	483	163
82.75	493	174
82.80	503	186
82.85	513	198
82.90	524	209
82.95	534	221
83.00	544	233
83.05	554	244
83.10	564	255
83.15	575	266
83.20	585	276
83.25	595	286
83.30	605	289
83.35	615	291
83.40	626	294
83.45	636	296
83.50	646	298
83.55	646	299
83.60	647	299
83.65	647	299
83.70	648	299
83.75	648	299
83.80	648	300
83.85	649	300
83.90	649	300
83.95	650	300
84.00	650	300
84.05	650	301
84.10	651	301
84.15	651	301
84.20	652	301
84.25	652	301
84.30	652	302
84.35	653	302
84.40	653	302
84.45	654	302
84.50	654	302
84.55	654	303
84.60	655	303
84.65	655	303
84.70	656	303
84.75	656	303
84.80	656	304
84.85	657	304
84.90	657	304
84.95	658	304
85.00	**658**	**304**

Summary for Pond XPS: Pool Storage Below Overflow

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 655 sf,100.00% Impervious, Inflow Depth > 6.16" for 25 yr event
Inflow = 0.11 cfs @ 12.00 hrs, Volume= 336 cf
Outflow = 0.03 cfs @ 12.35 hrs, Volume= 120 cf, Atten= 69%, Lag= 21.0 min
Primary = 0.03 cfs @ 12.35 hrs, Volume= 120 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 84.50' @ 12.35 hrs Surf.Area= 655 sf Storage= 217 cf

Plug-Flow detention time= 363.5 min calculated for 120 cf (36% of inflow)
Center-of-Mass det. time= 189.3 min (928.0 - 738.6)

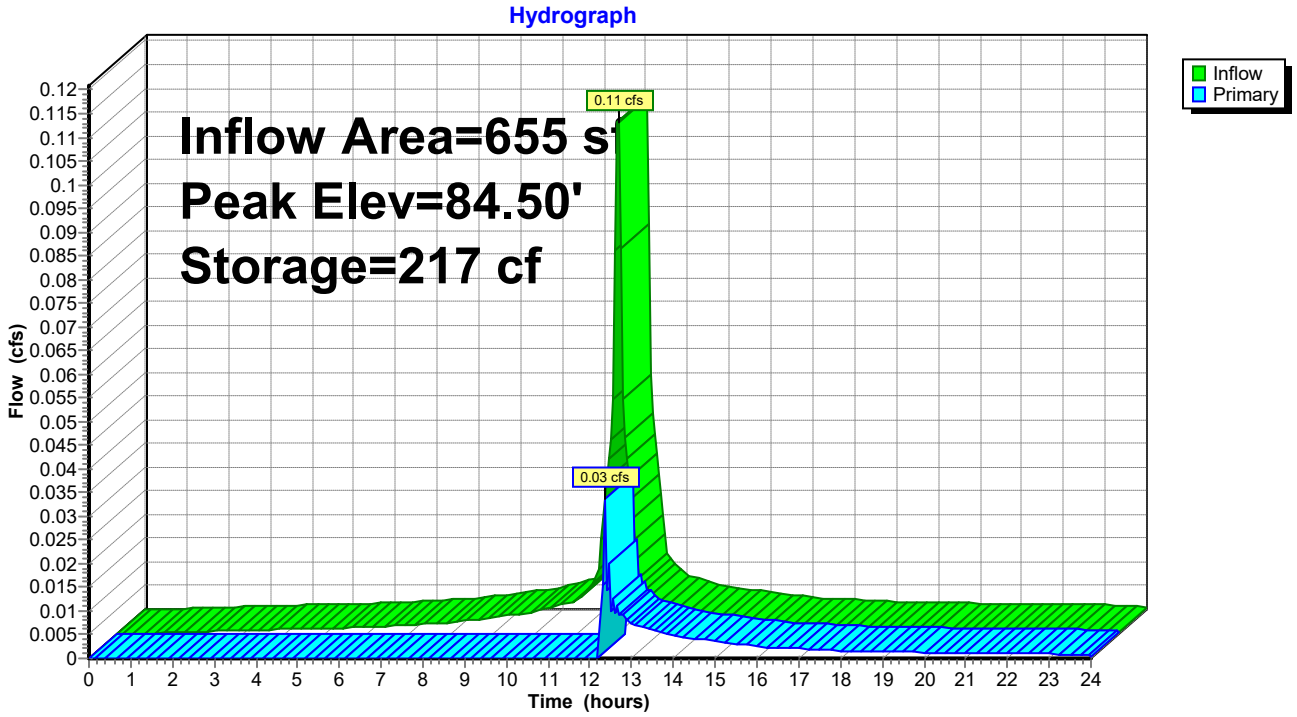
Volume	Invert	Avail.Storage	Storage Description
#1	84.17'	655 cf	**Pool Storage (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
84.17	655	0	0
85.17	655	655	655

Device	Routing	Invert	Outlet Devices
#1	Primary	84.50'	**108.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.01 cfs @ 12.35 hrs HW=84.50' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 0.01 cfs @ 0.10 fps)

Pond XPS: Pool Storage Below Overflow



Stage-Area-Storage for Pond XPS: Pool Storage Below Overflow

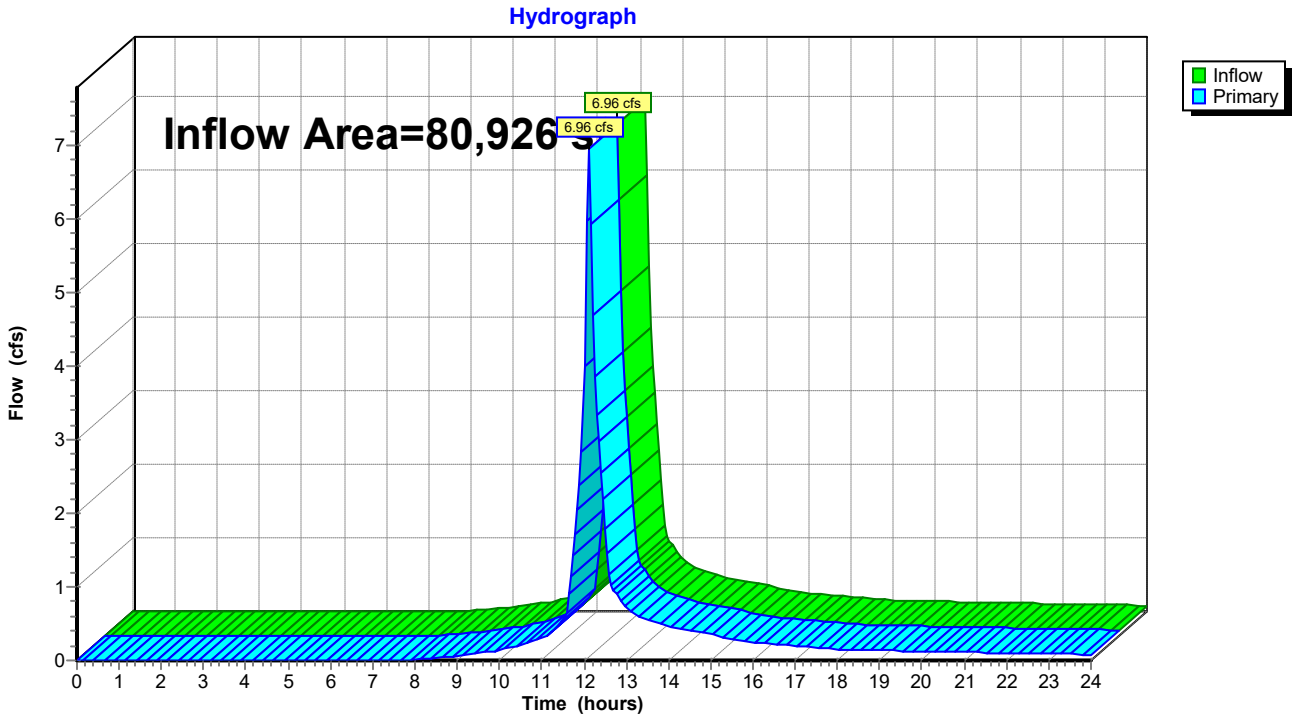
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
84.17	**655**	0
84.18	655	7
84.19	655	13
84.20	655	20
84.21	655	26
84.22	655	33
84.23	655	39
84.24	655	46
84.25	655	52
84.26	655	59
84.27	655	65
84.28	655	72
84.29	655	79
84.30	655	85
84.31	655	92
84.32	655	98
84.33	655	105
84.34	655	111
84.35	655	118
84.36	655	124
84.37	655	131
84.38	655	138
84.39	655	144
84.40	655	151
84.41	655	157
84.42	655	164
84.43	655	170
84.44	655	177
84.45	655	183
84.46	655	190
84.47	655	196
84.48	655	203
84.49	655	210
84.50	655	216
84.51	655	223
84.52	655	229
84.53	655	236
84.54	655	242
84.55	655	249
84.56	655	255
84.57	655	262
84.58	655	269
84.59	655	275
84.60	655	282
84.61	655	288
84.62	655	295
84.63	655	301
84.64	655	308
84.65	655	314
84.66	655	321
84.67	655	328
84.68	655	334
84.69	655	341
84.70	655	347
84.71	655	354
84.72	655	360
84.73	655	367
84.74	655	373
84.75	655	380
84.76	655	386
84.77	655	393
84.78	655	400
84.79	655	406
84.80	655	413
84.81	655	419
84.82	655	426
84.83	655	432
84.84	655	439
84.85	655	445
84.86	655	452
84.87	655	459
84.88	655	465
84.89	655	472
84.90	655	478
84.91	655	485
84.92	655	491
84.93	655	498
84.94	655	504
84.95	655	511
84.96	655	517
84.97	655	524
84.98	655	531
84.99	655	537
85.00	655	544
85.01	655	550
85.02	655	557
85.03	655	563
85.04	655	570
85.05	655	576
85.06	655	583
85.07	655	590
85.08	655	596
85.09	655	603
85.10	655	609
85.11	655	616
85.12	655	622
85.13	655	629
85.14	655	635
85.15	655	642
85.16	655	648
85.17	655	**655**

Summary for Link POR: Overall Runoff

Inflow Area = 80,926 sf, 13.71% Impervious, Inflow Depth > 3.35" for 25 yr event
Inflow = 6.96 cfs @ 12.10 hrs, Volume= 22,573 cf
Primary = 6.96 cfs @ 12.10 hrs, Volume= 22,573 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link POR: Overall Runoff

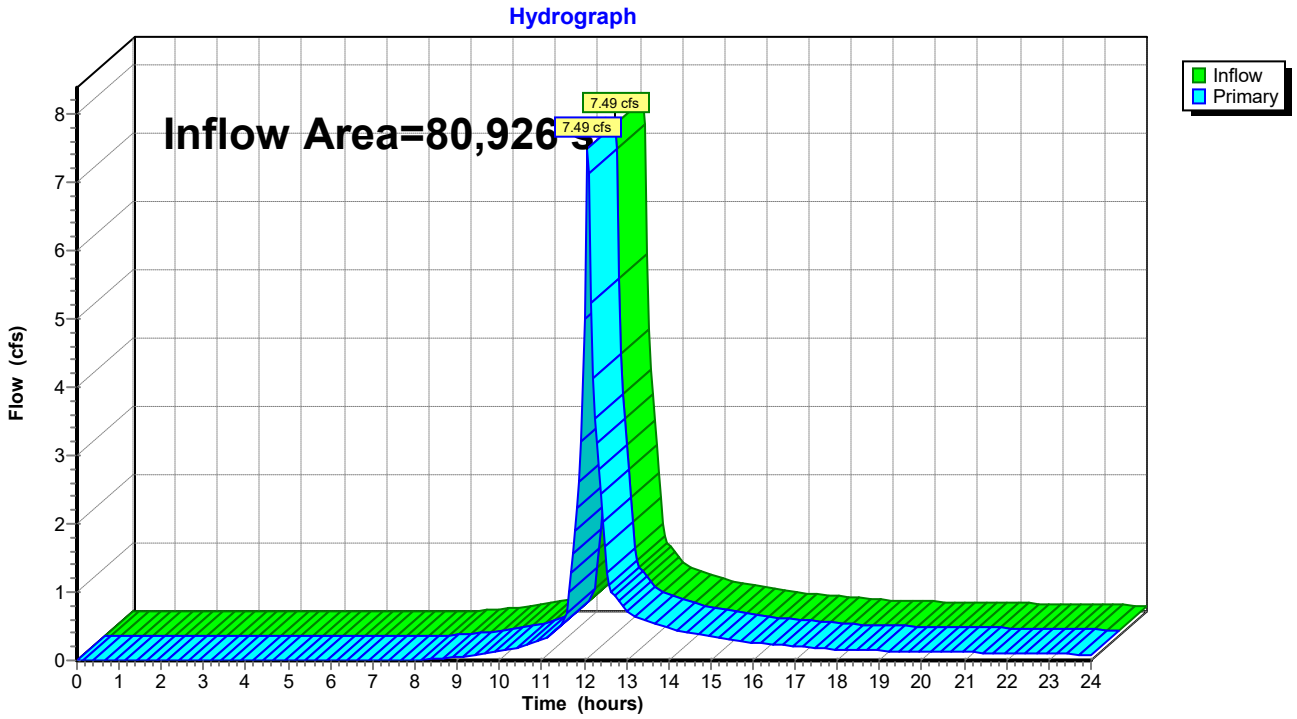


Summary for Link XOR: Overall Runoff

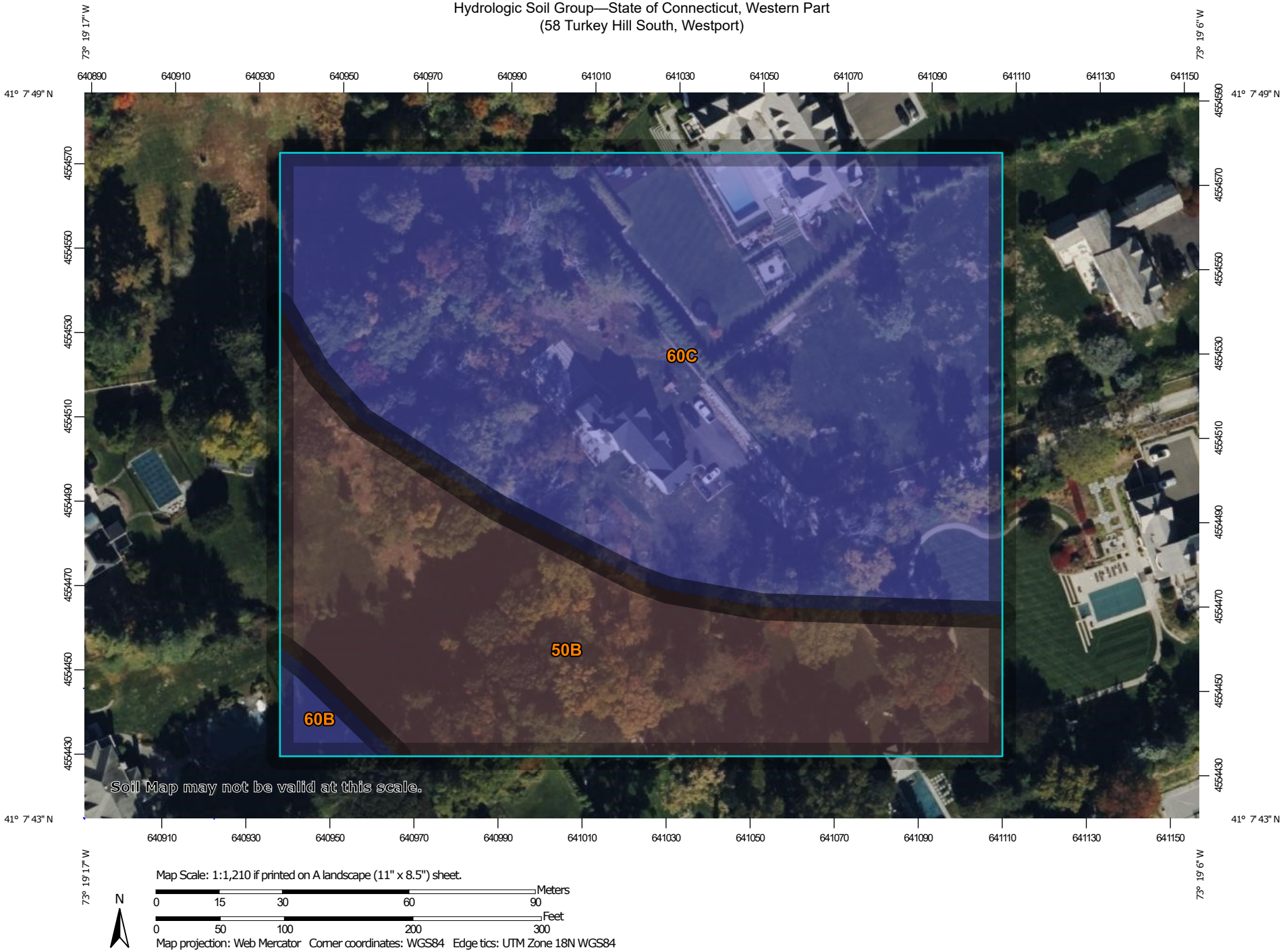
Inflow Area = 80,926 sf, 4.68% Impervious, Inflow Depth > 3.41" for 25 yr event
Inflow = 7.49 cfs @ 12.07 hrs, Volume= 23,003 cf
Primary = 7.49 cfs @ 12.07 hrs, Volume= 23,003 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link XOR: Overall Runoff



Hydrologic Soil Group—State of Connecticut, Western Part
(58 Turkey Hill South, Westport)



Map Scale: 1:1,210 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
50B	Sutton fine sandy loam, 3 to 8 percent slopes	B/D	2.1	34.3%
60B	Canton and Charlton fine sandy loams, 3 to 8 percent slopes	B	0.1	1.5%
60C	Canton and Charlton fine sandy loams, 8 to 15 percent slopes	B	3.9	64.2%
Totals for Area of Interest			**6.1**	**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.