STORMWATER MANAGEMENT REPORT

For

14 EAST GARFIELD AVENUE

Located at

BLOCK 101; LOT 3

In

BOROUGH OF ATLANTIC HIGHLANDS
MONMOUTH COUNTY, NJ

Has been prepared for

KALIAN MANGEMENT, LLC

2 HENESSEY BOULEVARD, SUITE 1
ATLANTIC HIGHLANDS, NJ 07716

On

December 18, 2023
Revised May 10, 2024

InSite Project No. 23-756-12

Jason L. Fichter, PE, PP
NJPE 43118– NJPP 5726

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Licensed in NJ, PA, DE, NY, CT, NC, DC, & CO

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INTRODUCTION

This stormwater management report is being submitted as part of the development application for 14 East Garfield Avenue, located on Block 101; Lot 3 as shown on Sheet 22 of the Official Tax Map of Atlantic Highlands, Monmouth County, New Jersey. This report was prepared in accordance with the Borough of Atlantic Highlands, the State Soil Conservation District (SCD) Standards, New Jersey Department of Transportation (NJDOT), and the New Jersey Department of Environmental Protection (NJDEP), as well as current industry standards and practices for stormwater management.

The project is not considered a "major development" in terms of stormwater since the project disturbs less than one acre and does not create one quarter acre or more of regulated impervious surfaces. Assuming full build out of the property at the allowable 50% impervious coverage, the project does not increase impervious surfaces by more than one quarter acre from existing conditions. Regardless, drywells are proposed to capture and infiltrate the roof runoff of the proposed houses to alleviate any increase in stormwater volume as part of the development. The drywells are designed for the ten-year storm event. The drainage pattern of the property has been improved by directing the majority of the developed site to flow towards the East Garfield Avenue right of way rather than overland flow to the western property, Lot 4, as it previously flowed under pre-development conditions.

PROJECT LOCATION

The address of the property is 14 East Garfield Avenue, Atlantic Highlands, NJ 07716 and is zoned within the Sigle Family Residential (R-1) Zone where single family dwellings are a permitted use. The surrounding area consists of residential properties to the north, east and south, and a retail property to the west.

PROJECT DESCRIPTION

The project proposes to demolish the existing masonic hall on the property and subdivide the property into five (5) lots to construct five (5) two-story single-family dwellings. Final plot plans will be provided at time of construction. Geotechnical investigation will be provided prior

to construction of the drywells based on the final locations of the drywells during the plot plan approval process.

FLOOD HAZARD AREA

According to FEMA's current Effective FIRM entitled, "FIRM Flood Insurance Rate Map, Monmouth County, New Jersey (All Jurisdictions)", Map Number #34025C0066F, dated 09/25/09, the site is not within a flood hazard area and is located in Zone X, with no base flood area.

According to FEMA's current Preliminary FIRM entitled, "FIRM Flood Insurance Rate Map, Monmouth County, New Jersey (All Jurisdictions)", Map Number #34025C0066G, dated 01/30/15, the site is not within a flood hazard area and is located in Zone X, with no base flood area.

SOIL CHARACTERISTICS

The existing soil classifications for the site are based on the USDA NRCS Web Soil Survey. The survey is useful at the planning level to draw general conclusions about the suitability of a site for certain land uses. Based on the NRCS data, the site consists of the following soil type:

SOIL NAME	HYDROLOGIC GROUP
ThhB - Tinton-Urban land complex, 0 to 5 percent slopes	A

PRE-DEVELOPMENT CONDITIONS

The site is currently undeveloped with woods. A summary of drainage areas for the pre-development condition follows below:

Area 1i: Impervious site area draining to East Garfield Avenue
Area 1p: Pervious site area draining to East Garfield Avenue
Area 2i: Impervious site area draining to the west, Lot 4
Area 2p: Pervious site area draining to the west, Lot 4
Area 3i: Impervious site area draining to the northern property line
Area 3p: Pervious site area draining to the northern property line

Refer to Appendix B for detailed calculations for each drainage area's runoff curve number (CN), hydrologic soil group(s) (HSG), associated areas, time of concentration (Tc), peak flow rates, and hydrographs. Refer to Appendix E for the Pre-Development Drainage Area Map.

POST-DEVELOPMENT CONDITIONS

The project proposes to construct five (5) single family residential homes, as well as site improvements such as, driveways and utilities. A summary of drainage areas for the post-development condition follows below:

Area 1Ai: Impervious site area draining to East Garfield Avenue assuming maximum allowable coverage
Area 1Bi: Clean roof area draining to drywells on each property
Area 1p: Pervious site area draining to East Garfield Avenue
Area 2i: Impervious site area draining to the west, Lot 4
Area 2p: Pervious site area draining to the west, Lot 4
Area 3i: Impervious site area draining to the northern property line
Area 3p: Pervious site area draining to the northern property line

Refer to Appendix C for detailed calculations for each drainage area's runoff curve number (CN), hydrologic soil group(s) (HSG), associated areas, time of concentration (Tc), peak flow rates, and hydrographs. Refer to Appendix E for the Post-Development Drainage Area Map.

GREEN INFRASTRUCTURE (N.J.A.C. 7:8-5.3)

For Green Infrastructure compliance, the design engineer shall utilize BMPs from Table 5-1 or from Table 5-2 and/or an alternative stormwater management measure approved in accordance with N.J.A.C. 7:8-5.2(g). Although green infrastructure is not required since this is not a major development, the drywell system is listed in Table 5-1 and therefore complies.

STORMWATER MANAGEMENT SUMMARY (N.J.A.C. 7:8-5.7)

Methods of determining stormwater runoff and peak discharge follow the procedures as outlined in "Urban Hydrology for Small Watersheds", Soil Conservation Service Technical Release No. 55. The rainfall precipitation values for the design storm events have been determined utilizing NOAA, National Weather Service's Atlas 14 Point Precipitation Frequency Estimates, based on 24-hour storm events for Monmouth County. The storm events were studied using the SCS TR-

20 runoff method, NOAA Region D rainfall distribution, and the Delmarva Unit Hydrograph. Stormwater hydrographs were performed using HydroCAD Software Solutions' "HydroCAD" (ver. 10.0) computer program. Pervious and impervious CN values are computed separately rather than a composite CN value. Pervious and impervious areas have separate time of concentration (TC) within each site area.

The proposed development is analyzed based on the maximum allowable lot coverage per the zoning ordinance of 50%. Geotechnical investigation will be provided prior to construction of the drywells based on the final locations of the drywells during the plot plan approval process. Geotechnical results for the adjacent property encountered groundwater at elevation 11.5-11.0. The drywells will be placed a minimum of 2 feet above. The tested infiltration rates are 20 inches per hour (iph) or greater, therefore a design rate of 10 iph is utilized, incorporating a factor of safety of two.

WATER QUANTITY N.J.A.C. (7:8-5.6)

Pre- and Post-development computations for the resultant hydrographs, routing computations, and runoff volumes are appended, respectively, to this report. For each drainage area, the following summaries were generated:

Pre- and Post-Development Flow Rates to East Garfield Avenue

Storm (Year)	Pre-Development Peak Flow (cfs)	Post-Development Peak Flow (cfs)	Difference (cfs)
2	0.3	1.0	0.7
10	0.5	1.6	1.1
25	0.7	2.0	1.3
100	1.1	4.6	3.5

The table above demonstrates that the post-development peak flow rates are increased from pre-development rate, which is expected after development. As stated, the proposed development is analyzed based on the maximum allowable lot coverage per the zoning ordinance of 50%. The flows are directed to the East Garfield Avenue right of way, which is the preferred receiving area. The stormwater will then be managed by the municipal stormwater infrastructure.

Pre- and Post-Development Flow Rates to Lot 4 (West)

Storm (Year)	Pre-Development Peak Flow (cfs)	Post-Development Peak Flow (cfs)	Difference (cfs)
2	0.8	0.0	-0.8
10	1.2	0.0	-1.2
25	1.5	0.0	-1.5
100	2.2	0.1	-2.1

The table above demonstrates that the post-development peak flow rates are reduced for all storm events. Previously, the majority of the existing property flowed overland to the west. The post development conditions direct the majority of the property to East Garfield Avenue via swales and overland sheet flow.

Pre- and Post-Development Flow Rates to Northern Property Line

Storm (Year)	Pre-Development Peak Flow (cfs)	Post-Development Peak Flow (cfs)	Difference (cfs)
2	0.0	0.0	0.0
10	0.1	0.0	-0.1
25	0.1	0.0	-0.1
100	0.2	0.1	-0.1

The table above demonstrates that the post-development peak flow rates meet pre-development rates or are reduced for all storm events. This area is nearly identical for pre- and post-development conditions.

WATER QUALITY (N.J.A.C. 7:8-5.5)

The project is exempt from stormwater quality requirements since the development does not increase regulated motor vehicle surfaces by one quarter of an acre or more.

GROUNDWATER RECHARGE (N.J.A.C. 7:8-5.4)

In accordance with N.J.A.C. 7:8-5.4(a).2.ii, groundwater recharge does not apply to projects within the "urban redevelopment area". An Urban Redevelopment Area is defined, per N.J.A.C. 7:8 1.2, as development portions of areas delineated on the State Plan Policy Map as the

Metropolitan Planning Area. The proposed development is located within Planning Area 1 (Metropolitan Planning Area) and is not required to meet groundwater recharge.

SOIL EROSION AND SEDIMENT CONTROL

In accordance with the Soil Erosion and Sediment Control Act, soil erosion measures will be incorporated into the design and graphically depicted on the Soil Erosion and Sediment Control Plans. These measures consist of, but are not limited to:

- Sediment Barriers and Silt Fences
- Stabilized Construction Access
- Topsoil Stockpiles
- Temporary and Permanent Stabilization

CONCLUSION

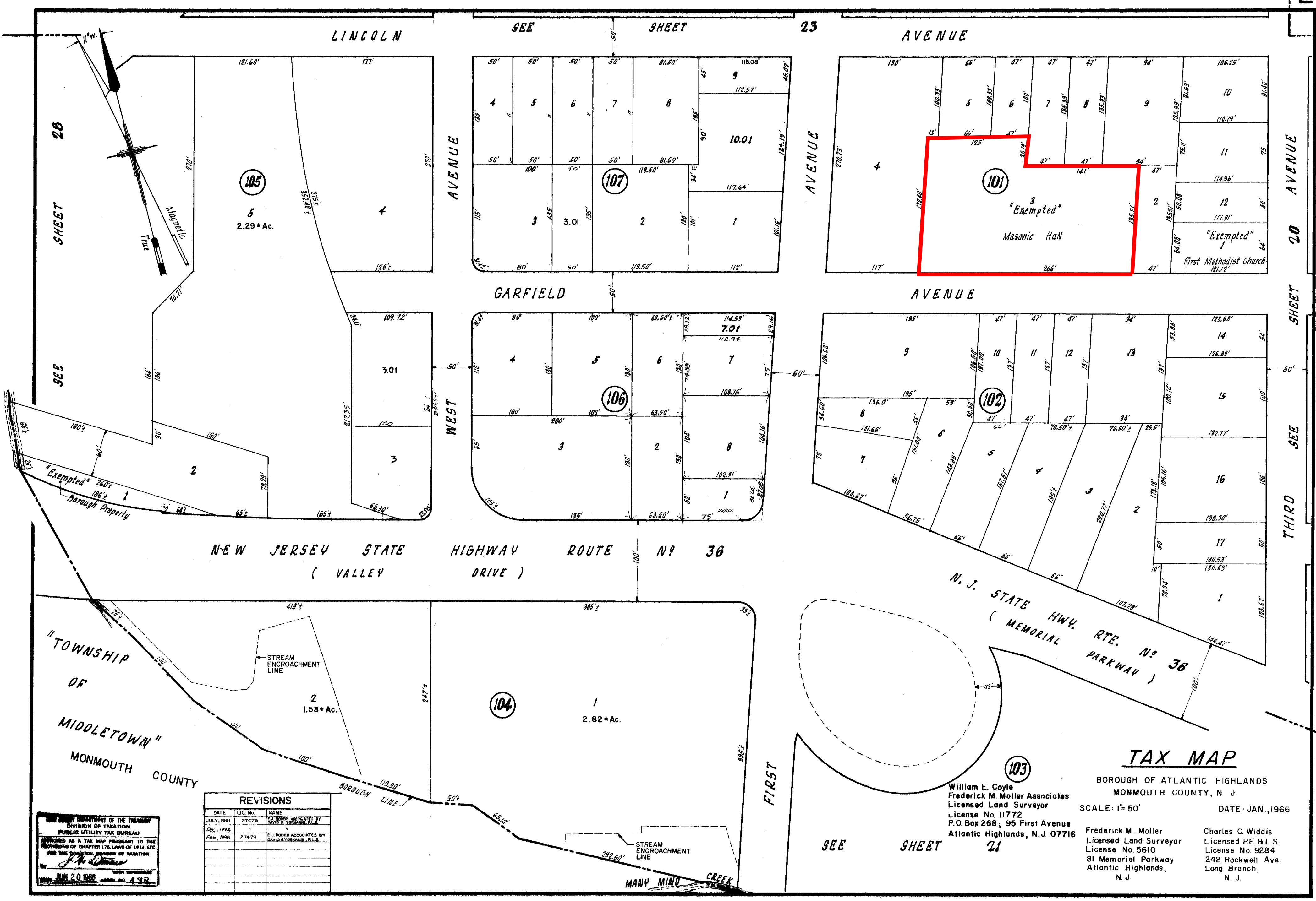
The project is not considered a "major development" in terms of stormwater since the project disturbs less than one acre and does not create one quarter acre or more of regulated impervious surfaces. Assuming full build out of the property at the allowable 50% impervious coverage, the project does not increase impervious surfaces by more than one quarter acre from existing conditions. Regardless, drywells are proposed to capture and infiltrate the roof runoff of the proposed houses to alleviate any increase in stormwater volume as part of the development. The drywells are designed for the ten-year storm event. The drainage pattern of the property has been improved by directing the majority of the developed site to flow towards the East Garfield Avenue right of way rather than overland flow to the western property, Lot 4, as it previously flowed under pre-development conditions.

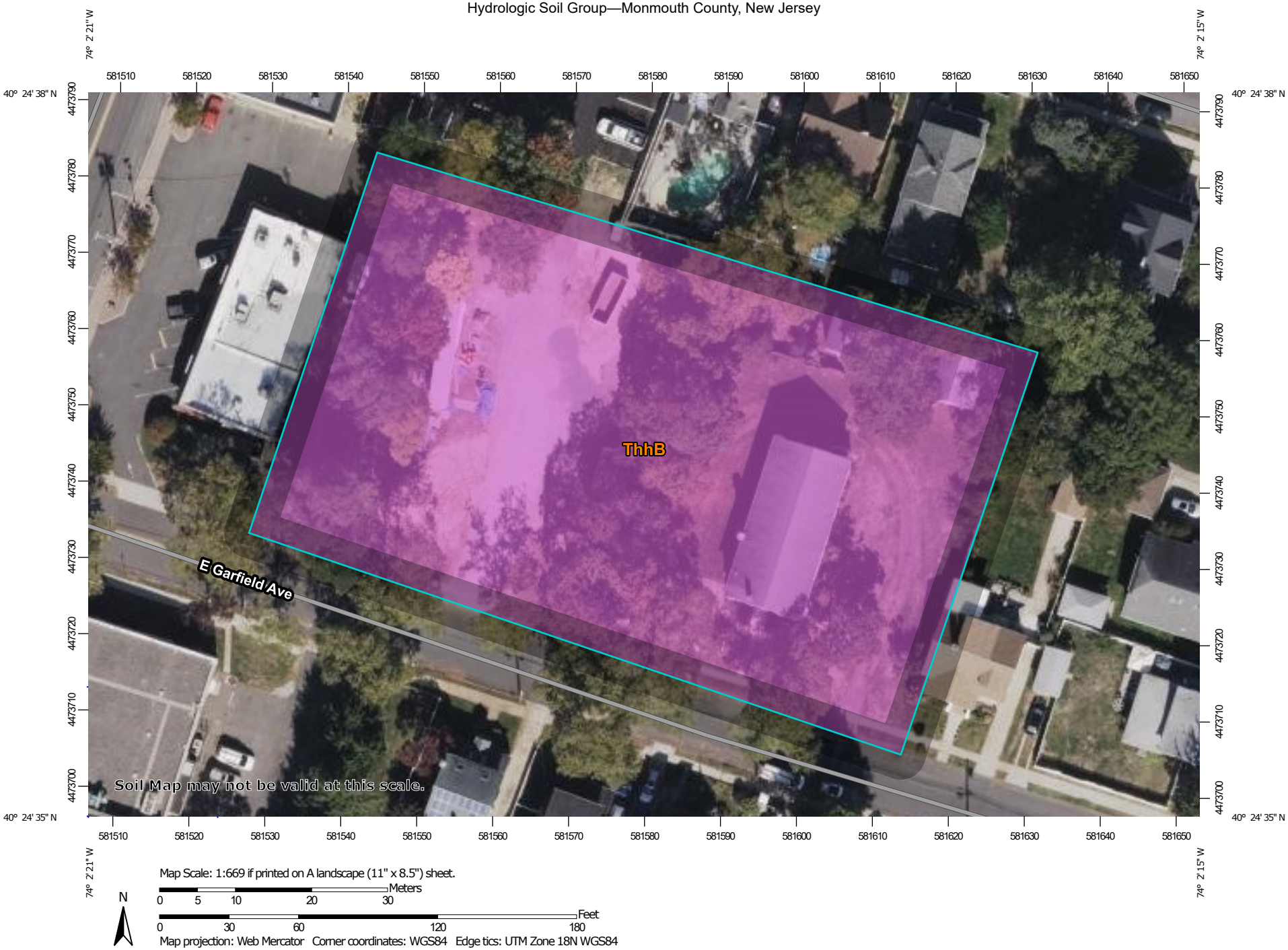
APPENDIX A

Tax Map

Soils Map

State Planning Area Map


LINCOLN AVENUE
SEE SHEET 23
GARFIELD AVENUE
WEST AVENUE
FIRST AVENUE
THIRD AVENUE
SEE SHEET 20
SEE SHEET 28
SEE SHEET 21
NEW JERSEY STATE HIGHWAY ROUTE Nº 36
(VALLEY DRIVE)
N. J. STATE HWY. RTE. Nº 36
(MEMORIAL PARKWAY)
Magnetic
True
105
107
101
106
102
104
103
"Exempted"
Masonic Hall
"Exempted"
First Methodist Church
"Exempted"
Borough Property
2.29 ± Ac.
1.53 ± Ac.
2.82 ± Ac.
STREAM ENCROACHMENT LINE
BOROUGH LINE
MANY MIND CREEK
"TOWNSHIP OF MIDDLETOWN"
MONMOUTH COUNTY
REVISIONS
DATE
LIC. No.
NAME
JULY, 1991
27479
E.J. RODER ASSOCIATES BY DAVID H. YORKANIS, P.L.S.
Dec., 1994
Feb., 1998
27479
E.J. RODER ASSOCIATES BY DAVID H. YORKANIS, P.L.S.
DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PUBLIC UTILITY TAX BUREAU
APPROVED AS A TAX MAP PURSUANT TO THE PROVISIONS OF CHAPTER 175, LAWS OF 1913, ETC.
FOR THE DIRECTOR, DIVISION OF TAXATION
JUN 20 1966
438
William E. Coyle
Frederick M. Moller Associates
Licensed Land Surveyor
License No. 11772
P.O. Box 268; 95 First Avenue
Atlantic Highlands, N.J 07716
TAX MAP
BOROUGH OF ATLANTIC HIGHLANDS
MONMOUTH COUNTY, N. J.
SCALE: 1" = 50'
DATE: JAN., 1966
Frederick M. Moller
Licensed Land Surveyor
License No. 5610
81 Memorial Parkway
Atlantic Highlands, N. J.
Charles C. Widdis
Licensed P.E. & L.S.
License No. 9284
242 Rockwell Ave.
Long Branch, N. J.


74° 2' 21" W
74° 2' 15" W
581510
581520
581530
581540
581550
581560
581570
581580
581590
581600
581610
581620
581630
581640
581650
40° 24' 38" N
40° 24' 35" N
4473790
4473780
4473770
4473760
4473750
4473740
4473730
4473720
4473710
4473700
ThhB
E Garfield Ave
Soil Map may not be valid at this scale.
Map Scale: 1:669 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 5 10 20 30
Feet
0 30 60 120 180
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
ThhB	Tinton-Urban land complex, 0 to 5 percent slopes	A	1.2	100.0%
Totals for Area of Interest			**1.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

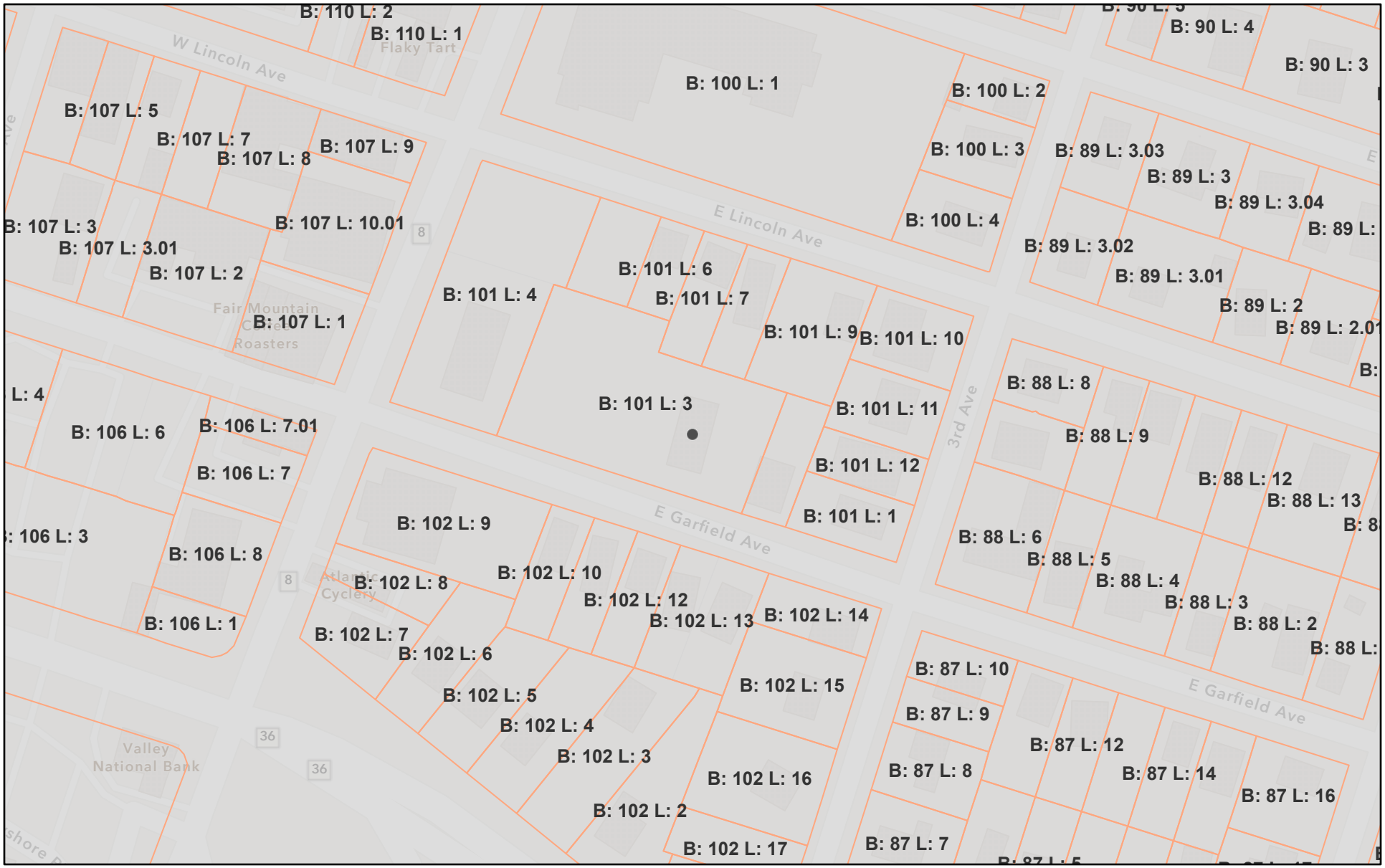
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

NJ-GeoWeb



12/20/2023, 3:21:37 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

State Planning Area Boundaries

Metropolitan Planning Area (PA 1)

County Boundaries

Parcels Data (Block and Lot)

APPENDIX B

Pre-Development Flow Calculations

InSite Engineering, LLC
1955 Route 34, Suite 1A • Wall, NJ 07719
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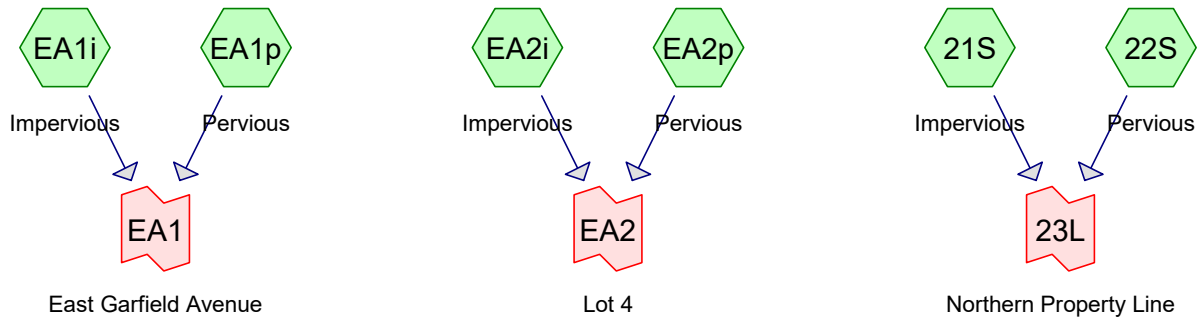
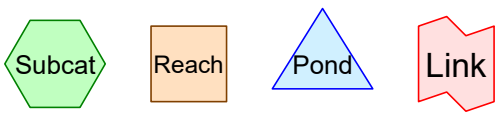
Licensed in NJ, PA, DE, NY, CT, NC, DC, & CO



PRE DEVELOPMENT



Routing Diagram for Monmouth County r1
Prepared by InSite Engineering, LLC, Printed 5/13/2024

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 21S: Impervious Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=3.15"
Flow Length=66' Tc=0.9 min CN=0/98 Runoff=0.0 cfs 0.003 af

Subcatchment 22S: Pervious Runoff Area=0.100 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=135' Tc=7.6 min CN=39/0 Runoff=0.0 cfs 0.000 af

Subcatchment EA1i: Impervious Runoff Area=0.100 ac 100.00% Impervious Runoff Depth=3.15"
Flow Length=324' Tc=2.3 min CN=0/98 Runoff=0.3 cfs 0.026 af

Subcatchment EA1p: Pervious Runoff Area=0.190 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=340' Tc=3.9 min CN=39/0 Runoff=0.0 cfs 0.000 af

Subcatchment EA2i: Impervious Runoff Area=0.220 ac 100.00% Impervious Runoff Depth=3.15"
Flow Length=129' Tc=1.7 min CN=0/98 Runoff=0.8 cfs 0.058 af

Subcatchment EA2p: Pervious Runoff Area=0.320 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=299' Tc=7.4 min CN=39/0 Runoff=0.0 cfs 0.000 af

Link 23L: Northern Property Line Inflow=0.0 cfs 0.003 af
Primary=0.0 cfs 0.003 af

Link EA1: East Garfield Avenue Inflow=0.3 cfs 0.026 af
Primary=0.3 cfs 0.026 af

Link EA2: Lot 4 Inflow=0.8 cfs 0.058 af
Primary=0.8 cfs 0.058 af

Total Runoff Area = 0.940 ac Runoff Volume = 0.087 af Average Runoff Depth = 1.11"
64.89% Pervious = 0.610 ac 35.11% Impervious = 0.330 ac

Summary for Subcatchment 21S: Impervious

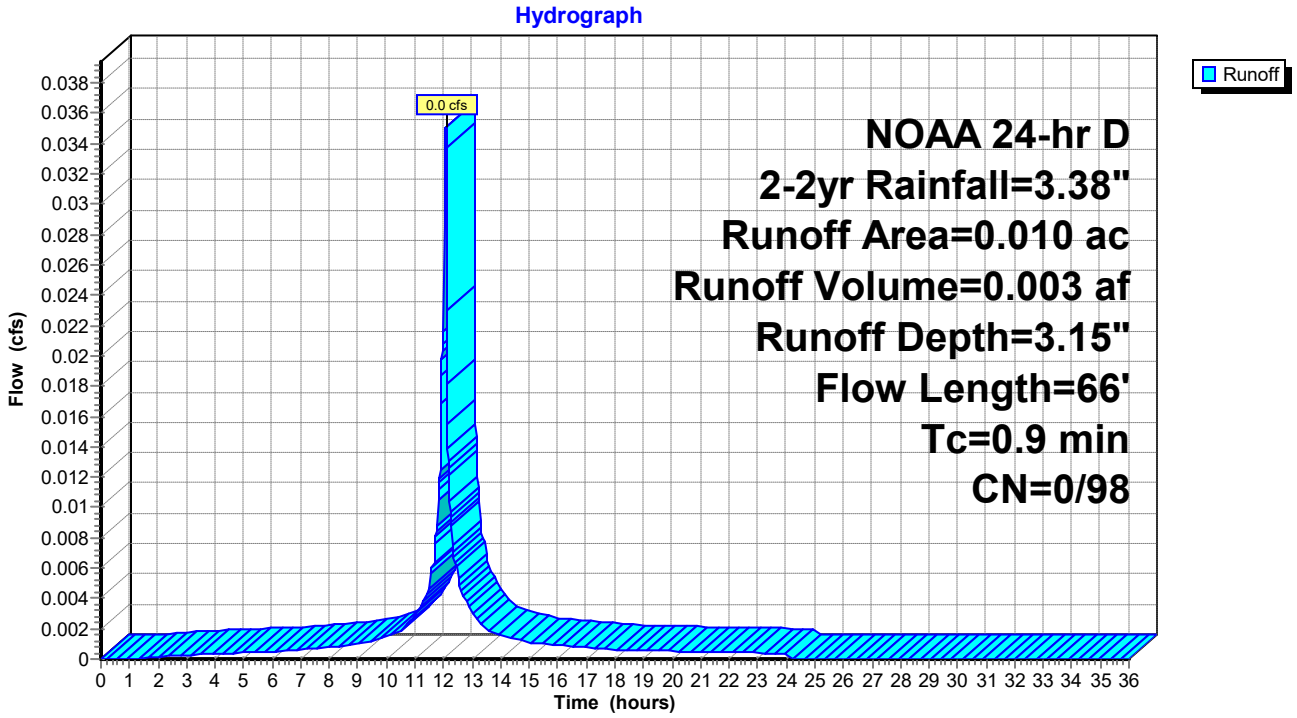
Runoff = 0.0 cfs @ 12.09 hrs, Volume= 0.003 af, Depth= 3.15"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.010	98	Paved parking, HSG A
0.010	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	20	0.0250	1.12		**Sheet Flow, 24.0 - 23.5** Smooth surfaces n= 0.011 P2= 3.40"
0.6	46	0.0065	1.30		**Shallow Concentrated Flow, 23.5 - 23.2** Unpaved Kv= 16.1 fps
0.9	66	Total			

Subcatchment 21S: Impervious



Summary for Subcatchment 22S: Pervious

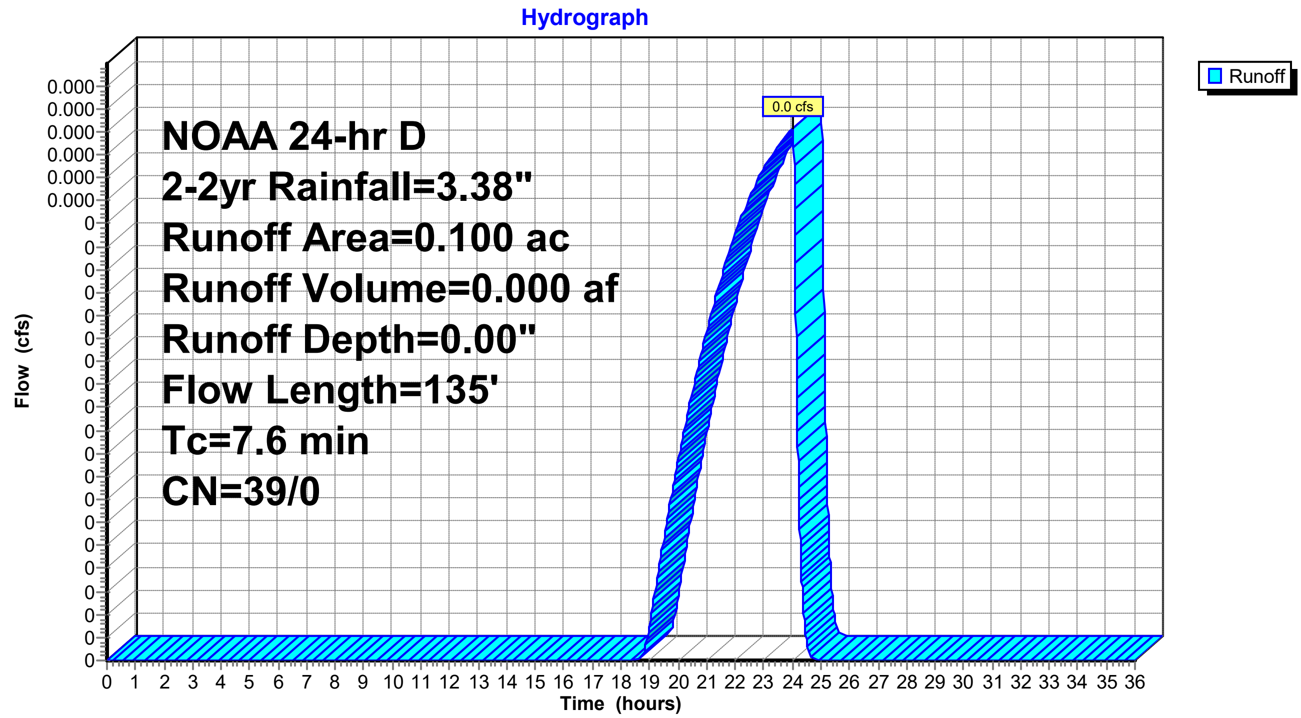
Runoff = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.100	39	>75% Grass cover, Good, HSG A
0.100	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 25.2 - 24.3** Grass: Short n= 0.150 P2= 3.40"
0.4	27	0.0222	1.04		**Shallow Concentrated Flow, 24.3 - 23.7** Short Grass Pasture Kv= 7.0 fps
0.1	12	0.0167	2.62		**Shallow Concentrated Flow, 23.7 - 23.5** Paved Kv= 20.3 fps
1.4	46	0.0065	0.56		**Shallow Concentrated Flow, 23.5 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.6	135	Total			

Subcatchment 22S: Pervious



Summary for Subcatchment EA1i: Impervious

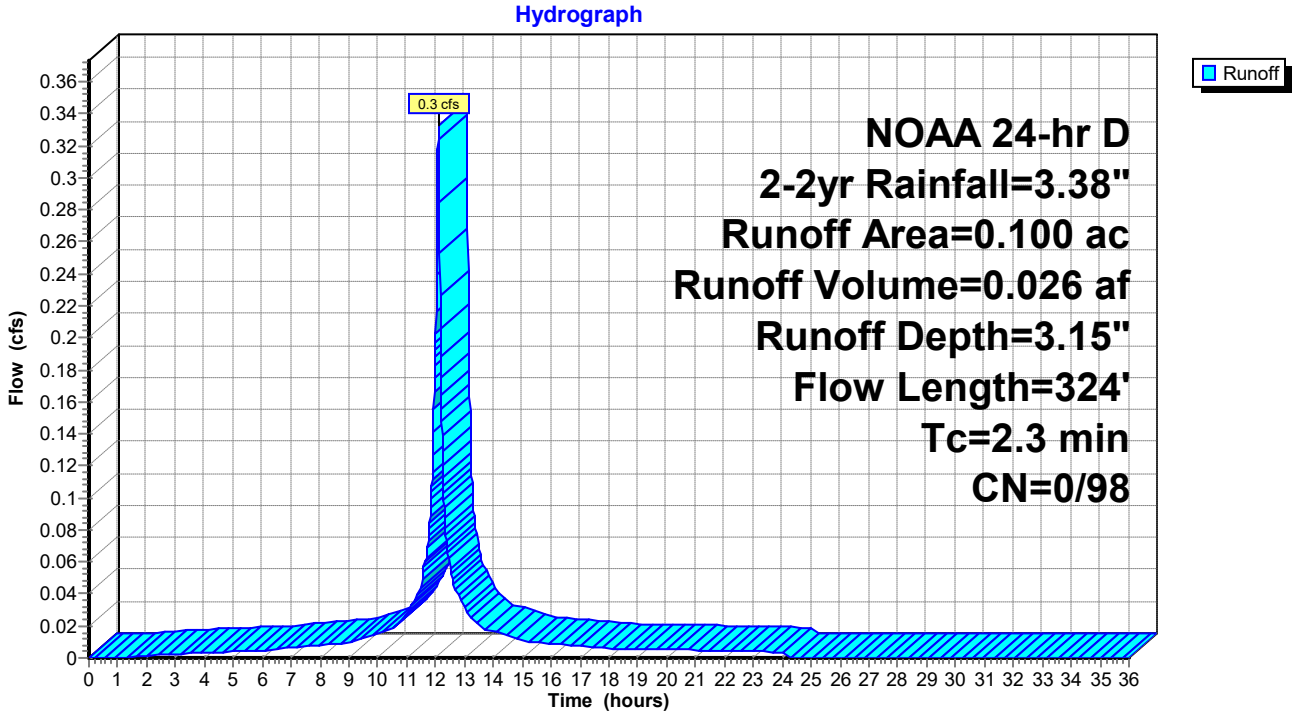
Runoff = 0.3 cfs @ 12.11 hrs, Volume= 0.026 af, Depth= 3.15"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.100	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	17	0.0235	1.06		**Sheet Flow, 26.5 - 26.1** Smooth surfaces n= 0.011 P2= 3.40"
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
2.3	324	Total			

Subcatchment EA1i: Impervious



Summary for Subcatchment EA1p: Pervious

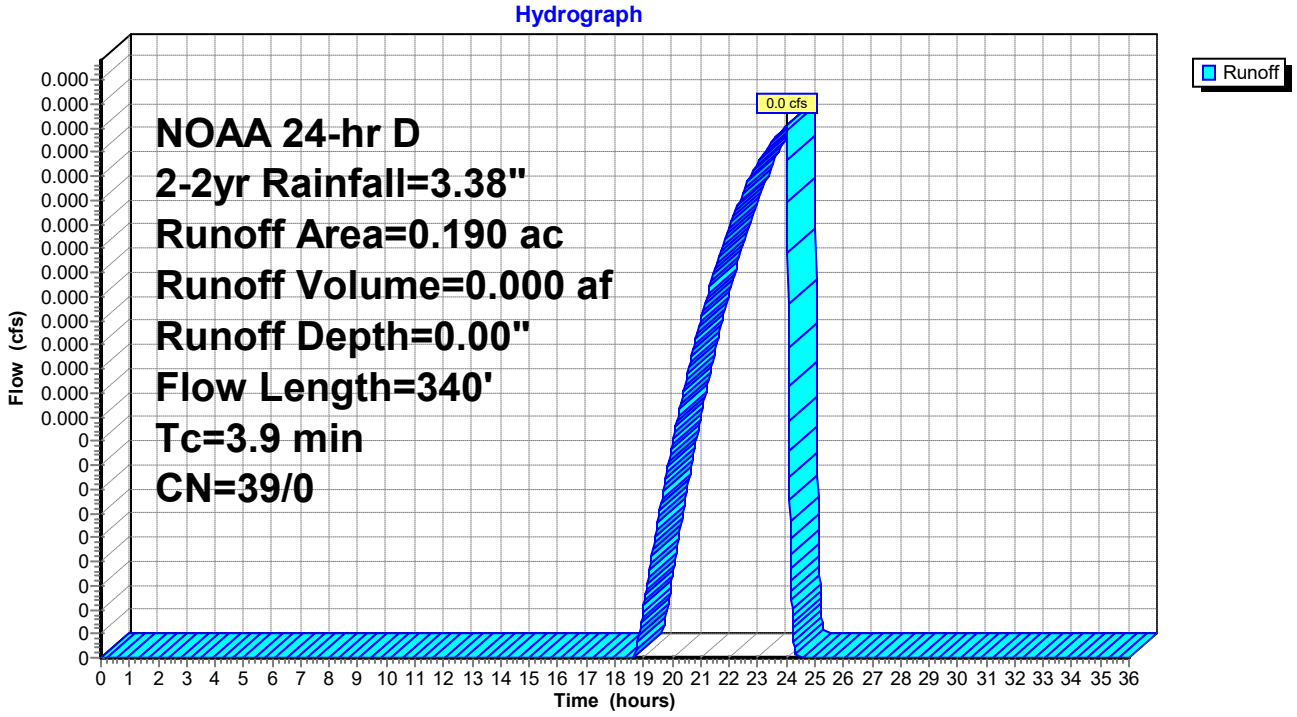
Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.190	39	>75% Grass cover, Good, HSG A
0.190	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	20	0.0500	0.18		**Sheet Flow, 27.4 - 264** Grass: Short n= 0.150 P2= 3.40"
0.1	13	0.0231	3.09		**Shallow Concentrated Flow, 26.4 - 26.4** Paved Kv= 20.3 fps
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
3.9	340	Total			

Subcatchment EA1p: Pervious



Summary for Subcatchment EA2i: Impervious

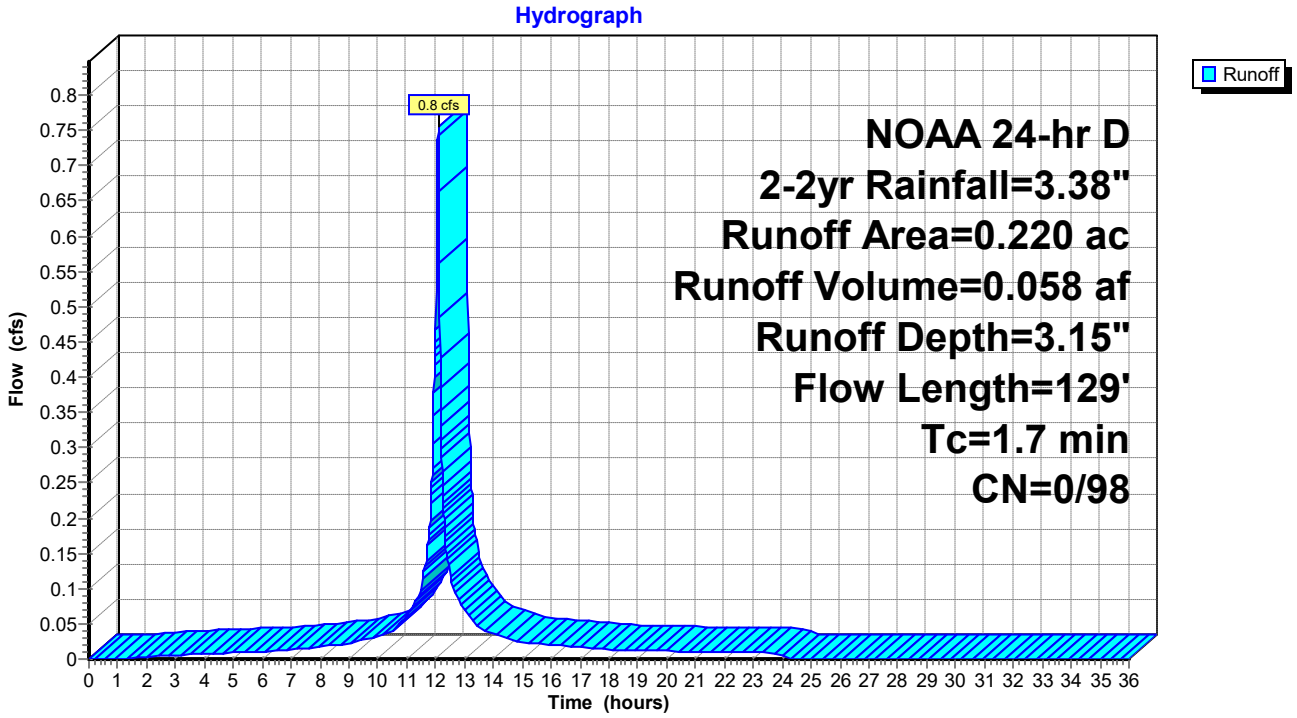
Runoff = 0.8 cfs @ 12.10 hrs, Volume= 0.058 af, Depth= 3.15"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG A
0.220	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	63	0.0270	1.46		**Sheet Flow, 24.7 - 23.00** Smooth surfaces n= 0.011 P2= 3.40"
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
1.7	129	Total			

Subcatchment EA2i: Impervious



Summary for Subcatchment EA2p: Pervious

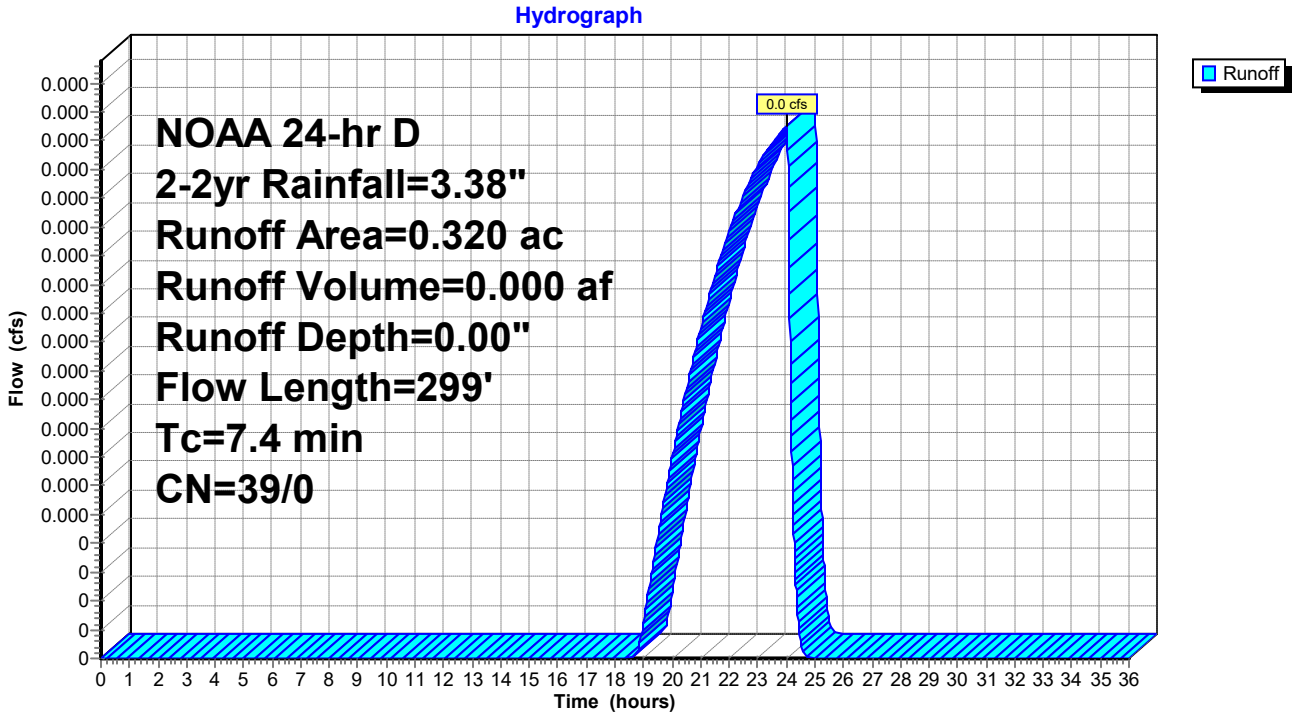
Runoff = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.320	39	>75% Grass cover, Good, HSG A
0.320	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0460	0.21		**Sheet Flow, 28.0 - 25.7** Grass: Short n= 0.150 P2= 3.40"
0.9	50	0.0100	0.94		**Sheet Flow, 25.7 - 25.2** Smooth surfaces n= 0.011 P2= 3.40"
0.3	30	0.0067	1.66		**Shallow Concentrated Flow, 25.2 - 25.0** Paved Kv= 20.3 fps
0.9	39	0.0103	0.71		**Shallow Concentrated Flow, 25.0 - 24.6** Short Grass Pasture Kv= 7.0 fps
0.3	50	0.0260	3.27		**Shallow Concentrated Flow, 24.6 - 23.3** Paved Kv= 20.3 fps
0.1	14	0.0220	3.01		**Shallow Concentrated Flow, 23.3 - 23.0** Paved Kv= 20.3 fps
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
7.4	299	Total			

Subcatchment EA2p: Pervious

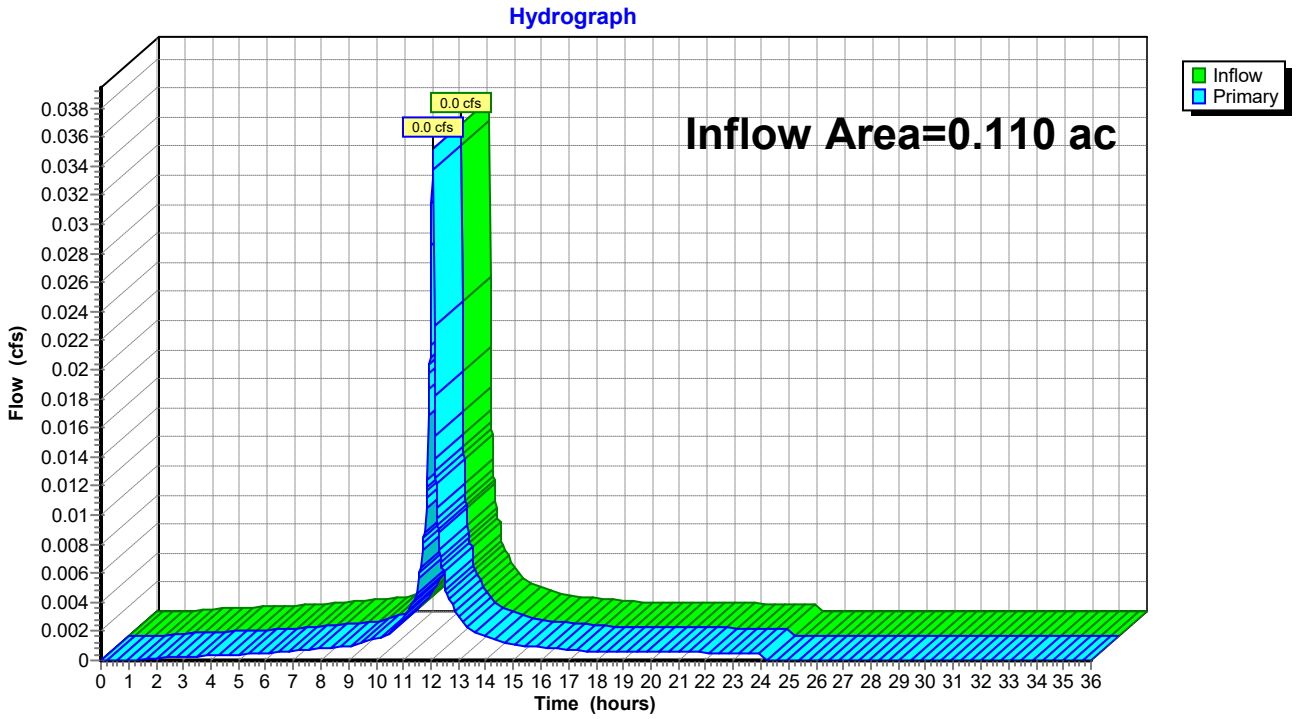


Summary for Link 23L: Northern Property Line

Inflow Area = 0.110 ac, 9.09% Impervious, Inflow Depth = 0.29" for 2-2yr event
Inflow = 0.0 cfs @ 12.09 hrs, Volume= 0.003 af
Primary = 0.0 cfs @ 12.09 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 23L: Northern Property Line

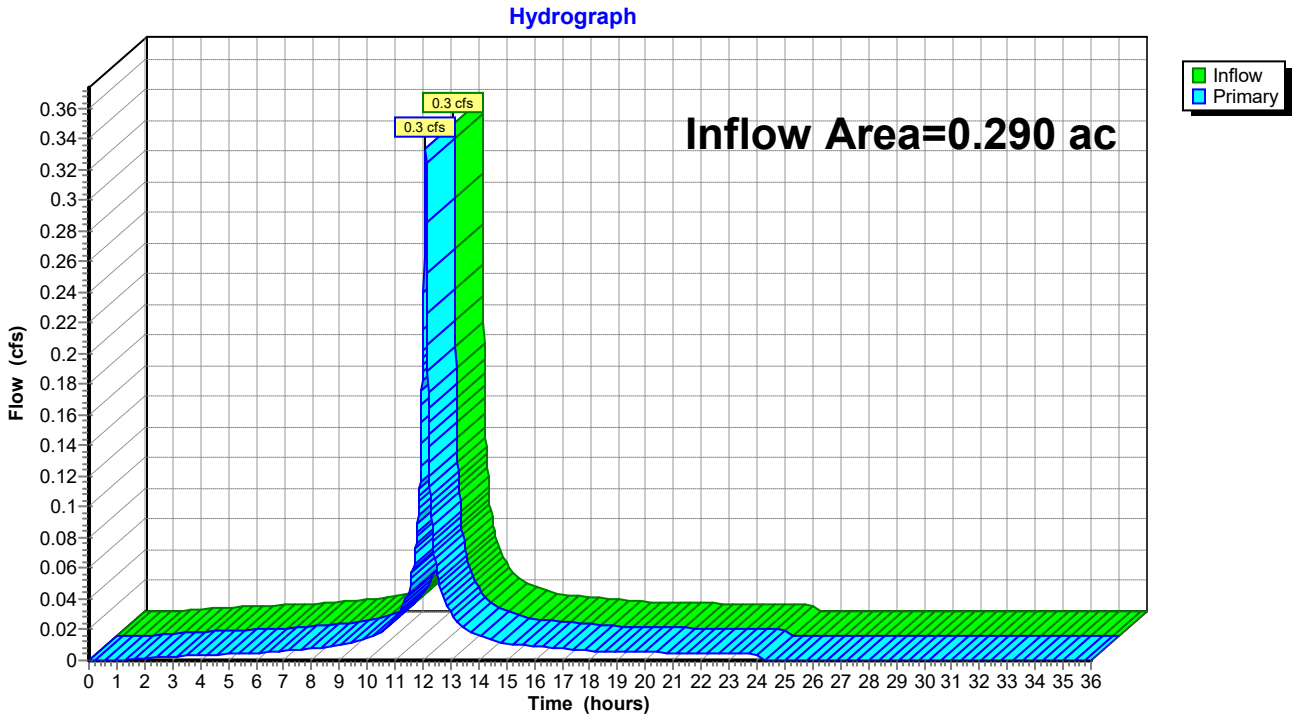


Summary for Link EA1: East Garfield Avenue

Inflow Area = 0.290 ac, 34.48% Impervious, Inflow Depth = 1.09" for 2-2yr event
Inflow = 0.3 cfs @ 12.11 hrs, Volume= 0.026 af
Primary = 0.3 cfs @ 12.11 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA1: East Garfield Avenue

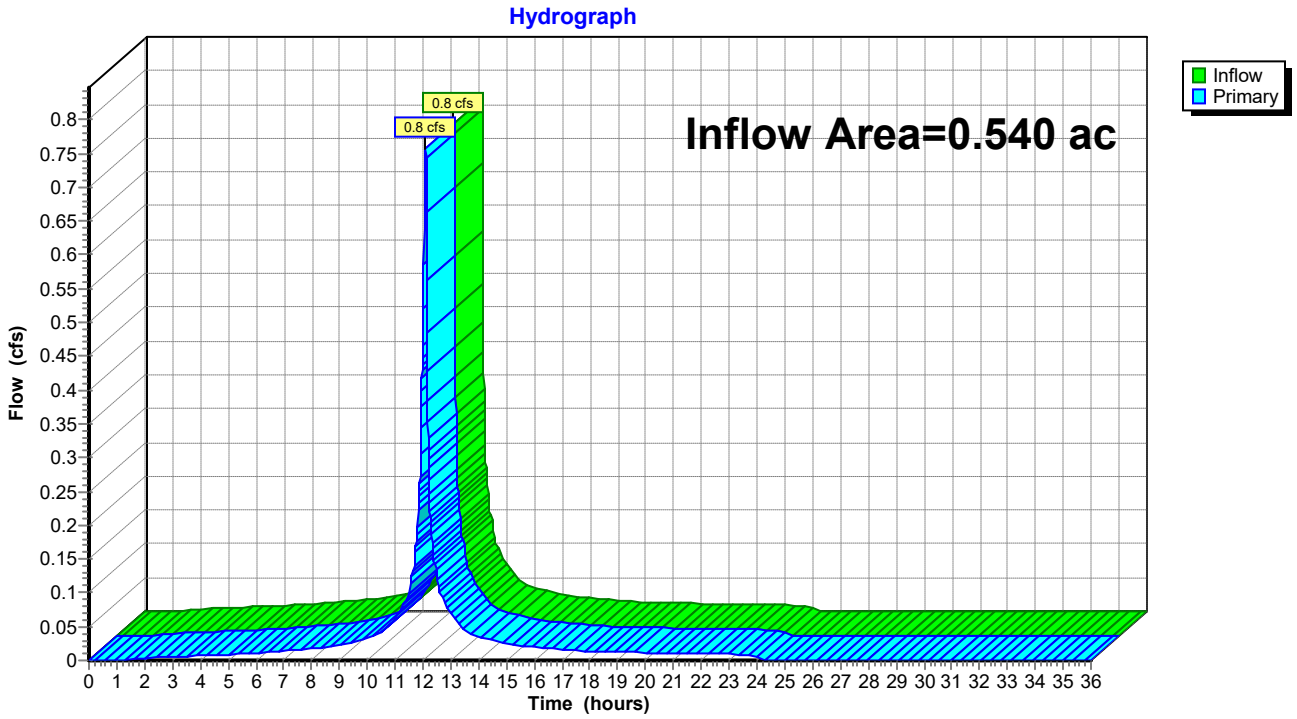


Summary for Link EA2: Lot 4

Inflow Area = 0.540 ac, 40.74% Impervious, Inflow Depth = 1.28" for 2-2yr event
Inflow = 0.8 cfs @ 12.10 hrs, Volume= 0.058 af
Primary = 0.8 cfs @ 12.10 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA2: Lot 4



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 21S: Impervious Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=4.99"
Flow Length=66' Tc=0.9 min CN=0/98 Runoff=0.1 cfs 0.004 af

Subcatchment 22S: Pervious Runoff Area=0.100 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=135' Tc=7.6 min CN=39/0 Runoff=0.0 cfs 0.002 af

Subcatchment EA1i: Impervious Runoff Area=0.100 ac 100.00% Impervious Runoff Depth=4.99"
Flow Length=324' Tc=2.3 min CN=0/98 Runoff=0.5 cfs 0.042 af

Subcatchment EA1p: Pervious Runoff Area=0.190 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=340' Tc=3.9 min CN=39/0 Runoff=0.0 cfs 0.004 af

Subcatchment EA2i: Impervious Runoff Area=0.220 ac 100.00% Impervious Runoff Depth=4.99"
Flow Length=129' Tc=1.7 min CN=0/98 Runoff=1.2 cfs 0.092 af

Subcatchment EA2p: Pervious Runoff Area=0.320 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=299' Tc=7.4 min CN=39/0 Runoff=0.0 cfs 0.007 af

Link 23L: Northern Property Line Inflow=0.1 cfs 0.006 af
Primary=0.1 cfs 0.006 af

Link EA1: East Garfield Avenue Inflow=0.5 cfs 0.046 af
Primary=0.5 cfs 0.046 af

Link EA2: Lot 4 Inflow=1.2 cfs 0.098 af
Primary=1.2 cfs 0.098 af

Total Runoff Area = 0.940 ac Runoff Volume = 0.150 af Average Runoff Depth = 1.91"
64.89% Pervious = 0.610 ac 35.11% Impervious = 0.330 ac

Summary for Subcatchment 21S: Impervious

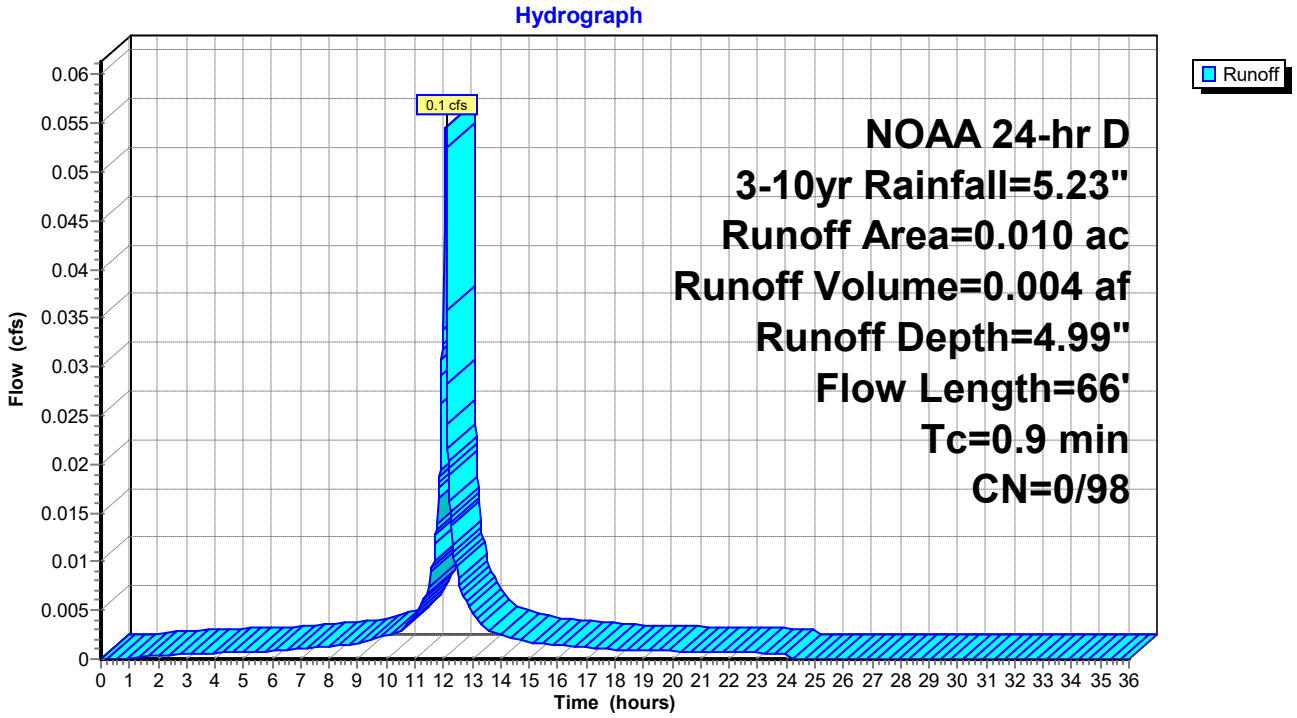
Runoff = 0.1 cfs @ 12.09 hrs, Volume= 0.004 af, Depth= 4.99"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.010	98	Paved parking, HSG A
0.010	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	20	0.0250	1.12		**Sheet Flow, 24.0 - 23.5** Smooth surfaces n= 0.011 P2= 3.40"
0.6	46	0.0065	1.30		**Shallow Concentrated Flow, 23.5 - 23.2** Unpaved Kv= 16.1 fps
0.9	66	Total			

Subcatchment 21S: Impervious



Summary for Subcatchment 22S: Pervious

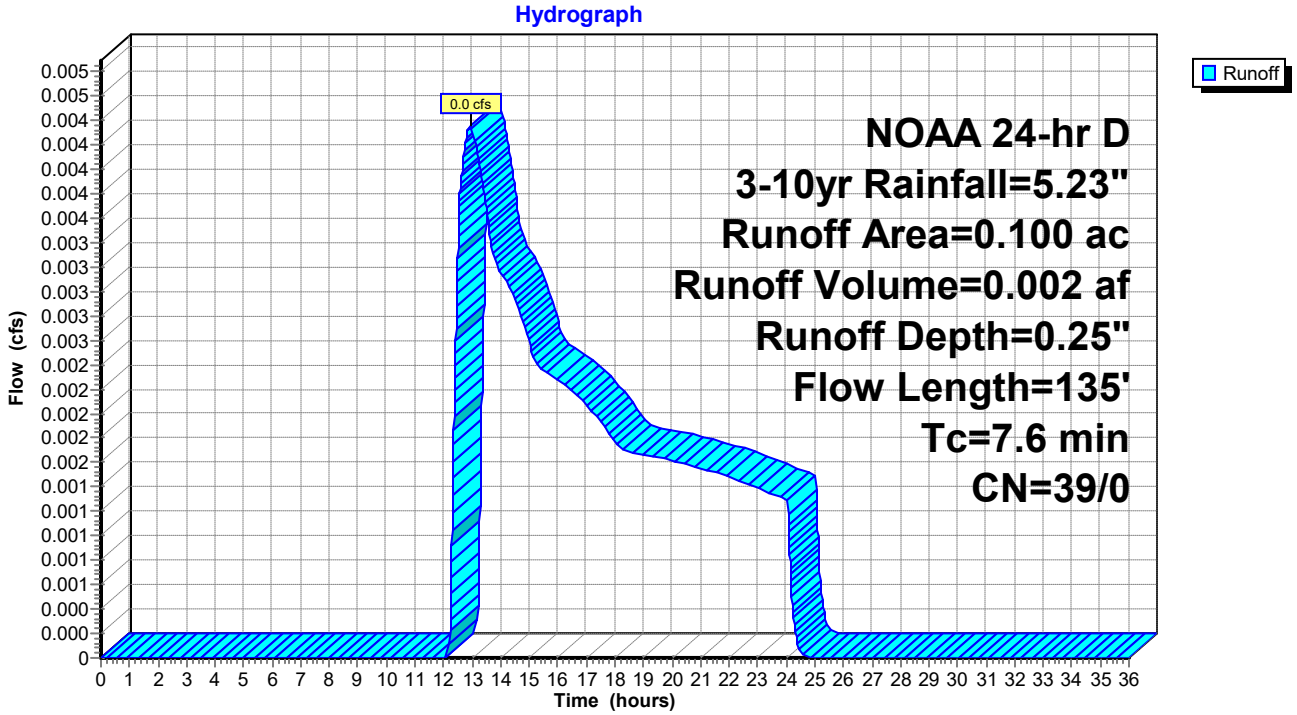
Runoff = 0.0 cfs @ 12.95 hrs, Volume= 0.002 af, Depth= 0.25"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.100	39	>75% Grass cover, Good, HSG A
0.100	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 25.2 - 24.3** Grass: Short n= 0.150 P2= 3.40"
0.4	27	0.0222	1.04		**Shallow Concentrated Flow, 24.3 - 23.7** Short Grass Pasture Kv= 7.0 fps
0.1	12	0.0167	2.62		**Shallow Concentrated Flow, 23.7 - 23.5** Paved Kv= 20.3 fps
1.4	46	0.0065	0.56		**Shallow Concentrated Flow, 23.5 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.6	135	Total			

Subcatchment 22S: Pervious



Summary for Subcatchment EA1i: Impervious

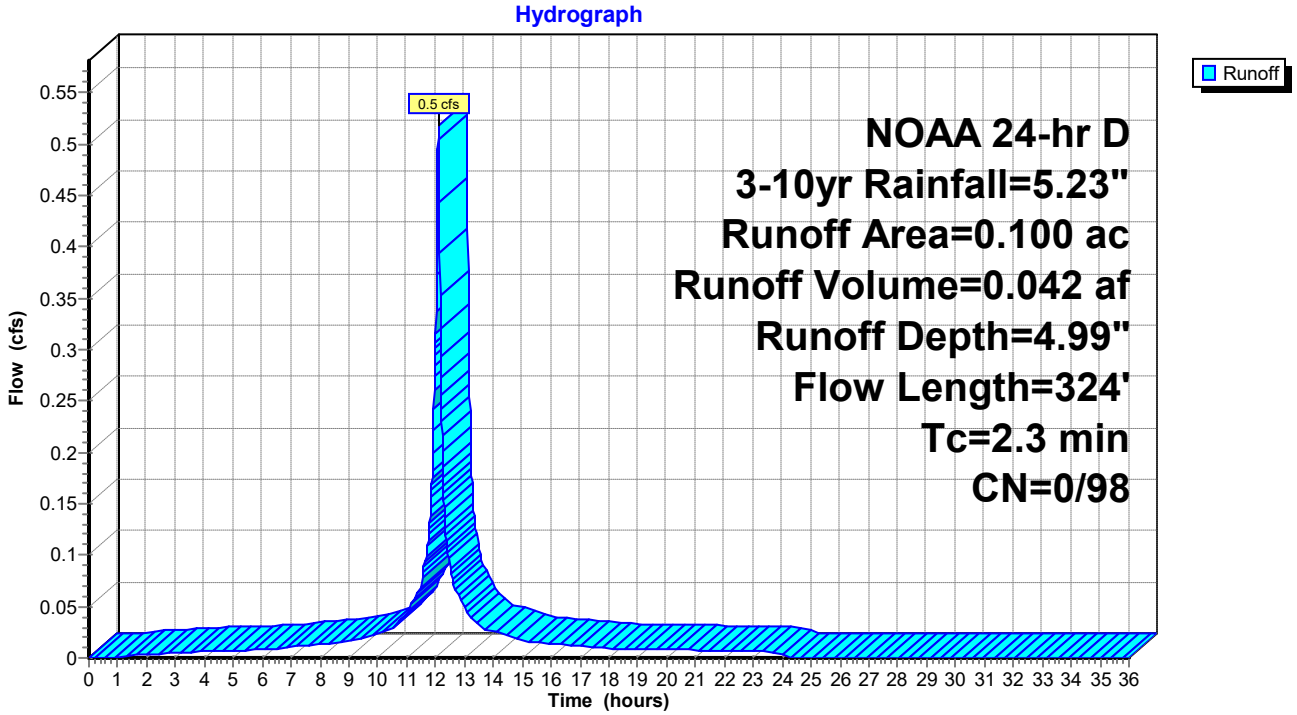
Runoff = 0.5 cfs @ 12.11 hrs, Volume= 0.042 af, Depth= 4.99"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.100	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	17	0.0235	1.06		**Sheet Flow, 26.5 - 26.1** Smooth surfaces n= 0.011 P2= 3.40"
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
2.3	324	Total			

Subcatchment EA1i: Impervious



Summary for Subcatchment EA1p: Pervious

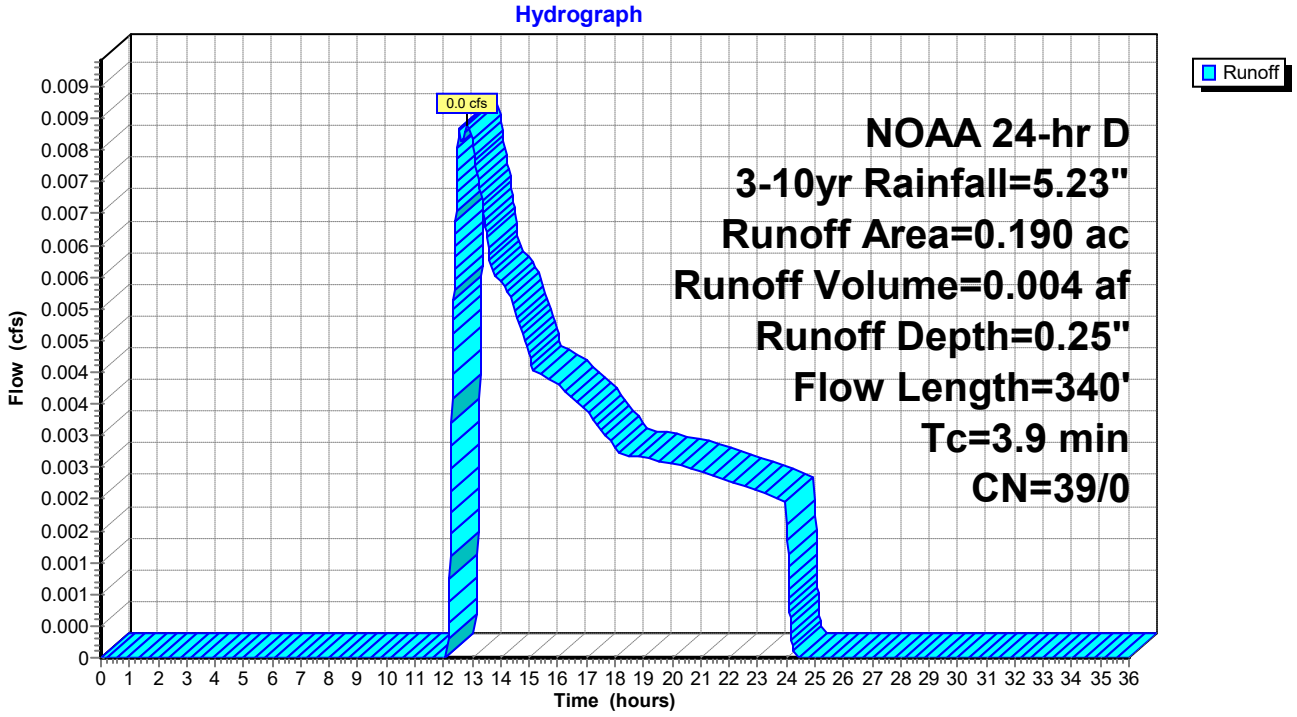
Runoff = 0.0 cfs @ 12.83 hrs, Volume= 0.004 af, Depth= 0.25"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.190	39	>75% Grass cover, Good, HSG A
0.190	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	20	0.0500	0.18		**Sheet Flow, 27.4 - 264** Grass: Short n= 0.150 P2= 3.40"
0.1	13	0.0231	3.09		**Shallow Concentrated Flow, 26.4 - 26.4** Paved Kv= 20.3 fps
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
3.9	340	Total			

Subcatchment EA1p: Pervious



Summary for Subcatchment EA2i: Impervious

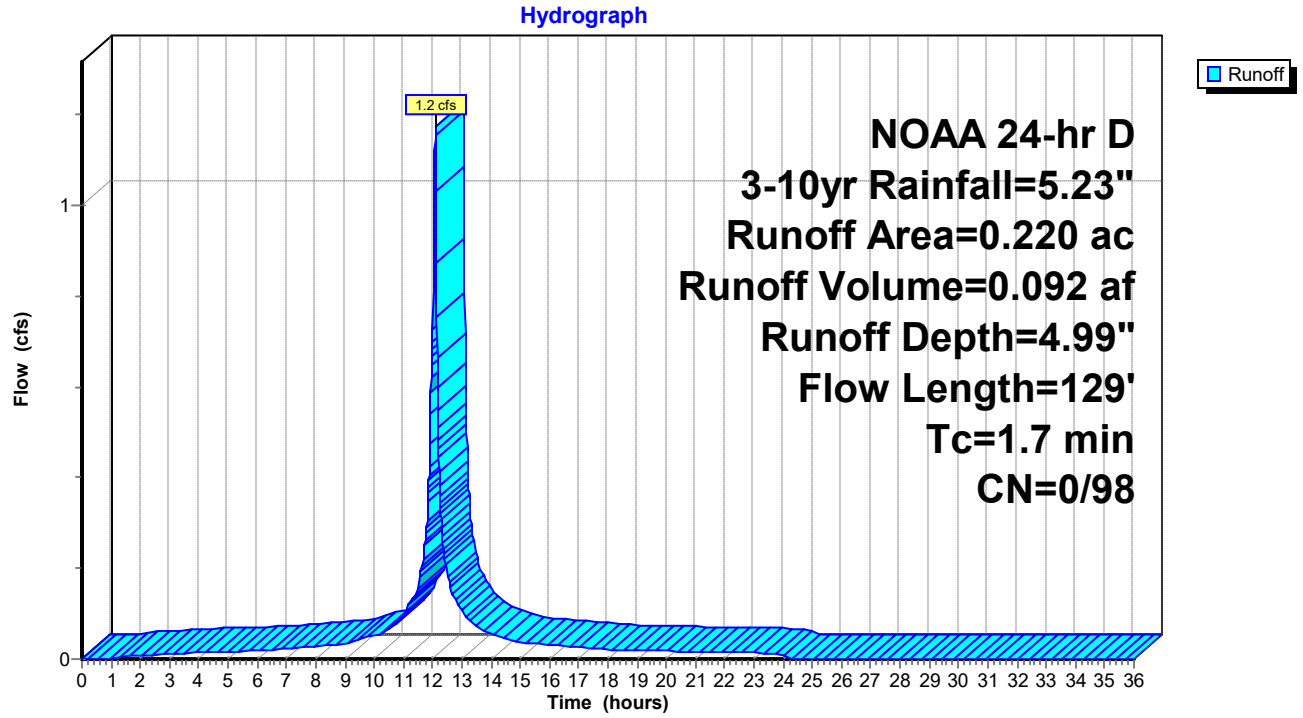
Runoff = 1.2 cfs @ 12.10 hrs, Volume= 0.092 af, Depth= 4.99"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG A
0.220	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	63	0.0270	1.46		**Sheet Flow, 24.7 - 23.00** Smooth surfaces n= 0.011 P2= 3.40"
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
1.7	129	Total			

Subcatchment EA2i: Impervious



Summary for Subcatchment EA2p: Pervious

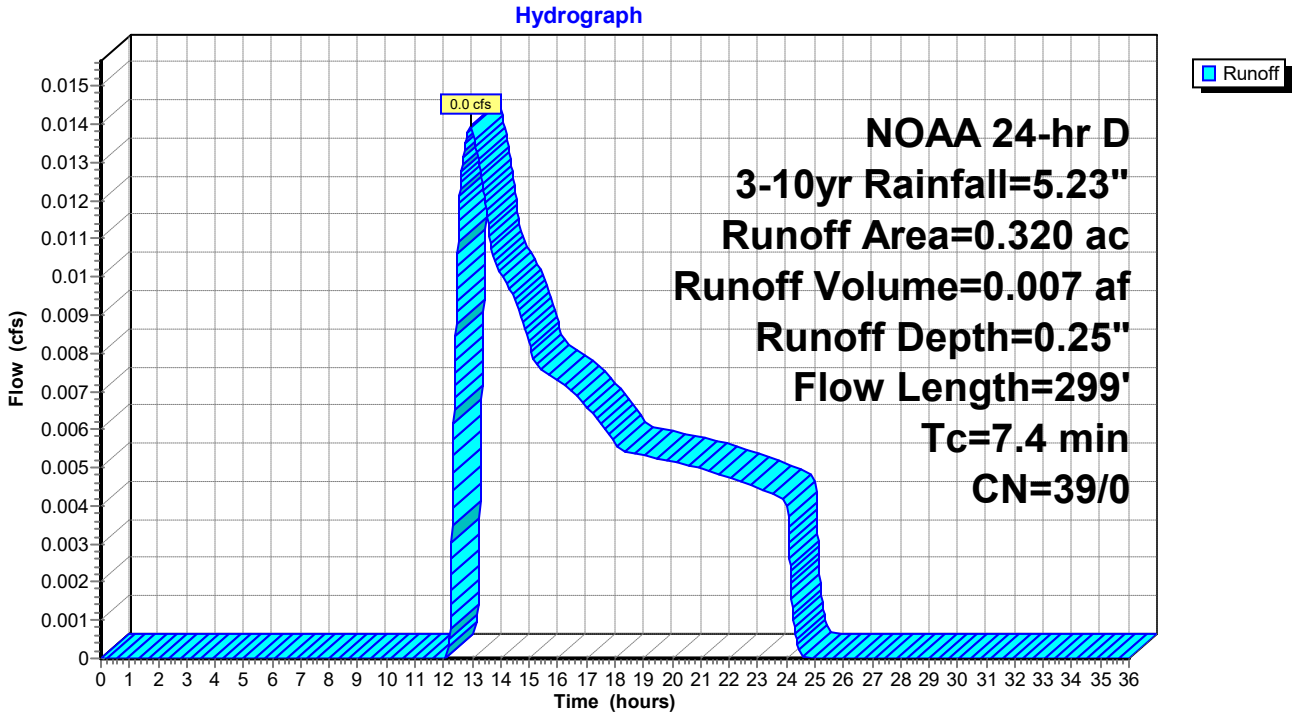
Runoff = 0.0 cfs @ 12.94 hrs, Volume= 0.007 af, Depth= 0.25"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.320	39	>75% Grass cover, Good, HSG A
0.320	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0460	0.21		**Sheet Flow, 28.0 - 25.7** Grass: Short n= 0.150 P2= 3.40"
0.9	50	0.0100	0.94		**Sheet Flow, 25.7 - 25.2** Smooth surfaces n= 0.011 P2= 3.40"
0.3	30	0.0067	1.66		**Shallow Concentrated Flow, 25.2 - 25.0** Paved Kv= 20.3 fps
0.9	39	0.0103	0.71		**Shallow Concentrated Flow, 25.0 - 24.6** Short Grass Pasture Kv= 7.0 fps
0.3	50	0.0260	3.27		**Shallow Concentrated Flow, 24.6 - 23.3** Paved Kv= 20.3 fps
0.1	14	0.0220	3.01		**Shallow Concentrated Flow, 23.3 - 23.0** Paved Kv= 20.3 fps
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
7.4	299	Total			

Subcatchment EA2p: Pervious

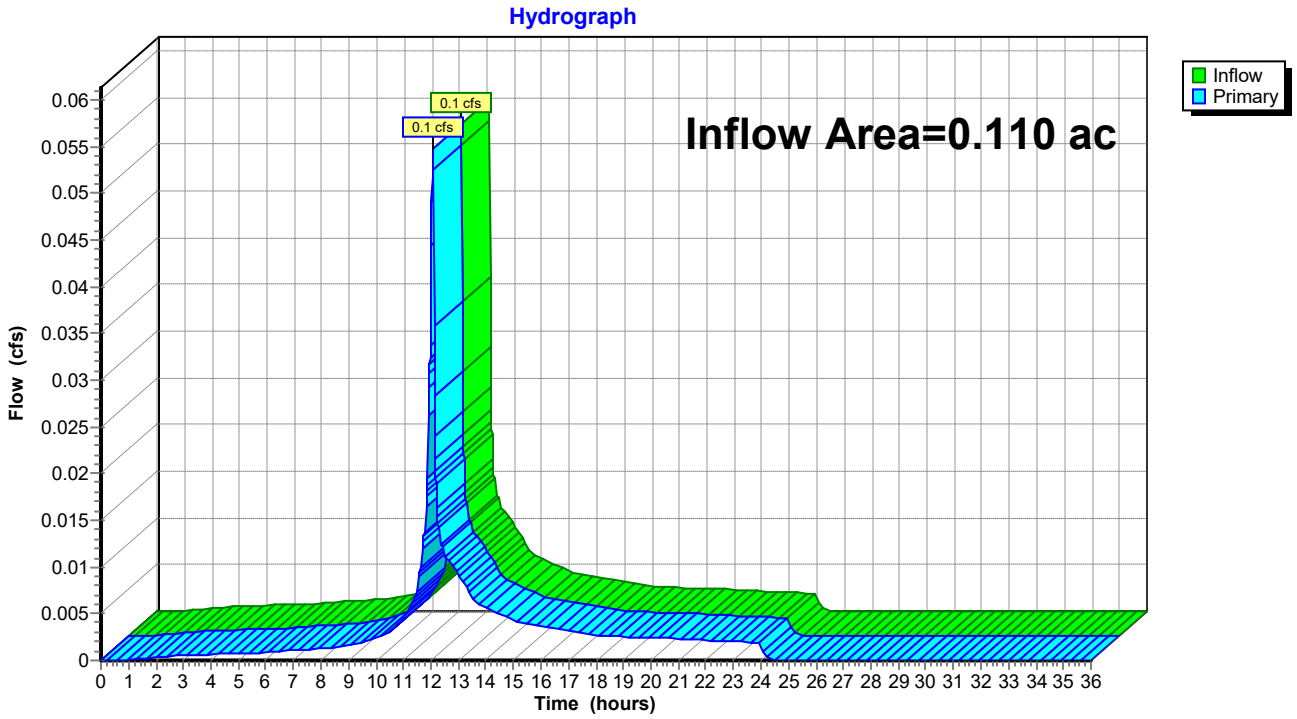


Summary for Link 23L: Northern Property Line

Inflow Area = 0.110 ac, 9.09% Impervious, Inflow Depth = 0.68" for 3-10yr event
Inflow = 0.1 cfs @ 12.09 hrs, Volume= 0.006 af
Primary = 0.1 cfs @ 12.09 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 23L: Northern Property Line

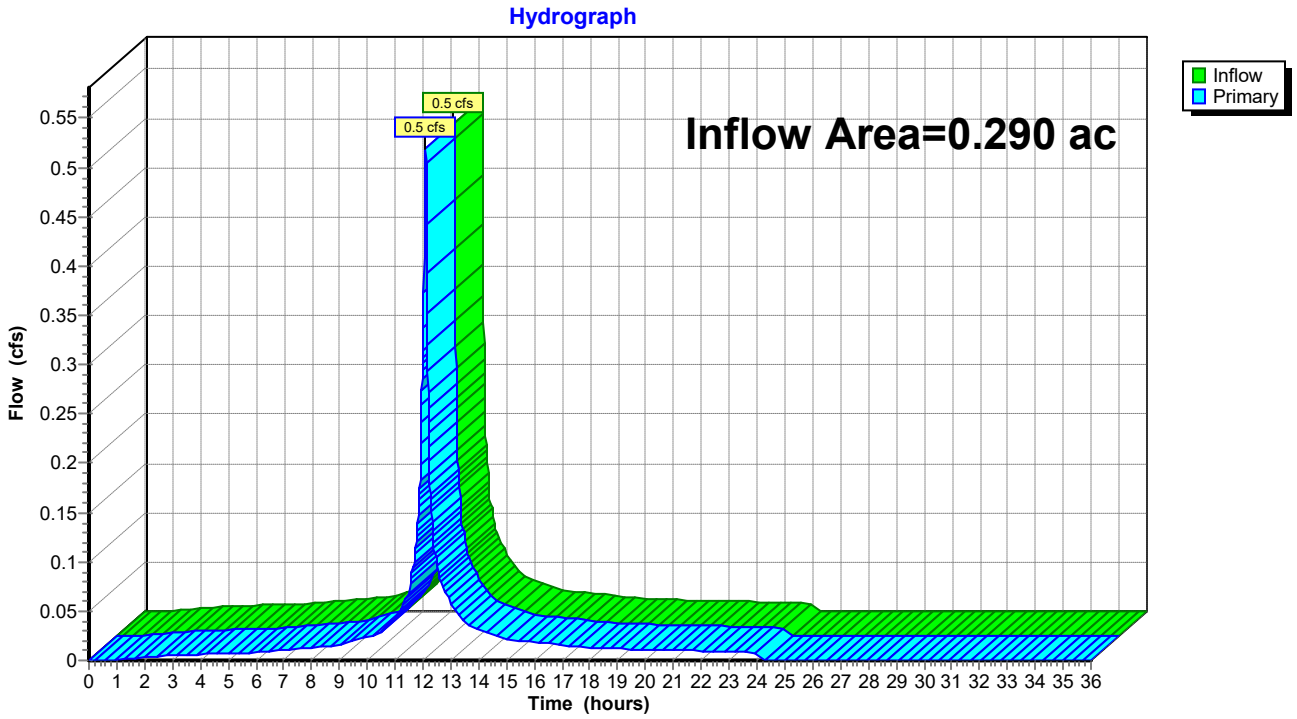


Summary for Link EA1: East Garfield Avenue

Inflow Area = 0.290 ac, 34.48% Impervious, Inflow Depth = 1.88" for 3-10yr event
Inflow = 0.5 cfs @ 12.11 hrs, Volume= 0.046 af
Primary = 0.5 cfs @ 12.11 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA1: East Garfield Avenue

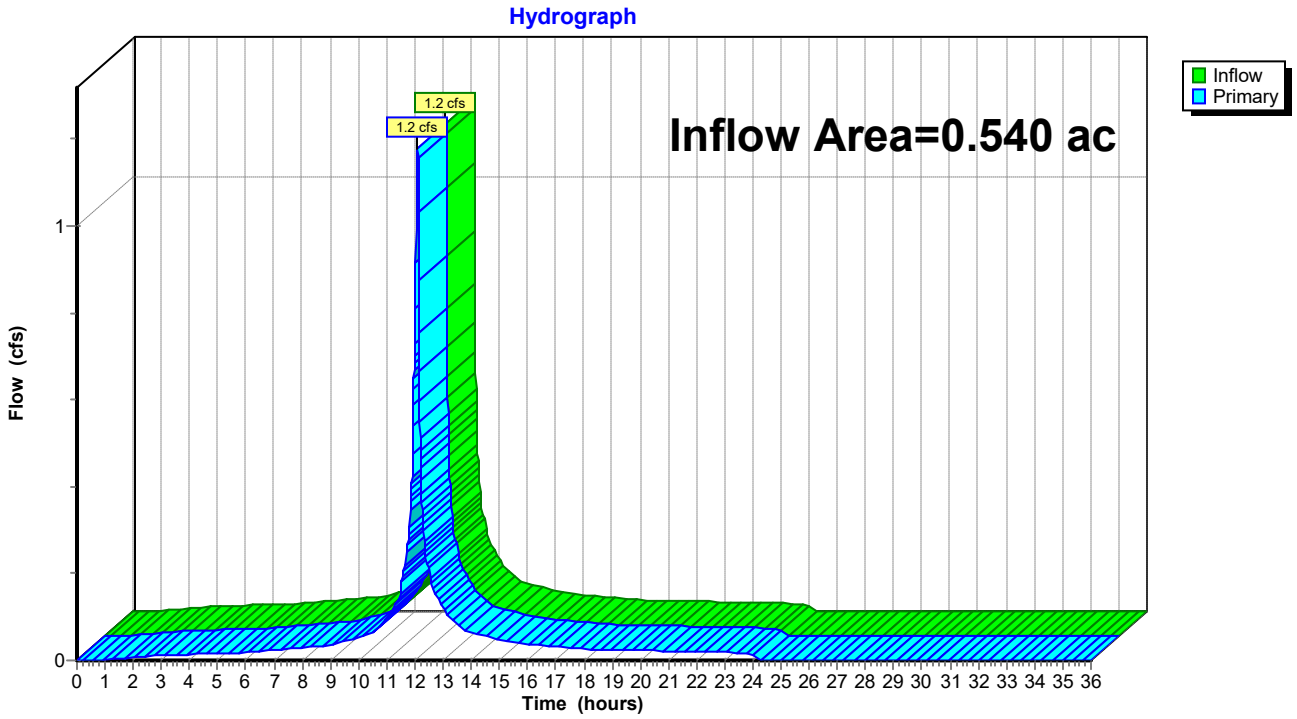


Summary for Link EA2: Lot 4

Inflow Area = 0.540 ac, 40.74% Impervious, Inflow Depth = 2.18" for 3-10yr event
Inflow = 1.2 cfs @ 12.10 hrs, Volume= 0.098 af
Primary = 1.2 cfs @ 12.10 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA2: Lot 4



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 21S: Impervious Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=6.29"
Flow Length=66' Tc=0.9 min CN=0/98 Runoff=0.1 cfs 0.005 af

Subcatchment 22S: Pervious Runoff Area=0.100 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=135' Tc=7.6 min CN=39/0 Runoff=0.0 cfs 0.005 af

Subcatchment EA1i: Impervious Runoff Area=0.100 ac 100.00% Impervious Runoff Depth=6.29"
Flow Length=324' Tc=2.3 min CN=0/98 Runoff=0.6 cfs 0.052 af

Subcatchment EA1p: Pervious Runoff Area=0.190 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=340' Tc=3.9 min CN=39/0 Runoff=0.0 cfs 0.010 af

Subcatchment EA2i: Impervious Runoff Area=0.220 ac 100.00% Impervious Runoff Depth=6.29"
Flow Length=129' Tc=1.7 min CN=0/98 Runoff=1.5 cfs 0.115 af

Subcatchment EA2p: Pervious Runoff Area=0.320 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=299' Tc=7.4 min CN=39/0 Runoff=0.1 cfs 0.016 af

Link 23L: Northern Property Line Inflow=0.1 cfs 0.010 af
Primary=0.1 cfs 0.010 af

Link EA1: East Garfield Avenue Inflow=0.7 cfs 0.062 af
Primary=0.7 cfs 0.062 af

Link EA2: Lot 4 Inflow=1.5 cfs 0.132 af
Primary=1.5 cfs 0.132 af

Total Runoff Area = 0.940 ac Runoff Volume = 0.204 af Average Runoff Depth = 2.60"
64.89% Pervious = 0.610 ac 35.11% Impervious = 0.330 ac

Summary for Subcatchment 21S: Impervious

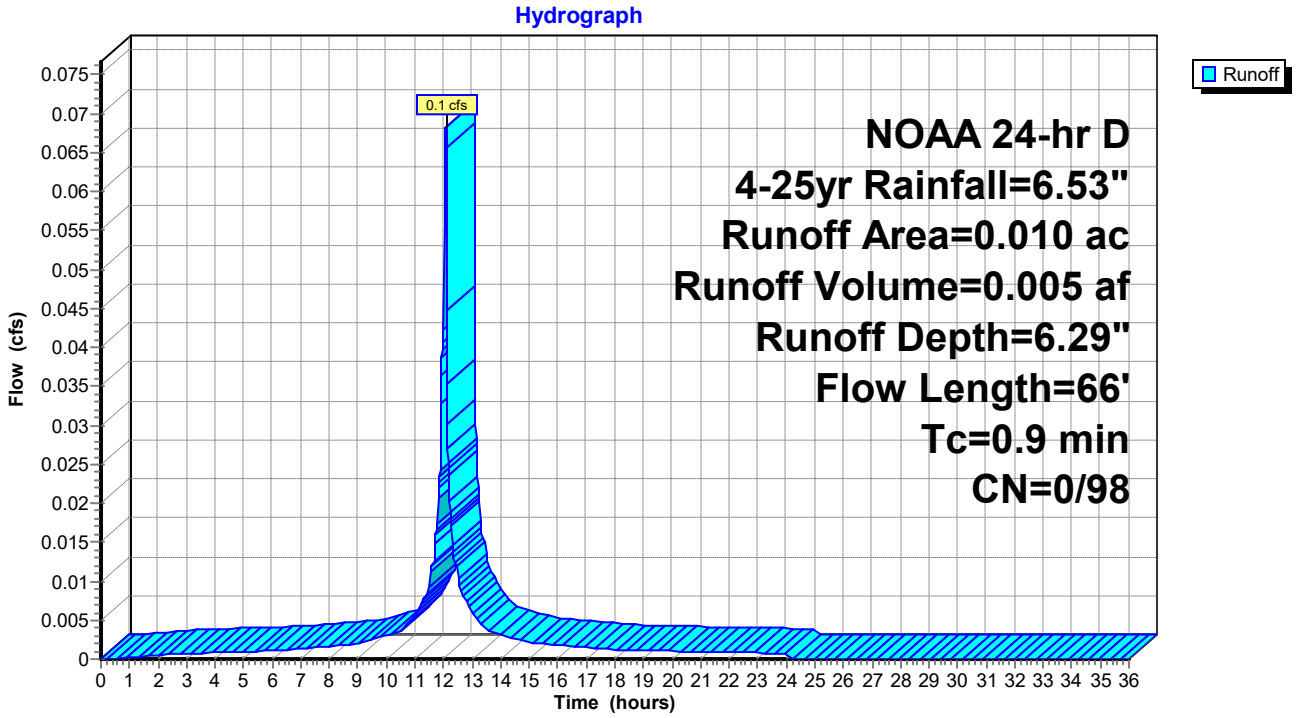
Runoff = 0.1 cfs @ 12.09 hrs, Volume= 0.005 af, Depth= 6.29"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.010	98	Paved parking, HSG A
0.010	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	20	0.0250	1.12		**Sheet Flow, 24.0 - 23.5** Smooth surfaces n= 0.011 P2= 3.40"
0.6	46	0.0065	1.30		**Shallow Concentrated Flow, 23.5 - 23.2** Unpaved Kv= 16.1 fps
0.9	66	Total			

Subcatchment 21S: Impervious



Summary for Subcatchment 22S: Pervious

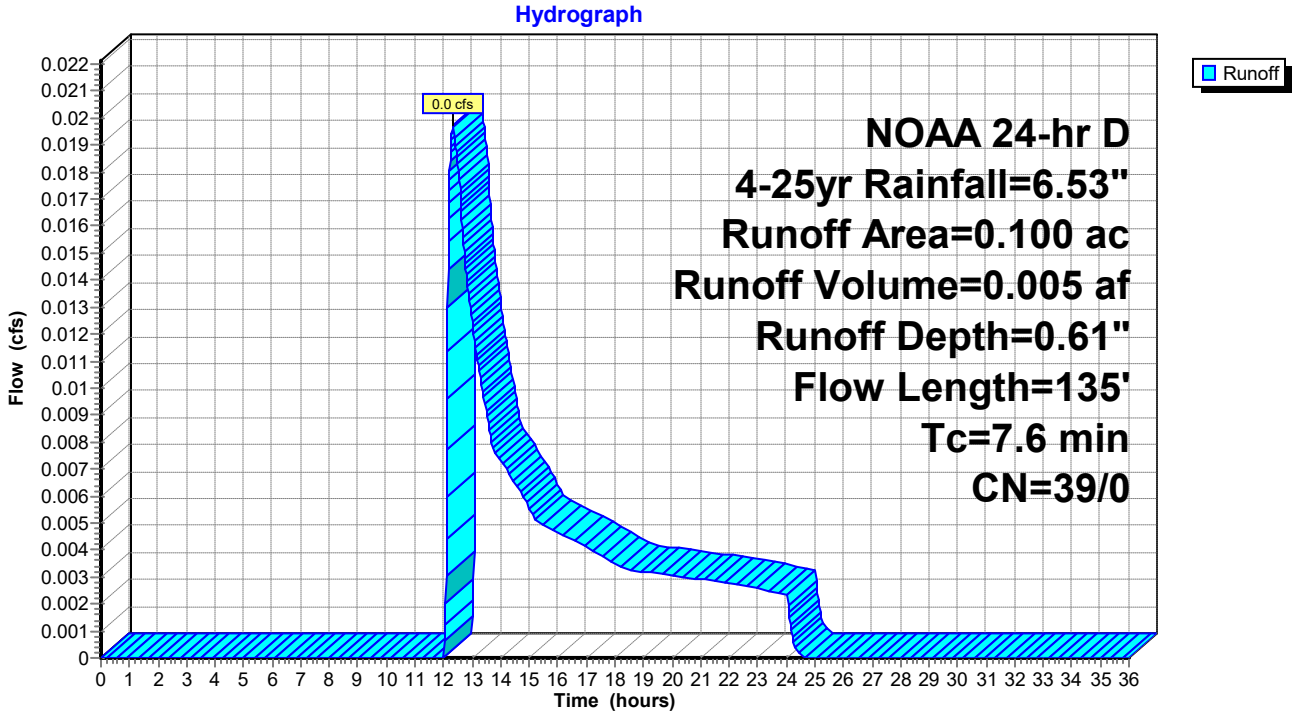
Runoff = 0.0 cfs @ 12.34 hrs, Volume= 0.005 af, Depth= 0.61"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.100	39	>75% Grass cover, Good, HSG A
0.100	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 25.2 - 24.3** Grass: Short n= 0.150 P2= 3.40"
0.4	27	0.0222	1.04		**Shallow Concentrated Flow, 24.3 - 23.7** Short Grass Pasture Kv= 7.0 fps
0.1	12	0.0167	2.62		**Shallow Concentrated Flow, 23.7 - 23.5** Paved Kv= 20.3 fps
1.4	46	0.0065	0.56		**Shallow Concentrated Flow, 23.5 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.6	135	Total			

Subcatchment 22S: Pervious



Summary for Subcatchment EA1i: Impervious

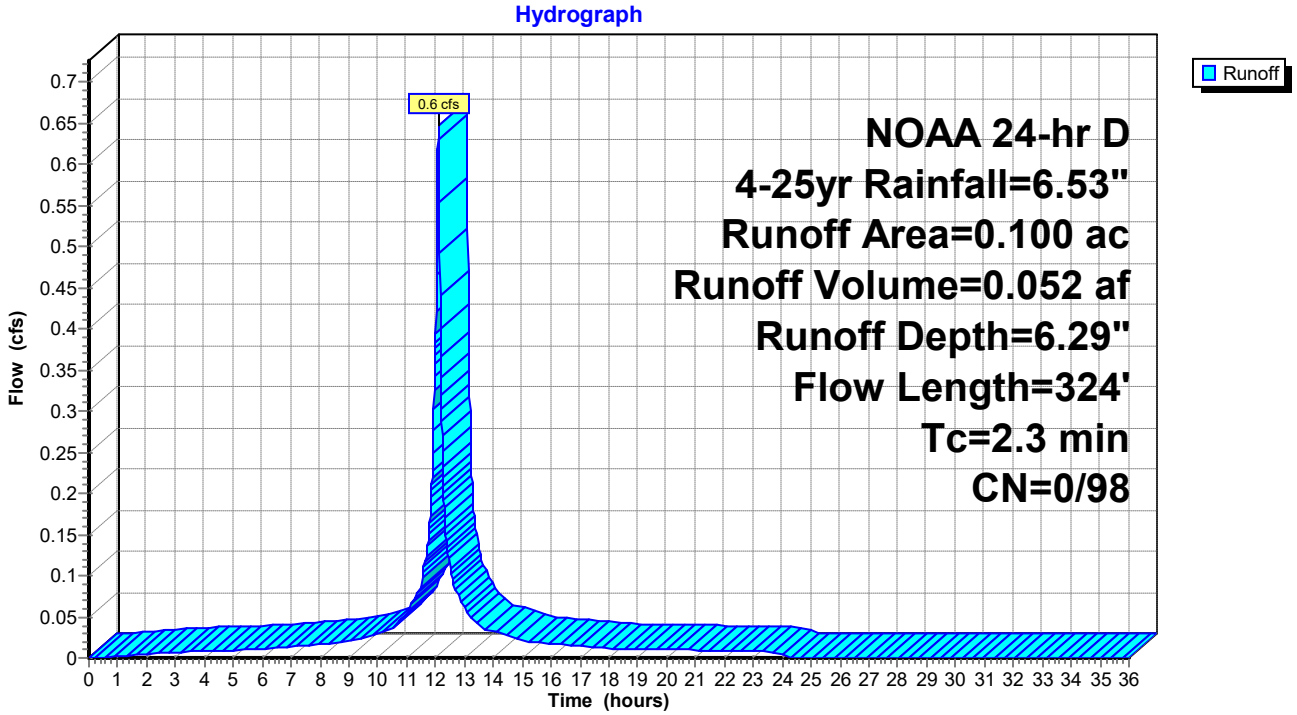
Runoff = 0.6 cfs @ 12.11 hrs, Volume= 0.052 af, Depth= 6.29"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.100	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	17	0.0235	1.06		**Sheet Flow, 26.5 - 26.1** Smooth surfaces n= 0.011 P2= 3.40"
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
2.3	324	Total			

Subcatchment EA1i: Impervious



Summary for Subcatchment EA1p: Pervious

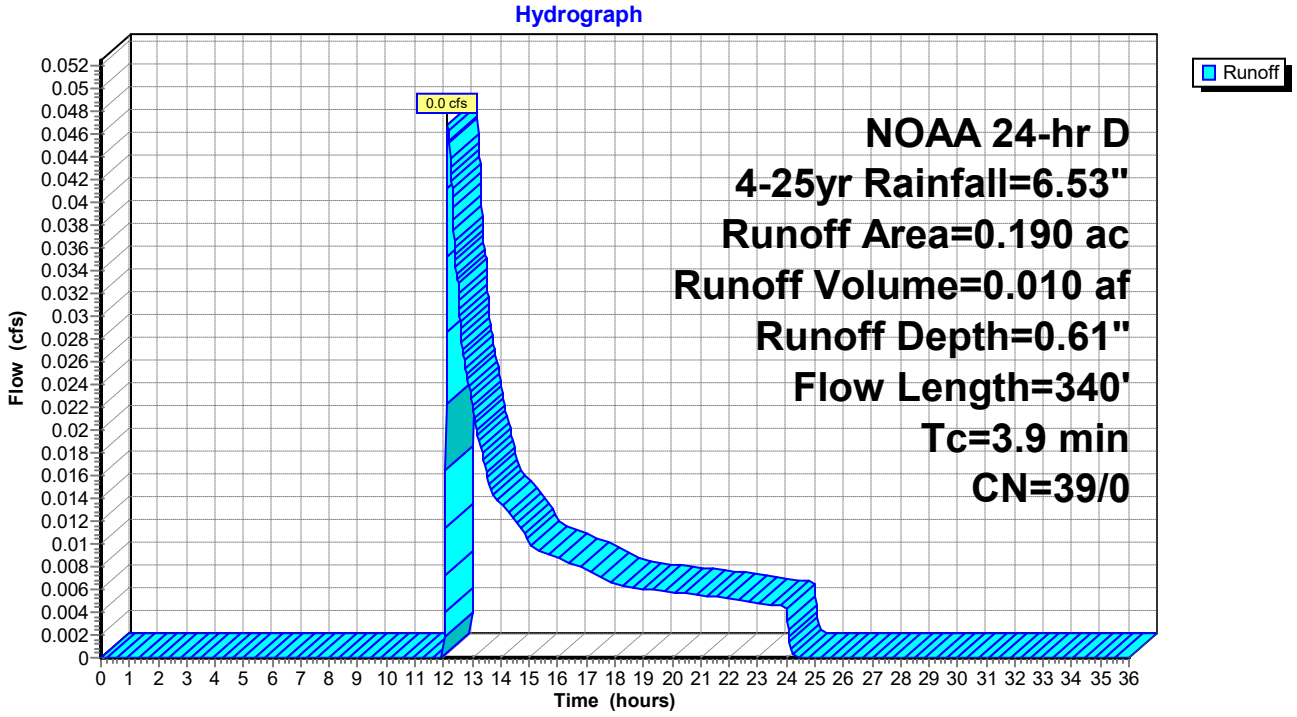
Runoff = 0.0 cfs @ 12.14 hrs, Volume= 0.010 af, Depth= 0.61"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.190	39	>75% Grass cover, Good, HSG A
0.190	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	20	0.0500	0.18		**Sheet Flow, 27.4 - 264** Grass: Short n= 0.150 P2= 3.40"
0.1	13	0.0231	3.09		**Shallow Concentrated Flow, 26.4 - 26.4** Paved Kv= 20.3 fps
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
3.9	340	Total			

Subcatchment EA1p: Pervious



Summary for Subcatchment EA2i: Impervious

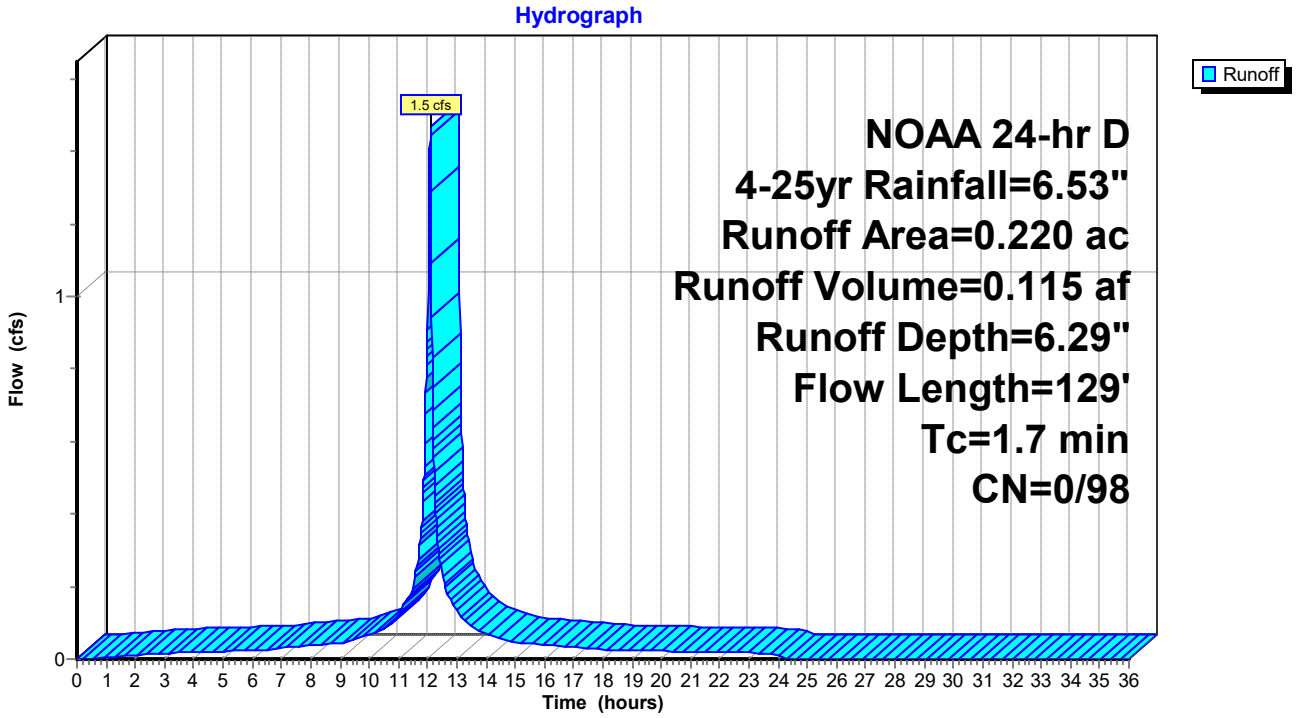
Runoff = 1.5 cfs @ 12.10 hrs, Volume= 0.115 af, Depth= 6.29"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG A
0.220	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	63	0.0270	1.46		**Sheet Flow, 24.7 - 23.00** Smooth surfaces n= 0.011 P2= 3.40"
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
1.7	129	Total			

Subcatchment EA2i: Impervious



Summary for Subcatchment EA2p: Pervious

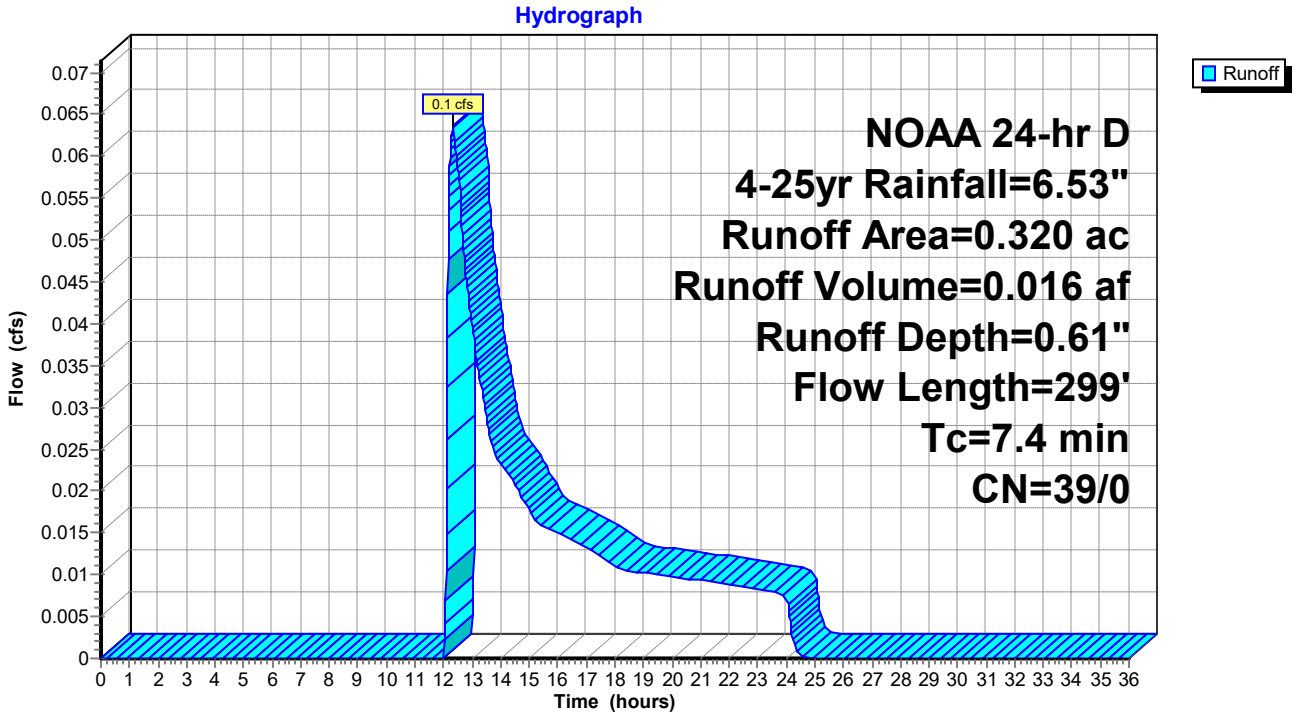
Runoff = 0.1 cfs @ 12.34 hrs, Volume= 0.016 af, Depth= 0.61"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.320	39	>75% Grass cover, Good, HSG A
0.320	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0460	0.21		**Sheet Flow, 28.0 - 25.7** Grass: Short n= 0.150 P2= 3.40"
0.9	50	0.0100	0.94		**Sheet Flow, 25.7 - 25.2** Smooth surfaces n= 0.011 P2= 3.40"
0.3	30	0.0067	1.66		**Shallow Concentrated Flow, 25.2 - 25.0** Paved Kv= 20.3 fps
0.9	39	0.0103	0.71		**Shallow Concentrated Flow, 25.0 - 24.6** Short Grass Pasture Kv= 7.0 fps
0.3	50	0.0260	3.27		**Shallow Concentrated Flow, 24.6 - 23.3** Paved Kv= 20.3 fps
0.1	14	0.0220	3.01		**Shallow Concentrated Flow, 23.3 - 23.0** Paved Kv= 20.3 fps
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
7.4	299	Total			

Subcatchment EA2p: Pervious

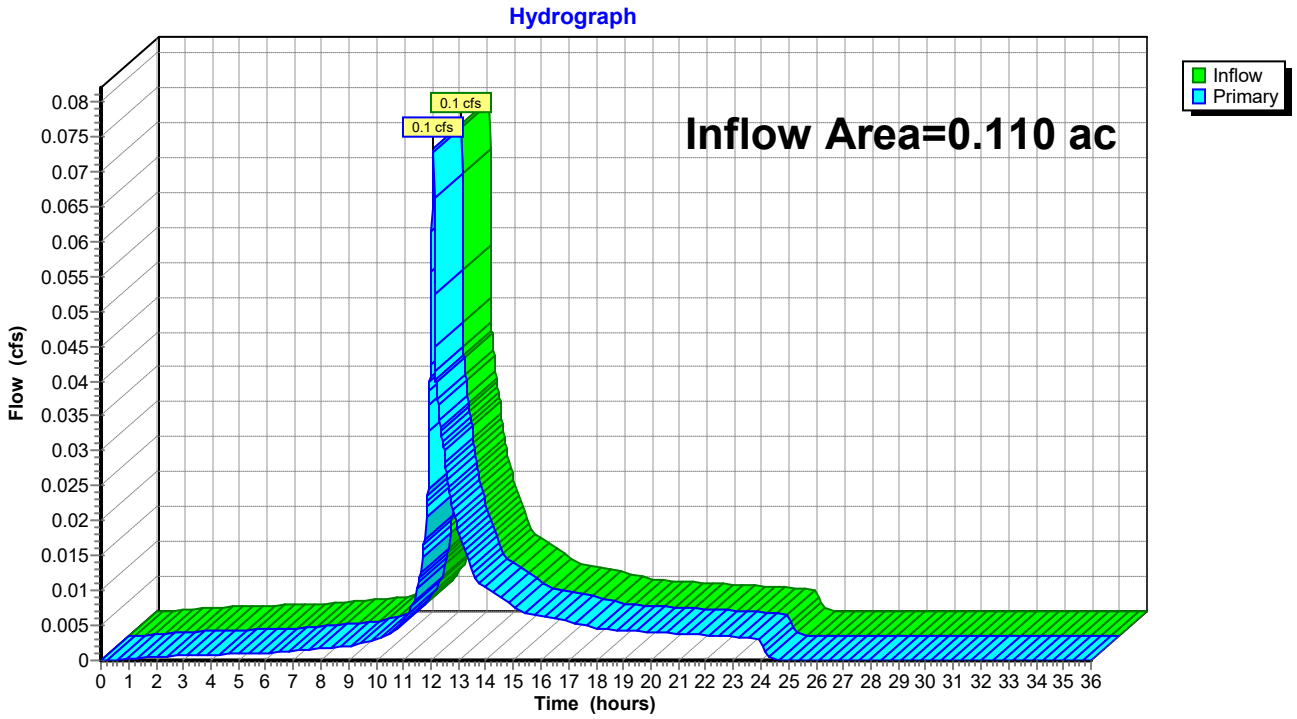


Summary for Link 23L: Northern Property Line

Inflow Area = 0.110 ac, 9.09% Impervious, Inflow Depth = 1.12" for 4-25yr event
Inflow = 0.1 cfs @ 12.10 hrs, Volume= 0.010 af
Primary = 0.1 cfs @ 12.10 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 23L: Northern Property Line

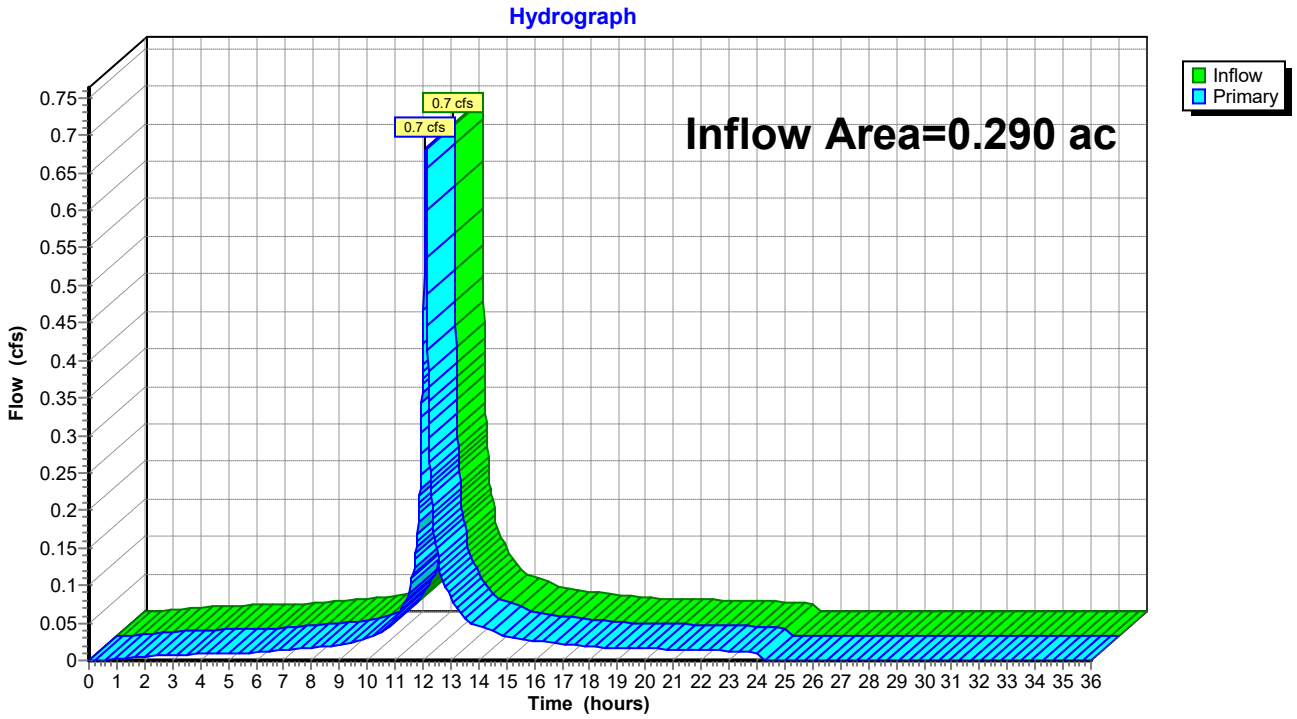


Summary for Link EA1: East Garfield Avenue

Inflow Area = 0.290 ac, 34.48% Impervious, Inflow Depth = 2.57" for 4-25yr event
Inflow = 0.7 cfs @ 12.11 hrs, Volume= 0.062 af
Primary = 0.7 cfs @ 12.11 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA1: East Garfield Avenue

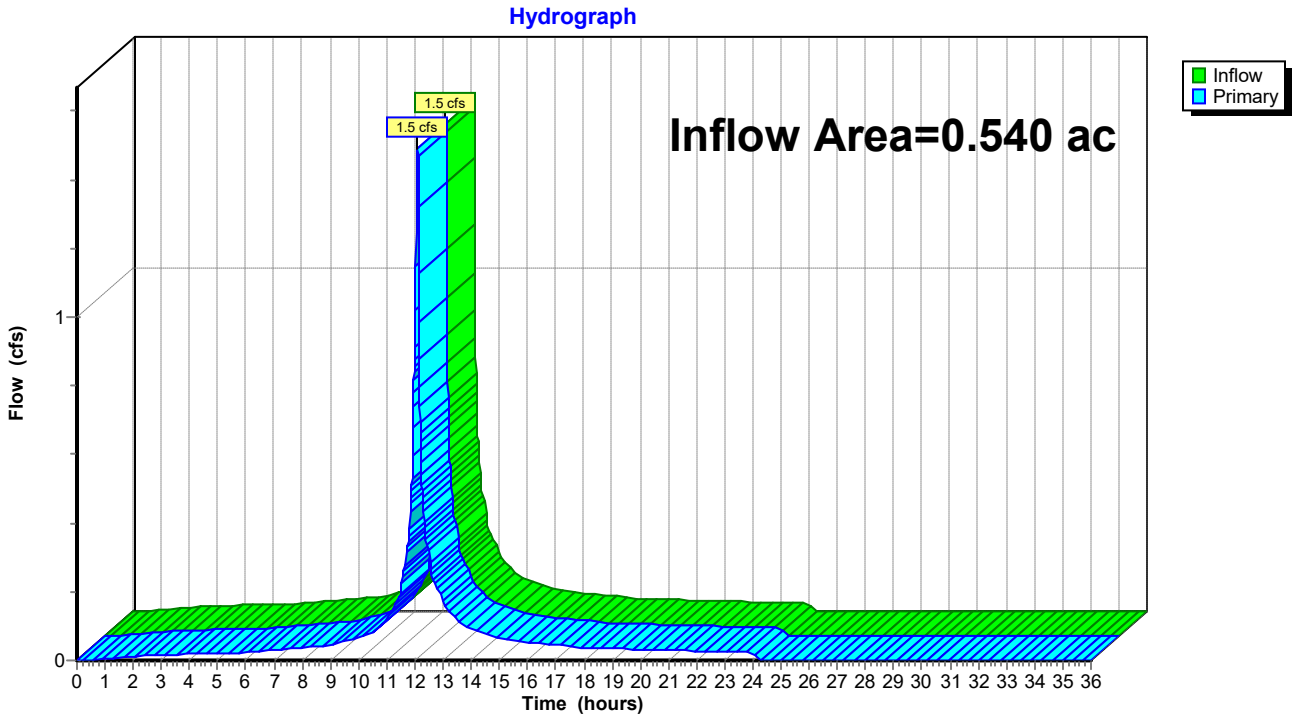


Summary for Link EA2: Lot 4

Inflow Area = 0.540 ac, 40.74% Impervious, Inflow Depth = 2.92" for 4-25yr event
Inflow = 1.5 cfs @ 12.10 hrs, Volume= 0.132 af
Primary = 1.5 cfs @ 12.10 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA2: Lot 4



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 21S: Impervious Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=8.70"
Flow Length=66' Tc=0.9 min CN=0/98 Runoff=0.1 cfs 0.007 af

Subcatchment 22S: Pervious Runoff Area=0.100 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=135' Tc=7.6 min CN=39/0 Runoff=0.1 cfs 0.013 af

Subcatchment EA1i: Impervious Runoff Area=0.100 ac 100.00% Impervious Runoff Depth=8.70"
Flow Length=324' Tc=2.3 min CN=0/98 Runoff=0.9 cfs 0.072 af

Subcatchment EA1p: Pervious Runoff Area=0.190 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=340' Tc=3.9 min CN=39/0 Runoff=0.3 cfs 0.025 af

Subcatchment EA2i: Impervious Runoff Area=0.220 ac 100.00% Impervious Runoff Depth=8.70"
Flow Length=129' Tc=1.7 min CN=0/98 Runoff=2.0 cfs 0.159 af

Subcatchment EA2p: Pervious Runoff Area=0.320 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=299' Tc=7.4 min CN=39/0 Runoff=0.3 cfs 0.042 af

Link 23L: Northern Property Line Inflow=0.2 cfs 0.020 af
Primary=0.2 cfs 0.020 af

Link EA1: East Garfield Avenue Inflow=1.1 cfs 0.097 af
Primary=1.1 cfs 0.097 af

Link EA2: Lot 4 Inflow=2.2 cfs 0.201 af
Primary=2.2 cfs 0.201 af

Total Runoff Area = 0.940 ac Runoff Volume = 0.319 af Average Runoff Depth = 4.08"
64.89% Pervious = 0.610 ac 35.11% Impervious = 0.330 ac

Summary for Subcatchment 21S: Impervious

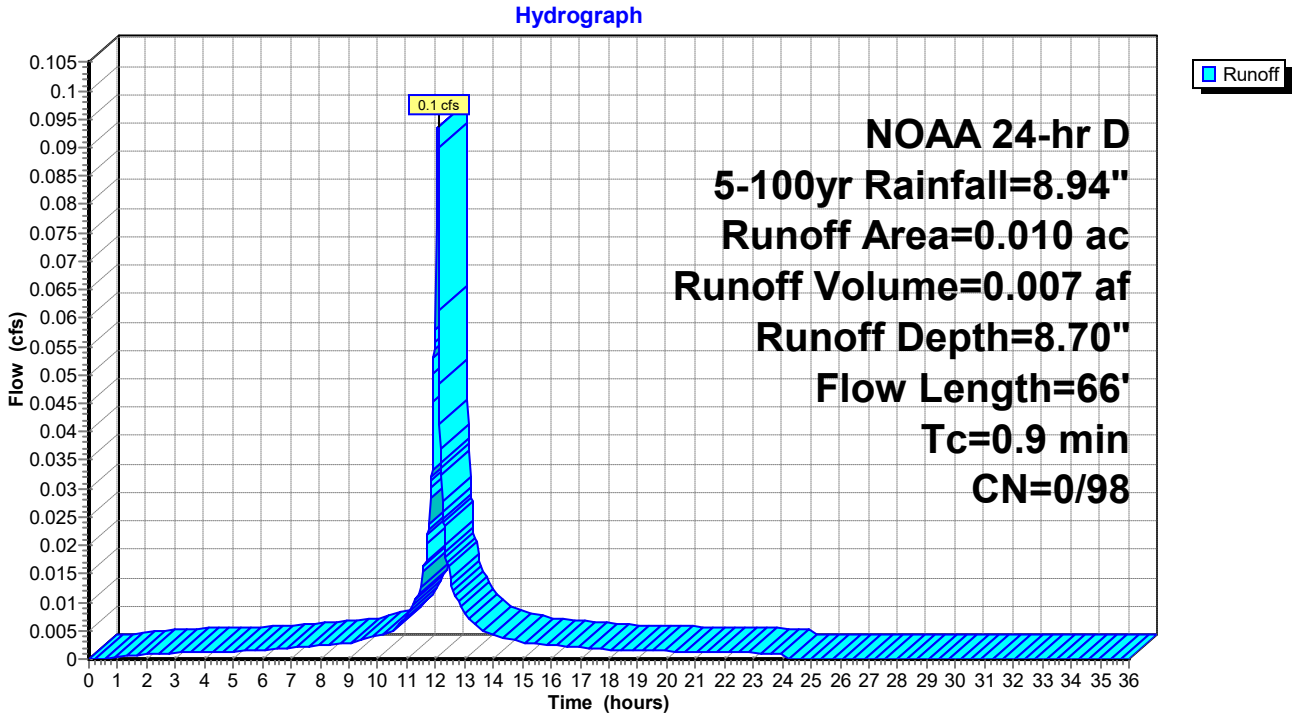
Runoff = 0.1 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 8.70"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.010	98	Paved parking, HSG A
0.010	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	20	0.0250	1.12		**Sheet Flow, 24.0 - 23.5** Smooth surfaces n= 0.011 P2= 3.40"
0.6	46	0.0065	1.30		**Shallow Concentrated Flow, 23.5 - 23.2** Unpaved Kv= 16.1 fps
0.9	66	Total			

Subcatchment 21S: Impervious



Summary for Subcatchment 22S: Pervious

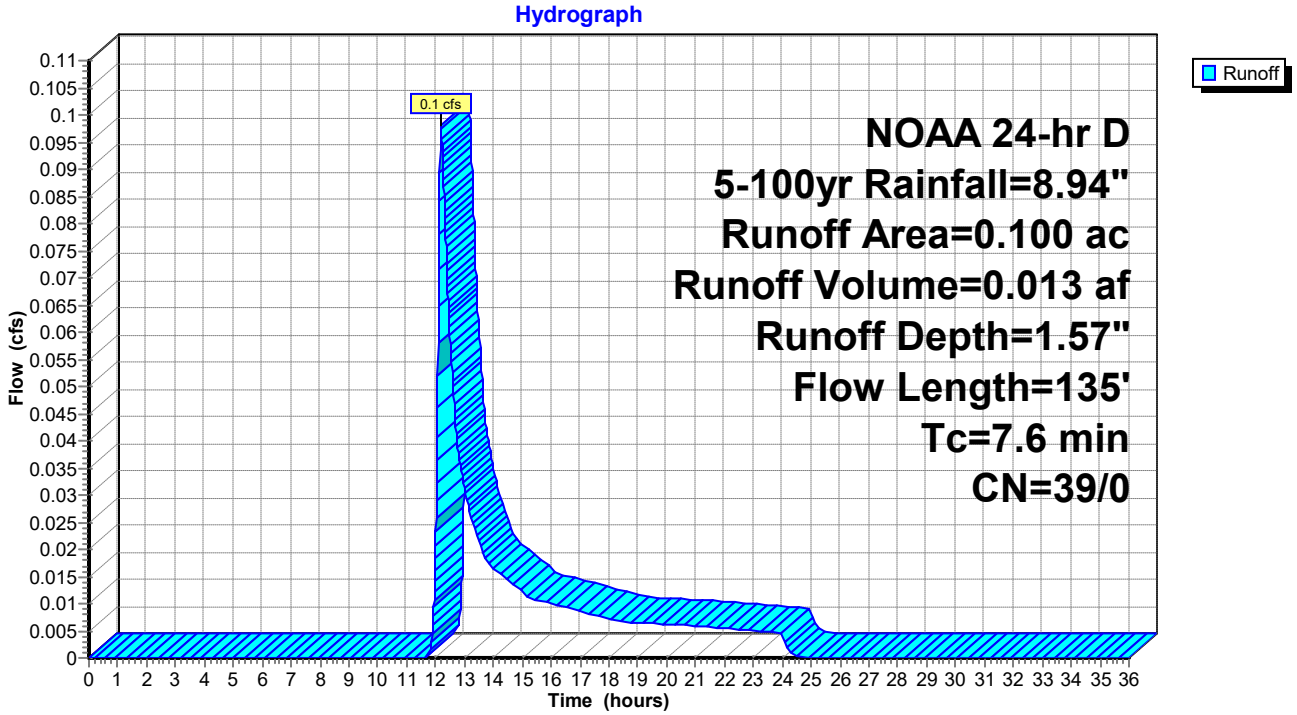
Runoff = 0.1 cfs @ 12.18 hrs, Volume= 0.013 af, Depth= 1.57"
Routed to Link 23L : Northern Property Line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.100	39	>75% Grass cover, Good, HSG A
0.100	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 25.2 - 24.3** Grass: Short n= 0.150 P2= 3.40"
0.4	27	0.0222	1.04		**Shallow Concentrated Flow, 24.3 - 23.7** Short Grass Pasture Kv= 7.0 fps
0.1	12	0.0167	2.62		**Shallow Concentrated Flow, 23.7 - 23.5** Paved Kv= 20.3 fps
1.4	46	0.0065	0.56		**Shallow Concentrated Flow, 23.5 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.6	135	Total			

Subcatchment 22S: Pervious



Summary for Subcatchment EA1i: Impervious

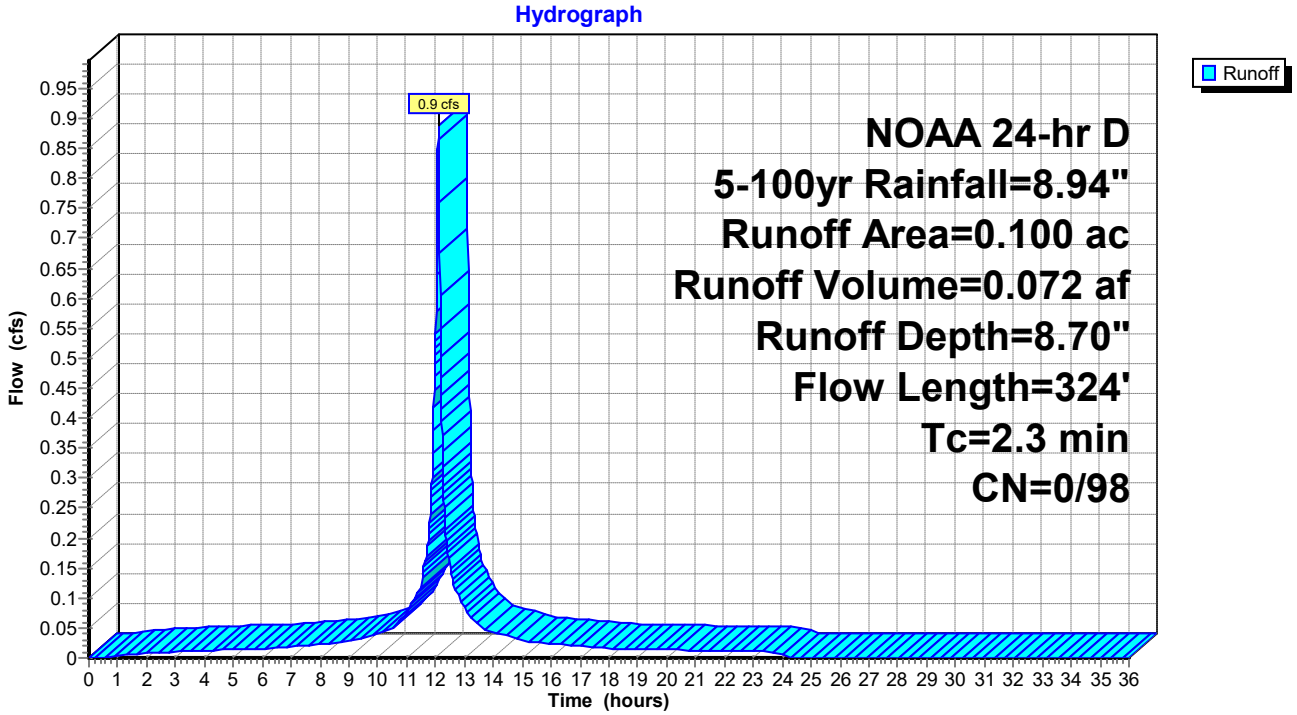
Runoff = 0.9 cfs @ 12.11 hrs, Volume= 0.072 af, Depth= 8.70"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.100	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	17	0.0235	1.06		**Sheet Flow, 26.5 - 26.1** Smooth surfaces n= 0.011 P2= 3.40"
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
2.3	324	Total			

Subcatchment EA1i: Impervious



Summary for Subcatchment EA1p: Pervious

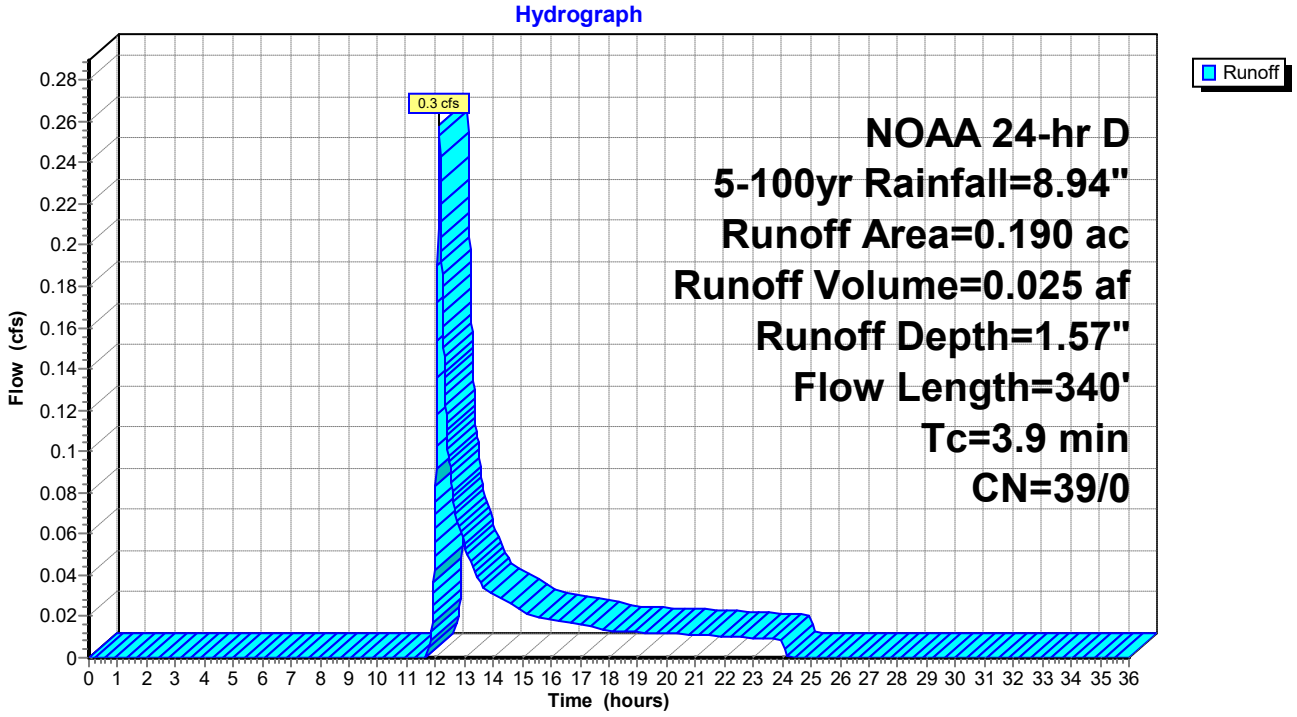
Runoff = 0.3 cfs @ 12.13 hrs, Volume= 0.025 af, Depth= 1.57"
Routed to Link EA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.190	39	>75% Grass cover, Good, HSG A
0.190	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	20	0.0500	0.18		**Sheet Flow, 27.4 - 264** Grass: Short n= 0.150 P2= 3.40"
0.1	13	0.0231	3.09		**Shallow Concentrated Flow, 26.4 - 26.4** Paved Kv= 20.3 fps
0.6	61	0.0098	1.59		**Shallow Concentrated Flow, 26.1 - 25.5** Unpaved Kv= 16.1 fps
0.0	12	0.0750	5.56		**Shallow Concentrated Flow, 25.5 - 24.6** Paved Kv= 20.3 fps
1.4	234	0.0184	2.75		**Shallow Concentrated Flow, 24.6 - 20.3** Paved Kv= 20.3 fps
3.9	340	Total			

Subcatchment EA1p: Pervious



Summary for Subcatchment EA2i: Impervious

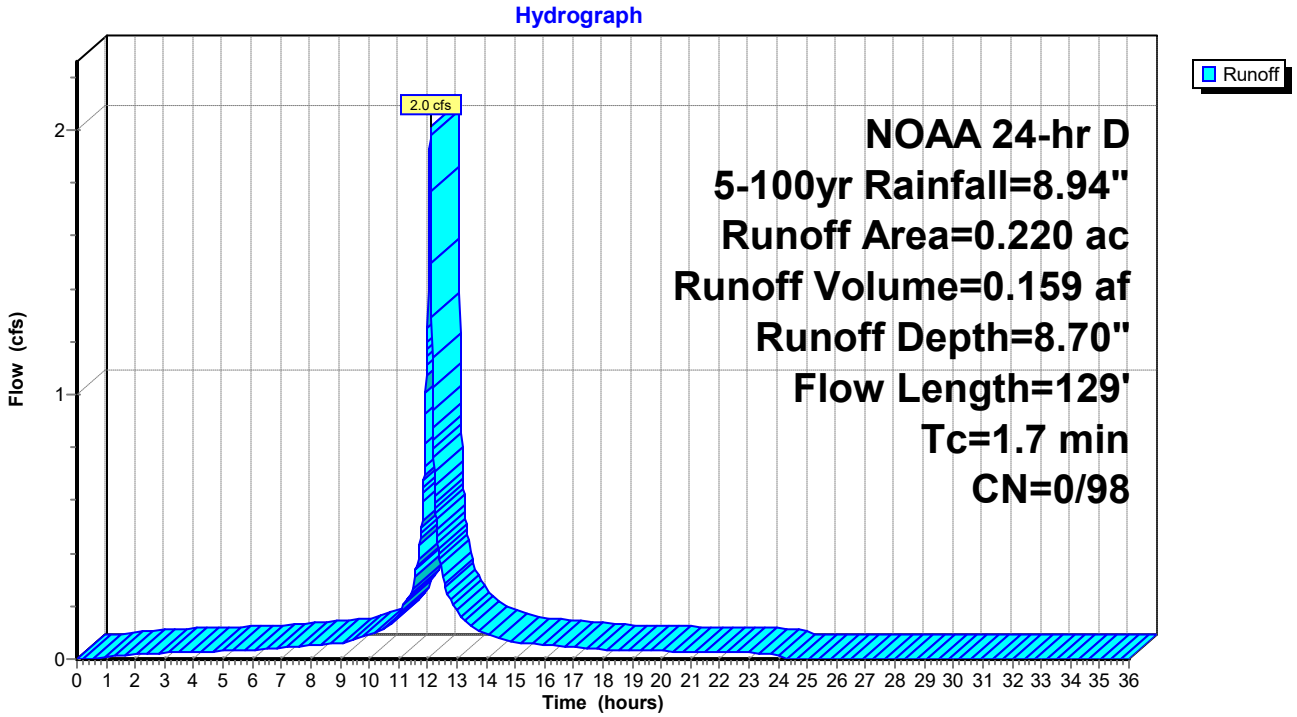
Runoff = 2.0 cfs @ 12.10 hrs, Volume= 0.159 af, Depth= 8.70"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG A
0.220	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	63	0.0270	1.46		**Sheet Flow, 24.7 - 23.00** Smooth surfaces n= 0.011 P2= 3.40"
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
1.7	129	Total			

Subcatchment EA2i: Impervious



Summary for Subcatchment EA2p: Pervious

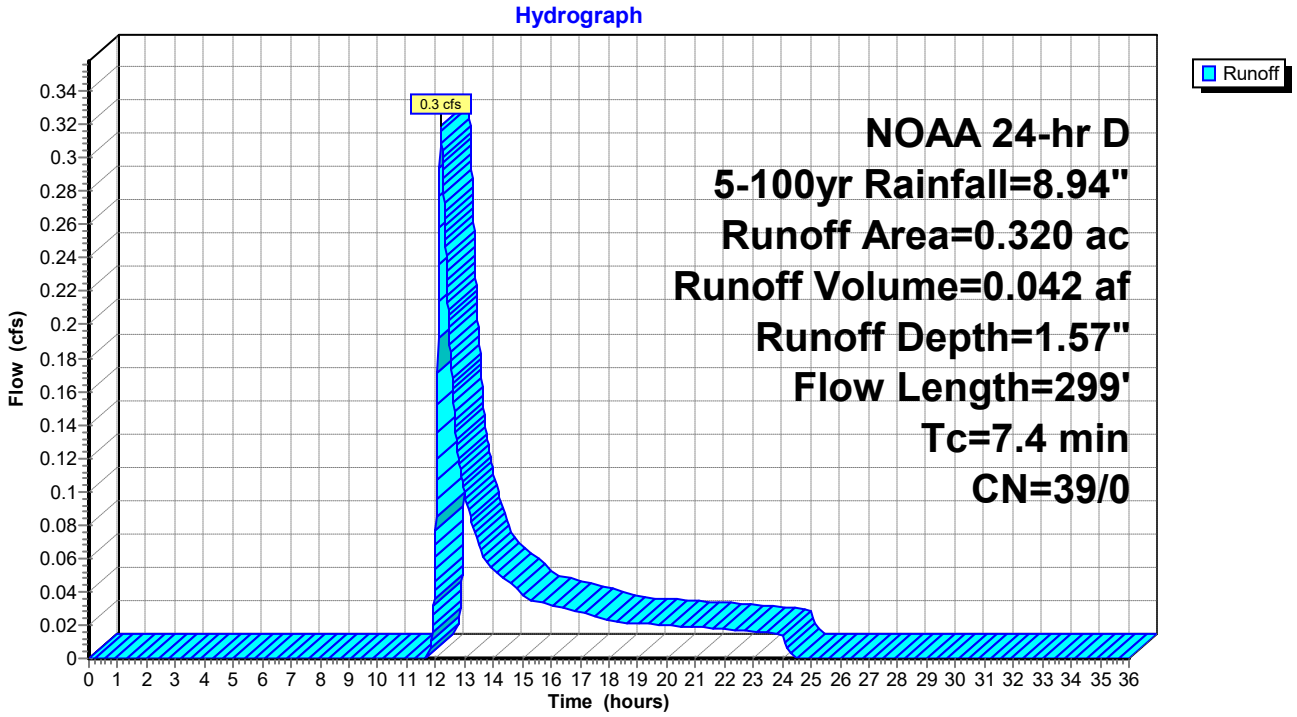
Runoff = 0.3 cfs @ 12.17 hrs, Volume= 0.042 af, Depth= 1.57"
Routed to Link EA2 : Lot 4

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.320	39	>75% Grass cover, Good, HSG A
0.320	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0460	0.21		**Sheet Flow, 28.0 - 25.7** Grass: Short n= 0.150 P2= 3.40"
0.9	50	0.0100	0.94		**Sheet Flow, 25.7 - 25.2** Smooth surfaces n= 0.011 P2= 3.40"
0.3	30	0.0067	1.66		**Shallow Concentrated Flow, 25.2 - 25.0** Paved Kv= 20.3 fps
0.9	39	0.0103	0.71		**Shallow Concentrated Flow, 25.0 - 24.6** Short Grass Pasture Kv= 7.0 fps
0.3	50	0.0260	3.27		**Shallow Concentrated Flow, 24.6 - 23.3** Paved Kv= 20.3 fps
0.1	14	0.0220	3.01		**Shallow Concentrated Flow, 23.3 - 23.0** Paved Kv= 20.3 fps
1.0	66	0.0258	1.12		**Shallow Concentrated Flow, 23.0 - 21.3** Short Grass Pasture Kv= 7.0 fps
7.4	299	Total			

Subcatchment EA2p: Pervious

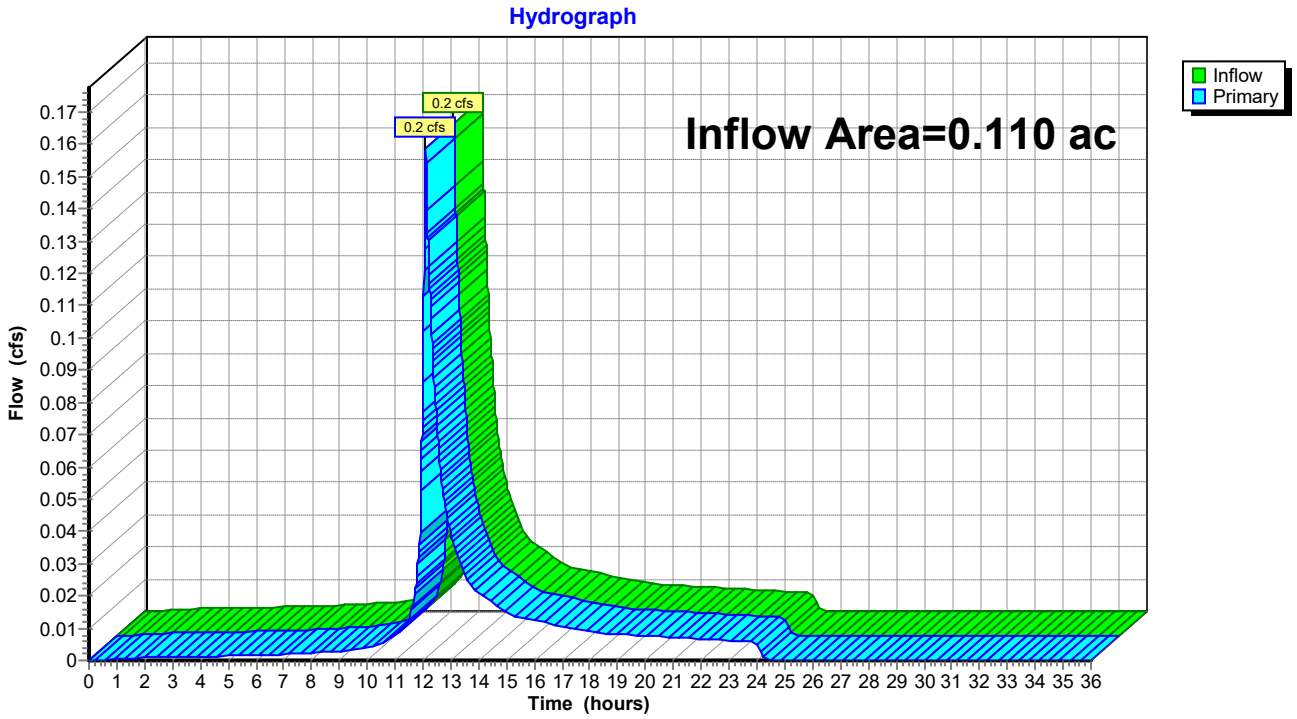


Summary for Link 23L: Northern Property Line

Inflow Area = 0.110 ac, 9.09% Impervious, Inflow Depth = 2.22" for 5-100yr event
Inflow = 0.2 cfs @ 12.10 hrs, Volume= 0.020 af
Primary = 0.2 cfs @ 12.10 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 23L: Northern Property Line

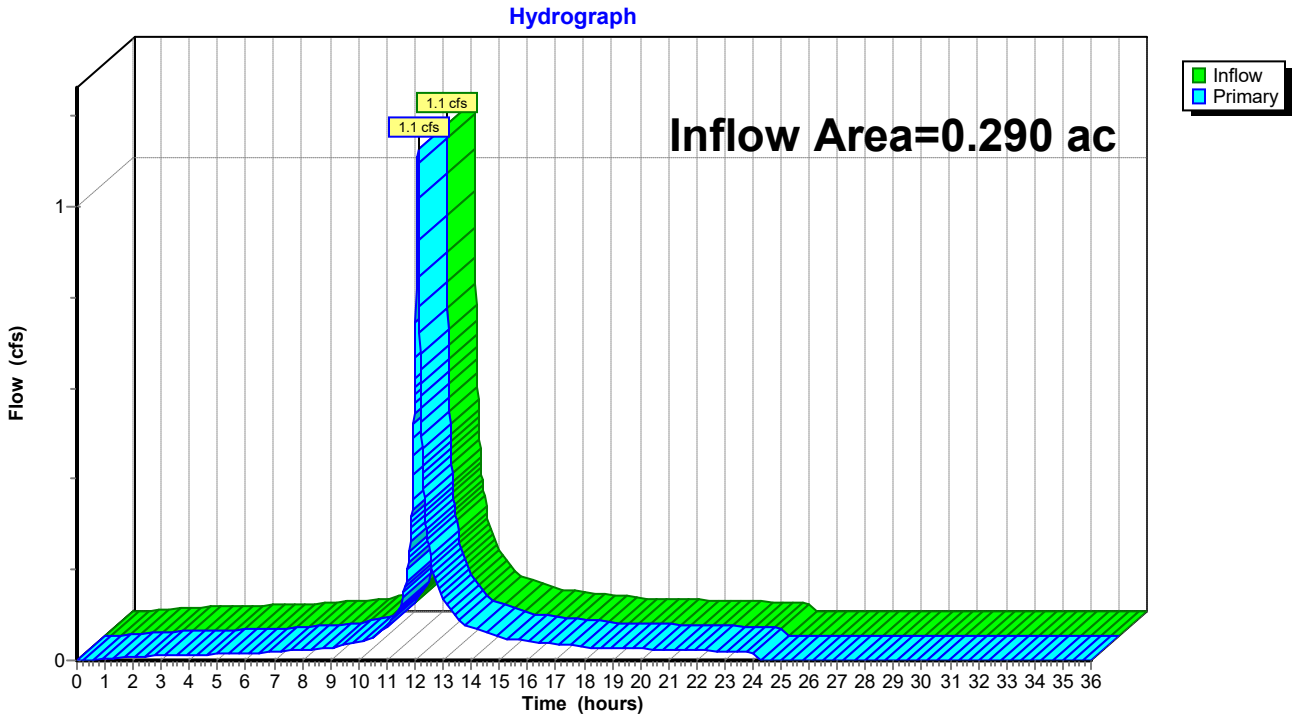


Summary for Link EA1: East Garfield Avenue

Inflow Area = 0.290 ac, 34.48% Impervious, Inflow Depth = 4.03" for 5-100yr event
Inflow = 1.1 cfs @ 12.11 hrs, Volume= 0.097 af
Primary = 1.1 cfs @ 12.11 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA1: East Garfield Avenue

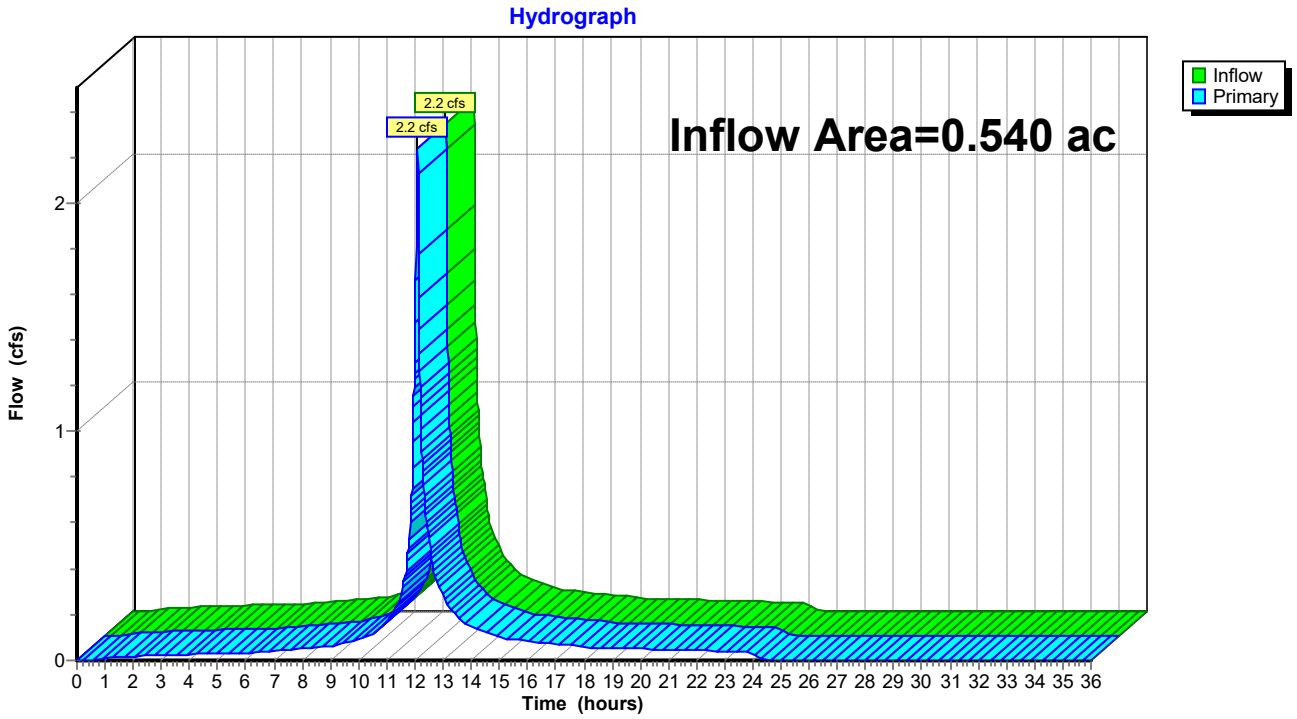


Summary for Link EA2: Lot 4

Inflow Area = 0.540 ac, 40.74% Impervious, Inflow Depth = 4.48" for 5-100yr event
Inflow = 2.2 cfs @ 12.10 hrs, Volume= 0.201 af
Primary = 2.2 cfs @ 12.10 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link EA2: Lot 4



APPENDIX C

Post-Development Flow Calculations

InSite Engineering, LLC
1955 Route 34, Suite 1A • Wall, NJ 07719
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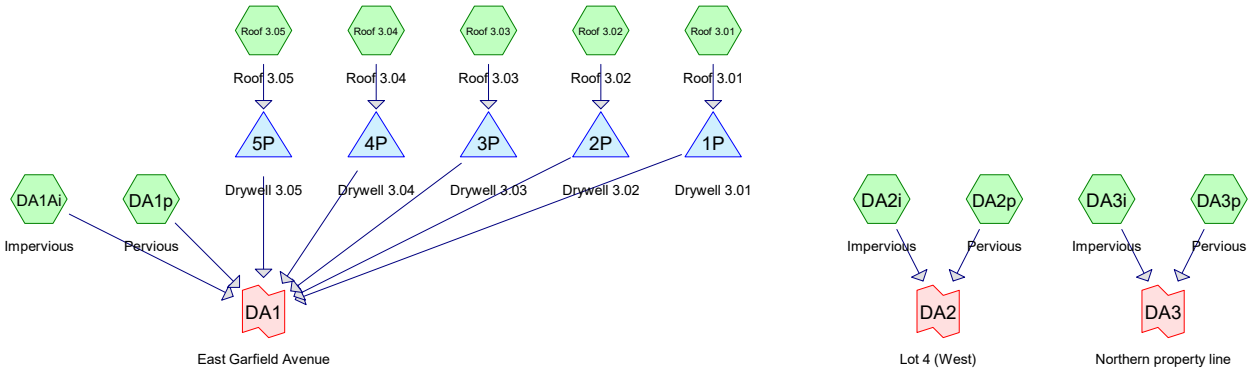
Licensed in NJ, PA, DE, NY, CT, NC, DC, & CO



POST DEVELOPMENT

Subcat Reach Pond Link

Routing Diagram for Monmouth County r1
Prepared by InSite Engineering, LLC, Printed 5/13/2024

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA1Ai: Impervious Runoff Area=0.305 ac 100.00% Impervious Runoff Depth=3.15"
Flow Length=286' Tc=1.9 min CN=0/98 Runoff=1.0 cfs 0.080 af

Subcatchment DA1p: Pervious Runoff Area=0.318 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=348' Tc=9.1 min CN=39/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA2i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA2p: Pervious Runoff Area=0.060 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=115' Tc=6.5 min CN=39/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA3i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA3p: Pervious Runoff Area=0.080 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=122' Tc=7.3 min CN=39/0 Runoff=0.0 cfs 0.000 af

Subcatchment Roof 3.01: Roof 3.01 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.008 af

Subcatchment Roof 3.02: Roof 3.02 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.008 af

Subcatchment Roof 3.03: Roof 3.03 Runoff Area=1,360 sf 100.00% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.008 af

Subcatchment Roof 3.04: Roof 3.04 Runoff Area=1,496 sf 100.00% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.009 af

Subcatchment Roof 3.05: Roof 3.05 Runoff Area=1,410 sf 100.00% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.008 af

Pond 1P: Drywell 3.01 Peak Elev=22.62' Storage=112 cf Inflow=0.1 cfs 0.008 af
Discarded=0.0 cfs 0.008 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.008 af

Pond 2P: Drywell 3.02 Peak Elev=22.62' Storage=112 cf Inflow=0.1 cfs 0.008 af
Discarded=0.0 cfs 0.008 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.008 af

Pond 3P: Drywell 3.03 Peak Elev=22.86' Storage=121 cf Inflow=0.1 cfs 0.008 af
Discarded=0.0 cfs 0.008 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.008 af

Pond 4P: Drywell 3.04 Peak Elev=23.40' Storage=140 cf Inflow=0.1 cfs 0.009 af
Discarded=0.0 cfs 0.009 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.009 af

Pond 5P: Drywell 3.05 Peak Elev=23.06' Storage=128 cf Inflow=0.1 cfs 0.008 af
Discarded=0.0 cfs 0.008 af Primary=0.0 cfs 0.000 af Outflow=0.0 cfs 0.008 af

Link DA1: East Garfield Avenue Inflow=1.0 cfs 0.080 af
Primary=1.0 cfs 0.080 af

Link DA2: Lot 4 (West) Inflow=0.0 cfs 0.000 af
Primary=0.0 cfs 0.000 af

Link DA3: Northern property line Inflow=0.0 cfs 0.000 af
Primary=0.0 cfs 0.000 af

Total Runoff Area = 0.920 ac Runoff Volume = 0.121 af Average Runoff Depth = 1.58"
49.76% Pervious = 0.458 ac 50.24% Impervious = 0.462 ac

Summary for Subcatchment DA1Ai: Impervious

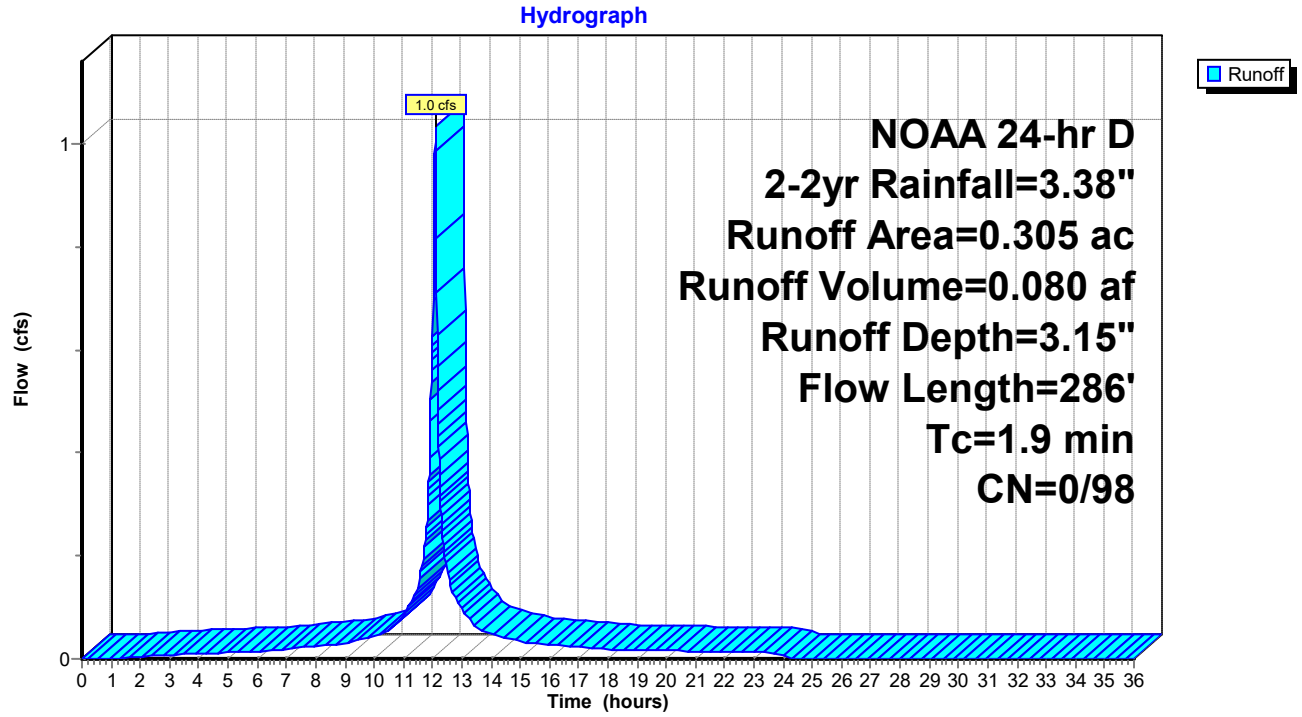
Runoff = 1.0 cfs @ 12.10 hrs, Volume= 0.080 af, Depth= 3.15"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.305	98	Paved parking, HSG A
0.305	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	41	0.0410	1.58		**Sheet Flow, 26.5 - 24.8** Smooth surfaces n= 0.011 P2= 3.40"
0.7	106	0.0150	2.49		**Shallow Concentrated Flow, 24.8 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
1.9	286	Total			

Subcatchment DA1Ai: Impervious



Summary for Subcatchment DA1p: Pervious

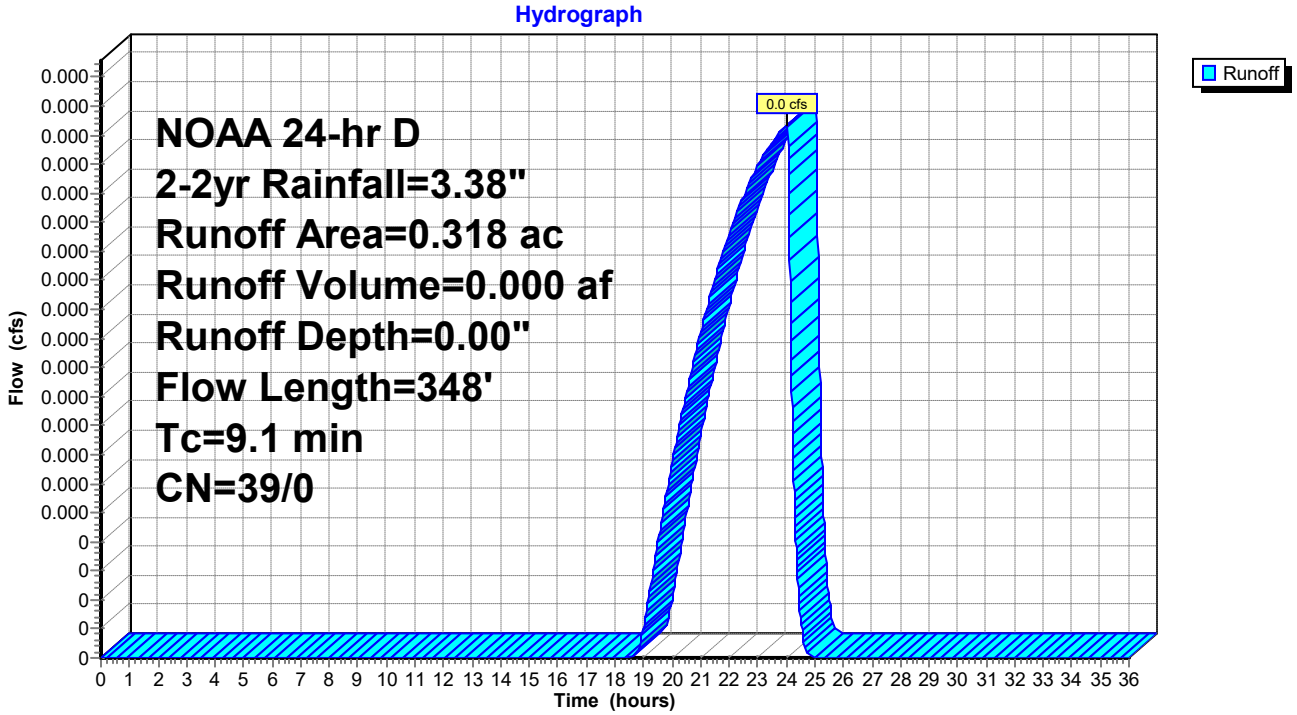
Runoff = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.318	39	>75% Grass cover, Good, HSG A
0.318	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	50	0.0220	0.16		**Sheet Flow, 27.0 - 25.9** Grass: Short n= 0.150 P2= 3.40"
2.9	145	0.0140	0.83		**Shallow Concentrated Flow, 25.9 - 23.9** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0500	4.54		**Shallow Concentrated Flow, 23.9 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
9.1	348	Total			

Subcatchment DA1p: Pervious



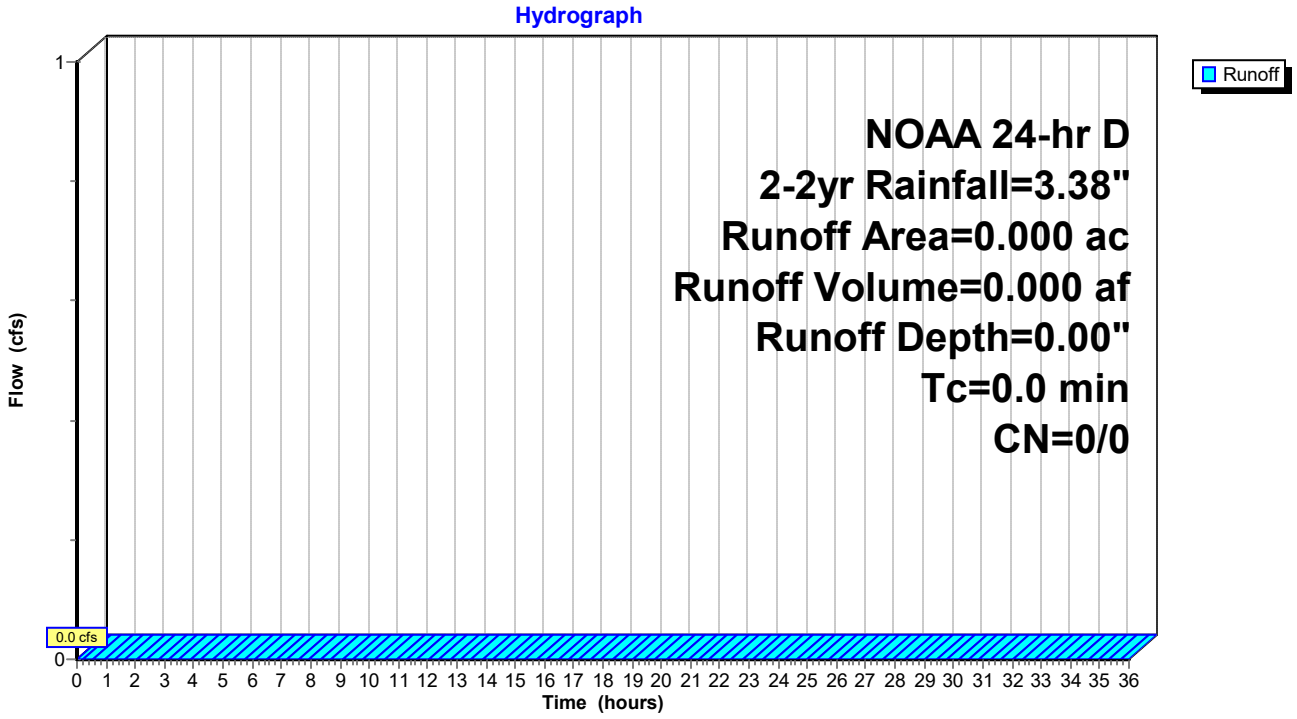
Summary for Subcatchment DA2i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA2i: Impervious



Summary for Subcatchment DA2p: Pervious

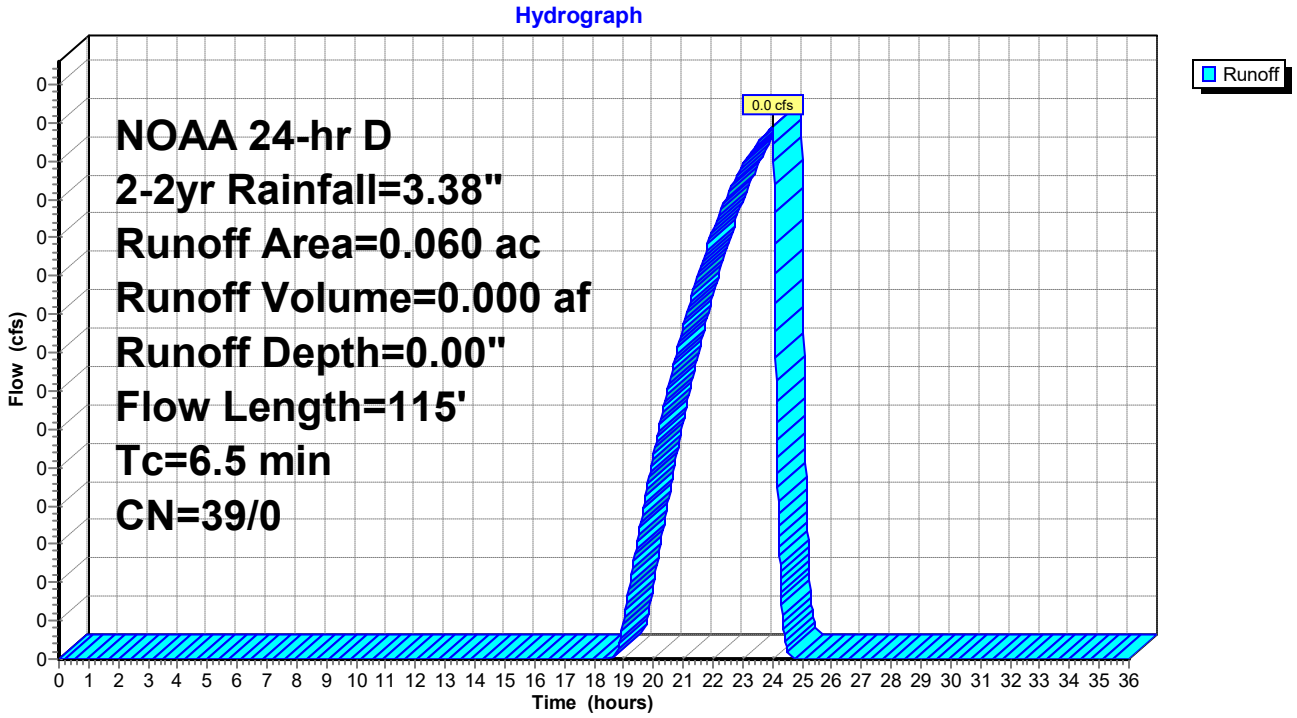
Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.060	39	>75% Grass cover, Good, HSG A
0.060	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		**Sheet Flow, 24.9 - 23.9** Grass: Short n= 0.150 P2= 3.40"
1.0	65	0.0246	1.10		**Shallow Concentrated Flow, 23.9 - 22.3** Short Grass Pasture Kv= 7.0 fps
6.5	115	Total			

Subcatchment DA2p: Pervious



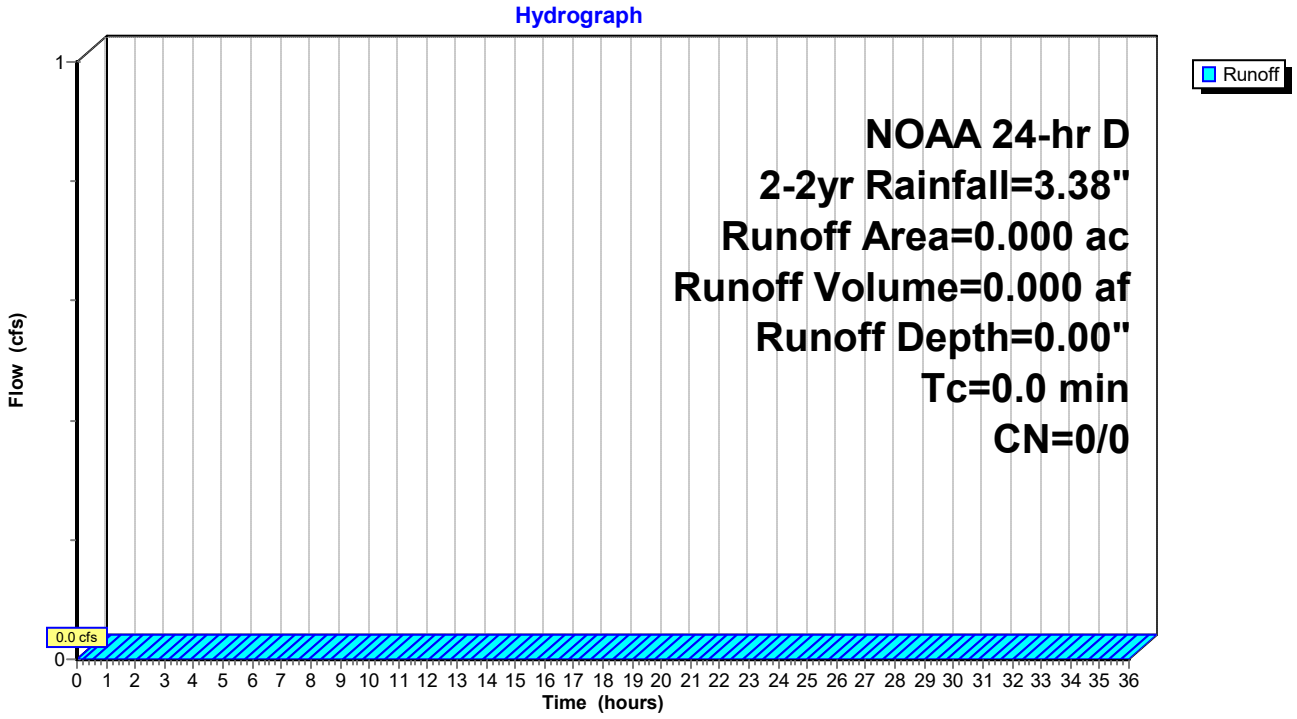
Summary for Subcatchment DA3i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA3i: Impervious



Summary for Subcatchment DA3p: Pervious

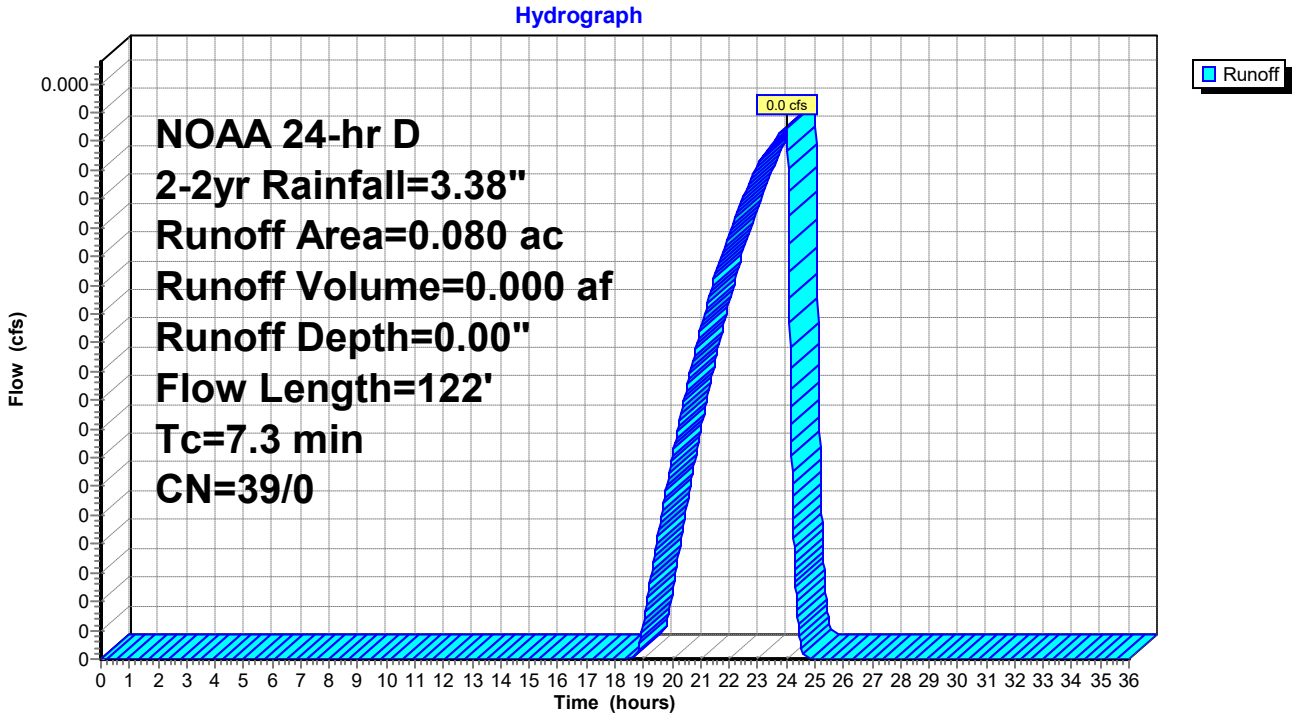
Runoff = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.080	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 24.9 - 24.0** Grass: Short n= 0.150 P2= 3.40"
1.6	72	0.0110	0.73		**Shallow Concentrated Flow, 24.0 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.3	122	Total			

Subcatchment DA3p: Pervious



Summary for Subcatchment Roof 3.01: Roof 3.01

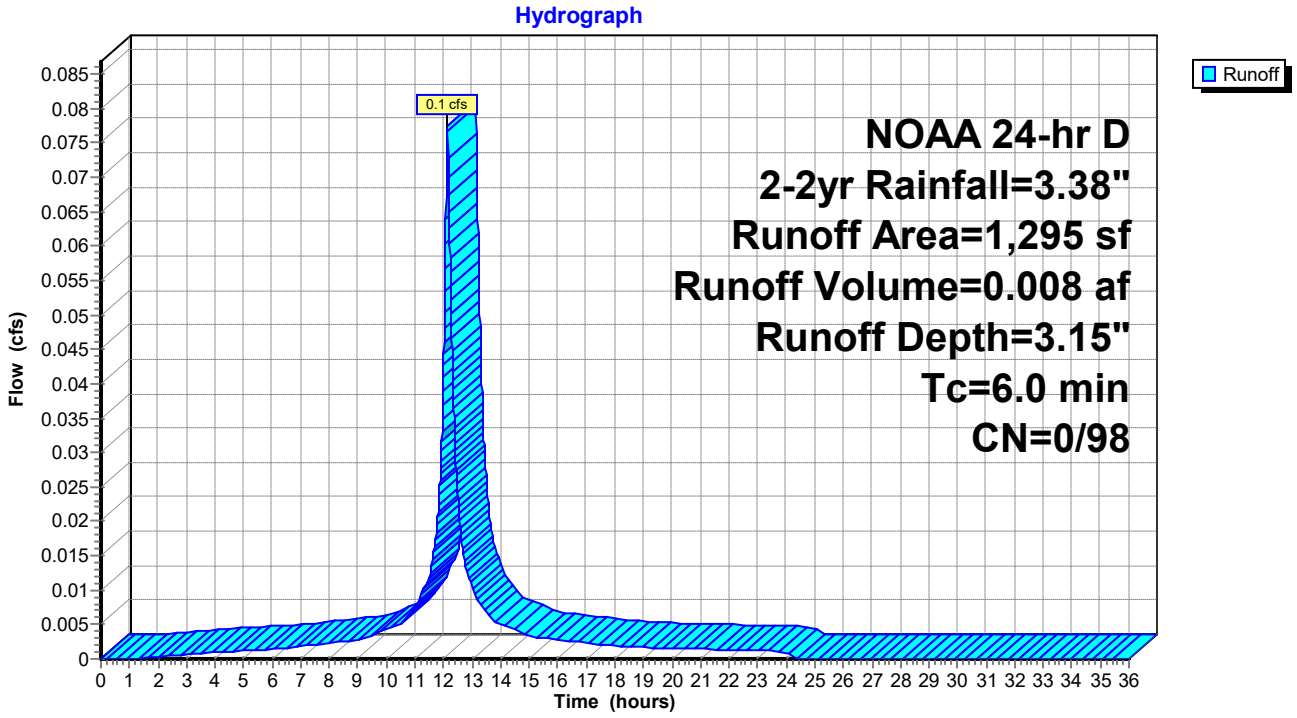
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 3.15"
Routed to Pond 1P : Drywell 3.01

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.01: Roof 3.01



Summary for Subcatchment Roof 3.02: Roof 3.02

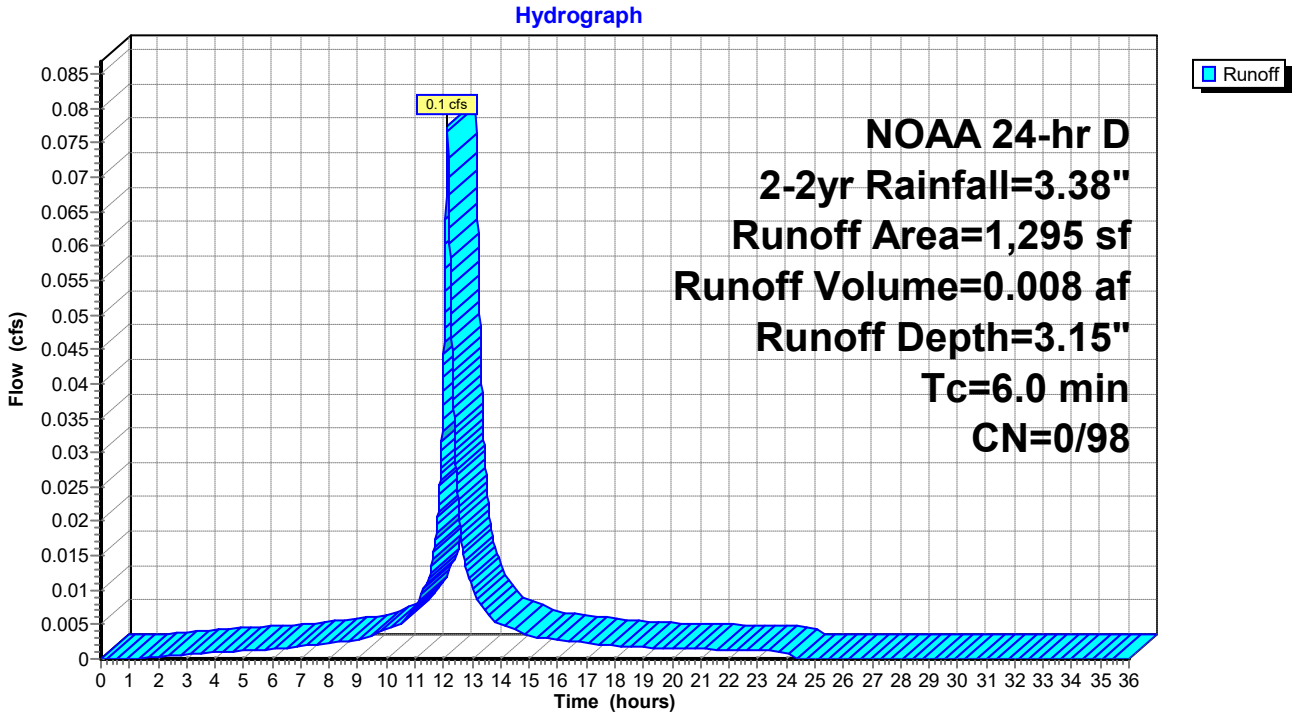
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 3.15"
Routed to Pond 2P : Drywell 3.02

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.02: Roof 3.02



Summary for Subcatchment Roof 3.03: Roof 3.03

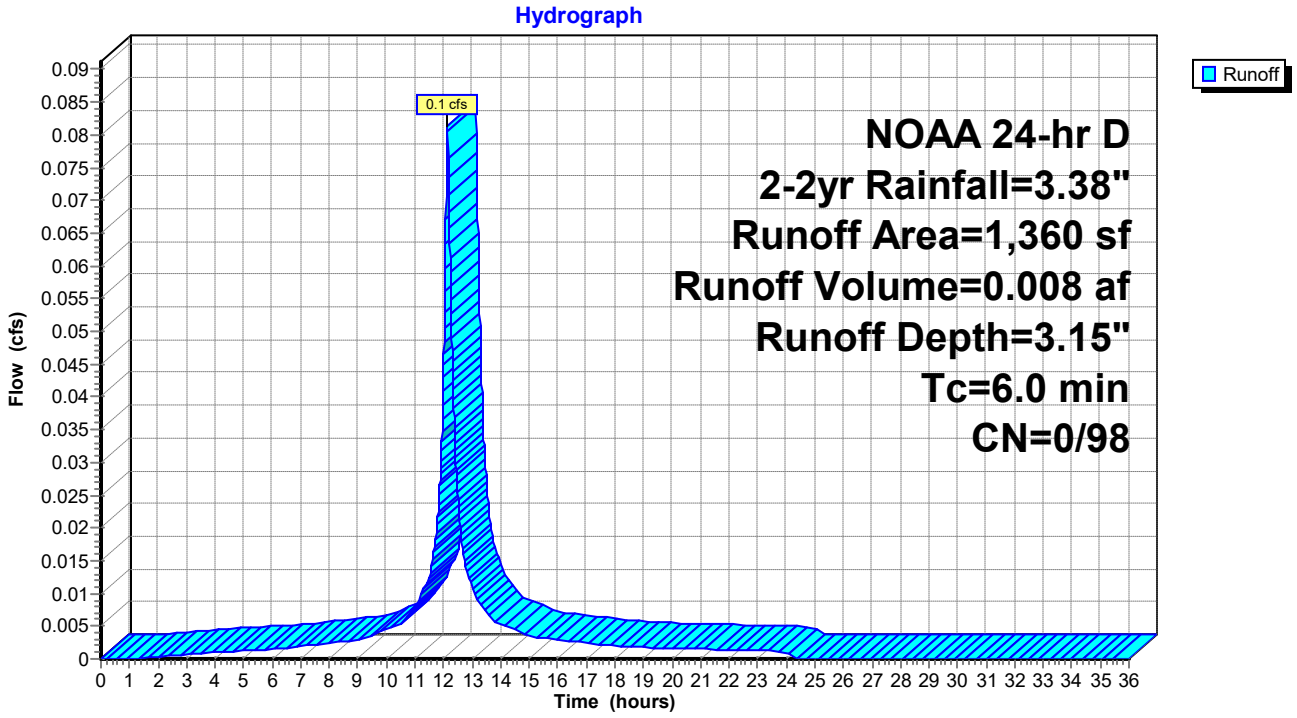
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 3.15"
Routed to Pond 3P : Drywell 3.03

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (sf)	CN	Description
1,360	98	Roofs, HSG A
1,360	98	100.00% Impervious Area

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

Subcatchment Roof 3.03: Roof 3.03



Summary for Subcatchment Roof 3.04: Roof 3.04

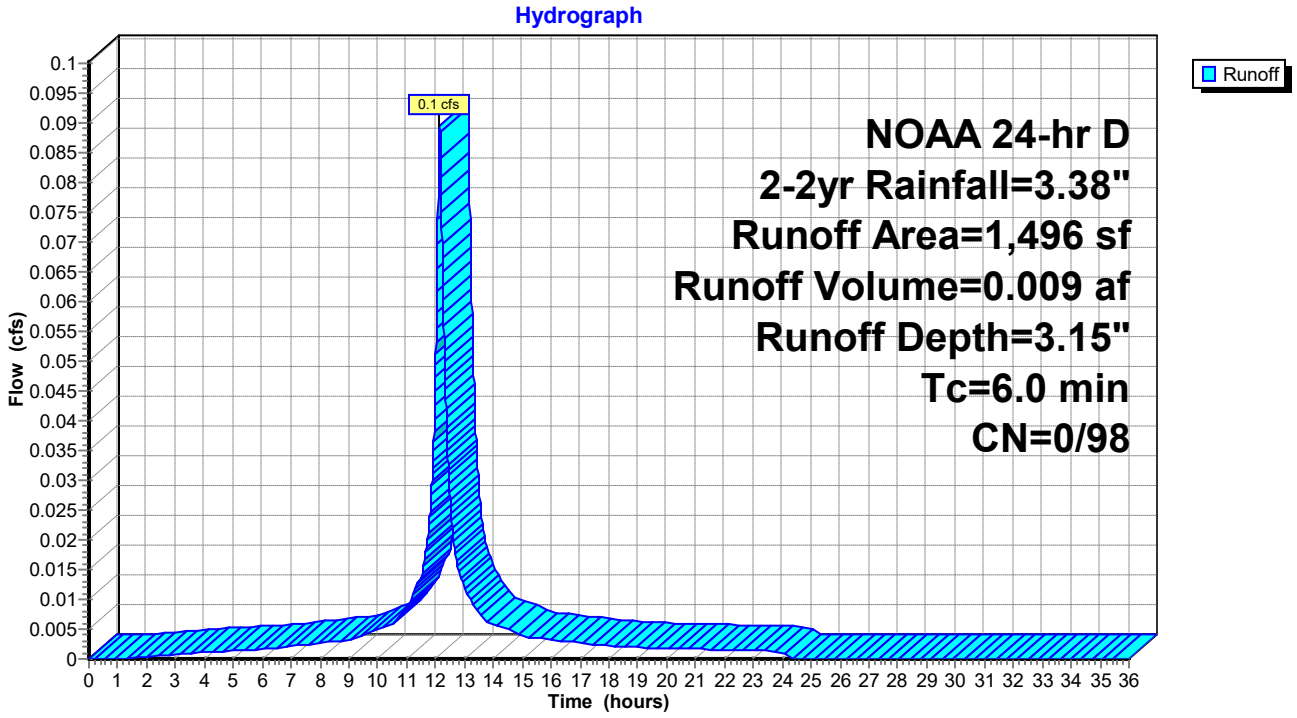
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.009 af, Depth= 3.15"
Routed to Pond 4P : Drywell 3.04

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

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

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

Subcatchment Roof 3.04: Roof 3.04



Summary for Subcatchment Roof 3.05: Roof 3.05

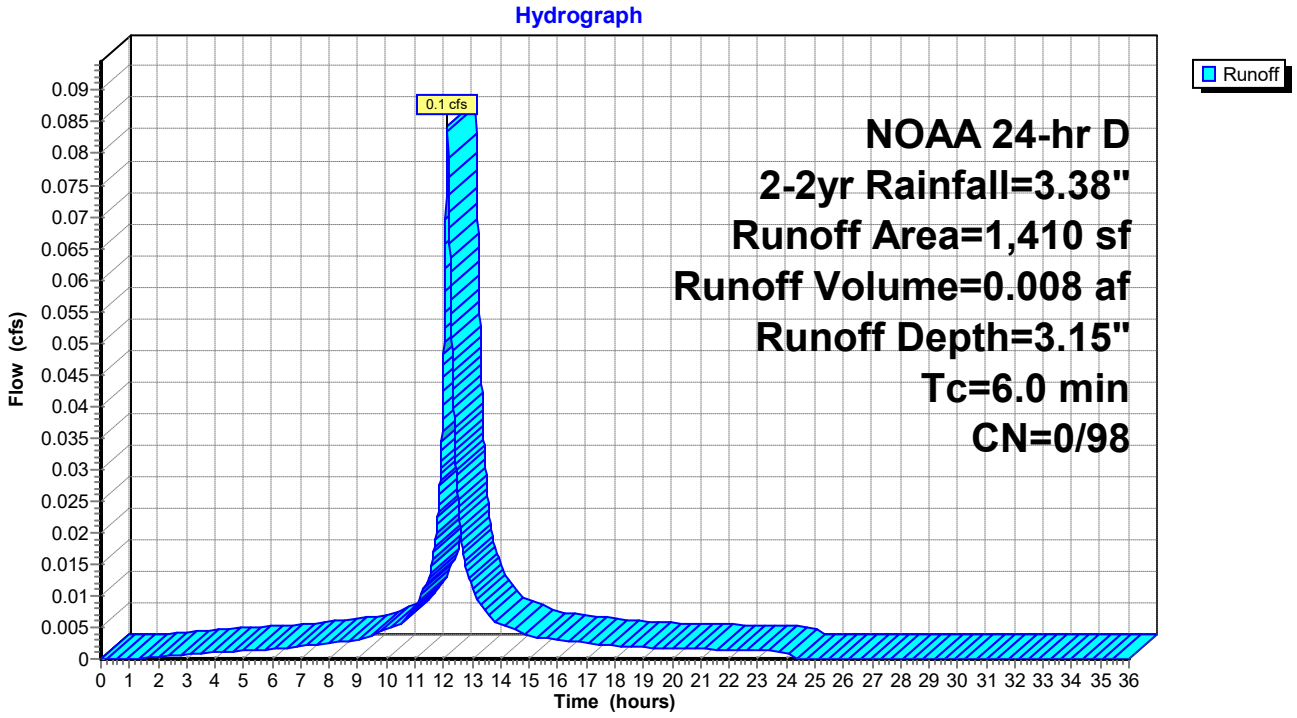
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 3.15"
Routed to Pond 5P : Drywell 3.05

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 2-2yr Rainfall=3.38"

Area (sf)	CN	Description
1,410	98	Roofs, HSG A
1,410	98	100.00% Impervious Area

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

Subcatchment Roof 3.05: Roof 3.05



Summary for Pond 1P: Drywell 3.01

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 3.15" for 2-2yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af
Outflow = 0.0 cfs @ 11.12 hrs, Volume= 0.008 af, Atten= 89%, Lag= 0.0 min
Discarded = 0.0 cfs @ 11.12 hrs, Volume= 0.008 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 22.62' @ 13.24 hrs Surf.Area= 36 sf Storage= 112 cf

Plug-Flow detention time= 90.0 min calculated for 0.008 af (100% of inflow)
Center-of-Mass det. time= 90.0 min (850.7 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

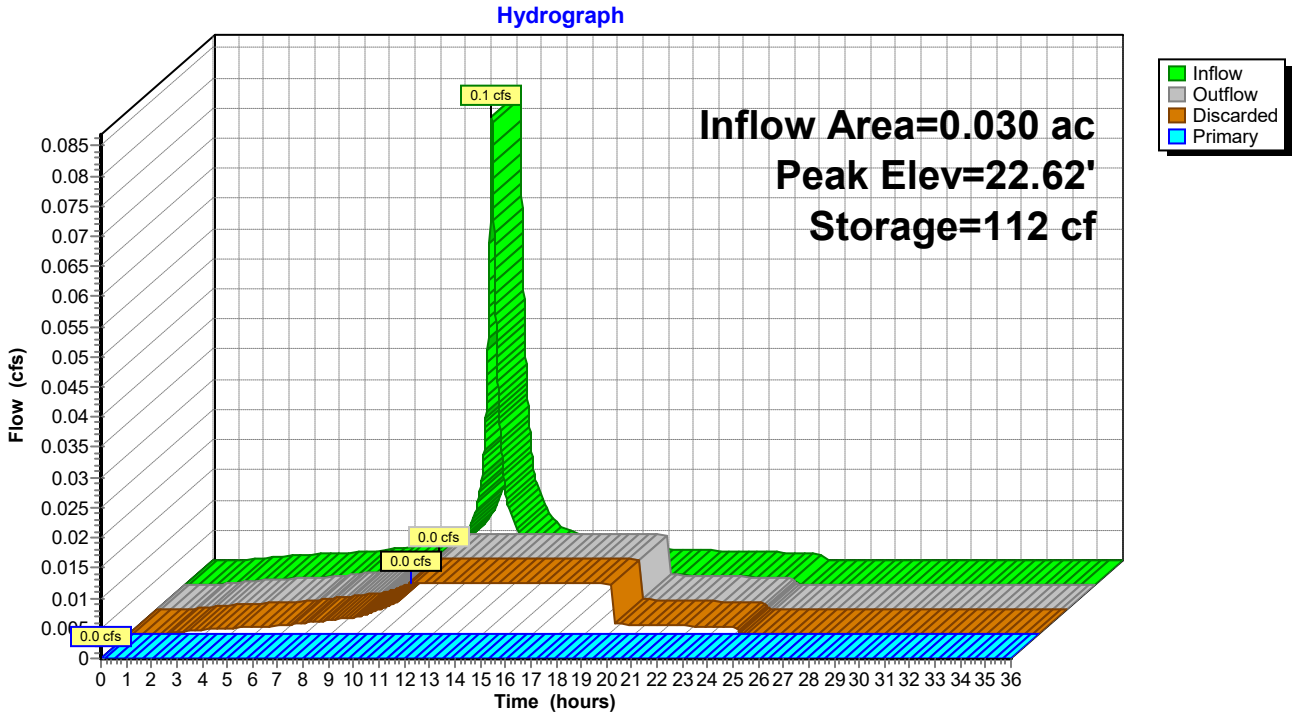
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 11.12 hrs HW=19.50' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=19.49' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

Pond 1P: Drywell 3.01



Summary for Pond 2P: Drywell 3.02

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 3.15" for 2-2yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af
Outflow = 0.0 cfs @ 11.12 hrs, Volume= 0.008 af, Atten= 89%, Lag= 0.0 min
Discarded = 0.0 cfs @ 11.12 hrs, Volume= 0.008 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 22.62' @ 13.24 hrs Surf.Area= 36 sf Storage= 112 cf

Plug-Flow detention time= 90.0 min calculated for 0.008 af (100% of inflow)
Center-of-Mass det. time= 90.0 min (850.7 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

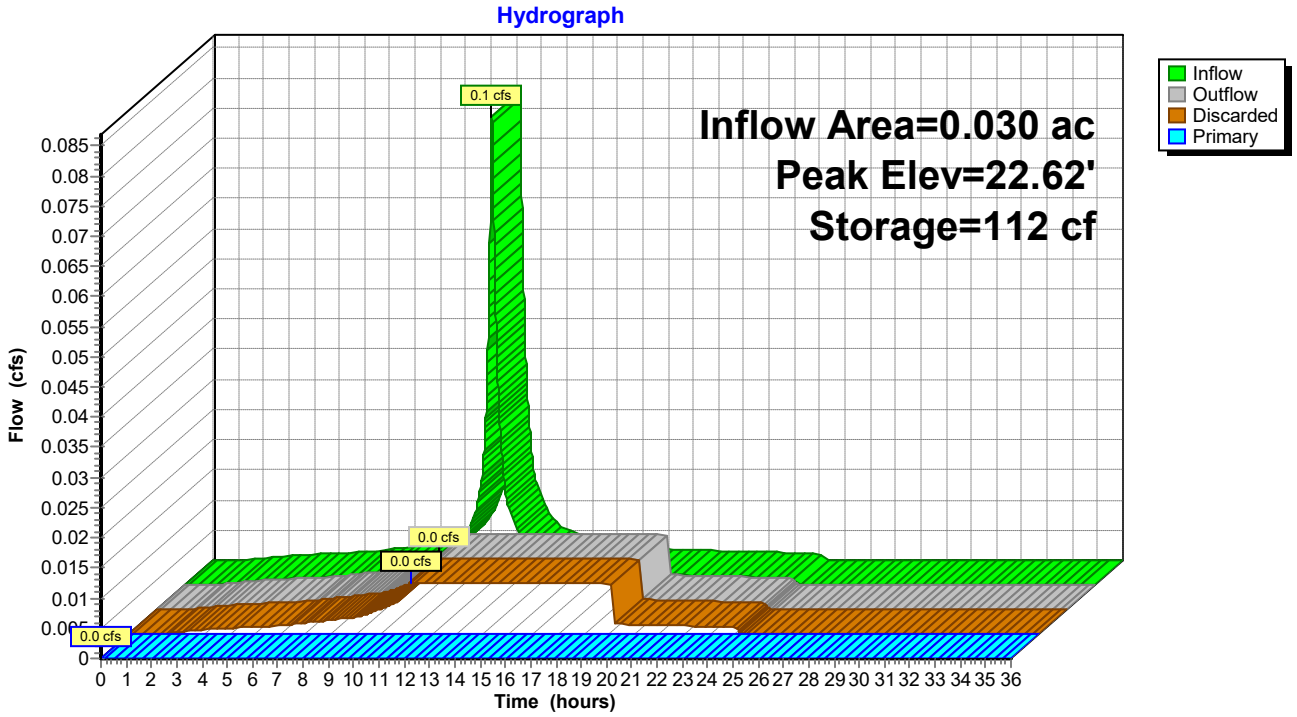
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 11.12 hrs HW=19.50' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=19.49' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

Pond 2P: Drywell 3.02



Summary for Pond 3P: Drywell 3.03

Inflow Area = 0.031 ac,100.00% Impervious, Inflow Depth = 3.15" for 2-2yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af
Outflow = 0.0 cfs @ 11.07 hrs, Volume= 0.008 af, Atten= 90%, Lag= 0.0 min
Discarded = 0.0 cfs @ 11.07 hrs, Volume= 0.008 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 22.86' @ 13.30 hrs Surf.Area= 36 sf Storage= 121 cf

Plug-Flow detention time= 98.9 min calculated for 0.008 af (100% of inflow)
Center-of-Mass det. time= 98.9 min (859.7 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

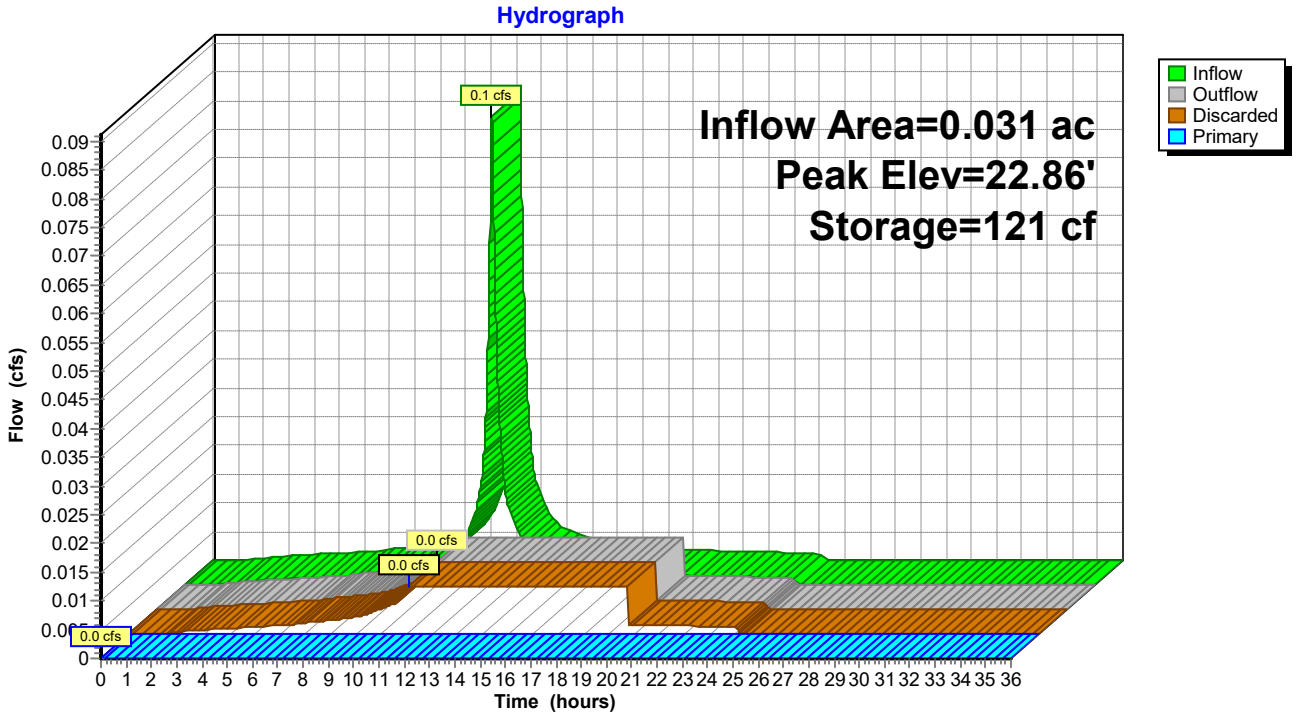
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 11.07 hrs HW=19.50' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=19.49' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

Pond 3P: Drywell 3.03



Summary for Pond 4P: Drywell 3.04

Inflow Area = 0.034 ac,100.00% Impervious, Inflow Depth = 3.15" for 2-2yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.009 af
Outflow = 0.0 cfs @ 10.96 hrs, Volume= 0.009 af, Atten= 91%, Lag= 0.0 min
Discarded = 0.0 cfs @ 10.96 hrs, Volume= 0.009 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 23.40' @ 13.41 hrs Surf.Area= 36 sf Storage= 140 cf

Plug-Flow detention time= 118.7 min calculated for 0.009 af (100% of inflow)
Center-of-Mass det. time= 118.7 min (879.4 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

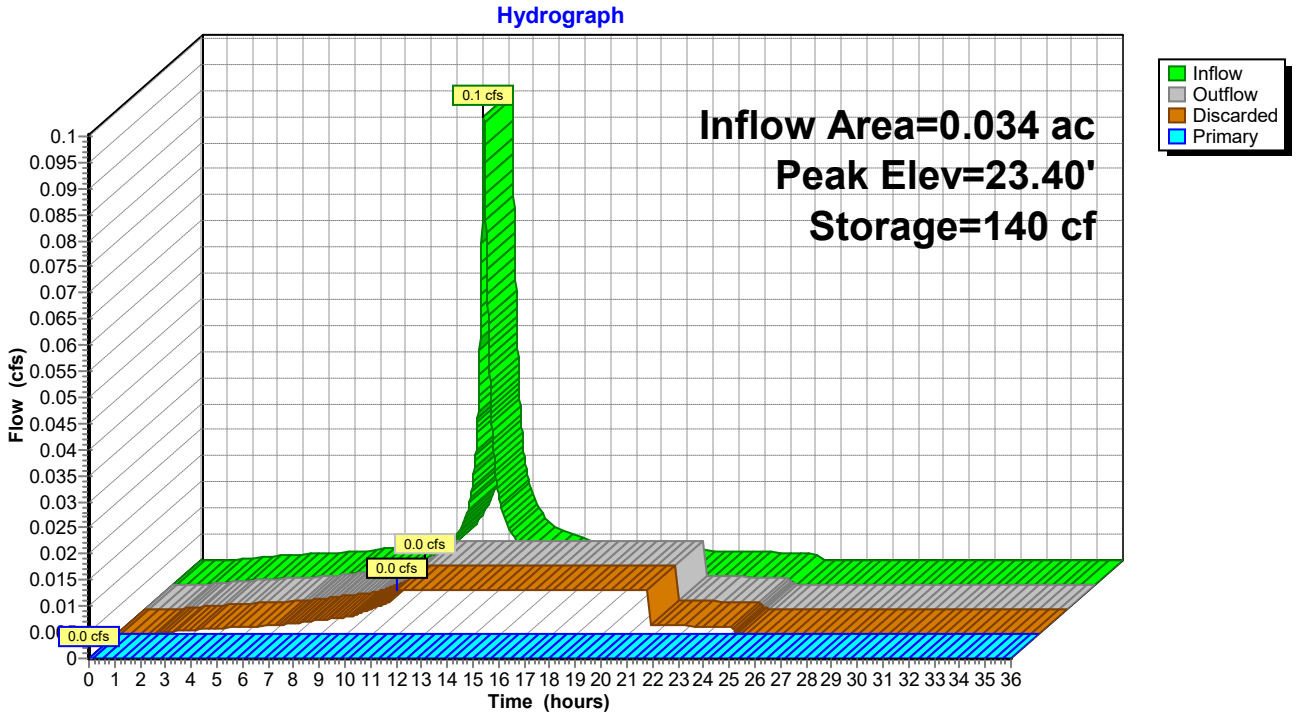
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.96 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=19.49' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 4P: Drywell 3.04



Summary for Pond 5P: Drywell 3.05

Inflow Area = 0.032 ac,100.00% Impervious, Inflow Depth = 3.15" for 2-2yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.008 af
Outflow = 0.0 cfs @ 11.03 hrs, Volume= 0.008 af, Atten= 90%, Lag= 0.0 min
Discarded = 0.0 cfs @ 11.03 hrs, Volume= 0.008 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 23.06' @ 13.34 hrs Surf.Area= 36 sf Storage= 128 cf

Plug-Flow detention time= 106.0 min calculated for 0.008 af (100% of inflow)
Center-of-Mass det. time= 106.0 min (866.8 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

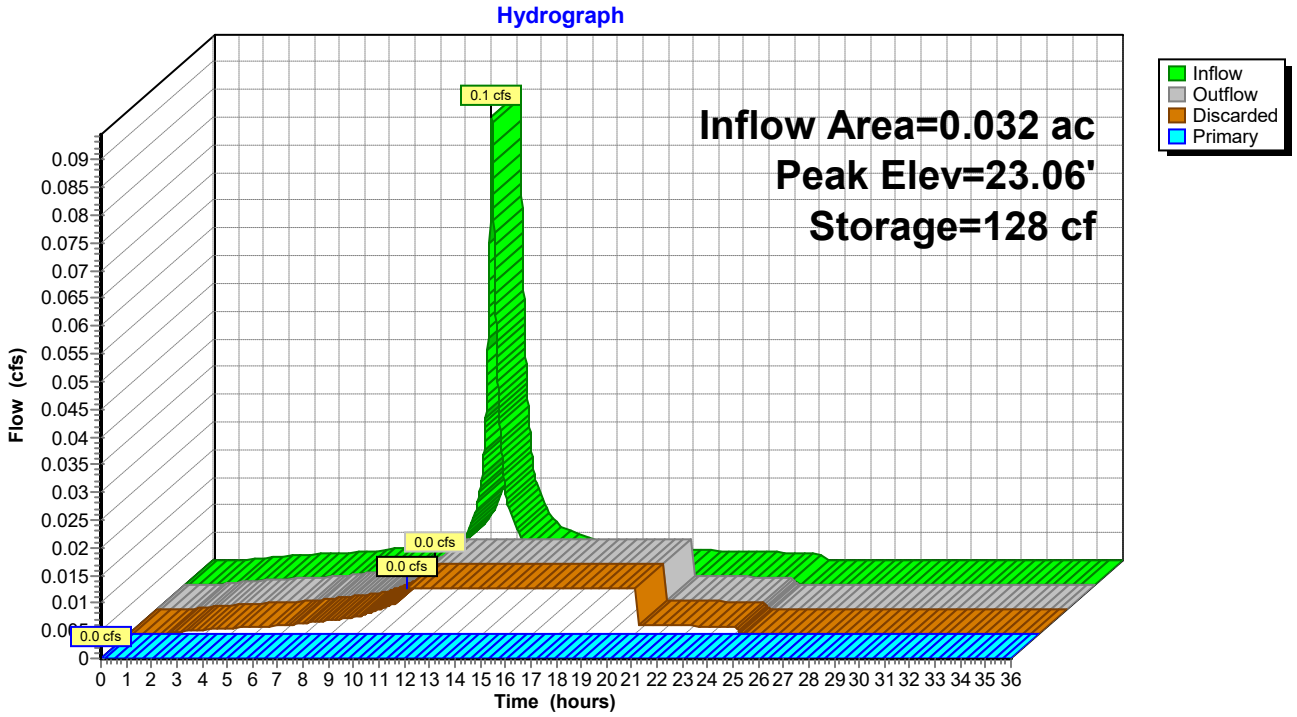
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 11.03 hrs HW=19.50' (Free Discharge)
2=Exfiltration (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=19.49' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Controls 0.0 cfs)

Pond 5P: Drywell 3.05

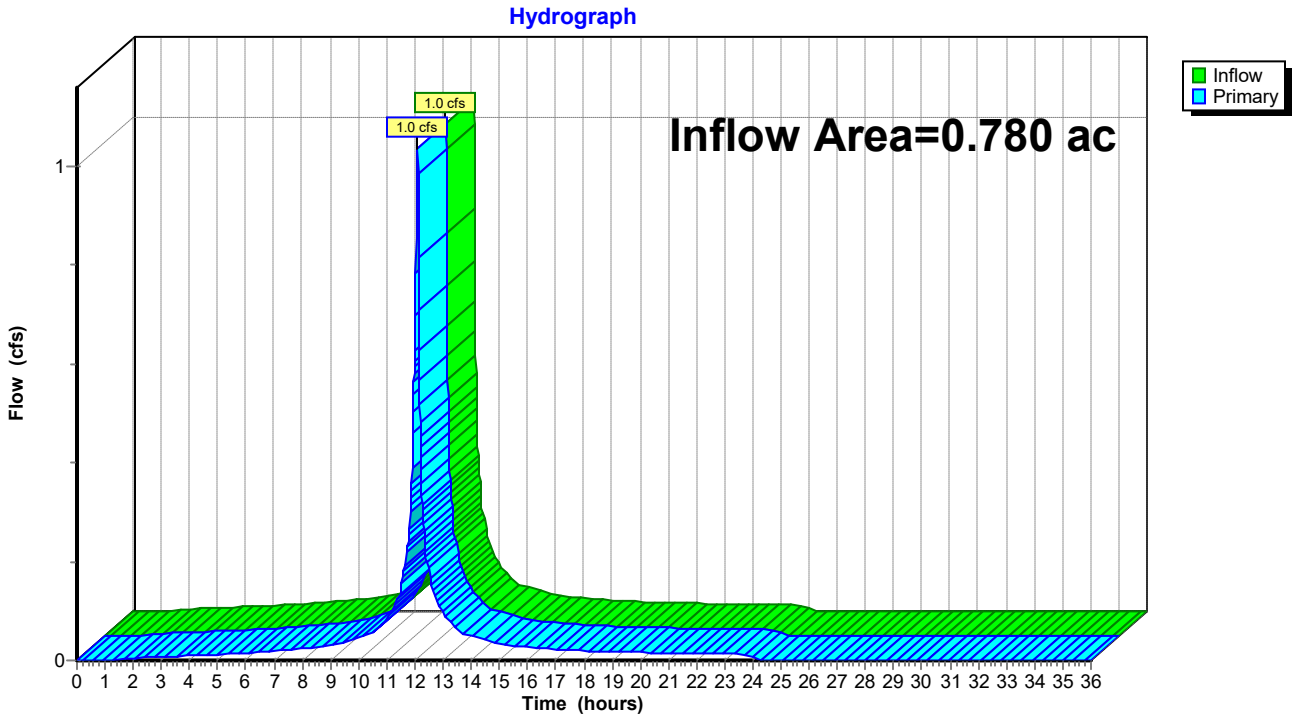


Summary for Link DA1: East Garfield Avenue

Inflow Area = 0.780 ac, 59.25% Impervious, Inflow Depth = 1.23" for 2-2yr event
Inflow = 1.0 cfs @ 12.10 hrs, Volume= 0.080 af
Primary = 1.0 cfs @ 12.10 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA1: East Garfield Avenue

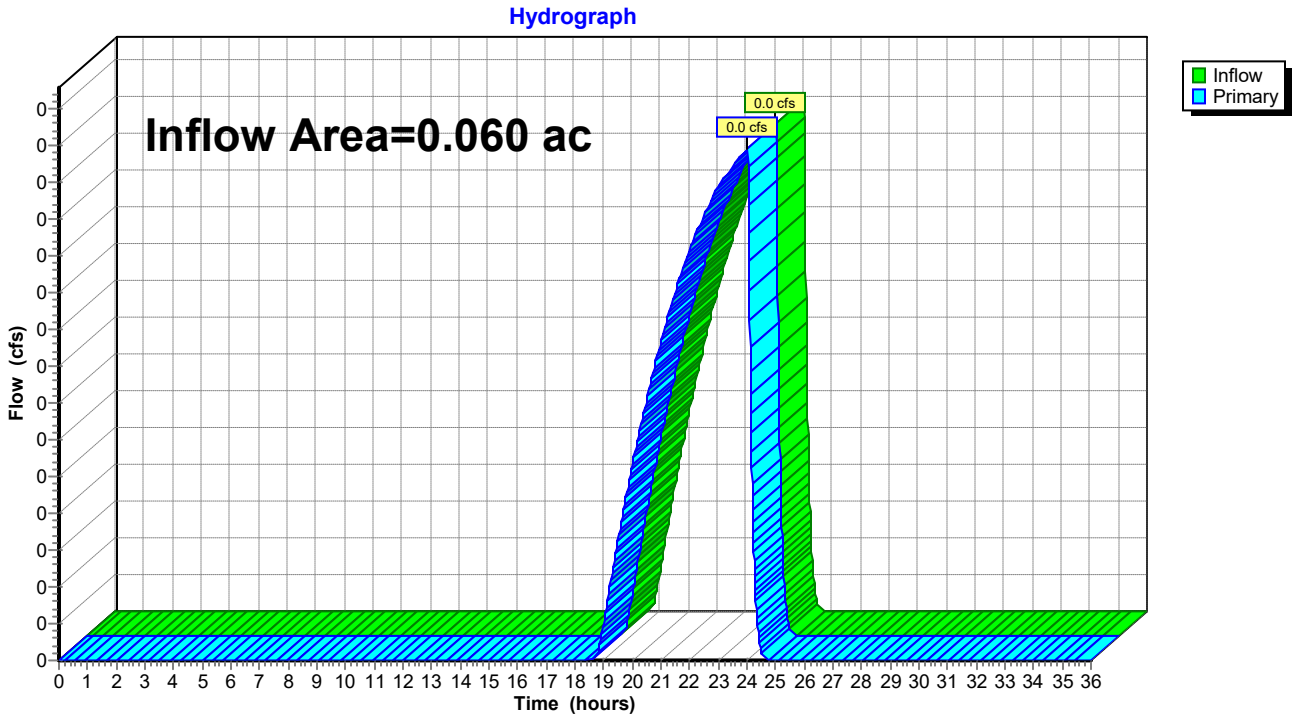


Summary for Link DA2: Lot 4 (West)

Inflow Area = 0.060 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-2yr event
Inflow = 0.0 cfs @ 24.00 hrs, Volume= 0.000 af
Primary = 0.0 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA2: Lot 4 (West)

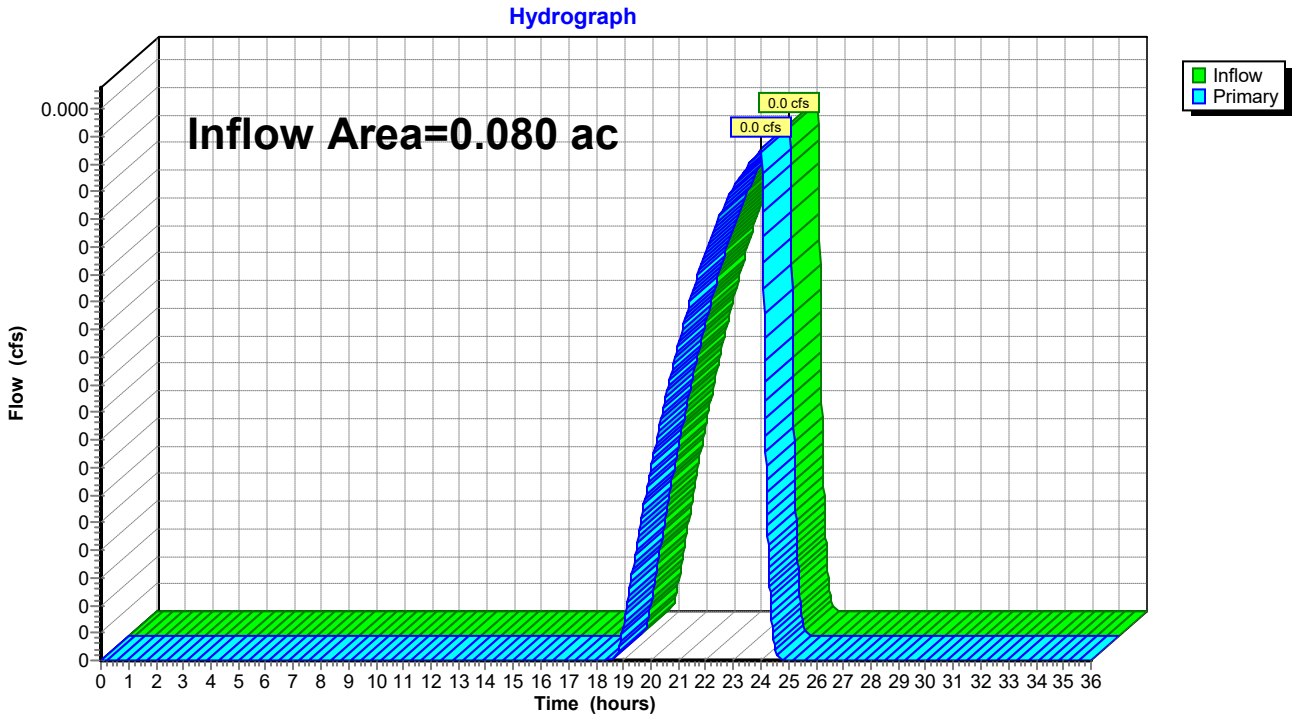


Summary for Link DA3: Northern property line

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-2yr event
Inflow = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af
Primary = 0.0 cfs @ 24.01 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA3: Northern property line



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA1Ai: Impervious Runoff Area=0.305 ac 100.00% Impervious Runoff Depth=4.99"
Flow Length=286' Tc=1.9 min CN=0/98 Runoff=1.6 cfs 0.127 af

Subcatchment DA1p: Pervious Runoff Area=0.318 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=348' Tc=9.1 min CN=39/0 Runoff=0.0 cfs 0.007 af

Subcatchment DA2i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA2p: Pervious Runoff Area=0.060 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=115' Tc=6.5 min CN=39/0 Runoff=0.0 cfs 0.001 af

Subcatchment DA3i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA3p: Pervious Runoff Area=0.080 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=122' Tc=7.3 min CN=39/0 Runoff=0.0 cfs 0.002 af

Subcatchment Roof 3.01: Roof 3.01 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.012 af

Subcatchment Roof 3.02: Roof 3.02 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.012 af

Subcatchment Roof 3.03: Roof 3.03 Runoff Area=1,360 sf 100.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.013 af

Subcatchment Roof 3.04: Roof 3.04 Runoff Area=1,496 sf 100.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.014 af

Subcatchment Roof 3.05: Roof 3.05 Runoff Area=1,410 sf 100.00% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=0/98 Runoff=0.1 cfs 0.013 af

Pond 1P: Drywell 3.01 Peak Elev=26.01' Storage=199 cf Inflow=0.1 cfs 0.012 af
Discarded=0.0 cfs 0.009 af Primary=0.0 cfs 0.004 af Outflow=0.0 cfs 0.012 af

Pond 2P: Drywell 3.02 Peak Elev=26.01' Storage=199 cf Inflow=0.1 cfs 0.012 af
Discarded=0.0 cfs 0.009 af Primary=0.0 cfs 0.004 af Outflow=0.0 cfs 0.012 af

Pond 3P: Drywell 3.03 Peak Elev=26.01' Storage=199 cf Inflow=0.1 cfs 0.013 af
Discarded=0.0 cfs 0.009 af Primary=0.0 cfs 0.004 af Outflow=0.0 cfs 0.013 af

Pond 4P: Drywell 3.04 Peak Elev=26.02' Storage=199 cf Inflow=0.1 cfs 0.014 af
Discarded=0.0 cfs 0.009 af Primary=0.1 cfs 0.006 af Outflow=0.1 cfs 0.014 af

Pond 5P: Drywell 3.05 Peak Elev=26.01' Storage=199 cf Inflow=0.1 cfs 0.013 af
Discarded=0.0 cfs 0.009 af Primary=0.1 cfs 0.005 af Outflow=0.1 cfs 0.013 af

Link DA1: East Garfield Avenue Inflow=1.6 cfs 0.156 af
Primary=1.6 cfs 0.156 af

Link DA2: Lot 4 (West) Inflow=0.0 cfs 0.001 af
Primary=0.0 cfs 0.001 af

Link DA3: Northern property line Inflow=0.0 cfs 0.002 af
Primary=0.0 cfs 0.002 af

Total Runoff Area = 0.920 ac Runoff Volume = 0.202 af Average Runoff Depth = 2.63"
49.76% Pervious = 0.458 ac 50.24% Impervious = 0.462 ac

Summary for Subcatchment DA1Ai: Impervious

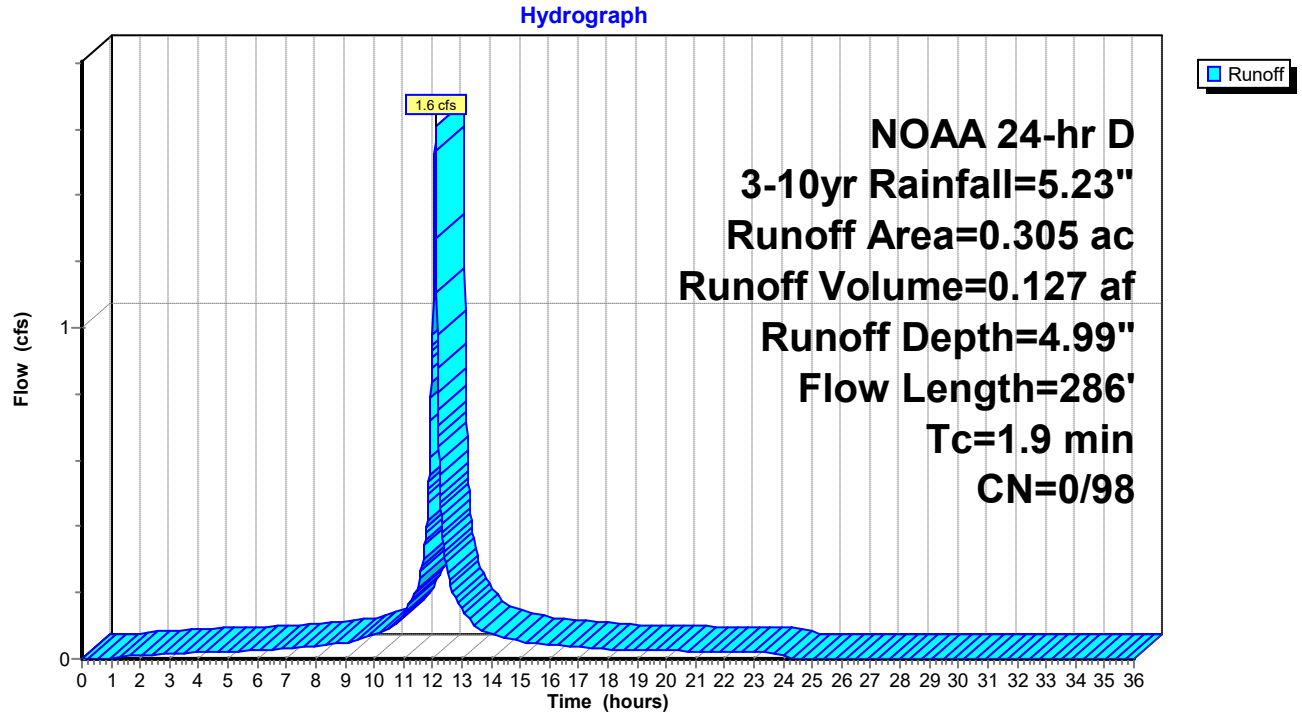
Runoff = 1.6 cfs @ 12.10 hrs, Volume= 0.127 af, Depth= 4.99"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.305	98	Paved parking, HSG A
0.305	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	41	0.0410	1.58		**Sheet Flow, 26.5 - 24.8** Smooth surfaces n= 0.011 P2= 3.40"
0.7	106	0.0150	2.49		**Shallow Concentrated Flow, 24.8 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
1.9	286	Total			

Subcatchment DA1Ai: Impervious



Summary for Subcatchment DA1p: Pervious

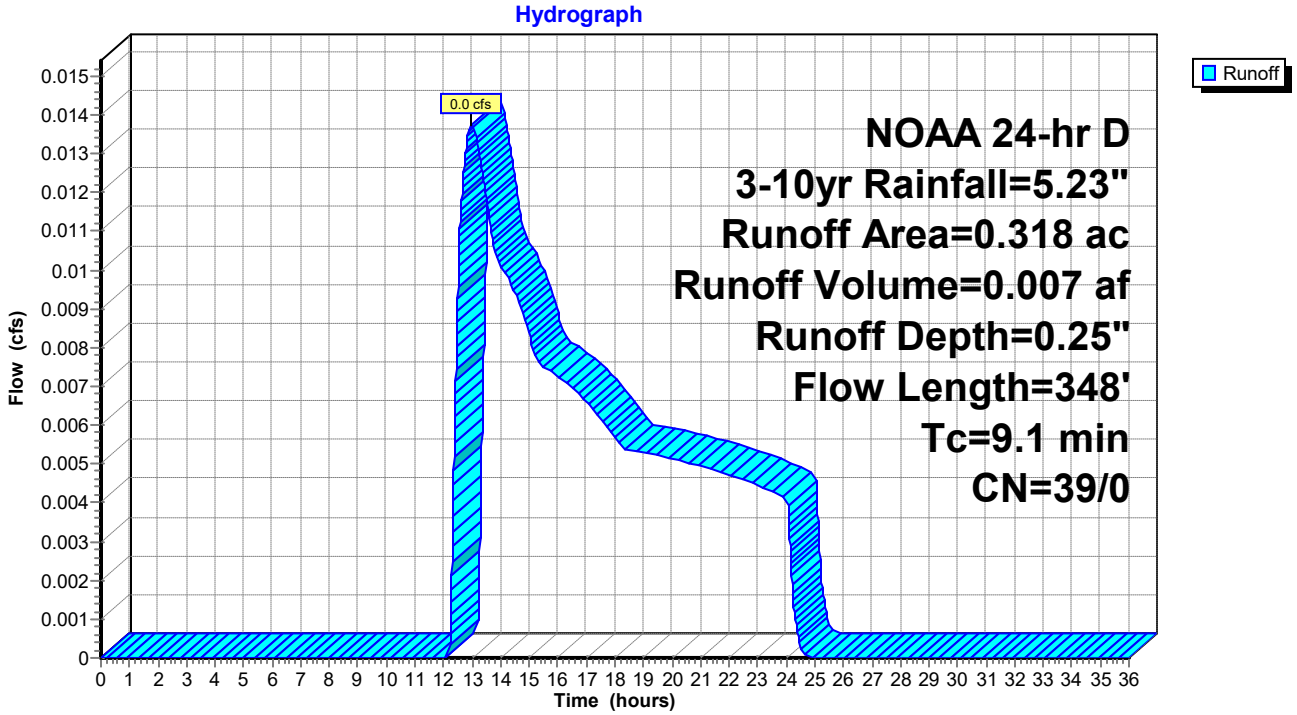
Runoff = 0.0 cfs @ 12.98 hrs, Volume= 0.007 af, Depth= 0.25"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.318	39	>75% Grass cover, Good, HSG A
0.318	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	50	0.0220	0.16		**Sheet Flow, 27.0 - 25.9** Grass: Short n= 0.150 P2= 3.40"
2.9	145	0.0140	0.83		**Shallow Concentrated Flow, 25.9 - 23.9** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0500	4.54		**Shallow Concentrated Flow, 23.9 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
9.1	348	Total			

Subcatchment DA1p: Pervious



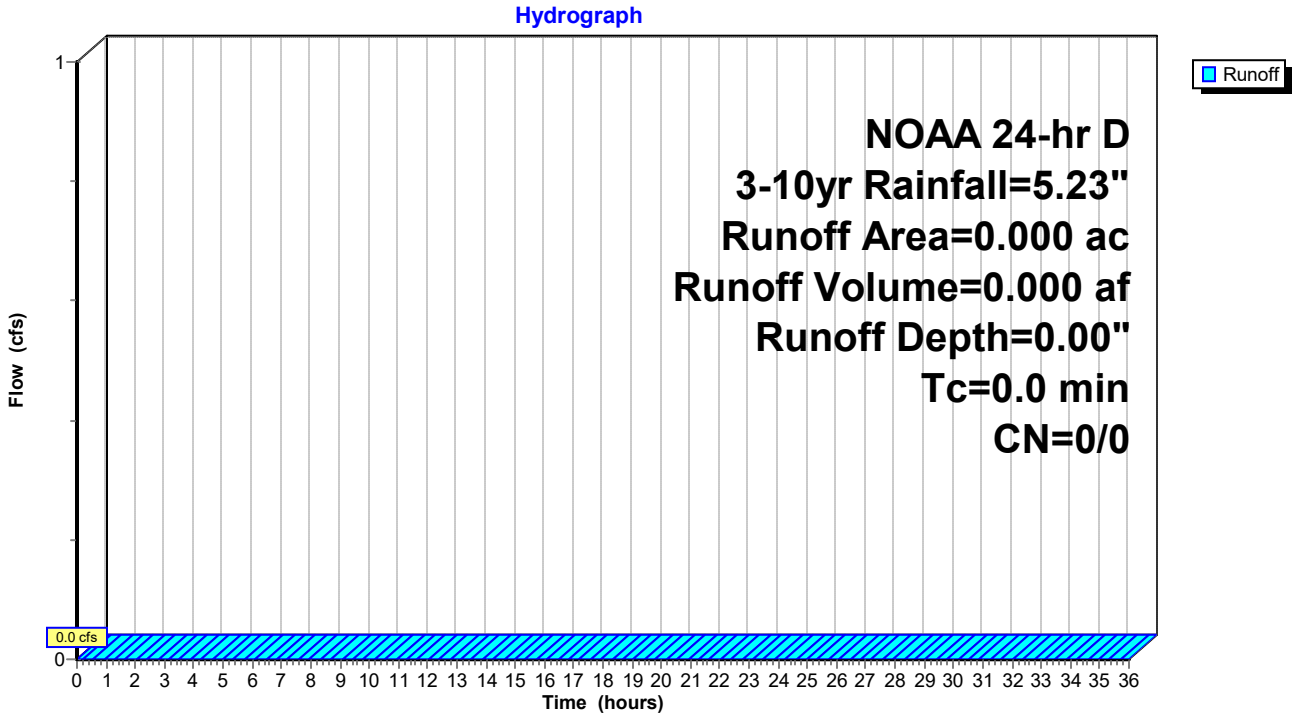
Summary for Subcatchment DA2i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA2i: Impervious



Summary for Subcatchment DA2p: Pervious

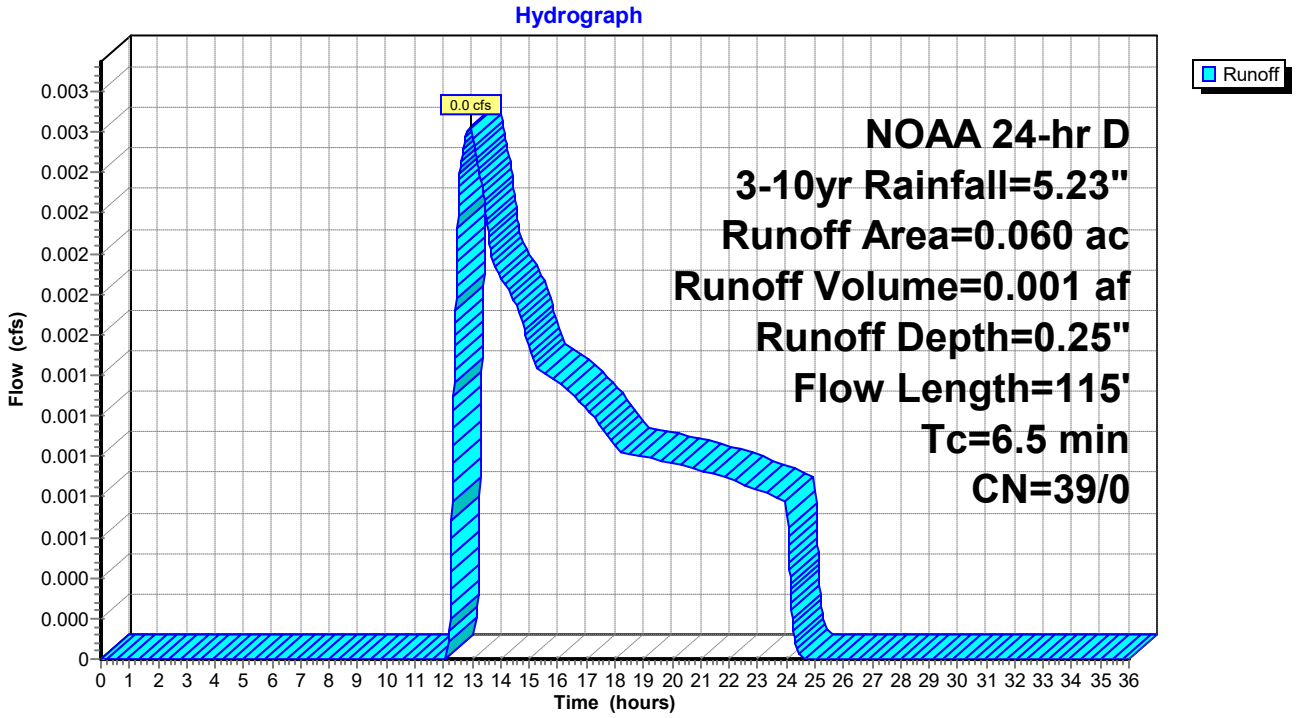
Runoff = 0.0 cfs @ 12.94 hrs, Volume= 0.001 af, Depth= 0.25"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.060	39	>75% Grass cover, Good, HSG A
0.060	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		**Sheet Flow, 24.9 - 23.9** Grass: Short n= 0.150 P2= 3.40"
1.0	65	0.0246	1.10		**Shallow Concentrated Flow, 23.9 - 22.3** Short Grass Pasture Kv= 7.0 fps
6.5	115	Total			

Subcatchment DA2p: Pervious



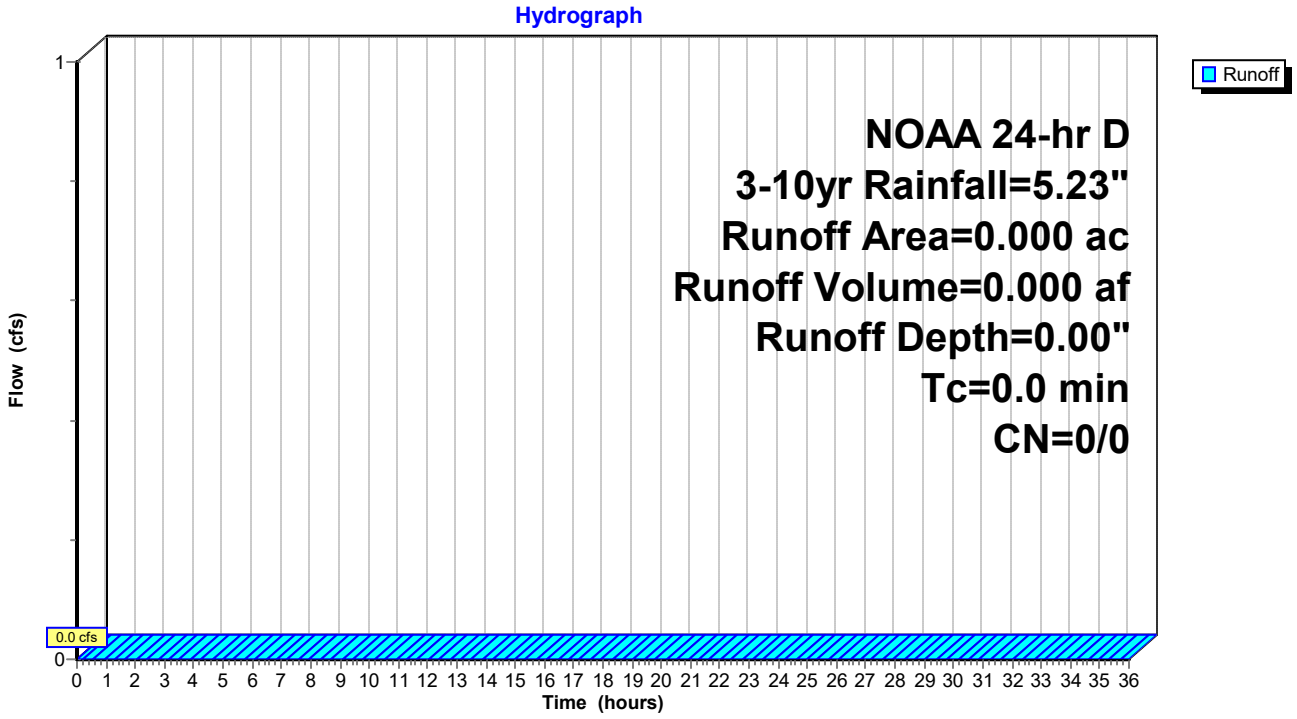
Summary for Subcatchment DA3i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA3i: Impervious



Summary for Subcatchment DA3p: Pervious

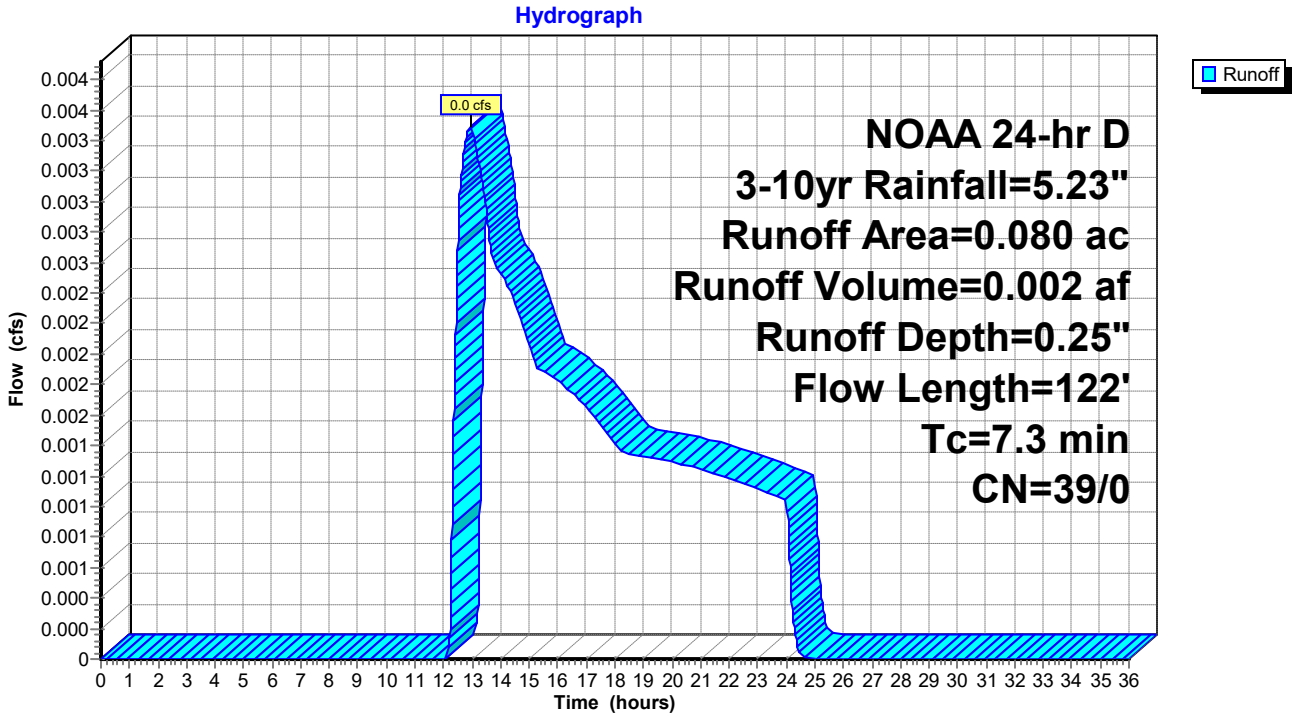
Runoff = 0.0 cfs @ 12.94 hrs, Volume= 0.002 af, Depth= 0.25"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.080	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 24.9 - 24.0** Grass: Short n= 0.150 P2= 3.40"
1.6	72	0.0110	0.73		**Shallow Concentrated Flow, 24.0 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.3	122	Total			

Subcatchment DA3p: Pervious



Summary for Subcatchment Roof 3.01: Roof 3.01

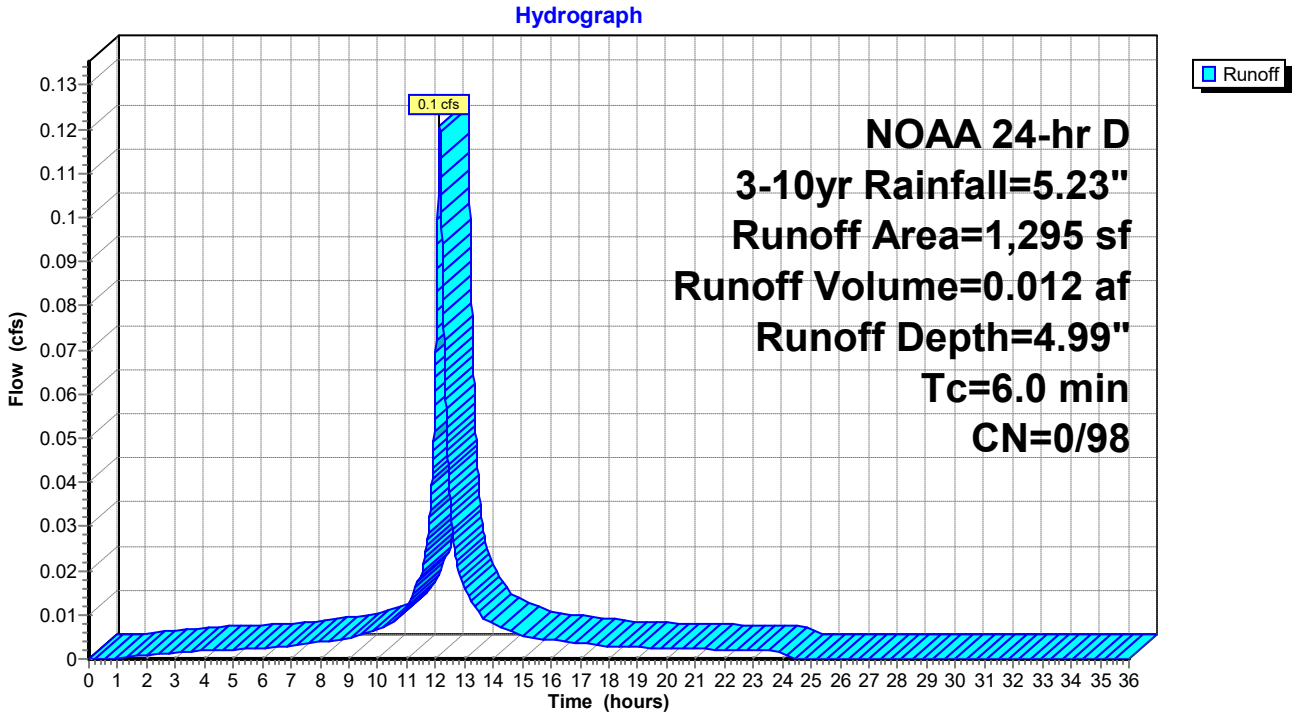
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.012 af, Depth= 4.99"
Routed to Pond 1P : Drywell 3.01

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.01: Roof 3.01



Summary for Subcatchment Roof 3.02: Roof 3.02

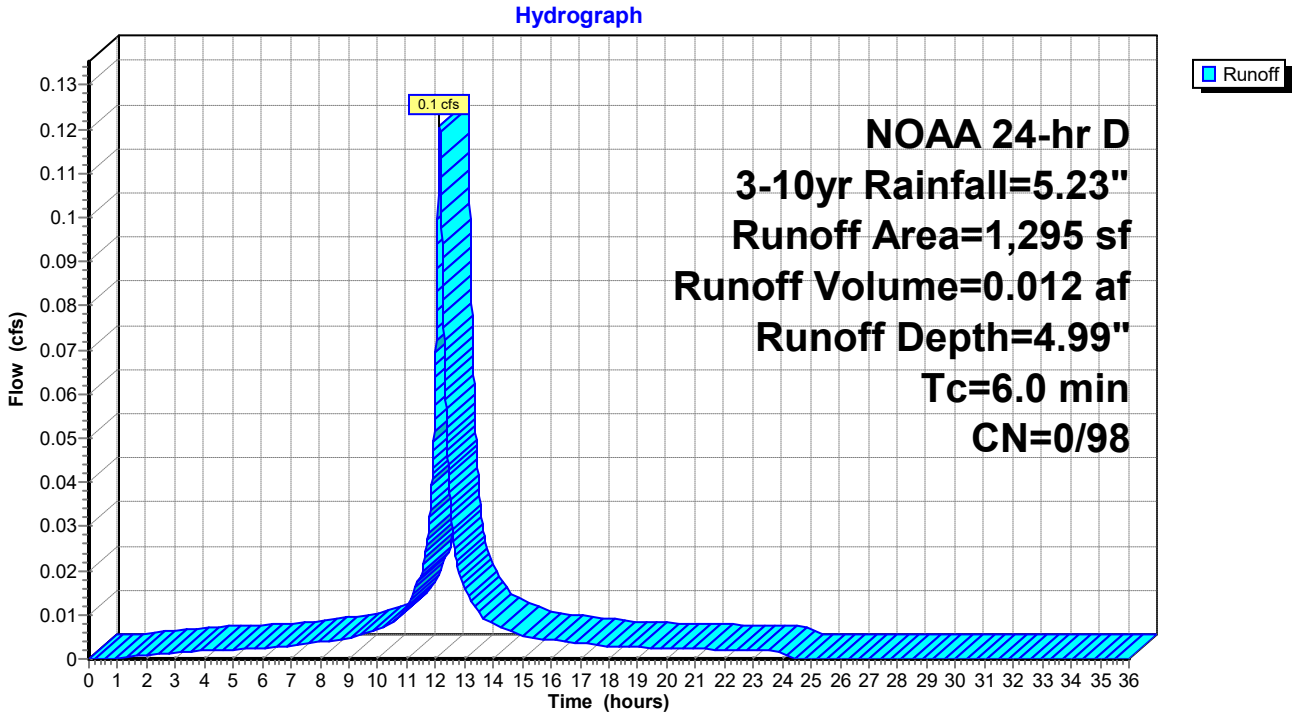
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.012 af, Depth= 4.99"
Routed to Pond 2P : Drywell 3.02

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.02: Roof 3.02



Summary for Subcatchment Roof 3.03: Roof 3.03

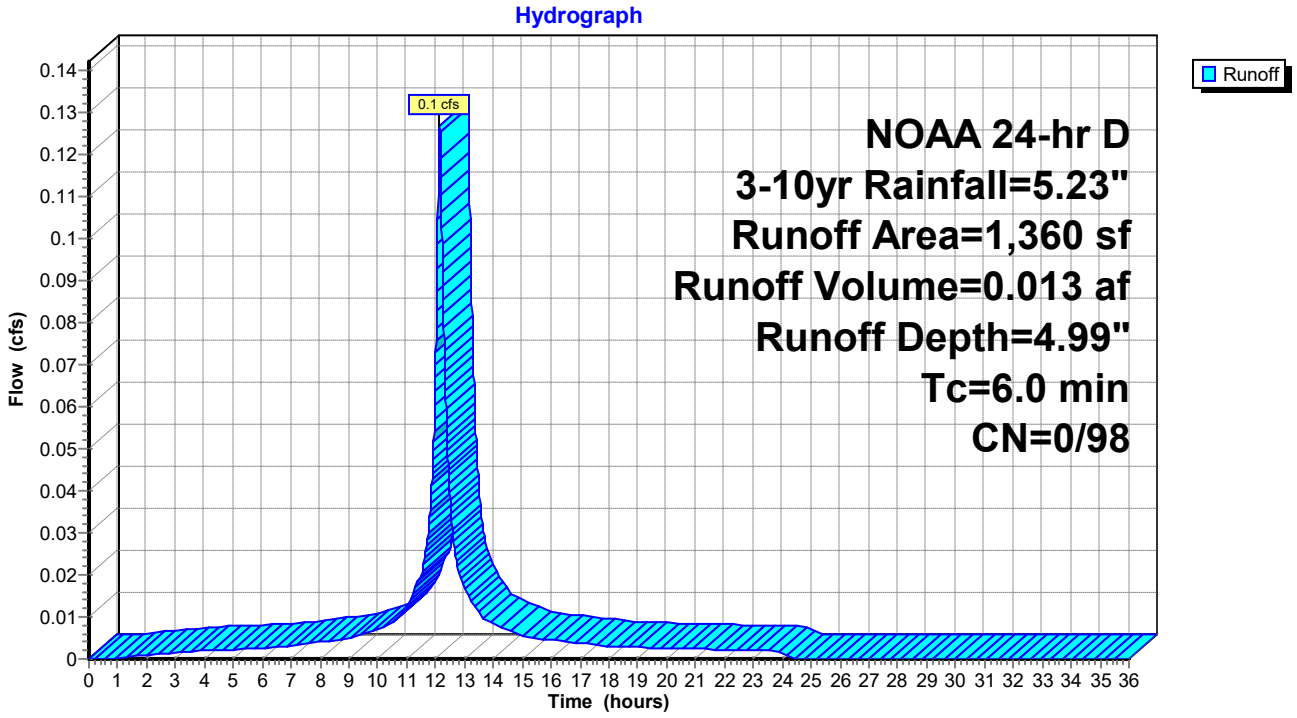
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.013 af, Depth= 4.99"
Routed to Pond 3P : Drywell 3.03

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (sf)	CN	Description
1,360	98	Roofs, HSG A
1,360	98	100.00% Impervious Area

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

Subcatchment Roof 3.03: Roof 3.03



Summary for Subcatchment Roof 3.04: Roof 3.04

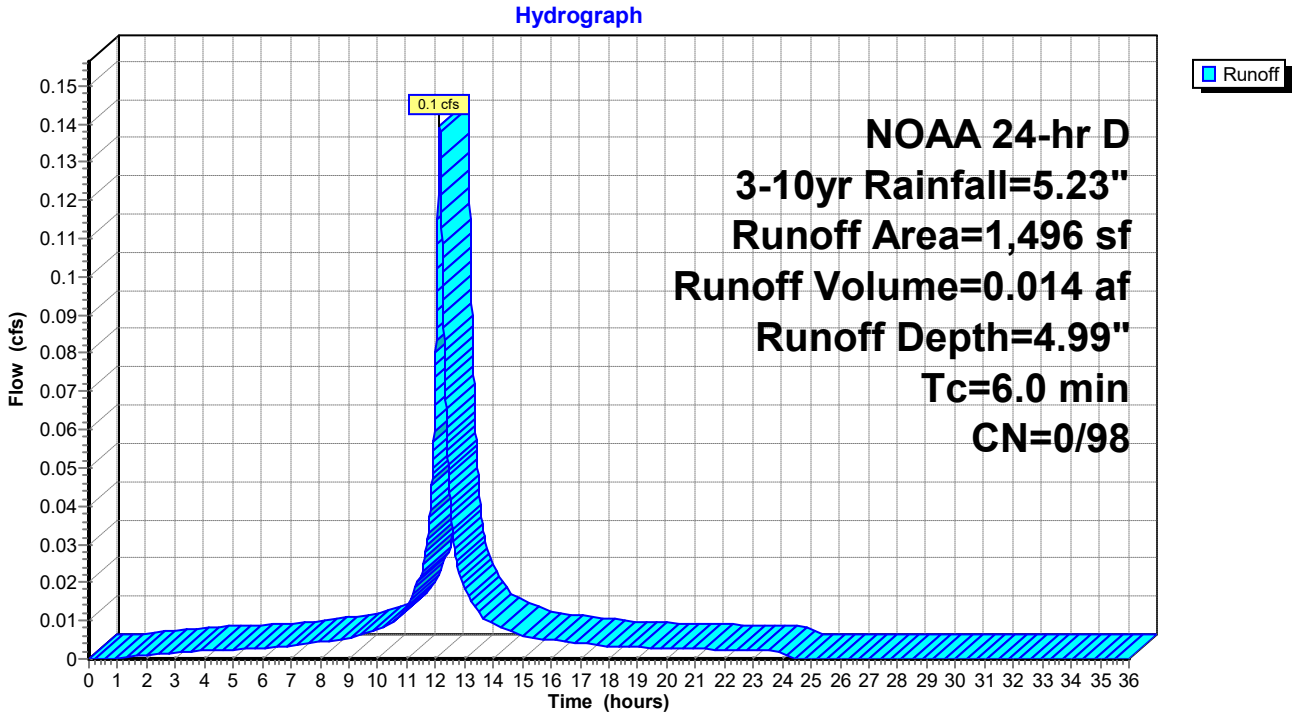
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.014 af, Depth= 4.99"
Routed to Pond 4P : Drywell 3.04

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

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

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

Subcatchment Roof 3.04: Roof 3.04



Summary for Subcatchment Roof 3.05: Roof 3.05

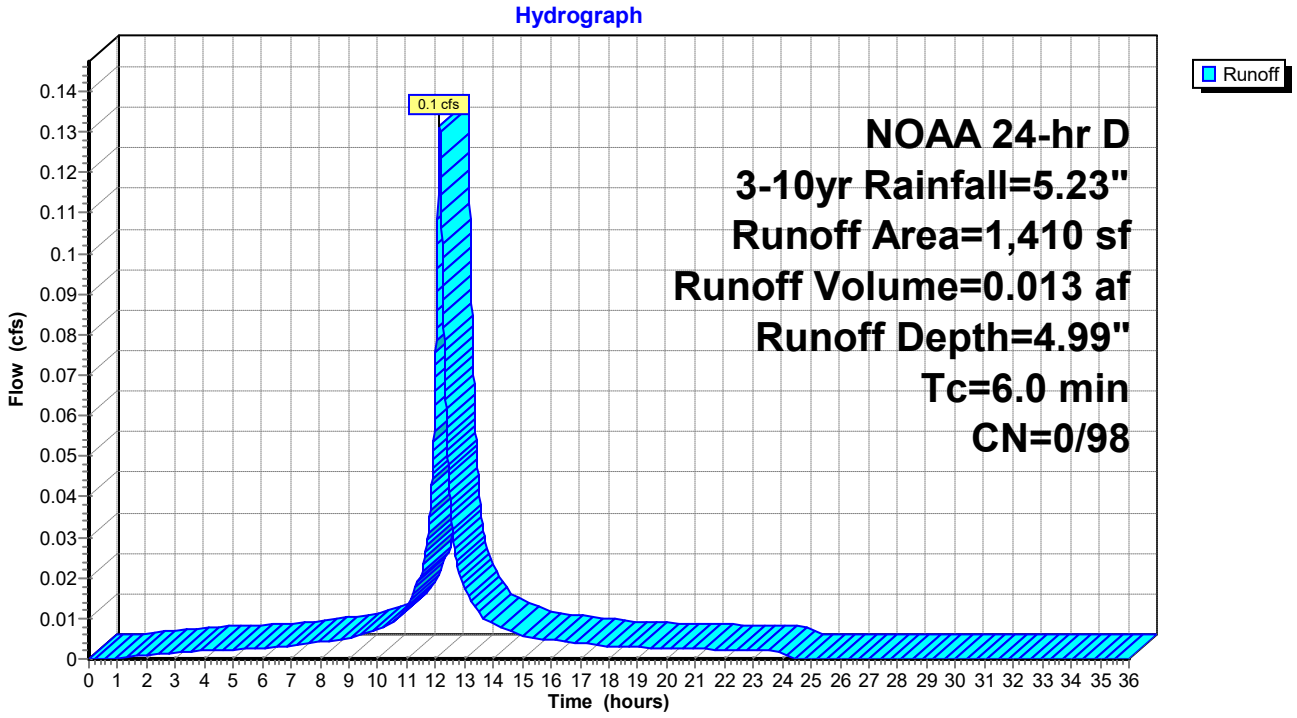
Runoff = 0.1 cfs @ 12.14 hrs, Volume= 0.013 af, Depth= 4.99"
Routed to Pond 5P : Drywell 3.05

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 3-10yr Rainfall=5.23"

Area (sf)	CN	Description
1,410	98	Roofs, HSG A
1,410	98	100.00% Impervious Area

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

Subcatchment Roof 3.05: Roof 3.05



Summary for Pond 1P: Drywell 3.01

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 4.99" for 3-10yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.012 af
Outflow = 0.0 cfs @ 12.72 hrs, Volume= 0.012 af, Atten= 70%, Lag= 34.9 min
Discarded = 0.0 cfs @ 10.57 hrs, Volume= 0.009 af
Primary = 0.0 cfs @ 12.72 hrs, Volume= 0.004 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.01' @ 12.72 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 372.0 min calculated for 0.012 af (100% of inflow)
Center-of-Mass det. time= 372.0 min (1,124.2 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

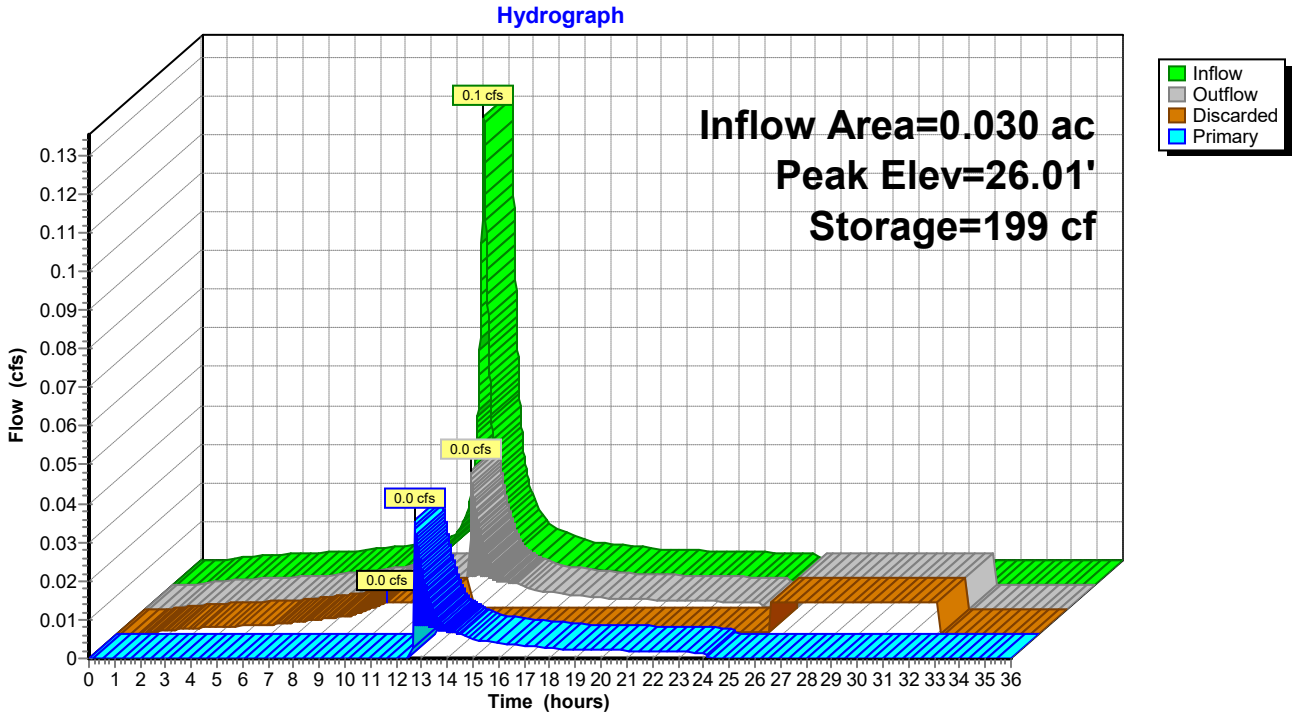
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.57 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 12.72 hrs HW=26.01' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.0 cfs @ 0.22 fps)

Pond 1P: Drywell 3.01



Summary for Pond 2P: Drywell 3.02

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 4.99" for 3-10yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.012 af
Outflow = 0.0 cfs @ 12.72 hrs, Volume= 0.012 af, Atten= 70%, Lag= 34.9 min
Discarded = 0.0 cfs @ 10.57 hrs, Volume= 0.009 af
Primary = 0.0 cfs @ 12.72 hrs, Volume= 0.004 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.01' @ 12.72 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 372.0 min calculated for 0.012 af (100% of inflow)
Center-of-Mass det. time= 372.0 min (1,124.2 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

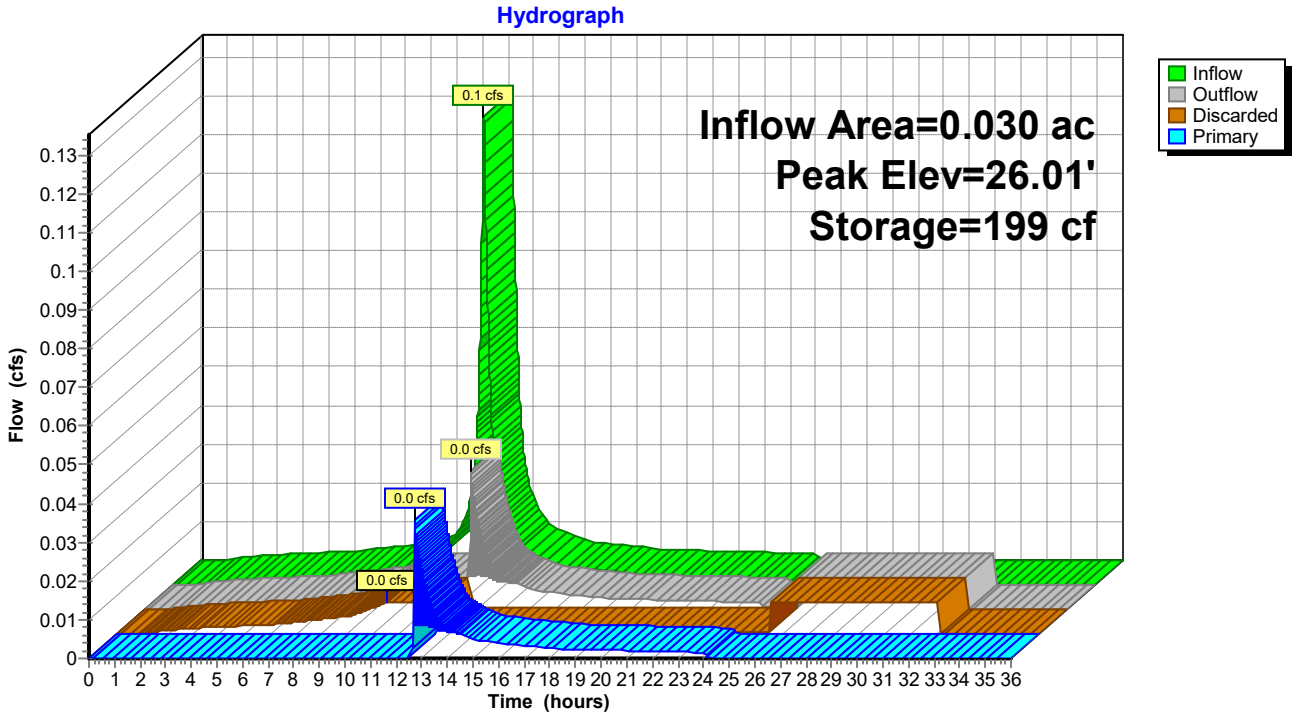
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.57 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 12.72 hrs HW=26.01' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.0 cfs @ 0.22 fps)

Pond 2P: Drywell 3.02



Summary for Pond 3P: Drywell 3.03

Inflow Area = 0.031 ac,100.00% Impervious, Inflow Depth = 4.99" for 3-10yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.013 af
Outflow = 0.0 cfs @ 12.54 hrs, Volume= 0.013 af, Atten= 67%, Lag= 24.2 min
Discarded = 0.0 cfs @ 10.45 hrs, Volume= 0.009 af
Primary = 0.0 cfs @ 12.54 hrs, Volume= 0.004 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.01' @ 12.54 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 355.3 min calculated for 0.013 af (100% of inflow)
Center-of-Mass det. time= 355.4 min (1,107.5 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

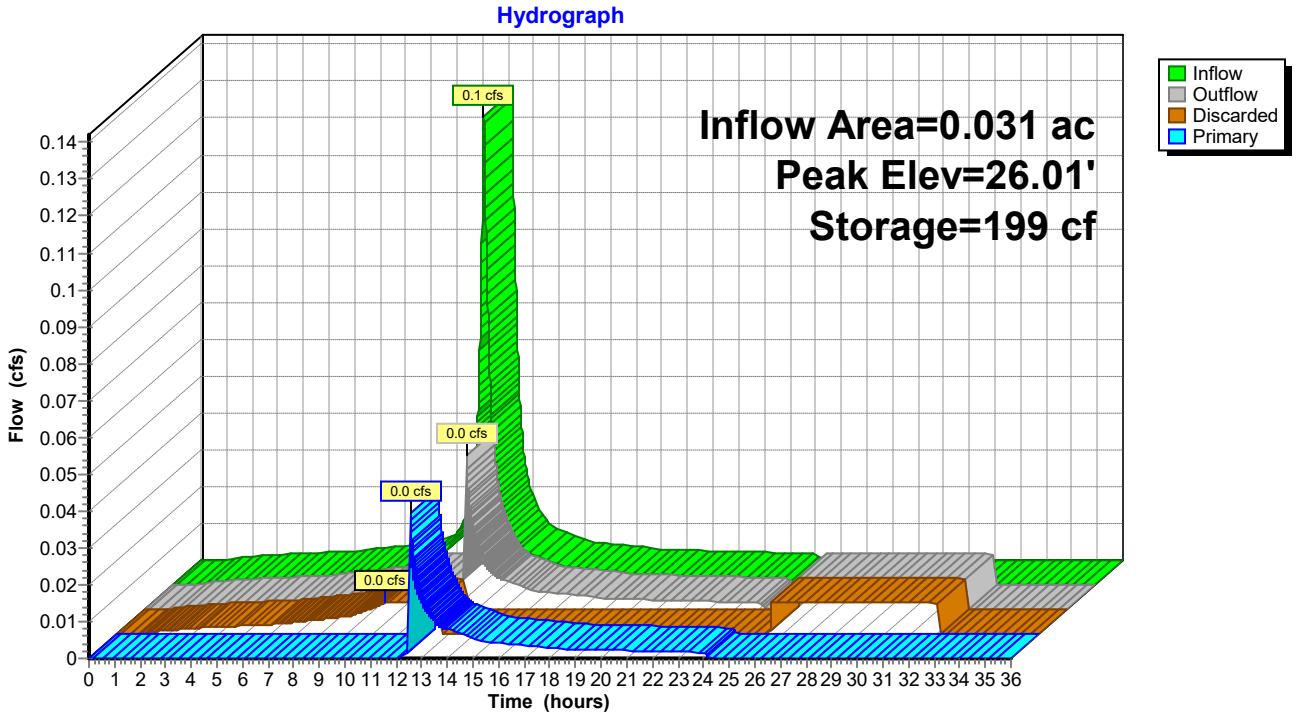
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.45 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 12.54 hrs HW=26.01' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.0 cfs @ 0.23 fps)

Pond 3P: Drywell 3.03



Summary for Pond 4P: Drywell 3.04

Inflow Area = 0.034 ac,100.00% Impervious, Inflow Depth = 4.99" for 3-10yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.014 af
Outflow = 0.1 cfs @ 12.37 hrs, Volume= 0.014 af, Atten= 32%, Lag= 13.9 min
Discarded = 0.0 cfs @ 10.16 hrs, Volume= 0.009 af
Primary = 0.1 cfs @ 12.37 hrs, Volume= 0.006 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.02' @ 12.37 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 324.7 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 324.7 min (1,076.9 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

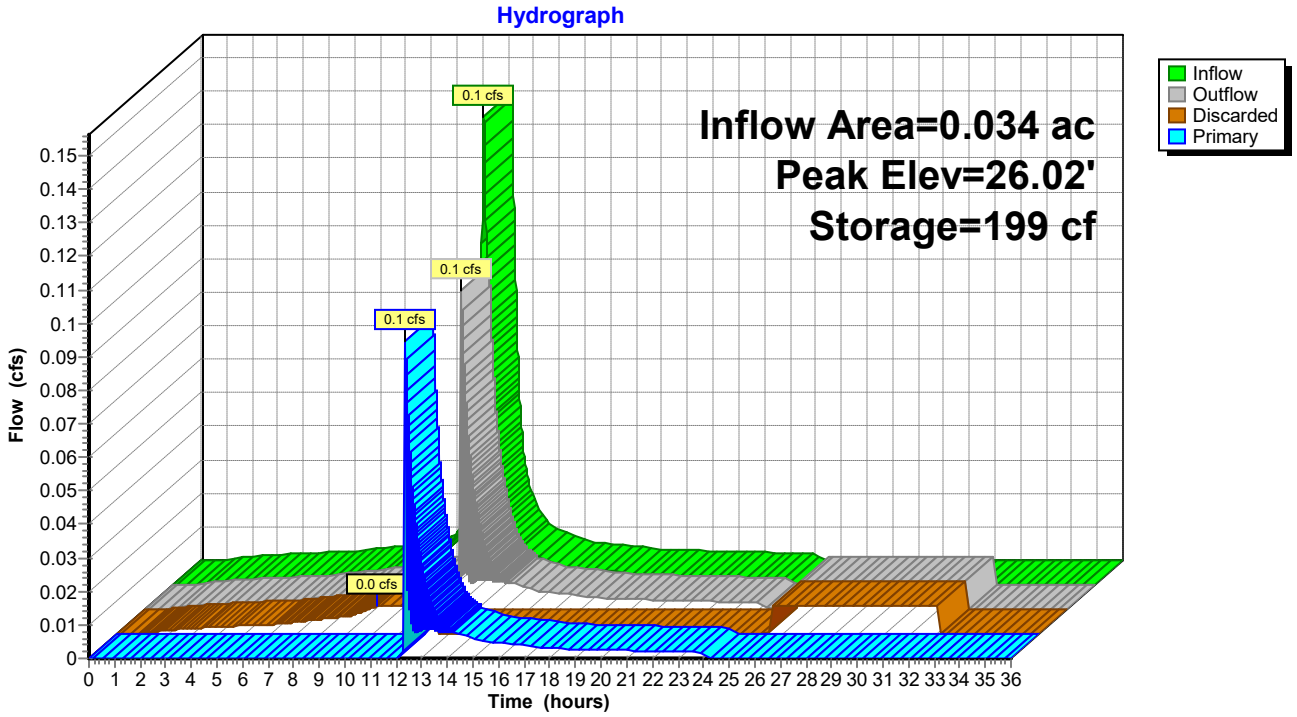
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.16 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.37 hrs HW=26.02' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.31 fps)

Pond 4P: Drywell 3.04



Summary for Pond 5P: Drywell 3.05

Inflow Area = 0.032 ac,100.00% Impervious, Inflow Depth = 4.99" for 3-10yr event
Inflow = 0.1 cfs @ 12.14 hrs, Volume= 0.013 af
Outflow = 0.1 cfs @ 12.46 hrs, Volume= 0.013 af, Atten= 42%, Lag= 19.3 min
Discarded = 0.0 cfs @ 10.33 hrs, Volume= 0.009 af
Primary = 0.1 cfs @ 12.46 hrs, Volume= 0.005 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.01' @ 12.46 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 343.3 min calculated for 0.013 af (100% of inflow)
Center-of-Mass det. time= 343.4 min (1,095.5 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

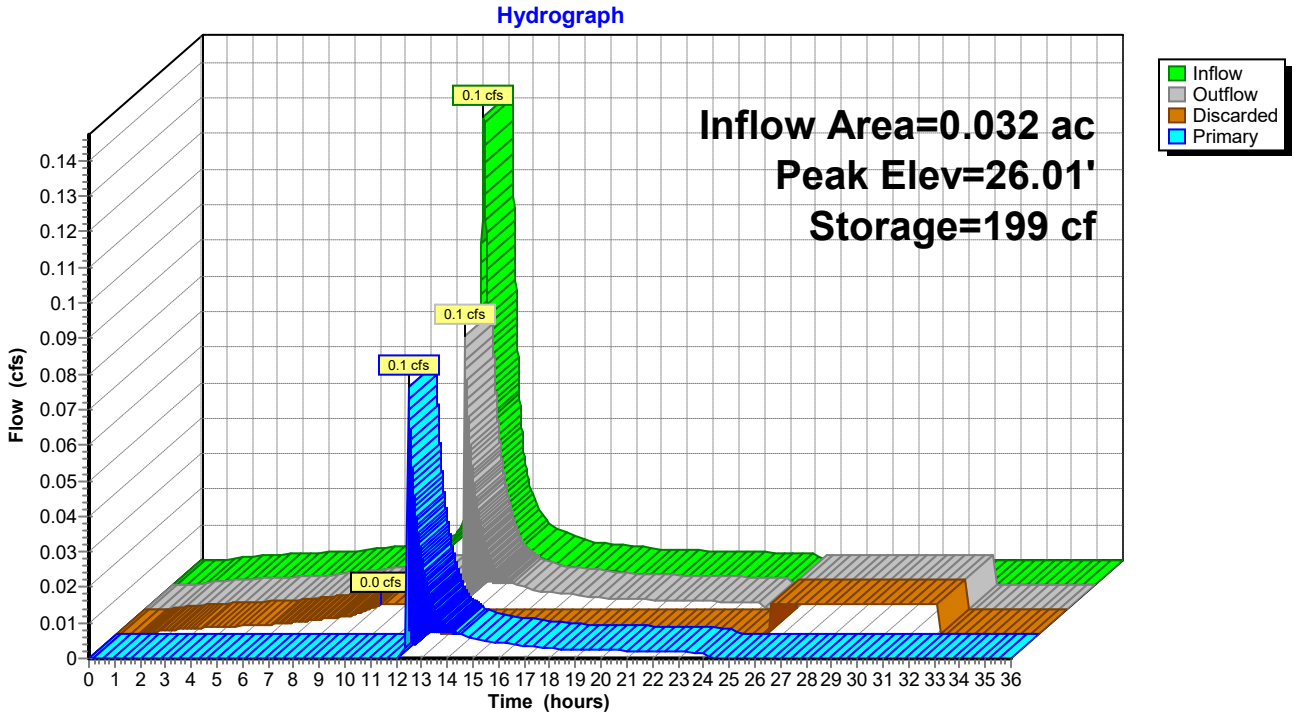
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 10.33 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.46 hrs HW=26.01' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.29 fps)

Pond 5P: Drywell 3.05

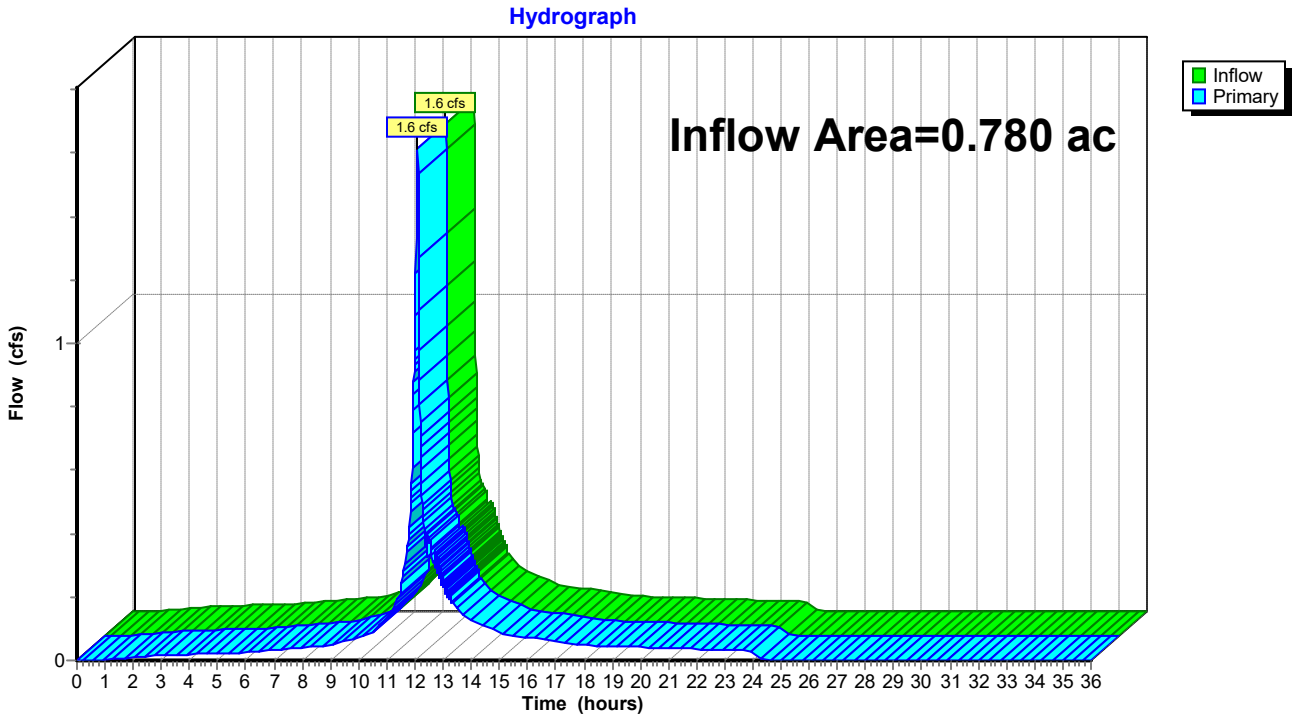


Summary for Link DA1: East Garfield Avenue

Inflow Area = 0.780 ac, 59.25% Impervious, Inflow Depth = 2.40" for 3-10yr event
Inflow = 1.6 cfs @ 12.10 hrs, Volume= 0.156 af
Primary = 1.6 cfs @ 12.10 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA1: East Garfield Avenue

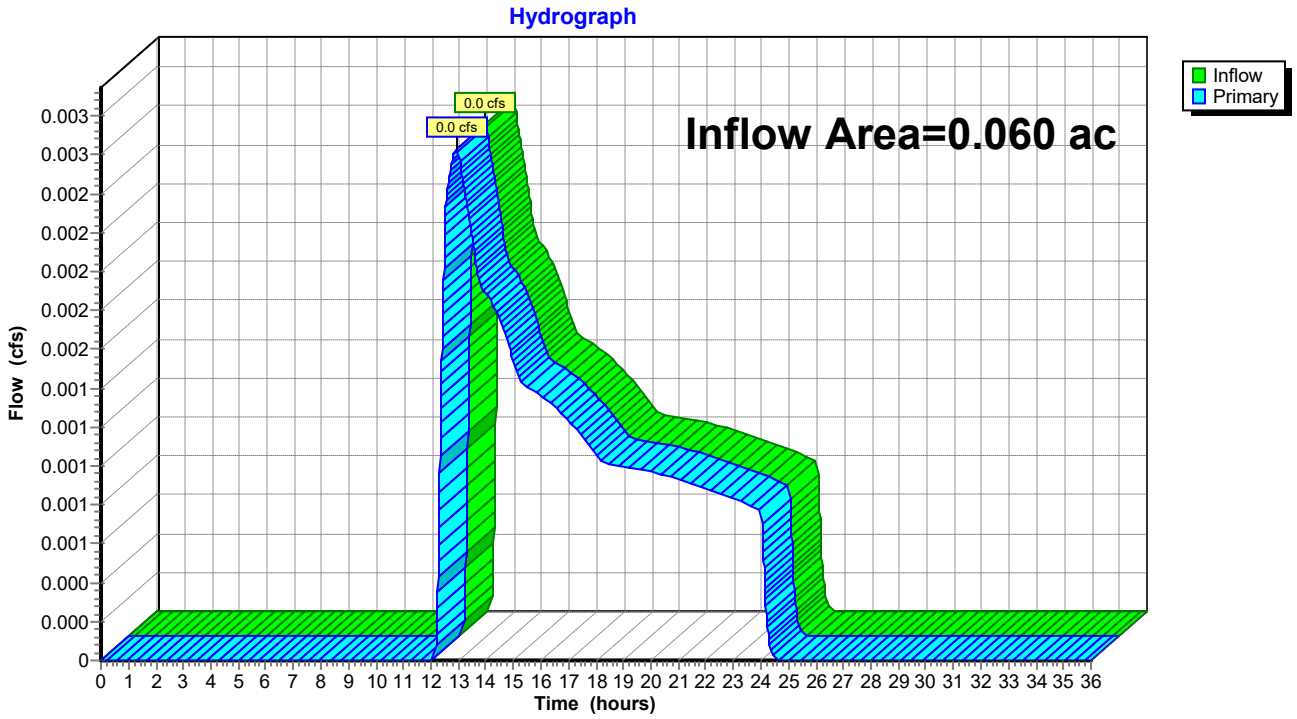


Summary for Link DA2: Lot 4 (West)

Inflow Area = 0.060 ac, 0.00% Impervious, Inflow Depth = 0.25" for 3-10yr event
Inflow = 0.0 cfs @ 12.94 hrs, Volume= 0.001 af
Primary = 0.0 cfs @ 12.94 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA2: Lot 4 (West)

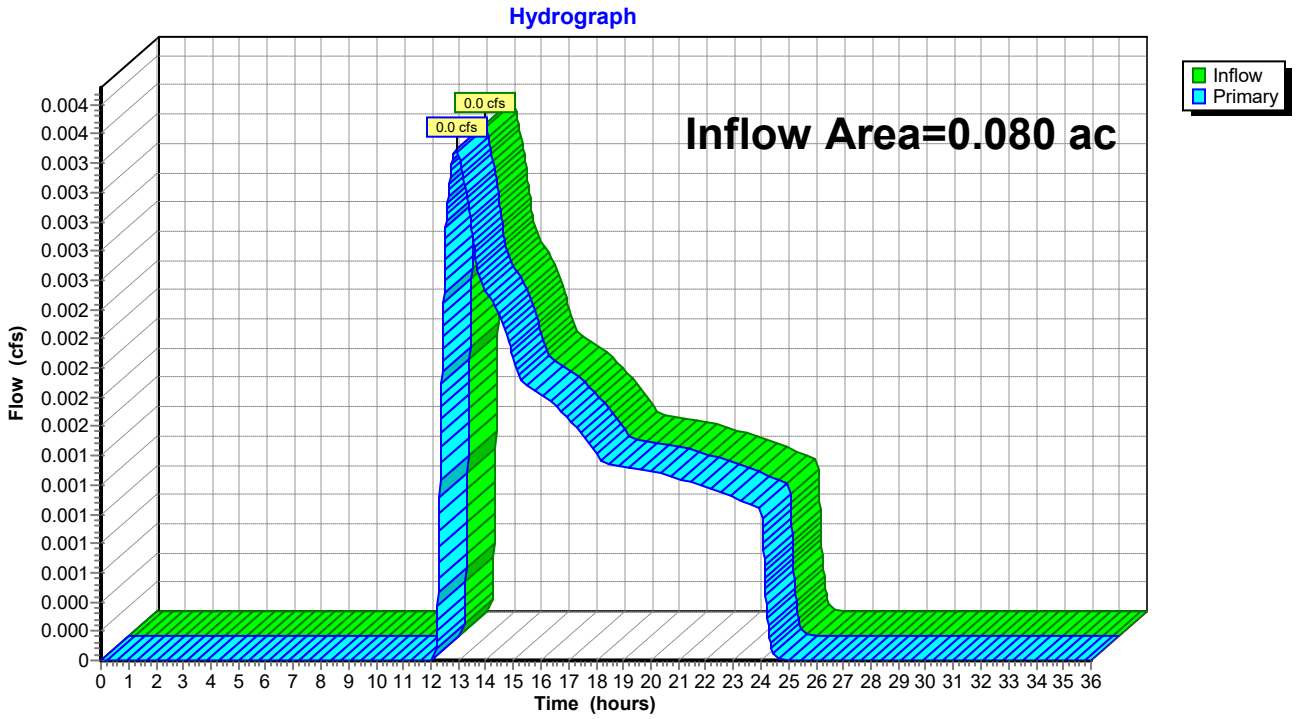


Summary for Link DA3: Northern property line

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 0.25" for 3-10yr event
Inflow = 0.0 cfs @ 12.94 hrs, Volume= 0.002 af
Primary = 0.0 cfs @ 12.94 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA3: Northern property line



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA1Ai: Impervious Runoff Area=0.305 ac 100.00% Impervious Runoff Depth=6.29"
Flow Length=286' Tc=1.9 min CN=0/98 Runoff=2.0 cfs 0.160 af

Subcatchment DA1p: Pervious Runoff Area=0.318 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=348' Tc=9.1 min CN=39/0 Runoff=0.1 cfs 0.016 af

Subcatchment DA2i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA2p: Pervious Runoff Area=0.060 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=115' Tc=6.5 min CN=39/0 Runoff=0.0 cfs 0.003 af

Subcatchment DA3i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA3p: Pervious Runoff Area=0.080 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=122' Tc=7.3 min CN=39/0 Runoff=0.0 cfs 0.004 af

Subcatchment Roof 3.01: Roof 3.01 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=6.29"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.016 af

Subcatchment Roof 3.02: Roof 3.02 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=6.29"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.016 af

Subcatchment Roof 3.03: Roof 3.03 Runoff Area=1,360 sf 100.00% Impervious Runoff Depth=6.29"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.016 af

Subcatchment Roof 3.04: Roof 3.04 Runoff Area=1,496 sf 100.00% Impervious Runoff Depth=6.29"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.018 af

Subcatchment Roof 3.05: Roof 3.05 Runoff Area=1,410 sf 100.00% Impervious Runoff Depth=6.29"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.017 af

Pond 1P: Drywell 3.01 Peak Elev=26.02' Storage=199 cf Inflow=0.2 cfs 0.016 af
Discarded=0.0 cfs 0.009 af Primary=0.1 cfs 0.007 af Outflow=0.1 cfs 0.016 af

Pond 2P: Drywell 3.02 Peak Elev=26.02' Storage=199 cf Inflow=0.2 cfs 0.016 af
Discarded=0.0 cfs 0.009 af Primary=0.1 cfs 0.007 af Outflow=0.1 cfs 0.016 af

Pond 3P: Drywell 3.03 Peak Elev=26.02' Storage=199 cf Inflow=0.2 cfs 0.016 af
Discarded=0.0 cfs 0.009 af Primary=0.1 cfs 0.007 af Outflow=0.1 cfs 0.016 af

Pond 4P: Drywell 3.04 Peak Elev=26.03' Storage=199 cf Inflow=0.2 cfs 0.018 af
Discarded=0.0 cfs 0.009 af Primary=0.3 cfs 0.009 af Outflow=0.3 cfs 0.018 af

Pond 5P: Drywell 3.05 Peak Elev=26.03' Storage=199 cf Inflow=0.2 cfs 0.017 af
Discarded=0.0 cfs 0.009 af Primary=0.2 cfs 0.008 af Outflow=0.2 cfs 0.017 af

Link DA1: East Garfield Avenue Inflow=2.0 cfs 0.213 af
Primary=2.0 cfs 0.213 af

Link DA2: Lot 4 (West) Inflow=0.0 cfs 0.003 af
Primary=0.0 cfs 0.003 af

Link DA3: Northern property line Inflow=0.0 cfs 0.004 af
Primary=0.0 cfs 0.004 af

Total Runoff Area = 0.920 ac Runoff Volume = 0.266 af Average Runoff Depth = 3.46"
49.76% Pervious = 0.458 ac 50.24% Impervious = 0.462 ac

Summary for Subcatchment DA1Ai: Impervious

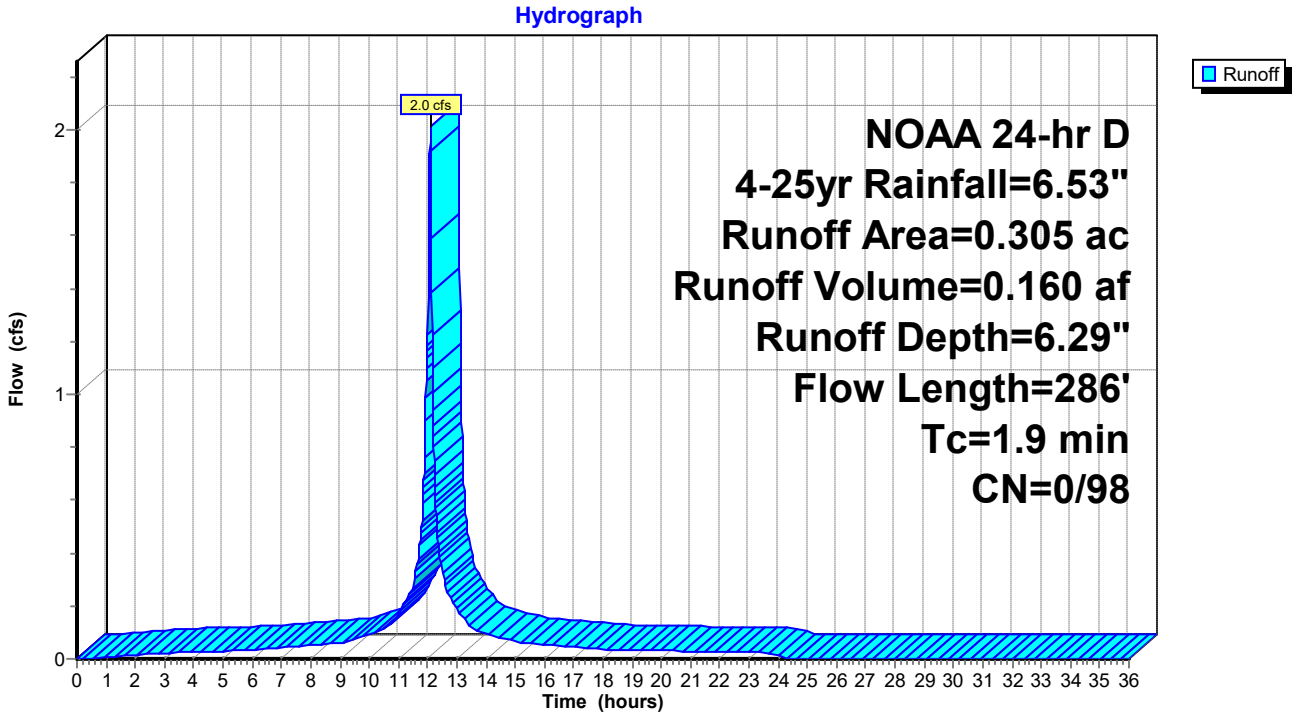
Runoff = 2.0 cfs @ 12.10 hrs, Volume= 0.160 af, Depth= 6.29"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.305	98	Paved parking, HSG A
0.305	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	41	0.0410	1.58		**Sheet Flow, 26.5 - 24.8** Smooth surfaces n= 0.011 P2= 3.40"
0.7	106	0.0150	2.49		**Shallow Concentrated Flow, 24.8 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
1.9	286	Total			

Subcatchment DA1Ai: Impervious



Summary for Subcatchment DA1p: Pervious

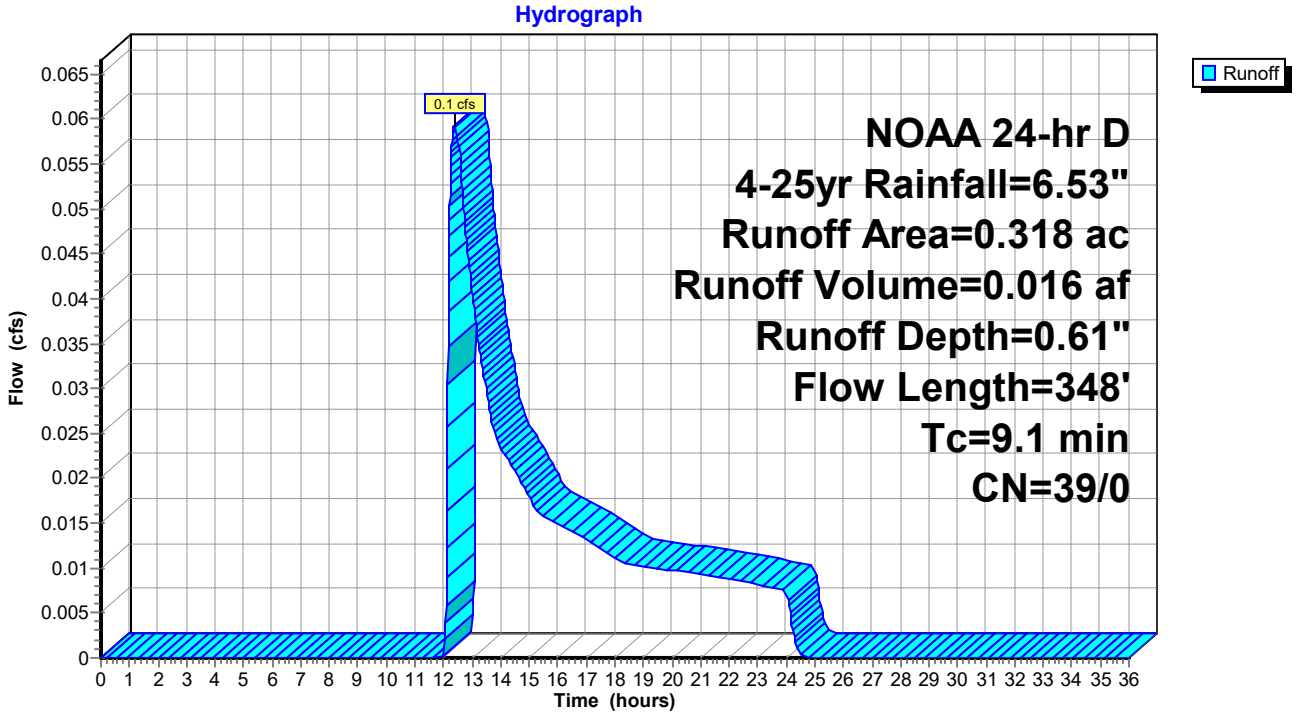
Runoff = 0.1 cfs @ 12.37 hrs, Volume= 0.016 af, Depth= 0.61"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.318	39	>75% Grass cover, Good, HSG A
0.318	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	50	0.0220	0.16		**Sheet Flow, 27.0 - 25.9** Grass: Short n= 0.150 P2= 3.40"
2.9	145	0.0140	0.83		**Shallow Concentrated Flow, 25.9 - 23.9** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0500	4.54		**Shallow Concentrated Flow, 23.9 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
9.1	348	Total			

Subcatchment DA1p: Pervious



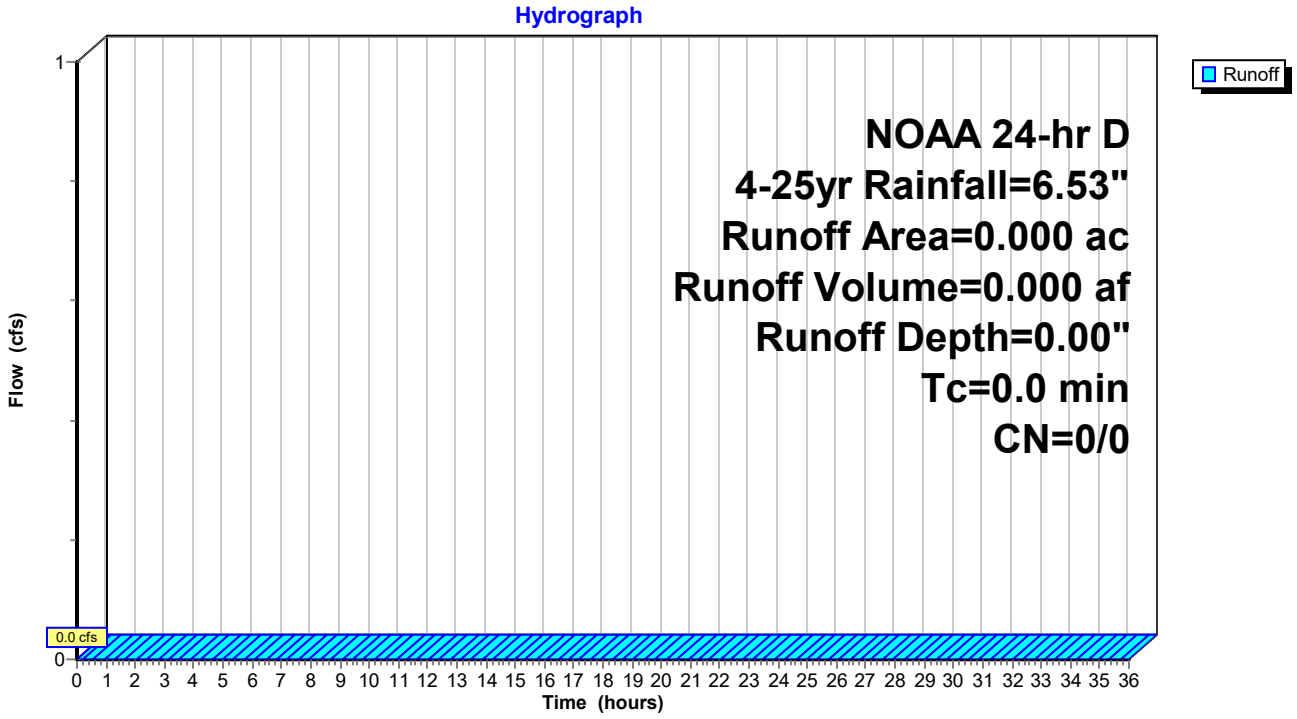
Summary for Subcatchment DA2i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA2i: Impervious



Summary for Subcatchment DA2p: Pervious

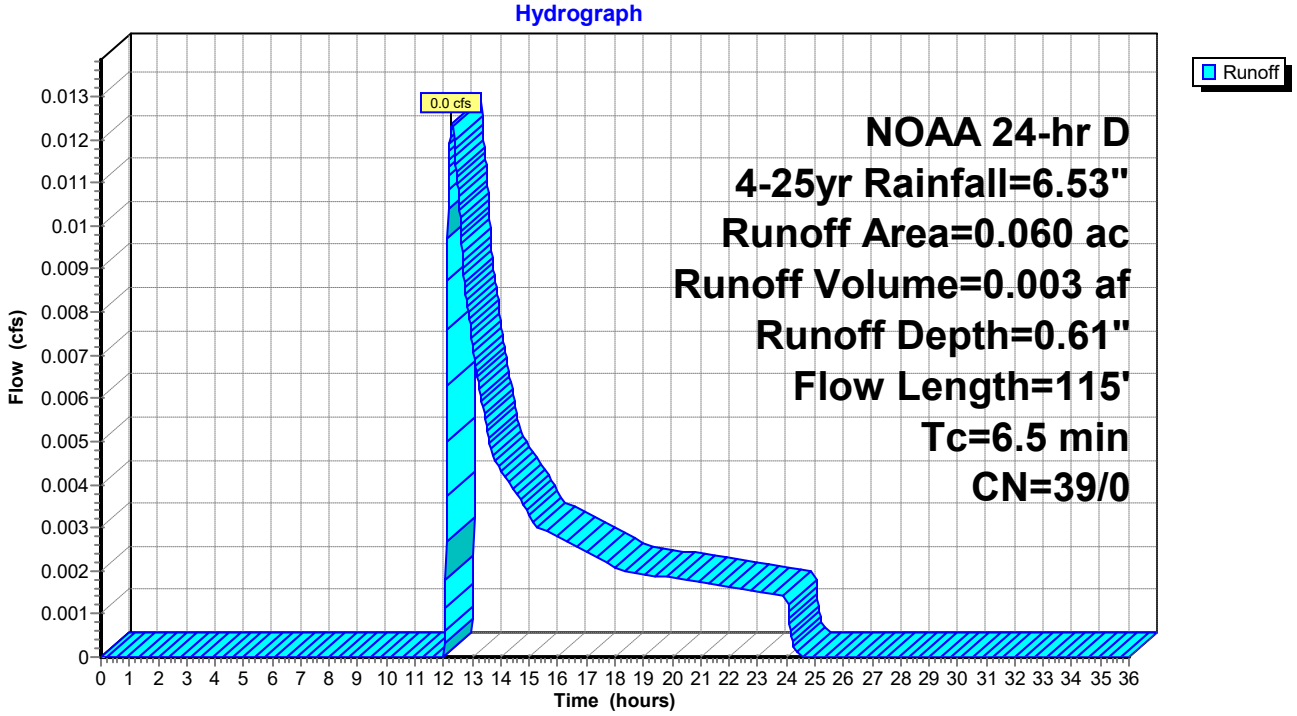
Runoff = 0.0 cfs @ 12.27 hrs, Volume= 0.003 af, Depth= 0.61"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.060	39	>75% Grass cover, Good, HSG A
0.060	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		**Sheet Flow, 24.9 - 23.9** Grass: Short n= 0.150 P2= 3.40"
1.0	65	0.0246	1.10		**Shallow Concentrated Flow, 23.9 - 22.3** Short Grass Pasture Kv= 7.0 fps
6.5	115	Total			

Subcatchment DA2p: Pervious



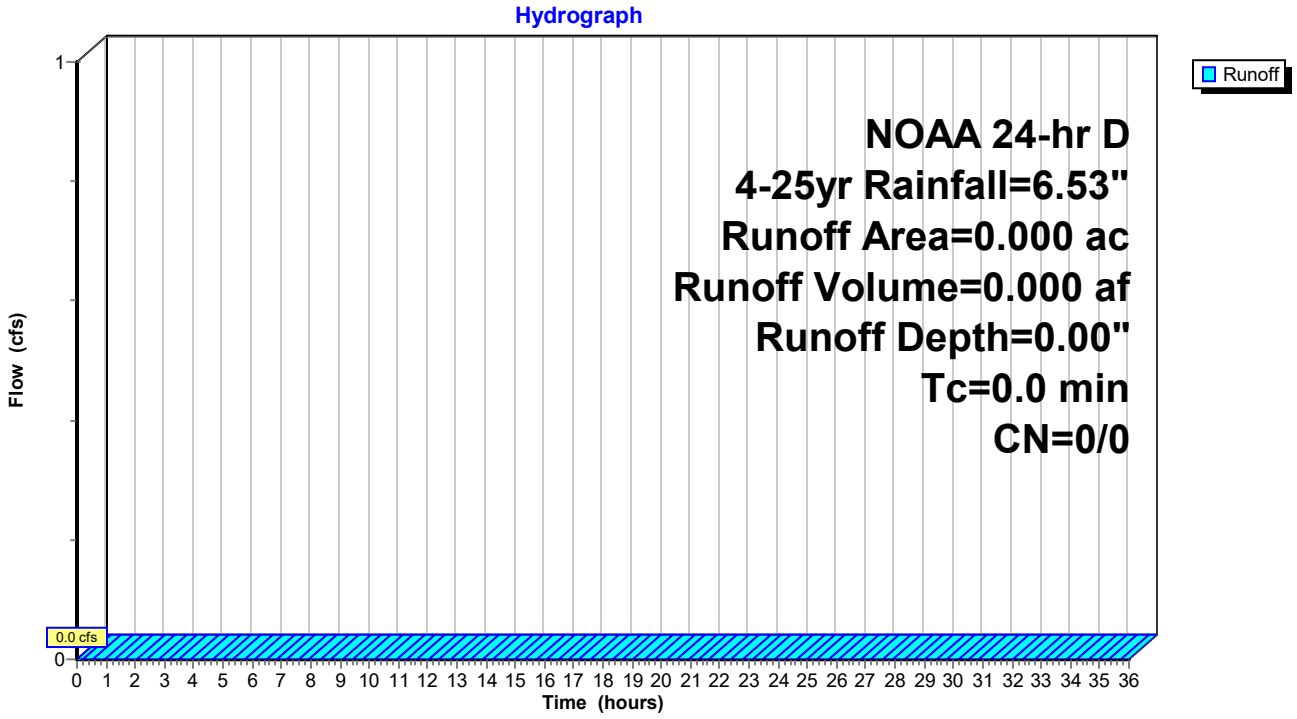
Summary for Subcatchment DA3i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA3i: Impervious



Summary for Subcatchment DA3p: Pervious

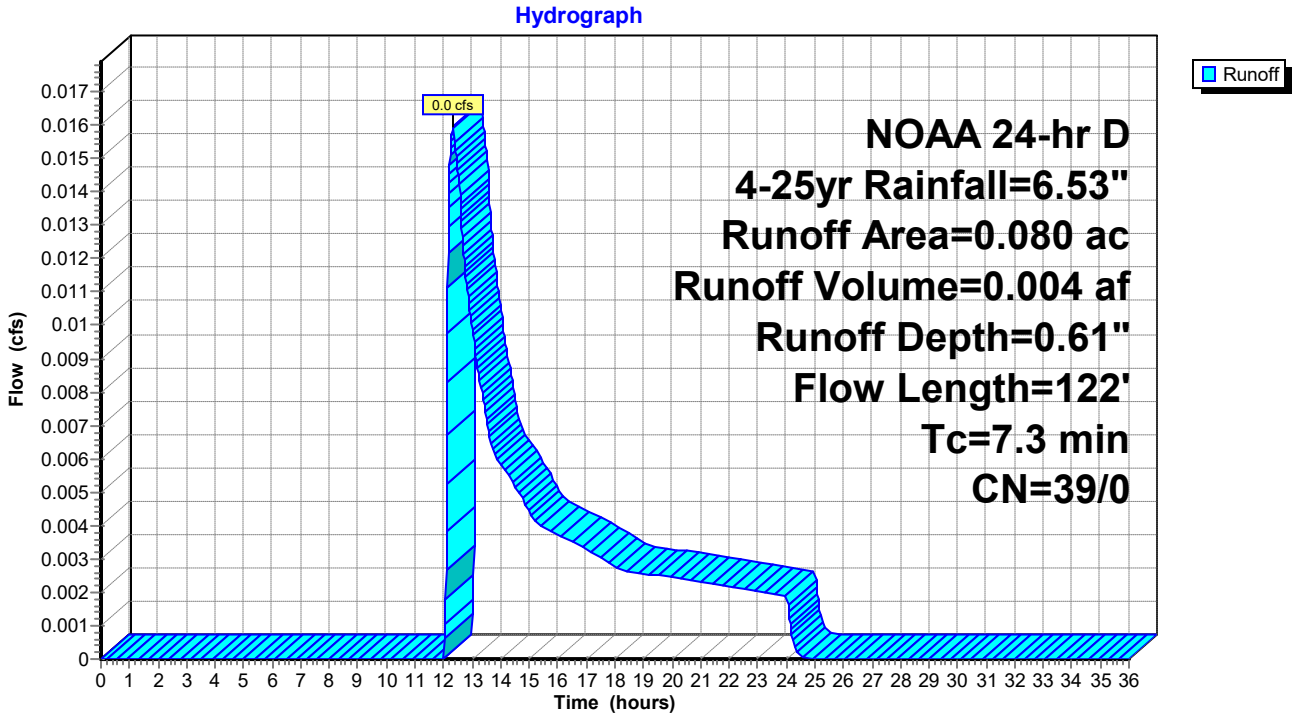
Runoff = 0.0 cfs @ 12.34 hrs, Volume= 0.004 af, Depth= 0.61"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.080	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 24.9 - 24.0** Grass: Short n= 0.150 P2= 3.40"
1.6	72	0.0110	0.73		**Shallow Concentrated Flow, 24.0 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.3	122	Total			

Subcatchment DA3p: Pervious



Summary for Subcatchment Roof 3.01: Roof 3.01

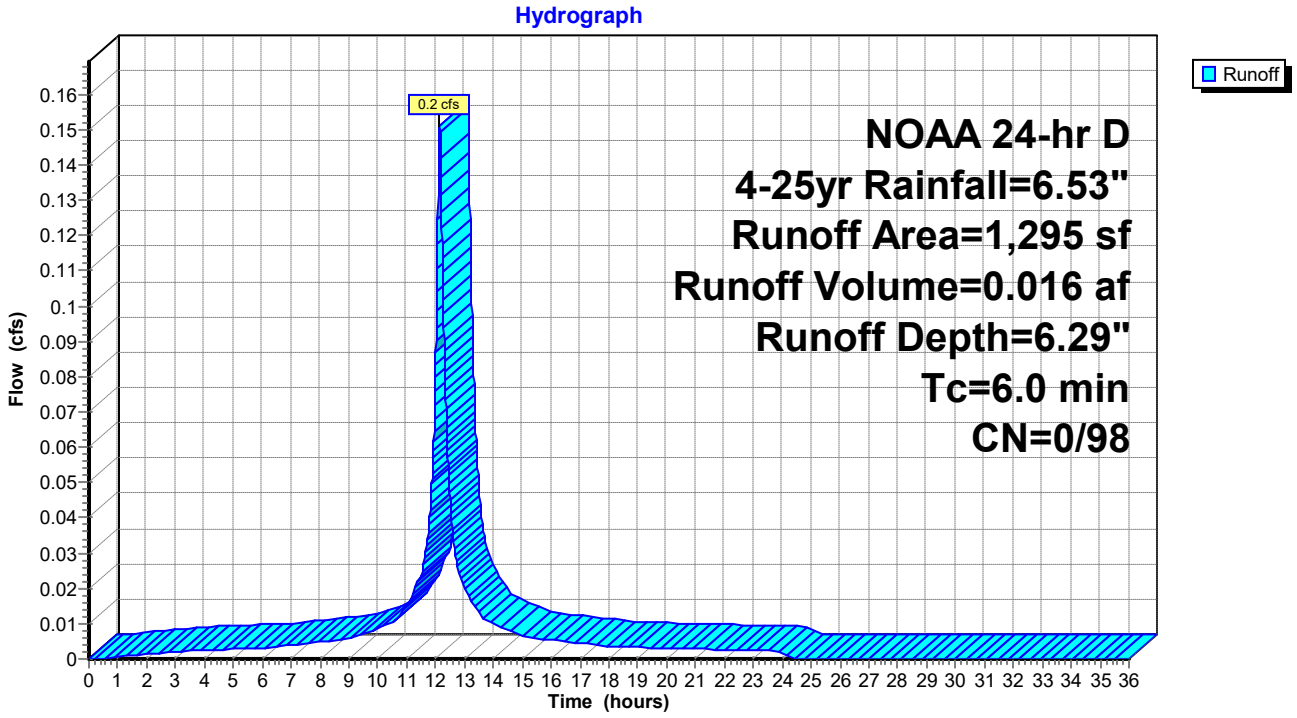
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af, Depth= 6.29"
Routed to Pond 1P : Drywell 3.01

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.01: Roof 3.01



Summary for Subcatchment Roof 3.02: Roof 3.02

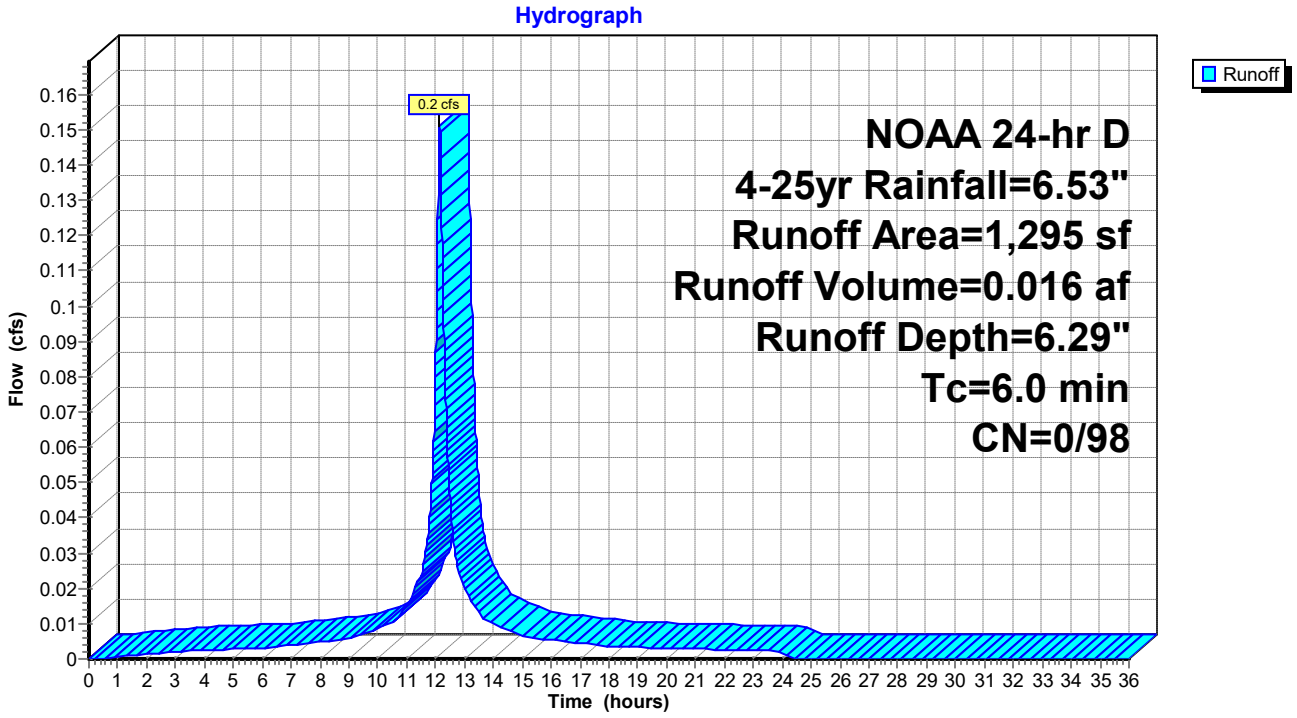
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af, Depth= 6.29"
Routed to Pond 2P : Drywell 3.02

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.02: Roof 3.02



Summary for Subcatchment Roof 3.03: Roof 3.03

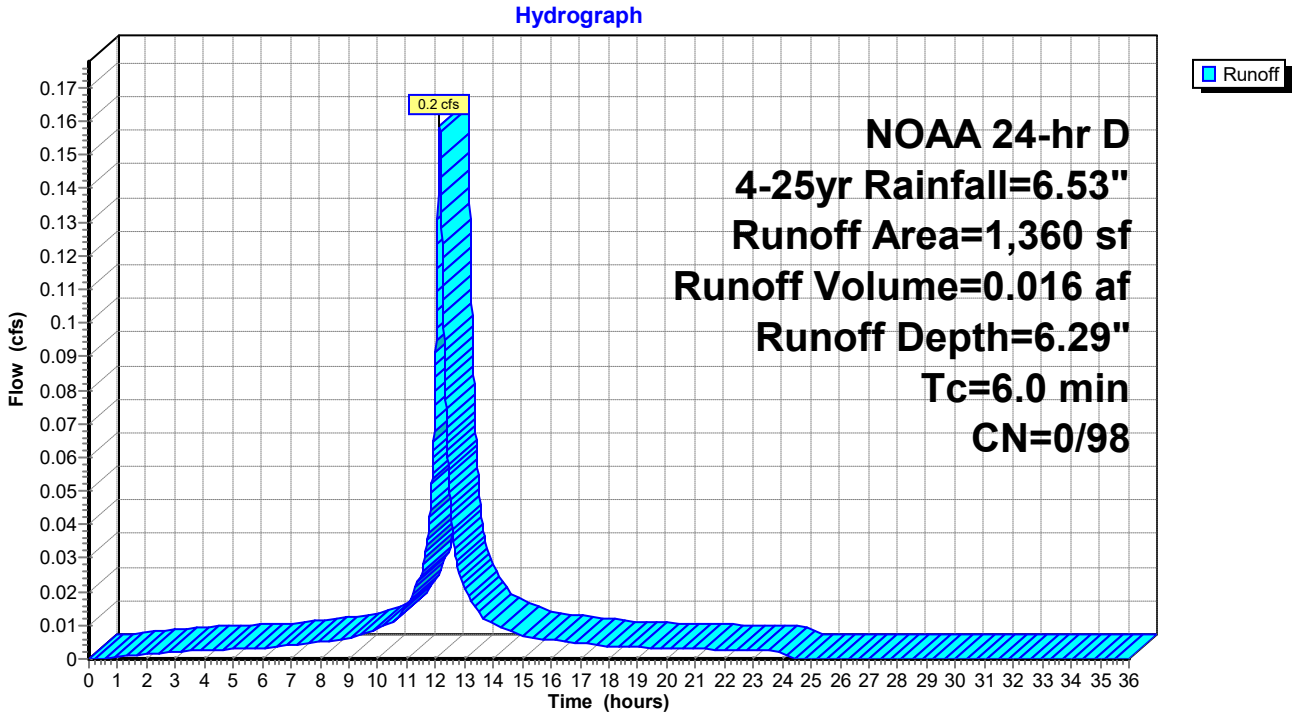
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af, Depth= 6.29"
Routed to Pond 3P : Drywell 3.03

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (sf)	CN	Description
1,360	98	Roofs, HSG A
1,360	98	100.00% Impervious Area

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

Subcatchment Roof 3.03: Roof 3.03



Summary for Subcatchment Roof 3.04: Roof 3.04

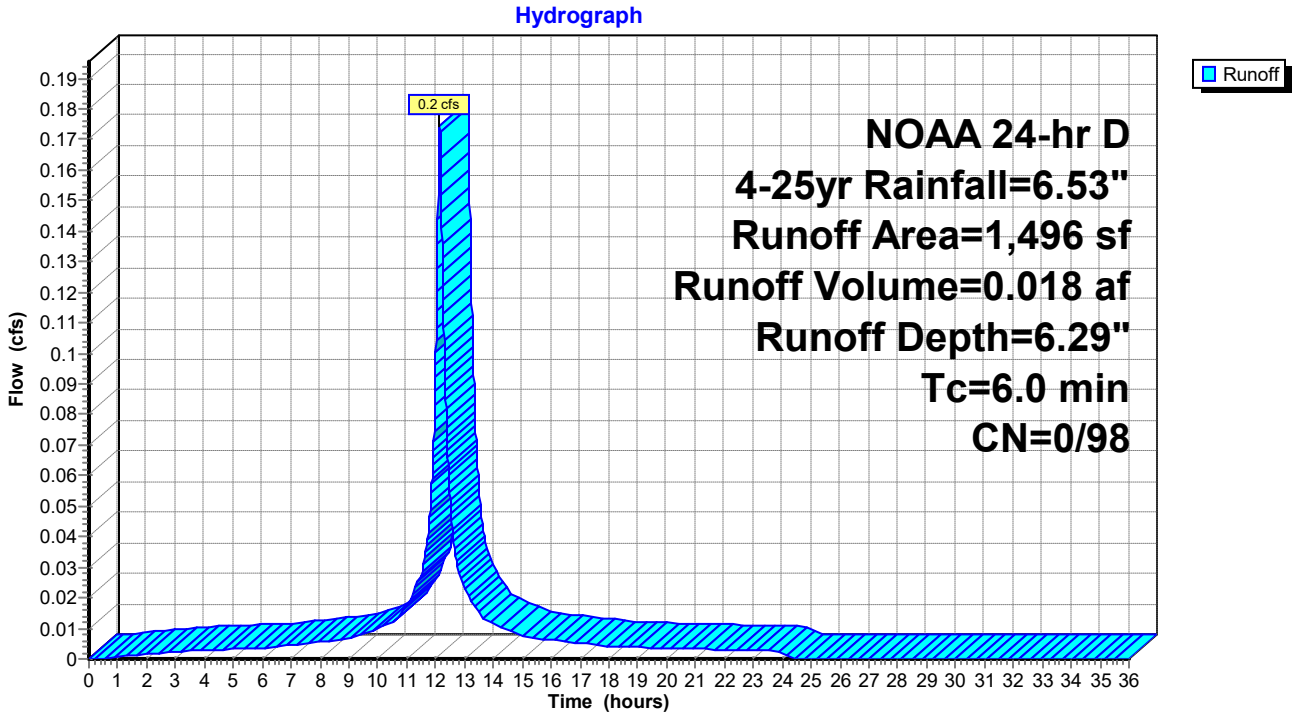
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.018 af, Depth= 6.29"
Routed to Pond 4P : Drywell 3.04

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

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

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

Subcatchment Roof 3.04: Roof 3.04



Summary for Subcatchment Roof 3.05: Roof 3.05

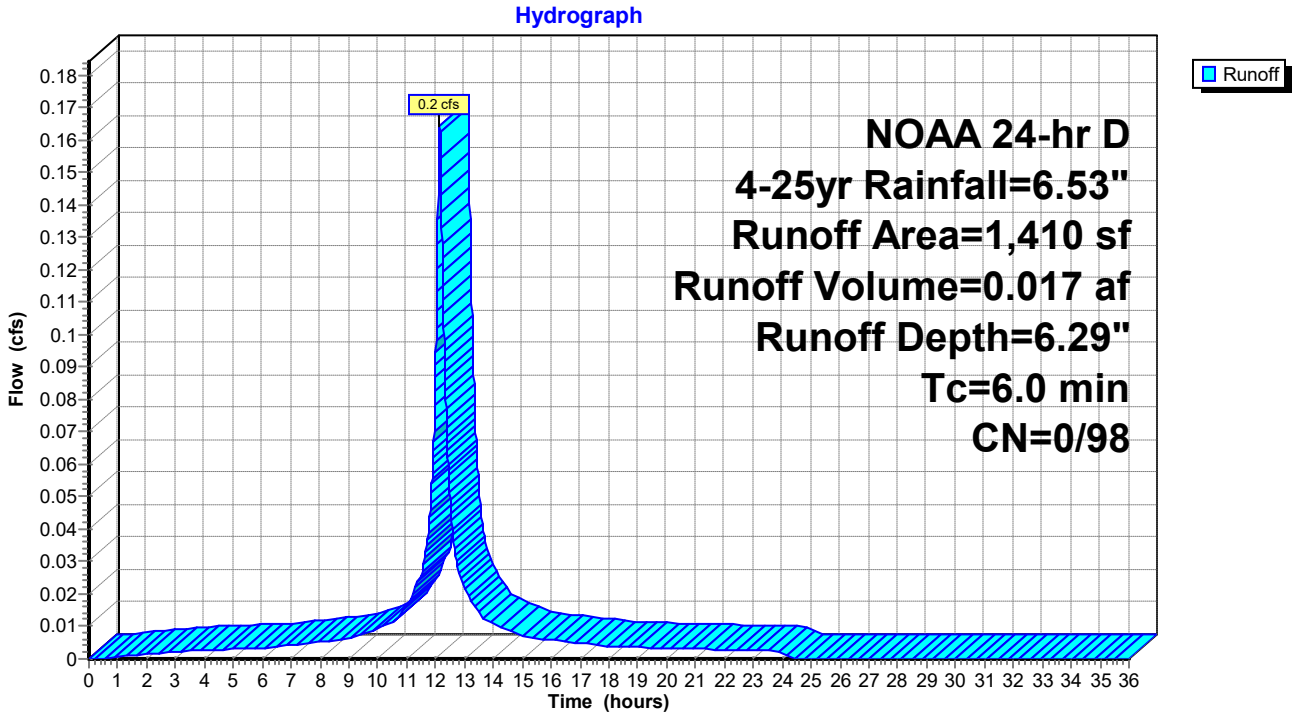
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.017 af, Depth= 6.29"
Routed to Pond 5P : Drywell 3.05

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 4-25yr Rainfall=6.53"

Area (sf)	CN	Description
1,410	98	Roofs, HSG A
1,410	98	100.00% Impervious Area

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

Subcatchment Roof 3.05: Roof 3.05



Summary for Pond 1P: Drywell 3.01

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 6.29" for 4-25yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af
Outflow = 0.1 cfs @ 12.28 hrs, Volume= 0.016 af, Atten= 6%, Lag= 8.5 min
Discarded = 0.0 cfs @ 9.91 hrs, Volume= 0.009 af
Primary = 0.1 cfs @ 12.28 hrs, Volume= 0.007 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.02' @ 12.28 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 298.8 min calculated for 0.016 af (100% of inflow)
Center-of-Mass det. time= 298.9 min (1,047.4 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

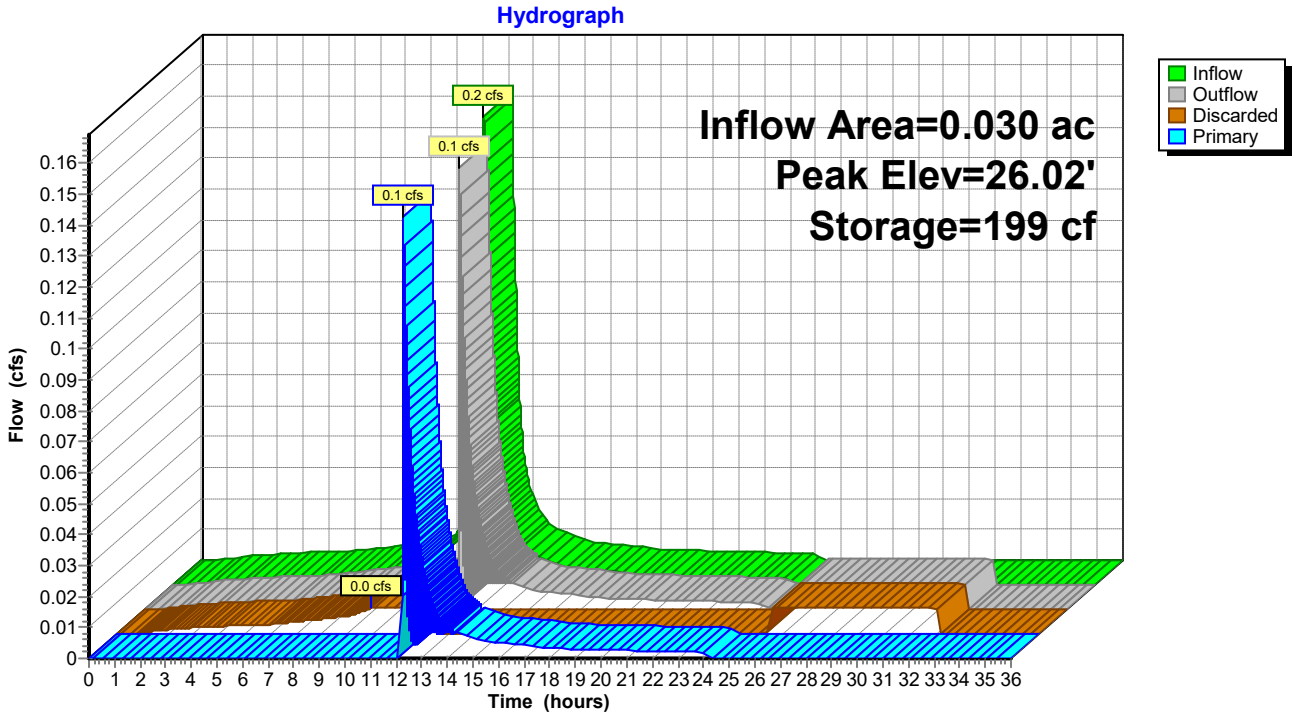
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.91 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.28 hrs HW=26.02' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.34 fps)

Pond 1P: Drywell 3.01



Summary for Pond 2P: Drywell 3.02

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 6.29" for 4-25yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af
Outflow = 0.1 cfs @ 12.28 hrs, Volume= 0.016 af, Atten= 6%, Lag= 8.5 min
Discarded = 0.0 cfs @ 9.91 hrs, Volume= 0.009 af
Primary = 0.1 cfs @ 12.28 hrs, Volume= 0.007 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.02' @ 12.28 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 298.8 min calculated for 0.016 af (100% of inflow)
Center-of-Mass det. time= 298.9 min (1,047.4 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

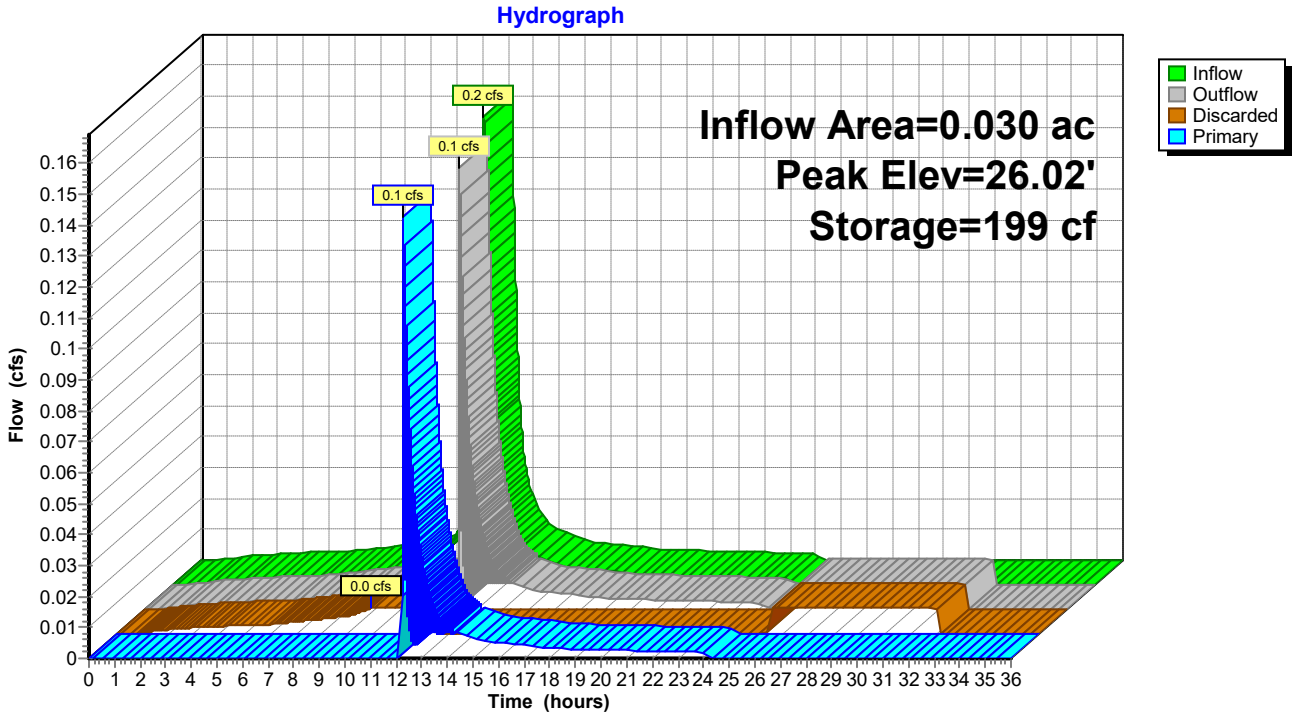
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.91 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.28 hrs HW=26.02' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.34 fps)

Pond 2P: Drywell 3.02



Summary for Pond 3P: Drywell 3.03

Inflow Area = 0.031 ac,100.00% Impervious, Inflow Depth = 6.29" for 4-25yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.016 af
Outflow = 0.1 cfs @ 12.25 hrs, Volume= 0.016 af, Atten= 23%, Lag= 6.6 min
Discarded = 0.0 cfs @ 9.78 hrs, Volume= 0.009 af
Primary = 0.1 cfs @ 12.25 hrs, Volume= 0.007 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.02' @ 12.25 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 285.4 min calculated for 0.016 af (100% of inflow)
Center-of-Mass det. time= 285.4 min (1,034.0 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

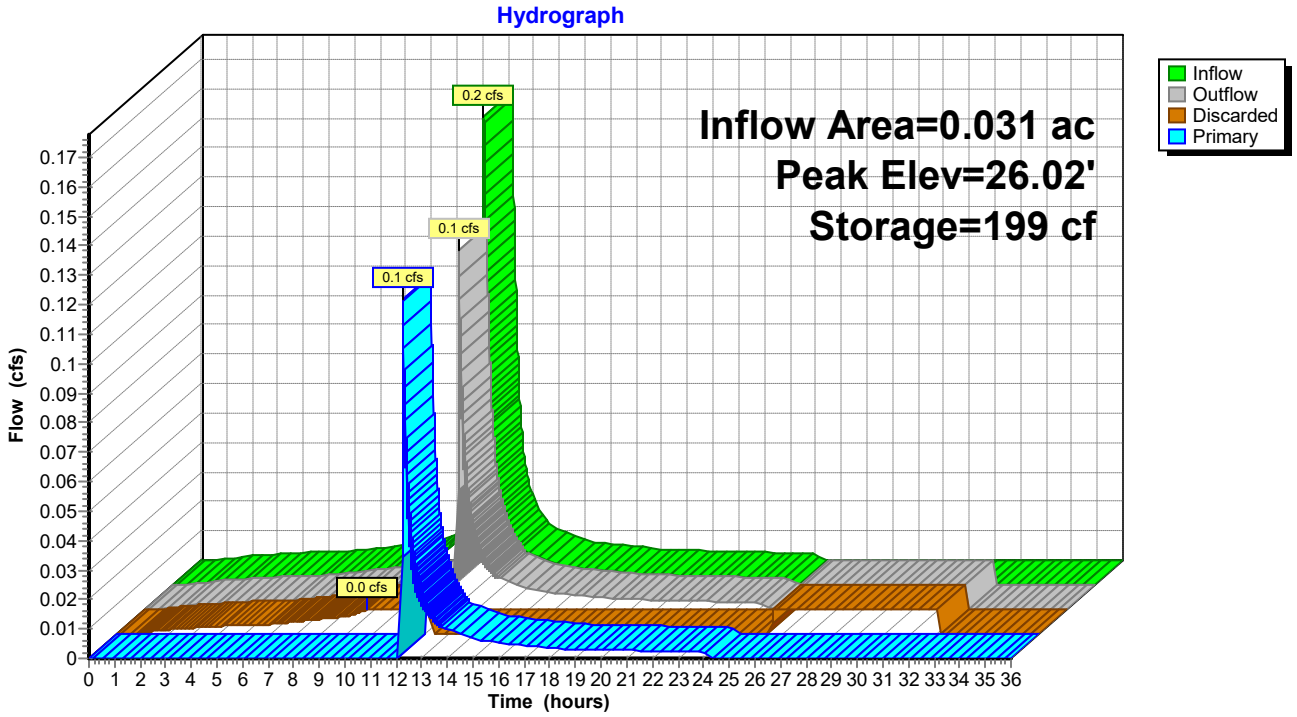
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.78 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.25 hrs HW=26.02' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.1 cfs @ 0.33 fps)

Pond 3P: Drywell 3.03



Summary for Pond 4P: Drywell 3.04

Inflow Area = 0.034 ac,100.00% Impervious, Inflow Depth = 6.29" for 4-25yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.018 af
Outflow = 0.3 cfs @ 12.19 hrs, Volume= 0.018 af, Atten= 0%, Lag= 3.1 min
Discarded = 0.0 cfs @ 9.55 hrs, Volume= 0.009 af
Primary = 0.3 cfs @ 12.19 hrs, Volume= 0.009 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.03' @ 12.19 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 260.7 min calculated for 0.018 af (100% of inflow)
Center-of-Mass det. time= 260.8 min (1,009.3 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

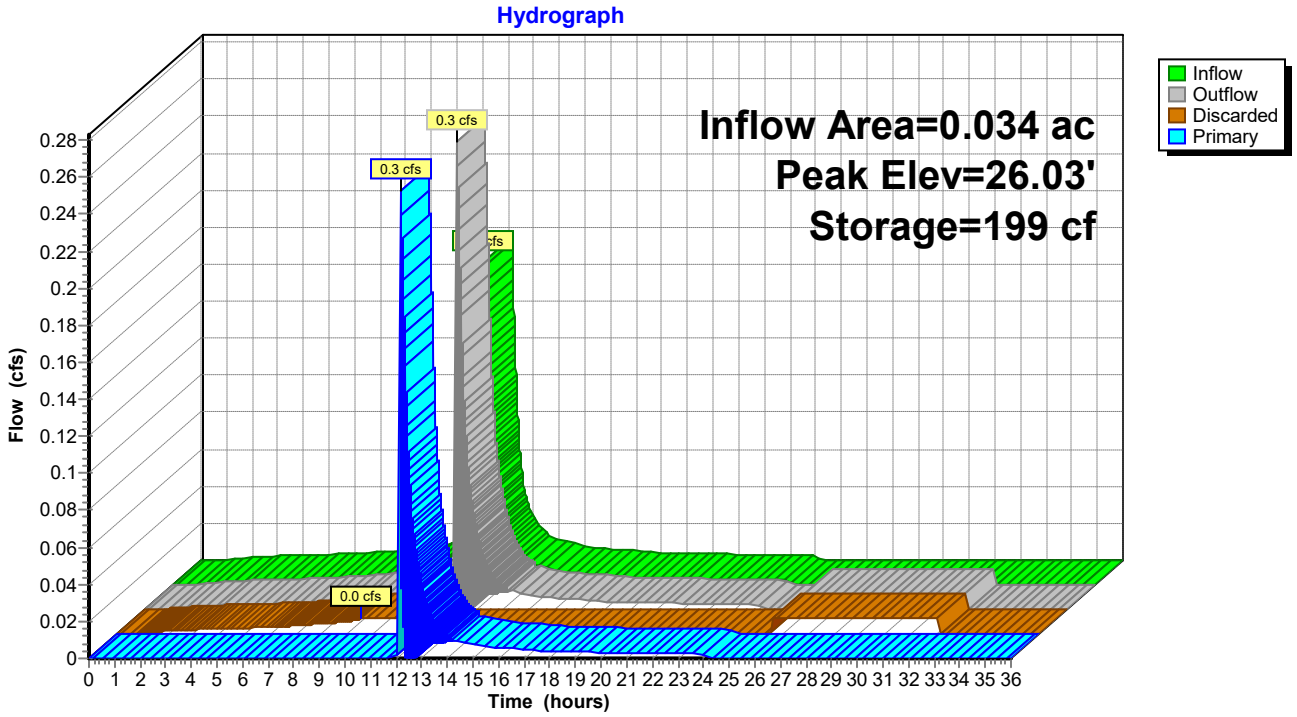
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.55 hrs HW=19.50' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.2 cfs @ 12.19 hrs HW=26.03' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.43 fps)

Pond 4P: Drywell 3.04



Summary for Pond 5P: Drywell 3.05

Inflow Area = 0.032 ac,100.00% Impervious, Inflow Depth = 6.29" for 4-25yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.017 af
Outflow = 0.2 cfs @ 12.22 hrs, Volume= 0.017 af, Atten= 0%, Lag= 4.9 min
Discarded = 0.0 cfs @ 9.69 hrs, Volume= 0.009 af
Primary = 0.2 cfs @ 12.22 hrs, Volume= 0.008 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.03' @ 12.22 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 275.7 min calculated for 0.017 af (100% of inflow)
Center-of-Mass det. time= 275.8 min (1,024.3 - 748.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

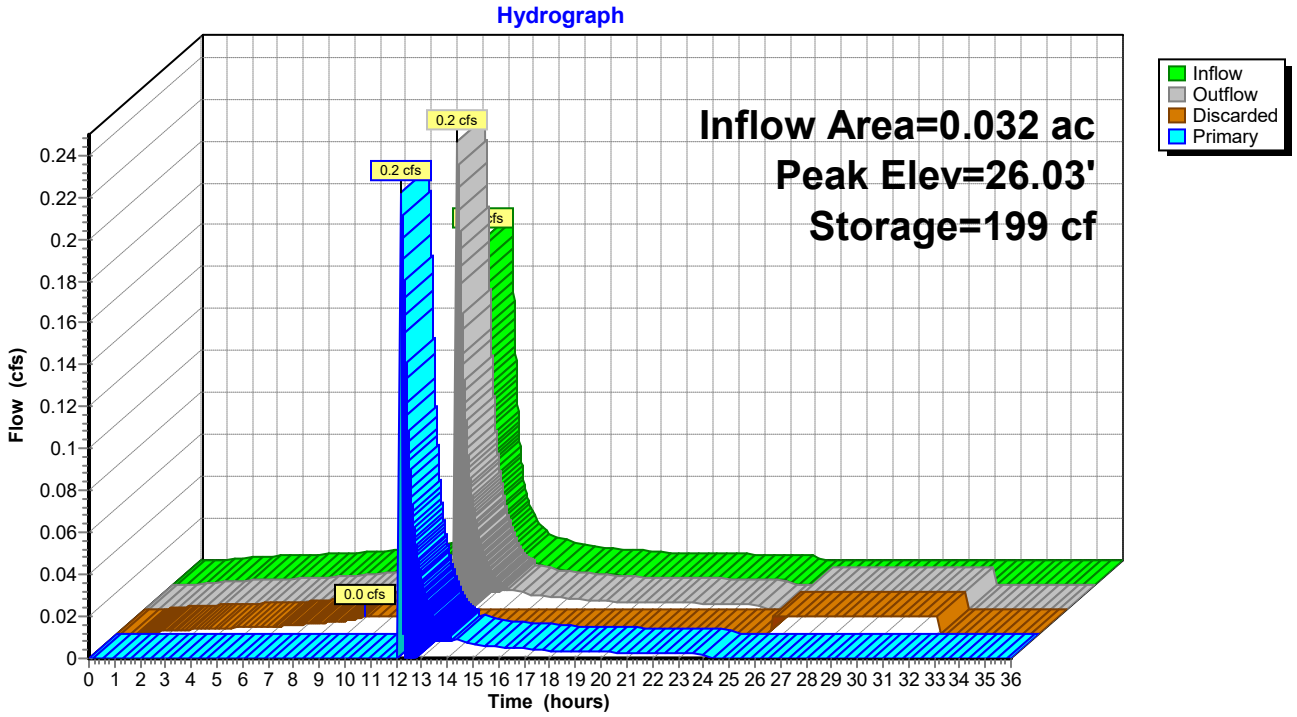
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.69 hrs HW=19.50' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.2 cfs @ 12.22 hrs HW=26.03' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.41 fps)

Pond 5P: Drywell 3.05

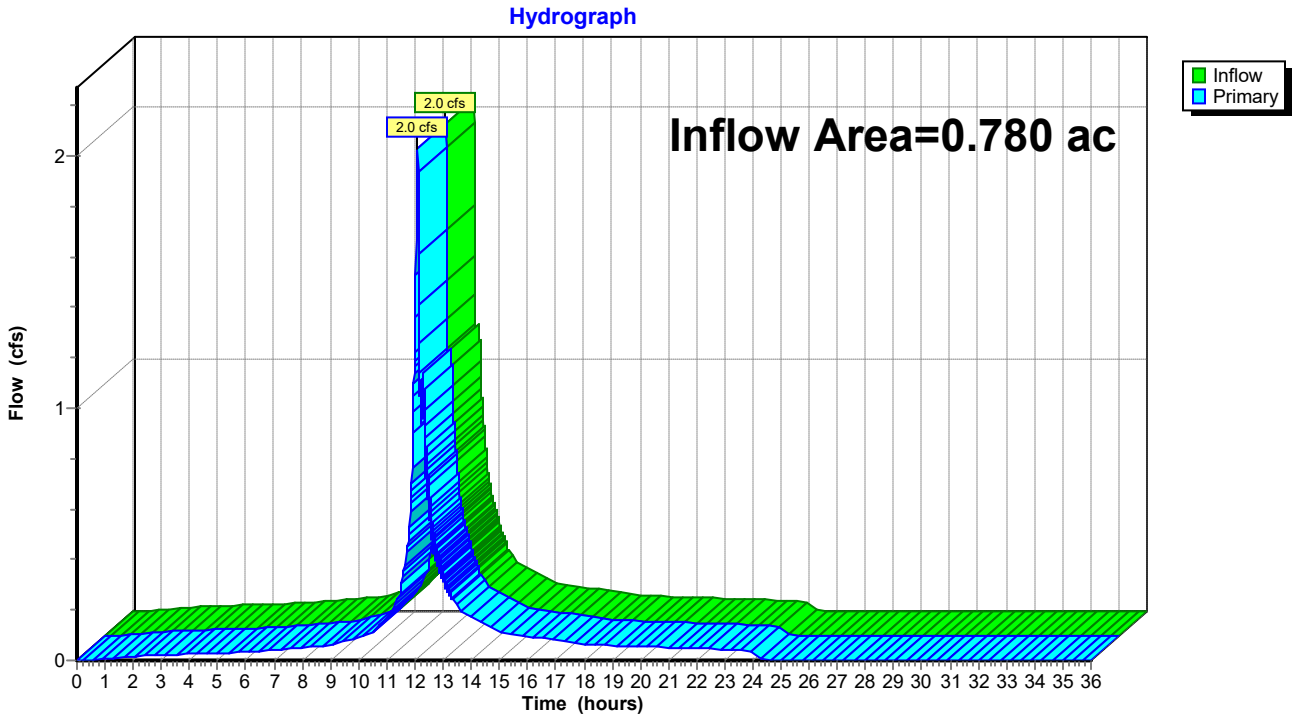


Summary for Link DA1: East Garfield Avenue

Inflow Area = 0.780 ac, 59.25% Impervious, Inflow Depth = 3.28" for 4-25yr event
Inflow = 2.0 cfs @ 12.10 hrs, Volume= 0.213 af
Primary = 2.0 cfs @ 12.10 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA1: East Garfield Avenue

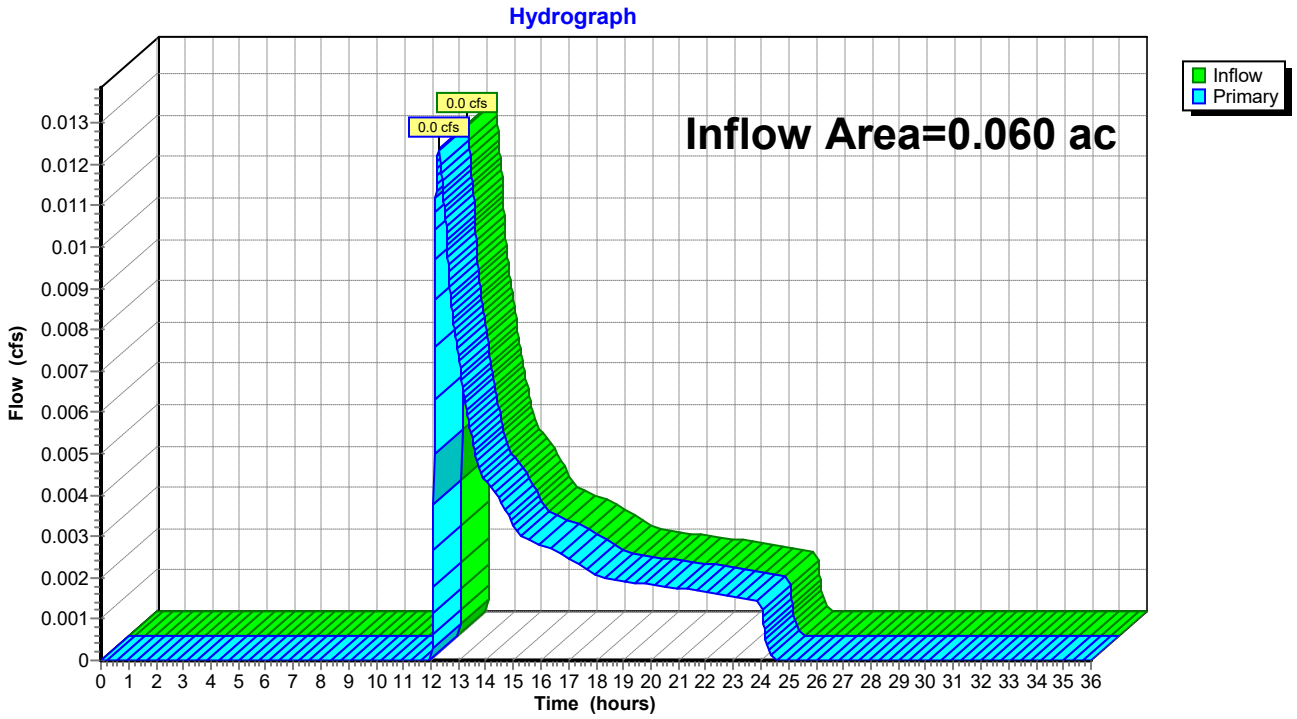


Summary for Link DA2: Lot 4 (West)

Inflow Area = 0.060 ac, 0.00% Impervious, Inflow Depth = 0.61" for 4-25yr event
Inflow = 0.0 cfs @ 12.27 hrs, Volume= 0.003 af
Primary = 0.0 cfs @ 12.27 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA2: Lot 4 (West)

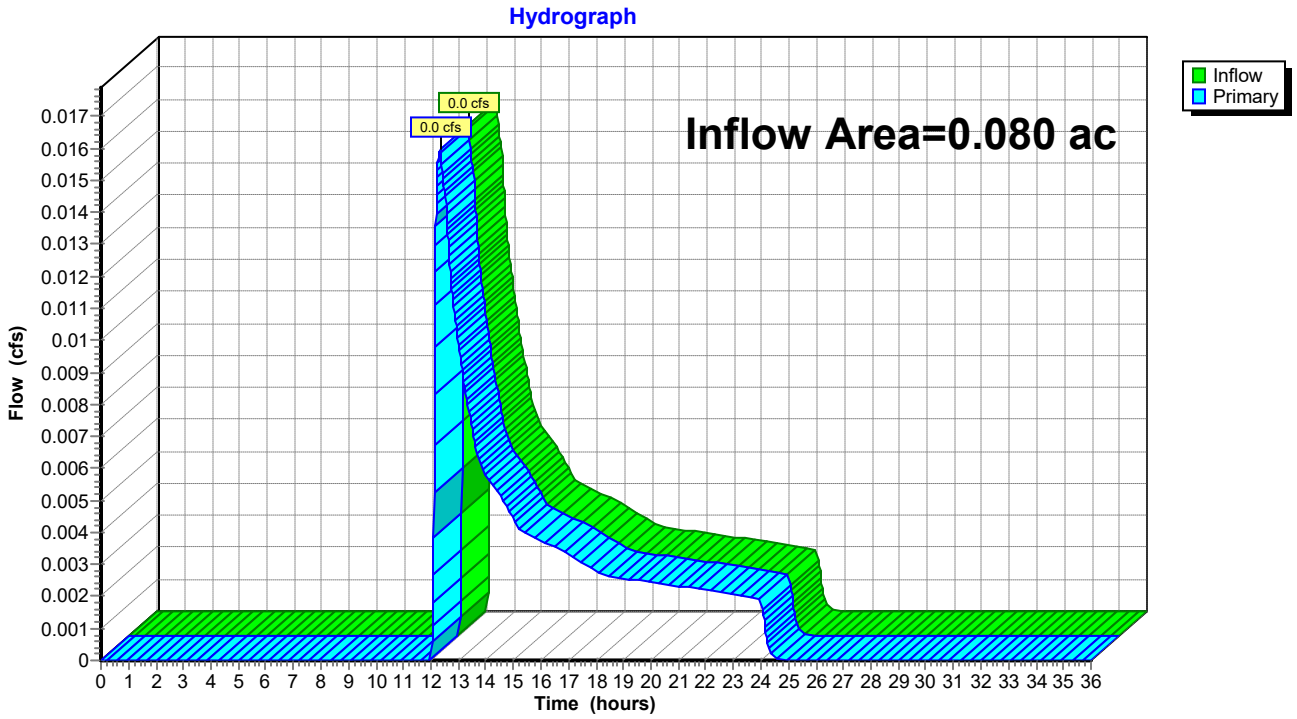


Summary for Link DA3: Northern property line

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 0.61" for 4-25yr event
Inflow = 0.0 cfs @ 12.34 hrs, Volume= 0.004 af
Primary = 0.0 cfs @ 12.34 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA3: Northern property line



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv.
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA1Ai: Impervious Runoff Area=0.305 ac 100.00% Impervious Runoff Depth=8.70"
Flow Length=286' Tc=1.9 min CN=0/98 Runoff=2.8 cfs 0.221 af

Subcatchment DA1p: Pervious Runoff Area=0.318 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=348' Tc=9.1 min CN=39/0 Runoff=0.3 cfs 0.042 af

Subcatchment DA2i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA2p: Pervious Runoff Area=0.060 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=115' Tc=6.5 min CN=39/0 Runoff=0.1 cfs 0.008 af

Subcatchment DA3i: Impervious Runoff Area=0.000 ac 0.00% Impervious Runoff Depth=0.00"
Tc=0.0 min CN=0/0 Runoff=0.0 cfs 0.000 af

Subcatchment DA3p: Pervious Runoff Area=0.080 ac 0.00% Impervious Runoff Depth=1.57"
Flow Length=122' Tc=7.3 min CN=39/0 Runoff=0.1 cfs 0.010 af

Subcatchment Roof 3.01: Roof 3.01 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.022 af

Subcatchment Roof 3.02: Roof 3.02 Runoff Area=1,295 sf 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.022 af

Subcatchment Roof 3.03: Roof 3.03 Runoff Area=1,360 sf 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.023 af

Subcatchment Roof 3.04: Roof 3.04 Runoff Area=1,496 sf 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.025 af

Subcatchment Roof 3.05: Roof 3.05 Runoff Area=1,410 sf 100.00% Impervious Runoff Depth=8.70"
Tc=6.0 min CN=0/98 Runoff=0.2 cfs 0.023 af

Pond 1P: Drywell 3.01 Peak Elev=26.04' Storage=199 cf Inflow=0.2 cfs 0.022 af
Discarded=0.0 cfs 0.010 af Primary=0.4 cfs 0.012 af Outflow=0.4 cfs 0.022 af

Pond 2P: Drywell 3.02 Peak Elev=26.04' Storage=199 cf Inflow=0.2 cfs 0.022 af
Discarded=0.0 cfs 0.010 af Primary=0.4 cfs 0.012 af Outflow=0.4 cfs 0.022 af

Pond 3P: Drywell 3.03 Peak Elev=26.03' Storage=199 cf Inflow=0.2 cfs 0.023 af
Discarded=0.0 cfs 0.010 af Primary=0.3 cfs 0.013 af Outflow=0.3 cfs 0.023 af

Pond 4P: Drywell 3.04 Peak Elev=26.03' Storage=199 cf Inflow=0.2 cfs 0.025 af
Discarded=0.0 cfs 0.010 af Primary=0.2 cfs 0.015 af Outflow=0.2 cfs 0.025 af

Pond 5P: Drywell 3.05 Peak Elev=26.04' Storage=199 cf Inflow=0.2 cfs 0.023 af
Discarded=0.0 cfs 0.010 af Primary=0.4 cfs 0.013 af Outflow=0.4 cfs 0.023 af

Link DA1: East Garfield Avenue Inflow=4.6 cfs 0.327 af
Primary=4.6 cfs 0.327 af

Link DA2: Lot 4 (West) Inflow=0.1 cfs 0.008 af
Primary=0.1 cfs 0.008 af

Link DA3: Northern property line Inflow=0.1 cfs 0.010 af
Primary=0.1 cfs 0.010 af

Total Runoff Area = 0.920 ac Runoff Volume = 0.395 af Average Runoff Depth = 5.15"
49.76% Pervious = 0.458 ac 50.24% Impervious = 0.462 ac

Summary for Subcatchment DA1Ai: Impervious

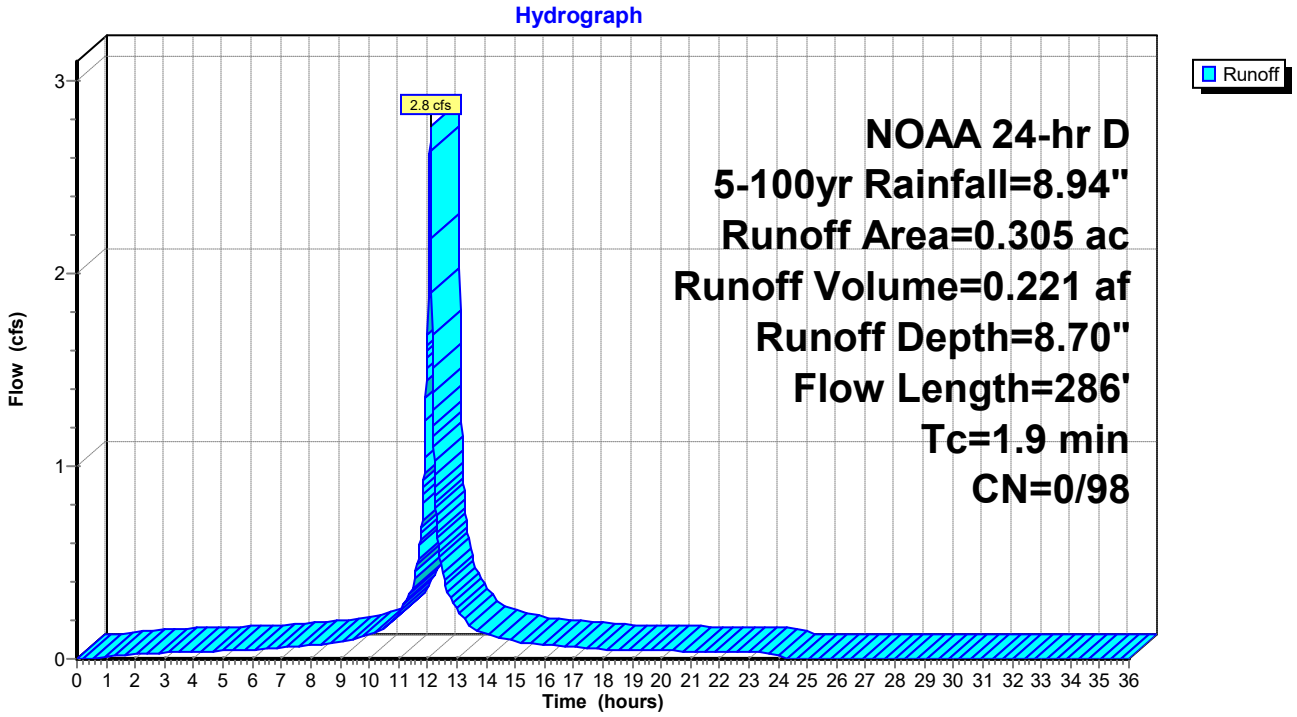
Runoff = 2.8 cfs @ 12.10 hrs, Volume= 0.221 af, Depth= 8.70"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.305	98	Paved parking, HSG A
0.305	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	41	0.0410	1.58		**Sheet Flow, 26.5 - 24.8** Smooth surfaces n= 0.011 P2= 3.40"
0.7	106	0.0150	2.49		**Shallow Concentrated Flow, 24.8 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
1.9	286	Total			

Subcatchment DA1Ai: Impervious



Summary for Subcatchment DA1p: Pervious

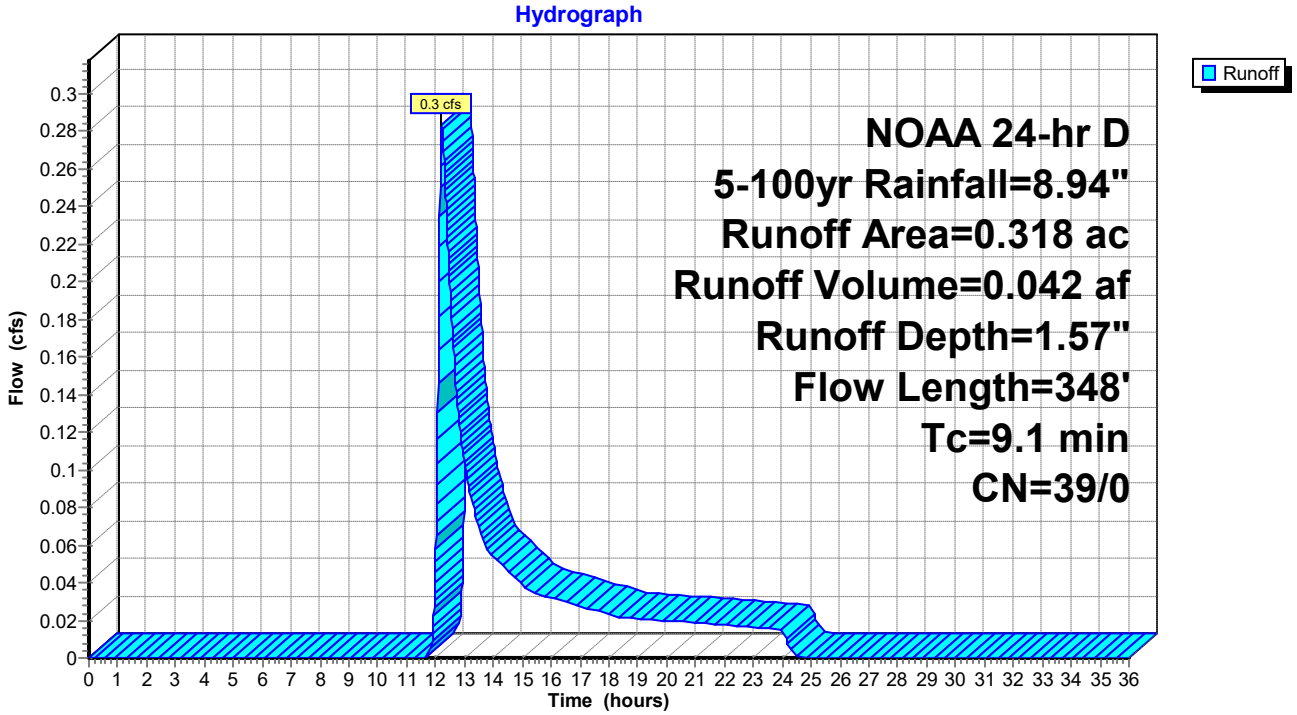
Runoff = 0.3 cfs @ 12.20 hrs, Volume= 0.042 af, Depth= 1.57"
Routed to Link DA1 : East Garfield Avenue

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.318	39	>75% Grass cover, Good, HSG A
0.318	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	50	0.0220	0.16		**Sheet Flow, 27.0 - 25.9** Grass: Short n= 0.150 P2= 3.40"
2.9	145	0.0140	0.83		**Shallow Concentrated Flow, 25.9 - 23.9** Short Grass Pasture Kv= 7.0 fps
0.1	14	0.0500	4.54		**Shallow Concentrated Flow, 23.9 - 23.2** Paved Kv= 20.3 fps
0.8	139	0.0190	2.80		**Shallow Concentrated Flow, 23.2 - 20.5** Paved Kv= 20.3 fps
9.1	348	Total			

Subcatchment DA1p: Pervious



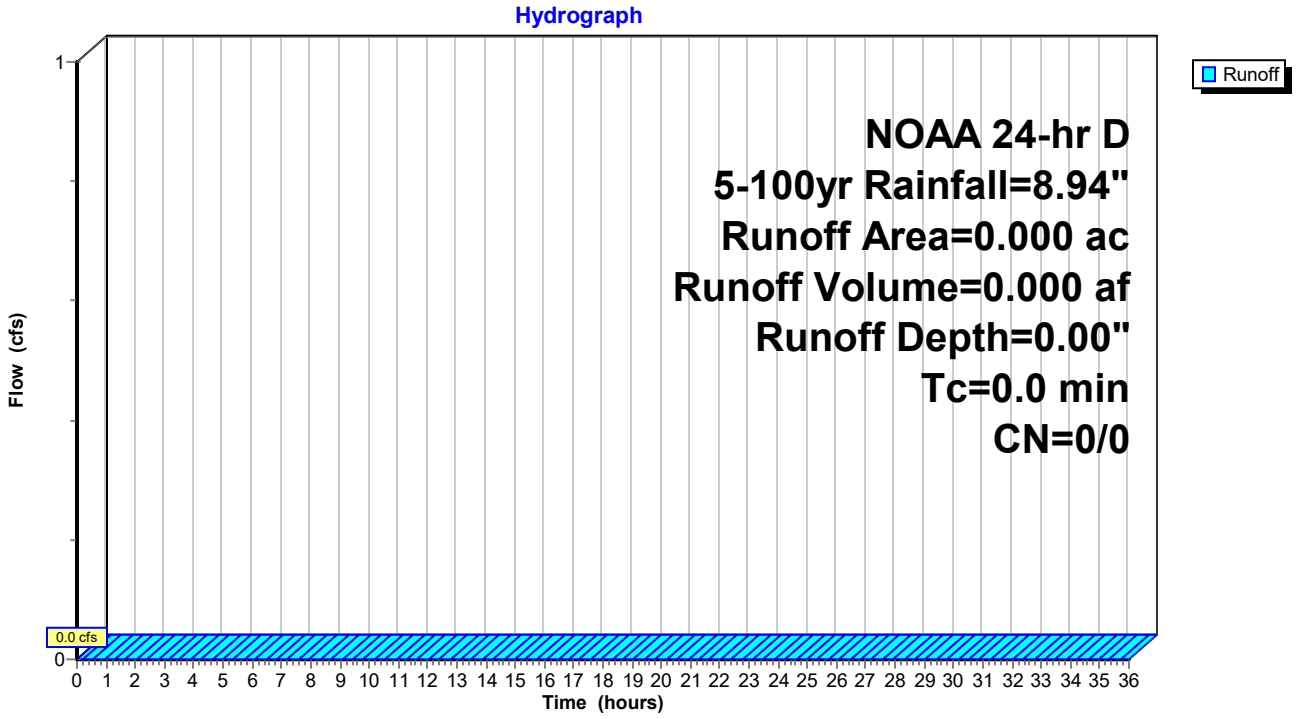
Summary for Subcatchment DA2i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA2i: Impervious



Summary for Subcatchment DA2p: Pervious

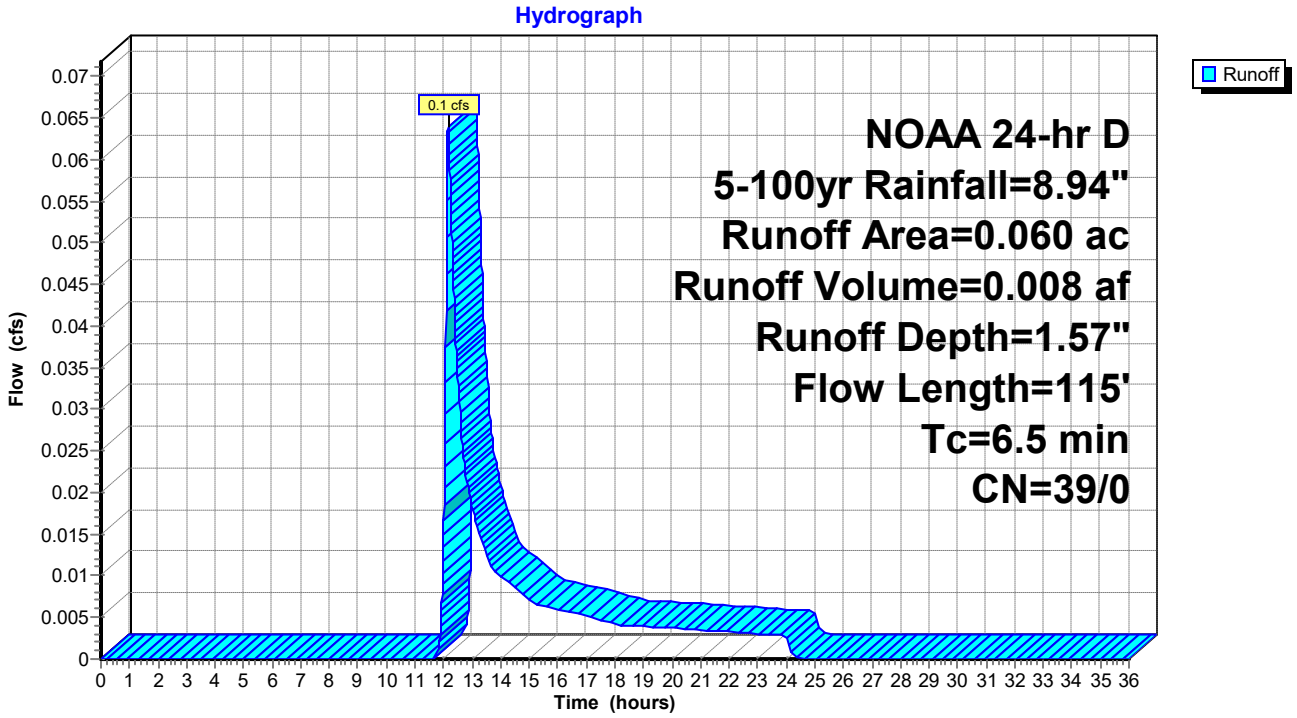
Runoff = 0.1 cfs @ 12.16 hrs, Volume= 0.008 af, Depth= 1.57"
Routed to Link DA2 : Lot 4 (West)

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.060	39	>75% Grass cover, Good, HSG A
0.060	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		**Sheet Flow, 24.9 - 23.9** Grass: Short n= 0.150 P2= 3.40"
1.0	65	0.0246	1.10		**Shallow Concentrated Flow, 23.9 - 22.3** Short Grass Pasture Kv= 7.0 fps
6.5	115	Total			

Subcatchment DA2p: Pervious



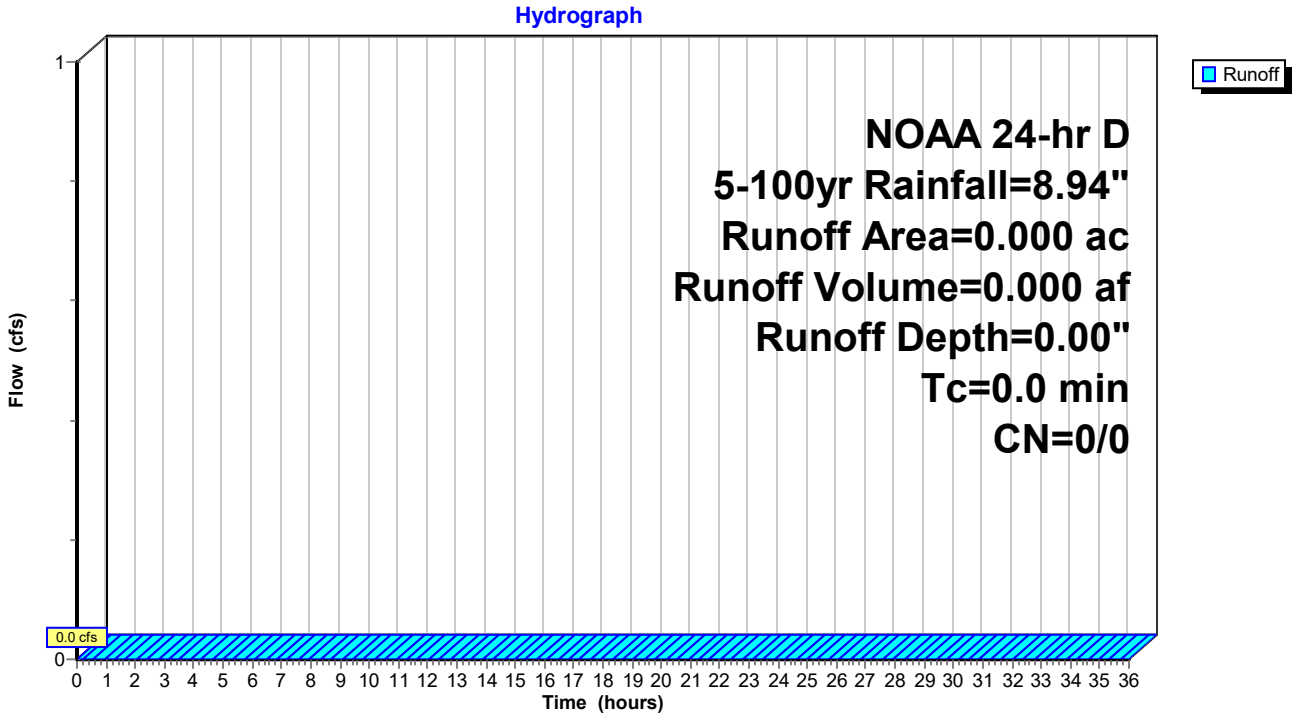
Summary for Subcatchment DA3i: Impervious

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.000	98	Paved parking, HSG A

Subcatchment DA3i: Impervious



Summary for Subcatchment DA3p: Pervious

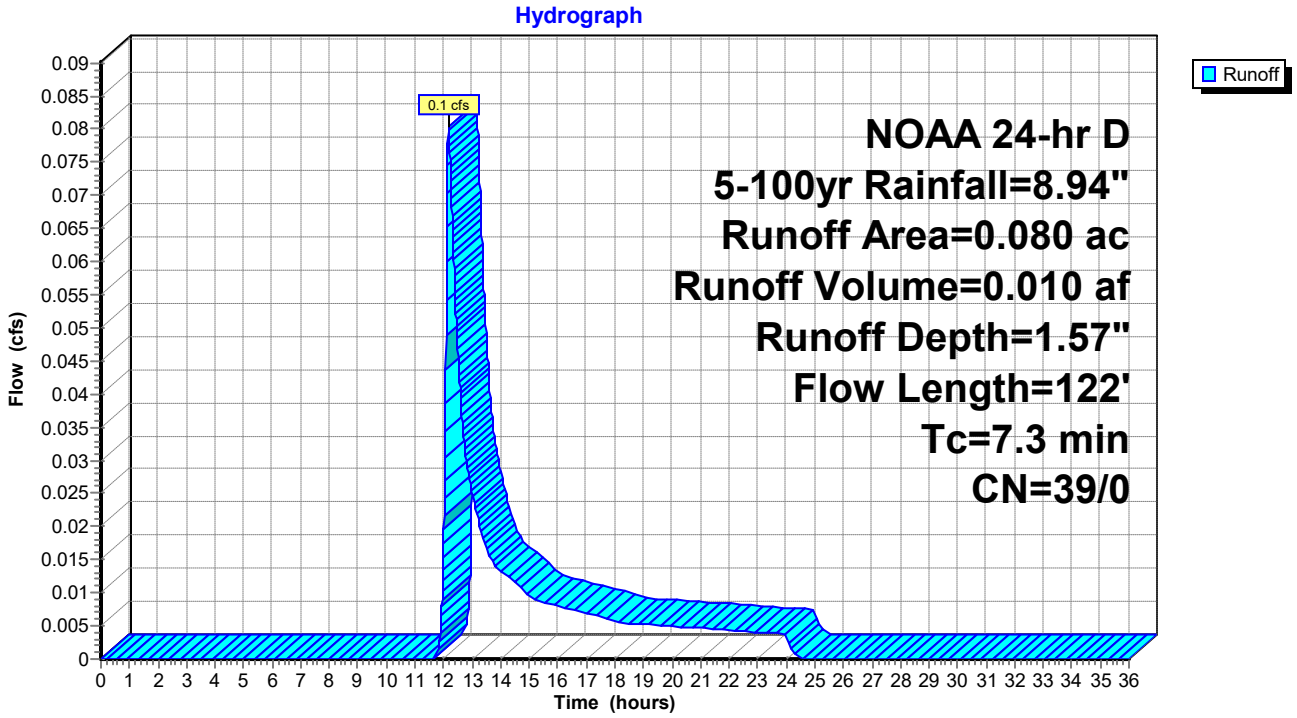
Runoff = 0.1 cfs @ 12.17 hrs, Volume= 0.010 af, Depth= 1.57"
Routed to Link DA3 : Northern property line

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.080	39	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	50	0.0180	0.15		**Sheet Flow, 24.9 - 24.0** Grass: Short n= 0.150 P2= 3.40"
1.6	72	0.0110	0.73		**Shallow Concentrated Flow, 24.0 - 23.2** Short Grass Pasture Kv= 7.0 fps
7.3	122	Total			

Subcatchment DA3p: Pervious



Summary for Subcatchment Roof 3.01: Roof 3.01

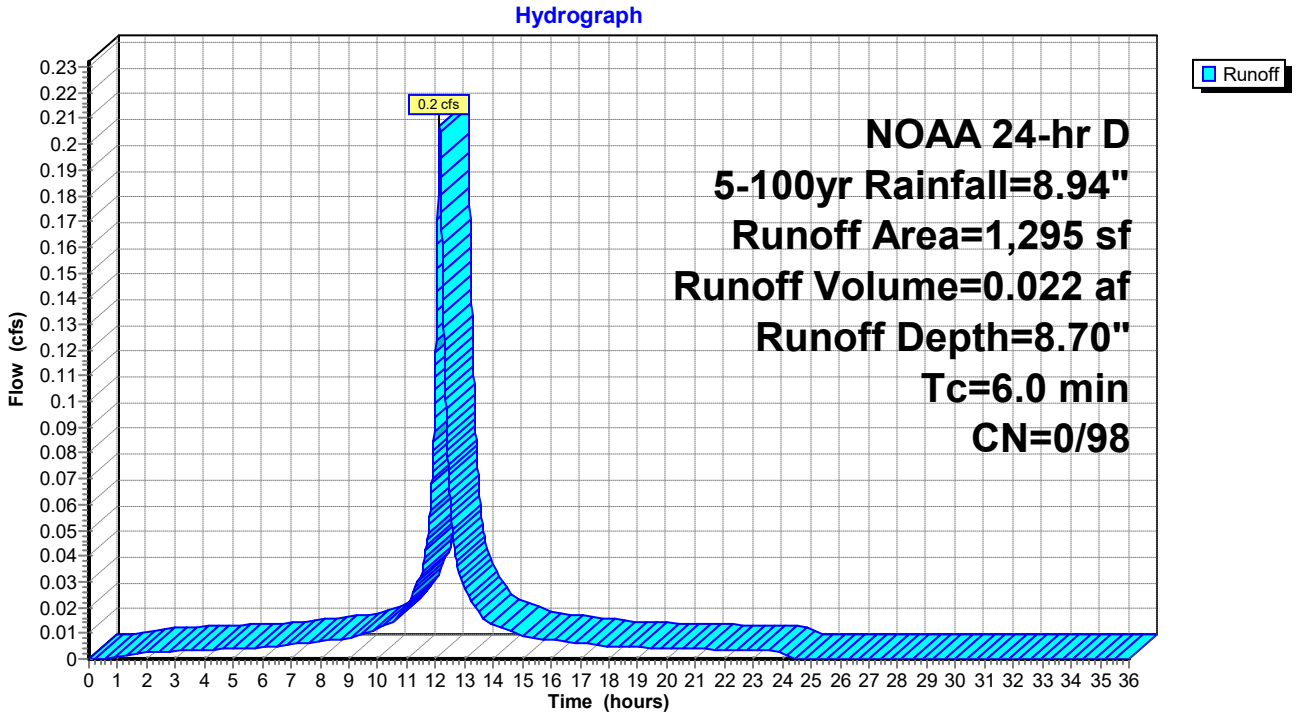
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.022 af, Depth= 8.70"
Routed to Pond 1P : Drywell 3.01

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.01: Roof 3.01



Summary for Subcatchment Roof 3.02: Roof 3.02

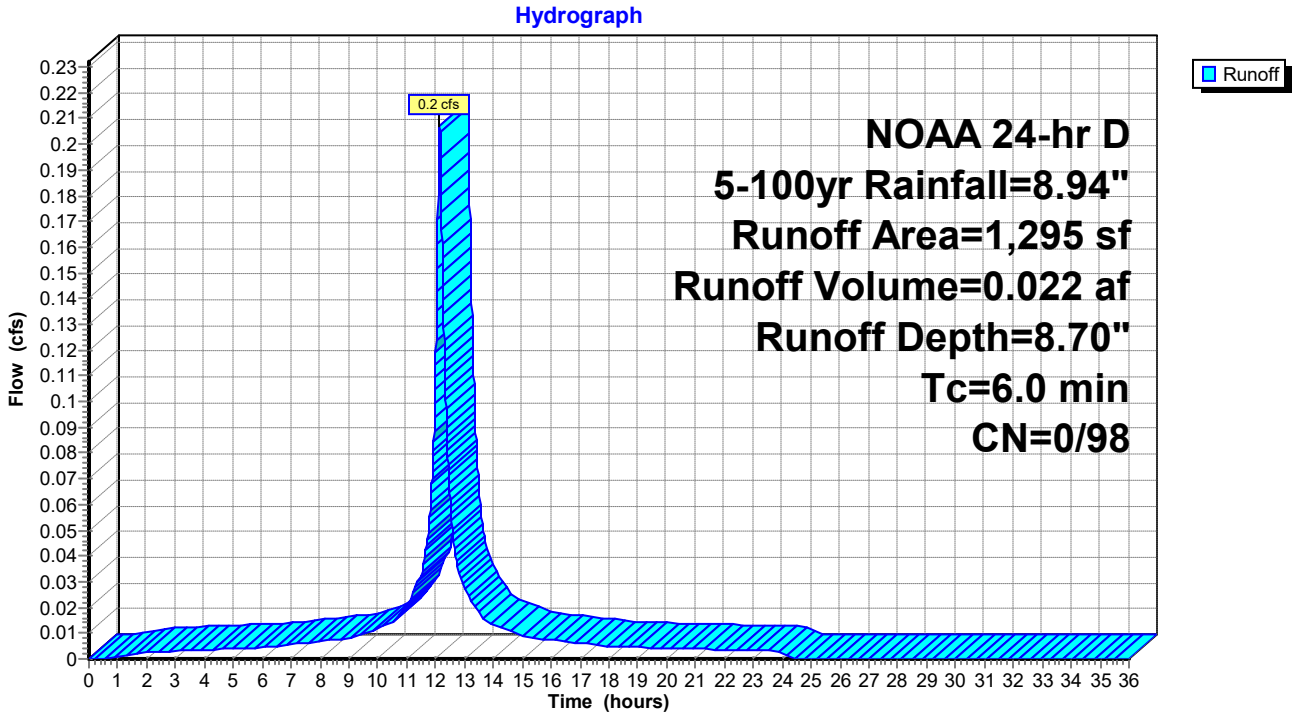
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.022 af, Depth= 8.70"
Routed to Pond 2P : Drywell 3.02

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (sf)	CN	Description
1,295	98	Roofs, HSG A
1,295	98	100.00% Impervious Area

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

Subcatchment Roof 3.02: Roof 3.02



Summary for Subcatchment Roof 3.03: Roof 3.03

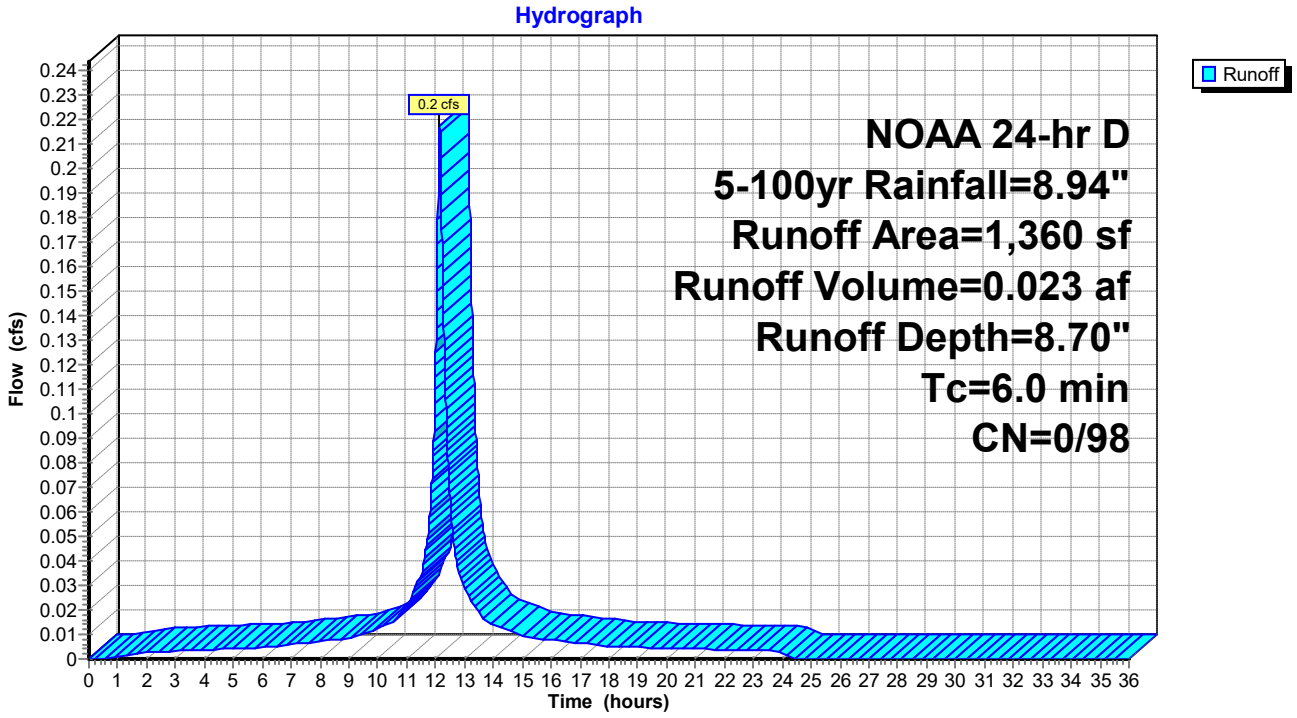
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.023 af, Depth= 8.70"
Routed to Pond 3P : Drywell 3.03

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (sf)	CN	Description
1,360	98	Roofs, HSG A
1,360	98	100.00% Impervious Area

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

Subcatchment Roof 3.03: Roof 3.03



Summary for Subcatchment Roof 3.04: Roof 3.04

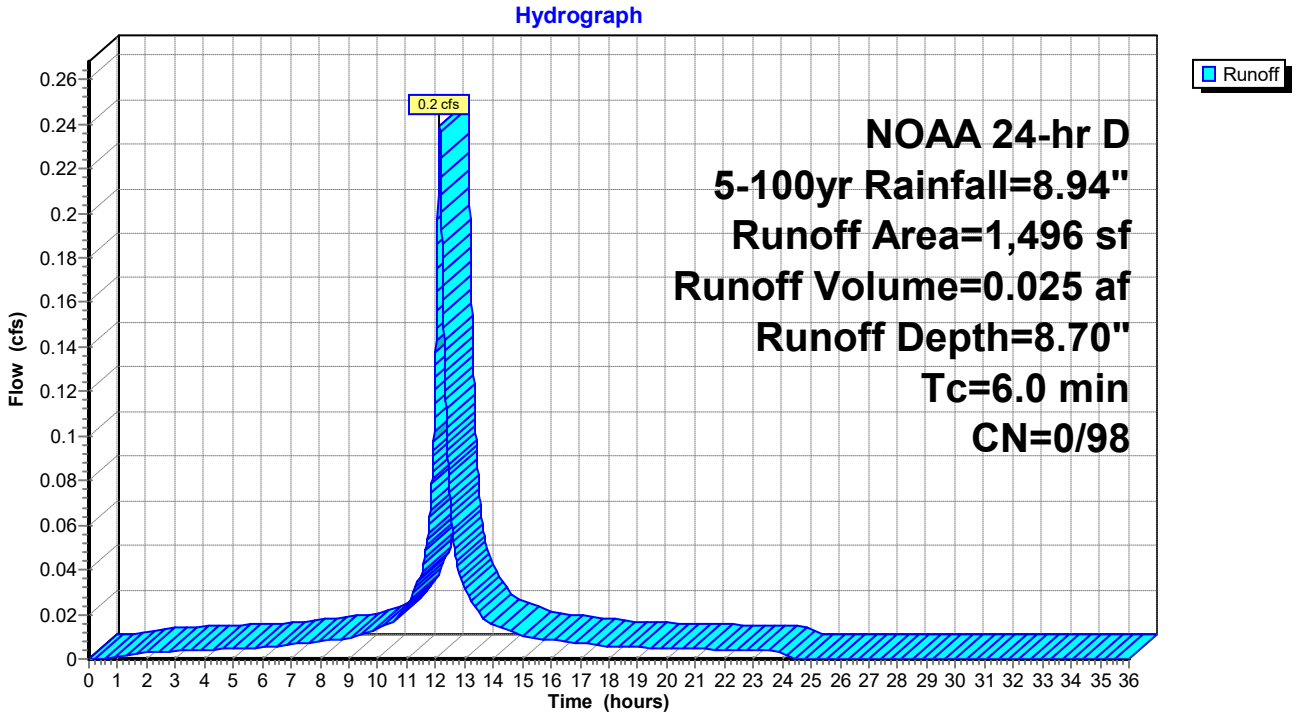
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.025 af, Depth= 8.70"
Routed to Pond 4P : Drywell 3.04

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

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

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

Subcatchment Roof 3.04: Roof 3.04



Summary for Subcatchment Roof 3.05: Roof 3.05

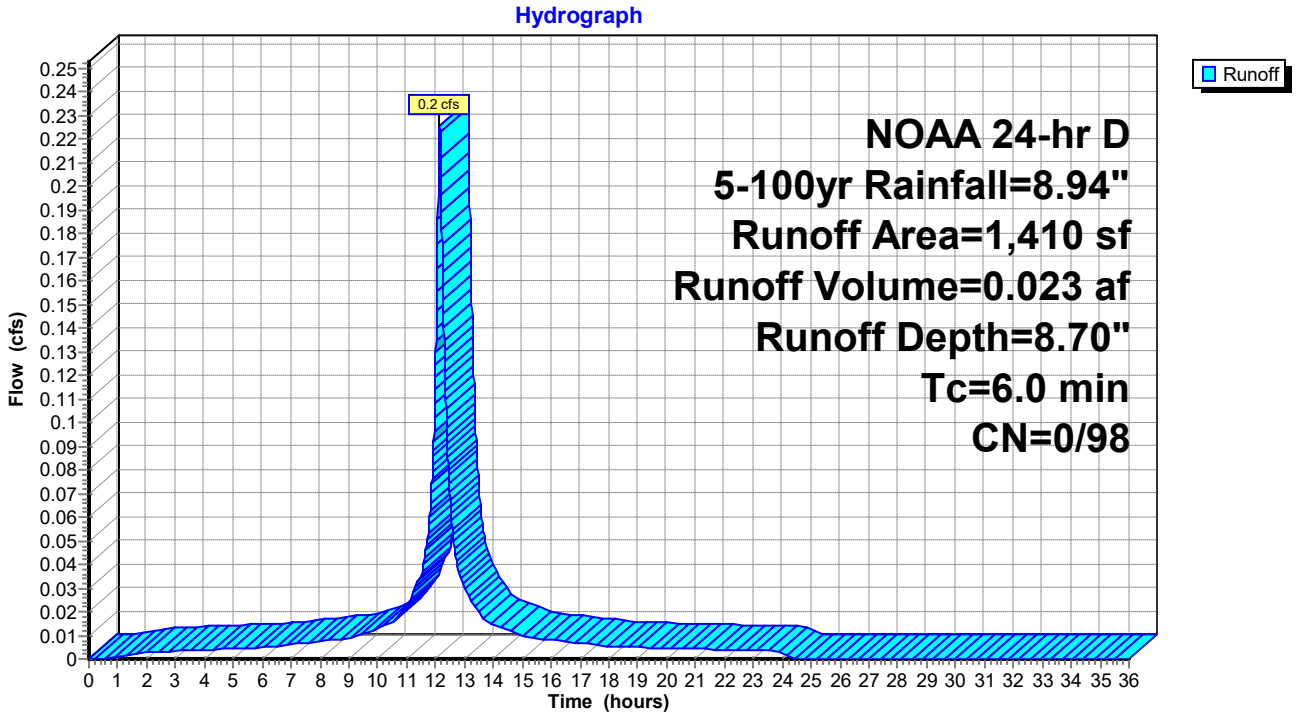
Runoff = 0.2 cfs @ 12.14 hrs, Volume= 0.023 af, Depth= 8.70"
Routed to Pond 5P : Drywell 3.05

Runoff by SCS TR-20 method, UH=Delmarva, Split Pervious/Imperv., Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5-100yr Rainfall=8.94"

Area (sf)	CN	Description
1,410	98	Roofs, HSG A
1,410	98	100.00% Impervious Area

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

Subcatchment Roof 3.05: Roof 3.05



Summary for Pond 1P: Drywell 3.01

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 8.70" for 5-100yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.022 af
Outflow = 0.4 cfs @ 12.13 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 9.14 hrs, Volume= 0.010 af
Primary = 0.4 cfs @ 12.13 hrs, Volume= 0.012 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.04' @ 12.13 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 220.4 min calculated for 0.022 af (100% of inflow)
Center-of-Mass det. time= 220.5 min (964.7 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

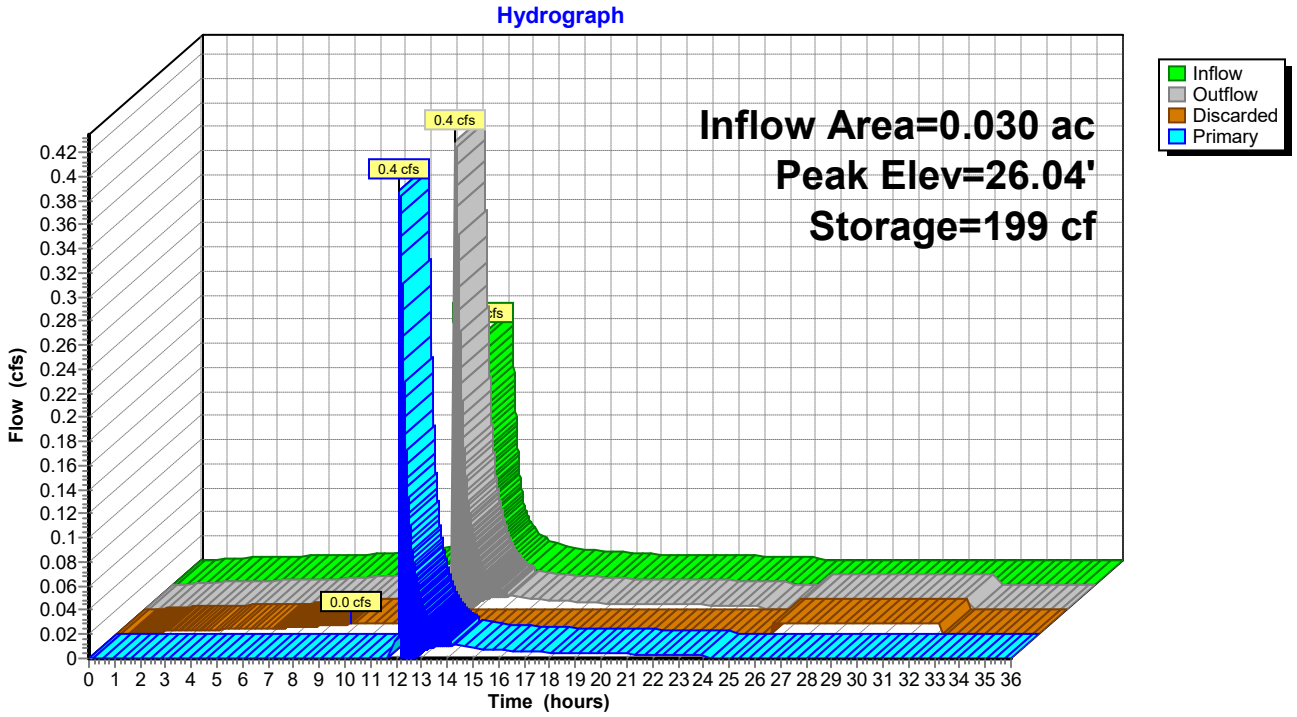
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.14 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.4 cfs @ 12.13 hrs HW=26.04' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.4 cfs @ 0.49 fps)

Pond 1P: Drywell 3.01



Summary for Pond 2P: Drywell 3.02

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 8.70" for 5-100yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.022 af
Outflow = 0.4 cfs @ 12.13 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 9.14 hrs, Volume= 0.010 af
Primary = 0.4 cfs @ 12.13 hrs, Volume= 0.012 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.04' @ 12.13 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 220.4 min calculated for 0.022 af (100% of inflow)
Center-of-Mass det. time= 220.5 min (964.7 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

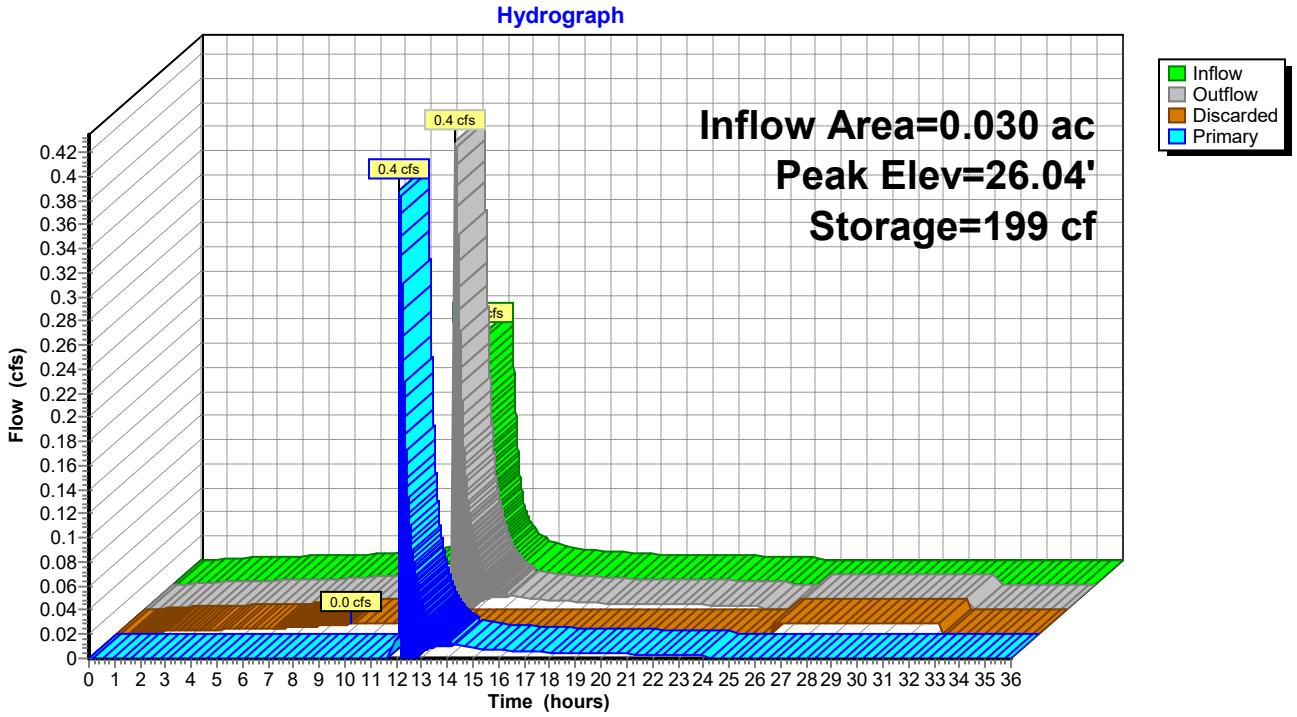
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 9.14 hrs HW=19.50' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.4 cfs @ 12.13 hrs HW=26.04' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.4 cfs @ 0.49 fps)

Pond 2P: Drywell 3.02



Summary for Pond 3P: Drywell 3.03

Inflow Area = 0.031 ac,100.00% Impervious, Inflow Depth = 8.70" for 5-100yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.023 af
Outflow = 0.3 cfs @ 12.13 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 8.95 hrs, Volume= 0.010 af
Primary = 0.3 cfs @ 12.13 hrs, Volume= 0.013 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.03' @ 12.13 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 210.6 min calculated for 0.023 af (100% of inflow)
Center-of-Mass det. time= 210.7 min (954.9 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

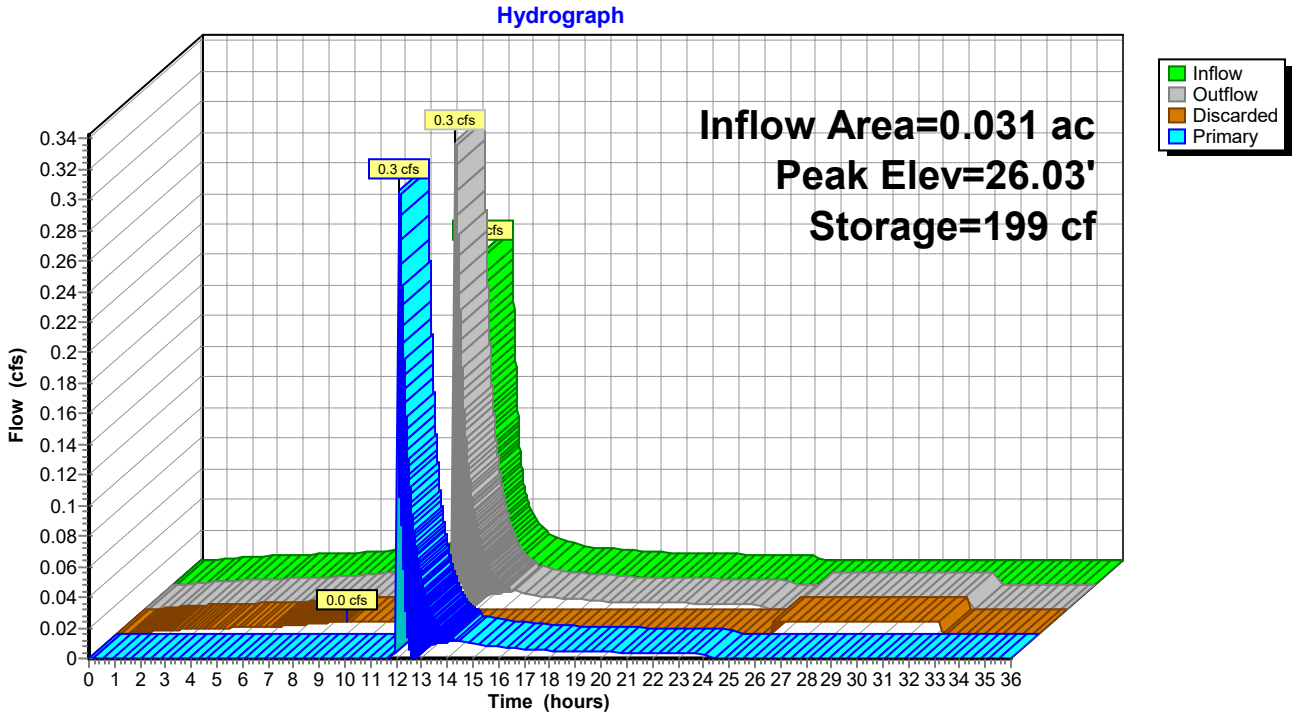
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 8.95 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.3 cfs @ 12.13 hrs HW=26.03' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.3 cfs @ 0.45 fps)

Pond 3P: Drywell 3.03



Summary for Pond 4P: Drywell 3.04

Inflow Area = 0.034 ac,100.00% Impervious, Inflow Depth = 8.70" for 5-100yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.025 af
Outflow = 0.2 cfs @ 12.14 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.1 min
Discarded = 0.0 cfs @ 8.37 hrs, Volume= 0.010 af
Primary = 0.2 cfs @ 12.14 hrs, Volume= 0.015 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.03' @ 12.14 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 193.1 min calculated for 0.025 af (100% of inflow)
Center-of-Mass det. time= 193.2 min (937.5 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

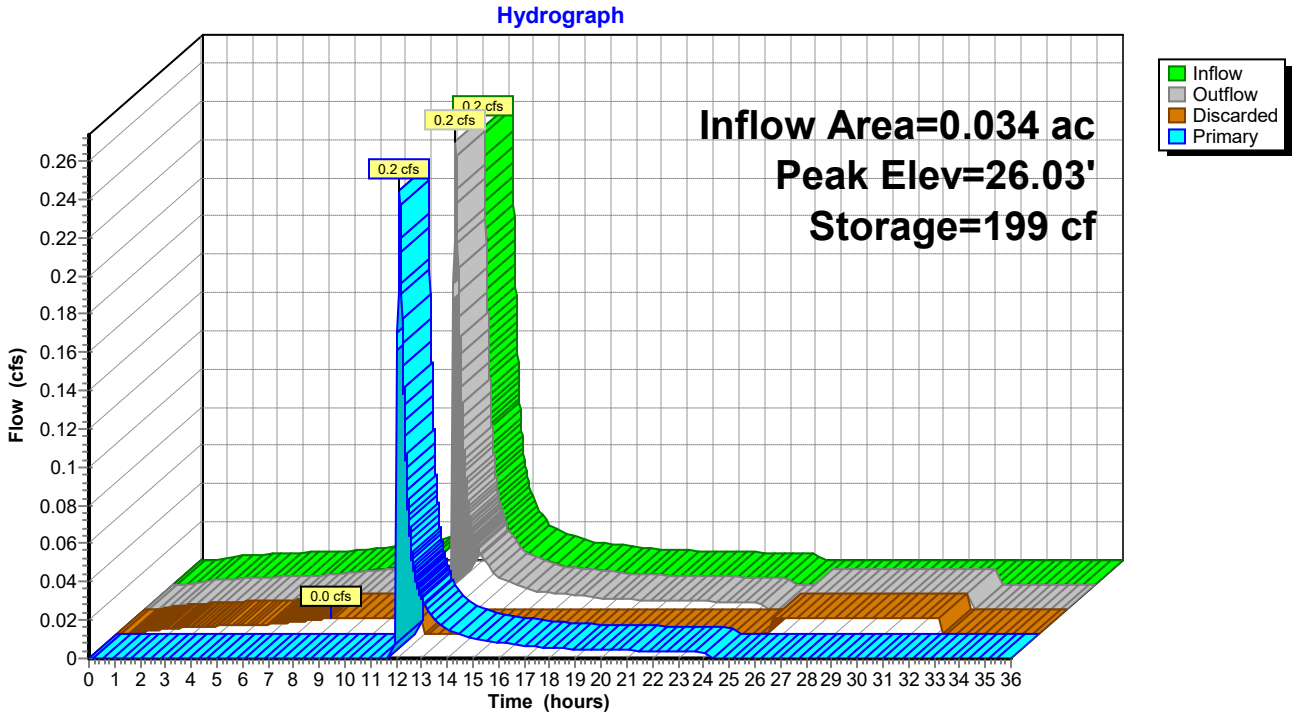
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 8.37 hrs HW=19.50' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.2 cfs @ 12.14 hrs HW=26.03' TW=0.00' (Dynamic Tailwater)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.42 fps)

Pond 4P: Drywell 3.04



Summary for Pond 5P: Drywell 3.05

Inflow Area = 0.032 ac,100.00% Impervious, Inflow Depth = 8.70" for 5-100yr event
Inflow = 0.2 cfs @ 12.14 hrs, Volume= 0.023 af
Outflow = 0.4 cfs @ 12.13 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 8.71 hrs, Volume= 0.010 af
Primary = 0.4 cfs @ 12.13 hrs, Volume= 0.013 af
Routed to Link DA1 : East Garfield Avenue

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 26.04' @ 12.13 hrs Surf.Area= 1 sf Storage= 199 cf

Plug-Flow detention time= 203.8 min calculated for 0.023 af (100% of inflow)
Center-of-Mass det. time= 203.9 min (948.2 - 744.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.49'	200 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

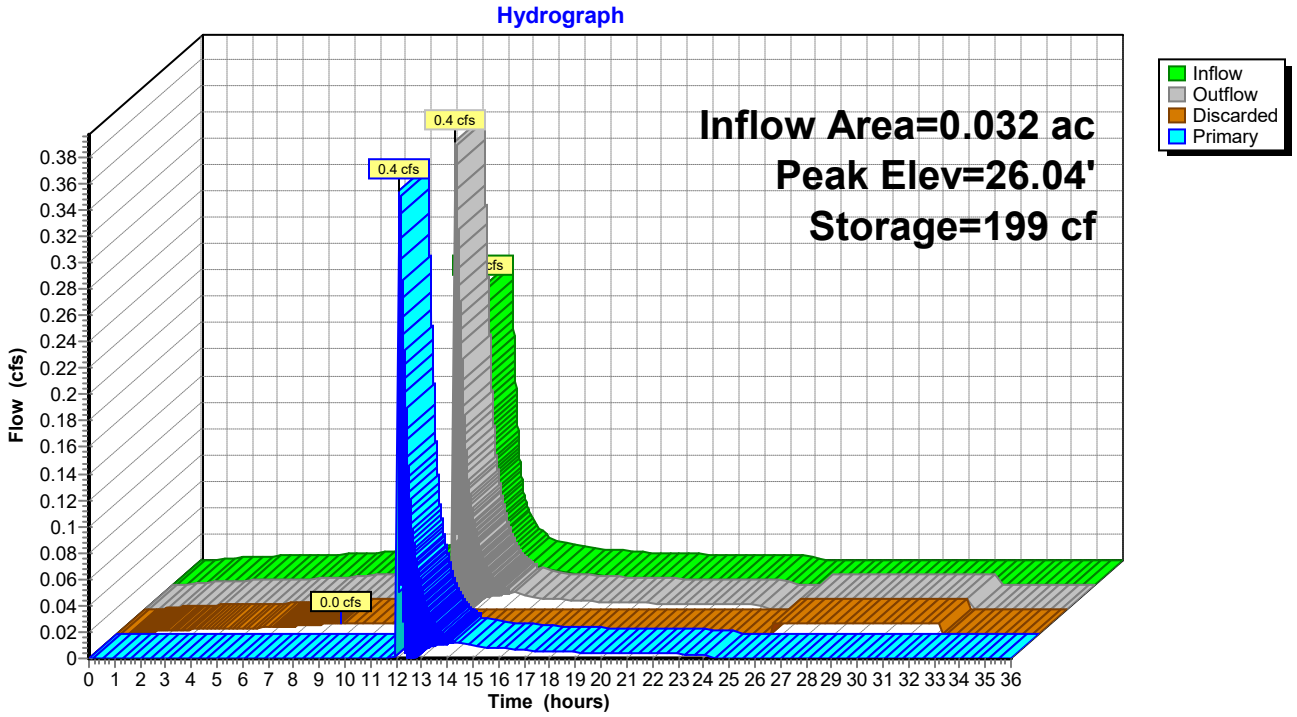
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.49	36	0.0	0	0
19.50	36	40.0	0	0
20.00	36	100.0	18	18
25.00	36	100.0	180	198
25.01	1	100.0	0	198
27.00	1	100.0	2	200

Device	Routing	Invert	Outlet Devices
#1	Primary	26.00'	**20.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Discarded	19.49'	**10.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Discarded OutFlow Max=0.0 cfs @ 8.71 hrs HW=19.50' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.4 cfs @ 12.13 hrs HW=26.04' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 0.4 cfs @ 0.48 fps)

Pond 5P: Drywell 3.05

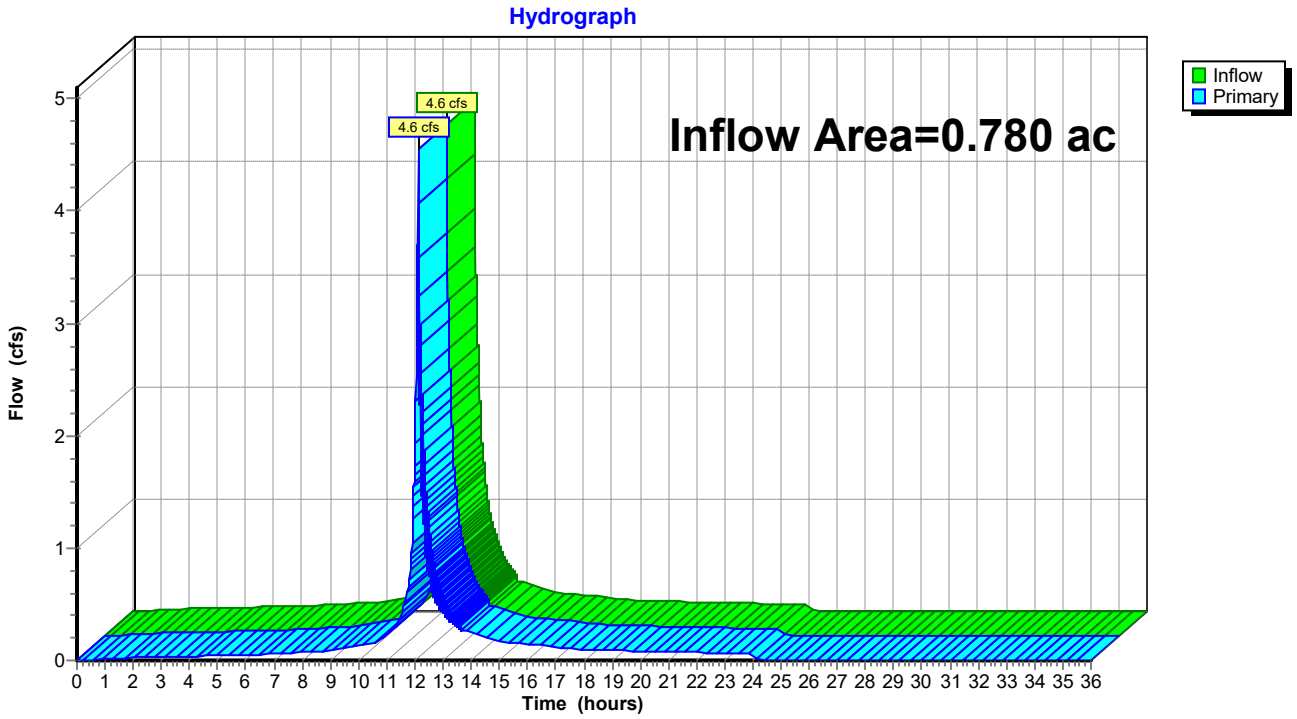


Summary for Link DA1: East Garfield Avenue

Inflow Area = 0.780 ac, 59.25% Impervious, Inflow Depth = 5.03" for 5-100yr event
Inflow = 4.6 cfs @ 12.11 hrs, Volume= 0.327 af
Primary = 4.6 cfs @ 12.11 hrs, Volume= 0.327 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA1: East Garfield Avenue

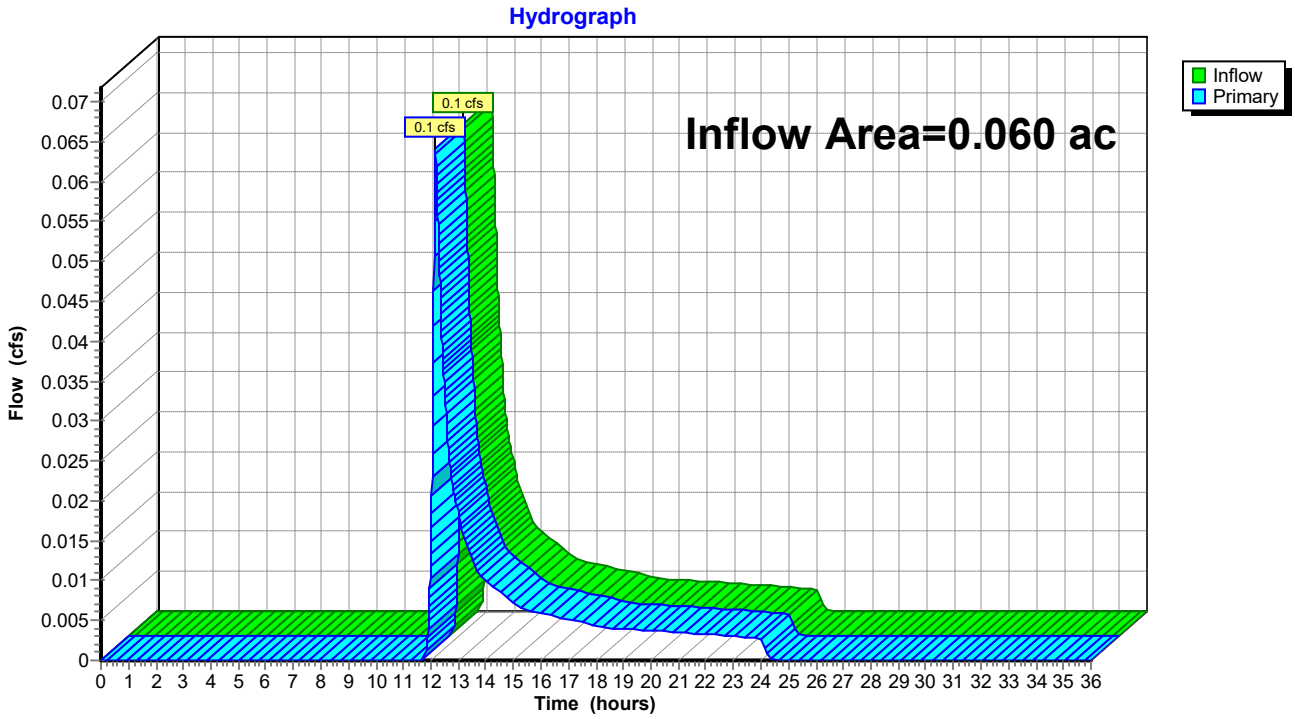


Summary for Link DA2: Lot 4 (West)

Inflow Area = 0.060 ac, 0.00% Impervious, Inflow Depth = 1.57" for 5-100yr event
Inflow = 0.1 cfs @ 12.16 hrs, Volume= 0.008 af
Primary = 0.1 cfs @ 12.16 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA2: Lot 4 (West)

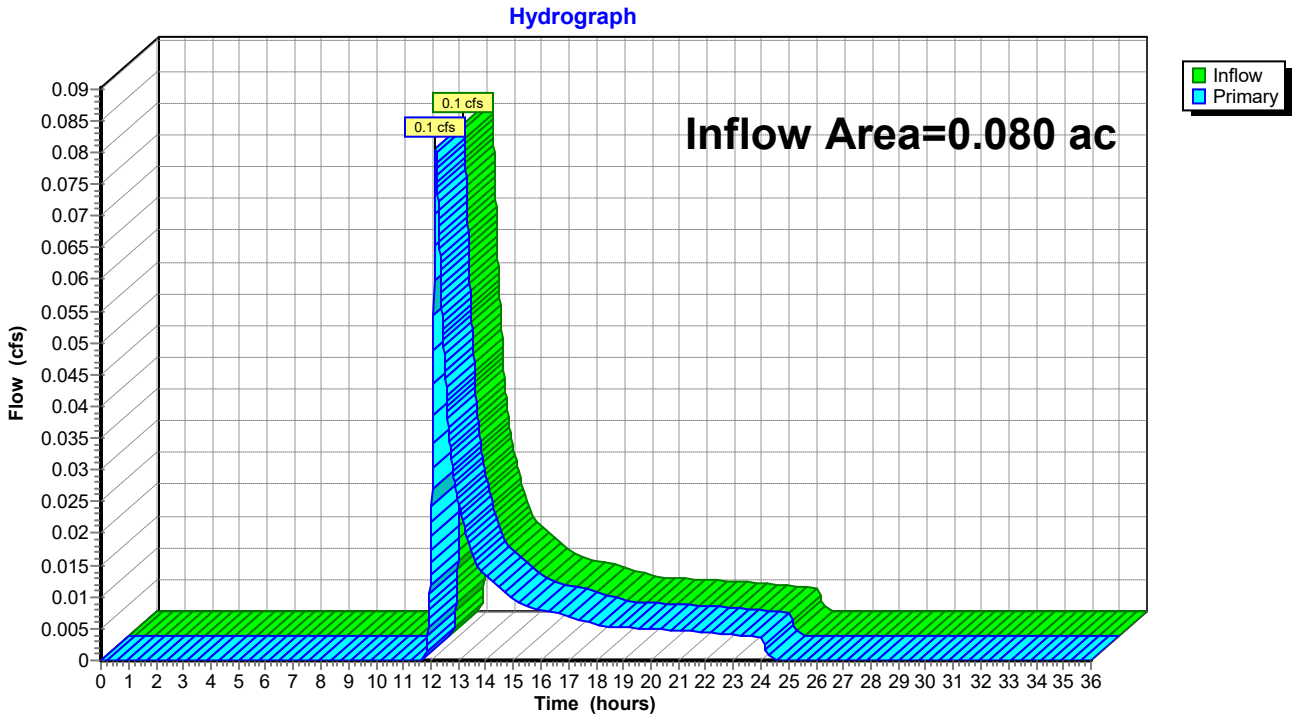


Summary for Link DA3: Northern property line

Inflow Area = 0.080 ac, 0.00% Impervious, Inflow Depth = 1.57" for 5-100yr event
Inflow = 0.1 cfs @ 12.17 hrs, Volume= 0.010 af
Primary = 0.1 cfs @ 12.17 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link DA3: Northern property line

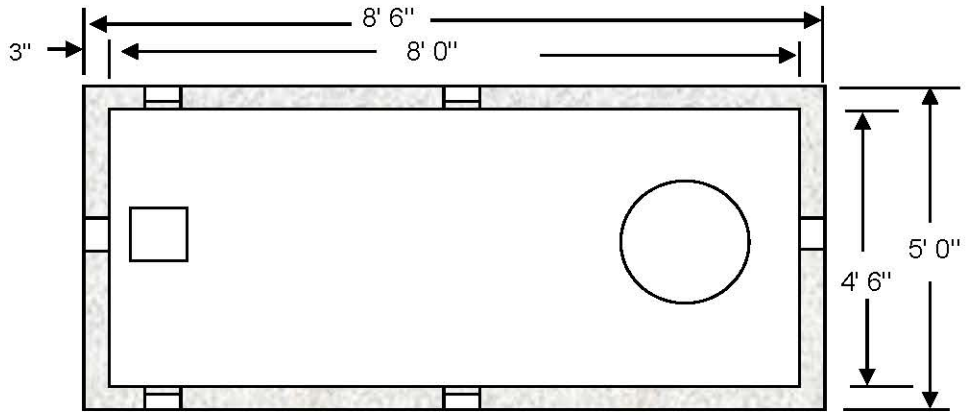


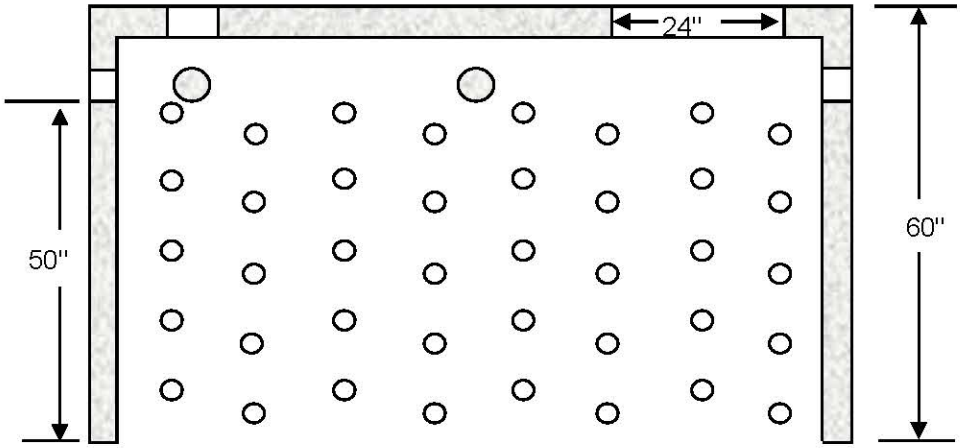
APPENDIX D

Drywell Detail

InSite Engineering, LLC
1955 Route 34, Suite 1A • Wall, NJ 07719
732-531-7100 (ph) • 732-531-7344 (fx) • InSite@InSiteEng.net • www.InSiteEng.net
Licensed in NJ, PA, DE, NY, CT, NC, DC, & CO

1250 GALLON 1PC DRY WELL





As Manufactured by Mershon Concrete - Bordentown, NJ

Notes:

1. Tank is 4000 psi concrete - steel reinforced
2. Concrete conforms to ACI 318-16-4.5.1 and ACI 318-16-4.5.2
3. In an effort to continually improve our products, Mershon Concrete reserves the right to change product design without notice.

MERSHON CONCRETE

Rt. 130, PO Box 254
Bordentown, NJ 08505

1-609-298-2150

1-800-MERSHON

1-609-298-7969 / FAX#

1250 Gallon Dry Well

APPENDIX E

Pre-Development Drainage Map

Post-Development Drainage Map

InSite Engineering, LLC
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