
PRELIMINARY STORMWATER POLLUTION
PREVENTION PLAN

**RENAISSANCE BRIARCLIFF
MANOR**

235 Elm Road
Village of Briarcliff Manor, NY

Applicant/Operator/Owner: **Rose Enterprises Group, Inc.**
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Prepared by:



JMC Project 24072

Dated: 10/10/2025

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JMC SITE PLANS

<u>Dwg. No.</u>	<u>Title</u>	<u>Rev. No./Date</u>
CS	COVER SHEET	10/10/2025
C-000	OVERALL EXISTING CONDITIONS MAP	10/10/2025
C-010	EXISTING CONDITIONS MAP	10/10/2025
C-070	DEMOLITION PLAN	10/10/2025
C-100	OVERALL SUBDIVISION PLAN	10/10/2025
C-110	LAYOUT PLAN	10/10/2025
C-210	GRADING PLAN	10/10/2025
C-310	UTILITY PLAN	10/10/2025

I. INTRODUCTION

This Stormwater Pollution Prevention Plan has been prepared for the 37.2 acre site, located at 235 Elm Road in Briarcliff Manor, Westchester County, New York (hereinafter referred to as the "Site"). The site is bordered by Elm Road to the north, Hawthorn Place to the south, Saw Mill River Road to the east, and Turtle Road to the west. The development has been designed in accordance with the following:

This project consists of the demolition and removal of the existing buildings, pavements, and tennis courts, and the construction of 110 multi-family units, clubhouse, community amenities, roadways and parking spaces. It also includes the creation of 5 single family lots on the west side of the site.

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 29, 2025.
- Chapter 184 "Stormwater, Drainage, Erosion and Water Pollution Control" of the Briarcliff Manor Zoning Code
- New York State Stormwater Management Design Manual, dated July 31, 2024

II. STORMWATER MANAGEMENT PLANNING

In order to be eligible for coverage under the NYSDEC SPDES General Permit No. GP-0-25-001 for Stormwater Discharges from Construction Activities, the Stormwater Pollution Prevention Plan (SWPPP) includes stormwater management practices (SMP's) from the publication "New York State Stormwater Management Design Manual," last revised July 2024.

A Stormwater Pollution Prevention Plan has been prepared for this project because it is a construction activity that involves:

- Soil disturbances of one (1) or more acres of land.

The proposed project type falls under Table 2 of Appendix B of GP-0-25-001. As a result, this SWPPP includes post-construction stormwater management practices (SMPs).

The proposed stormwater facilities have been designed such that the quantity and quality of stormwater runoff during and after construction are not adversely altered or are enhanced when compared to pre-development conditions.

Based on the GIS information provided by the website of the New York State Office of Parks, Recreation and Historic Places, the site does not contain, nor is it immediately adjacent to any properties listed on the State or National Register of Historic Places.

The Six Step Process for Stormwater Site Planning and Practice Selection

Stormwater management using green infrastructure is summarized in the six step process described below. The six step process was adhered to when developing this SWPPP. Information is provided in this SWPPP which documents compliance with the required process as follows:

Step 1: Site Planning

Implement planning practices that protect natural resources and utilize the hydrology of the site. Strong consideration must be given to reducing impervious cover to aid in the preservation of natural resources including protecting natural areas, avoiding sensitive areas and minimizing grading and soil disturbance.

Step 2: Determine Water Quality Treatment Volume (WQv)

Determine the required WQv for the site based on the site layout, impervious areas and sub-catchments. This initial calculation of WQv will have to be revised after green infrastructure techniques are applied. The following method has been used to calculate the WQv.

- **90% Rule** - According to the New York State Stormwater Design Manual, Section 4.2, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New York State in one year is used to calculate a volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

The project is a redevelopment and therefore will comply with the strategies outlined within Chapter 9: Redevelopment Projects of the Design Manual. There are different options to control water quality depending on the redevelopment.

Since the redevelopment results in the creation of additional impervious area, Water Quality Treatment Option II will be utilized which requires treatment for 25% of the redevelopment impervious area, plus 100% of the additional, new impervious area.

The plan proposes that a minimum of 25% of the water quality volume (WQv) from the disturbed area is captured and treated by the implementation of standard practices. When utilizing structural stormwater management practices, these practices should be targeted to treat areas with the greatest pollutant generation potential (e.g. parking areas, service stations, etc).

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

RRv is required for this project since it is a combination of both new development and redevelopment.

Green infrastructure techniques or standard SMP's with RRv capacity can potentially reduce the required WQv by incorporating combinations of green infrastructure techniques and standard SMP's within each drainage area on the site.

Green infrastructure techniques are grouped into two categories:

- Practices resulting in a reduction of contributing area such as preservation/restoration of conservation areas, vegetated channels, etc.
- Practices resulting in a reduction of contributing volume such as green roofs, stormwater planters, and rain gardens.

Apply a combination of green infrastructure techniques and standard SMPs with RRv capacity to provide 100% of the WQv calculated in Step 2. If the RRv calculated in this step is greater than or equal to the WQv in Step 2, the RRv requirement has been met and Step 4 can be skipped. If the RRv provided cannot meet or exceed 100% of the WQv, the project must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based on the Hydrologic Soil Group(s) (HSG) of the site and is defined as Specific Reduction Factor (S).

The Minimum RRv capacity required must be provided by green infrastructure techniques to verify that the RRv requirement has been met. The RRv that is provided by the green infrastructure techniques can then be subtracted from the Total Required WQv that must be provided by the SMP's.

Step 4: Determine the minimum RRv Required

The minimum RRv is calculated similar to the WQv. However, it is determined using only the new impervious cover and accounts for the hydrologic soil group present. In no case shall the runoff reduction achieved from the newly constructed impervious area be less than the minimum runoff reduction volume (RRv_{min}).

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

Apply the standard SMP's to meet additional water quality volume requirements that cannot be addressed by applying the green infrastructure techniques. The standard SMP's with RRv capacity must be implemented to verify that the RRv requirement has been met.

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

The Overbank Flood Control (Q_p) and Extreme Flood Control (Q_f) must be met for the plan to be completed. This is accomplished by using practices such as infiltration basins, dry detention basins, etc. to meet water quantity requirements. The following standards must be met:

- CPv is not required because reduction of the entire CPv volume is achieved at a site through runoff reduction or infiltration systems.

I. Overbank Flood Control (Q_p) which is the 10 year storm.

Overbank Flood Control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Q_p) to predevelopment rates. Overbank Flood Control shall be addressed for the entire site. If the site consists of multiple design points, Overbank Flood Control shall be determined and provided for each design point.

The overbank flood control requirement (Q_p) does not apply in certain conditions, including:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.
- A downstream analysis reveals that overbank control is not needed.

2. Extreme Flood Control (Q_f) which is the 100 year storm.

Extreme Flood Control requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Q_f) to predevelopment rates. Extreme Flood Control shall be addressed for the entire site. If the site consists of multiple design points, Extreme Flood Control shall be determined and provided for each design point.

The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams, where the increase in smaller flows will not impact the stream bank or channel integrity. The point of discharge must be protected against scour and erosion by the increased peak discharge.
- A downstream analysis reveals that 100-year control is not needed.
- If redevelopment results in no increase in impervious area or changes to hydrology that increase the discharge rate from the site the hundred-year criteria does not apply.

III. CLIMATE CHANGE CONSIDERATIONS

I. Increasing temperature

- The proposed project implements design and landscaping practices to consider the increasing temperatures as they relate to Climate Change. Landscaped areas are located to provide mitigation for extreme heat and the urban heat island effect by providing the most amount of shade and/or through the cooling effect of evapotranspiration, which releases water vapor and heat energy to the atmosphere. These landscaped areas include and are in addition to specific green infrastructure practices proposed throughout the project's design. Additional considerations were made in selecting plants species for the project. Species that are native to the surrounding area, as well as species that are resilient to the warmer temperatures were selected.

- Stormwater discharge locations have been selected to direct runoff to undisturbed and/or riparian areas that will aid in the cooling of stormwater runoff. There are proposed trees adjacent to the open ponds and their outfalls which would provide shade. Detaining water within underground practices will also help keep temperatures down.
2. Increasing precipitation
- The proposed hydrologic modeling accounts for the potential increase in precipitation due to climate change by utilizing the upper confidence limits of the Extreme Precipitation Estimates from the NRCC rainfall data. There is generally an 8-20 % increase in precipitation for the typically analyzed 1-, 10-, 100-yr 24hr rainfall events when compared to the average value previously used. This increase will result in systems being oversized during design by providing additional freeboard and storage volume so that they can accommodate the increased depths in the future due to the potential climate changes.
3. Increasing variability in precipitation, including chance of drought
- The proposed hydrologic modeling accounts for variability in the precipitation, including chance of drought, by analyzing our conveyance systems under different tailwater conditions to simulate longer rainfall periods and/or storm events back-to-back.
 - As far as drought conditions, the proposed landscape plantings are native and any areas of the site that are not irrigated have proposed drought tolerant species.
4. Increasing frequency and severity of flooding
- The proposed hydraulic modeling accounts for the potential increase in precipitation due to climate change by utilizing the upper confidence limits of the Intensity Frequency Duration Estimates from the NRCC rainfall data. The aforementioned increase will allow for systems to be oversized during design by providing additional capacity to accommodate the increased flow rates in the future.
 - Site design has been prepared to provide potential flood routes for stormwater runoff. The grading and drainage has been designed to ensure that stormwater runoff will be directed away from buildings and structures and towards landscaped areas, undeveloped areas and/or the on-site stormwater infrastructure. The stormwater infrastructure is also

designed with emergency spillways that will direct the runoff towards the aforementioned grassed, undisturbed, and/or undisturbed riparian areas away from buildings and established structures.

The site is not within the 100-year flood zone according to the National Flood Insurance Program Flood Insurance Rate Map (FIRM) No. 36119C0139F, effective date 09/28/2007. Therefore, the project is located in an area where flooding is not a concern.

5. Rising sea level

- Site design of grading and drainage has been prepared to ensure that buildings and structures are located above the Base Flood Elevations. Grading and drainage have been prepared to ensure that stormwater runoff will be directed away from buildings and structures and towards landscaped areas, undeveloped areas and/or the on-site stormwater infrastructure.
 - The site is not within a tidal area according to the Coastal New York Future Floodplain Mapper and the National Flood Insurance Program Flood Insurance Rate Map (FIRM). Therefore, the project is located in an area where flooding from rising sea levels is not a concern.

6. Increasing storm surge

- The proposed project incorporates a design that maintains undisturbed areas, which include but are not limited to (from Table 4.1 in the NYSDEC's Using Natural Measures to Reduce the Risk and Flooding and Erosion):
 - Stream – a natural waterway with a detectable current, having defined bed and banks, with perennial, intermittent or ephemeral flow.
 - Wetlands, Non-Tidal Freshwater – Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.

- Forests – an ecosystem characterized by at least 10 percent tree canopy cover, at least 1 acre in size and 120 feet in width, which is not primarily under agricultural or other specific non-forest land use.
- In addition to the preservation of existing features, constructed stormwater green infrastructure techniques have been utilized to mimic, accommodate or enhance the natural capture and infiltration of stormwater into the ground to reduce the risk of flooding and erosion to buildings and structures in upland areas.
- The proposed hydraulic modeling accounts for the potential increase in storm surge due to climate change by utilizing the upper confidence limits of the Intensity Frequency Duration Estimates from the NRCC rainfall data. The aforementioned increase will allow for systems to be oversized during design by providing additional capacity to accommodate the increased flow rates in the future.

7. Shifting ecology

- The proposed project implements design and landscaping practices that consider the potential shifting of the local ecology. While landscaping has been selected to provide species native to the area, due to the potential change in climate temperature, species resilient to the change have also been selected. These selections may introduce plant species not typically native to the surrounding areas. Considerations were made to ensure that planting species selected may still support the significant and natural communities or areas with rare or high quality wetlands, forests, grasslands, ponds, streams, and other habitat that are essential for the conservation of rare / endangered species.

Based on the foregoing, this project is eligible for coverage under NYSDEC SPDES General Permit No. GP-0-25-001.

IV. **STUDY METHODOLOGY**

Runoff rates were calculated based upon the standards set forth by the United States Department of Agriculture Natural Resources Conservation Service Technical Release 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986. The methodology set forth in TR-55 considers a multitude of characteristics for watershed areas including soil types, soil permeability, vegetative cover, time of concentration, topography, rainfall intensity, ponding areas, etc.

The 1, 10, 100 year storm recurrence intervals were reviewed in the design of the stormwater management facilities (see Appendices A & B Existing/Proposed Hydrologic Calculations).

Anticipated drainage conditions were analyzed taking into account the rate of runoff which will result from the construction of buildings, parking areas and other impervious surfaces associated with the site development.

Base Data and Design Criteria

For the stormwater management analysis, the following base information and methodology were used:

1. The site drainage patterns and outfall facilities were reviewed by JMC personnel for the purpose of gathering background data and confirming existing mapping of the watershed areas.
2. An Existing Drainage Area Map was developed from the topographical survey. The drainage area map reflects the existing conditions within and around the project area.
3. A Proposed Drainage Area Map was developed from the proposed grading design superimposed over the topographical survey. The drainage area map reflects the proposed conditions within the project area and the existing conditions to remain in the surrounding area.

4. The United States Department of Agriculture (USDA) Web Soil Survey of the site available on its website at <http://websoilsurvey.nrcd.usda.gov>.
5. The United States Department of Agriculture Natural Resources Conservation Service Technical Report No. 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986.
6. The time of concentration was calculated using the methods described in Chapter 3 of TR-55, Second Edition, June 1986. Manning's kinematics wave equation was used to determine the travel time of sheet flow. The 2-year 24 hour precipitation amount of 3.42 inches was used in the equation for all storm events. The travel time for shallow concentrated flow was computed using Figure 3-1 and Table 3-1 of TR-55. Manning's Equation was used to determine the travel time for channel reaches.
7. All hydrologic calculations were performed with the HydroCAD software package version 10.20-6a.
8. The New York State Stormwater Management Design Manual, revised July 2024.
9. New York Standards and Specifications for Erosion and Sediment Control, November 2016.
10. The storm flows for the 1-, 10-, & 100-year recurrence interval storms were analyzed for the total watershed areas. The distribution curves were developed from rainfall data and describe how a storm's total rainfall amount will be distributed over a specific length of time. Rainfall curves were generated using the NRCC and NRCS website and HydroCAD. The rainfall amounts are as follows:

24 Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall
1 Year	2.78
10 Year	5.13
100 Year	9.25

V. EXISTING CONDITIONS

The existing conditions of the project site consists of multi-story buildings, parking lots, roadways, and lawn areas. After stormwater runoff exits the project site, it flows to the east toward Saw Mill River Road and Pocantico River, or north down Elm Road.

The following natural features, conservation areas, resource areas and drainage patterns of the project site have been identified and utilized to develop Drawing DA-I “Existing Drainage Area Map” which is included in Appendix I:

- Wetlands (jurisdictional, wetland of special concern)
- Buffers (stream, wetland, forest, etc.)
- Forest, vegetative cover
- Topography (contour lines, existing flow paths, steep slopes, etc.)
- Soil (hydrologic soil groups, highly erodible soils, etc.)
- Bedrock, significant geology features

Based on the USDA Web soil survey, all on-site soils are poorly drained and belong to hydrological group ‘C’. The soil types, boundaries and drainage areas/designations are depicted on Drawing DA-I within Appendix I.

Five (5) separate Design Points (1 through 5) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, seven (7) separate drainage areas were identified

in existing conditions based on the existing drainage divides at the site. The numbers included in the name of each drainage area correspond to the Design Point they drain towards.

The following is a description of each of the drainage areas analyzed in the existing conditions analysis:

Existing Drainage Area 1A (EDA-1A) is 3.06 acres in size and is located on the North-Western portion of the site along Tuttle Road and Elm Road. This area consists of majority lawn, woods, and roadways/sidewalks, including the central courtyard of Dow Hall. This drainage area drains towards Elm Road into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 79 and 13.8 minutes, respectively.

Existing Drainage Area 1B (EDA-1B) is 2.19 acres in size and is located on the Northern portion of the site along Elm Road. This area consists of roadways, sidewalks, and the 2-story 'Howard Johnson Hall'. This drainage area drains towards Elm Road into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 85 and 10.8 minutes, respectively.

Existing Drainage Area 2A (EDA-2A) is 17.56 acres in size and is located on the Western portion of the site along Tuttle Road. This area consists of majority lawn and woods, roadways, sidewalks, parking lots, the rest of the buildings on site, and tennis courts. This drainage area drains through existing on-site storm infrastructure and is discharged into the wetland/stream on the south side of the site.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 85 and 13.6 minutes, respectively.

Existing Drainage Area 2B (EDA-2B) is 8.46 acres in size and is located on the Southern portion of the site behind residential homes. This area consists of lawns, woods, two of the tennis courts, and wetlands. This drainage area drains over land into the wetland/stream which runs down the hill toward South State Road.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 75 and 15 minutes, respectively.

Existing Drainage Area 3 (EDA-3) is 2.91 acres in size and is located on the North-Eastern portion of the site along Elm Road. This area consists of majority lawns and sidewalks. This drainage area drains down the hill toward South State Road.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 75 and 6.3 minutes, respectively.

Existing Drainage Area 4 (EDA-4) is 2.29 acres in size and is located on the Eastern side of the site. This area consists of majority lawns, woods, and sidewalks. This drainage area drains down the hill toward South State Road.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 75 and 9.3 minutes, respectively.

Existing Drainage Area 5 (EDA-5) is 0.70 acres in size and is located on the Eastern side of the site. This area consists of lawn and woods. This drainage area drains down the hill toward South State Road.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 76 and 7.1 minutes, respectively.

Refer to Drawing DA-I in Appendix E.

The peak rates of runoff to the design points from the drainage areas for each storm are shown in the table below:

Table I
Summary of Peak Rates of Runoff in Existing Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2	DP-3	DP-4	DP-5
1 year	5.86	28.48	2.74	1.85	0.68
10 year	14.56	69.69	8.43	5.74	2.03
100 year	28.25	134.89	17.92	12.34	4.25

VI. PROPOSED CONDITIONS

This project consists of the demolition and removal of the existing buildings, pavements, and tennis courts, and the construction of 110 multi-family units, clubhouse, community amenities, roadways and parking spaces. It also includes the creation of 5 single family lots on the west side of the site.

The proposed drainage improvements include vegetated swales and a subsurface system that will treat the impervious area being considered as new development. After treatment for water quality and peak rate attenuation, stormwater discharges from the system will utilize low velocity level-spreaders which will drain to the existing wetlands. The vegetated practices and overland discharges provide multiple opportunities for water quality enhancement and infiltration in addition to the proposed stormwater management practice.

Furthermore, in addition to these practices, the overall design of the project is consistent with the latest trends in Low Impact Development which includes multiple “disconnected” impervious areas. The project minimizes the use of piped stormwater to convey runoff to the stormwater management detention ponds and does not include any piped connections to existing storm sewer infrastructure after treatment. The vegetated swales and other overland conveyances of stormwater runoff will result in additional infiltration not considered in the SWPPP’s hydrologic model, resulting in a conservative analysis.

This section describes the design and analysis of the proposed conditions used to demonstrate that the SWPPP meets the requirements of the General Permit.

The Six Step Process For Stormwater Site Planning and Practice Selection

Step 1: Site Planning

The following practices and site features were incorporated in the site design:

- Preserving hydrology - Maintaining drainage divides
- Forest, vegetative cover – The maximum amount of forest and vegetative cover has been maintained and/or provided.
- Critical areas have been preserved.
- Topography (contour lines, existing flow paths, steep slopes, etc.) has been maintained or disturbed to the minimum extent practicable.
- Soil (hydrologic soil groups, highly erodible soils, etc.)
- Bedrock, significant geology features have been accounted for.

Step 2: Determine Water Quality Treatment Volume (WQv)

Determine the required WQv for the site based on the site layout, impervious areas and sub-catchments. This initial calculation of WQv will have to be revised after green infrastructure techniques are applied. The following method has been used to calculate the WQv.

- **90% Rule** - According to the New York State Stormwater Design Manual, Section 4.2, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New

York State in one year is used to calculate a volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

The project is a redevelopment and therefore will comply with the strategies outlined within Chapter 9: Redevelopment Projects of the Design Manual. There are different options to control water quality depending on the redevelopment.

Since the redevelopment results in the creation of additional impervious area, Water Quality Treatment Option II will be utilized which requires treatment for 25% of the redevelopment impervious area, plus 100% of the additional, new impervious area.

The plan proposes that a minimum of 25% of the water quality volume (WQv) from the disturbed area is captured and treated by the implementation of standard practices. When utilizing structural stormwater management practices, these practices should be targeted to treat areas with the greatest pollutant generation potential (e.g. parking areas, service stations, etc).

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

- **INFILTRATION PRACTICES**

- Underground Infiltration (I-4)

- Description

- Underground Infiltration systems are designed to capture and temporarily store stormwater runoff in pre-manufactured pipes, vaults, or other modular structures, while infiltrating into the surrounding soils

Step 4: Determine the minimum RRv Required

RRv_{min} calculations can be found in Appendix 'X'. RRv_{min} was met through a subsurface infiltration system.

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

- **INFILTRATION PRACTICES**

- Underground Infiltration (I-4)

- Description

- Underground Infiltration systems are designed to capture and temporarily store stormwater runoff in pre-manufactured pipes, vaults, or other modular structures, while infiltrating into the surrounding soils

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

- **INFILTRATION PRACTICES**

- Underground Infiltration (I-4)

- Description

- Underground Infiltration systems are designed to capture and temporarily store stormwater runoff in pre-manufactured pipes, vaults, or other modular structures, while infiltrating into the surrounding soils

JMC has discussed in a meeting with NYSDEC engineers/staff that the equation for the minimum area of the underground infiltration systems (I-4) is not always applicable. This is particularly notable when analyzing larger storm events, such as cases where the design

storm is a one-year storm event. The intent of the equation is to ensure that the practice is designed to infiltrate the entire WQv. The proposed practice has been designed to infiltrate the 1-year storm event and the minimum area calculation has been met for a 90% storm event. This is demonstrated in the stormwater calculations located in Appendix B of this SWPPP. A note has been added to the NYSDEC calculation sheets to this effect. This is a deviation from the design standards but we are demonstrating equivalency.

All practices exceed the required elements of SMP criteria as outlined in Chapter 6 of the NYS Stormwater Management Design Manual. A summary of each category is provided below.

1. Feasibility – Stormwater practices are designed based upon unique physical environmental considerations noted in the NYS Stormwater Management Design Manual (NYSSMDM).
2. Conveyance – The design conveys runoff to the designed stormwater practice in a manner that is safe, minimizes erosion and disruption to natural drainage channel and promotes filtering and infiltration.
3. Pretreatment – All stormwater practices provide pretreatment as required in accordance with NYSSMDM design guidelines.
4. Treatment Geometry – The plan provides water quality treatment in accordance with NYSSMDM guidelines.
5. Landscaping – Extensive landscaping has been provided for each proposed stormwater practice to enhance pollutant removal and provide aesthetic enhancement to the property.
6. Maintenance – Maintenance for the environment practices has been provided and is detain the SWPPP Report as required. Maintenance access is provided in the design plans.

In order to determine the post-development rates of runoff generated on-site, the following drainage areas were analyzed in the post-development conditions. These areas are graphically depicted on Drawing DA-2 "Proposed Drainage Area Map" located in Appendix "E".

Five (5) separate Design Points (1 through 5) were identified for comparing peak rates of runoff in existing and proposed conditions. Similarly, nine (9) separate drainage areas were identified in proposed conditions based on the proposed drainage divides at the site. The numbers included in the name of each drainage area correspond to the Design Point they drain towards.

The following is a description of each of the drainage areas analyzed in the proposed conditions analysis:

Proposed Drainage Area 1A (PDA-1A) is 5.36 acres in size and is located on the Western portion of the site along Tuttle Rd. This area consists of the new single-family lots, sidewalks, roadways, lawn, and woods. This drainage area drains towards Elm Road and into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 75 and 16.1 minutes, respectively.

Proposed Drainage Area 1B (PDA-1B) is 1.12 acres in size and is located on the Northern portion of the site along Elm Rd. This area consists of sidewalks, roadways, and lawn. This drainage area drains towards Elm Road and into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 80 and 6 minutes, respectively.

Proposed Drainage Area 2A (PDA-2A) is 3.74 acres in size and is located centrally in the site. This area consists of the new multi-family buildings, sidewalks, roadways, lawn, and the central clubhouse and park. This drainage area drains into the proposed subsurface infiltration system, and is conveyed through HDPE pipes before being discharged into the existing stream located on

the southeastern corner of the site.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 88 and 6 minutes, respectively.

Proposed Drainage Area 2B (PDA-2B) is 7.31 acres in size and is located centrally within the site. This area consists of the new multi-family buildings, sidewalks, roadways, and lawn. This drainage area is captured by proposed catch basins and manholes before being conveyed by HDPE pipe to the discharge point in the stream located on the southeastern corner of the site.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 88 and 16 minutes, respectively.

Proposed Drainage Area 2C (PDA-2C) is 4.51 acres in size and is located centrally within the site. This area consists of the new multi-family buildings, sidewalks, roadways, and lawn. This drainage area is captured by proposed catch basins and manholes before being conveyed by HDPE pipe to the discharge point in the stream located on the southeastern corner of the site.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 91 and 6 minutes, respectively.

Proposed Drainage Area 2D (PDA-2D) is 10 acres in size and is located on the southern portion of the site. This area consists of the sidewalks, lawn, and woods, as well as the wetland and stream located on site. This drainage area drains overland to the stream and down the hill toward South State Rd.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 72 and 15.7 minutes, respectively.

Proposed Drainage Area 3 (PDA-3) is 2.66 acres in size and is located on the Northeastern portion of the site. This area consists of sidewalks, lawn, and woods. This drainage area drains

overland toward South State Road and into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 71 and 6 minutes, respectively.

Proposed Drainage Area 4 (PDA-4) is 1.93 acres in size and is located on the Eastern portion of the site. This area consists of sidewalks, lawn, and woods. This drainage area drains overland toward South State Road and into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 71 and 6 minutes, respectively.

Proposed Drainage Area 5 (PDA-5) is 0.44 acres in size and is located on the Eastern portion of the site. This area consists of sidewalks, lawn, and woods. This drainage area drains overland toward South State Road and into the existing stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 71 and 6 minutes, respectively.

Refer to Drawing DA-2 in Appendix I.

The peak rates of runoff to the design point of each of the analyzed drainage areas for each storm are shown on the table below:

Table 3
Summary of Proposed Peak Rates of Runoff in Proposed Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2	DP-3	DP-4	DP-5
1 year	4.16	20.65	1.80	1.30	0.30
10 year	12.79	52.46	6.65	4.82	1.10
100 year	27.71	110.22	15.23	11.05	2.53

The reductions in peak rates of runoff from proposed to existing conditions are shown on the table below:

Table 4
Percent Reductions in Peak Rates of Runoff (Existing vs. Proposed Conditions)
(Cubic Feet per Second)

Design Point	Storm Recurrence Frequency (Years)	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	1 year	5.86	4.16	29.01%
	10 year	14.56	12.79	12.16%
	100 year	28.25	27.71	1.91%
2	1 year	28.48	20.65	27.49%
	10 year	69.69	52.46	24.72%
	100 year	134.89	110.22	18.29%
3	1 year	2.74	1.80	34.31%
	10 year	8.43	6.65	21.12%
	100 year	17.92	15.23	15.01%
4	1 year	1.85	1.30	29.73%
	10 year	5.74	4.82	16.03%
	100 year	12.34	11.05	10.45%
5	1 year	0.68	0.30	55.88%
	10 year	2.03	1.10	45.81%
	100 year	4.25	2.53	40.47%

As demonstrated in Table 4, the proposed stormwater improvements will result in significant reductions of peak rates of runoff for all storms and design points analyzed.

VII. SOIL EROSION & SEDIMENT CONTROL

A potential impact of the proposed development on any soils or slopes will be that of erosion and transport of sediment during construction. An Erosion and Sediment Control Management Program will be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and Specifications for Erosion and Sediment Control," November 2016. A continuing maintenance

program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

The Operator shall have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the Sediment & Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. In addition, the Operator shall have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time.

Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the trained contractor. The owner or operator shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed.

Soil Description

As provided by the United States Department of Agriculture, Soil Conservation Service "Web Soil Survey," soil classifications which exist on the subject site are described below.

Soils are placed into four hydrologic groups: A, B, C, and D. In the definitions of the classes, infiltration rate is the rate at which water enters the soil at the surface and is controlled by the surface conditions. Transmission rate is the rate at which water moves in the soil and is controlled by soil properties. Definitions of the classes are as follows:

- A. (Low runoff potential). The soils have a high infiltration rate even when thoroughly wetted. They chiefly consist of deep, well drained to excessively drained sands or gravels. They have a high rate of water transmission.
- B. The soils have a moderate infiltration rate when thoroughly wetted. They chiefly are moderately deep to deep, moderately well drained to well drained soils that have moderately fine to moderately coarse textures. They have a moderate rate of water transmission.
- C. The soils have a slow infiltration rate when thoroughly wetted. They chiefly have a layer that impedes downward movement of water or have moderately fine to fine texture. They have a slow rate of water transmission.
- D. (High runoff potential). The soils have a very slow infiltration rate when thoroughly wetted. They chiefly consist of clay soils that have a high swelling potential, soils that have a permanent high water table, soils that have a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. They have a very slow rate of water transmission.

A soil's tendency to erode is also described in the USDA web soil survey. The ratings in this interpretation indicate the hazard of soil loss from unsurfaced areas. The ratings are based on soil erosion factor K, slope, and content of rock fragments. The hazard is described as "slight," "moderate," or "SEVERE." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the temporarily unsurfaced / unstabilized during construction may require occasional maintenance, and that simple erosion-control measures are needed; and "SEVERE" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that erosion-control measures are needed.

Per the Soil Survey, the following soils listed below are present at the site. Following this list is a detailed description of each soil type found on the property:

SYM. HYDRO. SOIL GROUP		DESCRIPTION
PnB	C	Paxton fine sandy loam, 3 to 8% slope
PnC	C	Paxton fine sandy loam, 8 to 15% slope
PnD	C	Paxton fine sandy loam, 15 to 25% slope

Depth to the top of a seasonal high water table is 2ft. Available water capacity is 3.5 inches.

Hydrologic group: C

Erosion Hazard Rating: **NOT RATED**

On-Site Pollution Prevention

There are temporary pollution prevention measures used to control litter and construction debris on site, such as:

- Silt Fence
- Manufactured Insert Inlet Protection
- Stone Check Dam

There will be inlet protection provided for all storm drains and inlets with the use of curb gutter inlet protection structures and stone & block drop inlet protection, which keep silt, sediment and construction litter and debris out of the on-site stormwater drainage system.

Temporary Control Measures

Temporary control measures and facilities will include silt fences, stabilized construction access, temporary seeding, and mulching.

Descriptions of the temporary sediment & erosion controls that will be used during the development of the site including silt fence, stabilized construction access, seeding, mulching and inlet protection are as follows:

- I. Silt Fence is constructed using a geotextile fabric. The fence will be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences will not be placed in

areas which receive concentrated flows such as ditches, swales and channels nor will the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.

2. Stabilized Construction Access consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 24 feet in width by 6 inches in depth.
3. Seeding will be used to create a vegetative surface to stabilize disturbed earth until at least 80% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining will also be used to line temporary channels and the surrounding disturbed areas.
4. Mulching is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas will be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket. Mulch must be placed after seeding or within 48 hours after seeding is completed.
5. Inlet Protection will be provided for all stormwater basins and inlets with the use of curb & gutter inlet protection and stone & block inlet protection structures, which will keep silt, sediment and construction debris out of the storm system. Existing structures within existing paved areas will be protected using "Manufactured Insert Inlet Protection" inside the structures.
6. Erosion Control Matting will be utilized on slopes and within swales, where applicable, to provide stabilization in advance of vegetation being established. Such matting will be biodegradable to facilitate long term growth of vegetation in swales, on slopes and within stormwater management facilities.

The contractor shall be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following tasks:

1. For dust control purposes, moisten all exposed graded areas with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).
2. Inspection of erosion and sediment control measures shall be performed at the end of each construction day and immediately following each rainfall event. All required repairs shall be immediately executed by the contractor.
3. Sediment deposits shall be removed when they reach approximately $\frac{1}{3}$ the height of the silt fence. All such sediment shall be properly disposed of in fill areas on the site, as directed by the Owner's Field Representative. Fill shall be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.
4. Rake all exposed areas parallel to the slope during earthwork operations.
5. Following final grading, the disturbed area shall be stabilized with a permanent surface treatment (i.e. turf grass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for seven or more days shall be stabilized with the temporary seed mixture, as defined on the plans. Seed all piles of dirt in exposed soil areas that will not receive a permanent surface treatment.

Concrete Material and Equipment Management

Concrete washouts shall be used to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. The washout facilities consolidate solid for easier disposal and prevent runoff of liquids. The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding.

Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

Prefabricated concrete washout containers can be delivered to the site to provide maintenance and disposal of materials. Regular pick-ups of solid and liquid waste materials will be necessary. To prevent leaks on the job site, ensure that prefabricated washout containers are watertight. A self installed concrete washout facility can be utilized although they are much less reliable than prefabricated containers and are prone to leaks. There are many design options for the washout, but they are preferably built below-grade to prevent breaches and reduce the likelihood of runoff. Above-grade structures can also be used if they are sized and constructed correctly and are diligently maintained. One of the most common problems with self-installed concrete washout facilities is that they can leak or be breached as a result of constant use, therefore the contractor shall be sure to use quality materials and inspect the facilities on a daily basis.

Washouts must be sized to handle solids, wash water, and rainfall to prevent overflow. Concrete Washout Systems, Inc. estimates that 7 gallons of wash water are used to wash one truck chute and 50 gallons are used to wash out the hopper of a concrete pump truck.

For larger sites, a below-grade washout should be at least 10 feet wide and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 12-inches of freeboard must be provided. The pit must be lined with plastic sheeting of at least 10-mil thickness without holes or tears to prevent leaching of liquids into the ground. Concrete wash water should never be placed in a pit that is connected to the storm drain system or that drains to nearby waterways.

An above-grade washout can be constructed at least 10 feet wide by 10 feet long and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 4-inches of freeboard must be provided. The washout structures can be constructed with staked straw bales or sandbags double-or triple lined with plastic sheeting of at least 10-mil thickness without holes or tears.

Concrete washout facilities shall not be located within 100 feet of storm drains, open ditches, or water bodies and should be placed in locations that allow for convenient access for concrete trucks. The contractor shall check all concrete washout facilities daily to determine if they have been filled to 75 percent capacity, which is when materials need to be removed. Both above-and below-ground self-installed washouts should be inspected daily to ensure that plastic linings are intact and sidewalls have not been damaged by construction activities. Prefabricated washout containers should be inspected daily as well as to ensure the container is not leaking or nearing 75 percent capacity. Inspectors should also note whether the facilities are being used regularly. Additional signage for washouts may be needed in more convenient locations if concrete truck operators are not utilizing them.

The washout structures must be drained or covered prior to predicted rainstorms to prevent overflows. Hardened solids either whole or broken must be removed and then they may be reused onsite or hauled away for recycling.

Once materials are removed from the concrete washout, a new structure must be built or excavated, or if the previous structure is still intact, inspect it for signs of weakening or damage and make any necessary repairs. Line the structure with new plastic that is free of holes or tears and replace signage if necessary. It is very important that new plastic be used after every cleaning because pumps and concrete removal equipment can damage the existing liner.

Construction Site Chemical Control

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides; fertilizers used for vegetative stabilization; petrochemicals;

construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary waste.

Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State and local regulations that govern their usage, handling, storage, and disposal.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.

Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage areas, and notifying neighboring property owners prior to spraying.

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity of 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and
- Keep lids securely fastened.

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.

Thinners or solvents should not be discharged into sanitary or storm systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled.

Solid Waste Management and Portable Sanitary Management

The purpose of this management measure is to prevent the potential for solid waste such as construction debris, trash, etc. from construction sites due to improper handling and storage. Debris and litter should be removed periodically from the BMP's and surrounding areas to prevent clogging of pipes and structures. All construction material shall be stored in designated staging areas. Roll-off containers shall be placed on site and all empty containers, construction debris and litter shall be placed in the containers.

Portable sanitary units may be utilized on-site or bathrooms will be provided within construction trailers. A sanitation removal company will be hired to pump/remove any sanitary waste. In the event that portable sanitary units are used and then cleaned after being emptied, the rinse water may not be disposed of to the storm drain system. It shall be contained for later disposal if it can't be disposed of on-site. Remove paper and trash before cleaning the portable sanitary units. The portable sanitary units shall be located away from the storm drain system if possible. Provide over head cover for wash areas if possible. Maintain spill response material and equipment on site to eliminate the potential for contaminants and wash water from entering the storm drain system.

Permanent Control Measures and Facilities for Long Term Protection

Towards the completion of construction, permanent sediment and erosion control measures will be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. Vegetated Swales will function to provide additional treatment of stormwater runoff by removal of pollutants and will promote a reduction of peak flows and provide runoff infiltration.
2. Hydrodynamic Water Quality Structure will be used to provide pretreatment of the water quality flow rate for separating sediment, debris, floatables, etc. from the runoff prior to discharge to the SMP's. The Water Quality Structure has been designed to treat up to the required water quality volume and appropriately handle all storm frequencies without the resuspension of solids. The system will provide 80% TSS removal rate for particles having a mean particle size of 125 microns for stormwater runoff.
3. Underground Infiltration System (I-4) which is a standard SMP that will be used to treat the runoff volume generated from a portion of the developed area and provide additional water quality and runoff volume reduction. The smaller storms will be retained and the higher storms will be released gradually.

The StormTech MC-3500 Recharge Chambers are domed shaped fully opened bottom corrugated chambers with perforated side walls. Chambers allow stormwater to be stored within the dome void until it can infiltrate into the ground. They are able to be used for residential, commercial or industrial applications and provide an easy way to treat and dispose of stormwater runoff underground. Water is infiltrated into the ground through the chambers and surrounding crushed stone and will replenish the groundwater as a natural condition.

The Isolator Row is a row of StormTech chambers that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as stormwater rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage access of the adjacent stone and chambers from sediment accumulation.

The Isolator Row is designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but includes a high flow weir such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other standard chambers. By treating stormwater prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured.

4. Catch Basins will be used to remove some of the coarse sand and grit sediment before entering the drainage system. Each catch basin will be constructed with an 18 inch deep sump.
5. Rip-Rap Energy Dissipators At discharge points from the stormwater drainage system into the stormwater management basins, rip-rap pads consisting of angular rocks will be placed to dissipate velocity and reduce the risk of erosion. The rip-rap pads will be 10 feet wide by 10 feet long.
6. Seeding of at least 80% perennial vegetative cover will be used to produce a permanent uniform erosion resistant surface. The seeded areas will be mulched with straw at a rate of 2 tons per acre such that the mulch forms a continuous blanket.

Specifications for Soil Restoration

Prior to the final stabilization of the disturbed areas, soil restoration will be required for all vegetated areas to recover the original properties and porosity of the soil. Soil Restoration Requirements are provided on Table 7 below:

Table 7

Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	HSG A&B	HSG C&D	Protect area from any ongoing construction activities
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A&B	HSG C&D	Clearing and grubbing
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration**	
Heavy traffic areas on site (especially) in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area.
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008."

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following full soil restoration steps applied:

1. Apply 3 inches of compost over subsoil.
2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.

Specifications for Final Stabilization of Graded Areas

Final stabilization of graded areas consists of the placement of topsoil and installation of landscaping (unless the area is to be paved, or a building is to be constructed in the location). Topsoil is to be spread as soon as grading operations are completed. Topsoil is to be placed to a minimum depth of six inches on all embankments, planting areas and seeding/sod areas. The subgrade is to be scarified to a depth of two inches to provide a bond of the topsoil with the subsoil. Topsoil is to be raked to an even surface and cleared of all debris, roots, stones and other unsatisfactory material.

Planting operations shall be conducted under favorable weather conditions as follows:

- Permanent Lawns - April 15 (provided soil is frost-free and not excessively moist) to May 15; August 15 to October 15.
- Temporary Lawn Seeding - if outside of the time periods noted above, the areas shall be seeded immediately on completion of topsoil operations with annual ryegrass (Italian rye) at a rate of six pounds per 1,000 square feet. Temporary lawn installation is permitted provided the soil is frost-free and not excessively moist. The permanent lawn is to be installed the next planting season.

On slopes with a grade of 3 horizontal to 1 vertical or greater, and in swales, a geotextile netting or mat shall be installed for stabilization purposes as shown on the Plans. Seeded areas are to be

mulched with straw or hay at an application rate of 70-90 pounds per 1,000 s.f. Straw or hay mulch must be spread uniformly and anchored immediately after spreading to prevent wind blowing. Mulches must be inspected periodically and in particular after rainstorms to check for erosion. If erosion is observed, additional mulch must be applied. Netting shall be inspected after rainstorms for dislocation or failure; any damage shall be repaired immediately.

All denuded surfaces which will be exposed for a period of over two months or more shall be temporarily hydroseeded with (a) perennial ryegrass at a rate of 40 lbs per acre (1.0 lb per 1000 square feet); (b) Certified "Aroostook" winter rye (cereal rye) @ 100 lb per acre (2.5 lb/1000 s.f.) to be used in the months of October and November.

Permanent turfgrass cover is to consist of a seed mixture as follows:

(a) Sunny sites

Kentucky Bluegrass	2.0-2.6 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	0.4-0.6 pounds/1000 square feet

(b) Shady sites

Kentucky Bluegrass	0.8-1.0 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	2.6-3.3 pounds/1000 square feet

All plant materials shall comply with the standards of the American Association Of Nurserymen with respect to height and caliper as described in its publication American Standard for Nursery Stock, latest edition.

VIII. CONSTRUCTION PHASE AND POST-CONSTRUCTION MAINTENANCE

During the construction phase and following construction of the project, a number of maintenance measures will be taken with respect to the site maintenance. Measures to be taken included the following:

I. During Construction

A comprehensive sediment and erosion control plan will be in place during the construction period. Maintenance measures for sediment and erosion controls will include:

A qualified professional acceptable to the municipality will be hired by the owner or operator to monitor the installation and maintenance of the sediment and erosion control plans. The qualified professional shall report directly to the Engineering Consultant and shall be responsible for ensuring compliance with the design of the sediment and erosion control plans.

The qualified professional so hired will inspect all sediment and erosion control measures at least every seven calendar days. In the event that there has been a variance with the design of the sediment and erosion control measures so that the ability of the measures to adequately perform the intended function is lessened or compromised and/or the facilities are not adequately maintained, the qualified professional shall be required to report such variance to the Engineering Consultant within 48 hours and shall be empowered to order immediate repairs to the sediment and erosion control measures.

The qualified professional will also be responsible for observing the adequacy of the vegetation growth (trees, shrubs, groundcovers and turfgrasses) in newly graded areas and for ordering additional plantings in the event that the established plant materials do not adequately protect the ground surface from erosion.

2. Following Construction

Site maintenance activities on the property will include:

- Grounds maintenance, including mowing of lawns;
- Planting of trees, shrubs and groundcovers; pruning of trees and shrubs;
- Application of fertilizer and herbicides;
- Maintenance of stormwater management area;

Grounds maintenance on the site will be performed by landscaping contractor.

Fertilizer is typically applied twice in the year - once in the spring and once in the fall. The application of fertilizer is usually necessary to maintain healthy lawn growth due to competition for nutrients with trees and shrubs and since the clippings are often removed. It is not recommended that fertilizer be applied during the summer. It is at this time that lawns are typically dormant.

Fertilizers come in three basic types: (1) Organic; (2) Soluble synthetic and (3) Slow release.

Organic fertilizers are derived from plant or animal waste. Since they are heavier and bulkier than other fertilizers, it is necessary to apply a much greater amount at one time. Soluble synthetic fertilizers are predictable with determining the exact impact on a lawn. However more applications are necessary since their effect is often short term. Slow release fertilizers have a high percentage of nitrogen so quantities that need be handled at one time are smaller. Slow release fertilizers will be utilized by the project.

Per Chapter 863, Article XXVIII of Westchester County Code of Ordinances, no fertilizer containing more than 0% phosphorus shall be used, unless testing confirms the need for additional phosphorus.

Fertilizer shall be applied by the landscape contractor in accordance with the manufacturer's instructions. The application of fertilizer does require some skill on the part of the operator. Should there be a spill of fertilizer, the landscape contractor shall be required to scrape or vacuum it up. The area will then be watered in accordance with the manufacturer's instructions to ensure that the fertilizer becomes soluble and available to plants and does not run off.

Rose Enterprises Group, Inc. will be responsible for the long-term operation and maintenance of the permanent stormwater management practices. The permanent stormwater management practices shall be maintained in accordance with the Maintenance Inspection Checklists provided in Appendix D.

IX. CONCLUSION

This Stormwater Pollution Prevention Plan has been prepared to describe the project's pre and post-development stormwater management improvements and its sediment and erosion control improvements to be utilized during construction. The proposed permanent improvements and the interim improvements to be utilized during construction have been designed in accordance with the requirements of the:

- New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-25-001, effective January 29, 2020.
- New York City Environmental Protection (NYCEP, formerly NYCDEP) Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources, amended February 28, 2025.
- Chapter 184 "Stormwater, Drainage, Erosion and Water Pollution Control" of the Briarcliff Manor Zoning Code
- New York State Stormwater Management Design Manual.

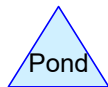
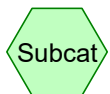
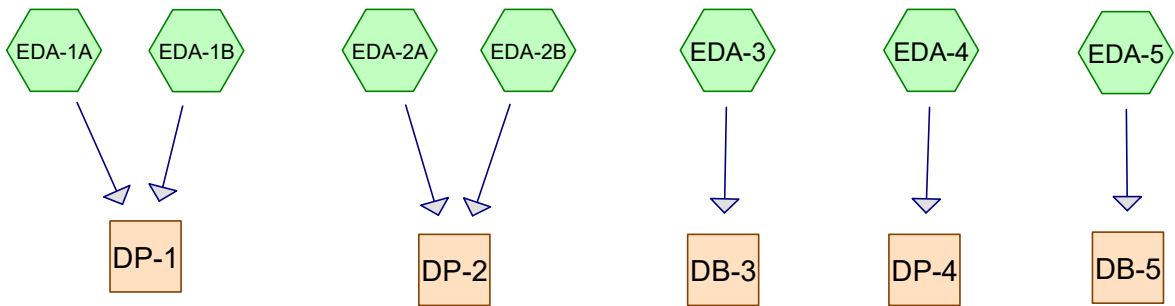
The project employs a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the proposed improvements. These measures include a subsurface infiltration system. These improvements will also mitigate runoff volumes from the proposed

improvements as runoff volumes will be slightly reduced or maintained in all the analyzed storms.

Based on the foregoing, it is our professional opinion that the proposed improvements will provide water quantity and quality enhancements which exceed the above mentioned requirements and are not anticipated to have any adverse impacts to the site or any surrounding areas.

APPENDIX A

EXISTING HYDROLOGIC CALCULATIONS



24072-235 Elm-EXIST

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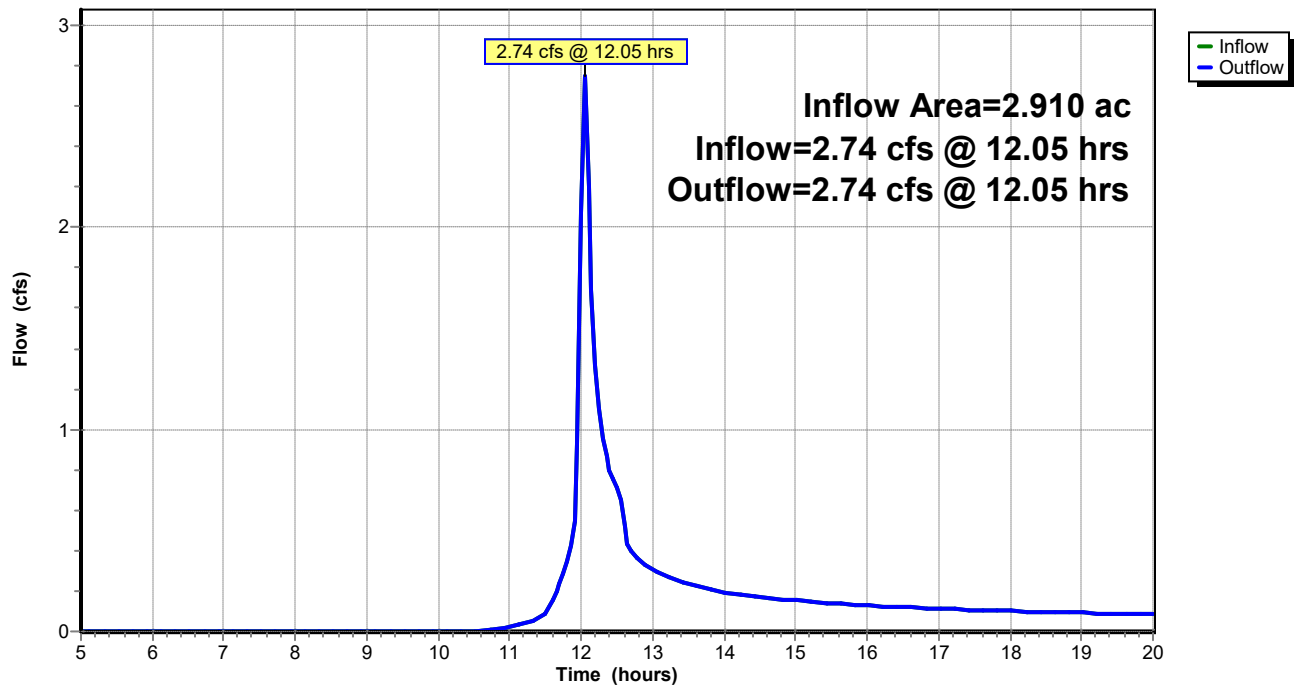
Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-BRIARCLIFF 24-hr S1	1-yr	Default	24.00	1	2.78	2
2	2-yr	NY-BRIARCLIFF 24-hr S1	2-yr	Default	24.00	1	3.42	2
3	10-yr	NY-BRIARCLIFF 24-hr S1	10-yr	Default	24.00	1	5.13	2
4	100-yr	NY-BRIARCLIFF 24-hr S1	100-yr	Default	24.00	1	9.25	2

Summary for Reach DB-3:

Inflow Area = 2.910 ac, 2.10% Impervious, Inflow Depth > 0.72" for 1-yr event
Inflow = 2.74 cfs @ 12.05 hrs, Volume= 0.174 af
Outflow = 2.74 cfs @ 12.05 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-3:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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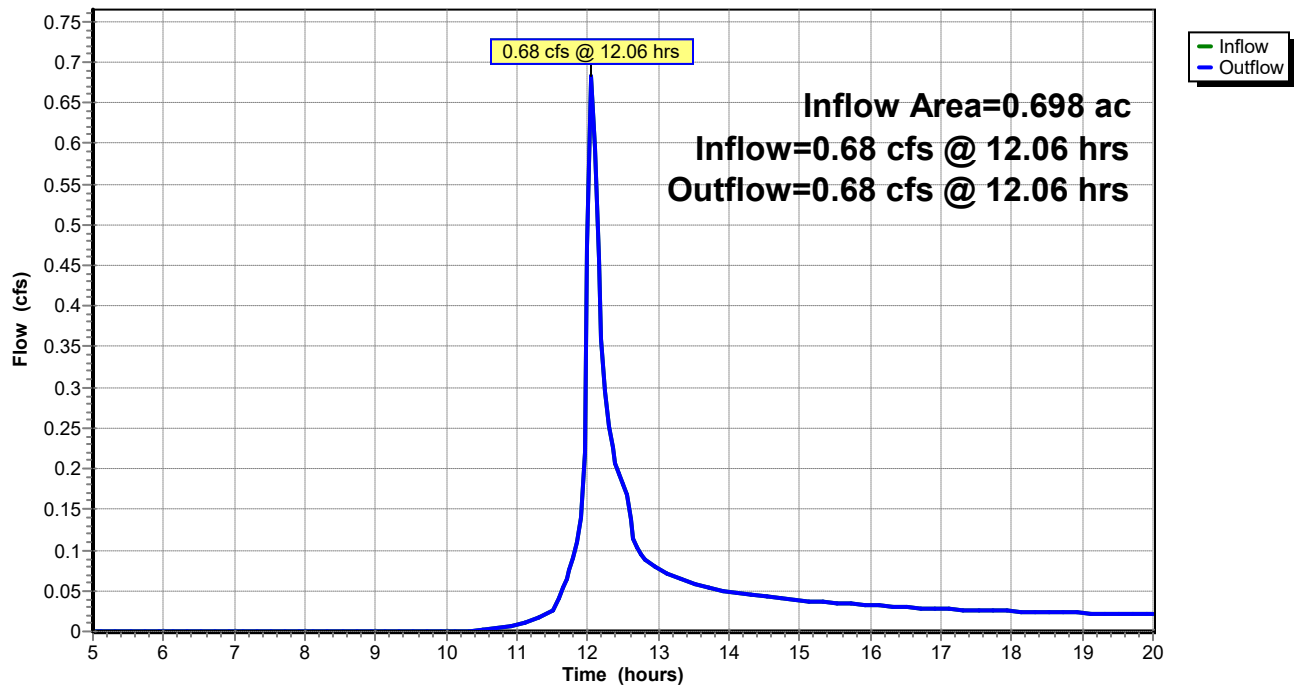
Hydrograph for Reach DB-3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.10		0.10
5.25	0.00		0.00	18.25	0.10		0.10
5.50	0.00		0.00	18.50	0.10		0.10
5.75	0.00		0.00	18.75	0.09		0.09
6.00	0.00		0.00	19.00	0.09		0.09
6.25	0.00		0.00	19.25	0.09		0.09
6.50	0.00		0.00	19.50	0.09		0.09
6.75	0.00		0.00	19.75	0.09		0.09
7.00	0.00		0.00	20.00	0.08		0.08
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.01		0.01				
11.00	0.02		0.02				
11.25	0.04		0.04				
11.50	0.09		0.09				
11.75	0.28		0.28				
12.00	2.07		2.07				
12.25	1.10		1.10				
12.50	0.71		0.71				
12.75	0.37		0.37				
13.00	0.30		0.30				
13.25	0.26		0.26				
13.50	0.23		0.23				
13.75	0.21		0.21				
14.00	0.20		0.20				
14.25	0.18		0.18				
14.50	0.17		0.17				
14.75	0.16		0.16				
15.00	0.15		0.15				
15.25	0.15		0.15				
15.50	0.14		0.14				
15.75	0.13		0.13				
16.00	0.13		0.13				
16.25	0.12		0.12				
16.50	0.12		0.12				
16.75	0.12		0.12				
17.00	0.11		0.11				
17.25	0.11		0.11				
17.50	0.11		0.11				
17.75	0.10		0.10				

Summary for Reach DB-5:

Inflow Area = 0.698 ac, 9.74% Impervious, Inflow Depth > 0.76" for 1-yr event
Inflow = 0.68 cfs @ 12.06 hrs, Volume= 0.044 af
Outflow = 0.68 cfs @ 12.06 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-5:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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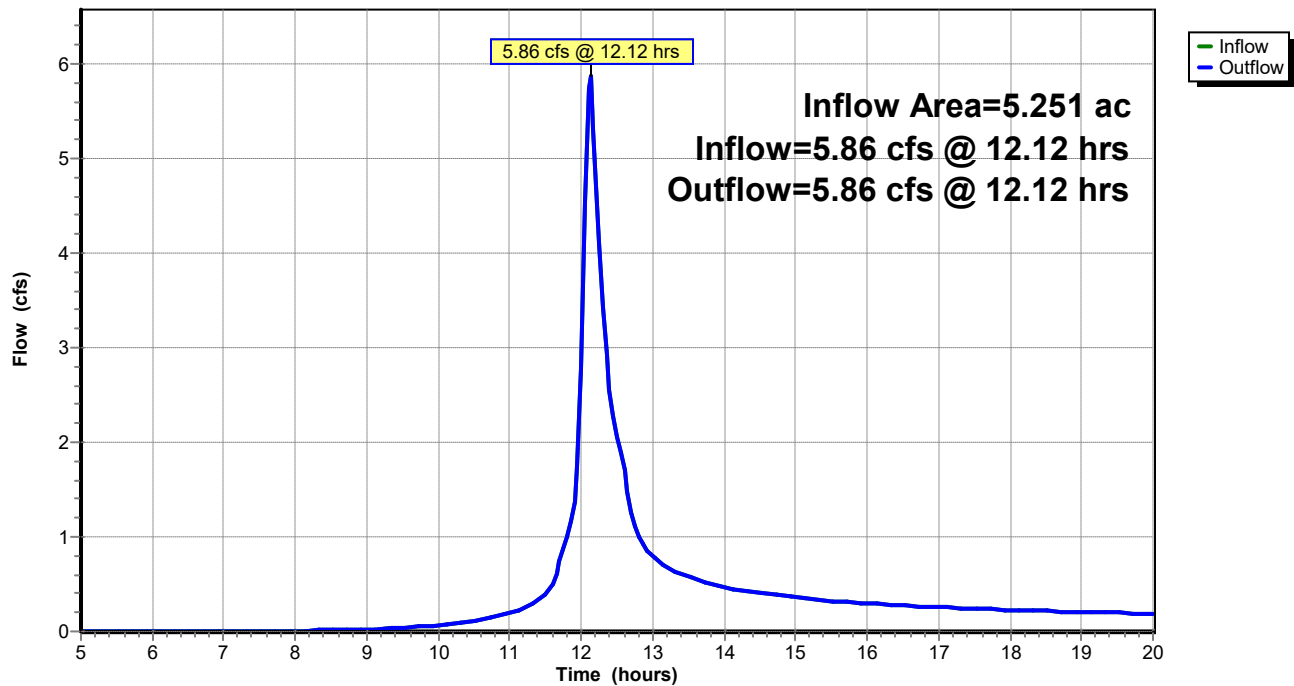
Hydrograph for Reach DB-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.02		0.02
5.25	0.00		0.00	18.25	0.02		0.02
5.50	0.00		0.00	18.50	0.02		0.02
5.75	0.00		0.00	18.75	0.02		0.02
6.00	0.00		0.00	19.00	0.02		0.02
6.25	0.00		0.00	19.25	0.02		0.02
6.50	0.00		0.00	19.50	0.02		0.02
6.75	0.00		0.00	19.75	0.02		0.02
7.00	0.00		0.00	20.00	0.02		0.02
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.01		0.01				
11.25	0.01		0.01				
11.50	0.03		0.03				
11.75	0.08		0.08				
12.00	0.47		0.47				
12.25	0.29		0.29				
12.50	0.18		0.18				
12.75	0.10		0.10				
13.00	0.08		0.08				
13.25	0.07		0.07				
13.50	0.06		0.06				
13.75	0.05		0.05				
14.00	0.05		0.05				
14.25	0.05		0.05				
14.50	0.04		0.04				
14.75	0.04		0.04				
15.00	0.04		0.04				
15.25	0.04		0.04				
15.50	0.03		0.03				
15.75	0.03		0.03				
16.00	0.03		0.03				
16.25	0.03		0.03				
16.50	0.03		0.03				
16.75	0.03		0.03				
17.00	0.03		0.03				
17.25	0.03		0.03				
17.50	0.03		0.03				
17.75	0.03		0.03				

Summary for Reach DP-1:

Inflow Area = 5.251 ac, 31.77% Impervious, Inflow Depth > 1.06" for 1-yr event
Inflow = 5.86 cfs @ 12.12 hrs, Volume= 0.463 af
Outflow = 5.86 cfs @ 12.12 hrs, Volume= 0.463 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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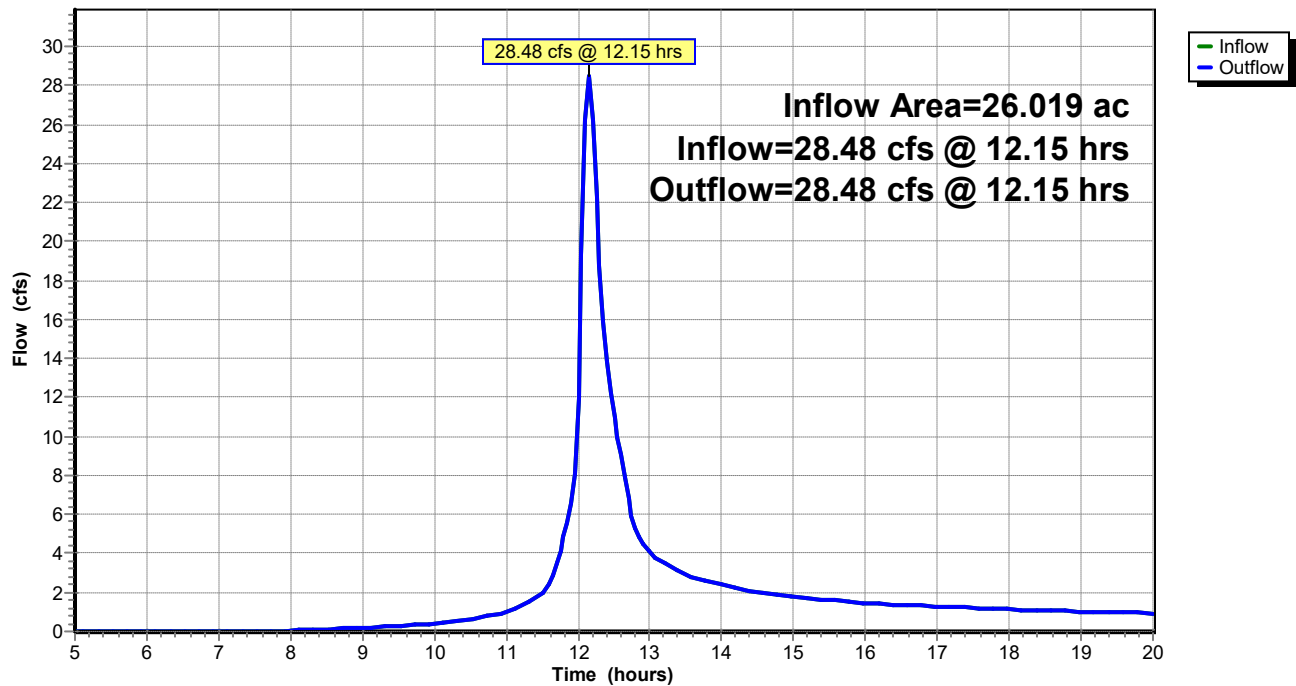
Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.23		0.23
5.25	0.00		0.00	18.25	0.22		0.22
5.50	0.00		0.00	18.50	0.21		0.21
5.75	0.00		0.00	18.75	0.21		0.21
6.00	0.00		0.00	19.00	0.20		0.20
6.25	0.00		0.00	19.25	0.20		0.20
6.50	0.00		0.00	19.50	0.20		0.20
6.75	0.00		0.00	19.75	0.19		0.19
7.00	0.00		0.00	20.00	0.19		0.19
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.01		0.01				
8.25	0.01		0.01				
8.50	0.01		0.01				
8.75	0.02		0.02				
9.00	0.02		0.02				
9.25	0.03		0.03				
9.50	0.04		0.04				
9.75	0.05		0.05				
10.00	0.06		0.06				
10.25	0.09		0.09				
10.50	0.11		0.11				
10.75	0.15		0.15				
11.00	0.19		0.19				
11.25	0.26		0.26				
11.50	0.38		0.38				
11.75	0.87		0.87				
12.00	2.77		2.77				
12.25	4.11		4.11				
12.50	2.06		2.06				
12.75	1.11		1.11				
13.00	0.79		0.79				
13.25	0.66		0.66				
13.50	0.58		0.58				
13.75	0.52		0.52				
14.00	0.47		0.47				
14.25	0.43		0.43				
14.50	0.40		0.40				
14.75	0.38		0.38				
15.00	0.36		0.36				
15.25	0.34		0.34				
15.50	0.32		0.32				
15.75	0.31		0.31				
16.00	0.29		0.29				
16.25	0.28		0.28				
16.50	0.27		0.27				
16.75	0.26		0.26				
17.00	0.25		0.25				
17.25	0.25		0.25				
17.50	0.24		0.24				
17.75	0.23		0.23				

Summary for Reach DP-2:

Inflow Area = 26.019 ac, 32.96% Impervious, Inflow Depth > 1.09" for 1-yr event
Inflow = 28.48 cfs @ 12.15 hrs, Volume= 2.354 af
Outflow = 28.48 cfs @ 12.15 hrs, Volume= 2.354 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2:**Hydrograph**

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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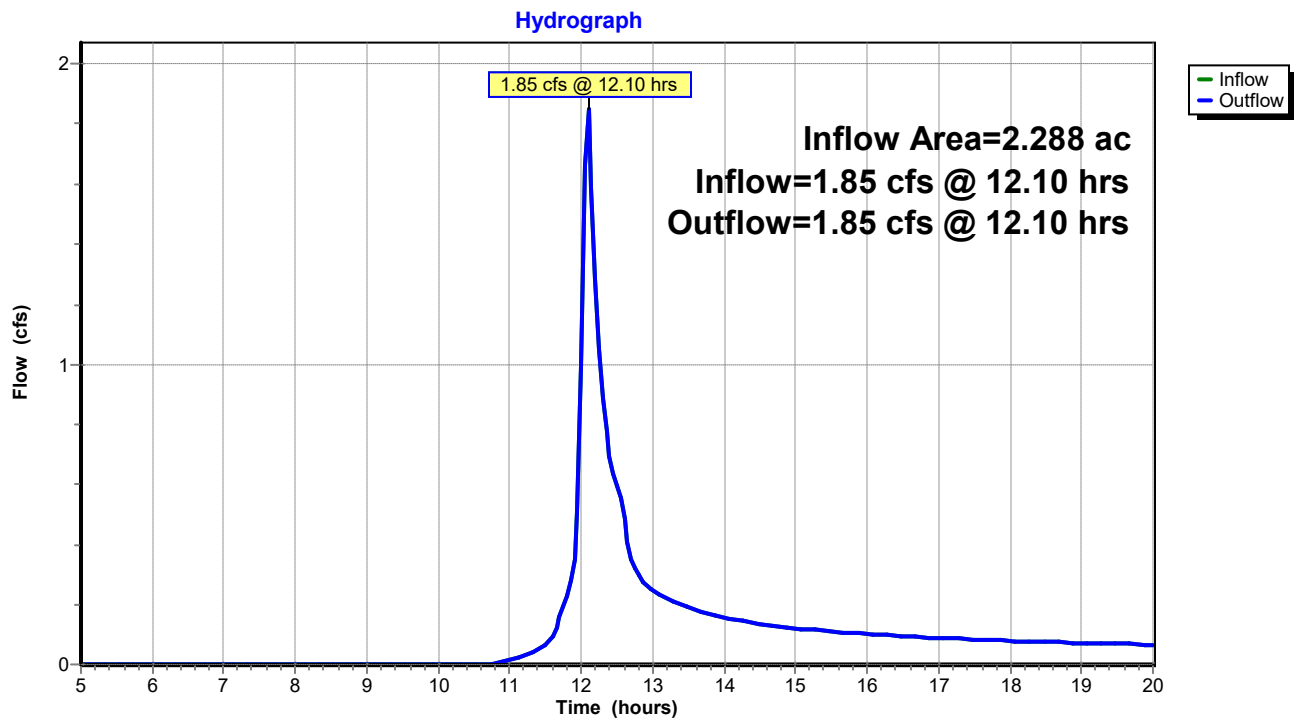
Hydrograph for Reach DP-2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	1.13		1.13
5.25	0.00		0.00	18.25	1.10		1.10
5.50	0.00		0.00	18.50	1.07		1.07
5.75	0.00		0.00	18.75	1.05		1.05
6.00	0.00		0.00	19.00	1.02		1.02
6.25	0.00		0.00	19.25	1.00		1.00
6.50	0.00		0.00	19.50	0.98		0.98
6.75	0.00		0.00	19.75	0.96		0.96
7.00	0.00		0.00	20.00	0.94		0.94
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.02		0.02				
8.00	0.05		0.05				
8.25	0.08		0.08				
8.50	0.11		0.11				
8.75	0.15		0.15				
9.00	0.19		0.19				
9.25	0.23		0.23				
9.50	0.29		0.29				
9.75	0.35		0.35				
10.00	0.42		0.42				
10.25	0.52		0.52				
10.50	0.63		0.63				
10.75	0.78		0.78				
11.00	1.01		1.01				
11.25	1.36		1.36				
11.50	1.92		1.92				
11.75	4.17		4.17				
12.00	11.98		11.98				
12.25	22.29		22.29				
12.50	10.95		10.95				
12.75	5.96		5.96				
13.00	4.05		4.05				
13.25	3.35		3.35				
13.50	2.92		2.92				
13.75	2.61		2.61				
14.00	2.37		2.37				
14.25	2.18		2.18				
14.50	2.03		2.03				
14.75	1.90		1.90				
15.00	1.79		1.79				
15.25	1.69		1.69				
15.50	1.61		1.61				
15.75	1.54		1.54				
16.00	1.47		1.47				
16.25	1.42		1.42				
16.50	1.36		1.36				
16.75	1.32		1.32				
17.00	1.27		1.27				
17.25	1.23		1.23				
17.50	1.20		1.20				
17.75	1.16		1.16				

Summary for Reach DP-4:

Inflow Area = 2.288 ac, 2.71% Impervious, Inflow Depth > 0.72" for 1-yr event
Inflow = 1.85 cfs @ 12.10 hrs, Volume= 0.137 af
Outflow = 1.85 cfs @ 12.10 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4:

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.08		0.08
5.25	0.00		0.00	18.25	0.08		0.08
5.50	0.00		0.00	18.50	0.08		0.08
5.75	0.00		0.00	18.75	0.07		0.07
6.00	0.00		0.00	19.00	0.07		0.07
6.25	0.00		0.00	19.25	0.07		0.07
6.50	0.00		0.00	19.50	0.07		0.07
6.75	0.00		0.00	19.75	0.07		0.07
7.00	0.00		0.00	20.00	0.07		0.07
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.00		0.00				
10.25	0.00		0.00				
10.50	0.00		0.00				
10.75	0.00		0.00				
11.00	0.01		0.01				
11.25	0.03		0.03				
11.50	0.06		0.06				
11.75	0.19		0.19				
12.00	0.99		0.99				
12.25	1.05		1.05				
12.50	0.59		0.59				
12.75	0.32		0.32				
13.00	0.25		0.25				
13.25	0.21		0.21				
13.50	0.19		0.19				
13.75	0.17		0.17				
14.00	0.16		0.16				
14.25	0.15		0.15				
14.50	0.14		0.14				
14.75	0.13		0.13				
15.00	0.12		0.12				
15.25	0.12		0.12				
15.50	0.11		0.11				
15.75	0.11		0.11				
16.00	0.10		0.10				
16.25	0.10		0.10				
16.50	0.09		0.09				
16.75	0.09		0.09				
17.00	0.09		0.09				
17.25	0.09		0.09				
17.50	0.08		0.08				
17.75	0.08		0.08				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment EDA-1A:

Runoff = 2.80 cfs @ 12.15 hrs, Volume= 0.232 af, Depth> 0.91"
 Routed to Reach DP-1 :

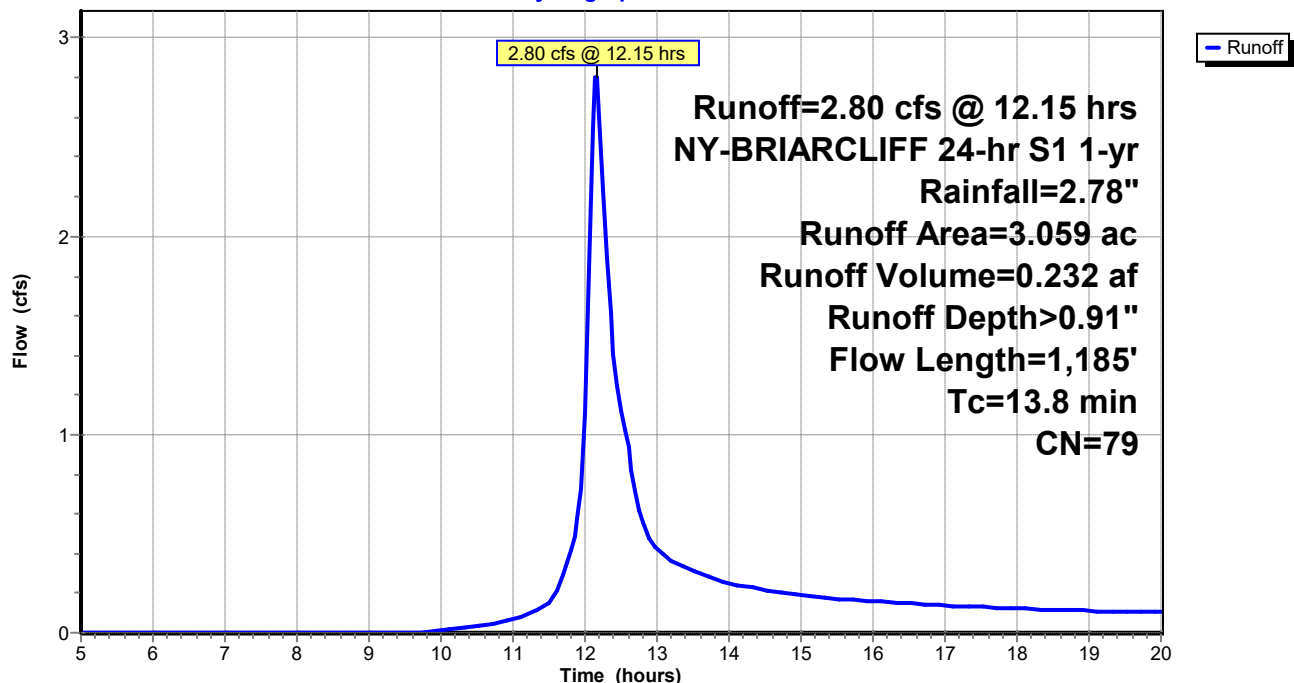
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.627	98	Paved parking, HSG C
2.432	74	>75% Grass cover, Good, HSG C
3.059	79	Weighted Average
2.432		79.50% Pervious Area
0.627		20.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0267	0.21		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.1	260	0.0692	3.95		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
1.0	775	0.0387	12.67	22.39	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
13.8	1,185	Total			

Subcatchment EDA-1A:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	0.85	0.12
5.25	0.23	0.00	0.00	18.25	2.53	0.86	0.12
5.50	0.24	0.00	0.00	18.50	2.54	0.86	0.12
5.75	0.25	0.00	0.00	18.75	2.55	0.87	0.11
6.00	0.27	0.00	0.00	19.00	2.57	0.88	0.11
6.25	0.28	0.00	0.00	19.25	2.58	0.89	0.11
6.50	0.30	0.00	0.00	19.50	2.59	0.90	0.11
6.75	0.31	0.00	0.00	19.75	2.60	0.91	0.10
7.00	0.33	0.00	0.00	20.00	2.62	0.92	0.10
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.56	0.00	0.00				
10.00	0.59	0.00	0.01				
10.25	0.63	0.00	0.02				
10.50	0.66	0.01	0.03				
10.75	0.70	0.01	0.05				
11.00	0.75	0.02	0.07				
11.25	0.81	0.03	0.10				
11.50	0.88	0.04	0.15				
11.75	1.03	0.08	0.35				
12.00	1.53	0.27	1.10				
12.25	1.78	0.40	2.23				
12.50	1.92	0.47	1.13				
12.75	1.98	0.51	0.62				
13.00	2.04	0.55	0.42				
13.25	2.08	0.57	0.35				
13.50	2.12	0.60	0.31				
13.75	2.16	0.62	0.28				
14.00	2.19	0.64	0.25				
14.25	2.22	0.66	0.23				
14.50	2.25	0.67	0.22				
14.75	2.27	0.69	0.20				
15.00	2.30	0.70	0.19				
15.25	2.32	0.72	0.18				
15.50	2.34	0.73	0.17				
15.75	2.36	0.75	0.17				
16.00	2.38	0.76	0.16				
16.25	2.40	0.77	0.15				
16.50	2.42	0.78	0.15				
16.75	2.43	0.79	0.14				
17.00	2.45	0.80	0.14				
17.25	2.47	0.82	0.13				
17.50	2.48	0.83	0.13				
17.75	2.50	0.84	0.13				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment EDA-1B:

Runoff = 3.20 cfs @ 12.11 hrs, Volume= 0.231 af, Depth> 1.27"
 Routed to Reach DP-1 :

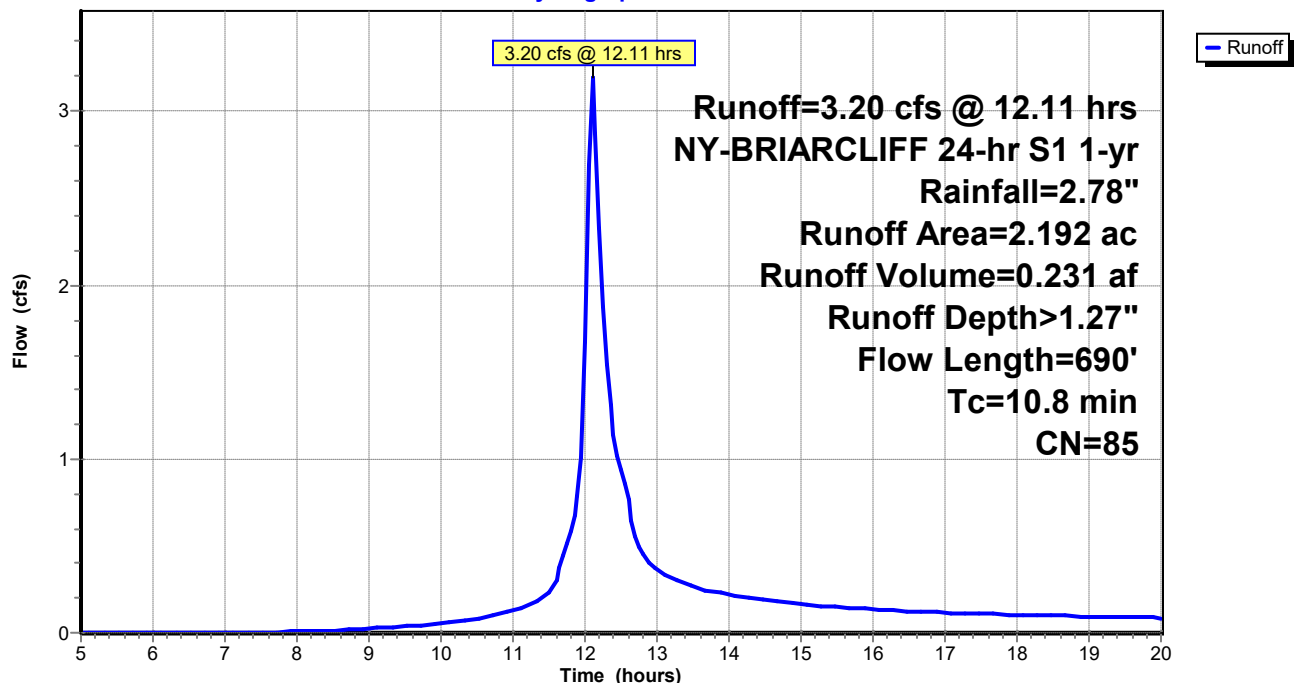
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
1.041	98	Paved parking, HSG C
1.151	74	>75% Grass cover, Good, HSG C
2.192	85	Weighted Average
1.151		52.51% Pervious Area
1.041		47.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	150	0.0500	0.28		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.3	260	0.0481	3.29		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
0.4	280	0.0500	10.99	8.63	Pipe Channel, 12" PIPE 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Steel, smooth
10.8	690	Total			

Subcatchment EDA-1B:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	1.19	0.10
5.25	0.23	0.00	0.00	18.25	2.53	1.20	0.10
5.50	0.24	0.00	0.00	18.50	2.54	1.21	0.10
5.75	0.25	0.00	0.00	18.75	2.55	1.22	0.10
6.00	0.27	0.00	0.00	19.00	2.57	1.23	0.09
6.25	0.28	0.00	0.00	19.25	2.58	1.24	0.09
6.50	0.30	0.00	0.00	19.50	2.59	1.25	0.09
6.75	0.31	0.00	0.00	19.75	2.60	1.26	0.09
7.00	0.33	0.00	0.00	20.00	2.62	1.27	0.09
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.01				
8.25	0.42	0.00	0.01				
8.50	0.44	0.00	0.01				
8.75	0.46	0.01	0.02				
9.00	0.49	0.01	0.02				
9.25	0.51	0.01	0.03				
9.50	0.54	0.02	0.04				
9.75	0.56	0.02	0.05				
10.00	0.59	0.03	0.05				
10.25	0.63	0.04	0.07				
10.50	0.66	0.05	0.08				
10.75	0.70	0.06	0.10				
11.00	0.75	0.07	0.13				
11.25	0.81	0.09	0.17				
11.50	0.88	0.12	0.23				
11.75	1.03	0.19	0.51				
12.00	1.53	0.47	1.67				
12.25	1.78	0.64	1.88				
12.50	1.92	0.73	0.93				
12.75	1.98	0.78	0.49				
13.00	2.04	0.82	0.36				
13.25	2.08	0.86	0.31				
13.50	2.12	0.89	0.27				
13.75	2.16	0.91	0.24				
14.00	2.19	0.94	0.22				
14.25	2.22	0.96	0.20				
14.50	2.25	0.98	0.19				
14.75	2.27	1.00	0.17				
15.00	2.30	1.02	0.16				
15.25	2.32	1.04	0.16				
15.50	2.34	1.05	0.15				
15.75	2.36	1.07	0.14				
16.00	2.38	1.08	0.14				
16.25	2.40	1.10	0.13				
16.50	2.42	1.11	0.13				
16.75	2.43	1.13	0.12				
17.00	2.45	1.14	0.12				
17.25	2.47	1.15	0.11				
17.50	2.48	1.16	0.11				
17.75	2.50	1.18	0.11				

Summary for Subcatchment EDA-2A:

Runoff = 22.96 cfs @ 12.14 hrs, Volume= 1.851 af, Depth> 1.26"
 Routed to Reach DP-2 :

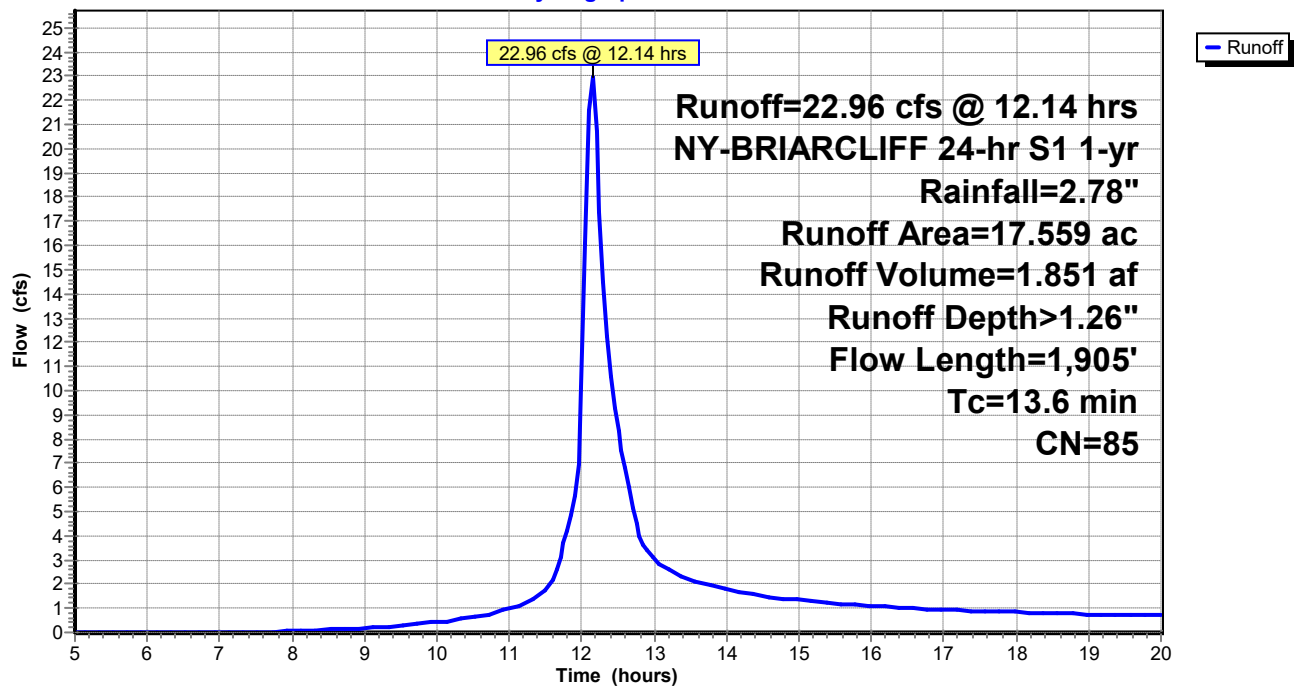
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
8.135	98	Paved parking, HSG C
9.424	74	>75% Grass cover, Good, HSG C
17.559	85	Weighted Average
9.424		53.67% Pervious Area
8.135		46.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.6	300	0.0433	3.12		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 1 Grassed Waterway Kv= 15.0 fps
0.2	140	0.0357	12.17	21.50	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
0.8	975	0.0615	19.35	60.78	Pipe Channel, 24" PIPE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Steel, smooth
1.1	340	0.1265	5.34		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 2 Grassed Waterway Kv= 15.0 fps
13.6	1,905	Total			

Subcatchment EDA-2A:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	1.19	0.83
5.25	0.23	0.00	0.00	18.25	2.53	1.20	0.81
5.50	0.24	0.00	0.00	18.50	2.54	1.21	0.79
5.75	0.25	0.00	0.00	18.75	2.55	1.22	0.77
6.00	0.27	0.00	0.00	19.00	2.57	1.23	0.75
6.25	0.28	0.00	0.00	19.25	2.58	1.24	0.74
6.50	0.30	0.00	0.00	19.50	2.59	1.25	0.72
6.75	0.31	0.00	0.00	19.75	2.60	1.26	0.70
7.00	0.33	0.00	0.00	20.00	2.62	1.27	0.69
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.02				
8.00	0.40	0.00	0.05				
8.25	0.42	0.00	0.08				
8.50	0.44	0.00	0.11				
8.75	0.46	0.01	0.15				
9.00	0.49	0.01	0.19				
9.25	0.51	0.01	0.23				
9.50	0.54	0.02	0.29				
9.75	0.56	0.02	0.35				
10.00	0.59	0.03	0.42				
10.25	0.63	0.04	0.52				
10.50	0.66	0.05	0.63				
10.75	0.70	0.06	0.78				
11.00	0.75	0.07	0.97				
11.25	0.81	0.09	1.27				
11.50	0.88	0.12	1.74				
11.75	1.03	0.19	3.66				
12.00	1.53	0.47	10.12				
12.25	1.78	0.64	17.36				
12.50	1.92	0.73	8.32				
12.75	1.98	0.78	4.46				
13.00	2.04	0.82	3.05				
13.25	2.08	0.86	2.51				
13.50	2.12	0.89	2.19				
13.75	2.16	0.91	1.95				
14.00	2.19	0.94	1.77				
14.25	2.22	0.96	1.63				
14.50	2.25	0.98	1.51				
14.75	2.27	1.00	1.42				
15.00	2.30	1.02	1.33				
15.25	2.32	1.04	1.26				
15.50	2.34	1.05	1.20				
15.75	2.36	1.07	1.14				
16.00	2.38	1.08	1.09				
16.25	2.40	1.10	1.05				
16.50	2.42	1.11	1.01				
16.75	2.43	1.13	0.97				
17.00	2.45	1.14	0.94				
17.25	2.47	1.15	0.91				
17.50	2.48	1.16	0.88				
17.75	2.50	1.18	0.86				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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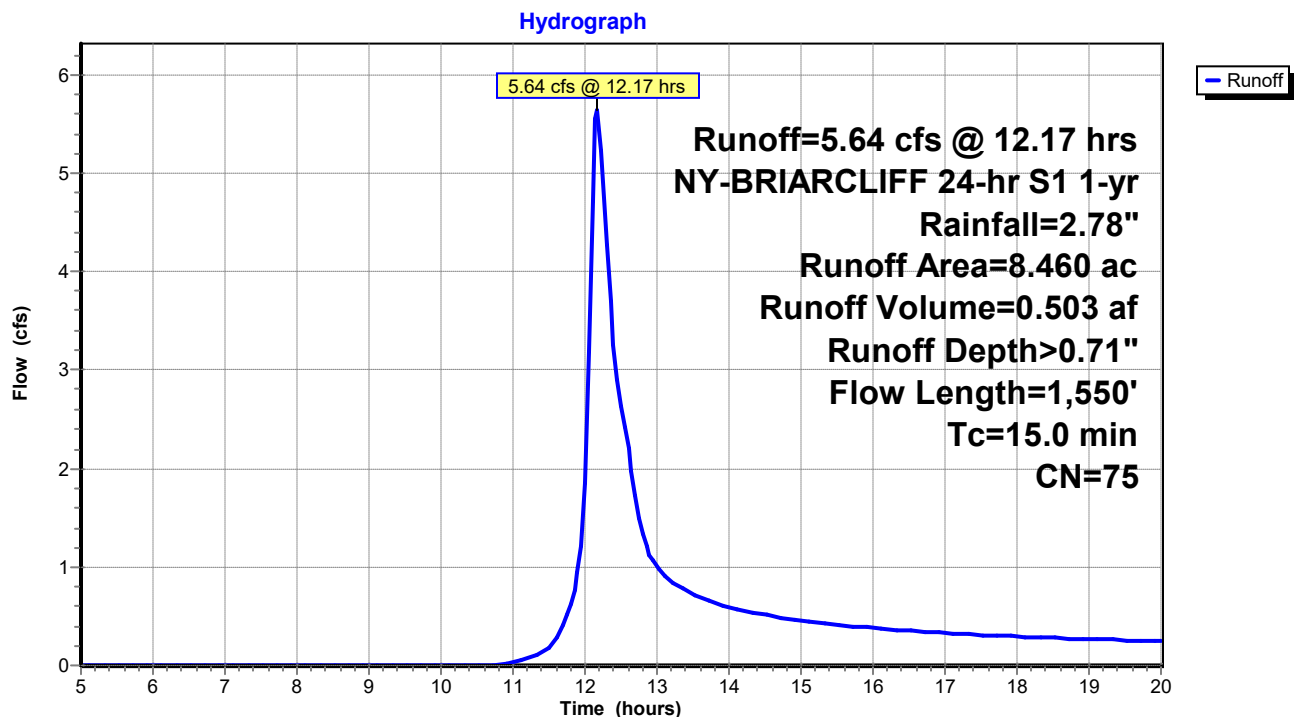
Summary for Subcatchment EDA-2B:

Runoff = 5.64 cfs @ 12.17 hrs, Volume= 0.503 af, Depth> 0.71"
Routed to Reach DP-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.441	98	Paved parking, HSG C
8.019	74	>75% Grass cover, Good, HSG C
8.460	75	Weighted Average
8.019		94.79% Pervious Area
0.441		5.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
15.0	1,550	Total			

Subcatchment EDA-2B:

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	0.66	0.30
5.25	0.23	0.00	0.00	18.25	2.53	0.67	0.29
5.50	0.24	0.00	0.00	18.50	2.54	0.67	0.28
5.75	0.25	0.00	0.00	18.75	2.55	0.68	0.27
6.00	0.27	0.00	0.00	19.00	2.57	0.69	0.27
6.25	0.28	0.00	0.00	19.25	2.58	0.70	0.26
6.50	0.30	0.00	0.00	19.50	2.59	0.71	0.26
6.75	0.31	0.00	0.00	19.75	2.60	0.71	0.25
7.00	0.33	0.00	0.00	20.00	2.62	0.72	0.25
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.56	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.66	0.00	0.00				
10.75	0.70	0.00	0.00				
11.00	0.75	0.00	0.04				
11.25	0.81	0.01	0.09				
11.50	0.88	0.01	0.18				
11.75	1.03	0.04	0.51				
12.00	1.53	0.18	1.86				
12.25	1.78	0.28	4.93				
12.50	1.92	0.34	2.63				
12.75	1.98	0.37	1.50				
13.00	2.04	0.40	1.00				
13.25	2.08	0.42	0.83				
13.50	2.12	0.44	0.73				
13.75	2.16	0.46	0.65				
14.00	2.19	0.48	0.60				
14.25	2.22	0.49	0.55				
14.50	2.25	0.51	0.51				
14.75	2.27	0.52	0.48				
15.00	2.30	0.54	0.46				
15.25	2.32	0.55	0.43				
15.50	2.34	0.56	0.41				
15.75	2.36	0.57	0.40				
16.00	2.38	0.58	0.38				
16.25	2.40	0.59	0.37				
16.50	2.42	0.60	0.35				
16.75	2.43	0.61	0.34				
17.00	2.45	0.62	0.33				
17.25	2.47	0.63	0.32				
17.50	2.48	0.64	0.31				
17.75	2.50	0.65	0.30				

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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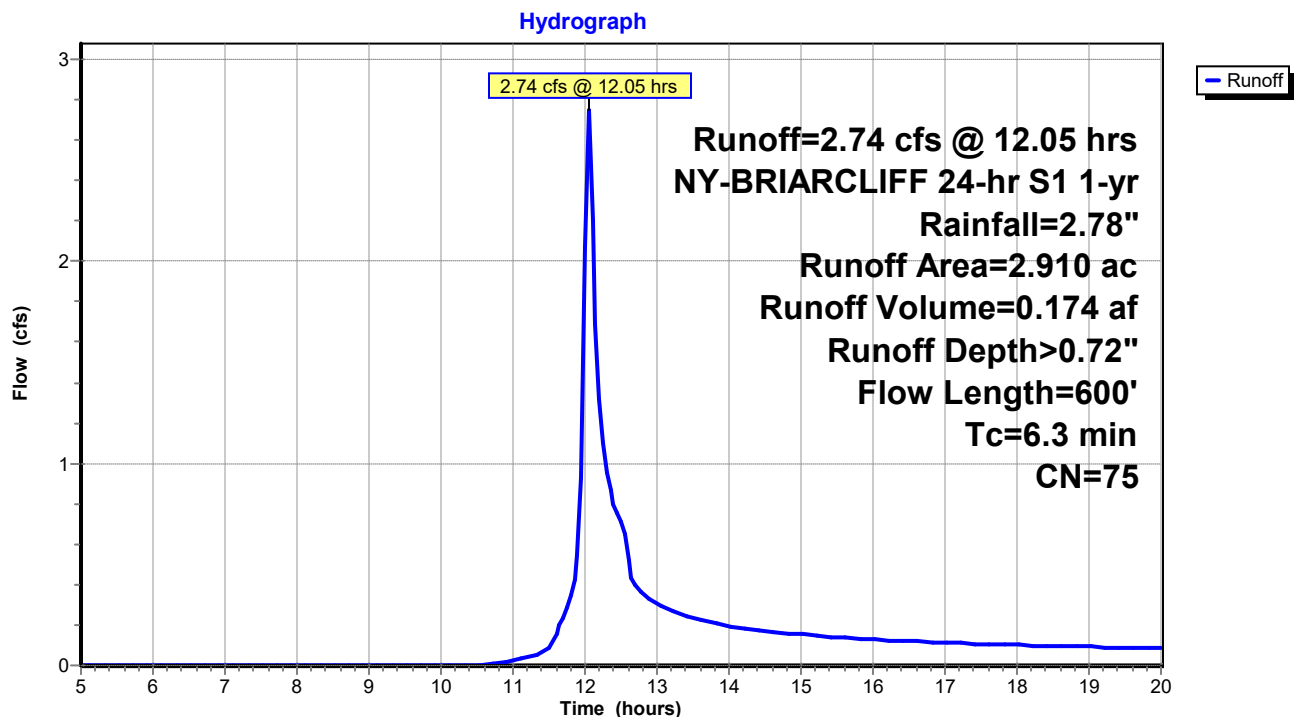
Summary for Subcatchment EDA-3:

Runoff = 2.74 cfs @ 12.05 hrs, Volume= 0.174 af, Depth> 0.72"
Routed to Reach DB-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.061	98	Paved parking, HSG C
2.849	74	>75% Grass cover, Good, HSG C
2.910	75	Weighted Average
2.849		97.90% Pervious Area
0.061		2.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	90	0.0889	0.31		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.5	510	0.1372	5.56		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
6.3	600	Total			

Subcatchment EDA-3:

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	0.66	0.10
5.25	0.23	0.00	0.00	18.25	2.53	0.67	0.10
5.50	0.24	0.00	0.00	18.50	2.54	0.67	0.10
5.75	0.25	0.00	0.00	18.75	2.55	0.68	0.09
6.00	0.27	0.00	0.00	19.00	2.57	0.69	0.09
6.25	0.28	0.00	0.00	19.25	2.58	0.70	0.09
6.50	0.30	0.00	0.00	19.50	2.59	0.71	0.09
6.75	0.31	0.00	0.00	19.75	2.60	0.71	0.09
7.00	0.33	0.00	0.00	20.00	2.62	0.72	0.08
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.56	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.66	0.00	0.00				
10.75	0.70	0.00	0.01				
11.00	0.75	0.00	0.02				
11.25	0.81	0.01	0.04				
11.50	0.88	0.01	0.09				
11.75	1.03	0.04	0.28				
12.00	1.53	0.18	2.07				
12.25	1.78	0.28	1.10				
12.50	1.92	0.34	0.71				
12.75	1.98	0.37	0.37				
13.00	2.04	0.40	0.30				
13.25	2.08	0.42	0.26				
13.50	2.12	0.44	0.23				
13.75	2.16	0.46	0.21				
14.00	2.19	0.48	0.20				
14.25	2.22	0.49	0.18				
14.50	2.25	0.51	0.17				
14.75	2.27	0.52	0.16				
15.00	2.30	0.54	0.15				
15.25	2.32	0.55	0.15				
15.50	2.34	0.56	0.14				
15.75	2.36	0.57	0.13				
16.00	2.38	0.58	0.13				
16.25	2.40	0.59	0.12				
16.50	2.42	0.60	0.12				
16.75	2.43	0.61	0.12				
17.00	2.45	0.62	0.11				
17.25	2.47	0.63	0.11				
17.50	2.48	0.64	0.11				
17.75	2.50	0.65	0.10				

Summary for Subcatchment EDA-4:

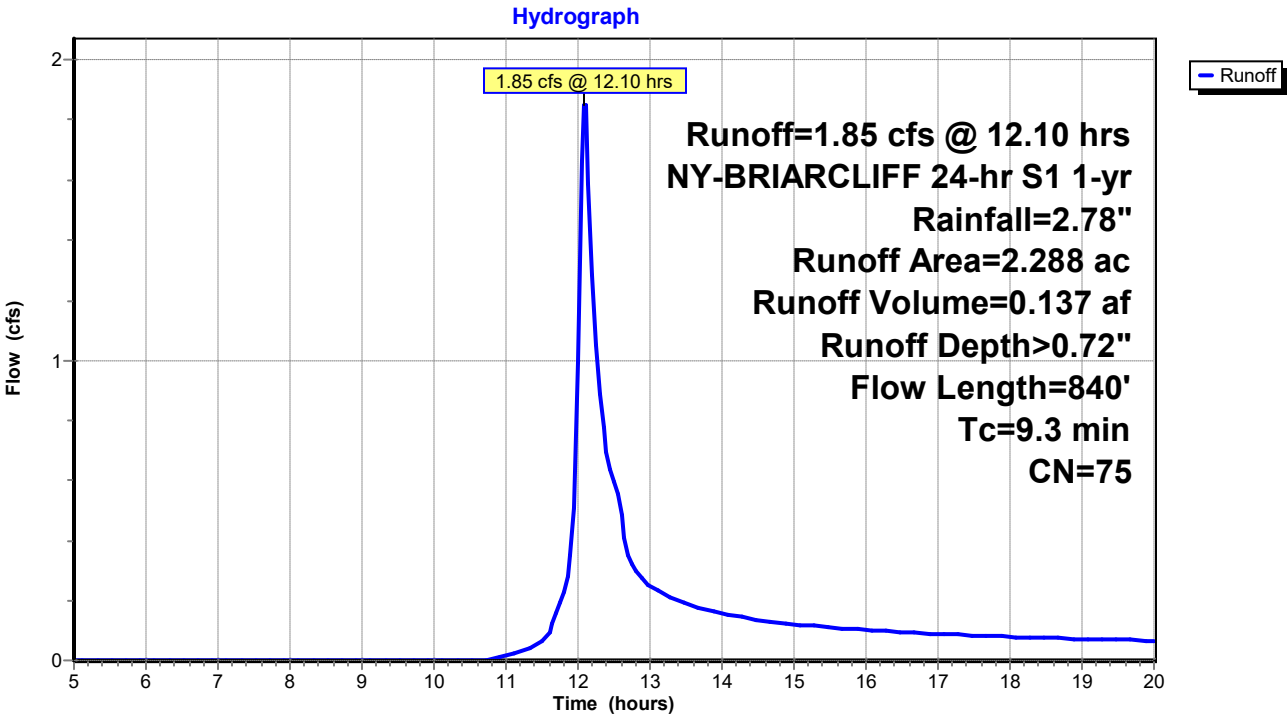
Runoff = 1.85 cfs @ 12.10 hrs, Volume= 0.137 af, Depth> 0.72"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.062	98	Paved parking, HSG C
2.226	74	>75% Grass cover, Good, HSG C
2.288	75	Weighted Average
2.226		97.29% Pervious Area
0.062		2.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	150	0.0800	0.33		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.8	690	0.1884	6.51		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
9.3	840	Total			

Subcatchment EDA-4:



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment EDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	0.66	0.08
5.25	0.23	0.00	0.00	18.25	2.53	0.67	0.08
5.50	0.24	0.00	0.00	18.50	2.54	0.67	0.08
5.75	0.25	0.00	0.00	18.75	2.55	0.68	0.07
6.00	0.27	0.00	0.00	19.00	2.57	0.69	0.07
6.25	0.28	0.00	0.00	19.25	2.58	0.70	0.07
6.50	0.30	0.00	0.00	19.50	2.59	0.71	0.07
6.75	0.31	0.00	0.00	19.75	2.60	0.71	0.07
7.00	0.33	0.00	0.00	20.00	2.62	0.72	0.07
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.56	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.66	0.00	0.00				
10.75	0.70	0.00	0.00				
11.00	0.75	0.00	0.01				
11.25	0.81	0.01	0.03				
11.50	0.88	0.01	0.06				
11.75	1.03	0.04	0.19				
12.00	1.53	0.18	0.99				
12.25	1.78	0.28	1.05				
12.50	1.92	0.34	0.59				
12.75	1.98	0.37	0.32				
13.00	2.04	0.40	0.25				
13.25	2.08	0.42	0.21				
13.50	2.12	0.44	0.19				
13.75	2.16	0.46	0.17				
14.00	2.19	0.48	0.16				
14.25	2.22	0.49	0.15				
14.50	2.25	0.51	0.14				
14.75	2.27	0.52	0.13				
15.00	2.30	0.54	0.12				
15.25	2.32	0.55	0.12				
15.50	2.34	0.56	0.11				
15.75	2.36	0.57	0.11				
16.00	2.38	0.58	0.10				
16.25	2.40	0.59	0.10				
16.50	2.42	0.60	0.09				
16.75	2.43	0.61	0.09				
17.00	2.45	0.62	0.09				
17.25	2.47	0.63	0.09				
17.50	2.48	0.64	0.08				
17.75	2.50	0.65	0.08				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment EDA-5:

Runoff = 0.68 cfs @ 12.06 hrs, Volume= 0.044 af, Depth> 0.76"
Routed to Reach DB-5 :

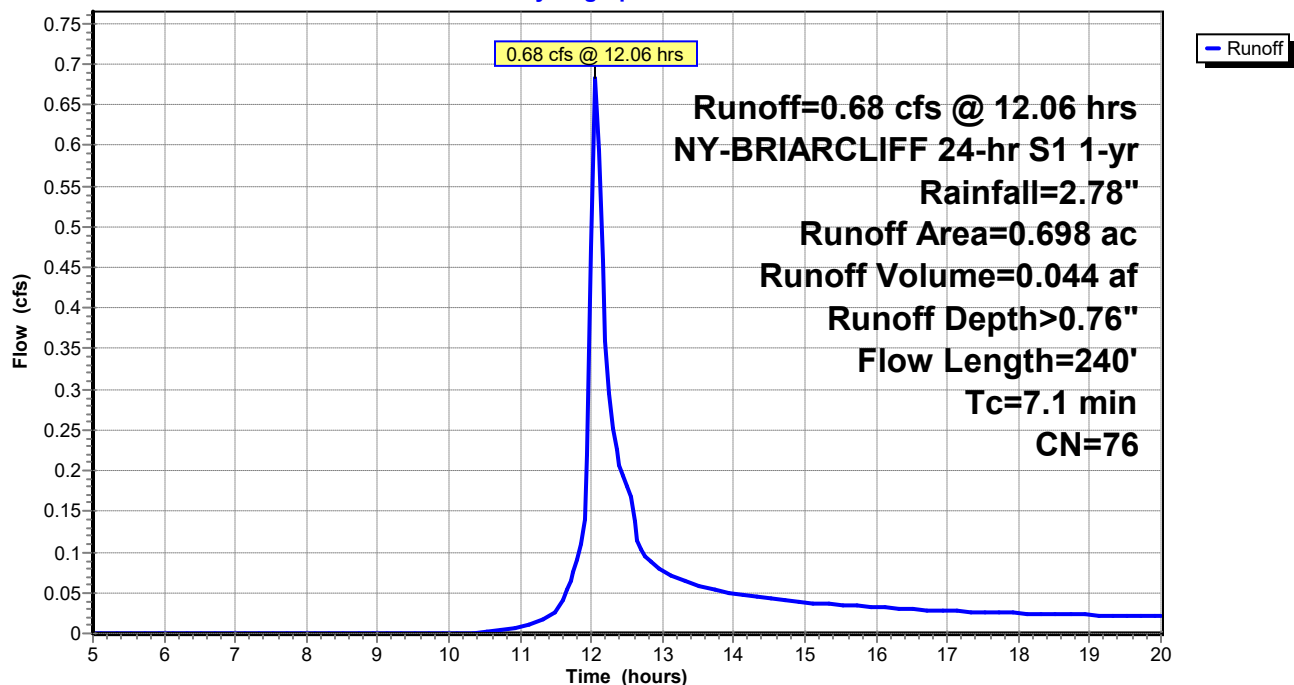
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.068	98	Paved parking, HSG C
0.630	74	>75% Grass cover, Good, HSG C
0.698	76	Weighted Average
0.630		90.26% Pervious Area
0.068		9.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	150	0.1000	0.36		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
0.2	90	0.2336	7.25		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
7.1	240	Total			

Subcatchment EDA-5:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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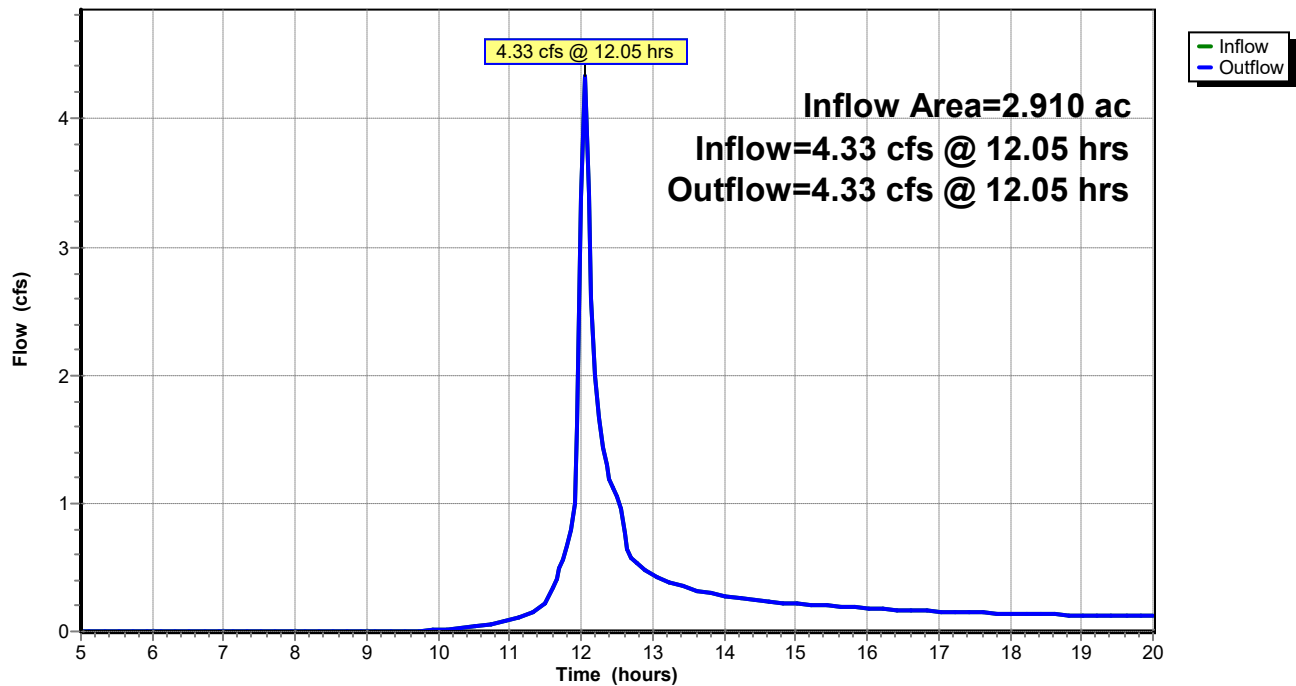
Hydrograph for Subcatchment EDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	18.00	2.51	0.70	0.02
5.25	0.23	0.00	0.00	18.25	2.53	0.71	0.02
5.50	0.24	0.00	0.00	18.50	2.54	0.72	0.02
5.75	0.25	0.00	0.00	18.75	2.55	0.73	0.02
6.00	0.27	0.00	0.00	19.00	2.57	0.74	0.02
6.25	0.28	0.00	0.00	19.25	2.58	0.74	0.02
6.50	0.30	0.00	0.00	19.50	2.59	0.75	0.02
6.75	0.31	0.00	0.00	19.75	2.60	0.76	0.02
7.00	0.33	0.00	0.00	20.00	2.62	0.77	0.02
7.25	0.35	0.00	0.00				
7.50	0.36	0.00	0.00				
7.75	0.38	0.00	0.00				
8.00	0.40	0.00	0.00				
8.25	0.42	0.00	0.00				
8.50	0.44	0.00	0.00				
8.75	0.46	0.00	0.00				
9.00	0.49	0.00	0.00				
9.25	0.51	0.00	0.00				
9.50	0.54	0.00	0.00				
9.75	0.56	0.00	0.00				
10.00	0.59	0.00	0.00				
10.25	0.63	0.00	0.00				
10.50	0.66	0.00	0.00				
10.75	0.70	0.00	0.00				
11.00	0.75	0.00	0.01				
11.25	0.81	0.01	0.01				
11.50	0.88	0.02	0.03				
11.75	1.03	0.04	0.08				
12.00	1.53	0.20	0.47				
12.25	1.78	0.31	0.29				
12.50	1.92	0.37	0.18				
12.75	1.98	0.41	0.10				
13.00	2.04	0.43	0.08				
13.25	2.08	0.46	0.07				
13.50	2.12	0.48	0.06				
13.75	2.16	0.50	0.05				
14.00	2.19	0.52	0.05				
14.25	2.22	0.53	0.05				
14.50	2.25	0.55	0.04				
14.75	2.27	0.56	0.04				
15.00	2.30	0.57	0.04				
15.25	2.32	0.59	0.04				
15.50	2.34	0.60	0.03				
15.75	2.36	0.61	0.03				
16.00	2.38	0.62	0.03				
16.25	2.40	0.63	0.03				
16.50	2.42	0.64	0.03				
16.75	2.43	0.66	0.03				
17.00	2.45	0.67	0.03				
17.25	2.47	0.67	0.03				
17.50	2.48	0.68	0.03				
17.75	2.50	0.69	0.03				

Summary for Reach DB-3:

Inflow Area = 2.910 ac, 2.10% Impervious, Inflow Depth > 1.10" for 2-yr event
Inflow = 4.33 cfs @ 12.05 hrs, Volume= 0.268 af
Outflow = 4.33 cfs @ 12.05 hrs, Volume= 0.268 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-3:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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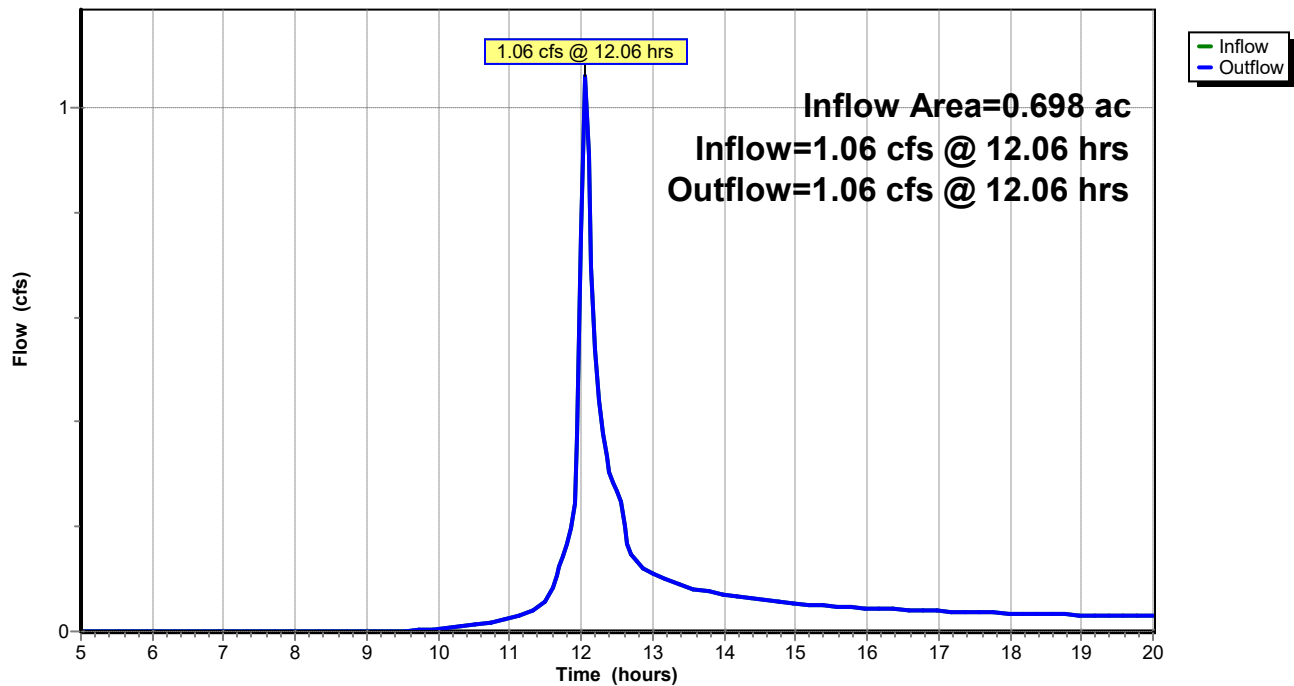
Hydrograph for Reach DB-3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.14		0.14
5.25	0.00		0.00	18.25	0.14		0.14
5.50	0.00		0.00	18.50	0.13		0.13
5.75	0.00		0.00	18.75	0.13		0.13
6.00	0.00		0.00	19.00	0.13		0.13
6.25	0.00		0.00	19.25	0.12		0.12
6.50	0.00		0.00	19.50	0.12		0.12
6.75	0.00		0.00	19.75	0.12		0.12
7.00	0.00		0.00	20.00	0.12		0.12
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.01		0.01				
10.25	0.02		0.02				
10.50	0.04		0.04				
10.75	0.06		0.06				
11.00	0.09		0.09				
11.25	0.13		0.13				
11.50	0.21		0.21				
11.75	0.56		0.56				
12.00	3.39		3.39				
12.25	1.67		1.67				
12.50	1.05		1.05				
12.75	0.54		0.54				
13.00	0.44		0.44				
13.25	0.38		0.38				
13.50	0.34		0.34				
13.75	0.31		0.31				
14.00	0.28		0.28				
14.25	0.26		0.26				
14.50	0.24		0.24				
14.75	0.23		0.23				
15.00	0.22		0.22				
15.25	0.21		0.21				
15.50	0.20		0.20				
15.75	0.19		0.19				
16.00	0.18		0.18				
16.25	0.17		0.17				
16.50	0.17		0.17				
16.75	0.16		0.16				
17.00	0.16		0.16				
17.25	0.15		0.15				
17.50	0.15		0.15				
17.75	0.14		0.14				

Summary for Reach DB-5:

Inflow Area = 0.698 ac, 9.74% Impervious, Inflow Depth > 1.16" for 2-yr event
Inflow = 1.06 cfs @ 12.06 hrs, Volume= 0.068 af
Outflow = 1.06 cfs @ 12.06 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-5:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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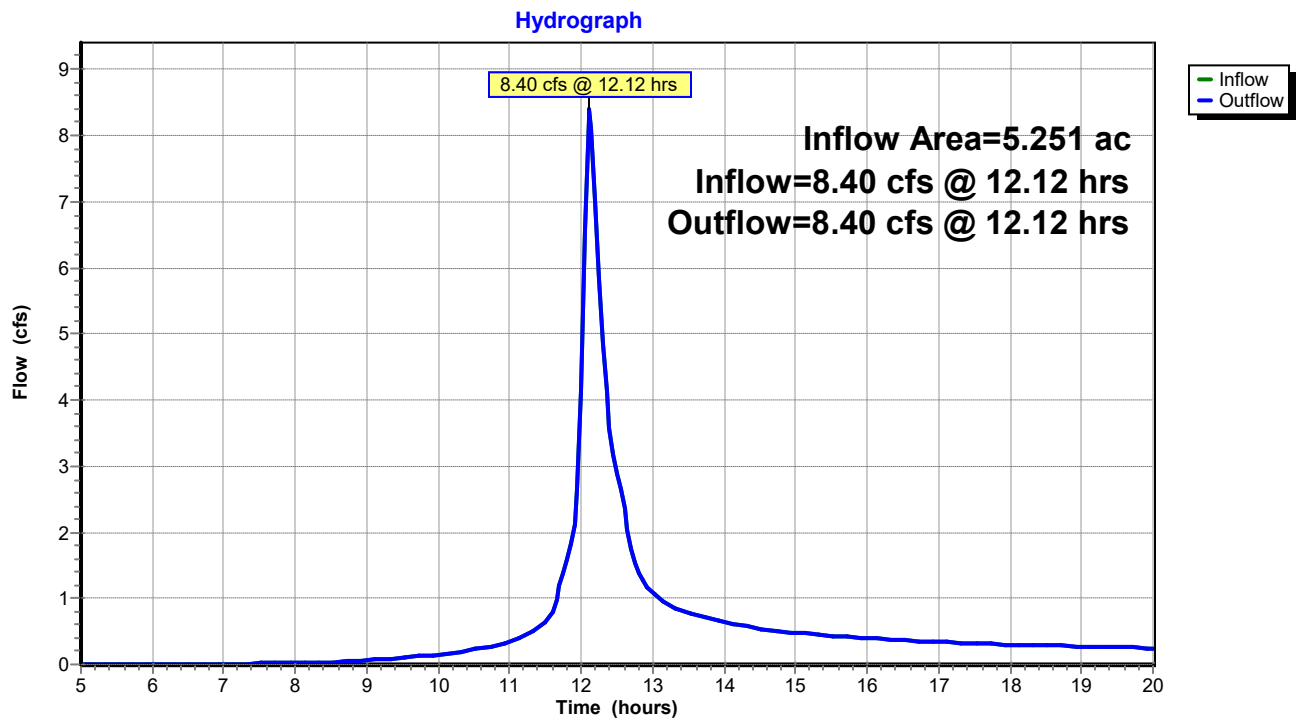
Hydrograph for Reach DB-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.03		0.03
5.25	0.00		0.00	18.25	0.03		0.03
5.50	0.00		0.00	18.50	0.03		0.03
5.75	0.00		0.00	18.75	0.03		0.03
6.00	0.00		0.00	19.00	0.03		0.03
6.25	0.00		0.00	19.25	0.03		0.03
6.50	0.00		0.00	19.50	0.03		0.03
6.75	0.00		0.00	19.75	0.03		0.03
7.00	0.00		0.00	20.00	0.03		0.03
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.01		0.01				
10.25	0.01		0.01				
10.50	0.01		0.01				
10.75	0.02		0.02				
11.00	0.02		0.02				
11.25	0.04		0.04				
11.50	0.05		0.05				
11.75	0.14		0.14				
12.00	0.76		0.76				
12.25	0.44		0.44				
12.50	0.27		0.27				
12.75	0.14		0.14				
13.00	0.11		0.11				
13.25	0.10		0.10				
13.50	0.08		0.08				
13.75	0.08		0.08				
14.00	0.07		0.07				
14.25	0.06		0.06				
14.50	0.06		0.06				
14.75	0.06		0.06				
15.00	0.05		0.05				
15.25	0.05		0.05				
15.50	0.05		0.05				
15.75	0.05		0.05				
16.00	0.04		0.04				
16.25	0.04		0.04				
16.50	0.04		0.04				
16.75	0.04		0.04				
17.00	0.04		0.04				
17.25	0.04		0.04				
17.50	0.04		0.04				
17.75	0.04		0.04				

Summary for Reach DP-1:

Inflow Area = 5.251 ac, 31.77% Impervious, Inflow Depth > 1.52" for 2-yr event
Inflow = 8.40 cfs @ 12.12 hrs, Volume= 0.665 af
Outflow = 8.40 cfs @ 12.12 hrs, Volume= 0.665 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1:

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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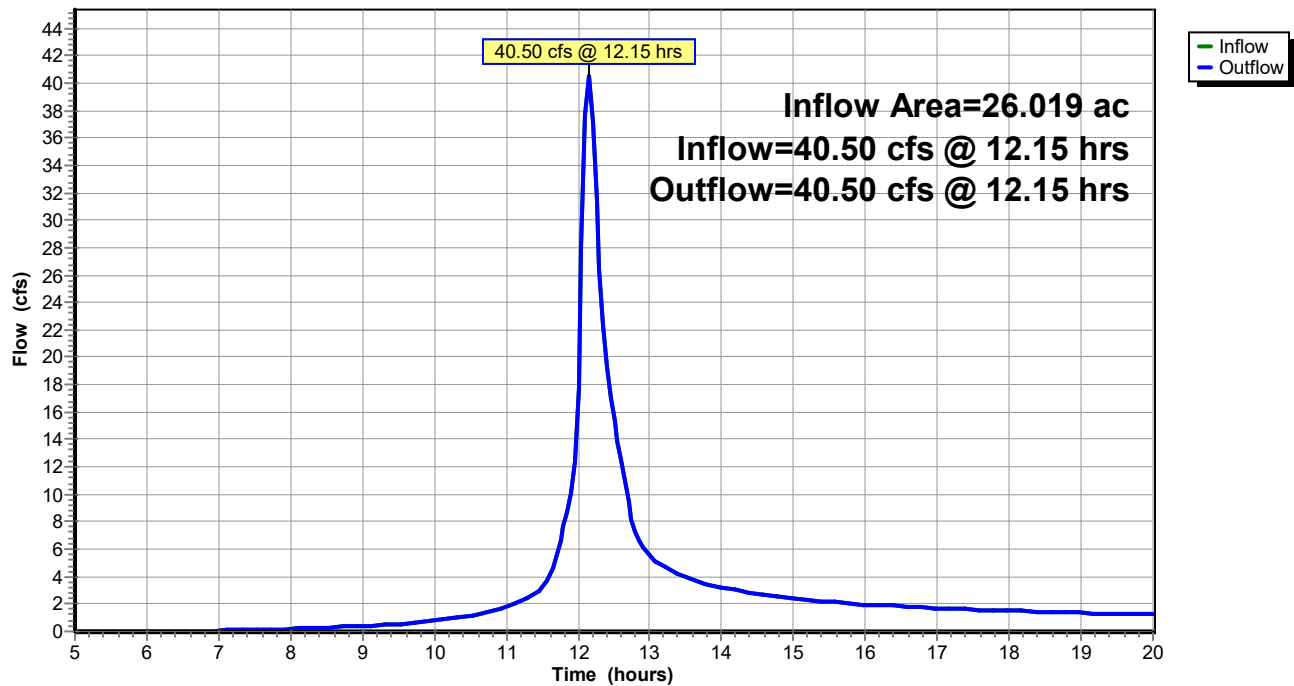
Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.30		0.30
5.25	0.00		0.00	18.25	0.29		0.29
5.50	0.00		0.00	18.50	0.29		0.29
5.75	0.00		0.00	18.75	0.28		0.28
6.00	0.00		0.00	19.00	0.27		0.27
6.25	0.00		0.00	19.25	0.27		0.27
6.50	0.00		0.00	19.50	0.26		0.26
6.75	0.00		0.00	19.75	0.25		0.25
7.00	0.01		0.01	20.00	0.25		0.25
7.25	0.01		0.01				
7.50	0.02		0.02				
7.75	0.02		0.02				
8.00	0.03		0.03				
8.25	0.03		0.03				
8.50	0.04		0.04				
8.75	0.05		0.05				
9.00	0.06		0.06				
9.25	0.08		0.08				
9.50	0.10		0.10				
9.75	0.12		0.12				
10.00	0.15		0.15				
10.25	0.18		0.18				
10.50	0.22		0.22				
10.75	0.28		0.28				
11.00	0.35		0.35				
11.25	0.45		0.45				
11.50	0.63		0.63				
11.75	1.39		1.39				
12.00	4.12		4.12				
12.25	5.83		5.83				
12.50	2.89		2.89				
12.75	1.53		1.53				
13.00	1.08		1.08				
13.25	0.90		0.90				
13.50	0.78		0.78				
13.75	0.70		0.70				
14.00	0.64		0.64				
14.25	0.58		0.58				
14.50	0.54		0.54				
14.75	0.51		0.51				
15.00	0.48		0.48				
15.25	0.45		0.45				
15.50	0.43		0.43				
15.75	0.41		0.41				
16.00	0.39		0.39				
16.25	0.38		0.38				
16.50	0.36		0.36				
16.75	0.35		0.35				
17.00	0.34		0.34				
17.25	0.33		0.33				
17.50	0.32		0.32				
17.75	0.31		0.31				

Summary for Reach DP-2:

Inflow Area = 26.019 ac, 32.96% Impervious, Inflow Depth > 1.55" for 2-yr event
Inflow = 40.50 cfs @ 12.15 hrs, Volume= 3.356 af
Outflow = 40.50 cfs @ 12.15 hrs, Volume= 3.356 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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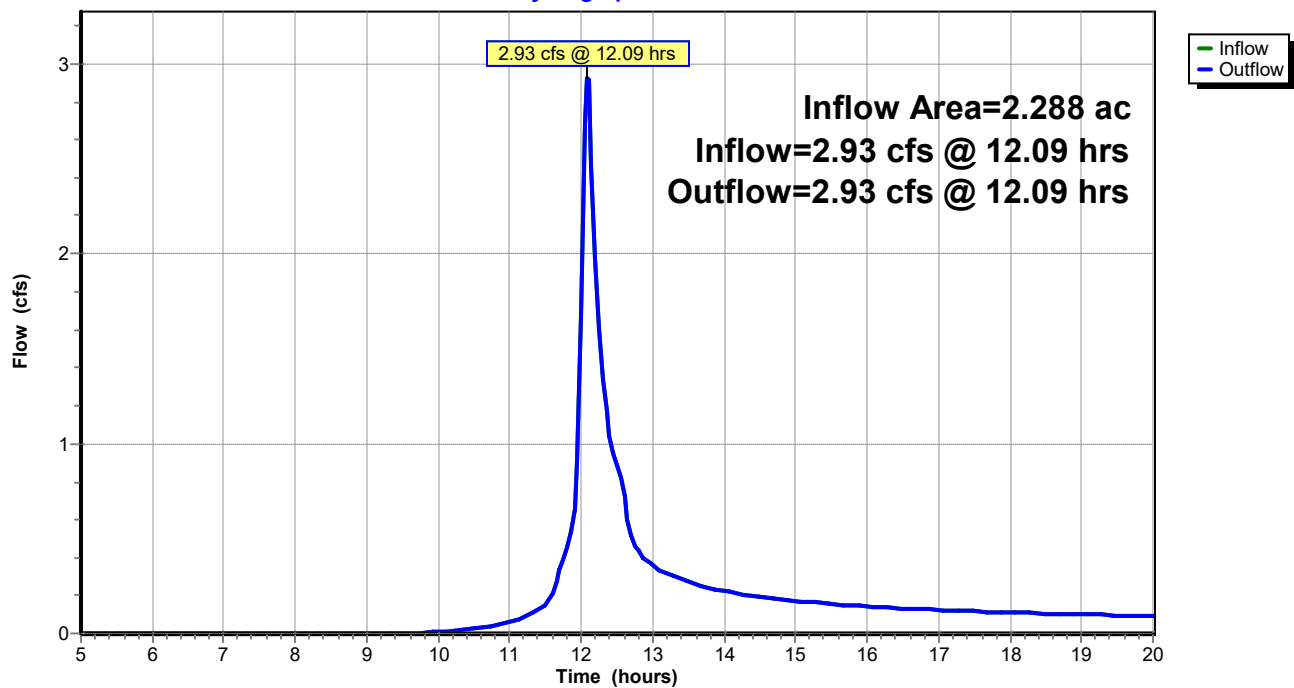
Hydrograph for Reach DP-2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	1.50		1.50
5.25	0.00		0.00	18.25	1.46		1.46
5.50	0.00		0.00	18.50	1.42		1.42
5.75	0.00		0.00	18.75	1.39		1.39
6.00	0.00		0.00	19.00	1.35		1.35
6.25	0.00		0.00	19.25	1.32		1.32
6.50	0.00		0.00	19.50	1.29		1.29
6.75	0.03		0.03	19.75	1.27		1.27
7.00	0.06		0.06	20.00	1.24		1.24
7.25	0.09		0.09				
7.50	0.12		0.12				
7.75	0.16		0.16				
8.00	0.20		0.20				
8.25	0.25		0.25				
8.50	0.30		0.30				
8.75	0.35		0.35				
9.00	0.41		0.41				
9.25	0.48		0.48				
9.50	0.56		0.56				
9.75	0.66		0.66				
10.00	0.79		0.79				
10.25	0.95		0.95				
10.50	1.15		1.15				
10.75	1.42		1.42				
11.00	1.77		1.77				
11.25	2.30		2.30				
11.50	3.14		3.14				
11.75	6.62		6.62				
12.00	17.82		17.82				
12.25	31.47		31.47				
12.50	15.29		15.29				
12.75	8.20		8.20				
13.00	5.52		5.52				
13.25	4.54		4.54				
13.50	3.95		3.95				
13.75	3.52		3.52				
14.00	3.19		3.19				
14.25	2.94		2.94				
14.50	2.73		2.73				
14.75	2.55		2.55				
15.00	2.40		2.40				
15.25	2.27		2.27				
15.50	2.16		2.16				
15.75	2.06		2.06				
16.00	1.97		1.97				
16.25	1.89		1.89				
16.50	1.82		1.82				
16.75	1.75		1.75				
17.00	1.69		1.69				
17.25	1.64		1.64				
17.50	1.59		1.59				
17.75	1.54		1.54				

Summary for Reach DP-4:

Inflow Area = 2.288 ac, 2.71% Impervious, Inflow Depth > 1.10" for 2-yr event
Inflow = 2.93 cfs @ 12.09 hrs, Volume= 0.210 af
Outflow = 2.93 cfs @ 12.09 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.11		0.11
5.25	0.00		0.00	18.25	0.11		0.11
5.50	0.00		0.00	18.50	0.11		0.11
5.75	0.00		0.00	18.75	0.10		0.10
6.00	0.00		0.00	19.00	0.10		0.10
6.25	0.00		0.00	19.25	0.10		0.10
6.50	0.00		0.00	19.50	0.10		0.10
6.75	0.00		0.00	19.75	0.09		0.09
7.00	0.00		0.00	20.00	0.09		0.09
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.00		0.00				
8.00	0.00		0.00				
8.25	0.00		0.00				
8.50	0.00		0.00				
8.75	0.00		0.00				
9.00	0.00		0.00				
9.25	0.00		0.00				
9.50	0.00		0.00				
9.75	0.00		0.00				
10.00	0.01		0.01				
10.25	0.02		0.02				
10.50	0.03		0.03				
10.75	0.04		0.04				
11.00	0.06		0.06				
11.25	0.09		0.09				
11.50	0.15		0.15				
11.75	0.39		0.39				
12.00	1.67		1.67				
12.25	1.60		1.60				
12.50	0.89		0.89				
12.75	0.47		0.47				
13.00	0.36		0.36				
13.25	0.31		0.31				
13.50	0.27		0.27				
13.75	0.24		0.24				
14.00	0.22		0.22				
14.25	0.21		0.21				
14.50	0.19		0.19				
14.75	0.18		0.18				
15.00	0.17		0.17				
15.25	0.16		0.16				
15.50	0.16		0.16				
15.75	0.15		0.15				
16.00	0.14		0.14				
16.25	0.14		0.14				
16.50	0.13		0.13				
16.75	0.13		0.13				
17.00	0.12		0.12				
17.25	0.12		0.12				
17.50	0.12		0.12				
17.75	0.11		0.11				

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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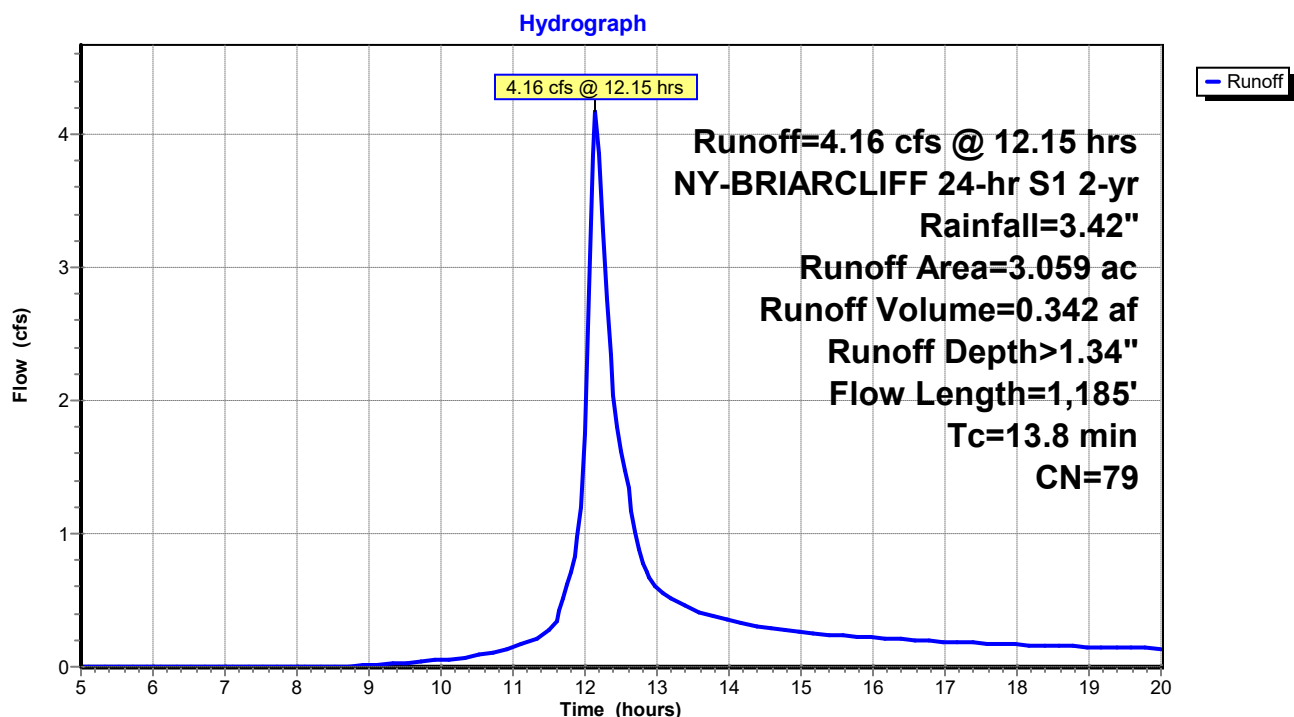
Summary for Subcatchment EDA-1A:

Runoff = 4.16 cfs @ 12.15 hrs, Volume= 0.342 af, Depth> 1.34"
Routed to Reach DP-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.627	98	Paved parking, HSG C
2.432	74	>75% Grass cover, Good, HSG C
3.059	79	Weighted Average
2.432		79.50% Pervious Area
0.627		20.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0267	0.21		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.1	260	0.0692	3.95		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
1.0	775	0.0387	12.67	22.39	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
13.8	1,185	Total			

Subcatchment EDA-1A:

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.26	0.17
5.25	0.28	0.00	0.00	18.25	3.11	1.27	0.16
5.50	0.30	0.00	0.00	18.50	3.13	1.28	0.16
5.75	0.31	0.00	0.00	18.75	3.14	1.29	0.15
6.00	0.33	0.00	0.00	19.00	3.16	1.31	0.15
6.25	0.35	0.00	0.00	19.25	3.17	1.32	0.15
6.50	0.37	0.00	0.00	19.50	3.19	1.33	0.14
6.75	0.39	0.00	0.00	19.75	3.20	1.34	0.14
7.00	0.41	0.00	0.00	20.00	3.22	1.35	0.14
7.25	0.43	0.00	0.00				
7.50	0.45	0.00	0.00				
7.75	0.47	0.00	0.00				
8.00	0.49	0.00	0.00				
8.25	0.52	0.00	0.00				
8.50	0.54	0.00	0.00				
8.75	0.57	0.00	0.00				
9.00	0.60	0.00	0.01				
9.25	0.63	0.00	0.02				
9.50	0.66	0.01	0.03				
9.75	0.69	0.01	0.04				
10.00	0.73	0.01	0.05				
10.25	0.77	0.02	0.07				
10.50	0.81	0.03	0.09				
10.75	0.86	0.04	0.11				
11.00	0.92	0.05	0.15				
11.25	0.99	0.07	0.20				
11.50	1.08	0.09	0.28				
11.75	1.27	0.16	0.61				
12.00	1.87	0.45	1.75				
12.25	2.19	0.63	3.27				
12.50	2.36	0.74	1.62				
12.75	2.44	0.80	0.87				
13.00	2.51	0.84	0.59				
13.25	2.56	0.88	0.49				
13.50	2.61	0.91	0.43				
13.75	2.66	0.94	0.38				
14.00	2.70	0.97	0.35				
14.25	2.73	1.00	0.32				
14.50	2.76	1.02	0.30				
14.75	2.80	1.04	0.28				
15.00	2.83	1.06	0.26				
15.25	2.85	1.08	0.25				
15.50	2.88	1.10	0.24				
15.75	2.90	1.12	0.23				
16.00	2.93	1.14	0.22				
16.25	2.95	1.15	0.21				
16.50	2.97	1.17	0.20				
16.75	2.99	1.18	0.19				
17.00	3.02	1.20	0.19				
17.25	3.04	1.21	0.18				
17.50	3.05	1.23	0.18				
17.75	3.07	1.24	0.17				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment EDA-1B:

Runoff = 4.41 cfs @ 12.10 hrs, Volume= 0.323 af, Depth> 1.77"
 Routed to Reach DP-1 :

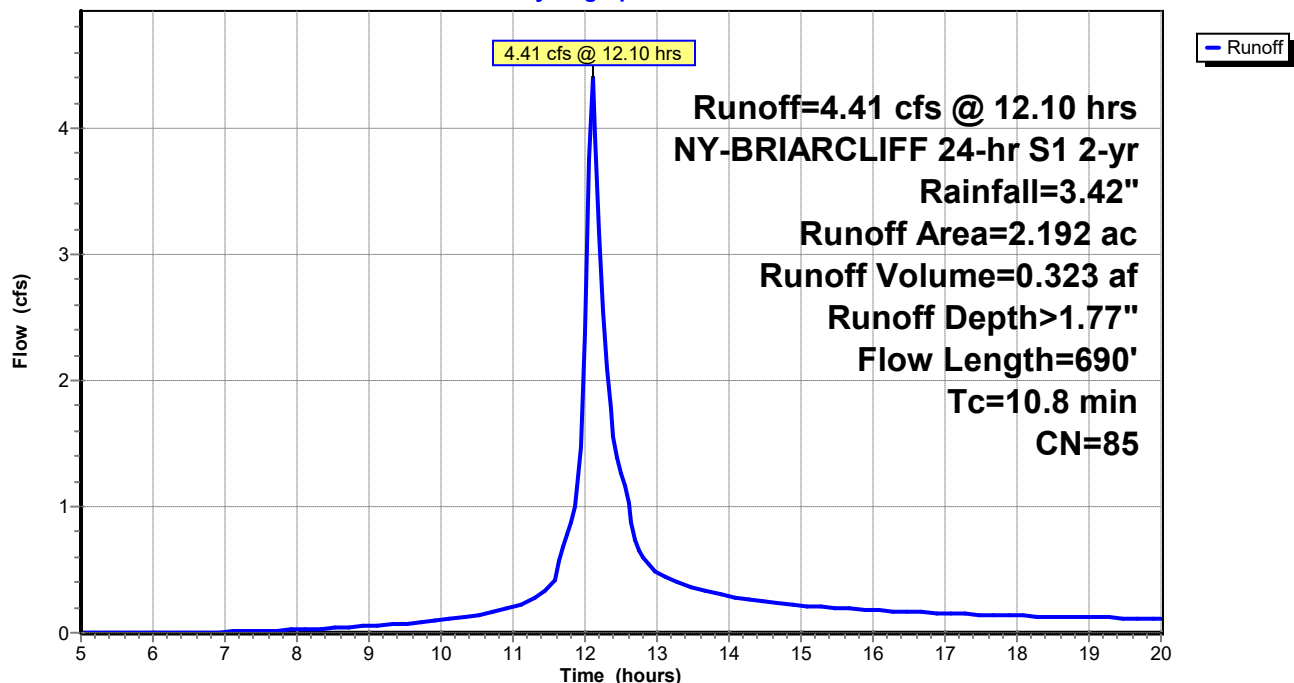
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
1.041	98	Paved parking, HSG C
1.151	74	>75% Grass cover, Good, HSG C
2.192	85	Weighted Average
1.151		52.51% Pervious Area
1.041		47.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	150	0.0500	0.28		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.3	260	0.0481	3.29		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
0.4	280	0.0500	10.99	8.63	Pipe Channel, 12" PIPE 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Steel, smooth
10.8	690	Total			

Subcatchment EDA-1B:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.66	0.14
5.25	0.28	0.00	0.00	18.25	3.11	1.68	0.13
5.50	0.30	0.00	0.00	18.50	3.13	1.69	0.13
5.75	0.31	0.00	0.00	18.75	3.14	1.71	0.12
6.00	0.33	0.00	0.00	19.00	3.16	1.72	0.12
6.25	0.35	0.00	0.00	19.25	3.17	1.74	0.12
6.50	0.37	0.00	0.00	19.50	3.19	1.75	0.12
6.75	0.39	0.00	0.00	19.75	3.20	1.76	0.11
7.00	0.41	0.00	0.01	20.00	3.22	1.77	0.11
7.25	0.43	0.00	0.01				
7.50	0.45	0.00	0.02				
7.75	0.47	0.01	0.02				
8.00	0.49	0.01	0.03				
8.25	0.52	0.01	0.03				
8.50	0.54	0.02	0.04				
8.75	0.57	0.02	0.04				
9.00	0.60	0.03	0.05				
9.25	0.63	0.04	0.06				
9.50	0.66	0.05	0.07				
9.75	0.69	0.06	0.08				
10.00	0.73	0.07	0.10				
10.25	0.77	0.08	0.12				
10.50	0.81	0.10	0.14				
10.75	0.86	0.12	0.16				
11.00	0.92	0.14	0.20				
11.25	0.99	0.17	0.26				
11.50	1.08	0.21	0.35				
11.75	1.27	0.31	0.77				
12.00	1.87	0.70	2.37				
12.25	2.19	0.93	2.56				
12.50	2.36	1.07	1.27				
12.75	2.44	1.13	0.66				
13.00	2.51	1.18	0.48				
13.25	2.56	1.23	0.41				
13.50	2.61	1.27	0.35				
13.75	2.66	1.30	0.32				
14.00	2.70	1.34	0.29				
14.25	2.73	1.37	0.26				
14.50	2.76	1.39	0.25				
14.75	2.80	1.42	0.23				
15.00	2.83	1.44	0.22				
15.25	2.85	1.47	0.20				
15.50	2.88	1.49	0.19				
15.75	2.90	1.51	0.19				
16.00	2.93	1.53	0.18				
16.25	2.95	1.55	0.17				
16.50	2.97	1.57	0.16				
16.75	2.99	1.58	0.16				
17.00	3.02	1.60	0.15				
17.25	3.04	1.62	0.15				
17.50	3.05	1.63	0.14				
17.75	3.07	1.65	0.14				

Summary for Subcatchment EDA-2A:

Runoff = 31.70 cfs @ 12.14 hrs, Volume= 2.582 af, Depth> 1.76"
 Routed to Reach DP-2 :

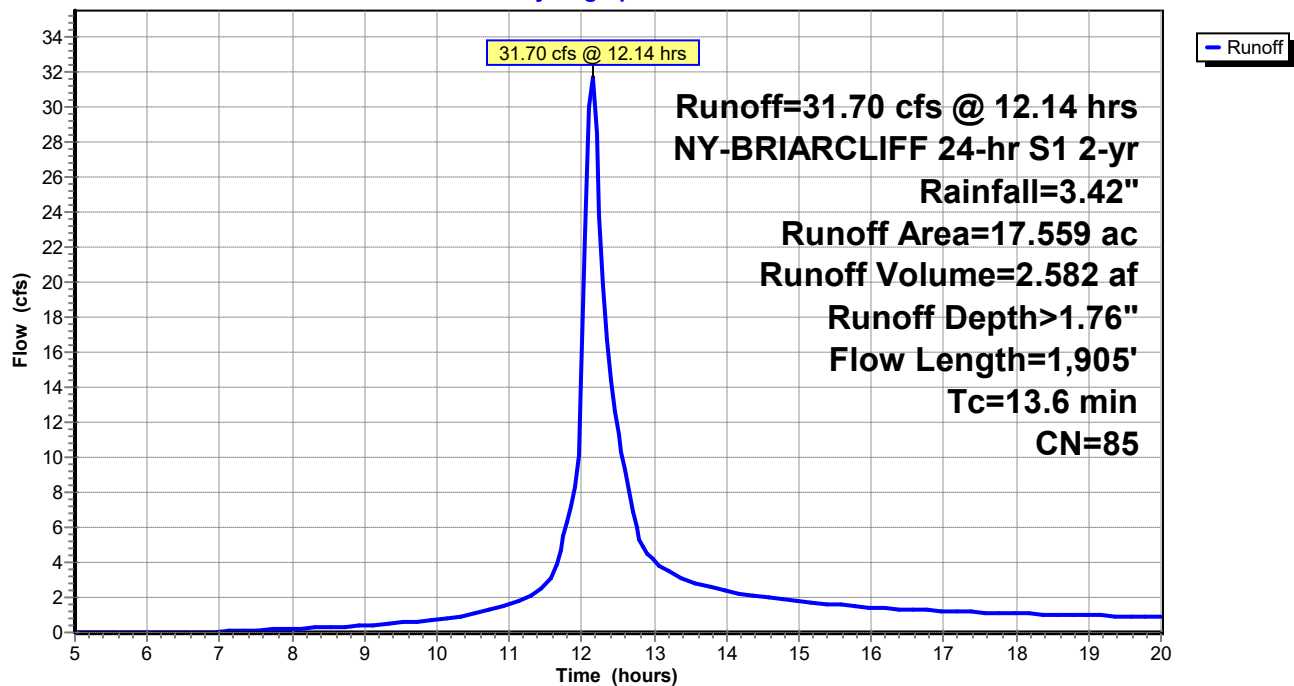
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
8.135	98	Paved parking, HSG C
9.424	74	>75% Grass cover, Good, HSG C
17.559	85	Weighted Average
9.424		53.67% Pervious Area
8.135		46.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.6	300	0.0433	3.12		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 1 Grassed Waterway Kv= 15.0 fps
0.2	140	0.0357	12.17	21.50	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
0.8	975	0.0615	19.35	60.78	Pipe Channel, 24" PIPE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Steel, smooth
1.1	340	0.1265	5.34		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 2 Grassed Waterway Kv= 15.0 fps
13.6	1,905	Total			

Subcatchment EDA-2A:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.66	1.09
5.25	0.28	0.00	0.00	18.25	3.11	1.68	1.06
5.50	0.30	0.00	0.00	18.50	3.13	1.69	1.03
5.75	0.31	0.00	0.00	18.75	3.14	1.71	1.00
6.00	0.33	0.00	0.00	19.00	3.16	1.72	0.98
6.25	0.35	0.00	0.00	19.25	3.17	1.74	0.96
6.50	0.37	0.00	0.00	19.50	3.19	1.75	0.94
6.75	0.39	0.00	0.03	19.75	3.20	1.76	0.92
7.00	0.41	0.00	0.06	20.00	3.22	1.77	0.90
7.25	0.43	0.00	0.09				
7.50	0.45	0.00	0.12				
7.75	0.47	0.01	0.16				
8.00	0.49	0.01	0.20				
8.25	0.52	0.01	0.25				
8.50	0.54	0.02	0.30				
8.75	0.57	0.02	0.35				
9.00	0.60	0.03	0.41				
9.25	0.63	0.04	0.48				
9.50	0.66	0.05	0.56				
9.75	0.69	0.06	0.65				
10.00	0.73	0.07	0.76				
10.25	0.77	0.08	0.90				
10.50	0.81	0.10	1.06				
10.75	0.86	0.12	1.28				
11.00	0.92	0.14	1.57				
11.25	0.99	0.17	1.99				
11.50	1.08	0.21	2.67				
11.75	1.27	0.31	5.53				
12.00	1.87	0.70	14.53				
12.25	2.19	0.93	23.80				
12.50	2.36	1.07	11.32				
12.75	2.44	1.13	5.99				
13.00	2.51	1.18	4.06				
13.25	2.56	1.23	3.34				
13.50	2.61	1.27	2.90				
13.75	2.66	1.30	2.58				
14.00	2.70	1.34	2.34				
14.25	2.73	1.37	2.15				
14.50	2.76	1.39	1.99				
14.75	2.80	1.42	1.86				
15.00	2.83	1.44	1.75				
15.25	2.85	1.47	1.66				
15.50	2.88	1.49	1.57				
15.75	2.90	1.51	1.50				
16.00	2.93	1.53	1.44				
16.25	2.95	1.55	1.38				
16.50	2.97	1.57	1.32				
16.75	2.99	1.58	1.28				
17.00	3.02	1.60	1.23				
17.25	3.04	1.62	1.19				
17.50	3.05	1.63	1.15				
17.75	3.07	1.65	1.12				

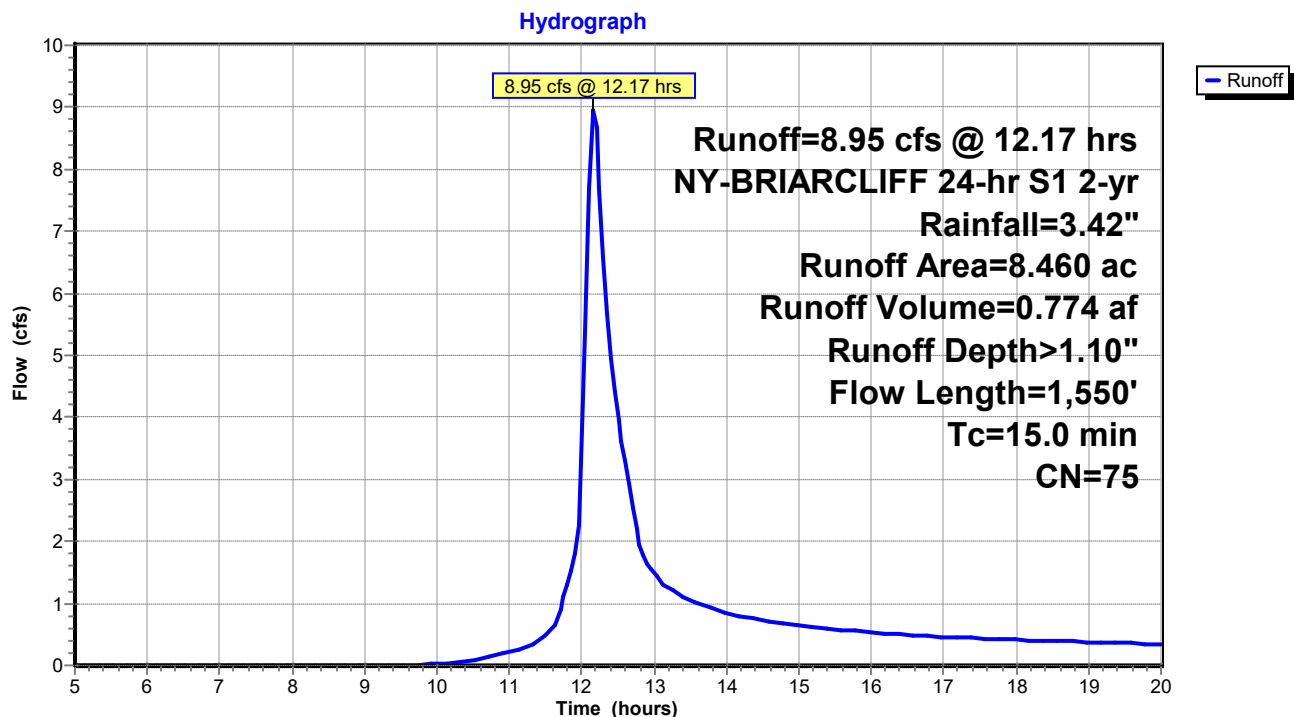
Summary for Subcatchment EDA-2B:

Runoff = 8.95 cfs @ 12.17 hrs, Volume= 0.774 af, Depth> 1.10"
 Routed to Reach DP-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.441	98	Paved parking, HSG C
8.019	74	>75% Grass cover, Good, HSG C
8.460	75	Weighted Average
8.019		94.79% Pervious Area
0.441		5.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
15.0	1,550	Total			

Subcatchment EDA-2B:

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.02	0.41
5.25	0.28	0.00	0.00	18.25	3.11	1.03	0.40
5.50	0.30	0.00	0.00	18.50	3.13	1.04	0.39
5.75	0.31	0.00	0.00	18.75	3.14	1.05	0.38
6.00	0.33	0.00	0.00	19.00	3.16	1.07	0.37
6.25	0.35	0.00	0.00	19.25	3.17	1.08	0.37
6.50	0.37	0.00	0.00	19.50	3.19	1.09	0.36
6.75	0.39	0.00	0.00	19.75	3.20	1.10	0.35
7.00	0.41	0.00	0.00	20.00	3.22	1.11	0.34
7.25	0.43	0.00	0.00				
7.50	0.45	0.00	0.00				
7.75	0.47	0.00	0.00				
8.00	0.49	0.00	0.00				
8.25	0.52	0.00	0.00				
8.50	0.54	0.00	0.00				
8.75	0.57	0.00	0.00				
9.00	0.60	0.00	0.00				
9.25	0.63	0.00	0.00				
9.50	0.66	0.00	0.00				
9.75	0.69	0.00	0.00				
10.00	0.73	0.00	0.02				
10.25	0.77	0.00	0.05				
10.50	0.81	0.01	0.09				
10.75	0.86	0.01	0.14				
11.00	0.92	0.02	0.21				
11.25	0.99	0.03	0.31				
11.50	1.08	0.05	0.47				
11.75	1.27	0.09	1.09				
12.00	1.87	0.32	3.29				
12.25	2.19	0.48	7.68				
12.50	2.36	0.57	3.96				
12.75	2.44	0.62	2.21				
13.00	2.51	0.66	1.46				
13.25	2.56	0.69	1.20				
13.50	2.61	0.72	1.05				
13.75	2.66	0.74	0.94				
14.00	2.70	0.77	0.85				
14.25	2.73	0.79	0.79				
14.50	2.76	0.81	0.73				
14.75	2.80	0.83	0.69				
15.00	2.83	0.85	0.65				
15.25	2.85	0.87	0.61				
15.50	2.88	0.88	0.58				
15.75	2.90	0.90	0.56				
16.00	2.93	0.91	0.54				
16.25	2.95	0.93	0.51				
16.50	2.97	0.94	0.50				
16.75	2.99	0.96	0.48				
17.00	3.02	0.97	0.46				
17.25	3.04	0.98	0.45				
17.50	3.05	1.00	0.44				
17.75	3.07	1.01	0.42				

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment EDA-3:

Runoff = 4.33 cfs @ 12.05 hrs, Volume= 0.268 af, Depth> 1.10"
Routed to Reach DB-3 :

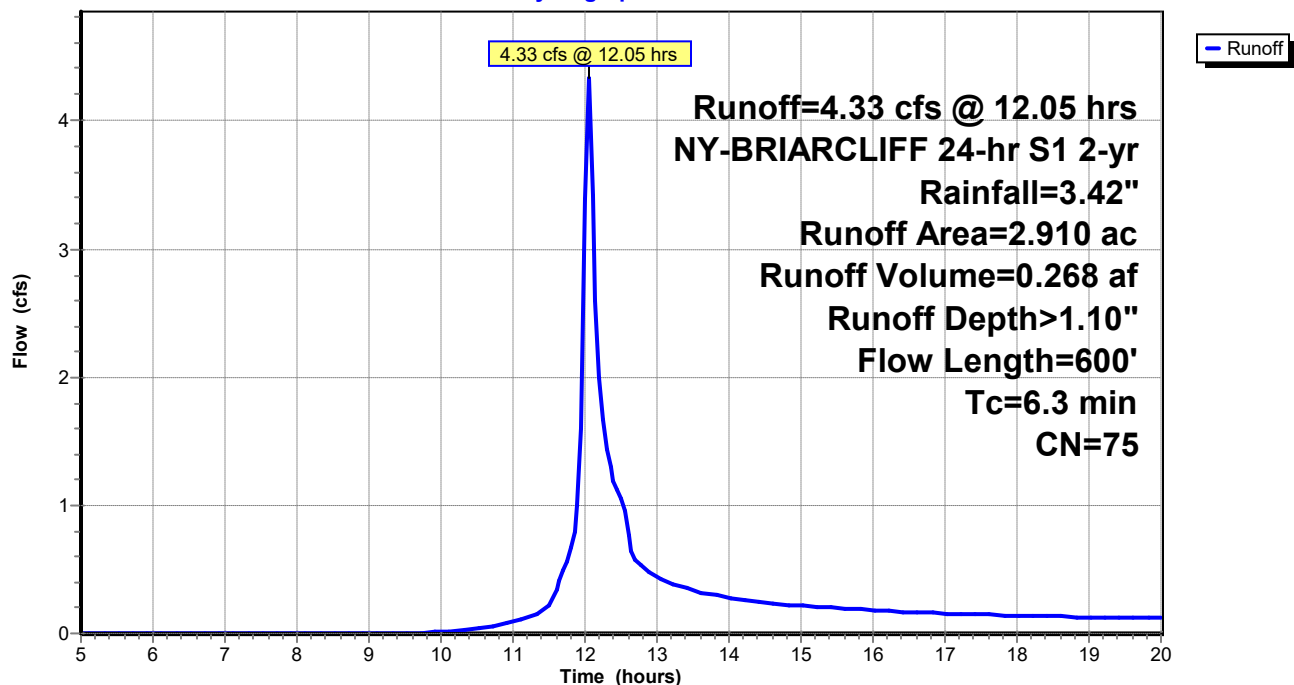
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.061	98	Paved parking, HSG C
2.849	74	>75% Grass cover, Good, HSG C
2.910	75	Weighted Average
2.849		97.90% Pervious Area
0.061		2.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	90	0.0889	0.31		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.5	510	0.1372	5.56		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
6.3	600	Total			

Subcatchment EDA-3:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.02	0.14
5.25	0.28	0.00	0.00	18.25	3.11	1.03	0.14
5.50	0.30	0.00	0.00	18.50	3.13	1.04	0.13
5.75	0.31	0.00	0.00	18.75	3.14	1.05	0.13
6.00	0.33	0.00	0.00	19.00	3.16	1.07	0.13
6.25	0.35	0.00	0.00	19.25	3.17	1.08	0.12
6.50	0.37	0.00	0.00	19.50	3.19	1.09	0.12
6.75	0.39	0.00	0.00	19.75	3.20	1.10	0.12
7.00	0.41	0.00	0.00	20.00	3.22	1.11	0.12
7.25	0.43	0.00	0.00				
7.50	0.45	0.00	0.00				
7.75	0.47	0.00	0.00				
8.00	0.49	0.00	0.00				
8.25	0.52	0.00	0.00				
8.50	0.54	0.00	0.00				
8.75	0.57	0.00	0.00				
9.00	0.60	0.00	0.00				
9.25	0.63	0.00	0.00				
9.50	0.66	0.00	0.00				
9.75	0.69	0.00	0.00				
10.00	0.73	0.00	0.01				
10.25	0.77	0.00	0.02				
10.50	0.81	0.01	0.04				
10.75	0.86	0.01	0.06				
11.00	0.92	0.02	0.09				
11.25	0.99	0.03	0.13				
11.50	1.08	0.05	0.21				
11.75	1.27	0.09	0.56				
12.00	1.87	0.32	3.39				
12.25	2.19	0.48	1.67				
12.50	2.36	0.57	1.05				
12.75	2.44	0.62	0.54				
13.00	2.51	0.66	0.44				
13.25	2.56	0.69	0.38				
13.50	2.61	0.72	0.34				
13.75	2.66	0.74	0.31				
14.00	2.70	0.77	0.28				
14.25	2.73	0.79	0.26				
14.50	2.76	0.81	0.24				
14.75	2.80	0.83	0.23				
15.00	2.83	0.85	0.22				
15.25	2.85	0.87	0.21				
15.50	2.88	0.88	0.20				
15.75	2.90	0.90	0.19				
16.00	2.93	0.91	0.18				
16.25	2.95	0.93	0.17				
16.50	2.97	0.94	0.17				
16.75	2.99	0.96	0.16				
17.00	3.02	0.97	0.16				
17.25	3.04	0.98	0.15				
17.50	3.05	1.00	0.15				
17.75	3.07	1.01	0.14				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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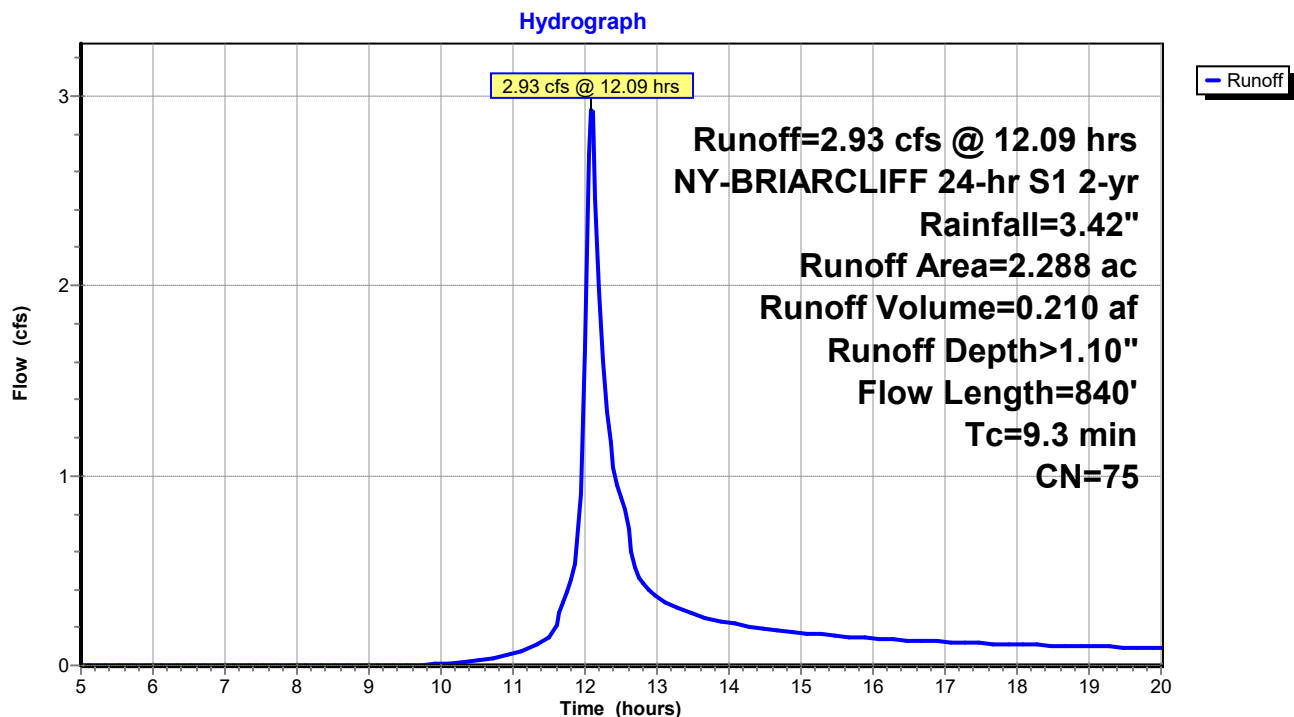
Summary for Subcatchment EDA-4:

Runoff = 2.93 cfs @ 12.09 hrs, Volume= 0.210 af, Depth> 1.10"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.062	98	Paved parking, HSG C
2.226	74	>75% Grass cover, Good, HSG C
2.288	75	Weighted Average
2.226		97.29% Pervious Area
0.062		2.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	150	0.0800	0.33		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.8	690	0.1884	6.51		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
9.3	840	Total			

Subcatchment EDA-4:

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment EDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.02	0.11
5.25	0.28	0.00	0.00	18.25	3.11	1.03	0.11
5.50	0.30	0.00	0.00	18.50	3.13	1.04	0.11
5.75	0.31	0.00	0.00	18.75	3.14	1.05	0.10
6.00	0.33	0.00	0.00	19.00	3.16	1.07	0.10
6.25	0.35	0.00	0.00	19.25	3.17	1.08	0.10
6.50	0.37	0.00	0.00	19.50	3.19	1.09	0.10
6.75	0.39	0.00	0.00	19.75	3.20	1.10	0.09
7.00	0.41	0.00	0.00	20.00	3.22	1.11	0.09
7.25	0.43	0.00	0.00				
7.50	0.45	0.00	0.00				
7.75	0.47	0.00	0.00				
8.00	0.49	0.00	0.00				
8.25	0.52	0.00	0.00				
8.50	0.54	0.00	0.00				
8.75	0.57	0.00	0.00				
9.00	0.60	0.00	0.00				
9.25	0.63	0.00	0.00				
9.50	0.66	0.00	0.00				
9.75	0.69	0.00	0.00				
10.00	0.73	0.00	0.01				
10.25	0.77	0.00	0.02				
10.50	0.81	0.01	0.03				
10.75	0.86	0.01	0.04				
11.00	0.92	0.02	0.06				
11.25	0.99	0.03	0.09				
11.50	1.08	0.05	0.15				
11.75	1.27	0.09	0.39				
12.00	1.87	0.32	1.67				
12.25	2.19	0.48	1.60				
12.50	2.36	0.57	0.89				
12.75	2.44	0.62	0.47				
13.00	2.51	0.66	0.36				
13.25	2.56	0.69	0.31				
13.50	2.61	0.72	0.27				
13.75	2.66	0.74	0.24				
14.00	2.70	0.77	0.22				
14.25	2.73	0.79	0.21				
14.50	2.76	0.81	0.19				
14.75	2.80	0.83	0.18				
15.00	2.83	0.85	0.17				
15.25	2.85	0.87	0.16				
15.50	2.88	0.88	0.16				
15.75	2.90	0.90	0.15				
16.00	2.93	0.91	0.14				
16.25	2.95	0.93	0.14				
16.50	2.97	0.94	0.13				
16.75	2.99	0.96	0.13				
17.00	3.02	0.97	0.12				
17.25	3.04	0.98	0.12				
17.50	3.05	1.00	0.12				
17.75	3.07	1.01	0.11				

Summary for Subcatchment EDA-5:

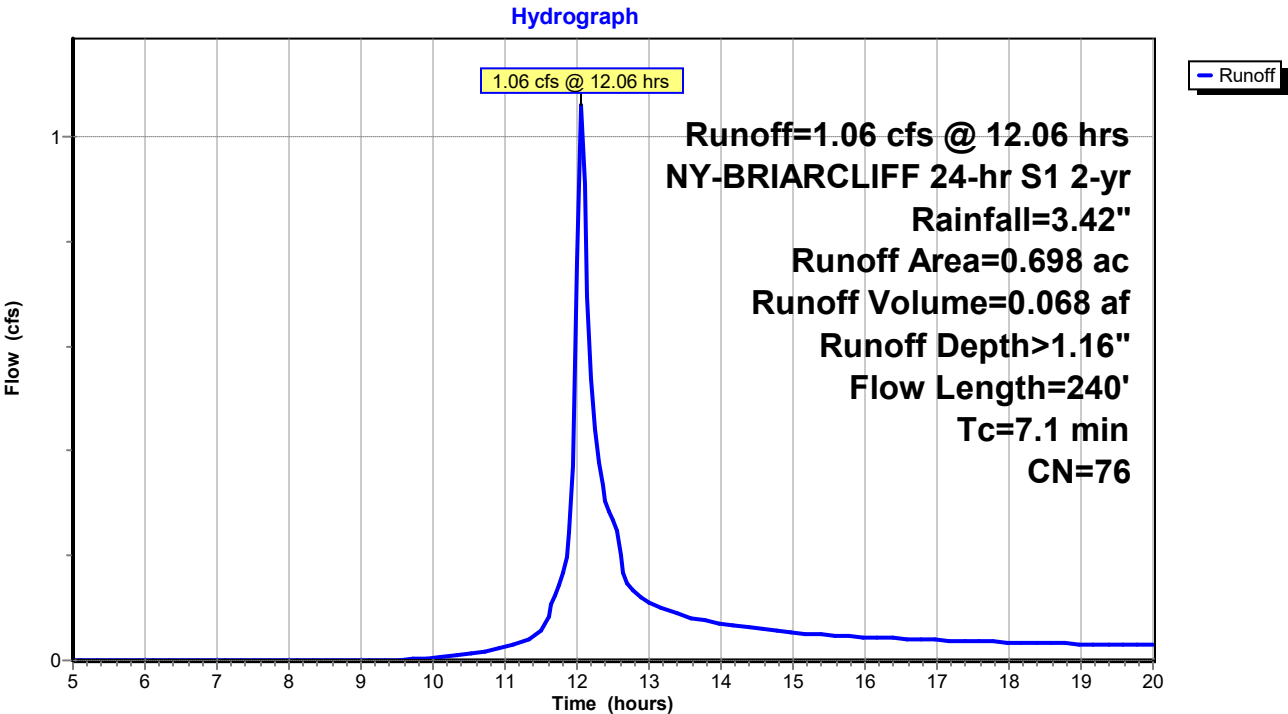
Runoff = 1.06 cfs @ 12.06 hrs, Volume= 0.068 af, Depth> 1.16"
Routed to Reach DB-5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.068	98	Paved parking, HSG C
0.630	74	>75% Grass cover, Good, HSG C
0.698	76	Weighted Average
0.630		90.26% Pervious Area
0.068		9.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	150	0.1000	0.36		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
0.2	90	0.2336	7.25		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
7.1	240	Total			

Subcatchment EDA-5:



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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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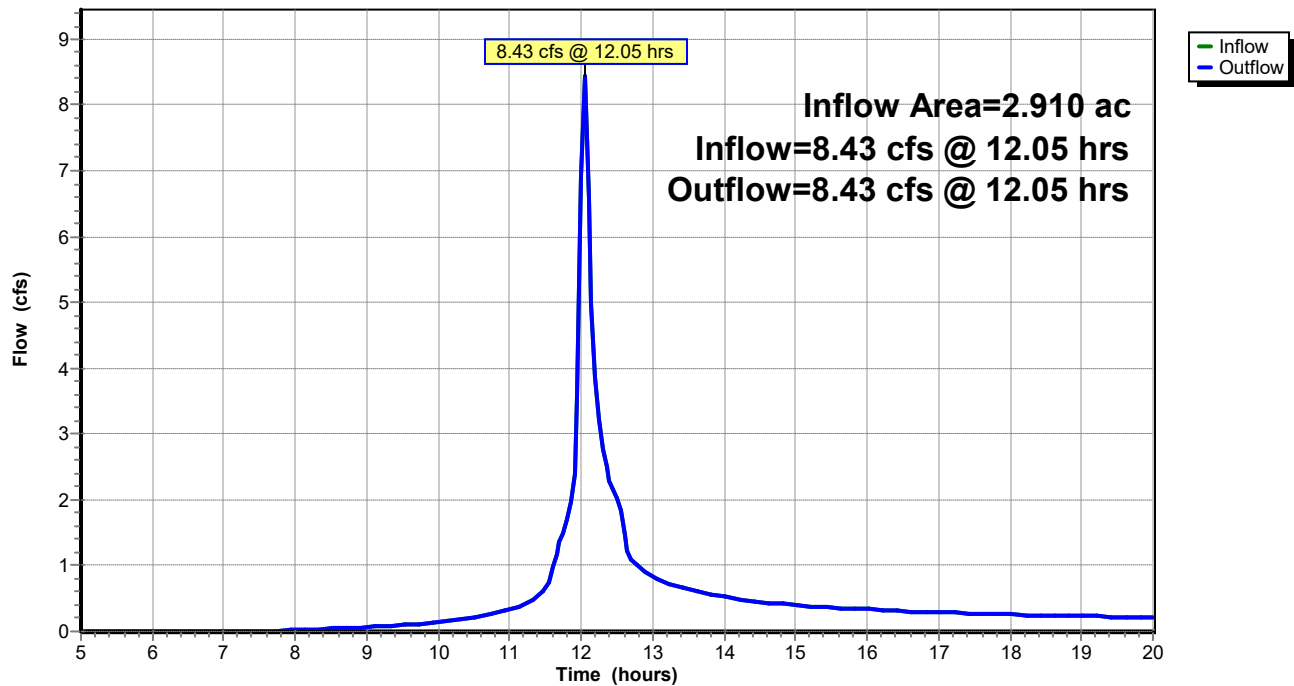
Hydrograph for Subcatchment EDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00	18.00	3.09	1.08	0.03
5.25	0.28	0.00	0.00	18.25	3.11	1.09	0.03
5.50	0.30	0.00	0.00	18.50	3.13	1.10	0.03
5.75	0.31	0.00	0.00	18.75	3.14	1.11	0.03
6.00	0.33	0.00	0.00	19.00	3.16	1.12	0.03
6.25	0.35	0.00	0.00	19.25	3.17	1.13	0.03
6.50	0.37	0.00	0.00	19.50	3.19	1.14	0.03
6.75	0.39	0.00	0.00	19.75	3.20	1.15	0.03
7.00	0.41	0.00	0.00	20.00	3.22	1.17	0.03
7.25	0.43	0.00	0.00				
7.50	0.45	0.00	0.00				
7.75	0.47	0.00	0.00				
8.00	0.49	0.00	0.00				
8.25	0.52	0.00	0.00				
8.50	0.54	0.00	0.00				
8.75	0.57	0.00	0.00				
9.00	0.60	0.00	0.00				
9.25	0.63	0.00	0.00				
9.50	0.66	0.00	0.00				
9.75	0.69	0.00	0.00				
10.00	0.73	0.00	0.01				
10.25	0.77	0.01	0.01				
10.50	0.81	0.01	0.01				
10.75	0.86	0.02	0.02				
11.00	0.92	0.02	0.02				
11.25	0.99	0.04	0.04				
11.50	1.08	0.06	0.05				
11.75	1.27	0.11	0.14				
12.00	1.87	0.35	0.76				
12.25	2.19	0.51	0.44				
12.50	2.36	0.61	0.27				
12.75	2.44	0.66	0.14				
13.00	2.51	0.70	0.11				
13.25	2.56	0.73	0.10				
13.50	2.61	0.76	0.08				
13.75	2.66	0.79	0.08				
14.00	2.70	0.82	0.07				
14.25	2.73	0.84	0.06				
14.50	2.76	0.86	0.06				
14.75	2.80	0.88	0.06				
15.00	2.83	0.90	0.05				
15.25	2.85	0.92	0.05				
15.50	2.88	0.93	0.05				
15.75	2.90	0.95	0.05				
16.00	2.93	0.97	0.04				
16.25	2.95	0.98	0.04				
16.50	2.97	1.00	0.04				
16.75	2.99	1.01	0.04				
17.00	3.02	1.03	0.04				
17.25	3.04	1.04	0.04				
17.50	3.05	1.05	0.04				
17.75	3.07	1.06	0.04				

Summary for Reach DB-3:

Inflow Area = 2.910 ac, 2.10% Impervious, Inflow Depth > 2.30" for 10-yr event
Inflow = 8.43 cfs @ 12.05 hrs, Volume= 0.557 af
Outflow = 8.43 cfs @ 12.05 hrs, Volume= 0.557 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-3:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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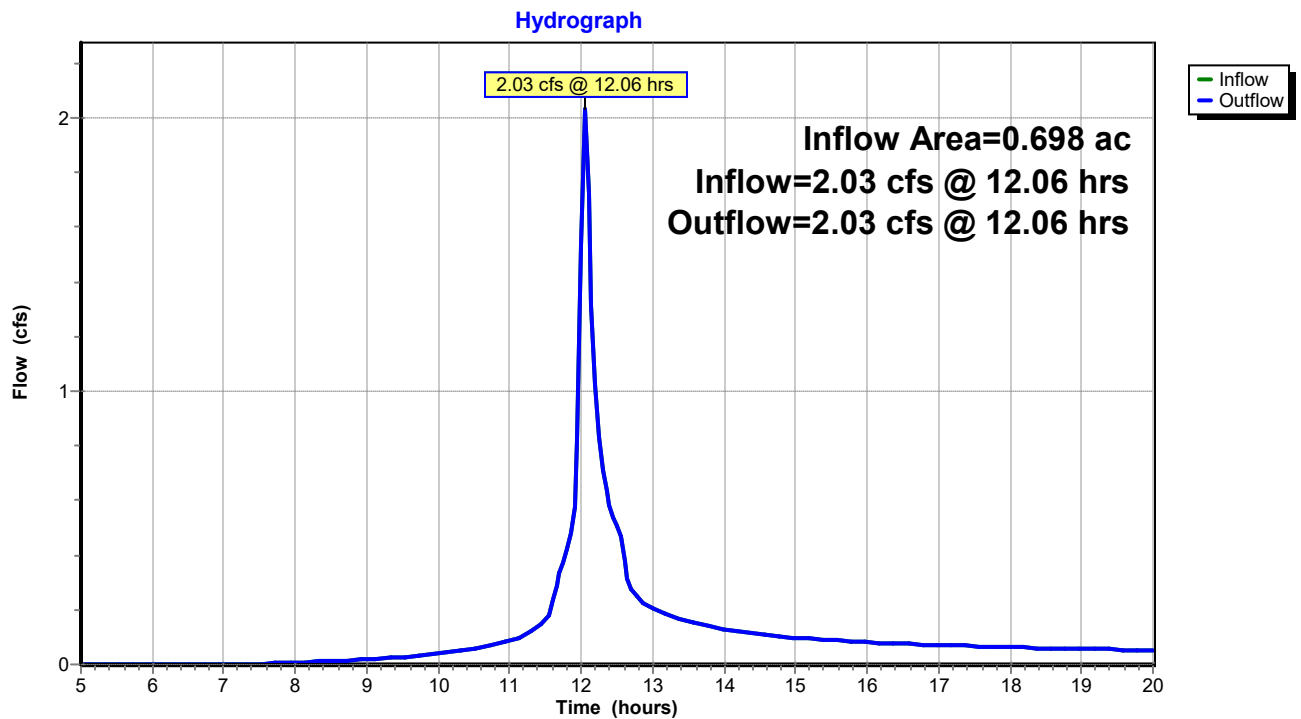
Hydrograph for Reach DB-3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.26		0.26
5.25	0.00		0.00	18.25	0.25		0.25
5.50	0.00		0.00	18.50	0.24		0.24
5.75	0.00		0.00	18.75	0.24		0.24
6.00	0.00		0.00	19.00	0.23		0.23
6.25	0.00		0.00	19.25	0.23		0.23
6.50	0.00		0.00	19.50	0.22		0.22
6.75	0.00		0.00	19.75	0.22		0.22
7.00	0.00		0.00	20.00	0.21		0.21
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.01		0.01				
8.00	0.02		0.02				
8.25	0.03		0.03				
8.50	0.04		0.04				
8.75	0.05		0.05				
9.00	0.07		0.07				
9.25	0.08		0.08				
9.50	0.10		0.10				
9.75	0.12		0.12				
10.00	0.15		0.15				
10.25	0.18		0.18				
10.50	0.22		0.22				
10.75	0.27		0.27				
11.00	0.34		0.34				
11.25	0.44		0.44				
11.50	0.63		0.63				
11.75	1.50		1.50				
12.00	6.91		6.91				
12.25	3.21		3.21				
12.50	2.02		2.02				
12.75	1.03		1.03				
13.00	0.83		0.83				
13.25	0.72		0.72				
13.50	0.63		0.63				
13.75	0.57		0.57				
14.00	0.52		0.52				
14.25	0.48		0.48				
14.50	0.45		0.45				
14.75	0.43		0.43				
15.00	0.40		0.40				
15.25	0.38		0.38				
15.50	0.36		0.36				
15.75	0.35		0.35				
16.00	0.33		0.33				
16.25	0.32		0.32				
16.50	0.31		0.31				
16.75	0.30		0.30				
17.00	0.29		0.29				
17.25	0.28		0.28				
17.50	0.27		0.27				
17.75	0.26		0.26				

Summary for Reach DB-5:

Inflow Area = 0.698 ac, 9.74% Impervious, Inflow Depth > 2.38" for 10-yr event
Inflow = 2.03 cfs @ 12.06 hrs, Volume= 0.138 af
Outflow = 2.03 cfs @ 12.06 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-5:

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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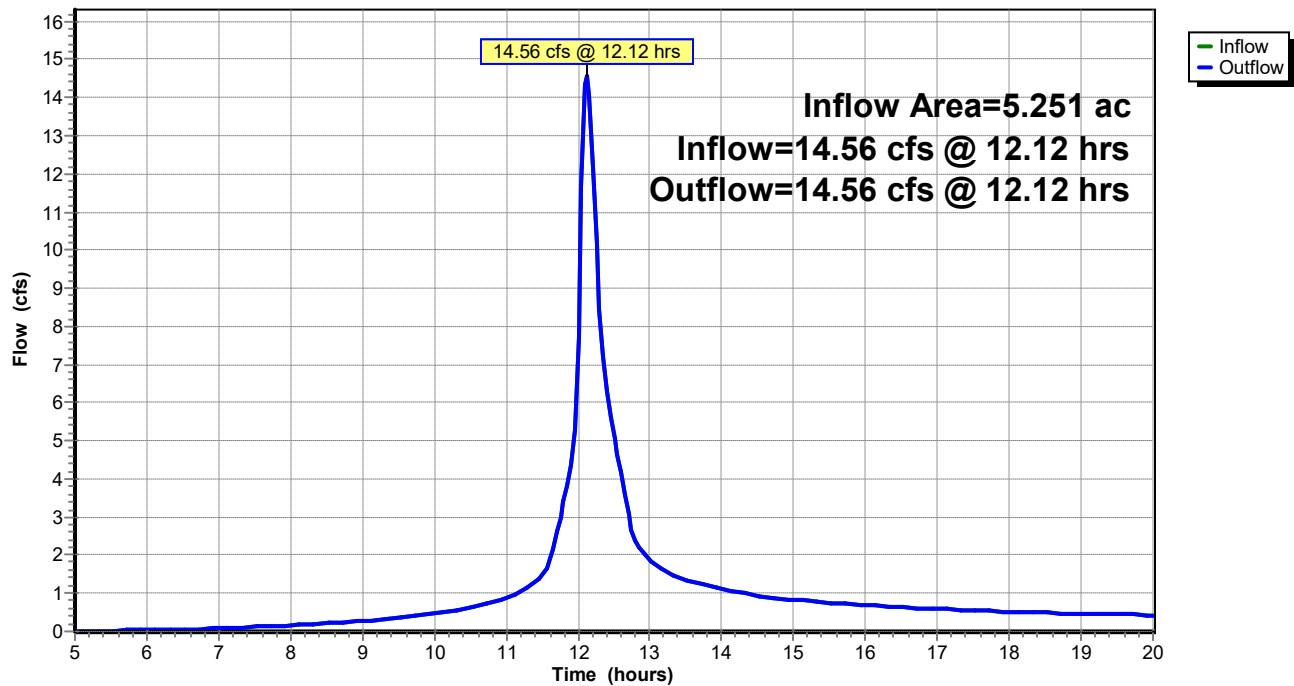
Hydrograph for Reach DB-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.06		0.06
5.25	0.00		0.00	18.25	0.06		0.06
5.50	0.00		0.00	18.50	0.06		0.06
5.75	0.00		0.00	18.75	0.06		0.06
6.00	0.00		0.00	19.00	0.06		0.06
6.25	0.00		0.00	19.25	0.06		0.06
6.50	0.00		0.00	19.50	0.05		0.05
6.75	0.00		0.00	19.75	0.05		0.05
7.00	0.00		0.00	20.00	0.05		0.05
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.01		0.01				
8.00	0.01		0.01				
8.25	0.01		0.01				
8.50	0.01		0.01				
8.75	0.02		0.02				
9.00	0.02		0.02				
9.25	0.02		0.02				
9.50	0.03		0.03				
9.75	0.03		0.03				
10.00	0.04		0.04				
10.25	0.05		0.05				
10.50	0.06		0.06				
10.75	0.07		0.07				
11.00	0.09		0.09				
11.25	0.11		0.11				
11.50	0.16		0.16				
11.75	0.37		0.37				
12.00	1.53		1.53				
12.25	0.83		0.83				
12.50	0.51		0.51				
12.75	0.26		0.26				
13.00	0.21		0.21				
13.25	0.18		0.18				
13.50	0.16		0.16				
13.75	0.14		0.14				
14.00	0.13		0.13				
14.25	0.12		0.12				
14.50	0.11		0.11				
14.75	0.10		0.10				
15.00	0.10		0.10				
15.25	0.09		0.09				
15.50	0.09		0.09				
15.75	0.09		0.09				
16.00	0.08		0.08				
16.25	0.08		0.08				
16.50	0.08		0.08				
16.75	0.07		0.07				
17.00	0.07		0.07				
17.25	0.07		0.07				
17.50	0.07		0.07				
17.75	0.06		0.06				

Summary for Reach DP-1:

Inflow Area = 5.251 ac, 31.77% Impervious, Inflow Depth > 2.86" for 10-yr event
Inflow = 14.56 cfs @ 12.12 hrs, Volume= 1.252 af
Outflow = 14.56 cfs @ 12.12 hrs, Volume= 1.252 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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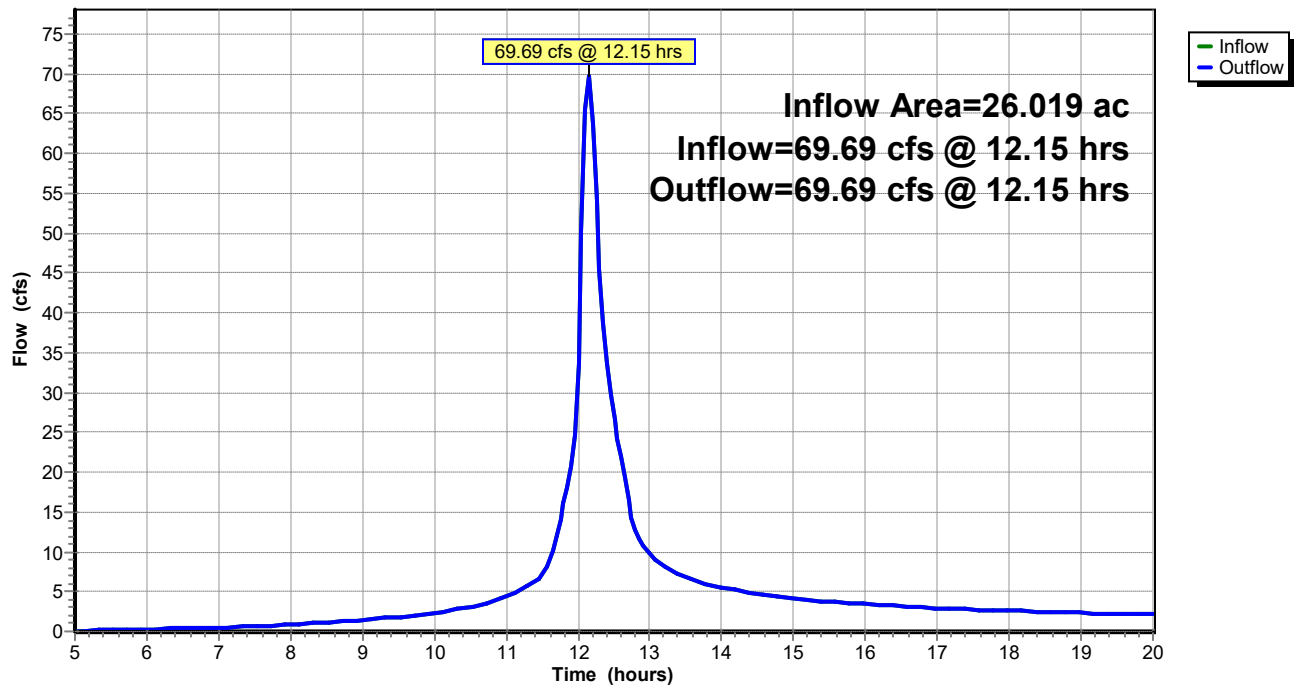
Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.01		0.01	18.00	0.52		0.52
5.25	0.02		0.02	18.25	0.51		0.51
5.50	0.02		0.02	18.50	0.49		0.49
5.75	0.03		0.03	18.75	0.48		0.48
6.00	0.03		0.03	19.00	0.47		0.47
6.25	0.04		0.04	19.25	0.46		0.46
6.50	0.05		0.05	19.50	0.45		0.45
6.75	0.07		0.07	19.75	0.44		0.44
7.00	0.09		0.09	20.00	0.43		0.43
7.25	0.10		0.10				
7.50	0.12		0.12				
7.75	0.14		0.14				
8.00	0.16		0.16				
8.25	0.19		0.19				
8.50	0.21		0.21				
8.75	0.24		0.24				
9.00	0.27		0.27				
9.25	0.31		0.31				
9.50	0.35		0.35				
9.75	0.40		0.40				
10.00	0.46		0.46				
10.25	0.53		0.53				
10.50	0.61		0.61				
10.75	0.72		0.72				
11.00	0.87		0.87				
11.25	1.09		1.09				
11.50	1.44		1.44				
11.75	2.99		2.99				
12.00	7.71		7.71				
12.25	10.15		10.15				
12.50	5.07		5.07				
12.75	2.68		2.68				
13.00	1.87		1.87				
13.25	1.56		1.56				
13.50	1.36		1.36				
13.75	1.21		1.21				
14.00	1.10		1.10				
14.25	1.01		1.01				
14.50	0.94		0.94				
14.75	0.88		0.88				
15.00	0.83		0.83				
15.25	0.79		0.79				
15.50	0.75		0.75				
15.75	0.71		0.71				
16.00	0.68		0.68				
16.25	0.65		0.65				
16.50	0.63		0.63				
16.75	0.61		0.61				
17.00	0.59		0.59				
17.25	0.57		0.57				
17.50	0.55		0.55				
17.75	0.53		0.53				

Summary for Reach DP-2:

Inflow Area = 26.019 ac, 32.96% Impervious, Inflow Depth > 2.89" for 10-yr event
Inflow = 69.69 cfs @ 12.15 hrs, Volume= 6.268 af
Outflow = 69.69 cfs @ 12.15 hrs, Volume= 6.268 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Prepared by JMC PLLC

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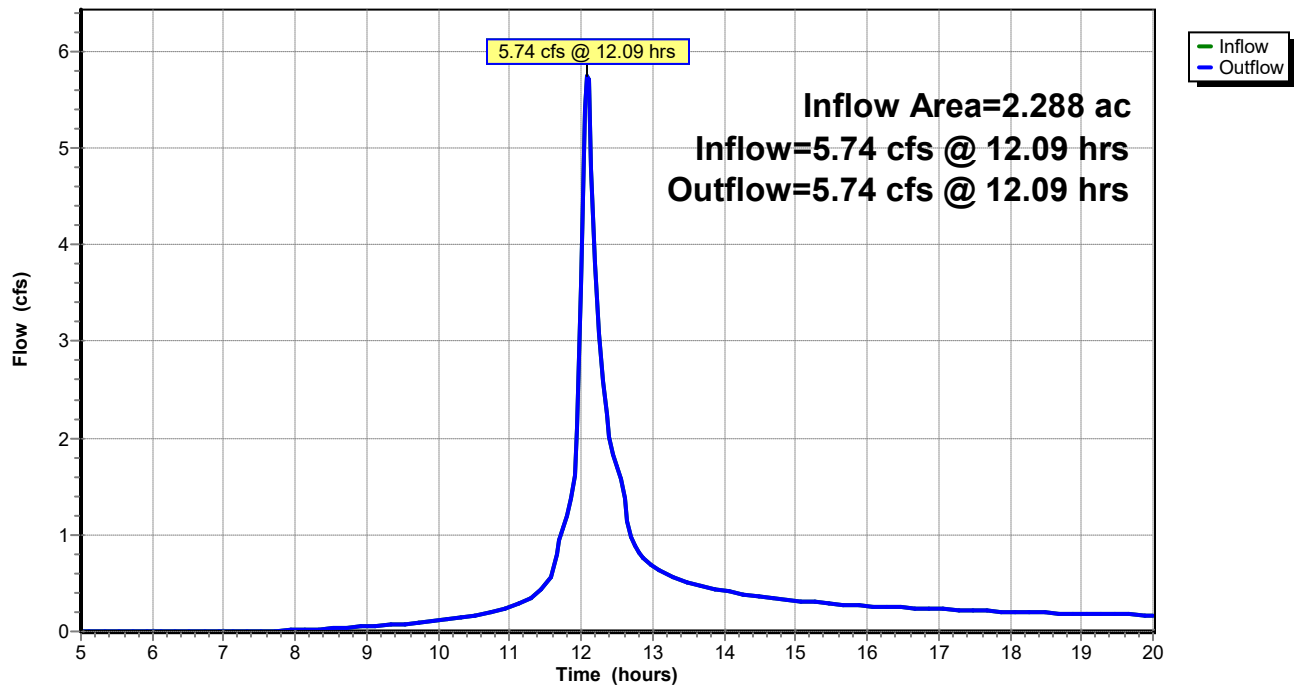
Hydrograph for Reach DP-2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.07		0.07	18.00	2.58		2.58
5.25	0.12		0.12	18.25	2.51		2.51
5.50	0.17		0.17	18.50	2.45		2.45
5.75	0.22		0.22	18.75	2.39		2.39
6.00	0.27		0.27	19.00	2.33		2.33
6.25	0.32		0.32	19.25	2.28		2.28
6.50	0.38		0.38	19.50	2.23		2.23
6.75	0.44		0.44	19.75	2.18		2.18
7.00	0.51		0.51	20.00	2.13		2.13
7.25	0.58		0.58				
7.50	0.65		0.65				
7.75	0.75		0.75				
8.00	0.86		0.86				
8.25	0.98		0.98				
8.50	1.11		1.11				
8.75	1.25		1.25				
9.00	1.41		1.41				
9.25	1.59		1.59				
9.50	1.80		1.80				
9.75	2.04		2.04				
10.00	2.32		2.32				
10.25	2.66		2.66				
10.50	3.08		3.08				
10.75	3.62		3.62				
11.00	4.35		4.35				
11.25	5.39		5.39				
11.50	7.06		7.06				
11.75	14.12		14.12				
12.00	33.60		33.60				
12.25	54.18		54.18				
12.50	26.64		26.64				
12.75	14.28		14.28				
13.00	9.56		9.56				
13.25	7.85		7.85				
13.50	6.82		6.82				
13.75	6.08		6.08				
14.00	5.52		5.52				
14.25	5.07		5.07				
14.50	4.71		4.71				
14.75	4.40		4.40				
15.00	4.14		4.14				
15.25	3.92		3.92				
15.50	3.72		3.72				
15.75	3.55		3.55				
16.00	3.40		3.40				
16.25	3.26		3.26				
16.50	3.14		3.14				
16.75	3.02		3.02				
17.00	2.92		2.92				
17.25	2.83		2.83				
17.50	2.74		2.74				
17.75	2.66		2.66				

Summary for Reach DP-4:

Inflow Area = 2.288 ac, 2.71% Impervious, Inflow Depth > 2.29" for 10-yr event
Inflow = 5.74 cfs @ 12.09 hrs, Volume= 0.437 af
Outflow = 5.74 cfs @ 12.09 hrs, Volume= 0.437 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4:**Hydrograph**

24072-235 Elm-EXIST

NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	18.00	0.20		0.20
5.25	0.00		0.00	18.25	0.20		0.20
5.50	0.00		0.00	18.50	0.19		0.19
5.75	0.00		0.00	18.75	0.19		0.19
6.00	0.00		0.00	19.00	0.18		0.18
6.25	0.00		0.00	19.25	0.18		0.18
6.50	0.00		0.00	19.50	0.18		0.18
6.75	0.00		0.00	19.75	0.17		0.17
7.00	0.00		0.00	20.00	0.17		0.17
7.25	0.00		0.00				
7.50	0.00		0.00				
7.75	0.01		0.01				
8.00	0.02		0.02				
8.25	0.02		0.02				
8.50	0.03		0.03				
8.75	0.04		0.04				
9.00	0.05		0.05				
9.25	0.06		0.06				
9.50	0.08		0.08				
9.75	0.09		0.09				
10.00	0.11		0.11				
10.25	0.13		0.13				
10.50	0.16		0.16				
10.75	0.20		0.20				
11.00	0.25		0.25				
11.25	0.33		0.33				
11.50	0.46		0.46				
11.75	1.06		1.06				
12.00	3.57		3.57				
12.25	3.09		3.09				
12.50	1.70		1.70				
12.75	0.88		0.88				
13.00	0.68		0.68				
13.25	0.58		0.58				
13.50	0.51		0.51				
13.75	0.46		0.46				
14.00	0.42		0.42				
14.25	0.39		0.39				
14.50	0.36		0.36				
14.75	0.34		0.34				
15.00	0.32		0.32				
15.25	0.30		0.30				
15.50	0.29		0.29				
15.75	0.28		0.28				
16.00	0.26		0.26				
16.25	0.25		0.25				
16.50	0.25		0.25				
16.75	0.24		0.24				
17.00	0.23		0.23				
17.25	0.22		0.22				
17.50	0.22		0.22				
17.75	0.21		0.21				

Summary for Subcatchment EDA-1A:

Runoff = 7.60 cfs @ 12.15 hrs, Volume= 0.670 af, Depth> 2.63"
 Routed to Reach DP-1 :

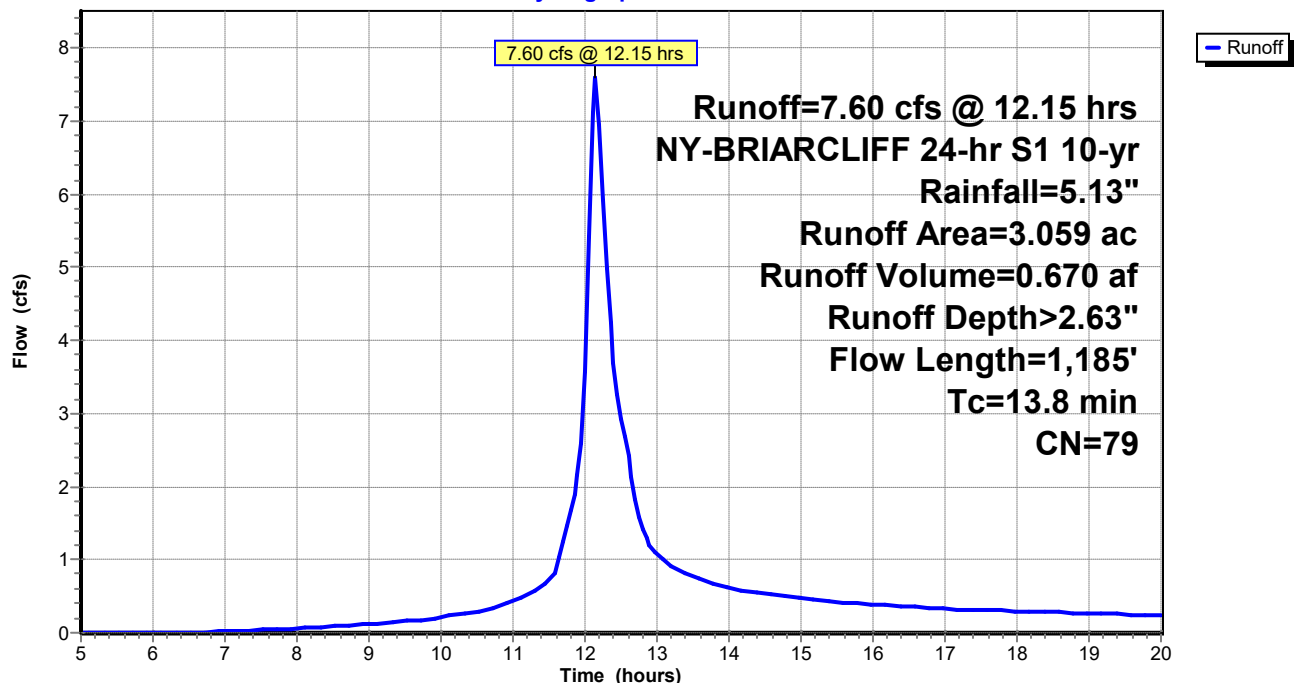
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.627	98	Paved parking, HSG C
2.432	74	>75% Grass cover, Good, HSG C
3.059	79	Weighted Average
2.432		79.50% Pervious Area
0.627		20.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0267	0.21		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.1	260	0.0692	3.95		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
1.0	775	0.0387	12.67	22.39	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
13.8	1,185	Total			

Subcatchment EDA-1A:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment EDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.00	18.00	4.62	2.47	0.29
5.25	0.44	0.00	0.00	18.25	4.64	2.50	0.29
5.50	0.46	0.00	0.00	18.50	4.67	2.52	0.28
5.75	0.49	0.00	0.00	18.75	4.70	2.54	0.27
6.00	0.52	0.00	0.00	19.00	4.72	2.56	0.26
6.25	0.54	0.00	0.00	19.25	4.75	2.58	0.26
6.50	0.57	0.00	0.00	19.50	4.77	2.60	0.25
6.75	0.60	0.00	0.01	19.75	4.79	2.62	0.25
7.00	0.63	0.00	0.02	20.00	4.82	2.64	0.24
7.25	0.66	0.01	0.03				
7.50	0.70	0.01	0.04				
7.75	0.73	0.01	0.05				
8.00	0.77	0.02	0.06				
8.25	0.80	0.03	0.07				
8.50	0.84	0.03	0.09				
8.75	0.88	0.04	0.10				
9.00	0.93	0.05	0.12				
9.25	0.97	0.06	0.14				
9.50	1.02	0.08	0.16				
9.75	1.07	0.09	0.18				
10.00	1.13	0.11	0.21				
10.25	1.19	0.13	0.25				
10.50	1.26	0.16	0.29				
10.75	1.34	0.19	0.35				
11.00	1.42	0.22	0.42				
11.25	1.53	0.27	0.54				
11.50	1.66	0.34	0.71				
11.75	1.94	0.49	1.46				
12.00	2.78	1.03	3.57				
12.25	3.24	1.37	5.91				
12.50	3.50	1.56	2.93				
12.75	3.62	1.66	1.58				
13.00	3.72	1.74	1.07				
13.25	3.81	1.81	0.88				
13.50	3.88	1.87	0.77				
13.75	3.95	1.92	0.68				
14.00	4.01	1.97	0.62				
14.25	4.06	2.01	0.57				
14.50	4.11	2.06	0.53				
14.75	4.16	2.10	0.50				
15.00	4.21	2.13	0.47				
15.25	4.25	2.17	0.44				
15.50	4.29	2.20	0.42				
15.75	4.33	2.23	0.40				
16.00	4.37	2.26	0.38				
16.25	4.40	2.29	0.37				
16.50	4.44	2.32	0.36				
16.75	4.47	2.35	0.34				
17.00	4.50	2.38	0.33				
17.25	4.53	2.40	0.32				
17.50	4.56	2.43	0.31				
17.75	4.59	2.45	0.30				

Summary for Subcatchment EDA-1B:

Runoff = 7.21 cfs @ 12.10 hrs, Volume= 0.582 af, Depth> 3.19"
 Routed to Reach DP-1 :

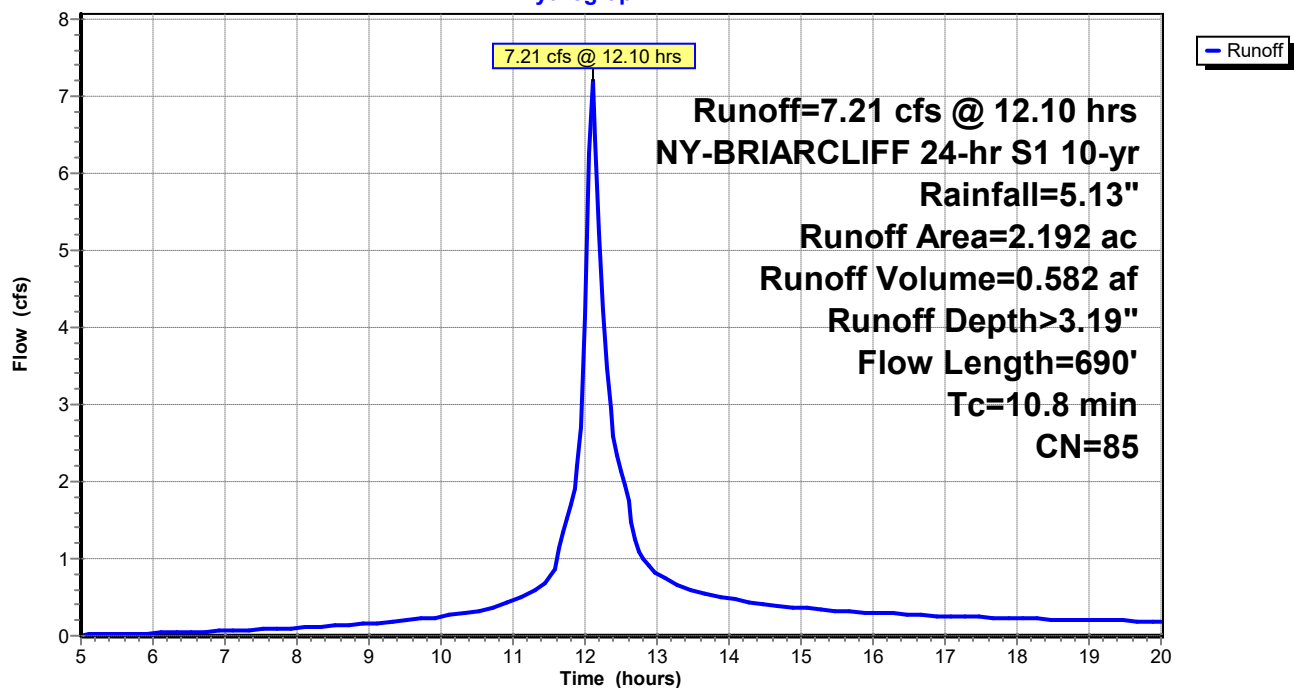
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
1.041	98	Paved parking, HSG C
1.151	74	>75% Grass cover, Good, HSG C
2.192	85	Weighted Average
1.151		52.51% Pervious Area
1.041		47.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	150	0.0500	0.28		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.3	260	0.0481	3.29		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
0.4	280	0.0500	10.99	8.63	Pipe Channel, 12" PIPE 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Steel, smooth
10.8	690	Total			

Subcatchment EDA-1B:

Hydrograph



Hydrograph for Subcatchment EDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.01	18.00	4.62	3.02	0.23
5.25	0.44	0.00	0.02	18.25	4.64	3.04	0.22
5.50	0.46	0.01	0.02	18.50	4.67	3.06	0.21
5.75	0.49	0.01	0.03	18.75	4.70	3.09	0.21
6.00	0.52	0.01	0.03	19.00	4.72	3.11	0.20
6.25	0.54	0.02	0.04	19.25	4.75	3.13	0.20
6.50	0.57	0.02	0.05	19.50	4.77	3.16	0.19
6.75	0.60	0.03	0.06	19.75	4.79	3.18	0.19
7.00	0.63	0.04	0.06	20.00	4.82	3.20	0.19
7.25	0.66	0.05	0.07				
7.50	0.70	0.06	0.08				
7.75	0.73	0.07	0.09				
8.00	0.77	0.08	0.10				
8.25	0.80	0.09	0.11				
8.50	0.84	0.11	0.13				
8.75	0.88	0.12	0.14				
9.00	0.93	0.14	0.16				
9.25	0.97	0.16	0.18				
9.50	1.02	0.18	0.20				
9.75	1.07	0.21	0.22				
10.00	1.13	0.24	0.25				
10.25	1.19	0.27	0.28				
10.50	1.26	0.31	0.32				
10.75	1.34	0.35	0.38				
11.00	1.42	0.40	0.45				
11.25	1.53	0.47	0.55				
11.50	1.66	0.55	0.73				
11.75	1.94	0.75	1.53				
12.00	2.78	1.41	4.13				
12.25	3.24	1.79	4.23				
12.50	3.50	2.01	2.14				
12.75	3.62	2.12	1.10				
13.00	3.72	2.21	0.81				
13.25	3.81	2.29	0.68				
13.50	3.88	2.35	0.59				
13.75	3.95	2.41	0.53				
14.00	4.01	2.46	0.48				
14.25	4.06	2.51	0.44				
14.50	4.11	2.56	0.41				
14.75	4.16	2.60	0.39				
15.00	4.21	2.64	0.36				
15.25	4.25	2.68	0.34				
15.50	4.29	2.72	0.33				
15.75	4.33	2.75	0.31				
16.00	4.37	2.79	0.30				
16.25	4.40	2.82	0.29				
16.50	4.44	2.85	0.27				
16.75	4.47	2.88	0.27				
17.00	4.50	2.91	0.26				
17.25	4.53	2.94	0.25				
17.50	4.56	2.96	0.24				
17.75	4.59	2.99	0.23				

Summary for Subcatchment EDA-2A:

Runoff = 52.14 cfs @ 12.14 hrs, Volume= 4.656 af, Depth> 3.18"
 Routed to Reach DP-2 :

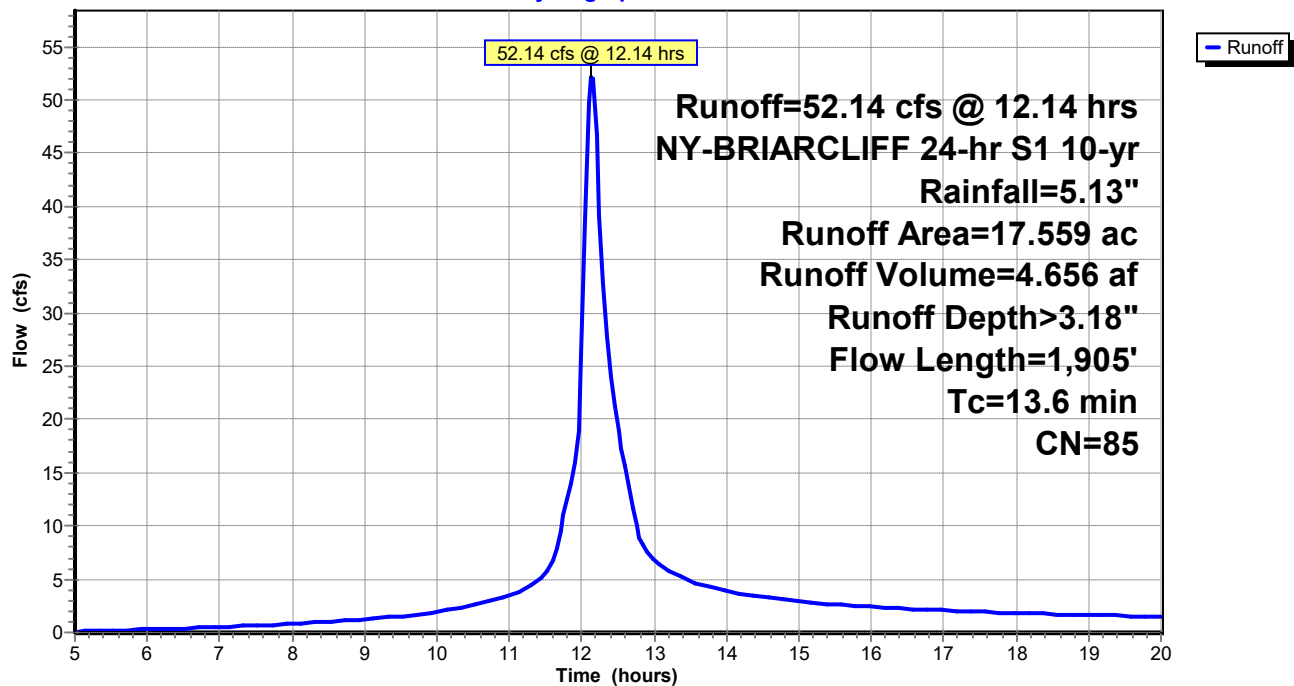
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
8.135	98	Paved parking, HSG C
9.424	74	>75% Grass cover, Good, HSG C
17.559	85	Weighted Average
9.424		53.67% Pervious Area
8.135		46.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.6	300	0.0433	3.12		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 1 Grassed Waterway Kv= 15.0 fps
0.2	140	0.0357	12.17	21.50	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
0.8	975	0.0615	19.35	60.78	Pipe Channel, 24" PIPE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Steel, smooth
1.1	340	0.1265	5.34		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 2 Grassed Waterway Kv= 15.0 fps
13.6	1,905	Total			

Subcatchment EDA-2A:

Hydrograph



Hydrograph for Subcatchment EDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.07	18.00	4.62	3.02	1.82
5.25	0.44	0.00	0.12	18.25	4.64	3.04	1.77
5.50	0.46	0.01	0.17	18.50	4.67	3.06	1.73
5.75	0.49	0.01	0.22	18.75	4.70	3.09	1.68
6.00	0.52	0.01	0.27	19.00	4.72	3.11	1.64
6.25	0.54	0.02	0.32	19.25	4.75	3.13	1.60
6.50	0.57	0.02	0.38	19.50	4.77	3.16	1.57
6.75	0.60	0.03	0.44	19.75	4.79	3.18	1.53
7.00	0.63	0.04	0.51	20.00	4.82	3.20	1.50
7.25	0.66	0.05	0.58				
7.50	0.70	0.06	0.65				
7.75	0.73	0.07	0.73				
8.00	0.77	0.08	0.81				
8.25	0.80	0.09	0.90				
8.50	0.84	0.11	1.00				
8.75	0.88	0.12	1.12				
9.00	0.93	0.14	1.24				
9.25	0.97	0.16	1.38				
9.50	1.02	0.18	1.54				
9.75	1.07	0.21	1.72				
10.00	1.13	0.24	1.94				
10.25	1.19	0.27	2.20				
10.50	1.26	0.31	2.52				
10.75	1.34	0.35	2.93				
11.00	1.42	0.40	3.48				
11.25	1.53	0.47	4.28				
11.50	1.66	0.55	5.55				
11.75	1.94	0.75	11.02				
12.00	2.78	1.41	25.97				
12.25	3.24	1.79	39.20				
12.50	3.50	2.01	19.00				
12.75	3.62	2.12	10.06				
13.00	3.72	2.21	6.79				
13.25	3.81	2.29	5.59				
13.50	3.88	2.35	4.86				
13.75	3.95	2.41	4.33				
14.00	4.01	2.46	3.92				
14.25	4.06	2.51	3.60				
14.50	4.11	2.56	3.34				
14.75	4.16	2.60	3.12				
15.00	4.21	2.64	2.94				
15.25	4.25	2.68	2.78				
15.50	4.29	2.72	2.64				
15.75	4.33	2.75	2.51				
16.00	4.37	2.79	2.40				
16.25	4.40	2.82	2.31				
16.50	4.44	2.85	2.22				
16.75	4.47	2.88	2.14				
17.00	4.50	2.91	2.06				
17.25	4.53	2.94	2.00				
17.50	4.56	2.96	1.93				
17.75	4.59	2.99	1.88				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment EDA-2B:

Runoff = 17.76 cfs @ 12.16 hrs, Volume= 1.611 af, Depth> 2.29"
 Routed to Reach DP-2 :

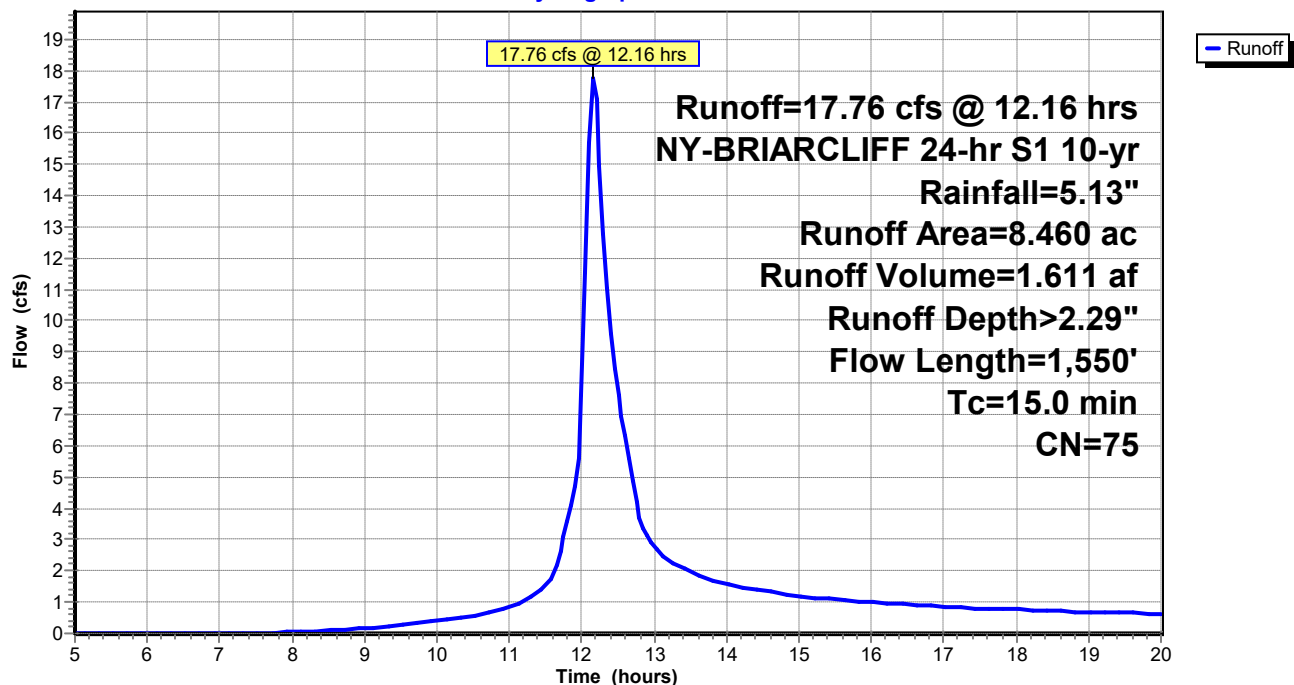
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.441	98	Paved parking, HSG C
8.019	74	>75% Grass cover, Good, HSG C
8.460	75	Weighted Average
8.019		94.79% Pervious Area
0.441		5.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
15.0	1,550	Total			

Subcatchment EDA-2B:

Hydrograph



24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment EDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.00	18.00	4.62	2.14	0.76
5.25	0.44	0.00	0.00	18.25	4.64	2.16	0.74
5.50	0.46	0.00	0.00	18.50	4.67	2.18	0.72
5.75	0.49	0.00	0.00	18.75	4.70	2.21	0.70
6.00	0.52	0.00	0.00	19.00	4.72	2.23	0.69
6.25	0.54	0.00	0.00	19.25	4.75	2.24	0.67
6.50	0.57	0.00	0.00	19.50	4.77	2.26	0.66
6.75	0.60	0.00	0.00	19.75	4.79	2.28	0.64
7.00	0.63	0.00	0.00	20.00	4.82	2.30	0.63
7.25	0.66	0.00	0.00				
7.50	0.70	0.00	0.00				
7.75	0.73	0.00	0.02				
8.00	0.77	0.00	0.05				
8.25	0.80	0.01	0.07				
8.50	0.84	0.01	0.10				
8.75	0.88	0.01	0.14				
9.00	0.93	0.02	0.17				
9.25	0.97	0.03	0.22				
9.50	1.02	0.03	0.26				
9.75	1.07	0.04	0.32				
10.00	1.13	0.06	0.39				
10.25	1.19	0.07	0.47				
10.50	1.26	0.09	0.57				
10.75	1.34	0.11	0.69				
11.00	1.42	0.14	0.87				
11.25	1.53	0.18	1.11				
11.50	1.66	0.23	1.51				
11.75	1.94	0.35	3.10				
12.00	2.78	0.82	7.63				
12.25	3.24	1.12	14.98				
12.50	3.50	1.30	7.64				
12.75	3.62	1.39	4.22				
13.00	3.72	1.46	2.76				
13.25	3.81	1.52	2.26				
13.50	3.88	1.58	1.97				
13.75	3.95	1.63	1.76				
14.00	4.01	1.67	1.60				
14.25	4.06	1.71	1.47				
14.50	4.11	1.75	1.36				
14.75	4.16	1.79	1.28				
15.00	4.21	1.82	1.20				
15.25	4.25	1.86	1.14				
15.50	4.29	1.89	1.09				
15.75	4.33	1.92	1.04				
16.00	4.37	1.95	0.99				
16.25	4.40	1.97	0.95				
16.50	4.44	2.00	0.92				
16.75	4.47	2.03	0.89				
17.00	4.50	2.05	0.86				
17.25	4.53	2.07	0.83				
17.50	4.56	2.10	0.80				
17.75	4.59	2.12	0.78				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment EDA-3:

Runoff = 8.43 cfs @ 12.05 hrs, Volume= 0.557 af, Depth> 2.30"
Routed to Reach DB-3 :

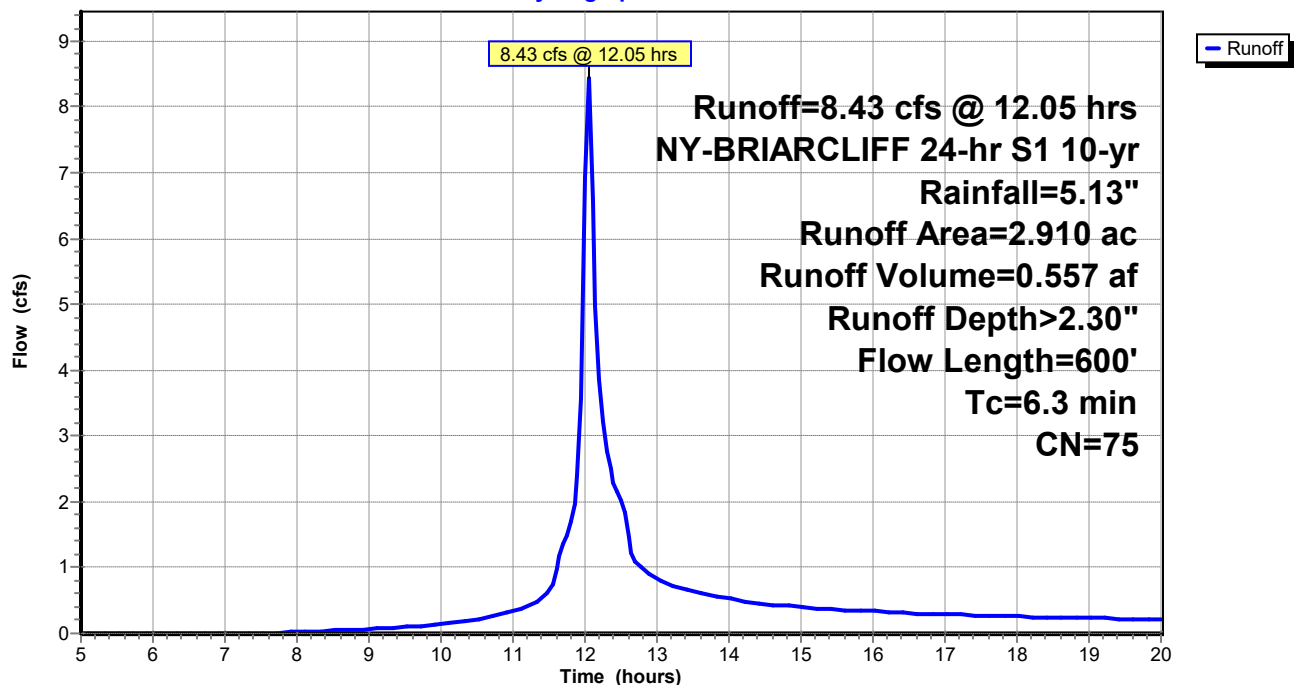
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.061	98	Paved parking, HSG C
2.849	74	>75% Grass cover, Good, HSG C
2.910	75	Weighted Average
2.849		97.90% Pervious Area
0.061		2.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	90	0.0889	0.31		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.5	510	0.1372	5.56		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
6.3	600	Total			

Subcatchment EDA-3:

Hydrograph



Hydrograph for Subcatchment EDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.00	18.00	4.62	2.14	0.26
5.25	0.44	0.00	0.00	18.25	4.64	2.16	0.25
5.50	0.46	0.00	0.00	18.50	4.67	2.18	0.24
5.75	0.49	0.00	0.00	18.75	4.70	2.21	0.24
6.00	0.52	0.00	0.00	19.00	4.72	2.23	0.23
6.25	0.54	0.00	0.00	19.25	4.75	2.24	0.23
6.50	0.57	0.00	0.00	19.50	4.77	2.26	0.22
6.75	0.60	0.00	0.00	19.75	4.79	2.28	0.22
7.00	0.63	0.00	0.00	20.00	4.82	2.30	0.21
7.25	0.66	0.00	0.00				
7.50	0.70	0.00	0.00				
7.75	0.73	0.00	0.01				
8.00	0.77	0.00	0.02				
8.25	0.80	0.01	0.03				
8.50	0.84	0.01	0.04				
8.75	0.88	0.01	0.05				
9.00	0.93	0.02	0.07				
9.25	0.97	0.03	0.08				
9.50	1.02	0.03	0.10				
9.75	1.07	0.04	0.12				
10.00	1.13	0.06	0.15				
10.25	1.19	0.07	0.18				
10.50	1.26	0.09	0.22				
10.75	1.34	0.11	0.27				
11.00	1.42	0.14	0.34				
11.25	1.53	0.18	0.44				
11.50	1.66	0.23	0.63				
11.75	1.94	0.35	1.50				
12.00	2.78	0.82	6.91				
12.25	3.24	1.12	3.21				
12.50	3.50	1.30	2.02				
12.75	3.62	1.39	1.03				
13.00	3.72	1.46	0.83				
13.25	3.81	1.52	0.72				
13.50	3.88	1.58	0.63				
13.75	3.95	1.63	0.57				
14.00	4.01	1.67	0.52				
14.25	4.06	1.71	0.48				
14.50	4.11	1.75	0.45				
14.75	4.16	1.79	0.43				
15.00	4.21	1.82	0.40				
15.25	4.25	1.86	0.38				
15.50	4.29	1.89	0.36				
15.75	4.33	1.92	0.35				
16.00	4.37	1.95	0.33				
16.25	4.40	1.97	0.32				
16.50	4.44	2.00	0.31				
16.75	4.47	2.03	0.30				
17.00	4.50	2.05	0.29				
17.25	4.53	2.07	0.28				
17.50	4.56	2.10	0.27				
17.75	4.59	2.12	0.26				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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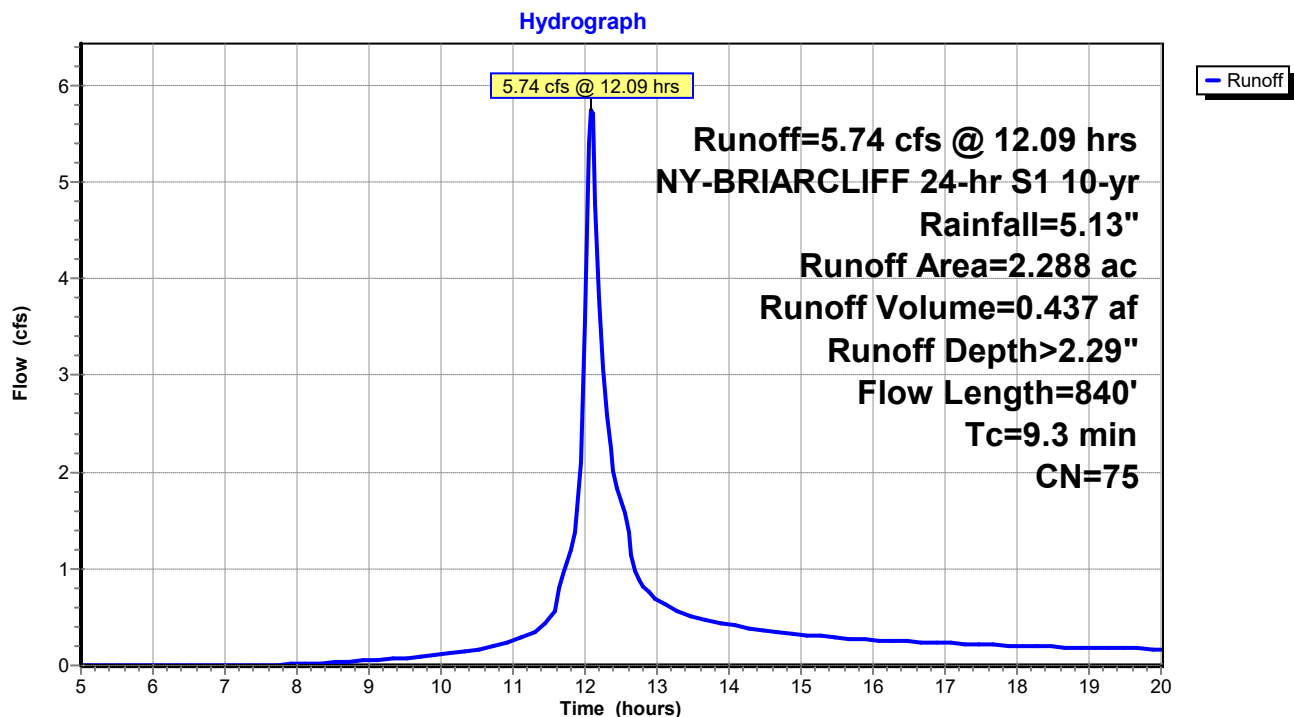
Summary for Subcatchment EDA-4:

Runoff = 5.74 cfs @ 12.09 hrs, Volume= 0.437 af, Depth> 2.29"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.062	98	Paved parking, HSG C
2.226	74	>75% Grass cover, Good, HSG C
2.288	75	Weighted Average
2.226		97.29% Pervious Area
0.062		2.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	150	0.0800	0.33		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.8	690	0.1884	6.51		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
9.3	840	Total			

Subcatchment EDA-4:

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment EDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.00	18.00	4.62	2.14	0.20
5.25	0.44	0.00	0.00	18.25	4.64	2.16	0.20
5.50	0.46	0.00	0.00	18.50	4.67	2.18	0.19
5.75	0.49	0.00	0.00	18.75	4.70	2.21	0.19
6.00	0.52	0.00	0.00	19.00	4.72	2.23	0.18
6.25	0.54	0.00	0.00	19.25	4.75	2.24	0.18
6.50	0.57	0.00	0.00	19.50	4.77	2.26	0.18
6.75	0.60	0.00	0.00	19.75	4.79	2.28	0.17
7.00	0.63	0.00	0.00	20.00	4.82	2.30	0.17
7.25	0.66	0.00	0.00				
7.50	0.70	0.00	0.00				
7.75	0.73	0.00	0.01				
8.00	0.77	0.00	0.02				
8.25	0.80	0.01	0.02				
8.50	0.84	0.01	0.03				
8.75	0.88	0.01	0.04				
9.00	0.93	0.02	0.05				
9.25	0.97	0.03	0.06				
9.50	1.02	0.03	0.08				
9.75	1.07	0.04	0.09				
10.00	1.13	0.06	0.11				
10.25	1.19	0.07	0.13				
10.50	1.26	0.09	0.16				
10.75	1.34	0.11	0.20				
11.00	1.42	0.14	0.25				
11.25	1.53	0.18	0.33				
11.50	1.66	0.23	0.46				
11.75	1.94	0.35	1.06				
12.00	2.78	0.82	3.57				
12.25	3.24	1.12	3.09				
12.50	3.50	1.30	1.70				
12.75	3.62	1.39	0.88				
13.00	3.72	1.46	0.68				
13.25	3.81	1.52	0.58				
13.50	3.88	1.58	0.51				
13.75	3.95	1.63	0.46				
14.00	4.01	1.67	0.42				
14.25	4.06	1.71	0.39				
14.50	4.11	1.75	0.36				
14.75	4.16	1.79	0.34				
15.00	4.21	1.82	0.32				
15.25	4.25	1.86	0.30				
15.50	4.29	1.89	0.29				
15.75	4.33	1.92	0.28				
16.00	4.37	1.95	0.26				
16.25	4.40	1.97	0.25				
16.50	4.44	2.00	0.25				
16.75	4.47	2.03	0.24				
17.00	4.50	2.05	0.23				
17.25	4.53	2.07	0.22				
17.50	4.56	2.10	0.22				
17.75	4.59	2.12	0.21				

Summary for Subcatchment EDA-5:

Runoff = 2.03 cfs @ 12.06 hrs, Volume= 0.138 af, Depth> 2.38"
 Routed to Reach DB-5 :

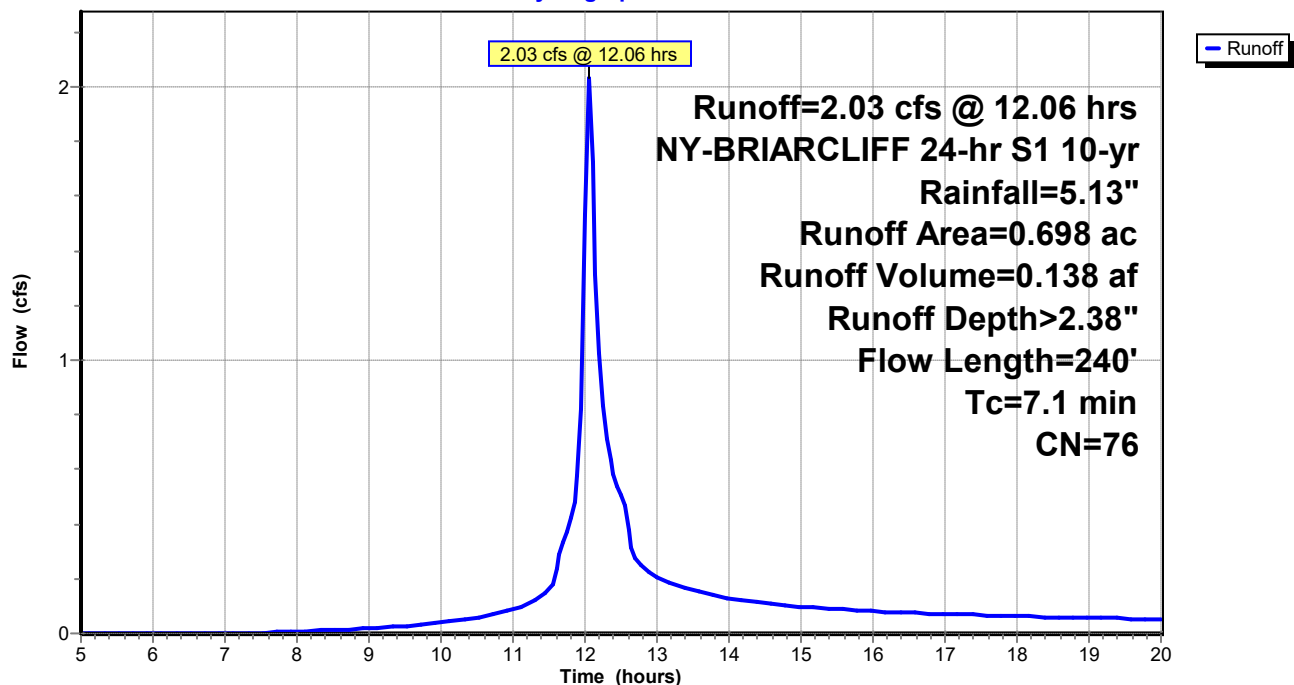
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.068	98	Paved parking, HSG C
0.630	74	>75% Grass cover, Good, HSG C
0.698	76	Weighted Average
0.630		90.26% Pervious Area
0.068		9.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	150	0.1000	0.36		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
0.2	90	0.2336	7.25		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
7.1	240	Total			

Subcatchment EDA-5:

Hydrograph



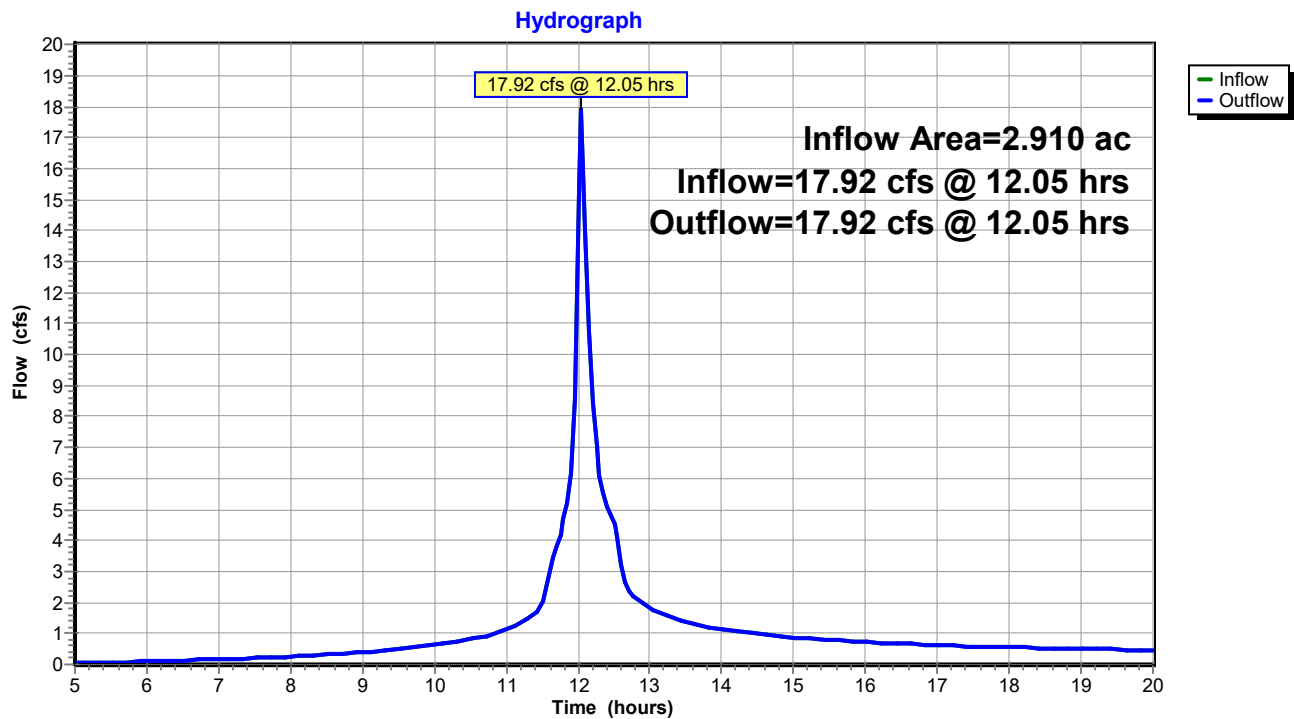
Hydrograph for Subcatchment EDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.41	0.00	0.00	18.00	4.62	2.22	0.06
5.25	0.44	0.00	0.00	18.25	4.64	2.25	0.06
5.50	0.46	0.00	0.00	18.50	4.67	2.27	0.06
5.75	0.49	0.00	0.00	18.75	4.70	2.29	0.06
6.00	0.52	0.00	0.00	19.00	4.72	2.31	0.06
6.25	0.54	0.00	0.00	19.25	4.75	2.33	0.06
6.50	0.57	0.00	0.00	19.50	4.77	2.35	0.05
6.75	0.60	0.00	0.00	19.75	4.79	2.37	0.05
7.00	0.63	0.00	0.00	20.00	4.82	2.38	0.05
7.25	0.66	0.00	0.00				
7.50	0.70	0.00	0.00				
7.75	0.73	0.00	0.01				
8.00	0.77	0.01	0.01				
8.25	0.80	0.01	0.01				
8.50	0.84	0.01	0.01				
8.75	0.88	0.02	0.02				
9.00	0.93	0.03	0.02				
9.25	0.97	0.03	0.02				
9.50	1.02	0.04	0.03				
9.75	1.07	0.05	0.03				
10.00	1.13	0.07	0.04				
10.25	1.19	0.08	0.05				
10.50	1.26	0.10	0.06				
10.75	1.34	0.13	0.07				
11.00	1.42	0.16	0.09				
11.25	1.53	0.20	0.11				
11.50	1.66	0.25	0.16				
11.75	1.94	0.38	0.37				
12.00	2.78	0.87	1.53				
12.25	3.24	1.18	0.83				
12.50	3.50	1.36	0.51				
12.75	3.62	1.45	0.26				
13.00	3.72	1.53	0.21				
13.25	3.81	1.59	0.18				
13.50	3.88	1.65	0.16				
13.75	3.95	1.70	0.14				
14.00	4.01	1.74	0.13				
14.25	4.06	1.79	0.12				
14.50	4.11	1.83	0.11				
14.75	4.16	1.86	0.10				
15.00	4.21	1.90	0.10				
15.25	4.25	1.93	0.09				
15.50	4.29	1.96	0.09				
15.75	4.33	1.99	0.09				
16.00	4.37	2.02	0.08				
16.25	4.40	2.05	0.08				
16.50	4.44	2.08	0.08				
16.75	4.47	2.10	0.07				
17.00	4.50	2.13	0.07				
17.25	4.53	2.15	0.07				
17.50	4.56	2.18	0.07				
17.75	4.59	2.20	0.06				

Summary for Reach DB-3:

Inflow Area = 2.910 ac, 2.10% Impervious, Inflow Depth > 5.62" for 100-yr event
Inflow = 17.92 cfs @ 12.05 hrs, Volume= 1.364 af
Outflow = 17.92 cfs @ 12.05 hrs, Volume= 1.364 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-3:

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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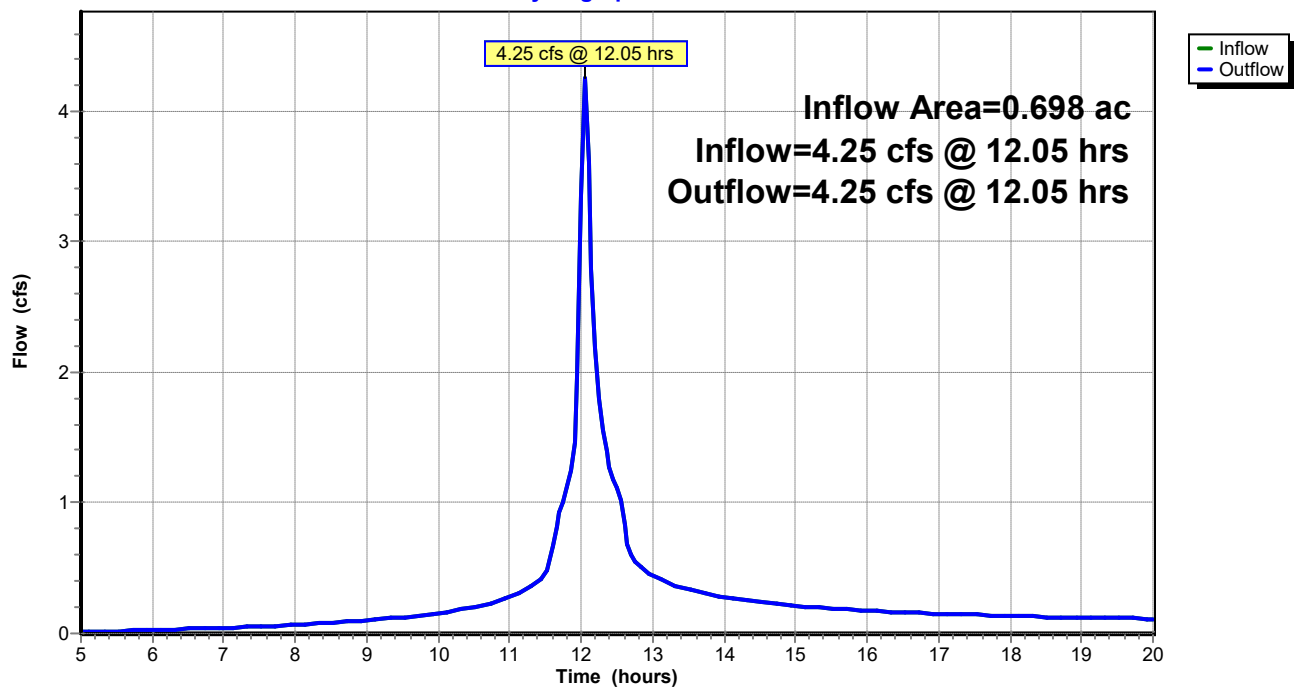
Hydrograph for Reach DB-3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.03		0.03	18.00	0.56		0.56
5.25	0.04		0.04	18.25	0.54		0.54
5.50	0.06		0.06	18.50	0.53		0.53
5.75	0.07		0.07	18.75	0.51		0.51
6.00	0.09		0.09	19.00	0.50		0.50
6.25	0.11		0.11	19.25	0.49		0.49
6.50	0.13		0.13	19.50	0.48		0.48
6.75	0.15		0.15	19.75	0.47		0.47
7.00	0.17		0.17	20.00	0.46		0.46
7.25	0.19		0.19				
7.50	0.21		0.21				
7.75	0.24		0.24				
8.00	0.26		0.26				
8.25	0.29		0.29				
8.50	0.32		0.32				
8.75	0.36		0.36				
9.00	0.40		0.40				
9.25	0.44		0.44				
9.50	0.49		0.49				
9.75	0.55		0.55				
10.00	0.62		0.62				
10.25	0.70		0.70				
10.50	0.81		0.81				
10.75	0.95		0.95				
11.00	1.13		1.13				
11.25	1.41		1.41				
11.50	1.89		1.89				
11.75	4.19		4.19				
12.00	15.23		15.23				
12.25	7.06		7.06				
12.50	4.51		4.51				
12.75	2.24		2.24				
13.00	1.81		1.81				
13.25	1.56		1.56				
13.50	1.38		1.38				
13.75	1.24		1.24				
14.00	1.14		1.14				
14.25	1.05		1.05				
14.50	0.98		0.98				
14.75	0.92		0.92				
15.00	0.87		0.87				
15.25	0.83		0.83				
15.50	0.79		0.79				
15.75	0.75		0.75				
16.00	0.72		0.72				
16.25	0.69		0.69				
16.50	0.67		0.67				
16.75	0.65		0.65				
17.00	0.62		0.62				
17.25	0.61		0.61				
17.50	0.59		0.59				
17.75	0.57		0.57				

Summary for Reach DB-5:

Inflow Area = 0.698 ac, 9.74% Impervious, Inflow Depth > 5.74" for 100-yr event
Inflow = 4.25 cfs @ 12.05 hrs, Volume= 0.334 af
Outflow = 4.25 cfs @ 12.05 hrs, Volume= 0.334 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DB-5:**Hydrograph**

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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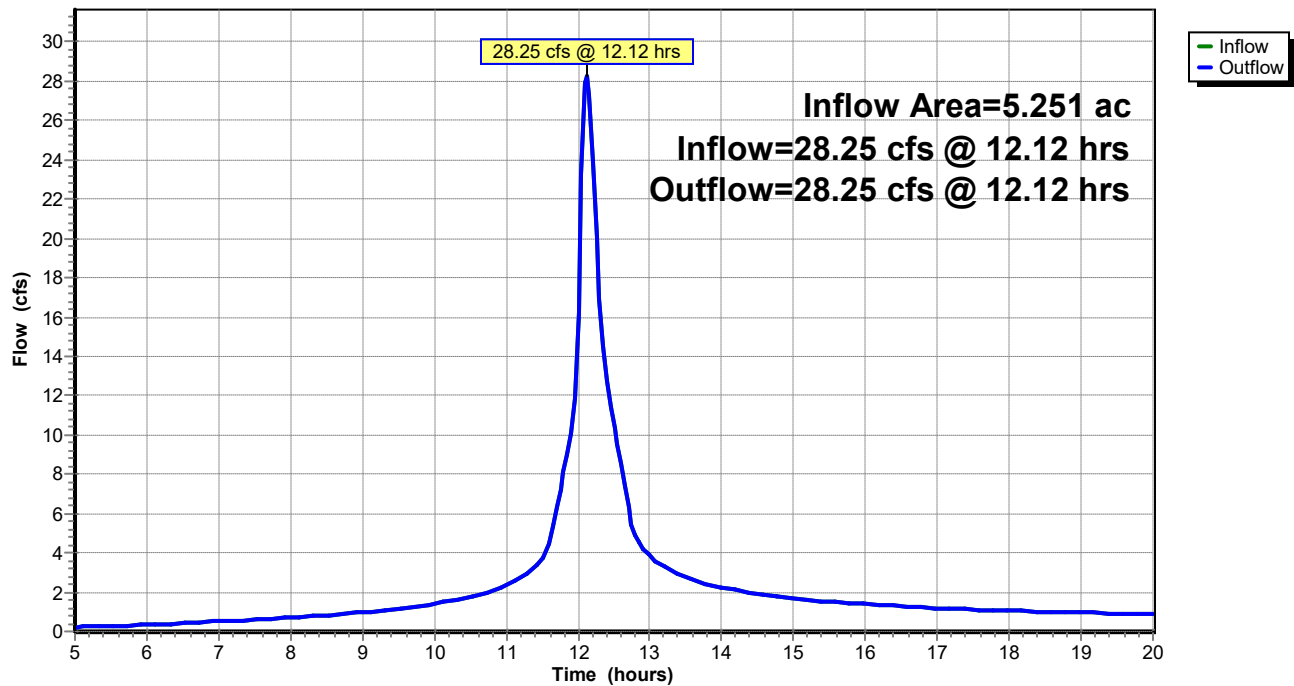
Hydrograph for Reach DB-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.01		0.01	18.00	0.13		0.13
5.25	0.01		0.01	18.25	0.13		0.13
5.50	0.02		0.02	18.50	0.13		0.13
5.75	0.02		0.02	18.75	0.12		0.12
6.00	0.03		0.03	19.00	0.12		0.12
6.25	0.03		0.03	19.25	0.12		0.12
6.50	0.03		0.03	19.50	0.12		0.12
6.75	0.04		0.04	19.75	0.11		0.11
7.00	0.04		0.04	20.00	0.11		0.11
7.25	0.05		0.05				
7.50	0.05		0.05				
7.75	0.06		0.06				
8.00	0.07		0.07				
8.25	0.07		0.07				
8.50	0.08		0.08				
8.75	0.09		0.09				
9.00	0.10		0.10				
9.25	0.11		0.11				
9.50	0.12		0.12				
9.75	0.14		0.14				
10.00	0.15		0.15				
10.25	0.18		0.18				
10.50	0.20		0.20				
10.75	0.23		0.23				
11.00	0.28		0.28				
11.25	0.34		0.34				
11.50	0.46		0.46				
11.75	1.01		1.01				
12.00	3.35		3.35				
12.25	1.80		1.80				
12.50	1.11		1.11				
12.75	0.56		0.56				
13.00	0.44		0.44				
13.25	0.38		0.38				
13.50	0.34		0.34				
13.75	0.30		0.30				
14.00	0.28		0.28				
14.25	0.26		0.26				
14.50	0.24		0.24				
14.75	0.22		0.22				
15.00	0.21		0.21				
15.25	0.20		0.20				
15.50	0.19		0.19				
15.75	0.18		0.18				
16.00	0.18		0.18				
16.25	0.17		0.17				
16.50	0.16		0.16				
16.75	0.16		0.16				
17.00	0.15		0.15				
17.25	0.15		0.15				
17.50	0.14		0.14				
17.75	0.14		0.14				

Summary for Reach DP-1:

Inflow Area = 5.251 ac, 31.77% Impervious, Inflow Depth > 6.36" for 100-yr event
Inflow = 28.25 cfs @ 12.12 hrs, Volume= 2.783 af
Outflow = 28.25 cfs @ 12.12 hrs, Volume= 2.783 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1:**Hydrograph**

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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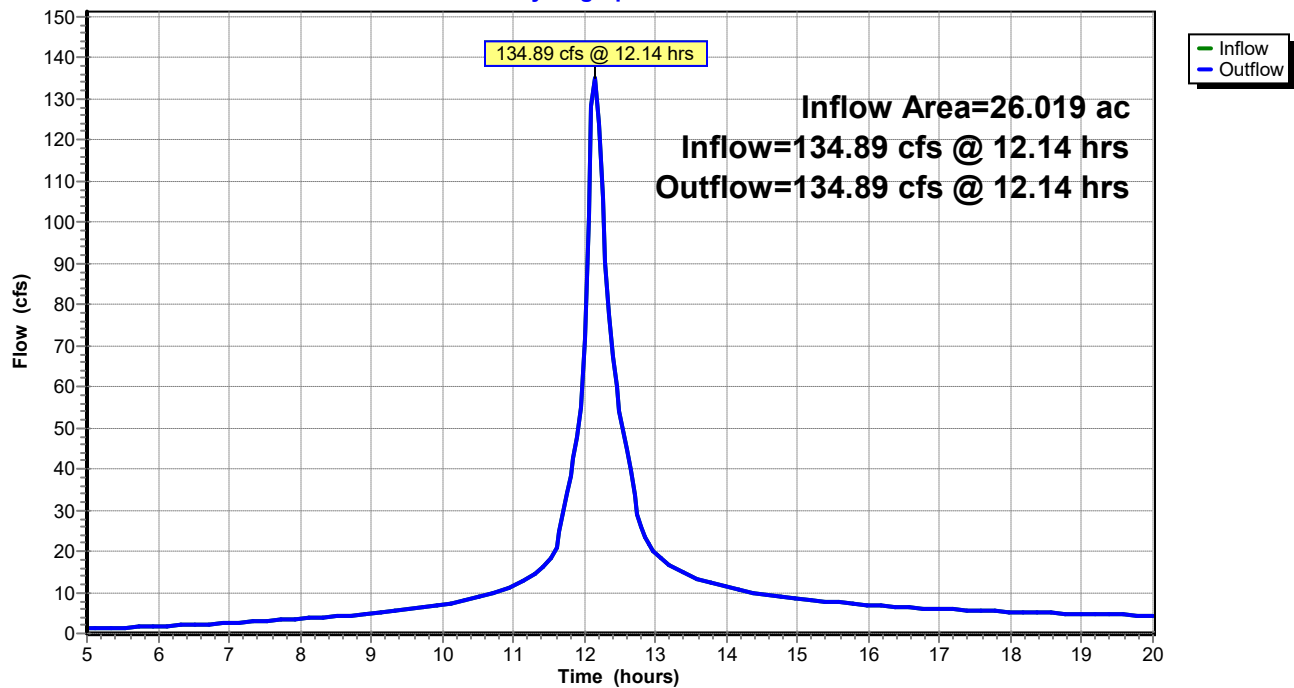
Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.21		0.21	18.00	1.06		1.06
5.25	0.25		0.25	18.25	1.03		1.03
5.50	0.28		0.28	18.50	1.00		1.00
5.75	0.31		0.31	18.75	0.98		0.98
6.00	0.35		0.35	19.00	0.96		0.96
6.25	0.39		0.39	19.25	0.93		0.93
6.50	0.42		0.42	19.50	0.91		0.91
6.75	0.46		0.46	19.75	0.89		0.89
7.00	0.51		0.51	20.00	0.87		0.87
7.25	0.55		0.55				
7.50	0.60		0.60				
7.75	0.65		0.65				
8.00	0.70		0.70				
8.25	0.76		0.76				
8.50	0.82		0.82				
8.75	0.89		0.89				
9.00	0.97		0.97				
9.25	1.06		1.06				
9.50	1.16		1.16				
9.75	1.27		1.27				
10.00	1.40		1.40				
10.25	1.56		1.56				
10.50	1.76		1.76				
10.75	2.02		2.02				
11.00	2.36		2.36				
11.25	2.84		2.84				
11.50	3.62		3.62				
11.75	7.25		7.25				
12.00	16.23		16.23				
12.25	20.05		20.05				
12.50	10.38		10.38				
12.75	5.47		5.47				
13.00	3.80		3.80				
13.25	3.17		3.17				
13.50	2.76		2.76				
13.75	2.47		2.47				
14.00	2.24		2.24				
14.25	2.06		2.06				
14.50	1.92		1.92				
14.75	1.79		1.79				
15.00	1.69		1.69				
15.25	1.60		1.60				
15.50	1.52		1.52				
15.75	1.45		1.45				
16.00	1.39		1.39				
16.25	1.33		1.33				
16.50	1.28		1.28				
16.75	1.24		1.24				
17.00	1.20		1.20				
17.25	1.16		1.16				
17.50	1.12		1.12				
17.75	1.09		1.09				

Summary for Reach DP-2:

Inflow Area = 26.019 ac, 32.96% Impervious, Inflow Depth > 6.38" for 100-yr event
Inflow = 134.89 cfs @ 12.14 hrs, Volume= 13.826 af
Outflow = 134.89 cfs @ 12.14 hrs, Volume= 13.826 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2:**Hydrograph**

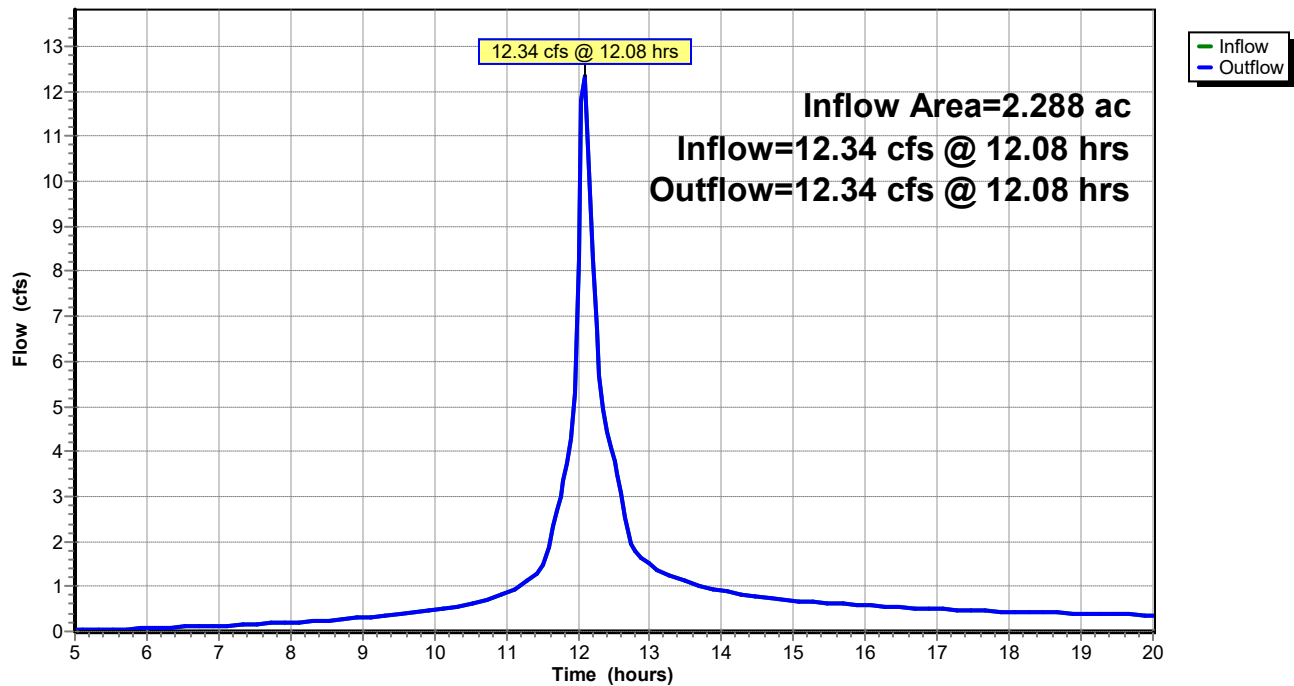
Hydrograph for Reach DP-2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	1.12		1.12	18.00	5.26		5.26
5.25	1.28		1.28	18.25	5.12		5.12
5.50	1.45		1.45	18.50	4.98		4.98
5.75	1.62		1.62	18.75	4.86		4.86
6.00	1.79		1.79	19.00	4.74		4.74
6.25	1.97		1.97	19.25	4.63		4.63
6.50	2.16		2.16	19.50	4.53		4.53
6.75	2.36		2.36	19.75	4.43		4.43
7.00	2.57		2.57	20.00	4.34		4.34
7.25	2.78		2.78				
7.50	3.01		3.01				
7.75	3.26		3.26				
8.00	3.53		3.53				
8.25	3.81		3.81				
8.50	4.12		4.12				
8.75	4.46		4.46				
9.00	4.84		4.84				
9.25	5.27		5.27				
9.50	5.75		5.75				
9.75	6.31		6.31				
10.00	6.96		6.96				
10.25	7.75		7.75				
10.50	8.71		8.71				
10.75	9.93		9.93				
11.00	11.57		11.57				
11.25	13.90		13.90				
11.50	17.60		17.60				
11.75	33.96		33.96				
12.00	71.69		71.69				
12.25	106.08		106.08				
12.50	54.13		54.13				
12.75	29.11		29.11				
13.00	19.37		19.37				
13.25	15.92		15.92				
13.50	13.84		13.84				
13.75	12.34		12.34				
14.00	11.20		11.20				
14.25	10.29		10.29				
14.50	9.56		9.56				
14.75	8.94		8.94				
15.00	8.42		8.42				
15.25	7.96		7.96				
15.50	7.57		7.57				
15.75	7.22		7.22				
16.00	6.91		6.91				
16.25	6.63		6.63				
16.50	6.38		6.38				
16.75	6.15		6.15				
17.00	5.94		5.94				
17.25	5.75		5.75				
17.50	5.57		5.57				
17.75	5.41		5.41				

Summary for Reach DP-4:

Inflow Area = 2.288 ac, 2.71% Impervious, Inflow Depth > 5.62" for 100-yr event
Inflow = 12.34 cfs @ 12.08 hrs, Volume= 1.071 af
Outflow = 12.34 cfs @ 12.08 hrs, Volume= 1.071 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4:**Hydrograph**

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.02		0.02	18.00	0.44		0.44
5.25	0.03		0.03	18.25	0.43		0.43
5.50	0.04		0.04	18.50	0.42		0.42
5.75	0.06		0.06	18.75	0.41		0.41
6.00	0.07		0.07	19.00	0.40		0.40
6.25	0.08		0.08	19.25	0.39		0.39
6.50	0.10		0.10	19.50	0.38		0.38
6.75	0.11		0.11	19.75	0.37		0.37
7.00	0.13		0.13	20.00	0.36		0.36
7.25	0.14		0.14				
7.50	0.16		0.16				
7.75	0.18		0.18				
8.00	0.20		0.20				
8.25	0.22		0.22				
8.50	0.25		0.25				
8.75	0.28		0.28				
9.00	0.31		0.31				
9.25	0.34		0.34				
9.50	0.38		0.38				
9.75	0.42		0.42				
10.00	0.48		0.48				
10.25	0.54		0.54				
10.50	0.62		0.62				
10.75	0.72		0.72				
11.00	0.86		0.86				
11.25	1.06		1.06				
11.50	1.40		1.40				
11.75	3.01		3.01				
12.00	8.27		8.27				
12.25	6.73		6.73				
12.50	3.79		3.79				
12.75	1.93		1.93				
13.00	1.48		1.48				
13.25	1.26		1.26				
13.50	1.11		1.11				
13.75	0.99		0.99				
14.00	0.91		0.91				
14.25	0.84		0.84				
14.50	0.78		0.78				
14.75	0.73		0.73				
15.00	0.69		0.69				
15.25	0.66		0.66				
15.50	0.62		0.62				
15.75	0.60		0.60				
16.00	0.57		0.57				
16.25	0.55		0.55				
16.50	0.53		0.53				
16.75	0.51		0.51				
17.00	0.49		0.49				
17.25	0.48		0.48				
17.50	0.46		0.46				
17.75	0.45		0.45				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment EDA-1A:

Runoff = 15.41 cfs @ 12.14 hrs, Volume= 1.549 af, Depth> 6.08"
 Routed to Reach DP-1 :

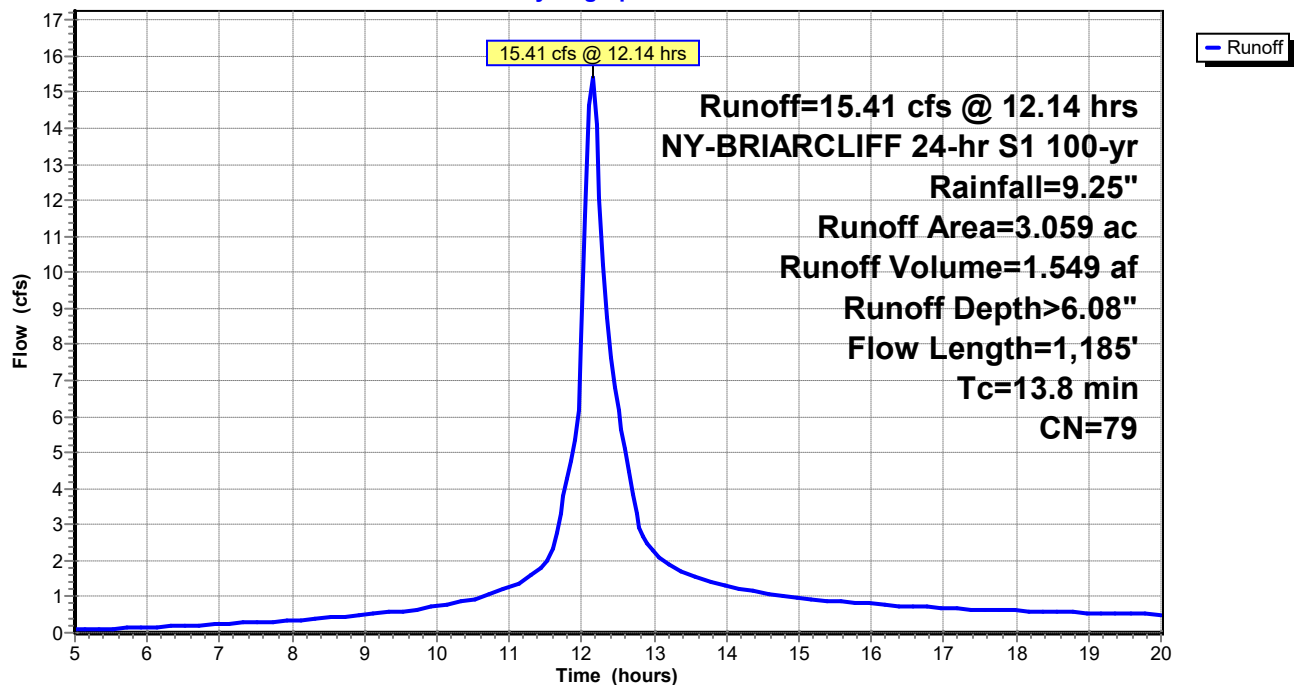
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.627	98	Paved parking, HSG C
2.432	74	>75% Grass cover, Good, HSG C
3.059	79	Weighted Average
2.432		79.50% Pervious Area
0.627		20.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0267	0.21		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.1	260	0.0692	3.95		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
1.0	775	0.0387	12.67	22.39	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
13.8	1,185	Total			

Subcatchment EDA-1A:

Hydrograph



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Hydrograph for Subcatchment EDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.02	0.08	18.00	8.28	5.77	0.61
5.25	0.82	0.03	0.10	18.25	8.33	5.82	0.59
5.50	0.87	0.04	0.11	18.50	8.38	5.86	0.58
5.75	0.92	0.05	0.13	18.75	8.43	5.91	0.56
6.00	0.97	0.06	0.15	19.00	8.48	5.95	0.55
6.25	1.03	0.08	0.17	19.25	8.52	6.00	0.54
6.50	1.08	0.09	0.19	19.50	8.57	6.04	0.53
6.75	1.14	0.11	0.22	19.75	8.61	6.08	0.51
7.00	1.19	0.13	0.24	20.00	8.66	6.12	0.50
7.25	1.25	0.15	0.26				
7.50	1.31	0.18	0.29				
7.75	1.38	0.20	0.32				
8.00	1.44	0.23	0.35				
8.25	1.51	0.27	0.38				
8.50	1.59	0.30	0.41				
8.75	1.66	0.34	0.45				
9.00	1.74	0.38	0.50				
9.25	1.83	0.42	0.54				
9.50	1.92	0.47	0.60				
9.75	2.01	0.53	0.66				
10.00	2.12	0.59	0.74				
10.25	2.23	0.66	0.82				
10.50	2.35	0.74	0.93				
10.75	2.49	0.83	1.07				
11.00	2.65	0.94	1.26				
11.25	2.84	1.07	1.52				
11.50	3.08	1.25	1.94				
11.75	3.58	1.63	3.80				
12.00	4.95	2.76	8.11				
12.25	5.75	3.45	12.04				
12.50	6.22	3.88	6.16				
12.75	6.44	4.08	3.31				
13.00	6.63	4.24	2.22				
13.25	6.78	4.38	1.83				
13.50	6.92	4.51	1.59				
13.75	7.04	4.62	1.42				
14.00	7.15	4.72	1.29				
14.25	7.25	4.81	1.19				
14.50	7.34	4.90	1.10				
14.75	7.43	4.98	1.03				
15.00	7.52	5.06	0.97				
15.25	7.60	5.13	0.92				
15.50	7.67	5.20	0.88				
15.75	7.74	5.27	0.84				
16.00	7.81	5.33	0.80				
16.25	7.88	5.39	0.77				
16.50	7.94	5.45	0.74				
16.75	8.00	5.51	0.71				
17.00	8.06	5.57	0.69				
17.25	8.12	5.62	0.67				
17.50	8.17	5.67	0.65				
17.75	8.23	5.72	0.63				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment EDA-1B:

Runoff = 13.25 cfs @ 12.10 hrs, Volume= 1.234 af, Depth> 6.75"
 Routed to Reach DP-1 :

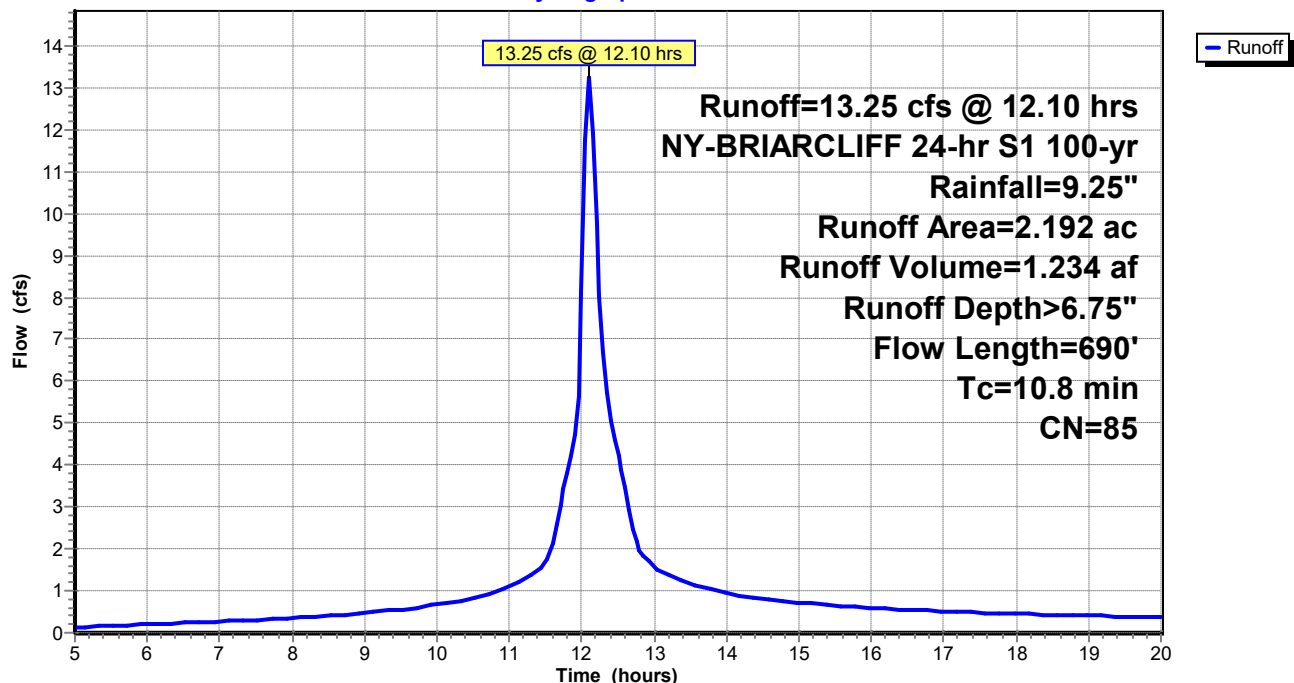
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
1.041	98	Paved parking, HSG C
1.151	74	>75% Grass cover, Good, HSG C
2.192	85	Weighted Average
1.151		52.51% Pervious Area
1.041		47.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.1	150	0.0500	0.28		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.3	260	0.0481	3.29		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
0.4	280	0.0500	10.99	8.63	Pipe Channel, 12" PIPE 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Steel, smooth
10.8	690	Total			

Subcatchment EDA-1B:

Hydrograph



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Hydrograph for Subcatchment EDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.08	0.13	18.00	8.28	6.48	0.45
5.25	0.82	0.10	0.15	18.25	8.33	6.53	0.44
5.50	0.87	0.12	0.16	18.50	8.38	6.58	0.43
5.75	0.92	0.14	0.18	18.75	8.43	6.63	0.42
6.00	0.97	0.16	0.20	19.00	8.48	6.67	0.41
6.25	1.03	0.19	0.21	19.25	8.52	6.72	0.40
6.50	1.08	0.21	0.23	19.50	8.57	6.76	0.39
6.75	1.14	0.24	0.25	19.75	8.61	6.81	0.38
7.00	1.19	0.27	0.27	20.00	8.66	6.85	0.37
7.25	1.25	0.30	0.29				
7.50	1.31	0.34	0.31				
7.75	1.38	0.38	0.33				
8.00	1.44	0.42	0.35				
8.25	1.51	0.46	0.38				
8.50	1.59	0.51	0.41				
8.75	1.66	0.56	0.44				
9.00	1.74	0.61	0.47				
9.25	1.83	0.67	0.51				
9.50	1.92	0.74	0.56				
9.75	2.01	0.81	0.61				
10.00	2.12	0.88	0.67				
10.25	2.23	0.97	0.74				
10.50	2.35	1.06	0.83				
10.75	2.49	1.17	0.94				
11.00	2.65	1.30	1.10				
11.25	2.84	1.46	1.32				
11.50	3.08	1.65	1.68				
11.75	3.58	2.09	3.44				
12.00	4.95	3.32	8.12				
12.25	5.75	4.06	8.01				
12.50	6.22	4.51	4.22				
12.75	6.44	4.72	2.16				
13.00	6.63	4.90	1.58				
13.25	6.78	5.04	1.33				
13.50	6.92	5.17	1.17				
13.75	7.04	5.29	1.04				
14.00	7.15	5.39	0.95				
14.25	7.25	5.49	0.88				
14.50	7.34	5.58	0.81				
14.75	7.43	5.67	0.76				
15.00	7.52	5.75	0.72				
15.25	7.60	5.82	0.68				
15.50	7.67	5.90	0.65				
15.75	7.74	5.97	0.62				
16.00	7.81	6.03	0.59				
16.25	7.88	6.10	0.57				
16.50	7.94	6.16	0.54				
16.75	8.00	6.22	0.53				
17.00	8.06	6.27	0.51				
17.25	8.12	6.33	0.49				
17.50	8.17	6.38	0.48				
17.75	8.23	6.43	0.46				

24072-235 Elm-EXIST

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment EDA-2A:

Runoff = 96.52 cfs @ 12.14 hrs, Volume= 9.875 af, Depth> 6.75"
 Routed to Reach DP-2 :

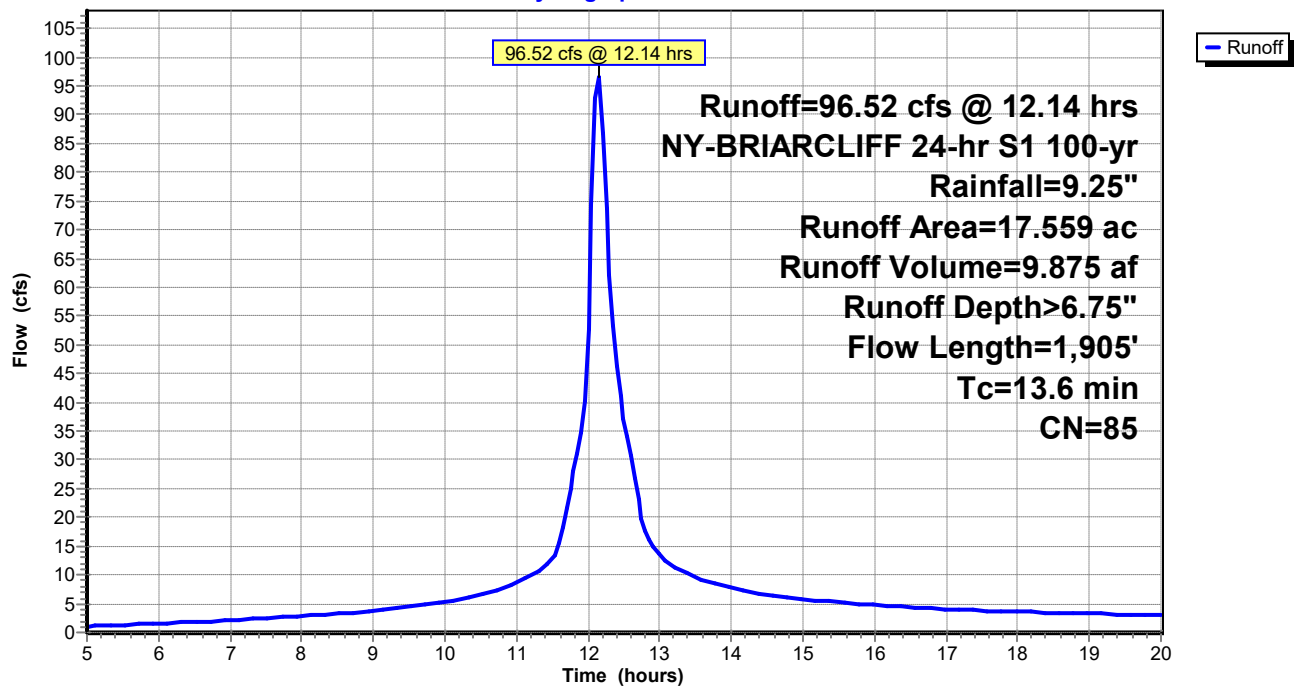
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
8.135	98	Paved parking, HSG C
9.424	74	>75% Grass cover, Good, HSG C
17.559	85	Weighted Average
9.424		53.67% Pervious Area
8.135		46.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
1.6	300	0.0433	3.12		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 1 Grassed Waterway Kv= 15.0 fps
0.2	140	0.0357	12.17	21.50	Pipe Channel, 18" PIPE 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Steel, smooth
0.8	975	0.0615	19.35	60.78	Pipe Channel, 24" PIPE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Steel, smooth
1.1	340	0.1265	5.34		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW 2 Grassed Waterway Kv= 15.0 fps
13.6	1,905	Total			

Subcatchment EDA-2A:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment EDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.08	1.06	18.00	8.28	6.48	3.62
5.25	0.82	0.10	1.18	18.25	8.33	6.53	3.52
5.50	0.87	0.12	1.30	18.50	8.38	6.58	3.43
5.75	0.92	0.14	1.42	18.75	8.43	6.63	3.34
6.00	0.97	0.16	1.55	19.00	8.48	6.67	3.26
6.25	1.03	0.19	1.68	19.25	8.52	6.72	3.19
6.50	1.08	0.21	1.82	19.50	8.57	6.76	3.12
6.75	1.14	0.24	1.96	19.75	8.61	6.81	3.05
7.00	1.19	0.27	2.11	20.00	8.66	6.85	2.98
7.25	1.25	0.30	2.27				
7.50	1.31	0.34	2.44				
7.75	1.38	0.38	2.61				
8.00	1.44	0.42	2.80				
8.25	1.51	0.46	3.01				
8.50	1.59	0.51	3.23				
8.75	1.66	0.56	3.48				
9.00	1.74	0.61	3.75				
9.25	1.83	0.67	4.06				
9.50	1.92	0.74	4.40				
9.75	2.01	0.81	4.80				
10.00	2.12	0.88	5.27				
10.25	2.23	0.97	5.83				
10.50	2.35	1.06	6.52				
10.75	2.49	1.17	7.40				
11.00	2.65	1.30	8.58				
11.25	2.84	1.46	10.25				
11.50	3.08	1.65	12.92				
11.75	3.58	2.09	24.94				
12.00	4.95	3.32	52.57				
12.25	5.75	4.06	73.56				
12.50	6.22	4.51	37.23				
12.75	6.44	4.72	19.81				
13.00	6.63	4.90	13.34				
13.25	6.78	5.04	10.99				
13.50	6.92	5.17	9.56				
13.75	7.04	5.29	8.53				
14.00	7.15	5.39	7.74				
14.25	7.25	5.49	7.11				
14.50	7.34	5.58	6.60				
14.75	7.43	5.67	6.17				
15.00	7.52	5.75	5.81				
15.25	7.60	5.82	5.49				
15.50	7.67	5.90	5.22				
15.75	7.74	5.97	4.98				
16.00	7.81	6.03	4.76				
16.25	7.88	6.10	4.57				
16.50	7.94	6.16	4.39				
16.75	8.00	6.22	4.24				
17.00	8.06	6.27	4.09				
17.25	8.12	6.33	3.96				
17.50	8.17	6.38	3.84				
17.75	8.23	6.43	3.72				

Summary for Subcatchment EDA-2B:

Runoff = 38.70 cfs @ 12.16 hrs, Volume= 3.950 af, Depth> 5.60"
 Routed to Reach DP-2 :

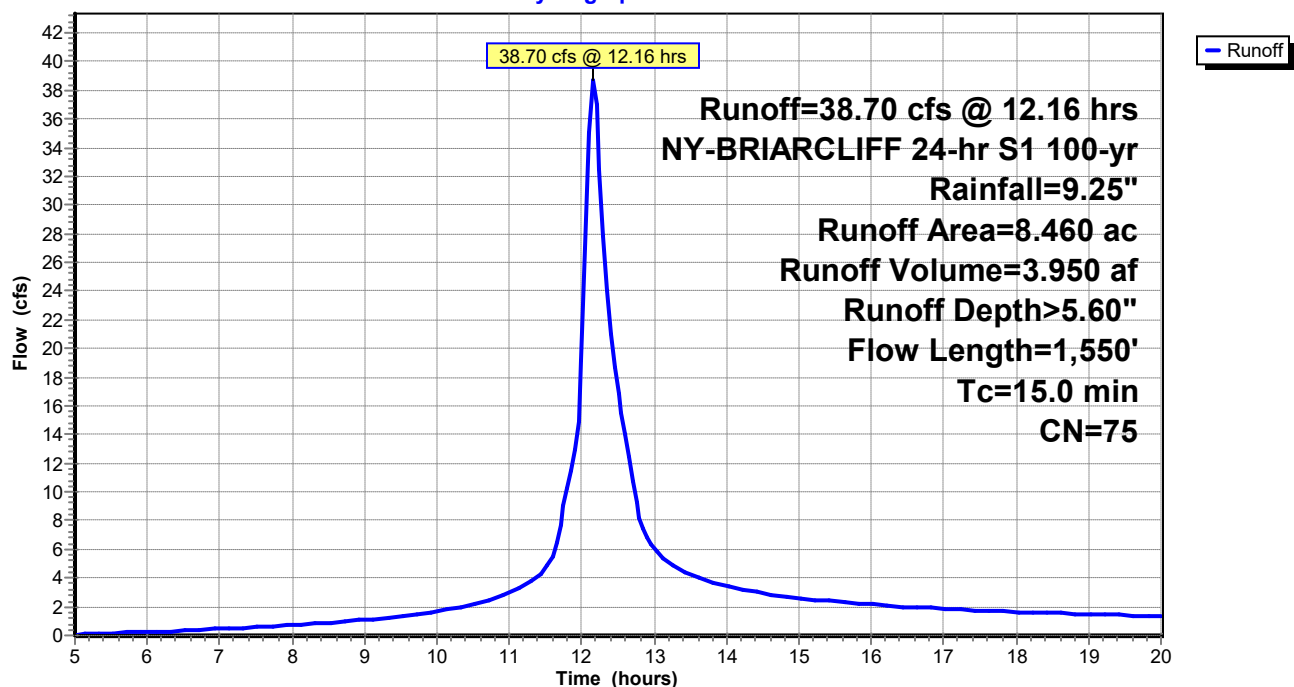
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.441	98	Paved parking, HSG C
8.019	74	>75% Grass cover, Good, HSG C
8.460	75	Weighted Average
8.019		94.79% Pervious Area
0.441		5.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	150	0.0400	0.25		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
15.0	1,550	Total			

Subcatchment EDA-2B:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment EDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.00	0.06	18.00	8.28	5.30	1.64
5.25	0.82	0.01	0.10	18.25	8.33	5.34	1.60
5.50	0.87	0.01	0.15	18.50	8.38	5.39	1.55
5.75	0.92	0.02	0.19	18.75	8.43	5.43	1.52
6.00	0.97	0.03	0.24	19.00	8.48	5.47	1.48
6.25	1.03	0.03	0.29	19.25	8.52	5.52	1.45
6.50	1.08	0.05	0.34	19.50	8.57	5.56	1.42
6.75	1.14	0.06	0.40	19.75	8.61	5.60	1.38
7.00	1.19	0.07	0.45	20.00	8.66	5.64	1.36
7.25	1.25	0.09	0.51				
7.50	1.31	0.11	0.58				
7.75	1.38	0.13	0.65				
8.00	1.44	0.15	0.72				
8.25	1.51	0.17	0.80				
8.50	1.59	0.20	0.89				
8.75	1.66	0.23	0.99				
9.00	1.74	0.26	1.09				
9.25	1.83	0.30	1.21				
9.50	1.92	0.34	1.35				
9.75	2.01	0.39	1.51				
10.00	2.12	0.44	1.69				
10.25	2.23	0.50	1.91				
10.50	2.35	0.57	2.19				
10.75	2.49	0.65	2.53				
11.00	2.65	0.74	2.99				
11.25	2.84	0.86	3.65				
11.50	3.08	1.01	4.68				
11.75	3.58	1.36	9.02				
12.00	4.95	2.41	19.12				
12.25	5.75	3.07	32.52				
12.50	6.22	3.47	16.90				
12.75	6.44	3.66	9.30				
13.00	6.63	3.82	6.03				
13.25	6.78	3.96	4.93				
13.50	6.92	4.08	4.28				
13.75	7.04	4.18	3.82				
14.00	7.15	4.28	3.47				
14.25	7.25	4.37	3.19				
14.50	7.34	4.45	2.96				
14.75	7.43	4.53	2.77				
15.00	7.52	4.61	2.61				
15.25	7.60	4.68	2.47				
15.50	7.67	4.75	2.35				
15.75	7.74	4.81	2.24				
16.00	7.81	4.87	2.15				
16.25	7.88	4.93	2.06				
16.50	7.94	4.99	1.98				
16.75	8.00	5.04	1.91				
17.00	8.06	5.10	1.85				
17.25	8.12	5.15	1.79				
17.50	8.17	5.20	1.74				
17.75	8.23	5.25	1.69				

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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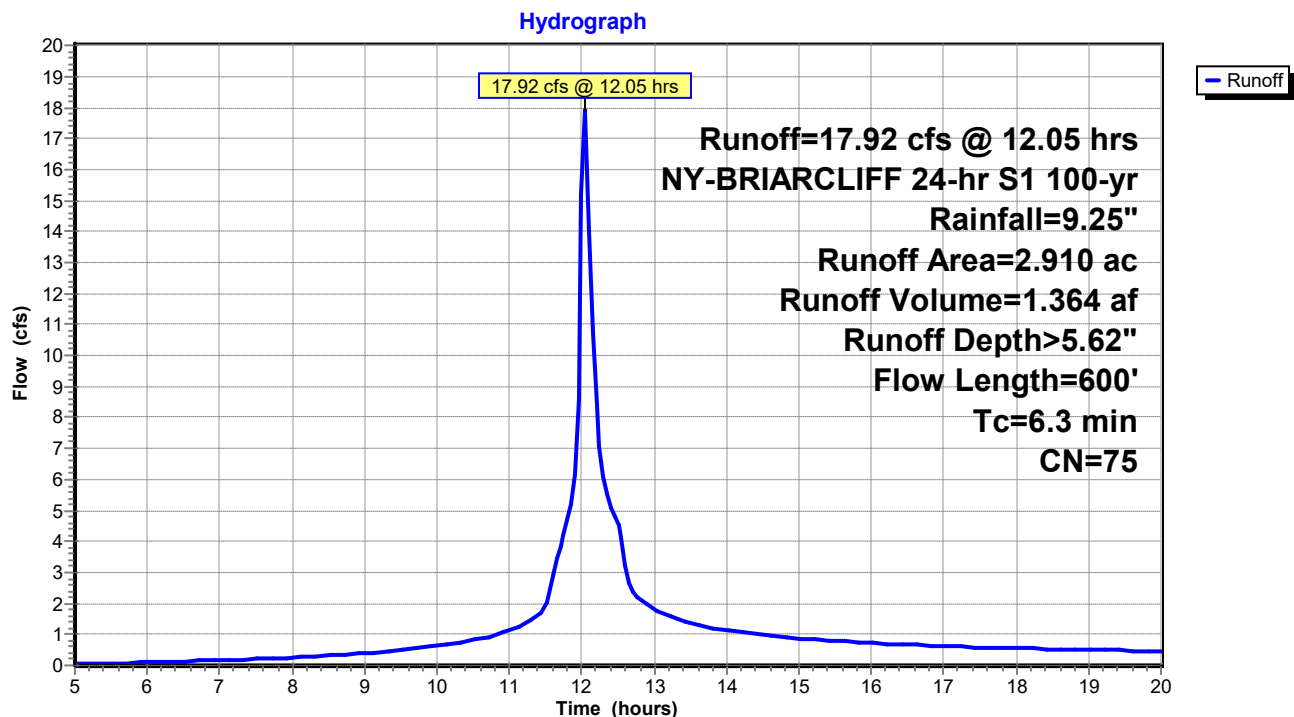
Summary for Subcatchment EDA-3:

Runoff = 17.92 cfs @ 12.05 hrs, Volume= 1.364 af, Depth> 5.62"
Routed to Reach DB-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.061	98	Paved parking, HSG C
2.849	74	>75% Grass cover, Good, HSG C
2.910	75	Weighted Average
2.849		97.90% Pervious Area
0.061		2.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	90	0.0889	0.31		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.5	510	0.1372	5.56		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
6.3	600	Total			

Subcatchment EDA-3:

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment EDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.00	0.03	18.00	8.28	5.30	0.56
5.25	0.82	0.01	0.04	18.25	8.33	5.34	0.54
5.50	0.87	0.01	0.06	18.50	8.38	5.39	0.53
5.75	0.92	0.02	0.07	18.75	8.43	5.43	0.51
6.00	0.97	0.03	0.09	19.00	8.48	5.47	0.50
6.25	1.03	0.03	0.11	19.25	8.52	5.52	0.49
6.50	1.08	0.05	0.13	19.50	8.57	5.56	0.48
6.75	1.14	0.06	0.15	19.75	8.61	5.60	0.47
7.00	1.19	0.07	0.17	20.00	8.66	5.64	0.46
7.25	1.25	0.09	0.19				
7.50	1.31	0.11	0.21				
7.75	1.38	0.13	0.24				
8.00	1.44	0.15	0.26				
8.25	1.51	0.17	0.29				
8.50	1.59	0.20	0.32				
8.75	1.66	0.23	0.36				
9.00	1.74	0.26	0.40				
9.25	1.83	0.30	0.44				
9.50	1.92	0.34	0.49				
9.75	2.01	0.39	0.55				
10.00	2.12	0.44	0.62				
10.25	2.23	0.50	0.70				
10.50	2.35	0.57	0.81				
10.75	2.49	0.65	0.95				
11.00	2.65	0.74	1.13				
11.25	2.84	0.86	1.41				
11.50	3.08	1.01	1.89				
11.75	3.58	1.36	4.19				
12.00	4.95	2.41	15.23				
12.25	5.75	3.07	7.06				
12.50	6.22	3.47	4.51				
12.75	6.44	3.66	2.24				
13.00	6.63	3.82	1.81				
13.25	6.78	3.96	1.56				
13.50	6.92	4.08	1.38				
13.75	7.04	4.18	1.24				
14.00	7.15	4.28	1.14				
14.25	7.25	4.37	1.05				
14.50	7.34	4.45	0.98				
14.75	7.43	4.53	0.92				
15.00	7.52	4.61	0.87				
15.25	7.60	4.68	0.83				
15.50	7.67	4.75	0.79				
15.75	7.74	4.81	0.75				
16.00	7.81	4.87	0.72				
16.25	7.88	4.93	0.69				
16.50	7.94	4.99	0.67				
16.75	8.00	5.04	0.65				
17.00	8.06	5.10	0.62				
17.25	8.12	5.15	0.61				
17.50	8.17	5.20	0.59				
17.75	8.23	5.25	0.57				

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment EDA-4:

Runoff = 12.34 cfs @ 12.08 hrs, Volume= 1.071 af, Depth> 5.62"
Routed to Reach DP-4 :

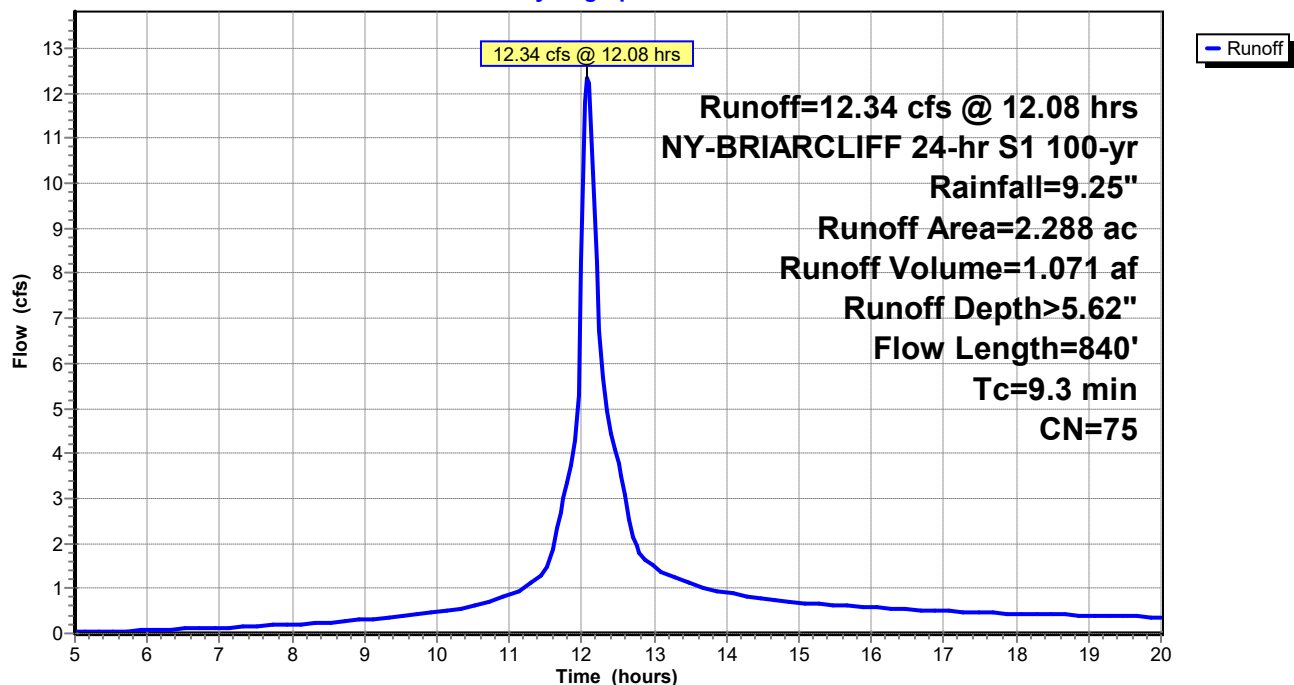
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.062	98	Paved parking, HSG C
2.226	74	>75% Grass cover, Good, HSG C
2.288	75	Weighted Average
2.226		97.29% Pervious Area
0.062		2.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	150	0.0800	0.33		Sheet Flow, SHEET FLOW
					Grass: Short n= 0.150 P2= 3.42"
1.8	690	0.1884	6.51		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW
					Grassed Waterway Kv= 15.0 fps
9.3	840	Total			

Subcatchment EDA-4:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment EDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.00	0.02	18.00	8.28	5.30	0.44
5.25	0.82	0.01	0.03	18.25	8.33	5.34	0.43
5.50	0.87	0.01	0.04	18.50	8.38	5.39	0.42
5.75	0.92	0.02	0.06	18.75	8.43	5.43	0.41
6.00	0.97	0.03	0.07	19.00	8.48	5.47	0.40
6.25	1.03	0.03	0.08	19.25	8.52	5.52	0.39
6.50	1.08	0.05	0.10	19.50	8.57	5.56	0.38
6.75	1.14	0.06	0.11	19.75	8.61	5.60	0.37
7.00	1.19	0.07	0.13	20.00	8.66	5.64	0.36
7.25	1.25	0.09	0.14				
7.50	1.31	0.11	0.16				
7.75	1.38	0.13	0.18				
8.00	1.44	0.15	0.20				
8.25	1.51	0.17	0.22				
8.50	1.59	0.20	0.25				
8.75	1.66	0.23	0.28				
9.00	1.74	0.26	0.31				
9.25	1.83	0.30	0.34				
9.50	1.92	0.34	0.38				
9.75	2.01	0.39	0.42				
10.00	2.12	0.44	0.48				
10.25	2.23	0.50	0.54				
10.50	2.35	0.57	0.62				
10.75	2.49	0.65	0.72				
11.00	2.65	0.74	0.86				
11.25	2.84	0.86	1.06				
11.50	3.08	1.01	1.40				
11.75	3.58	1.36	3.01				
12.00	4.95	2.41	8.27				
12.25	5.75	3.07	6.73				
12.50	6.22	3.47	3.79				
12.75	6.44	3.66	1.93				
13.00	6.63	3.82	1.48				
13.25	6.78	3.96	1.26				
13.50	6.92	4.08	1.11				
13.75	7.04	4.18	0.99				
14.00	7.15	4.28	0.91				
14.25	7.25	4.37	0.84				
14.50	7.34	4.45	0.78				
14.75	7.43	4.53	0.73				
15.00	7.52	4.61	0.69				
15.25	7.60	4.68	0.66				
15.50	7.67	4.75	0.62				
15.75	7.74	4.81	0.60				
16.00	7.81	4.87	0.57				
16.25	7.88	4.93	0.55				
16.50	7.94	4.99	0.53				
16.75	8.00	5.04	0.51				
17.00	8.06	5.10	0.49				
17.25	8.12	5.15	0.48				
17.50	8.17	5.20	0.46				
17.75	8.23	5.25	0.45				

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Summary for Subcatchment EDA-5:

Runoff = 4.25 cfs @ 12.05 hrs, Volume= 0.334 af, Depth> 5.74"
Routed to Reach DB-5 :

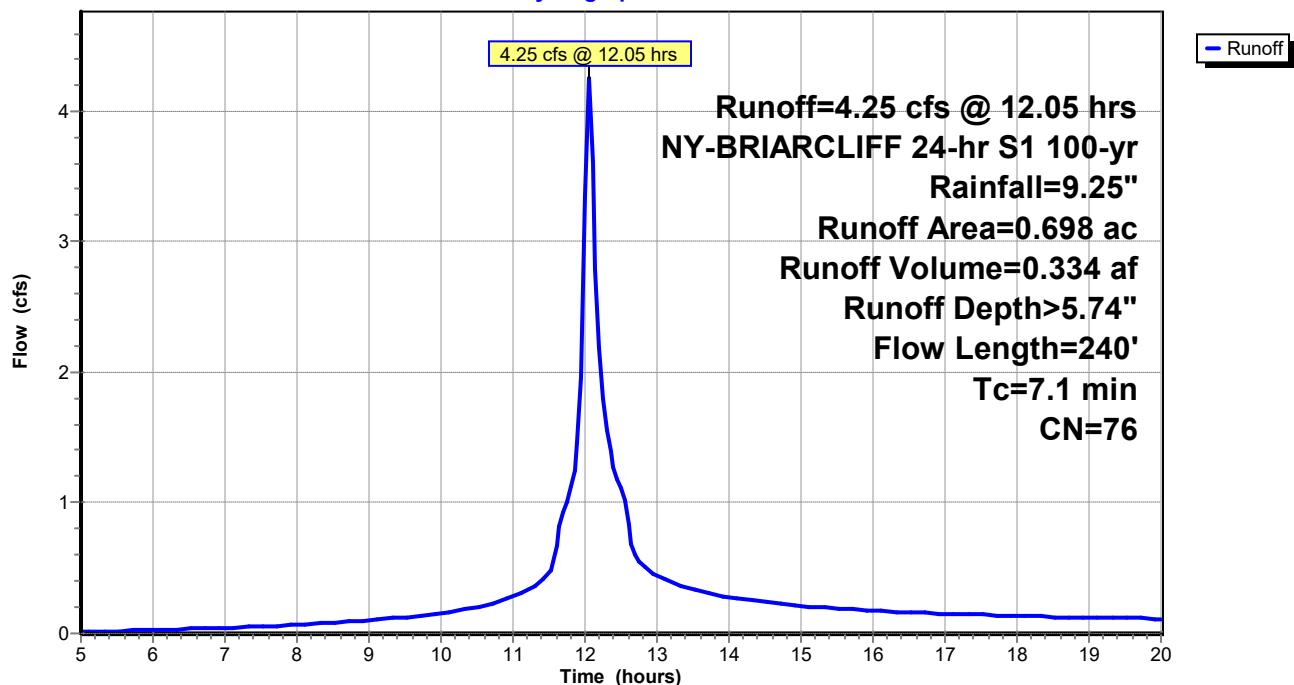
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.068	98	Paved parking, HSG C
0.630	74	>75% Grass cover, Good, HSG C
0.698	76	Weighted Average
0.630		90.26% Pervious Area
0.068		9.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	150	0.1000	0.36		Sheet Flow, SHEET FLOW Grass: Short n= 0.150 P2= 3.42"
0.2	90	0.2336	7.25		Shallow Concentrated Flow, SHALLOW CONCENTRATED FLOW Grassed Waterway Kv= 15.0 fps
7.1	240	Total			

Subcatchment EDA-5:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment EDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.78	0.01	0.01	18.00	8.28	5.41	0.13
5.25	0.82	0.01	0.01	18.25	8.33	5.46	0.13
5.50	0.87	0.02	0.02	18.50	8.38	5.51	0.13
5.75	0.92	0.02	0.02	18.75	8.43	5.55	0.12
6.00	0.97	0.03	0.03	19.00	8.48	5.59	0.12
6.25	1.03	0.04	0.03	19.25	8.52	5.64	0.12
6.50	1.08	0.06	0.03	19.50	8.57	5.68	0.12
6.75	1.14	0.07	0.04	19.75	8.61	5.72	0.11
7.00	1.19	0.08	0.04	20.00	8.66	5.76	0.11
7.25	1.25	0.10	0.05				
7.50	1.31	0.12	0.05				
7.75	1.38	0.14	0.06				
8.00	1.44	0.17	0.07				
8.25	1.51	0.19	0.07				
8.50	1.59	0.22	0.08				
8.75	1.66	0.25	0.09				
9.00	1.74	0.29	0.10				
9.25	1.83	0.33	0.11				
9.50	1.92	0.37	0.12				
9.75	2.01	0.42	0.14				
10.00	2.12	0.48	0.15				
10.25	2.23	0.54	0.18				
10.50	2.35	0.61	0.20				
10.75	2.49	0.69	0.23				
11.00	2.65	0.79	0.28				
11.25	2.84	0.91	0.34				
11.50	3.08	1.07	0.46				
11.75	3.58	1.43	1.01				
12.00	4.95	2.50	3.35				
12.25	5.75	3.16	1.80				
12.50	6.22	3.57	1.11				
12.75	6.44	3.77	0.56				
13.00	6.63	3.93	0.44				
13.25	6.78	4.06	0.38				
13.50	6.92	4.18	0.34				
13.75	7.04	4.29	0.30				
14.00	7.15	4.39	0.28				
14.25	7.25	4.48	0.26				
14.50	7.34	4.57	0.24				
14.75	7.43	4.64	0.22				
15.00	7.52	4.72	0.21				
15.25	7.60	4.79	0.20				
15.50	7.67	4.86	0.19				
15.75	7.74	4.92	0.18				
16.00	7.81	4.99	0.18				
16.25	7.88	5.05	0.17				
16.50	7.94	5.10	0.16				
16.75	8.00	5.16	0.16				
17.00	8.06	5.21	0.15				
17.25	8.12	5.27	0.15				
17.50	8.17	5.32	0.14				
17.75	8.23	5.37	0.14				

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Multi-Event Tables

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Events for Reach DB-3:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	2.74	2.74	0.00	0
2-yr	4.33	4.33	0.00	0
10-yr	8.43	8.43	0.00	0
100-yr	17.92	17.92	0.00	0

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Multi-Event Tables

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Events for Reach DB-5:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.68	0.68	0.00	0
2-yr	1.06	1.06	0.00	0
10-yr	2.03	2.03	0.00	0
100-yr	4.25	4.25	0.00	0

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Multi-Event Tables

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Events for Reach DP-1:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	5.86	5.86	0.00	0
2-yr	8.40	8.40	0.00	0
10-yr	14.56	14.56	0.00	0
100-yr	28.25	28.25	0.00	0

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Events for Reach DP-2:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	28.48	28.48	0.00	0
2-yr	40.50	40.50	0.00	0
10-yr	69.69	69.69	0.00	0
100-yr	134.89	134.89	0.00	0

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Multi-Event Tables

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Events for Reach DP-4:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	1.85	1.85	0.00	0
2-yr	2.93	2.93	0.00	0
10-yr	5.74	5.74	0.00	0
100-yr	12.34	12.34	0.00	0

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Events for Subcatchment EDA-1A:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	2.80	0.232	0.91
2-yr	3.42	4.16	0.342	1.34
10-yr	5.13	7.60	0.670	2.63
100-yr	9.25	15.41	1.549	6.08

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Events for Subcatchment EDA-1B:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	3.20	0.231	1.27
2-yr	3.42	4.41	0.323	1.77
10-yr	5.13	7.21	0.582	3.19
100-yr	9.25	13.25	1.234	6.75

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Events for Subcatchment EDA-2A:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	22.96	1.851	1.26
2-yr	3.42	31.70	2.582	1.76
10-yr	5.13	52.14	4.656	3.18
100-yr	9.25	96.52	9.875	6.75

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Events for Subcatchment EDA-2B:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	5.64	0.503	0.71
2-yr	3.42	8.95	0.774	1.10
10-yr	5.13	17.76	1.611	2.29
100-yr	9.25	38.70	3.950	5.60

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Events for Subcatchment EDA-3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	2.74	0.174	0.72
2-yr	3.42	4.33	0.268	1.10
10-yr	5.13	8.43	0.557	2.30
100-yr	9.25	17.92	1.364	5.62

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Events for Subcatchment EDA-4:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	1.85	0.137	0.72
2-yr	3.42	2.93	0.210	1.10
10-yr	5.13	5.74	0.437	2.29
100-yr	9.25	12.34	1.071	5.62

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Events for Subcatchment EDA-5:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	0.68	0.044	0.76
2-yr	3.42	1.06	0.068	1.16
10-yr	5.13	2.03	0.138	2.38
100-yr	9.25	4.25	0.334	5.74

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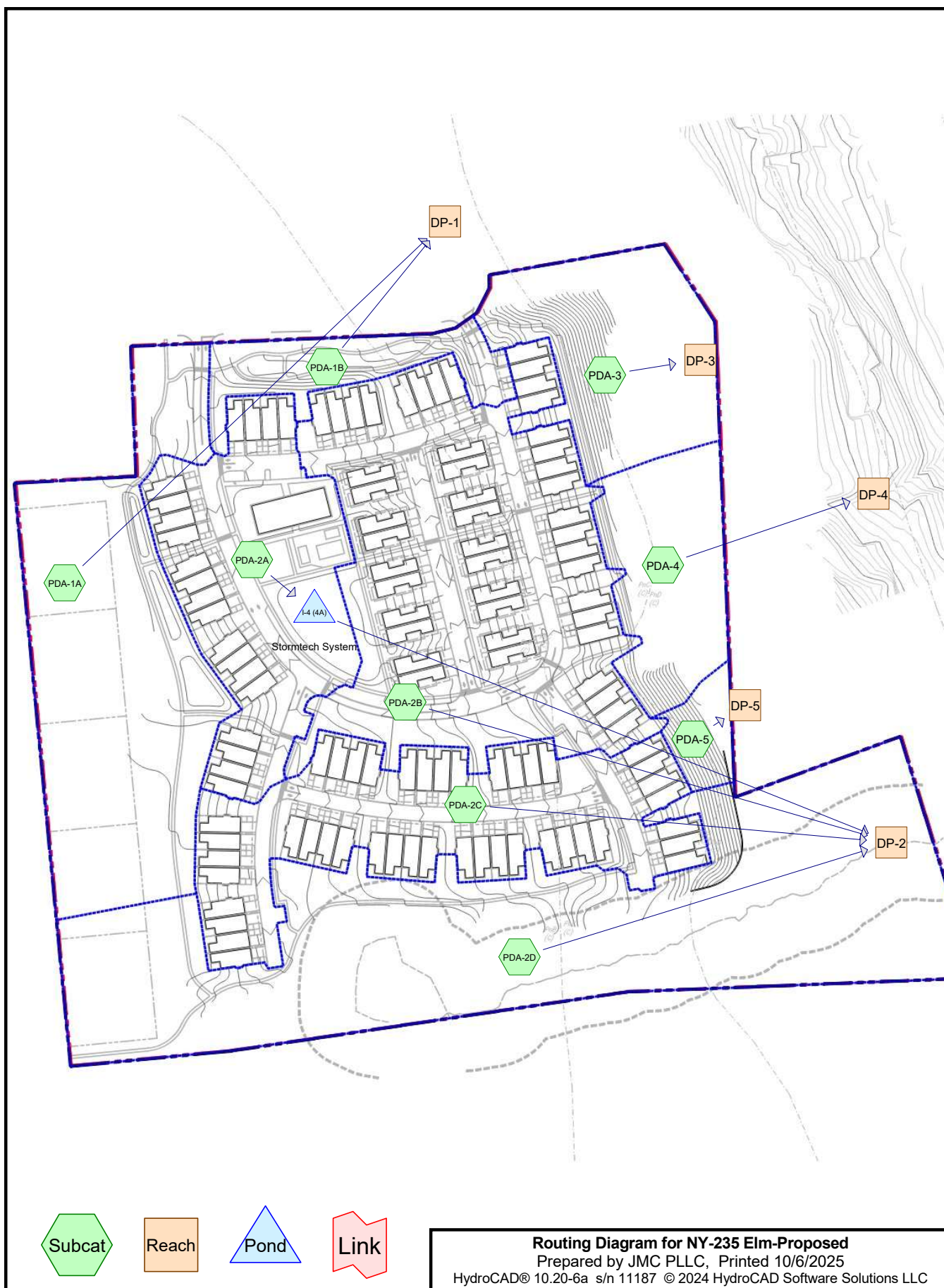
84	Reach DP-2:
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APPENDIX B

PROPOSED HYDROLOGIC CALCULATIONS



NY-235 Elm-Proposed

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Rainfall Events Listing (selected events)

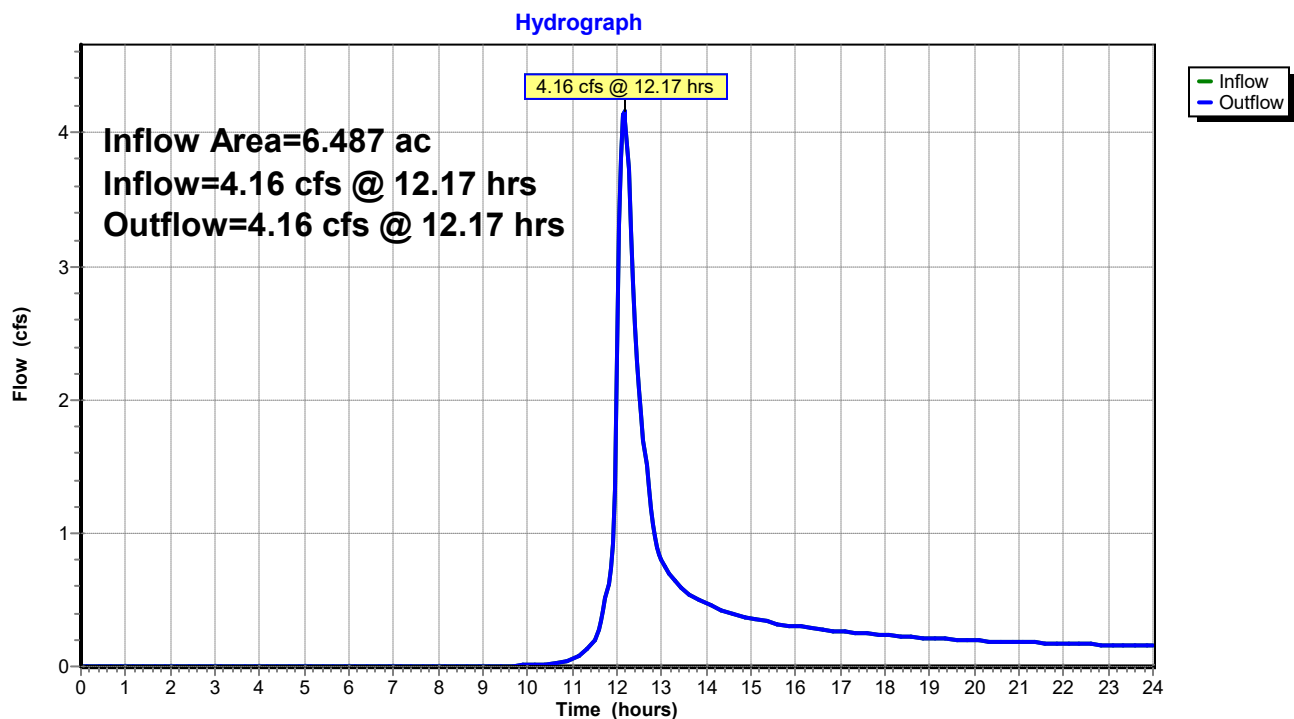
Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY-BRIARCLIFF 24-hr S1	1-yr	Default	24.00	1	2.78	2
2	2-yr	NY-BRIARCLIFF 24-hr S1	2-yr	Default	24.00	1	3.42	2
3	10-yr	NY-BRIARCLIFF 24-hr S1	10-yr	Default	24.00	1	5.13	2
4	100-yr	NY-BRIARCLIFF 24-hr S1	100-yr	Default	24.00	1	9.25	2

Summary for Reach DP-1:

Inflow Area = 6.487 ac, 8.18% Impervious, Inflow Depth > 0.86" for 1-yr event
 Inflow = 4.16 cfs @ 12.17 hrs, Volume= 0.466 af
 Outflow = 4.16 cfs @ 12.17 hrs, Volume= 0.466 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-1:



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.80		0.80
0.25	0.00		0.00	13.25	0.66		0.66
0.50	0.00		0.00	13.50	0.58		0.58
0.75	0.00		0.00	13.75	0.52		0.52
1.00	0.00		0.00	14.00	0.47		0.47
1.25	0.00		0.00	14.25	0.44		0.44
1.50	0.00		0.00	14.50	0.41		0.41
1.75	0.00		0.00	14.75	0.38		0.38
2.00	0.00		0.00	15.00	0.36		0.36
2.25	0.00		0.00	15.25	0.34		0.34
2.50	0.00		0.00	15.50	0.33		0.33
2.75	0.00		0.00	15.75	0.31		0.31
3.00	0.00		0.00	16.00	0.30		0.30
3.25	0.00		0.00	16.25	0.29		0.29
3.50	0.00		0.00	16.50	0.28		0.28
3.75	0.00		0.00	16.75	0.27		0.27
4.00	0.00		0.00	17.00	0.26		0.26
4.25	0.00		0.00	17.25	0.25		0.25
4.50	0.00		0.00	17.50	0.25		0.25
4.75	0.00		0.00	17.75	0.24		0.24
5.00	0.00		0.00	18.00	0.23		0.23
5.25	0.00		0.00	18.25	0.23		0.23
5.50	0.00		0.00	18.50	0.22		0.22
5.75	0.00		0.00	18.75	0.22		0.22
6.00	0.00		0.00	19.00	0.21		0.21
6.25	0.00		0.00	19.25	0.21		0.21
6.50	0.00		0.00	19.50	0.20		0.20
6.75	0.00		0.00	19.75	0.20		0.20
7.00	0.00		0.00	20.00	0.20		0.20
7.25	0.00		0.00	20.25	0.19		0.19
7.50	0.00		0.00	20.50	0.19		0.19
7.75	0.00		0.00	20.75	0.18		0.18
8.00	0.00		0.00	21.00	0.18		0.18
8.25	0.00		0.00	21.25	0.18		0.18
8.50	0.00		0.00	21.50	0.18		0.18
8.75	0.00		0.00	21.75	0.17		0.17
9.00	0.00		0.00	22.00	0.17		0.17
9.25	0.00		0.00	22.25	0.17		0.17
9.50	0.00		0.00	22.50	0.17		0.17
9.75	0.01		0.01	22.75	0.16		0.16
10.00	0.01		0.01	23.00	0.16		0.16
10.25	0.01		0.01	23.25	0.16		0.16
10.50	0.02		0.02	23.50	0.16		0.16
10.75	0.03		0.03	23.75	0.15		0.15
11.00	0.06		0.06	24.00	0.15		0.15
11.25	0.11		0.11				
11.50	0.19		0.19				
11.75	0.51		0.51				
12.00	2.32		2.32				
12.25	3.73		3.73				
12.50	2.08		2.08				
12.75	1.18		1.18				

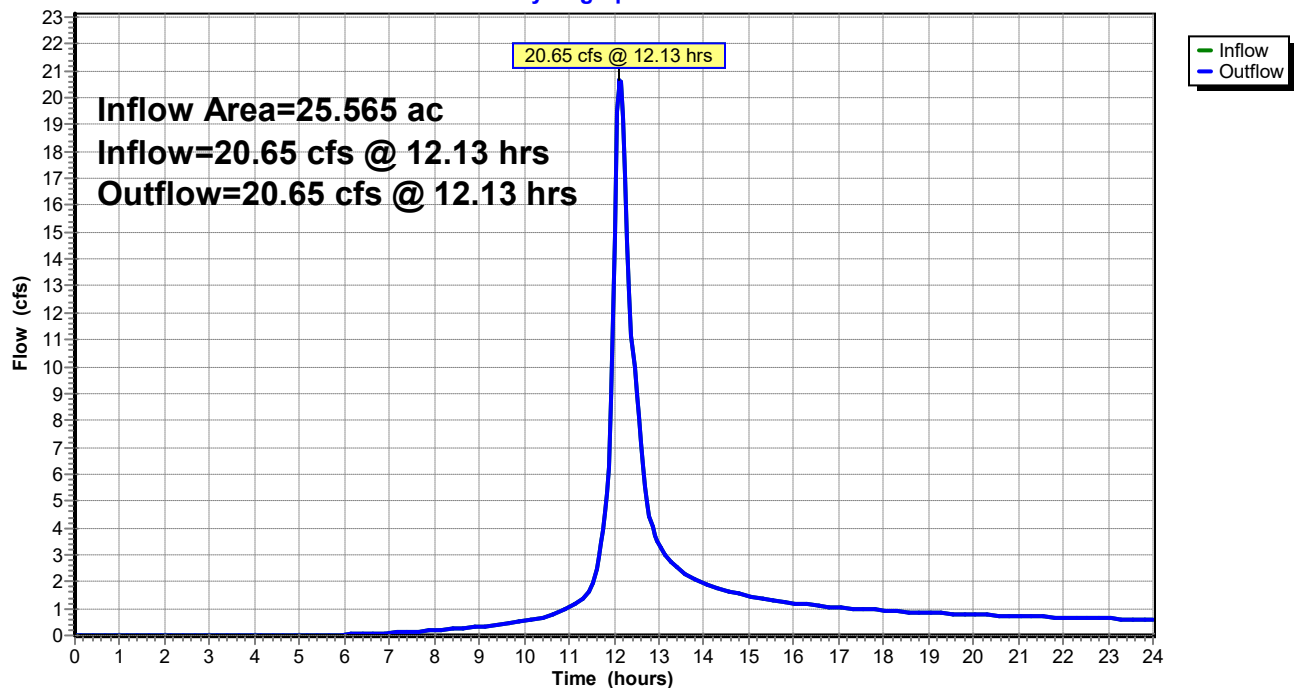
Summary for Reach DP-2:

Inflow Area = 25.565 ac, 38.32% Impervious, Inflow Depth > 1.06" for 1-yr event
 Inflow = 20.65 cfs @ 12.13 hrs, Volume= 2.249 af
 Outflow = 20.65 cfs @ 12.13 hrs, Volume= 2.249 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-2:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Reach DP-2:

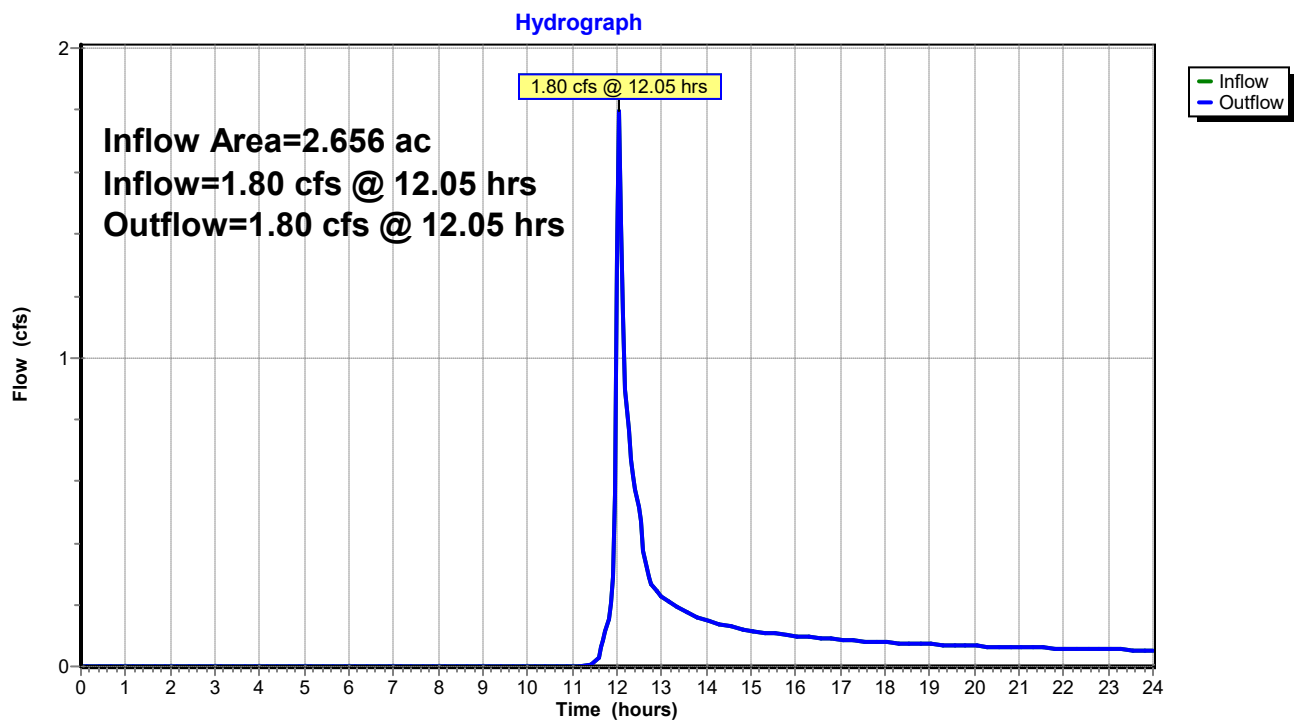
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	3.34		3.34
0.25	0.00		0.00	13.25	2.75		2.75
0.50	0.00		0.00	13.50	2.39		2.39
0.75	0.00		0.00	13.75	2.14		2.14
1.00	0.00		0.00	14.00	1.94		1.94
1.25	0.00		0.00	14.25	1.79		1.79
1.50	0.00		0.00	14.50	1.66		1.66
1.75	0.00		0.00	14.75	1.56		1.56
2.00	0.00		0.00	15.00	1.47		1.47
2.25	0.00		0.00	15.25	1.39		1.39
2.50	0.00		0.00	15.50	1.32		1.32
2.75	0.00		0.00	15.75	1.26		1.26
3.00	0.00		0.00	16.00	1.21		1.21
3.25	0.00		0.00	16.25	1.16		1.16
3.50	0.00		0.00	16.50	1.12		1.12
3.75	0.00		0.00	16.75	1.08		1.08
4.00	0.00		0.00	17.00	1.04		1.04
4.25	0.00		0.00	17.25	1.01		1.01
4.50	0.00		0.00	17.50	0.98		0.98
4.75	0.00		0.00	17.75	0.95		0.95
5.00	0.01		0.01	18.00	0.93		0.93
5.25	0.01		0.01	18.25	0.90		0.90
5.50	0.02		0.02	18.50	0.88		0.88
5.75	0.02		0.02	18.75	0.86		0.86
6.00	0.03		0.03	19.00	0.84		0.84
6.25	0.04		0.04	19.25	0.82		0.82
6.50	0.05		0.05	19.50	0.80		0.80
6.75	0.07		0.07	19.75	0.78		0.78
7.00	0.09		0.09	20.00	0.77		0.77
7.25	0.11		0.11	20.25	0.75		0.75
7.50	0.13		0.13	20.50	0.74		0.74
7.75	0.16		0.16	20.75	0.72		0.72
8.00	0.18		0.18	21.00	0.71		0.71
8.25	0.21		0.21	21.25	0.70		0.70
8.50	0.24		0.24	21.50	0.69		0.69
8.75	0.28		0.28	21.75	0.68		0.68
9.00	0.32		0.32	22.00	0.66		0.66
9.25	0.36		0.36	22.25	0.65		0.65
9.50	0.41		0.41	22.50	0.64		0.64
9.75	0.47		0.47	22.75	0.63		0.63
10.00	0.54		0.54	23.00	0.63		0.63
10.25	0.62		0.62	23.25	0.62		0.62
10.50	0.73		0.73	23.50	0.61		0.61
10.75	0.86		0.86	23.75	0.60		0.60
11.00	1.05		1.05	24.00	0.59		0.59
11.25	1.32		1.32				
11.50	1.82		1.82				
11.75	3.94		3.94				
12.00	14.85		14.85				
12.25	17.12		17.12				
12.50	8.99		8.99				
12.75	4.93		4.93				

Summary for Reach DP-3:

Inflow Area = 2.656 ac, 1.81% Impervious, Inflow Depth > 0.64" for 1-yr event
 Inflow = 1.80 cfs @ 12.05 hrs, Volume= 0.141 af
 Outflow = 1.80 cfs @ 12.05 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-3:



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Reach DP-3:

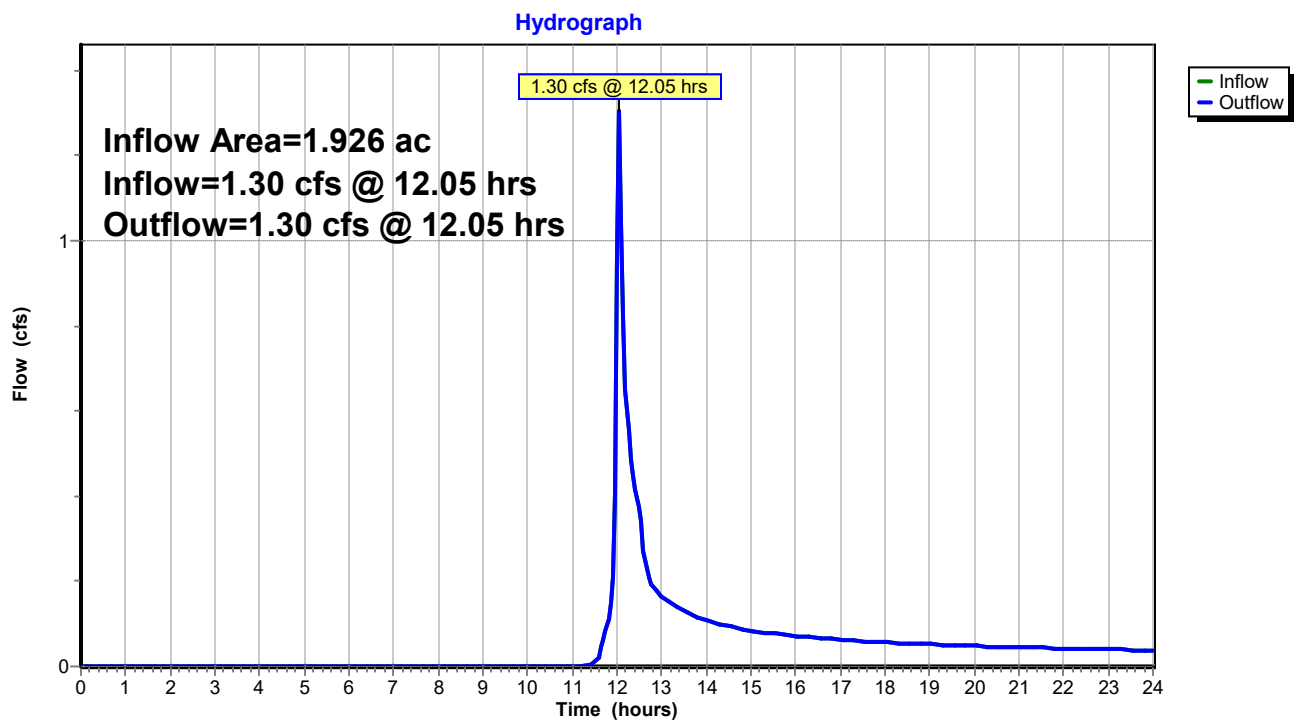
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.23		0.23
0.25	0.00		0.00	13.25	0.20		0.20
0.50	0.00		0.00	13.50	0.18		0.18
0.75	0.00		0.00	13.75	0.16		0.16
1.00	0.00		0.00	14.00	0.15		0.15
1.25	0.00		0.00	14.25	0.14		0.14
1.50	0.00		0.00	14.50	0.13		0.13
1.75	0.00		0.00	14.75	0.12		0.12
2.00	0.00		0.00	15.00	0.12		0.12
2.25	0.00		0.00	15.25	0.11		0.11
2.50	0.00		0.00	15.50	0.11		0.11
2.75	0.00		0.00	15.75	0.10		0.10
3.00	0.00		0.00	16.00	0.10		0.10
3.25	0.00		0.00	16.25	0.10		0.10
3.50	0.00		0.00	16.50	0.09		0.09
3.75	0.00		0.00	16.75	0.09		0.09
4.00	0.00		0.00	17.00	0.09		0.09
4.25	0.00		0.00	17.25	0.08		0.08
4.50	0.00		0.00	17.50	0.08		0.08
4.75	0.00		0.00	17.75	0.08		0.08
5.00	0.00		0.00	18.00	0.08		0.08
5.25	0.00		0.00	18.25	0.08		0.08
5.50	0.00		0.00	18.50	0.07		0.07
5.75	0.00		0.00	18.75	0.07		0.07
6.00	0.00		0.00	19.00	0.07		0.07
6.25	0.00		0.00	19.25	0.07		0.07
6.50	0.00		0.00	19.50	0.07		0.07
6.75	0.00		0.00	19.75	0.07		0.07
7.00	0.00		0.00	20.00	0.07		0.07
7.25	0.00		0.00	20.25	0.06		0.06
7.50	0.00		0.00	20.50	0.06		0.06
7.75	0.00		0.00	20.75	0.06		0.06
8.00	0.00		0.00	21.00	0.06		0.06
8.25	0.00		0.00	21.25	0.06		0.06
8.50	0.00		0.00	21.50	0.06		0.06
8.75	0.00		0.00	21.75	0.06		0.06
9.00	0.00		0.00	22.00	0.06		0.06
9.25	0.00		0.00	22.25	0.06		0.06
9.50	0.00		0.00	22.50	0.06		0.06
9.75	0.00		0.00	22.75	0.06		0.06
10.00	0.00		0.00	23.00	0.06		0.06
10.25	0.00		0.00	23.25	0.05		0.05
10.50	0.00		0.00	23.50	0.05		0.05
10.75	0.00		0.00	23.75	0.05		0.05
11.00	0.00		0.00	24.00	0.05		0.05
11.25	0.00		0.00				
11.50	0.01		0.01				
11.75	0.12		0.12				
12.00	1.33		1.33				
12.25	0.77		0.77				
12.50	0.51		0.51				
12.75	0.27		0.27				

Summary for Reach DP-4:

Inflow Area = 1.926 ac, 1.45% Impervious, Inflow Depth > 0.64" for 1-yr event
 Inflow = 1.30 cfs @ 12.05 hrs, Volume= 0.102 af
 Outflow = 1.30 cfs @ 12.05 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-4:



NY-235 Elm-Proposed

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.16		0.16
0.25	0.00		0.00	13.25	0.14		0.14
0.50	0.00		0.00	13.50	0.13		0.13
0.75	0.00		0.00	13.75	0.12		0.12
1.00	0.00		0.00	14.00	0.11		0.11
1.25	0.00		0.00	14.25	0.10		0.10
1.50	0.00		0.00	14.50	0.09		0.09
1.75	0.00		0.00	14.75	0.09		0.09
2.00	0.00		0.00	15.00	0.08		0.08
2.25	0.00		0.00	15.25	0.08		0.08
2.50	0.00		0.00	15.50	0.08		0.08
2.75	0.00		0.00	15.75	0.07		0.07
3.00	0.00		0.00	16.00	0.07		0.07
3.25	0.00		0.00	16.25	0.07		0.07
3.50	0.00		0.00	16.50	0.07		0.07
3.75	0.00		0.00	16.75	0.06		0.06
4.00	0.00		0.00	17.00	0.06		0.06
4.25	0.00		0.00	17.25	0.06		0.06
4.50	0.00		0.00	17.50	0.06		0.06
4.75	0.00		0.00	17.75	0.06		0.06
5.00	0.00		0.00	18.00	0.06		0.06
5.25	0.00		0.00	18.25	0.06		0.06
5.50	0.00		0.00	18.50	0.05		0.05
5.75	0.00		0.00	18.75	0.05		0.05
6.00	0.00		0.00	19.00	0.05		0.05
6.25	0.00		0.00	19.25	0.05		0.05
6.50	0.00		0.00	19.50	0.05		0.05
6.75	0.00		0.00	19.75	0.05		0.05
7.00	0.00		0.00	20.00	0.05		0.05
7.25	0.00		0.00	20.25	0.05		0.05
7.50	0.00		0.00	20.50	0.05		0.05
7.75	0.00		0.00	20.75	0.05		0.05
8.00	0.00		0.00	21.00	0.04		0.04
8.25	0.00		0.00	21.25	0.04		0.04
8.50	0.00		0.00	21.50	0.04		0.04
8.75	0.00		0.00	21.75	0.04		0.04
9.00	0.00		0.00	22.00	0.04		0.04
9.25	0.00		0.00	22.25	0.04		0.04
9.50	0.00		0.00	22.50	0.04		0.04
9.75	0.00		0.00	22.75	0.04		0.04
10.00	0.00		0.00	23.00	0.04		0.04
10.25	0.00		0.00	23.25	0.04		0.04
10.50	0.00		0.00	23.50	0.04		0.04
10.75	0.00		0.00	23.75	0.04		0.04
11.00	0.00		0.00	24.00	0.04		0.04
11.25	0.00		0.00				
11.50	0.01		0.01				
11.75	0.08		0.08				
12.00	0.96		0.96				
12.25	0.56		0.56				
12.50	0.37		0.37				
12.75	0.20		0.20				

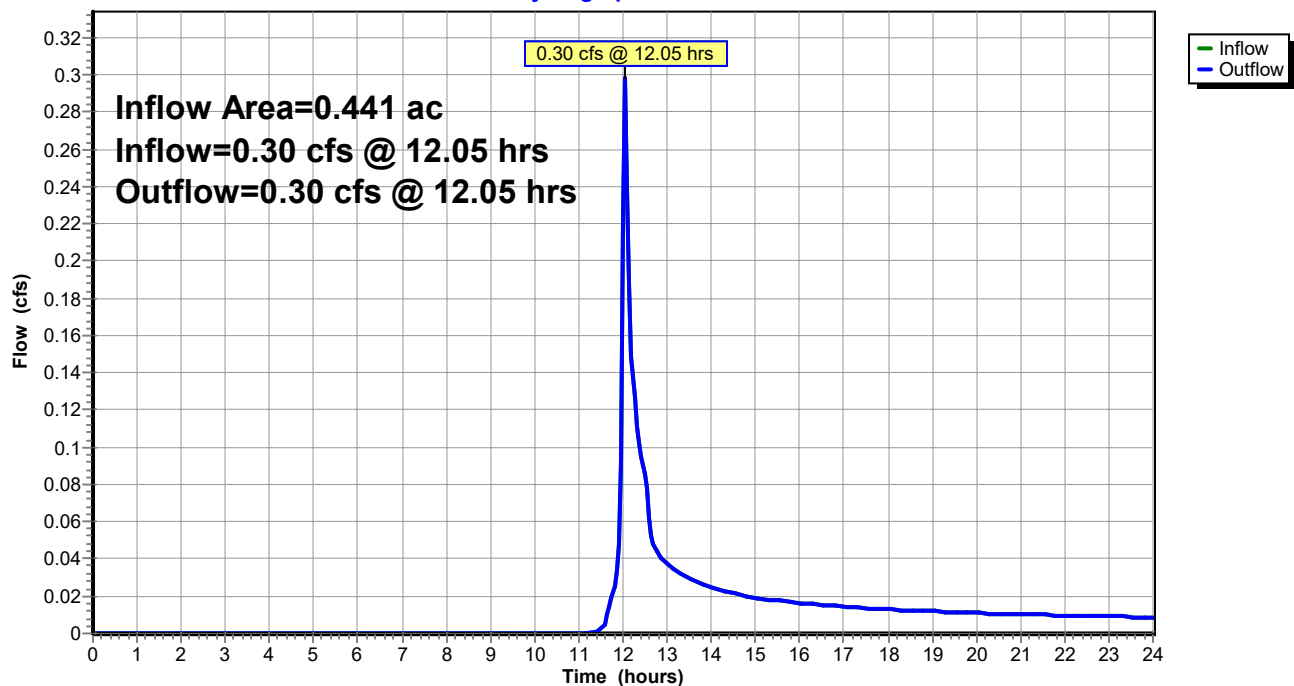
Summary for Reach DP-5:

Inflow Area = 0.441 ac, 0.00% Impervious, Inflow Depth > 0.64" for 1-yr event
 Inflow = 0.30 cfs @ 12.05 hrs, Volume= 0.023 af
 Outflow = 0.30 cfs @ 12.05 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-5:

Hydrograph



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Hydrograph for Reach DP-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.04		0.04
0.25	0.00		0.00	13.25	0.03		0.03
0.50	0.00		0.00	13.50	0.03		0.03
0.75	0.00		0.00	13.75	0.03		0.03
1.00	0.00		0.00	14.00	0.02		0.02
1.25	0.00		0.00	14.25	0.02		0.02
1.50	0.00		0.00	14.50	0.02		0.02
1.75	0.00		0.00	14.75	0.02		0.02
2.00	0.00		0.00	15.00	0.02		0.02
2.25	0.00		0.00	15.25	0.02		0.02
2.50	0.00		0.00	15.50	0.02		0.02
2.75	0.00		0.00	15.75	0.02		0.02
3.00	0.00		0.00	16.00	0.02		0.02
3.25	0.00		0.00	16.25	0.02		0.02
3.50	0.00		0.00	16.50	0.02		0.02
3.75	0.00		0.00	16.75	0.01		0.01
4.00	0.00		0.00	17.00	0.01		0.01
4.25	0.00		0.00	17.25	0.01		0.01
4.50	0.00		0.00	17.50	0.01		0.01
4.75	0.00		0.00	17.75	0.01		0.01
5.00	0.00		0.00	18.00	0.01		0.01
5.25	0.00		0.00	18.25	0.01		0.01
5.50	0.00		0.00	18.50	0.01		0.01
5.75	0.00		0.00	18.75	0.01		0.01
6.00	0.00		0.00	19.00	0.01		0.01
6.25	0.00		0.00	19.25	0.01		0.01
6.50	0.00		0.00	19.50	0.01		0.01
6.75	0.00		0.00	19.75	0.01		0.01
7.00	0.00		0.00	20.00	0.01		0.01
7.25	0.00		0.00	20.25	0.01		0.01
7.50	0.00		0.00	20.50	0.01		0.01
7.75	0.00		0.00	20.75	0.01		0.01
8.00	0.00		0.00	21.00	0.01		0.01
8.25	0.00		0.00	21.25	0.01		0.01
8.50	0.00		0.00	21.50	0.01		0.01
8.75	0.00		0.00	21.75	0.01		0.01
9.00	0.00		0.00	22.00	0.01		0.01
9.25	0.00		0.00	22.25	0.01		0.01
9.50	0.00		0.00	22.50	0.01		0.01
9.75	0.00		0.00	22.75	0.01		0.01
10.00	0.00		0.00	23.00	0.01		0.01
10.25	0.00		0.00	23.25	0.01		0.01
10.50	0.00		0.00	23.50	0.01		0.01
10.75	0.00		0.00	23.75	0.01		0.01
11.00	0.00		0.00	24.00	0.01		0.01
11.25	0.00		0.00				
11.50	0.00		0.00				
11.75	0.02		0.02				
12.00	0.22		0.22				
12.25	0.13		0.13				
12.50	0.09		0.09				
12.75	0.05		0.05				

NY-235 Elm-Proposed

NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Pond I-4 (4A): Stormtech System

Inflow Area = 3.744 ac, 58.36% Impervious, Inflow Depth > 1.62" for 1-yr event
 Inflow = 7.78 cfs @ 12.04 hrs, Volume= 0.506 af
 Outflow = 0.12 cfs @ 10.10 hrs, Volume= 0.153 af, Atten= 98%, Lag= 0.0 min
 Discarded = 0.12 cfs @ 10.10 hrs, Volume= 0.153 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP-2 :

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 406.15' @ 23.76 hrs Surf.Area= 0.239 ac Storage= 0.354 af

Plug-Flow detention time= 301.7 min calculated for 0.153 af (30% of inflow)
 Center-of-Mass det. time= 145.1 min (980.2 - 835.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	404.00'	0.330 af	58.58'W x 177.78'L x 5.50'H Field A 1.315 af Overall - 0.490 af Embedded = 0.825 af x 40.0% Voids
#2A	404.75'	0.490 af	ADS_StormTech MC-3500 d +Cap x 192 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 192 Chambers in 8 Rows Cap Storage= 14.9 cf x 2 x 8 rows = 238.4 cf
		0.820 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	404.00'	12.0" Round Culvert L= 20.0' Ke= 0.200 Inlet / Outlet Invert= 404.00' / 403.00' S= 0.0500 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	406.15'	9.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 1	407.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Discarded	404.00'	0.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.12 cfs @ 10.10 hrs HW=404.06' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=404.00' (Free Discharge)

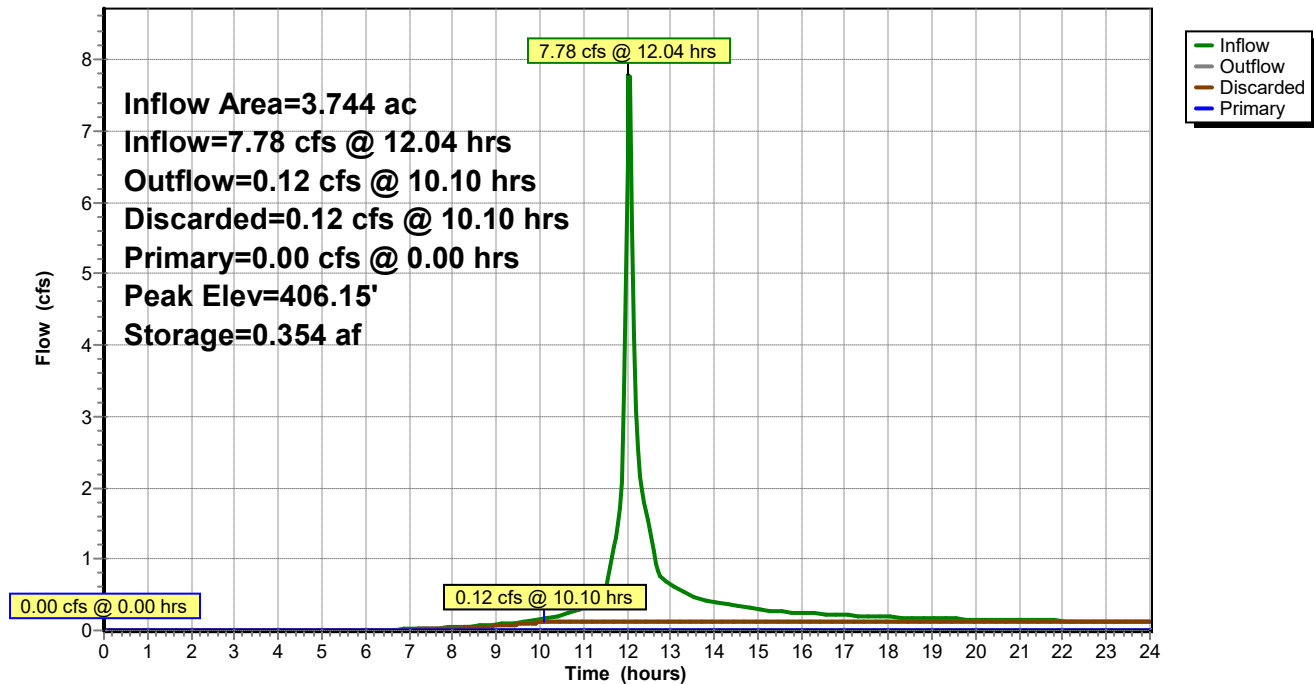
↑ **1=Culvert** (Controls 0.00 cfs)

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

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

Pond I-4 (4A): Stormtech System

Hydrograph



NY-235 Elm-Proposed

NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Pond I-4 (4A): Stormtech System

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	404.00	0.00	0.00	0.00
0.50	0.00	0.000	404.00	0.00	0.00	0.00
1.00	0.00	0.000	404.00	0.00	0.00	0.00
1.50	0.00	0.000	404.00	0.00	0.00	0.00
2.00	0.00	0.000	404.00	0.00	0.00	0.00
2.50	0.00	0.000	404.00	0.00	0.00	0.00
3.00	0.00	0.000	404.00	0.00	0.00	0.00
3.50	0.00	0.000	404.00	0.00	0.00	0.00
4.00	0.00	0.000	404.00	0.00	0.00	0.00
4.50	0.00	0.000	404.00	0.00	0.00	0.00
5.00	0.00	0.000	404.00	0.00	0.00	0.00
5.50	0.00	0.000	404.00	0.00	0.00	0.00
6.00	0.00	0.000	404.00	0.00	0.00	0.00
6.50	0.01	0.000	404.00	0.00	0.00	0.00
7.00	0.02	0.000	404.00	0.01	0.01	0.00
7.50	0.03	0.001	404.01	0.02	0.02	0.00
8.00	0.04	0.001	404.01	0.03	0.03	0.00
8.50	0.06	0.002	404.02	0.05	0.05	0.00
9.00	0.08	0.003	404.03	0.06	0.06	0.00
9.50	0.11	0.004	404.04	0.09	0.09	0.00
10.00	0.15	0.005	404.05	0.12	0.12	0.00
10.50	0.21	0.008	404.08	0.12	0.12	0.00
11.00	0.32	0.013	404.14	0.12	0.12	0.00
11.50	0.57	0.026	404.27	0.12	0.12	0.00
12.00	6.60	0.092	404.85	0.12	0.12	0.00
12.50	1.55	0.231	405.53	0.12	0.12	0.00
13.00	0.64	0.263	405.69	0.12	0.12	0.00
13.50	0.48	0.281	405.78	0.12	0.12	0.00
14.00	0.39	0.294	405.84	0.12	0.12	0.00
14.50	0.34	0.304	405.89	0.12	0.12	0.00
15.00	0.30	0.312	405.94	0.12	0.12	0.00
15.50	0.27	0.319	405.97	0.12	0.12	0.00
16.00	0.25	0.325	406.00	0.12	0.12	0.00
16.50	0.23	0.330	406.02	0.12	0.12	0.00
17.00	0.21	0.334	406.04	0.12	0.12	0.00
17.50	0.20	0.337	406.06	0.12	0.12	0.00
18.00	0.19	0.340	406.08	0.12	0.12	0.00
18.50	0.18	0.343	406.09	0.12	0.12	0.00
19.00	0.17	0.345	406.10	0.12	0.12	0.00
19.50	0.16	0.347	406.11	0.12	0.12	0.00
20.00	0.16	0.349	406.12	0.12	0.12	0.00
20.50	0.15	0.350	406.13	0.12	0.12	0.00
21.00	0.14	0.351	406.13	0.12	0.12	0.00
21.50	0.14	0.352	406.14	0.12	0.12	0.00
22.00	0.13	0.353	406.14	0.12	0.12	0.00
22.50	0.13	0.353	406.14	0.12	0.12	0.00
23.00	0.13	0.353	406.15	0.12	0.12	0.00
23.50	0.12	0.354	406.15	0.12	0.12	0.00
24.00	0.12	0.354	406.15	0.12	0.12	0.00

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment PDA-1A:

Runoff = 3.43 cfs @ 12.19 hrs, Volume= 0.364 af, Depth> 0.81"
 Routed to Reach DP-1 :

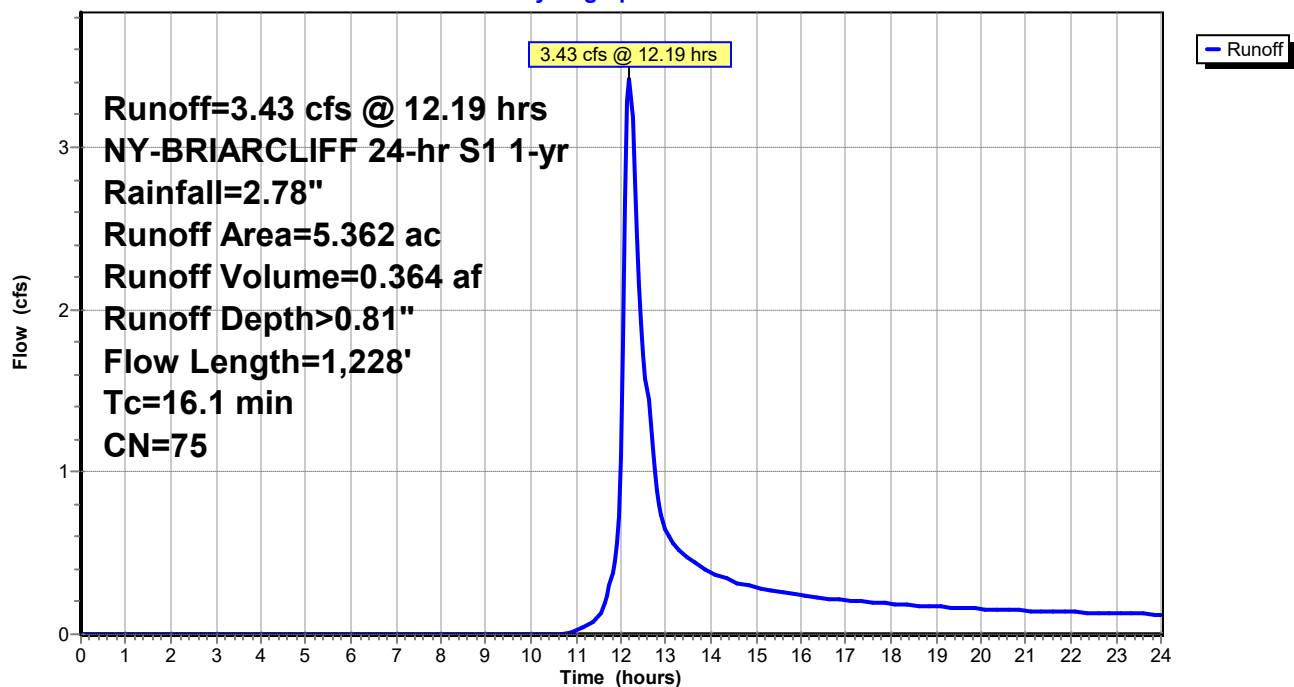
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.421	70	Woods, Good, HSG C
4.674	74	>75% Grass cover, Good, HSG C
0.267	98	Paved parking, HSG C
5.362	75	Weighted Average
5.095		95.02% Pervious Area
0.267		4.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	150	0.0333	0.22		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.2	442	0.0238	2.31		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.5	636	0.0197	6.90	5.42	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Corrugated PP, smooth interior
16.1	1,228	Total			

Subcatchment PDA-1A:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.40	0.65
0.25	0.01	0.00	0.00	13.25	2.08	0.42	0.53
0.50	0.02	0.00	0.00	13.50	2.12	0.44	0.46
0.75	0.03	0.00	0.00	13.75	2.16	0.46	0.42
1.00	0.04	0.00	0.00	14.00	2.19	0.48	0.38
1.25	0.05	0.00	0.00	14.25	2.22	0.49	0.35
1.50	0.06	0.00	0.00	14.50	2.25	0.51	0.33
1.75	0.07	0.00	0.00	14.75	2.27	0.52	0.31
2.00	0.08	0.00	0.00	15.00	2.30	0.54	0.29
2.25	0.09	0.00	0.00	15.25	2.32	0.55	0.28
2.50	0.10	0.00	0.00	15.50	2.34	0.56	0.26
2.75	0.11	0.00	0.00	15.75	2.36	0.57	0.25
3.00	0.12	0.00	0.00	16.00	2.38	0.58	0.24
3.25	0.13	0.00	0.00	16.25	2.40	0.59	0.23
3.50	0.14	0.00	0.00	16.50	2.42	0.60	0.22
3.75	0.15	0.00	0.00	16.75	2.43	0.61	0.22
4.00	0.16	0.00	0.00	17.00	2.45	0.62	0.21
4.25	0.18	0.00	0.00	17.25	2.47	0.63	0.20
4.50	0.19	0.00	0.00	17.50	2.48	0.64	0.20
4.75	0.20	0.00	0.00	17.75	2.50	0.65	0.19
5.00	0.21	0.00	0.00	18.00	2.51	0.66	0.19
5.25	0.23	0.00	0.00	18.25	2.53	0.67	0.18
5.50	0.24	0.00	0.00	18.50	2.54	0.67	0.18
5.75	0.25	0.00	0.00	18.75	2.55	0.68	0.17
6.00	0.27	0.00	0.00	19.00	2.57	0.69	0.17
6.25	0.28	0.00	0.00	19.25	2.58	0.70	0.17
6.50	0.30	0.00	0.00	19.50	2.59	0.71	0.16
6.75	0.31	0.00	0.00	19.75	2.60	0.71	0.16
7.00	0.33	0.00	0.00	20.00	2.62	0.72	0.16
7.25	0.35	0.00	0.00	20.25	2.63	0.73	0.15
7.50	0.36	0.00	0.00	20.50	2.64	0.73	0.15
7.75	0.38	0.00	0.00	20.75	2.65	0.74	0.15
8.00	0.40	0.00	0.00	21.00	2.66	0.75	0.15
8.25	0.42	0.00	0.00	21.25	2.67	0.75	0.14
8.50	0.44	0.00	0.00	21.50	2.68	0.76	0.14
8.75	0.46	0.00	0.00	21.75	2.69	0.77	0.14
9.00	0.49	0.00	0.00	22.00	2.70	0.77	0.14
9.25	0.51	0.00	0.00	22.25	2.71	0.78	0.13
9.50	0.54	0.00	0.00	22.50	2.72	0.79	0.13
9.75	0.56	0.00	0.00	22.75	2.73	0.79	0.13
10.00	0.59	0.00	0.00	23.00	2.74	0.80	0.13
10.25	0.63	0.00	0.00	23.25	2.75	0.80	0.13
10.50	0.66	0.00	0.00	23.50	2.76	0.81	0.13
10.75	0.70	0.00	0.00	23.75	2.77	0.81	0.12
11.00	0.75	0.00	0.02	24.00	2.78	0.82	0.12
11.25	0.81	0.01	0.06				
11.50	0.88	0.01	0.11				
11.75	1.03	0.04	0.30				
12.00	1.53	0.18	1.09				
12.25	1.78	0.28	3.19				
12.50	1.92	0.34	1.73				
12.75	1.98	0.37	1.00				

Summary for Subcatchment PDA-1B:

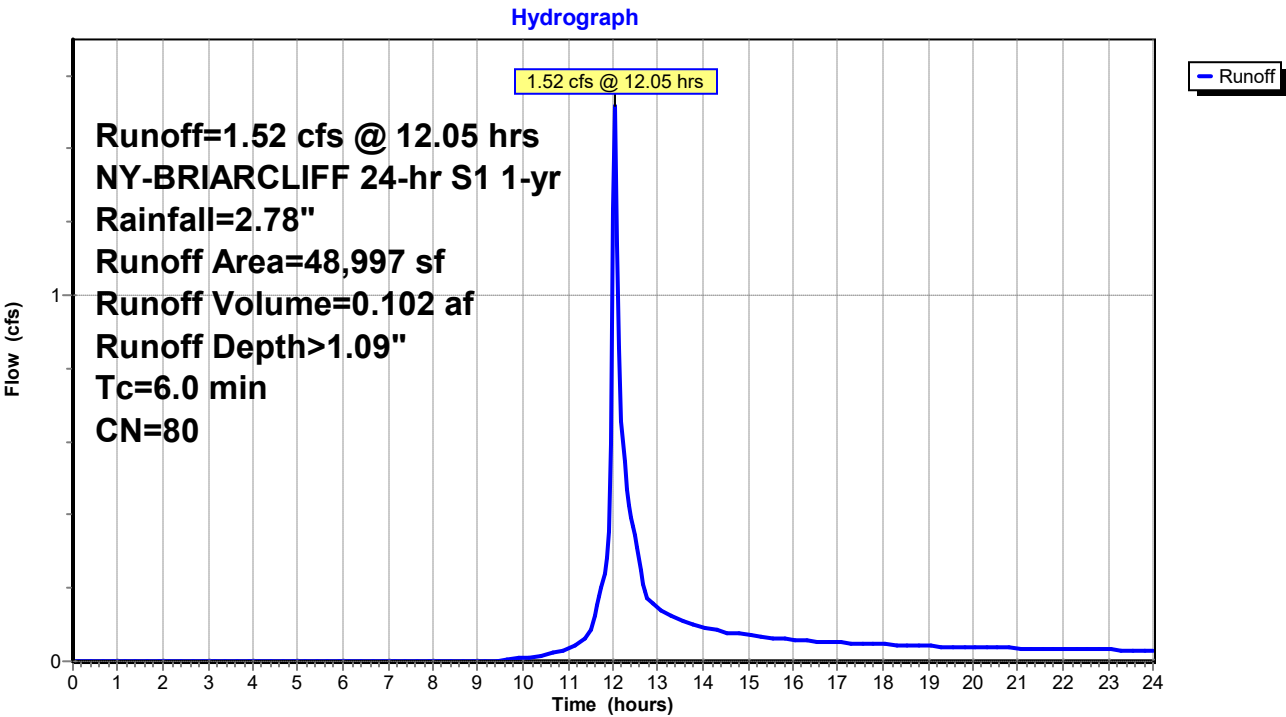
Runoff = 1.52 cfs @ 12.05 hrs, Volume= 0.102 af, Depth> 1.09"
Routed to Reach DP-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (sf)	CN	Description
37,525	74	>75% Grass cover, Good, HSG C
11,472	98	Paved parking, HSG C
48,997	80	Weighted Average
37,525		76.59% Pervious Area
11,472		23.41% Impervious Area

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

Subcatchment PDA-1B:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.59	0.15
0.25	0.01	0.00	0.00	13.25	2.08	0.61	0.13
0.50	0.02	0.00	0.00	13.50	2.12	0.64	0.11
0.75	0.03	0.00	0.00	13.75	2.16	0.66	0.10
1.00	0.04	0.00	0.00	14.00	2.19	0.68	0.09
1.25	0.05	0.00	0.00	14.25	2.22	0.70	0.09
1.50	0.06	0.00	0.00	14.50	2.25	0.72	0.08
1.75	0.07	0.00	0.00	14.75	2.27	0.74	0.08
2.00	0.08	0.00	0.00	15.00	2.30	0.75	0.07
2.25	0.09	0.00	0.00	15.25	2.32	0.77	0.07
2.50	0.10	0.00	0.00	15.50	2.34	0.78	0.06
2.75	0.11	0.00	0.00	15.75	2.36	0.79	0.06
3.00	0.12	0.00	0.00	16.00	2.38	0.81	0.06
3.25	0.13	0.00	0.00	16.25	2.40	0.82	0.06
3.50	0.14	0.00	0.00	16.50	2.42	0.83	0.05
3.75	0.15	0.00	0.00	16.75	2.43	0.84	0.05
4.00	0.16	0.00	0.00	17.00	2.45	0.86	0.05
4.25	0.18	0.00	0.00	17.25	2.47	0.87	0.05
4.50	0.19	0.00	0.00	17.50	2.48	0.88	0.05
4.75	0.20	0.00	0.00	17.75	2.50	0.89	0.05
5.00	0.21	0.00	0.00	18.00	2.51	0.90	0.05
5.25	0.23	0.00	0.00	18.25	2.53	0.91	0.04
5.50	0.24	0.00	0.00	18.50	2.54	0.92	0.04
5.75	0.25	0.00	0.00	18.75	2.55	0.93	0.04
6.00	0.27	0.00	0.00	19.00	2.57	0.94	0.04
6.25	0.28	0.00	0.00	19.25	2.58	0.94	0.04
6.50	0.30	0.00	0.00	19.50	2.59	0.95	0.04
6.75	0.31	0.00	0.00	19.75	2.60	0.96	0.04
7.00	0.33	0.00	0.00	20.00	2.62	0.97	0.04
7.25	0.35	0.00	0.00	20.25	2.63	0.98	0.04
7.50	0.36	0.00	0.00	20.50	2.64	0.99	0.04
7.75	0.38	0.00	0.00	20.75	2.65	0.99	0.04
8.00	0.40	0.00	0.00	21.00	2.66	1.00	0.04
8.25	0.42	0.00	0.00	21.25	2.67	1.01	0.03
8.50	0.44	0.00	0.00	21.50	2.68	1.02	0.03
8.75	0.46	0.00	0.00	21.75	2.69	1.03	0.03
9.00	0.49	0.00	0.00	22.00	2.70	1.03	0.03
9.25	0.51	0.00	0.00	22.25	2.71	1.04	0.03
9.50	0.54	0.00	0.00	22.50	2.72	1.05	0.03
9.75	0.56	0.00	0.01	22.75	2.73	1.05	0.03
10.00	0.59	0.00	0.01	23.00	2.74	1.06	0.03
10.25	0.63	0.01	0.01	23.25	2.75	1.07	0.03
10.50	0.66	0.01	0.02	23.50	2.76	1.07	0.03
10.75	0.70	0.02	0.03	23.75	2.77	1.08	0.03
11.00	0.75	0.02	0.04	24.00	2.78	1.09	0.03
11.25	0.81	0.03	0.05				
11.50	0.88	0.05	0.08				
11.75	1.03	0.09	0.20				
12.00	1.53	0.30	1.23				
12.25	1.78	0.43	0.55				
12.50	1.92	0.51	0.34				
12.75	1.98	0.55	0.18				

Summary for Subcatchment PDA-2A:

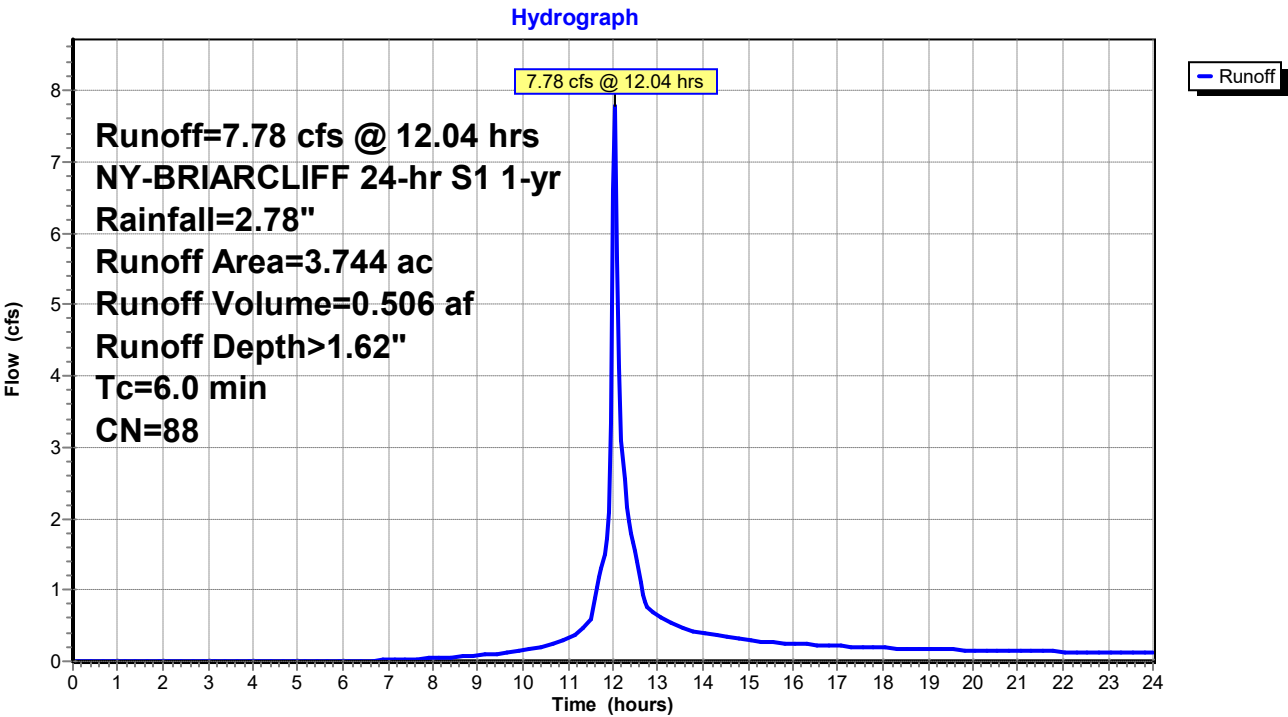
Runoff = 7.78 cfs @ 12.04 hrs, Volume= 0.506 af, Depth> 1.62"
Routed to Pond I-4 (4A) : Stormtech System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
2.185	98	Paved parking, HSG C
3.744	88	Weighted Average
1.559		41.64% Pervious Area
2.185		58.36% Impervious Area

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

Subcatchment PDA-2A:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	1.00	0.64
0.25	0.01	0.00	0.00	13.25	2.08	1.03	0.55
0.50	0.02	0.00	0.00	13.50	2.12	1.07	0.48
0.75	0.03	0.00	0.00	13.75	2.16	1.09	0.43
1.00	0.04	0.00	0.00	14.00	2.19	1.12	0.39
1.25	0.05	0.00	0.00	14.25	2.22	1.15	0.36
1.50	0.06	0.00	0.00	14.50	2.25	1.17	0.34
1.75	0.07	0.00	0.00	14.75	2.27	1.19	0.32
2.00	0.08	0.00	0.00	15.00	2.30	1.21	0.30
2.25	0.09	0.00	0.00	15.25	2.32	1.23	0.28
2.50	0.10	0.00	0.00	15.50	2.34	1.25	0.27
2.75	0.11	0.00	0.00	15.75	2.36	1.26	0.26
3.00	0.12	0.00	0.00	16.00	2.38	1.28	0.25
3.25	0.13	0.00	0.00	16.25	2.40	1.30	0.24
3.50	0.14	0.00	0.00	16.50	2.42	1.31	0.23
3.75	0.15	0.00	0.00	16.75	2.43	1.33	0.22
4.00	0.16	0.00	0.00	17.00	2.45	1.34	0.21
4.25	0.18	0.00	0.00	17.25	2.47	1.35	0.21
4.50	0.19	0.00	0.00	17.50	2.48	1.37	0.20
4.75	0.20	0.00	0.00	17.75	2.50	1.38	0.19
5.00	0.21	0.00	0.00	18.00	2.51	1.39	0.19
5.25	0.23	0.00	0.00	18.25	2.53	1.40	0.18
5.50	0.24	0.00	0.00	18.50	2.54	1.42	0.18
5.75	0.25	0.00	0.00	18.75	2.55	1.43	0.17
6.00	0.27	0.00	0.00	19.00	2.57	1.44	0.17
6.25	0.28	0.00	0.00	19.25	2.58	1.45	0.17
6.50	0.30	0.00	0.01	19.50	2.59	1.46	0.16
6.75	0.31	0.00	0.01	19.75	2.60	1.47	0.16
7.00	0.33	0.00	0.02	20.00	2.62	1.48	0.16
7.25	0.35	0.00	0.02	20.25	2.63	1.49	0.15
7.50	0.36	0.01	0.03	20.50	2.64	1.50	0.15
7.75	0.38	0.01	0.04	20.75	2.65	1.51	0.15
8.00	0.40	0.01	0.04	21.00	2.66	1.52	0.14
8.25	0.42	0.01	0.05	21.25	2.67	1.53	0.14
8.50	0.44	0.02	0.06	21.50	2.68	1.54	0.14
8.75	0.46	0.02	0.07	21.75	2.69	1.55	0.14
9.00	0.49	0.03	0.08	22.00	2.70	1.56	0.13
9.25	0.51	0.04	0.10	22.25	2.71	1.57	0.13
9.50	0.54	0.04	0.11	22.50	2.72	1.57	0.13
9.75	0.56	0.05	0.13	22.75	2.73	1.58	0.13
10.00	0.59	0.06	0.15	23.00	2.74	1.59	0.13
10.25	0.63	0.07	0.18	23.25	2.75	1.60	0.12
10.50	0.66	0.09	0.21	23.50	2.76	1.61	0.12
10.75	0.70	0.10	0.26	23.75	2.77	1.62	0.12
11.00	0.75	0.12	0.32	24.00	2.78	1.62	0.12
11.25	0.81	0.15	0.41				
11.50	0.88	0.19	0.57				
11.75	1.03	0.27	1.31				
12.00	1.53	0.60	6.60				
12.25	1.78	0.79	2.56				
12.50	1.92	0.90	1.55				
12.75	1.98	0.95	0.79				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment PDA-2B:

Runoff = 10.32 cfs @ 12.17 hrs, Volume= 0.985 af, Depth> 1.62"
 Routed to Reach DP-2 :

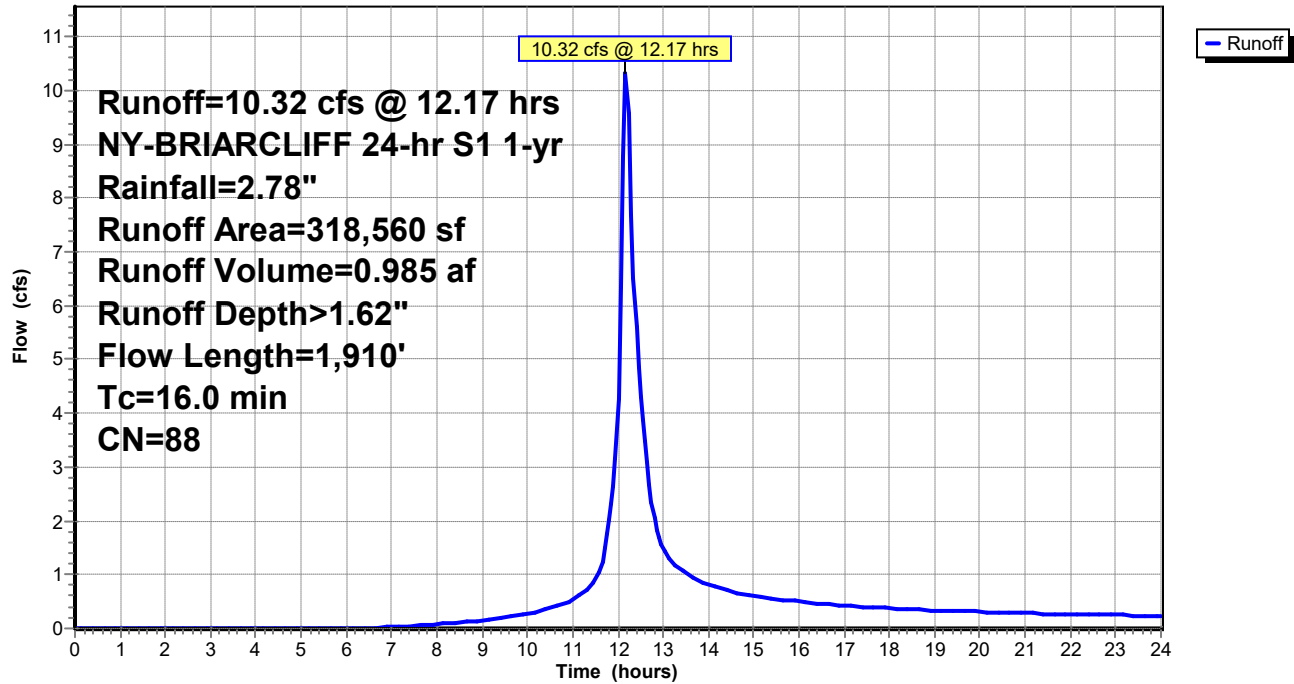
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (sf)	CN	Description
136,359	74	>75% Grass cover, Good, HSG C
182,201	98	Paved parking, HSG C
318,560	88	Weighted Average
136,359		42.80% Pervious Area
182,201		57.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0200	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
2.2	409	0.0440	3.15		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.8	341	0.0235	3.11		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	768	0.0455	12.16	14.93	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Corrugated PP, smooth interior
0.8	292	0.1642	6.08		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
16.0	1,910	Total			

Subcatchment PDA-2B:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	1.00	1.47
0.25	0.01	0.00	0.00	13.25	2.08	1.03	1.18
0.50	0.02	0.00	0.00	13.50	2.12	1.07	1.02
0.75	0.03	0.00	0.00	13.75	2.16	1.09	0.90
1.00	0.04	0.00	0.00	14.00	2.19	1.12	0.82
1.25	0.05	0.00	0.00	14.25	2.22	1.15	0.75
1.50	0.06	0.00	0.00	14.50	2.25	1.17	0.69
1.75	0.07	0.00	0.00	14.75	2.27	1.19	0.65
2.00	0.08	0.00	0.00	15.00	2.30	1.21	0.61
2.25	0.09	0.00	0.00	15.25	2.32	1.23	0.57
2.50	0.10	0.00	0.00	15.50	2.34	1.25	0.54
2.75	0.11	0.00	0.00	15.75	2.36	1.26	0.52
3.00	0.12	0.00	0.00	16.00	2.38	1.28	0.50
3.25	0.13	0.00	0.00	16.25	2.40	1.30	0.48
3.50	0.14	0.00	0.00	16.50	2.42	1.31	0.46
3.75	0.15	0.00	0.00	16.75	2.43	1.33	0.44
4.00	0.16	0.00	0.00	17.00	2.45	1.34	0.42
4.25	0.18	0.00	0.00	17.25	2.47	1.35	0.41
4.50	0.19	0.00	0.00	17.50	2.48	1.37	0.40
4.75	0.20	0.00	0.00	17.75	2.50	1.38	0.39
5.00	0.21	0.00	0.00	18.00	2.51	1.39	0.37
5.25	0.23	0.00	0.00	18.25	2.53	1.40	0.36
5.50	0.24	0.00	0.00	18.50	2.54	1.42	0.35
5.75	0.25	0.00	0.00	18.75	2.55	1.43	0.35
6.00	0.27	0.00	0.00	19.00	2.57	1.44	0.34
6.25	0.28	0.00	0.00	19.25	2.58	1.45	0.33
6.50	0.30	0.00	0.01	19.50	2.59	1.46	0.32
6.75	0.31	0.00	0.02	19.75	2.60	1.47	0.31
7.00	0.33	0.00	0.03	20.00	2.62	1.48	0.31
7.25	0.35	0.00	0.04	20.25	2.63	1.49	0.30
7.50	0.36	0.01	0.05	20.50	2.64	1.50	0.30
7.75	0.38	0.01	0.06	20.75	2.65	1.51	0.29
8.00	0.40	0.01	0.08	21.00	2.66	1.52	0.28
8.25	0.42	0.01	0.09	21.25	2.67	1.53	0.28
8.50	0.44	0.02	0.11	21.50	2.68	1.54	0.27
8.75	0.46	0.02	0.13	21.75	2.69	1.55	0.27
9.00	0.49	0.03	0.15	22.00	2.70	1.56	0.26
9.25	0.51	0.04	0.18	22.25	2.71	1.57	0.26
9.50	0.54	0.04	0.20	22.50	2.72	1.57	0.26
9.75	0.56	0.05	0.24	22.75	2.73	1.58	0.25
10.00	0.59	0.06	0.27	23.00	2.74	1.59	0.25
10.25	0.63	0.07	0.32	23.25	2.75	1.60	0.24
10.50	0.66	0.09	0.38	23.50	2.76	1.61	0.24
10.75	0.70	0.10	0.45	23.75	2.77	1.62	0.24
11.00	0.75	0.12	0.55	24.00	2.78	1.62	0.23
11.25	0.81	0.15	0.68				
11.50	0.88	0.19	0.91				
11.75	1.03	0.27	1.74				
12.00	1.53	0.60	4.26				
12.25	1.78	0.79	9.03				
12.50	1.92	0.90	4.30				
12.75	1.98	0.95	2.33				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment PDA-2C:

Runoff = 10.69 cfs @ 12.04 hrs, Volume= 0.700 af, Depth> 1.86"
Routed to Reach DP-2 :

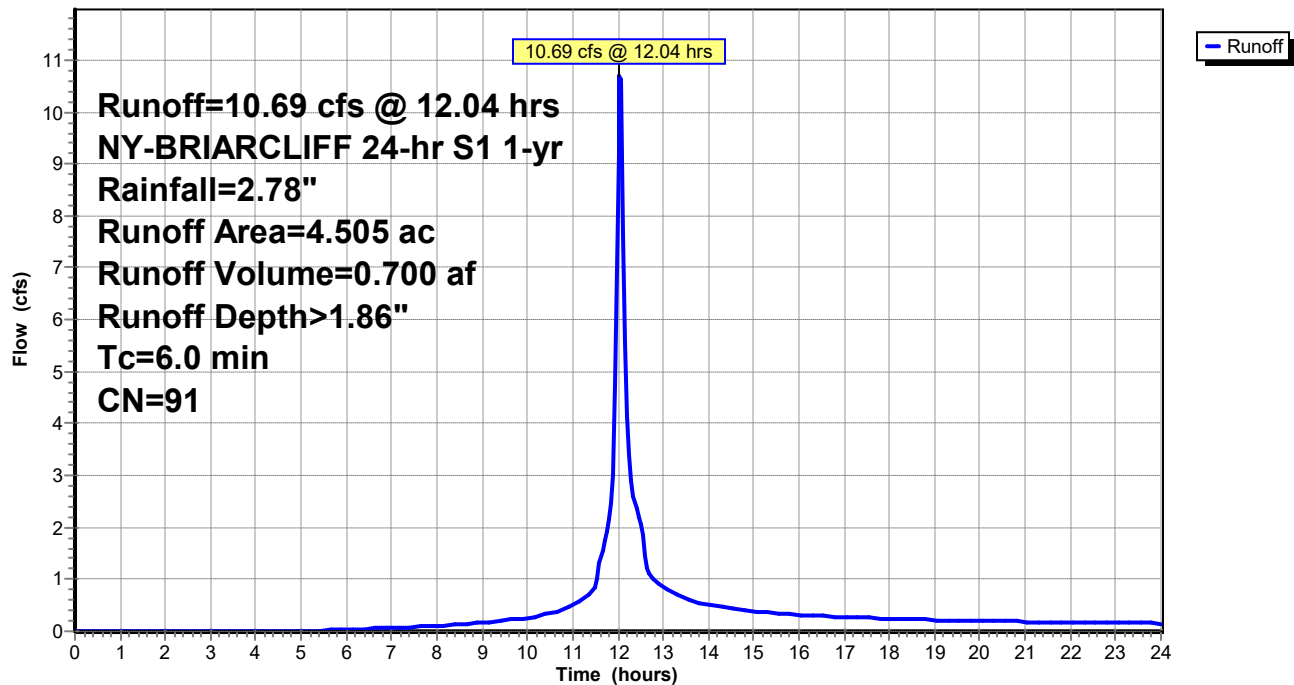
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
1.240	74	>75% Grass cover, Good, HSG C
3.265	98	Paved parking, HSG C
4.505	91	Weighted Average
1.240		27.52% Pervious Area
3.265		72.48% Impervious Area

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

Subcatchment PDA-2C:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-2C:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	1.20	0.83
0.25	0.01	0.00	0.00	13.25	2.08	1.24	0.71
0.50	0.02	0.00	0.00	13.50	2.12	1.27	0.62
0.75	0.03	0.00	0.00	13.75	2.16	1.30	0.56
1.00	0.04	0.00	0.00	14.00	2.19	1.33	0.51
1.25	0.05	0.00	0.00	14.25	2.22	1.36	0.47
1.50	0.06	0.00	0.00	14.50	2.25	1.38	0.44
1.75	0.07	0.00	0.00	14.75	2.27	1.41	0.41
2.00	0.08	0.00	0.00	15.00	2.30	1.43	0.39
2.25	0.09	0.00	0.00	15.25	2.32	1.45	0.37
2.50	0.10	0.00	0.00	15.50	2.34	1.47	0.35
2.75	0.11	0.00	0.00	15.75	2.36	1.48	0.33
3.00	0.12	0.00	0.00	16.00	2.38	1.50	0.32
3.25	0.13	0.00	0.00	16.25	2.40	1.52	0.30
3.50	0.14	0.00	0.00	16.50	2.42	1.54	0.29
3.75	0.15	0.00	0.00	16.75	2.43	1.55	0.28
4.00	0.16	0.00	0.00	17.00	2.45	1.57	0.27
4.25	0.18	0.00	0.00	17.25	2.47	1.58	0.26
4.50	0.19	0.00	0.00	17.50	2.48	1.59	0.26
4.75	0.20	0.00	0.00	17.75	2.50	1.61	0.25
5.00	0.21	0.00	0.01	18.00	2.51	1.62	0.24
5.25	0.23	0.00	0.01	18.25	2.53	1.63	0.23
5.50	0.24	0.00	0.02	18.50	2.54	1.65	0.23
5.75	0.25	0.00	0.02	18.75	2.55	1.66	0.22
6.00	0.27	0.00	0.03	19.00	2.57	1.67	0.22
6.25	0.28	0.01	0.04	19.25	2.58	1.68	0.21
6.50	0.30	0.01	0.05	19.50	2.59	1.69	0.21
6.75	0.31	0.01	0.05	19.75	2.60	1.71	0.20
7.00	0.33	0.02	0.06	20.00	2.62	1.72	0.20
7.25	0.35	0.02	0.07	20.25	2.63	1.73	0.19
7.50	0.36	0.02	0.08	20.50	2.64	1.74	0.19
7.75	0.38	0.03	0.09	20.75	2.65	1.75	0.19
8.00	0.40	0.03	0.10	21.00	2.66	1.76	0.18
8.25	0.42	0.04	0.12	21.25	2.67	1.77	0.18
8.50	0.44	0.05	0.13	21.50	2.68	1.78	0.18
8.75	0.46	0.06	0.15	21.75	2.69	1.79	0.17
9.00	0.49	0.07	0.16	22.00	2.70	1.80	0.17
9.25	0.51	0.08	0.18	22.25	2.71	1.81	0.17
9.50	0.54	0.09	0.21	22.50	2.72	1.82	0.17
9.75	0.56	0.10	0.23	22.75	2.73	1.82	0.16
10.00	0.59	0.11	0.26	23.00	2.74	1.83	0.16
10.25	0.63	0.13	0.30	23.25	2.75	1.84	0.16
10.50	0.66	0.15	0.35	23.50	2.76	1.85	0.16
10.75	0.70	0.17	0.41	23.75	2.77	1.86	0.15
11.00	0.75	0.20	0.50	24.00	2.78	1.87	0.15
11.25	0.81	0.23	0.63				
11.50	0.88	0.28	0.86				
11.75	1.03	0.38	1.92				
12.00	1.53	0.76	9.18				
12.25	1.78	0.97	3.41				
12.50	1.92	1.09	2.04				
12.75	1.98	1.15	1.04				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment PDA-2D:

Runoff = 5.03 cfs @ 12.19 hrs, Volume= 0.564 af, Depth> 0.68"
 Routed to Reach DP-2 :

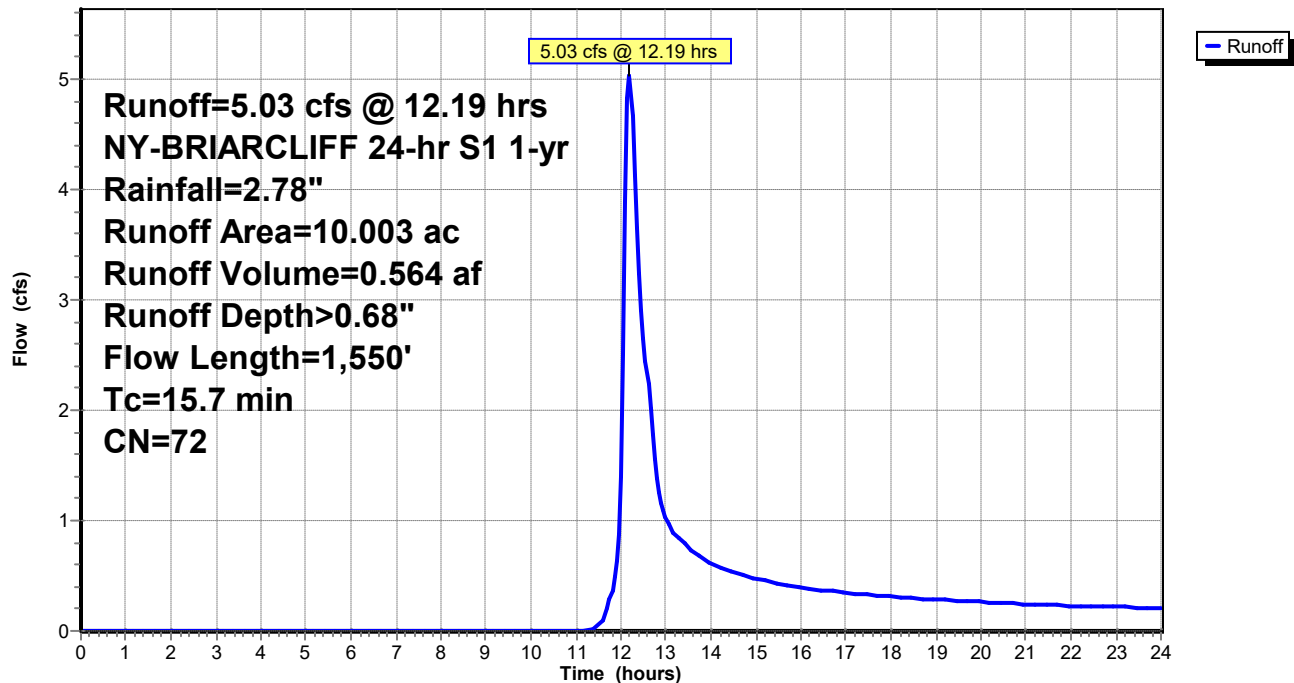
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
6.404	70	Woods, Good, HSG C
3.434	74	>75% Grass cover, Good, HSG C
0.165	98	Paved parking, HSG C
10.003	72	Weighted Average
9.838		98.35% Pervious Area
0.165		1.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	150	0.0400	0.24		Sheet Flow, Sheet
					Grass: Short n= 0.150 P2= 3.00"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow,
					Grassed Waterway Kv= 15.0 fps
15.7	1,550	Total			

Subcatchment PDA-2D:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-2D:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.31	1.03
0.25	0.01	0.00	0.00	13.25	2.08	0.33	0.85
0.50	0.02	0.00	0.00	13.50	2.12	0.35	0.75
0.75	0.03	0.00	0.00	13.75	2.16	0.36	0.67
1.00	0.04	0.00	0.00	14.00	2.19	0.38	0.62
1.25	0.05	0.00	0.00	14.25	2.22	0.39	0.57
1.50	0.06	0.00	0.00	14.50	2.25	0.40	0.53
1.75	0.07	0.00	0.00	14.75	2.27	0.42	0.50
2.00	0.08	0.00	0.00	15.00	2.30	0.43	0.48
2.25	0.09	0.00	0.00	15.25	2.32	0.44	0.45
2.50	0.10	0.00	0.00	15.50	2.34	0.45	0.43
2.75	0.11	0.00	0.00	15.75	2.36	0.46	0.41
3.00	0.12	0.00	0.00	16.00	2.38	0.47	0.40
3.25	0.13	0.00	0.00	16.25	2.40	0.48	0.38
3.50	0.14	0.00	0.00	16.50	2.42	0.49	0.37
3.75	0.15	0.00	0.00	16.75	2.43	0.49	0.36
4.00	0.16	0.00	0.00	17.00	2.45	0.50	0.35
4.25	0.18	0.00	0.00	17.25	2.47	0.51	0.34
4.50	0.19	0.00	0.00	17.50	2.48	0.52	0.33
4.75	0.20	0.00	0.00	17.75	2.50	0.53	0.32
5.00	0.21	0.00	0.00	18.00	2.51	0.53	0.31
5.25	0.23	0.00	0.00	18.25	2.53	0.54	0.30
5.50	0.24	0.00	0.00	18.50	2.54	0.55	0.30
5.75	0.25	0.00	0.00	18.75	2.55	0.56	0.29
6.00	0.27	0.00	0.00	19.00	2.57	0.56	0.28
6.25	0.28	0.00	0.00	19.25	2.58	0.57	0.28
6.50	0.30	0.00	0.00	19.50	2.59	0.58	0.27
6.75	0.31	0.00	0.00	19.75	2.60	0.58	0.27
7.00	0.33	0.00	0.00	20.00	2.62	0.59	0.26
7.25	0.35	0.00	0.00	20.25	2.63	0.60	0.26
7.50	0.36	0.00	0.00	20.50	2.64	0.60	0.25
7.75	0.38	0.00	0.00	20.75	2.65	0.61	0.25
8.00	0.40	0.00	0.00	21.00	2.66	0.61	0.24
8.25	0.42	0.00	0.00	21.25	2.67	0.62	0.24
8.50	0.44	0.00	0.00	21.50	2.68	0.63	0.24
8.75	0.46	0.00	0.00	21.75	2.69	0.63	0.23
9.00	0.49	0.00	0.00	22.00	2.70	0.64	0.23
9.25	0.51	0.00	0.00	22.25	2.71	0.64	0.23
9.50	0.54	0.00	0.00	22.50	2.72	0.65	0.22
9.75	0.56	0.00	0.00	22.75	2.73	0.65	0.22
10.00	0.59	0.00	0.00	23.00	2.74	0.66	0.22
10.25	0.63	0.00	0.00	23.25	2.75	0.67	0.21
10.50	0.66	0.00	0.00	23.50	2.76	0.67	0.21
10.75	0.70	0.00	0.00	23.75	2.77	0.68	0.21
11.00	0.75	0.00	0.00	24.00	2.78	0.68	0.21
11.25	0.81	0.00	0.00				
11.50	0.88	0.00	0.05				
11.75	1.03	0.02	0.28				
12.00	1.53	0.12	1.40				
12.25	1.78	0.20	4.68				
12.50	1.92	0.26	2.65				
12.75	1.98	0.29	1.56				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Summary for Subcatchment PDA-3:

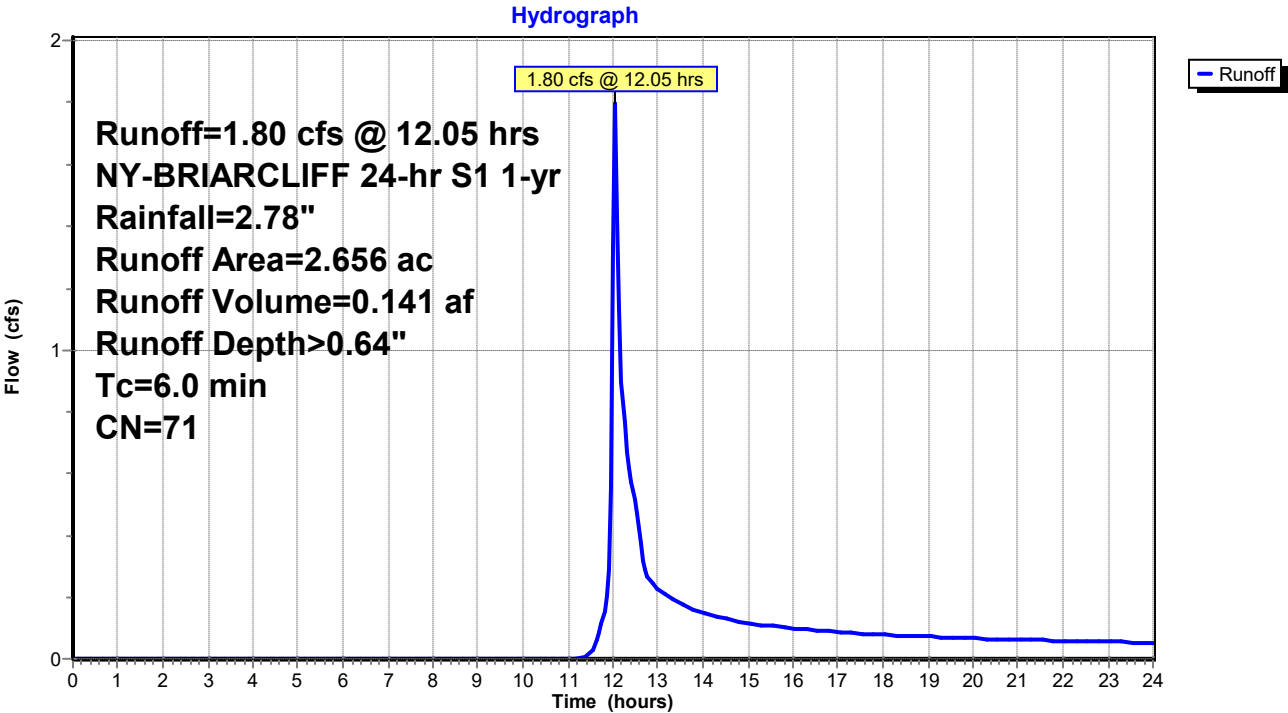
Runoff = 1.80 cfs @ 12.05 hrs, Volume= 0.141 af, Depth> 0.64"
Routed to Reach DP-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
2.046	70	Woods, Good, HSG C
0.562	74	>75% Grass cover, Good, HSG C
0.048	98	Paved parking, HSG C
2.656	71	Weighted Average
2.608		98.19% Pervious Area
0.048		1.81% Impervious Area

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

Subcatchment PDA-3:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.28	0.23
0.25	0.01	0.00	0.00	13.25	2.08	0.30	0.20
0.50	0.02	0.00	0.00	13.50	2.12	0.32	0.18
0.75	0.03	0.00	0.00	13.75	2.16	0.33	0.16
1.00	0.04	0.00	0.00	14.00	2.19	0.35	0.15
1.25	0.05	0.00	0.00	14.25	2.22	0.36	0.14
1.50	0.06	0.00	0.00	14.50	2.25	0.37	0.13
1.75	0.07	0.00	0.00	14.75	2.27	0.38	0.12
2.00	0.08	0.00	0.00	15.00	2.30	0.39	0.12
2.25	0.09	0.00	0.00	15.25	2.32	0.40	0.11
2.50	0.10	0.00	0.00	15.50	2.34	0.41	0.11
2.75	0.11	0.00	0.00	15.75	2.36	0.42	0.10
3.00	0.12	0.00	0.00	16.00	2.38	0.43	0.10
3.25	0.13	0.00	0.00	16.25	2.40	0.44	0.10
3.50	0.14	0.00	0.00	16.50	2.42	0.45	0.09
3.75	0.15	0.00	0.00	16.75	2.43	0.46	0.09
4.00	0.16	0.00	0.00	17.00	2.45	0.47	0.09
4.25	0.18	0.00	0.00	17.25	2.47	0.47	0.08
4.50	0.19	0.00	0.00	17.50	2.48	0.48	0.08
4.75	0.20	0.00	0.00	17.75	2.50	0.49	0.08
5.00	0.21	0.00	0.00	18.00	2.51	0.50	0.08
5.25	0.23	0.00	0.00	18.25	2.53	0.50	0.08
5.50	0.24	0.00	0.00	18.50	2.54	0.51	0.07
5.75	0.25	0.00	0.00	18.75	2.55	0.52	0.07
6.00	0.27	0.00	0.00	19.00	2.57	0.52	0.07
6.25	0.28	0.00	0.00	19.25	2.58	0.53	0.07
6.50	0.30	0.00	0.00	19.50	2.59	0.54	0.07
6.75	0.31	0.00	0.00	19.75	2.60	0.54	0.07
7.00	0.33	0.00	0.00	20.00	2.62	0.55	0.07
7.25	0.35	0.00	0.00	20.25	2.63	0.56	0.06
7.50	0.36	0.00	0.00	20.50	2.64	0.56	0.06
7.75	0.38	0.00	0.00	20.75	2.65	0.57	0.06
8.00	0.40	0.00	0.00	21.00	2.66	0.57	0.06
8.25	0.42	0.00	0.00	21.25	2.67	0.58	0.06
8.50	0.44	0.00	0.00	21.50	2.68	0.59	0.06
8.75	0.46	0.00	0.00	21.75	2.69	0.59	0.06
9.00	0.49	0.00	0.00	22.00	2.70	0.60	0.06
9.25	0.51	0.00	0.00	22.25	2.71	0.60	0.06
9.50	0.54	0.00	0.00	22.50	2.72	0.61	0.06
9.75	0.56	0.00	0.00	22.75	2.73	0.61	0.06
10.00	0.59	0.00	0.00	23.00	2.74	0.62	0.06
10.25	0.63	0.00	0.00	23.25	2.75	0.62	0.05
10.50	0.66	0.00	0.00	23.50	2.76	0.63	0.05
10.75	0.70	0.00	0.00	23.75	2.77	0.63	0.05
11.00	0.75	0.00	0.00	24.00	2.78	0.64	0.05
11.25	0.81	0.00	0.00				
11.50	0.88	0.00	0.01				
11.75	1.03	0.01	0.12				
12.00	1.53	0.10	1.33				
12.25	1.78	0.18	0.77				
12.50	1.92	0.23	0.51				
12.75	1.98	0.26	0.27				

Summary for Subcatchment PDA-4:

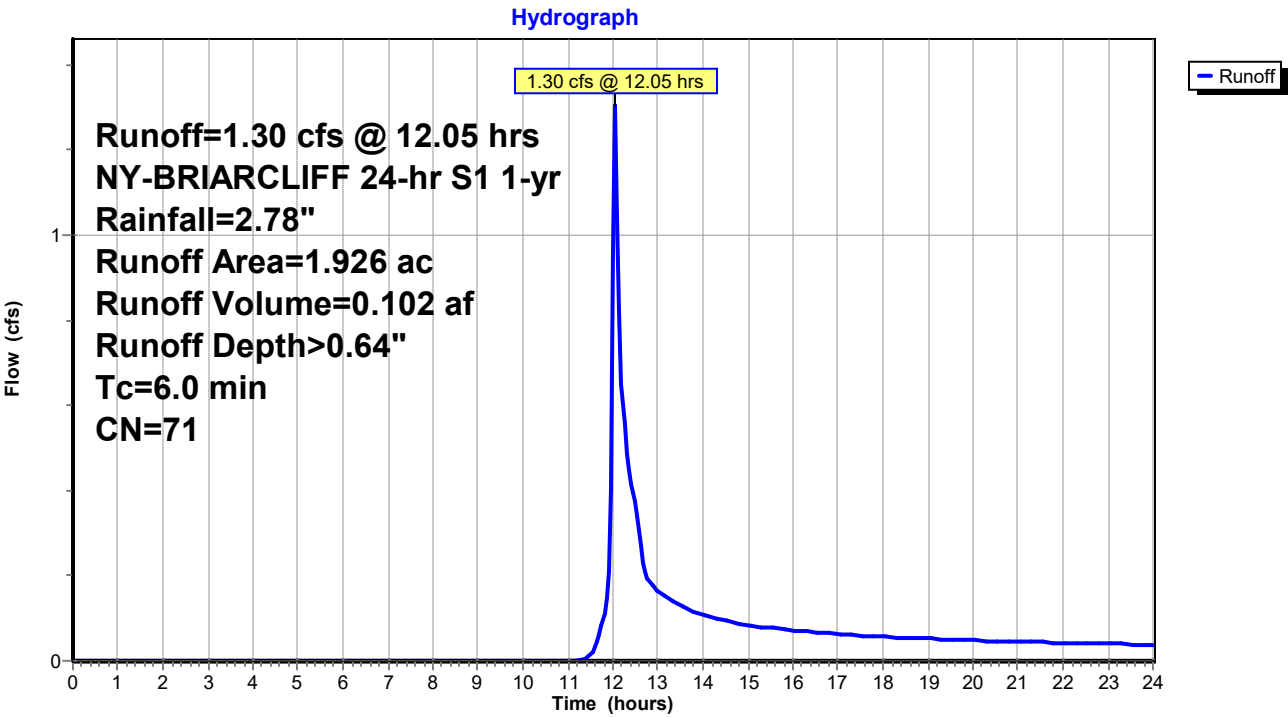
Runoff = 1.30 cfs @ 12.05 hrs, Volume= 0.102 af, Depth> 0.64"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
1.480	70	Woods, Good, HSG C
0.418	74	>75% Grass cover, Good, HSG C
0.028	98	Paved parking, HSG C
1.926	71	Weighted Average
1.898		98.55% Pervious Area
0.028		1.45% Impervious Area

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

Subcatchment PDA-4:



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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.28	0.16
0.25	0.01	0.00	0.00	13.25	2.08	0.30	0.14
0.50	0.02	0.00	0.00	13.50	2.12	0.32	0.13
0.75	0.03	0.00	0.00	13.75	2.16	0.33	0.12
1.00	0.04	0.00	0.00	14.00	2.19	0.35	0.11
1.25	0.05	0.00	0.00	14.25	2.22	0.36	0.10
1.50	0.06	0.00	0.00	14.50	2.25	0.37	0.09
1.75	0.07	0.00	0.00	14.75	2.27	0.38	0.09
2.00	0.08	0.00	0.00	15.00	2.30	0.39	0.08
2.25	0.09	0.00	0.00	15.25	2.32	0.40	0.08
2.50	0.10	0.00	0.00	15.50	2.34	0.41	0.08
2.75	0.11	0.00	0.00	15.75	2.36	0.42	0.07
3.00	0.12	0.00	0.00	16.00	2.38	0.43	0.07
3.25	0.13	0.00	0.00	16.25	2.40	0.44	0.07
3.50	0.14	0.00	0.00	16.50	2.42	0.45	0.07
3.75	0.15	0.00	0.00	16.75	2.43	0.46	0.06
4.00	0.16	0.00	0.00	17.00	2.45	0.47	0.06
4.25	0.18	0.00	0.00	17.25	2.47	0.47	0.06
4.50	0.19	0.00	0.00	17.50	2.48	0.48	0.06
4.75	0.20	0.00	0.00	17.75	2.50	0.49	0.06
5.00	0.21	0.00	0.00	18.00	2.51	0.50	0.06
5.25	0.23	0.00	0.00	18.25	2.53	0.50	0.06
5.50	0.24	0.00	0.00	18.50	2.54	0.51	0.05
5.75	0.25	0.00	0.00	18.75	2.55	0.52	0.05
6.00	0.27	0.00	0.00	19.00	2.57	0.52	0.05
6.25	0.28	0.00	0.00	19.25	2.58	0.53	0.05
6.50	0.30	0.00	0.00	19.50	2.59	0.54	0.05
6.75	0.31	0.00	0.00	19.75	2.60	0.54	0.05
7.00	0.33	0.00	0.00	20.00	2.62	0.55	0.05
7.25	0.35	0.00	0.00	20.25	2.63	0.56	0.05
7.50	0.36	0.00	0.00	20.50	2.64	0.56	0.05
7.75	0.38	0.00	0.00	20.75	2.65	0.57	0.05
8.00	0.40	0.00	0.00	21.00	2.66	0.57	0.04
8.25	0.42	0.00	0.00	21.25	2.67	0.58	0.04
8.50	0.44	0.00	0.00	21.50	2.68	0.59	0.04
8.75	0.46	0.00	0.00	21.75	2.69	0.59	0.04
9.00	0.49	0.00	0.00	22.00	2.70	0.60	0.04
9.25	0.51	0.00	0.00	22.25	2.71	0.60	0.04
9.50	0.54	0.00	0.00	22.50	2.72	0.61	0.04
9.75	0.56	0.00	0.00	22.75	2.73	0.61	0.04
10.00	0.59	0.00	0.00	23.00	2.74	0.62	0.04
10.25	0.63	0.00	0.00	23.25	2.75	0.62	0.04
10.50	0.66	0.00	0.00	23.50	2.76	0.63	0.04
10.75	0.70	0.00	0.00	23.75	2.77	0.63	0.04
11.00	0.75	0.00	0.00	24.00	2.78	0.64	0.04
11.25	0.81	0.00	0.00				
11.50	0.88	0.00	0.01				
11.75	1.03	0.01	0.08				
12.00	1.53	0.10	0.96				
12.25	1.78	0.18	0.56				
12.50	1.92	0.23	0.37				
12.75	1.98	0.26	0.20				

Summary for Subcatchment PDA-5:

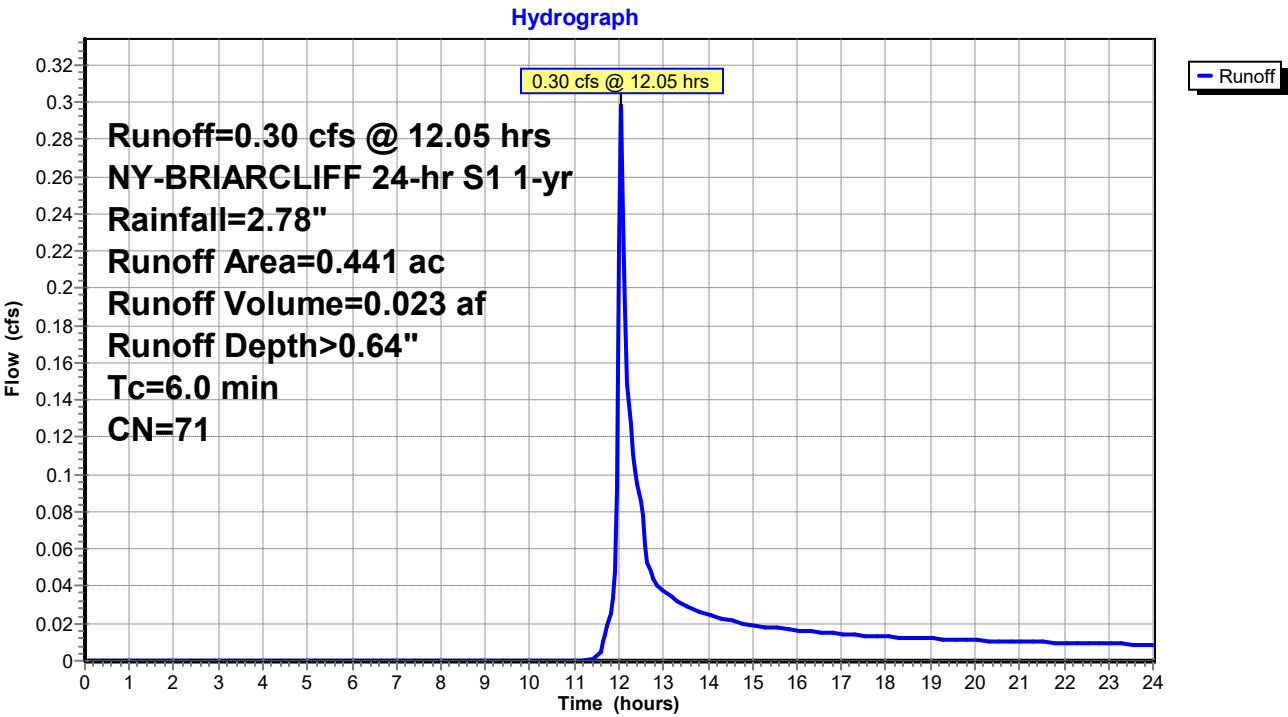
Runoff = 0.30 cfs @ 12.05 hrs, Volume= 0.023 af, Depth> 0.64"
Routed to Reach DP-5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

Area (ac)	CN	Description
0.293	70	Woods, Good, HSG C
0.148	74	>75% Grass cover, Good, HSG C
0.441	71	Weighted Average
0.441		100.00% Pervious Area

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

Subcatchment PDA-5:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 1-yr Rainfall=2.78"

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Hydrograph for Subcatchment PDA-5:

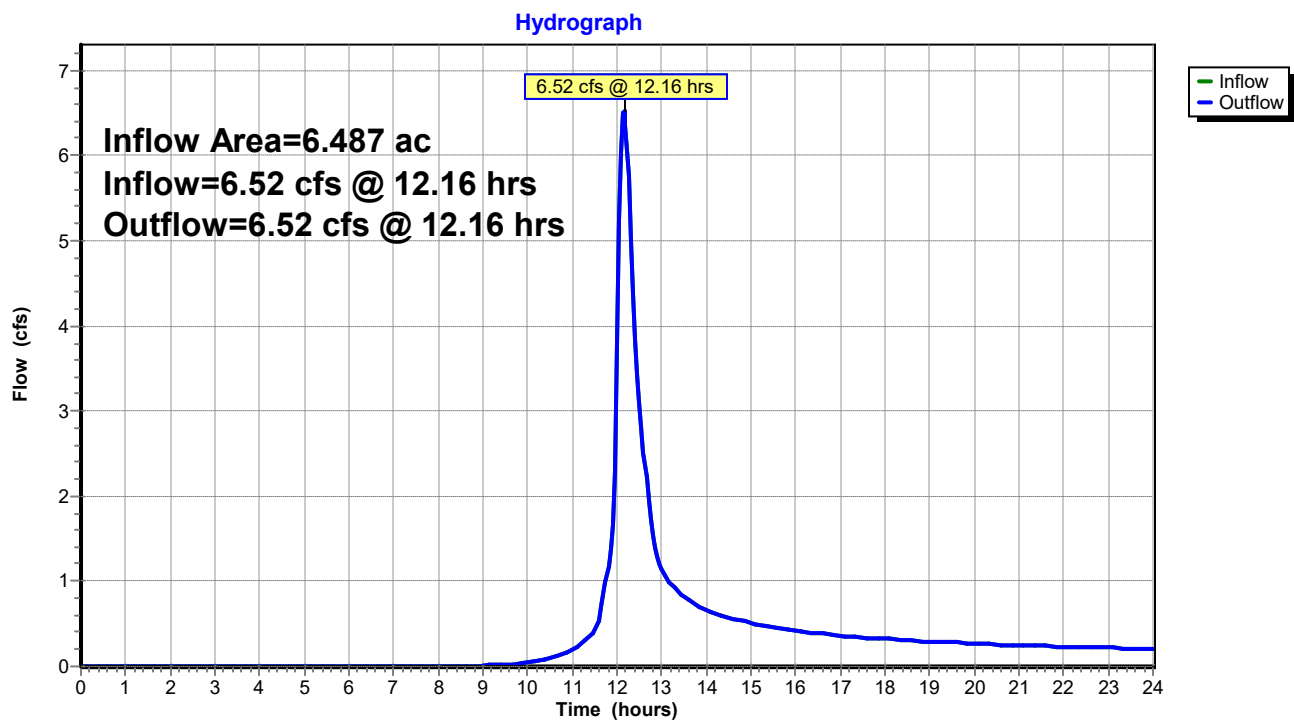
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.04	0.28	0.04
0.25	0.01	0.00	0.00	13.25	2.08	0.30	0.03
0.50	0.02	0.00	0.00	13.50	2.12	0.32	0.03
0.75	0.03	0.00	0.00	13.75	2.16	0.33	0.03
1.00	0.04	0.00	0.00	14.00	2.19	0.35	0.02
1.25	0.05	0.00	0.00	14.25	2.22	0.36	0.02
1.50	0.06	0.00	0.00	14.50	2.25	0.37	0.02
1.75	0.07	0.00	0.00	14.75	2.27	0.38	0.02
2.00	0.08	0.00	0.00	15.00	2.30	0.39	0.02
2.25	0.09	0.00	0.00	15.25	2.32	0.40	0.02
2.50	0.10	0.00	0.00	15.50	2.34	0.41	0.02
2.75	0.11	0.00	0.00	15.75	2.36	0.42	0.02
3.00	0.12	0.00	0.00	16.00	2.38	0.43	0.02
3.25	0.13	0.00	0.00	16.25	2.40	0.44	0.02
3.50	0.14	0.00	0.00	16.50	2.42	0.45	0.02
3.75	0.15	0.00	0.00	16.75	2.43	0.46	0.01
4.00	0.16	0.00	0.00	17.00	2.45	0.47	0.01
4.25	0.18	0.00	0.00	17.25	2.47	0.47	0.01
4.50	0.19	0.00	0.00	17.50	2.48	0.48	0.01
4.75	0.20	0.00	0.00	17.75	2.50	0.49	0.01
5.00	0.21	0.00	0.00	18.00	2.51	0.50	0.01
5.25	0.23	0.00	0.00	18.25	2.53	0.50	0.01
5.50	0.24	0.00	0.00	18.50	2.54	0.51	0.01
5.75	0.25	0.00	0.00	18.75	2.55	0.52	0.01
6.00	0.27	0.00	0.00	19.00	2.57	0.52	0.01
6.25	0.28	0.00	0.00	19.25	2.58	0.53	0.01
6.50	0.30	0.00	0.00	19.50	2.59	0.54	0.01
6.75	0.31	0.00	0.00	19.75	2.60	0.54	0.01
7.00	0.33	0.00	0.00	20.00	2.62	0.55	0.01
7.25	0.35	0.00	0.00	20.25	2.63	0.56	0.01
7.50	0.36	0.00	0.00	20.50	2.64	0.56	0.01
7.75	0.38	0.00	0.00	20.75	2.65	0.57	0.01
8.00	0.40	0.00	0.00	21.00	2.66	0.57	0.01
8.25	0.42	0.00	0.00	21.25	2.67	0.58	0.01
8.50	0.44	0.00	0.00	21.50	2.68	0.59	0.01
8.75	0.46	0.00	0.00	21.75	2.69	0.59	0.01
9.00	0.49	0.00	0.00	22.00	2.70	0.60	0.01
9.25	0.51	0.00	0.00	22.25	2.71	0.60	0.01
9.50	0.54	0.00	0.00	22.50	2.72	0.61	0.01
9.75	0.56	0.00	0.00	22.75	2.73	0.61	0.01
10.00	0.59	0.00	0.00	23.00	2.74	0.62	0.01
10.25	0.63	0.00	0.00	23.25	2.75	0.62	0.01
10.50	0.66	0.00	0.00	23.50	2.76	0.63	0.01
10.75	0.70	0.00	0.00	23.75	2.77	0.63	0.01
11.00	0.75	0.00	0.00	24.00	2.78	0.64	0.01
11.25	0.81	0.00	0.00				
11.50	0.88	0.00	0.00				
11.75	1.03	0.01	0.02				
12.00	1.53	0.10	0.22				
12.25	1.78	0.18	0.13				
12.50	1.92	0.23	0.09				
12.75	1.98	0.26	0.05				

Summary for Reach DP-1:

Inflow Area = 6.487 ac, 8.18% Impervious, Inflow Depth > 1.30" for 2-yr event
 Inflow = 6.52 cfs @ 12.16 hrs, Volume= 0.701 af
 Outflow = 6.52 cfs @ 12.16 hrs, Volume= 0.701 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-1:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.15		1.15
0.25	0.00		0.00	13.25	0.94		0.94
0.50	0.00		0.00	13.50	0.82		0.82
0.75	0.00		0.00	13.75	0.74		0.74
1.00	0.00		0.00	14.00	0.67		0.67
1.25	0.00		0.00	14.25	0.62		0.62
1.50	0.00		0.00	14.50	0.57		0.57
1.75	0.00		0.00	14.75	0.54		0.54
2.00	0.00		0.00	15.00	0.51		0.51
2.25	0.00		0.00	15.25	0.48		0.48
2.50	0.00		0.00	15.50	0.46		0.46
2.75	0.00		0.00	15.75	0.44		0.44
3.00	0.00		0.00	16.00	0.42		0.42
3.25	0.00		0.00	16.25	0.40		0.40
3.50	0.00		0.00	16.50	0.39		0.39
3.75	0.00		0.00	16.75	0.38		0.38
4.00	0.00		0.00	17.00	0.36		0.36
4.25	0.00		0.00	17.25	0.35		0.35
4.50	0.00		0.00	17.50	0.34		0.34
4.75	0.00		0.00	17.75	0.33		0.33
5.00	0.00		0.00	18.00	0.32		0.32
5.25	0.00		0.00	18.25	0.32		0.32
5.50	0.00		0.00	18.50	0.31		0.31
5.75	0.00		0.00	18.75	0.30		0.30
6.00	0.00		0.00	19.00	0.29		0.29
6.25	0.00		0.00	19.25	0.29		0.29
6.50	0.00		0.00	19.50	0.28		0.28
6.75	0.00		0.00	19.75	0.27		0.27
7.00	0.00		0.00	20.00	0.27		0.27
7.25	0.00		0.00	20.25	0.26		0.26
7.50	0.00		0.00	20.50	0.26		0.26
7.75	0.00		0.00	20.75	0.25		0.25
8.00	0.00		0.00	21.00	0.25		0.25
8.25	0.00		0.00	21.25	0.25		0.25
8.50	0.00		0.00	21.50	0.24		0.24
8.75	0.01		0.01	21.75	0.24		0.24
9.00	0.01		0.01	22.00	0.23		0.23
9.25	0.01		0.01	22.25	0.23		0.23
9.50	0.02		0.02	22.50	0.23		0.23
9.75	0.02		0.02	22.75	0.22		0.22
10.00	0.04		0.04	23.00	0.22		0.22
10.25	0.06		0.06	23.25	0.22		0.22
10.50	0.10		0.10	23.50	0.21		0.21
10.75	0.14		0.14	23.75	0.21		0.21
11.00	0.20		0.20	24.00	0.21		0.21
11.25	0.28		0.28				
11.50	0.43		0.43				
11.75	0.99		0.99				
12.00	3.78		3.78				
12.25	5.76		5.76				
12.50	3.10		3.10				
12.75	1.73		1.73				

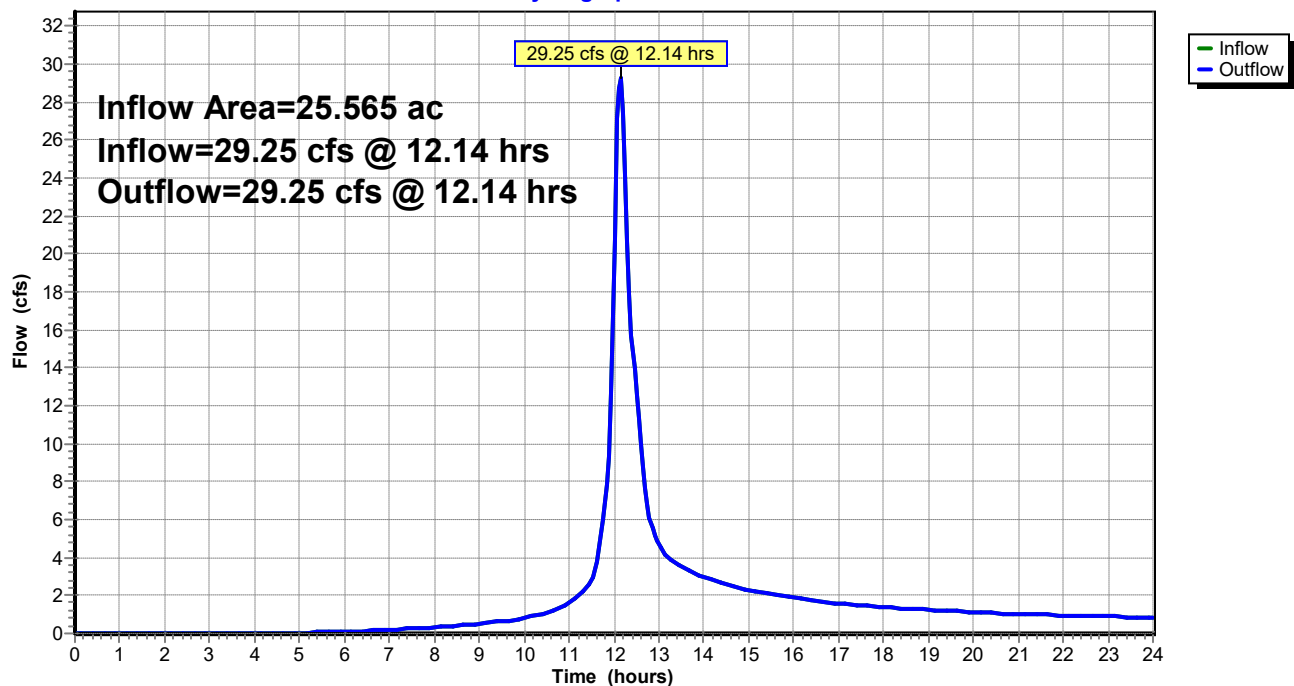
Summary for Reach DP-2:

Inflow Area = 25.565 ac, 38.32% Impervious, Inflow Depth > 1.55" for 2-yr event
 Inflow = 29.25 cfs @ 12.14 hrs, Volume= 3.295 af
 Outflow = 29.25 cfs @ 12.14 hrs, Volume= 3.295 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-2:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-2:

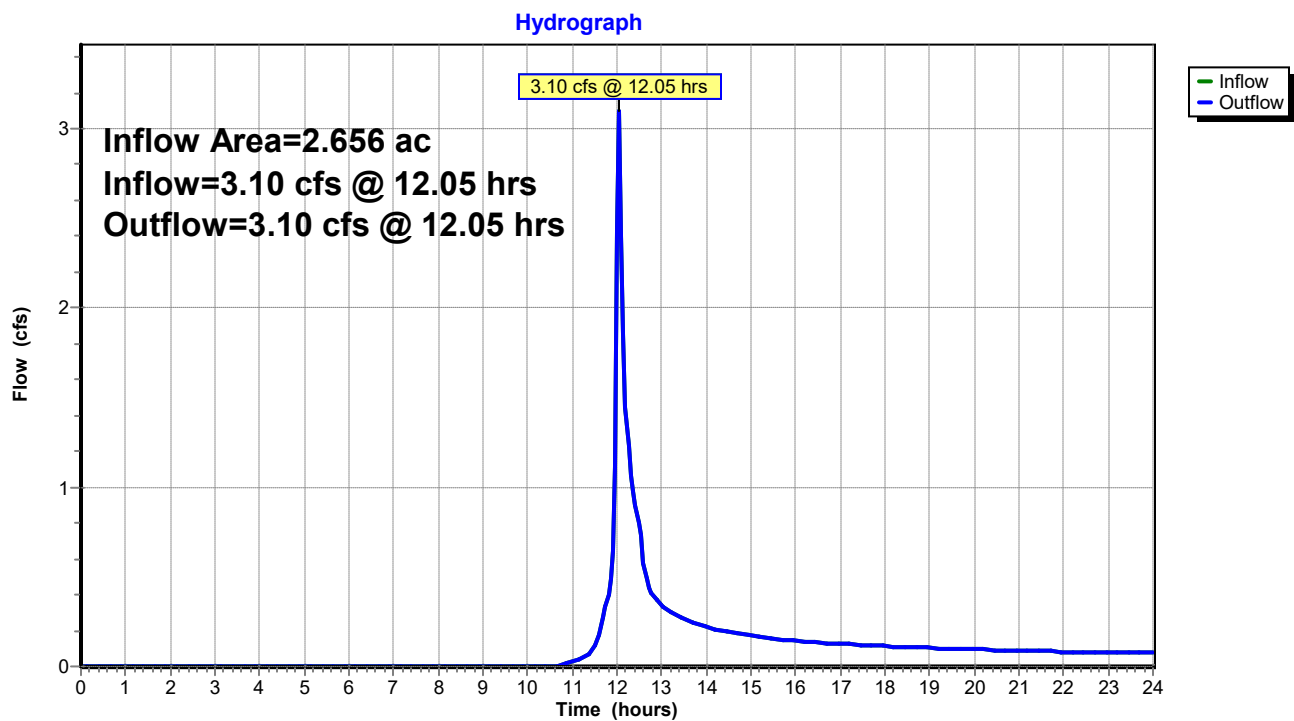
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	4.61		4.61
0.25	0.00		0.00	13.25	3.90		3.90
0.50	0.00		0.00	13.50	3.49		3.49
0.75	0.00		0.00	13.75	3.19		3.19
1.00	0.00		0.00	14.00	2.95		2.95
1.25	0.00		0.00	14.25	2.75		2.75
1.50	0.00		0.00	14.50	2.58		2.58
1.75	0.00		0.00	14.75	2.42		2.42
2.00	0.00		0.00	15.00	2.28		2.28
2.25	0.00		0.00	15.25	2.16		2.16
2.50	0.00		0.00	15.50	2.05		2.05
2.75	0.00		0.00	15.75	1.96		1.96
3.00	0.00		0.00	16.00	1.87		1.87
3.25	0.00		0.00	16.25	1.79		1.79
3.50	0.00		0.00	16.50	1.71		1.71
3.75	0.00		0.00	16.75	1.65		1.65
4.00	0.00		0.00	17.00	1.59		1.59
4.25	0.01		0.01	17.25	1.53		1.53
4.50	0.02		0.02	17.50	1.48		1.48
4.75	0.02		0.02	17.75	1.44		1.44
5.00	0.03		0.03	18.00	1.39		1.39
5.25	0.04		0.04	18.25	1.35		1.35
5.50	0.06		0.06	18.50	1.31		1.31
5.75	0.08		0.08	18.75	1.28		1.28
6.00	0.10		0.10	19.00	1.24		1.24
6.25	0.12		0.12	19.25	1.21		1.21
6.50	0.15		0.15	19.50	1.18		1.18
6.75	0.17		0.17	19.75	1.15		1.15
7.00	0.20		0.20	20.00	1.12		1.12
7.25	0.23		0.23	20.25	1.10		1.10
7.50	0.26		0.26	20.50	1.07		1.07
7.75	0.29		0.29	20.75	1.05		1.05
8.00	0.33		0.33	21.00	1.03		1.03
8.25	0.37		0.37	21.25	1.01		1.01
8.50	0.41		0.41	21.50	0.99		0.99
8.75	0.46		0.46	21.75	0.97		0.97
9.00	0.51		0.51	22.00	0.95		0.95
9.25	0.57		0.57	22.25	0.93		0.93
9.50	0.64		0.64	22.50	0.92		0.92
9.75	0.72		0.72	22.75	0.90		0.90
10.00	0.82		0.82	23.00	0.89		0.89
10.25	0.93		0.93	23.25	0.87		0.87
10.50	1.08		1.08	23.50	0.86		0.86
10.75	1.30		1.30	23.75	0.84		0.84
11.00	1.62		1.62	24.00	0.83		0.83
11.25	2.07		2.07				
11.50	2.83		2.83				
11.75	5.98		5.98				
12.00	20.72		20.72				
12.25	24.20		24.20				
12.50	12.53		12.53				
12.75	6.79		6.79				

Summary for Reach DP-3:

Inflow Area = 2.656 ac, 1.81% Impervious, Inflow Depth > 1.01" for 2-yr event
 Inflow = 3.10 cfs @ 12.05 hrs, Volume= 0.224 af
 Outflow = 3.10 cfs @ 12.05 hrs, Volume= 0.224 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-3:



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-3:

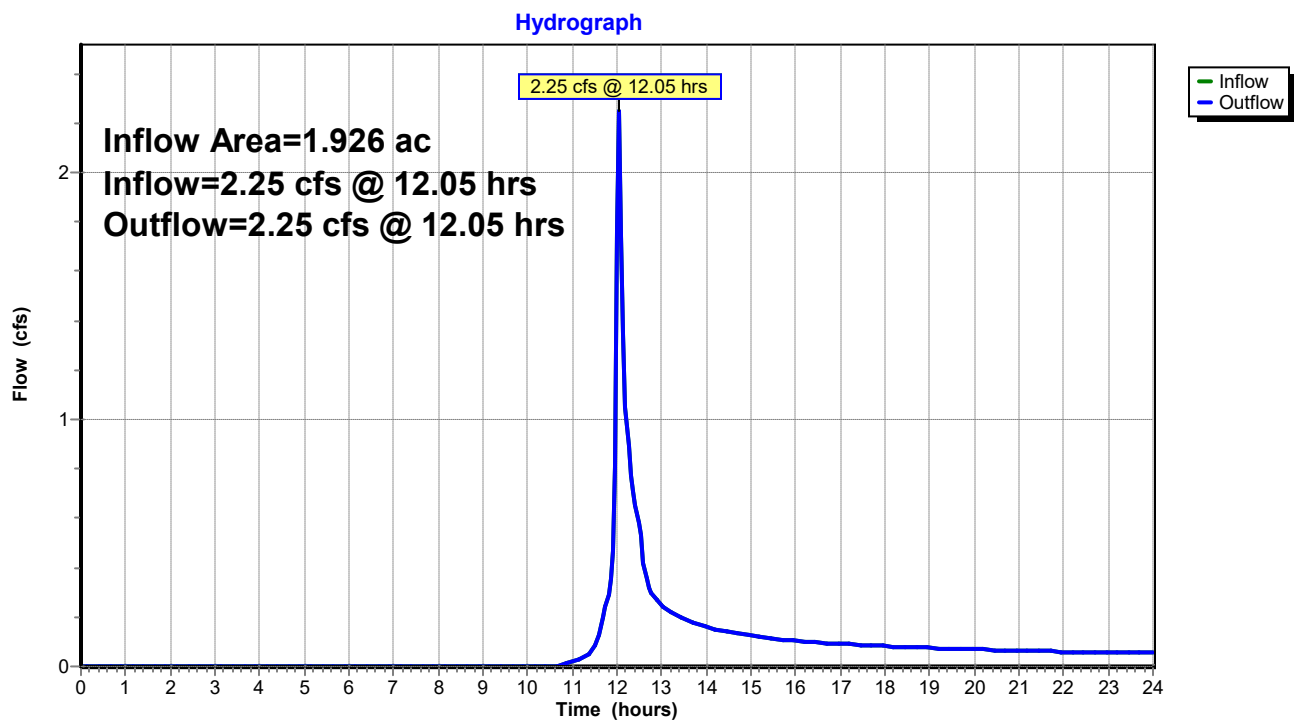
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.34		0.34
0.25	0.00		0.00	13.25	0.30		0.30
0.50	0.00		0.00	13.50	0.26		0.26
0.75	0.00		0.00	13.75	0.24		0.24
1.00	0.00		0.00	14.00	0.22		0.22
1.25	0.00		0.00	14.25	0.20		0.20
1.50	0.00		0.00	14.50	0.19		0.19
1.75	0.00		0.00	14.75	0.18		0.18
2.00	0.00		0.00	15.00	0.17		0.17
2.25	0.00		0.00	15.25	0.16		0.16
2.50	0.00		0.00	15.50	0.16		0.16
2.75	0.00		0.00	15.75	0.15		0.15
3.00	0.00		0.00	16.00	0.14		0.14
3.25	0.00		0.00	16.25	0.14		0.14
3.50	0.00		0.00	16.50	0.13		0.13
3.75	0.00		0.00	16.75	0.13		0.13
4.00	0.00		0.00	17.00	0.13		0.13
4.25	0.00		0.00	17.25	0.12		0.12
4.50	0.00		0.00	17.50	0.12		0.12
4.75	0.00		0.00	17.75	0.12		0.12
5.00	0.00		0.00	18.00	0.11		0.11
5.25	0.00		0.00	18.25	0.11		0.11
5.50	0.00		0.00	18.50	0.11		0.11
5.75	0.00		0.00	18.75	0.10		0.10
6.00	0.00		0.00	19.00	0.10		0.10
6.25	0.00		0.00	19.25	0.10		0.10
6.50	0.00		0.00	19.50	0.10		0.10
6.75	0.00		0.00	19.75	0.10		0.10
7.00	0.00		0.00	20.00	0.09		0.09
7.25	0.00		0.00	20.25	0.09		0.09
7.50	0.00		0.00	20.50	0.09		0.09
7.75	0.00		0.00	20.75	0.09		0.09
8.00	0.00		0.00	21.00	0.09		0.09
8.25	0.00		0.00	21.25	0.09		0.09
8.50	0.00		0.00	21.50	0.09		0.09
8.75	0.00		0.00	21.75	0.08		0.08
9.00	0.00		0.00	22.00	0.08		0.08
9.25	0.00		0.00	22.25	0.08		0.08
9.50	0.00		0.00	22.50	0.08		0.08
9.75	0.00		0.00	22.75	0.08		0.08
10.00	0.00		0.00	23.00	0.08		0.08
10.25	0.00		0.00	23.25	0.08		0.08
10.50	0.00		0.00	23.50	0.08		0.08
10.75	0.01		0.01	23.75	0.08		0.08
11.00	0.02		0.02	24.00	0.07		0.07
11.25	0.05		0.05				
11.50	0.10		0.10				
11.75	0.33		0.33				
12.00	2.43		2.43				
12.25	1.23		1.23				
12.50	0.80		0.80				
12.75	0.42		0.42				

Summary for Reach DP-4:

Inflow Area = 1.926 ac, 1.45% Impervious, Inflow Depth > 1.01" for 2-yr event
 Inflow = 2.25 cfs @ 12.05 hrs, Volume= 0.162 af
 Outflow = 2.25 cfs @ 12.05 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-4:



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.25		0.25
0.25	0.00		0.00	13.25	0.22		0.22
0.50	0.00		0.00	13.50	0.19		0.19
0.75	0.00		0.00	13.75	0.17		0.17
1.00	0.00		0.00	14.00	0.16		0.16
1.25	0.00		0.00	14.25	0.15		0.15
1.50	0.00		0.00	14.50	0.14		0.14
1.75	0.00		0.00	14.75	0.13		0.13
2.00	0.00		0.00	15.00	0.12		0.12
2.25	0.00		0.00	15.25	0.12		0.12
2.50	0.00		0.00	15.50	0.11		0.11
2.75	0.00		0.00	15.75	0.11		0.11
3.00	0.00		0.00	16.00	0.10		0.10
3.25	0.00		0.00	16.25	0.10		0.10
3.50	0.00		0.00	16.50	0.10		0.10
3.75	0.00		0.00	16.75	0.09		0.09
4.00	0.00		0.00	17.00	0.09		0.09
4.25	0.00		0.00	17.25	0.09		0.09
4.50	0.00		0.00	17.50	0.09		0.09
4.75	0.00		0.00	17.75	0.08		0.08
5.00	0.00		0.00	18.00	0.08		0.08
5.25	0.00		0.00	18.25	0.08		0.08
5.50	0.00		0.00	18.50	0.08		0.08
5.75	0.00		0.00	18.75	0.08		0.08
6.00	0.00		0.00	19.00	0.07		0.07
6.25	0.00		0.00	19.25	0.07		0.07
6.50	0.00		0.00	19.50	0.07		0.07
6.75	0.00		0.00	19.75	0.07		0.07
7.00	0.00		0.00	20.00	0.07		0.07
7.25	0.00		0.00	20.25	0.07		0.07
7.50	0.00		0.00	20.50	0.07		0.07
7.75	0.00		0.00	20.75	0.07		0.07
8.00	0.00		0.00	21.00	0.06		0.06
8.25	0.00		0.00	21.25	0.06		0.06
8.50	0.00		0.00	21.50	0.06		0.06
8.75	0.00		0.00	21.75	0.06		0.06
9.00	0.00		0.00	22.00	0.06		0.06
9.25	0.00		0.00	22.25	0.06		0.06
9.50	0.00		0.00	22.50	0.06		0.06
9.75	0.00		0.00	22.75	0.06		0.06
10.00	0.00		0.00	23.00	0.06		0.06
10.25	0.00		0.00	23.25	0.06		0.06
10.50	0.00		0.00	23.50	0.06		0.06
10.75	0.01		0.01	23.75	0.05		0.05
11.00	0.02		0.02	24.00	0.05		0.05
11.25	0.04		0.04				
11.50	0.07		0.07				
11.75	0.24		0.24				
12.00	1.76		1.76				
12.25	0.89		0.89				
12.50	0.58		0.58				
12.75	0.30		0.30				

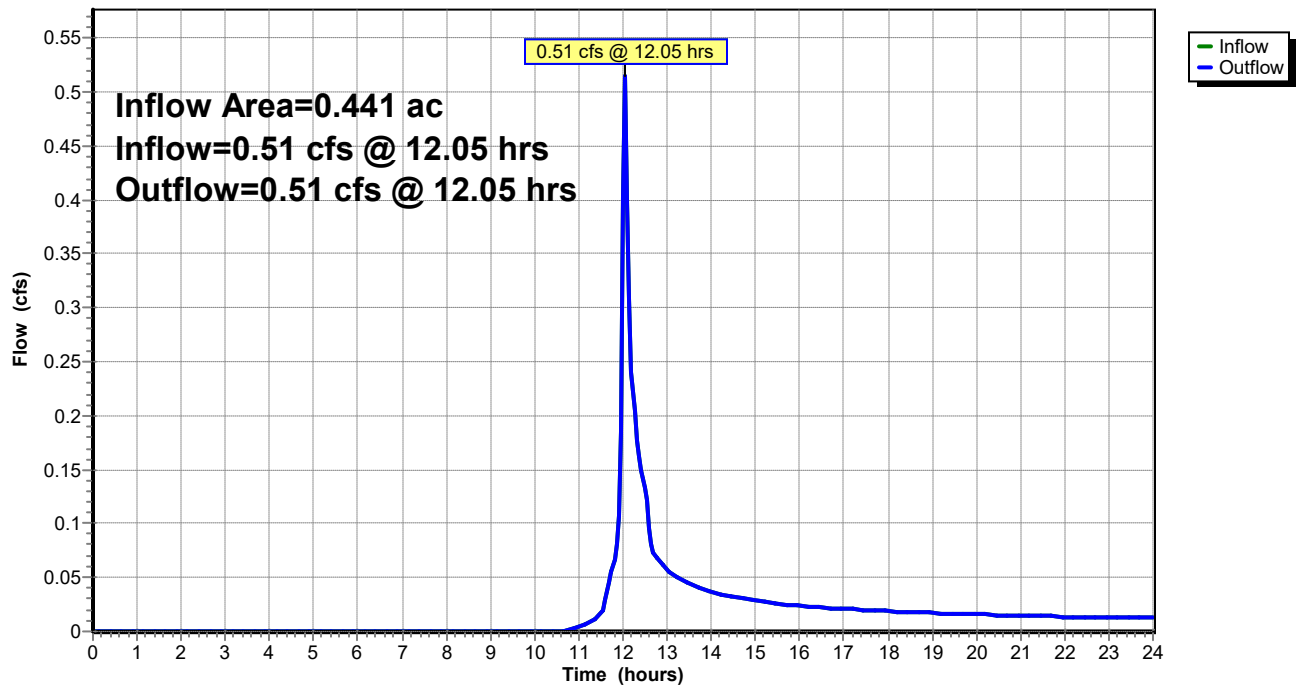
Summary for Reach DP-5:

Inflow Area = 0.441 ac, 0.00% Impervious, Inflow Depth > 1.01" for 2-yr event
 Inflow = 0.51 cfs @ 12.05 hrs, Volume= 0.037 af
 Outflow = 0.51 cfs @ 12.05 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-5:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Reach DP-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.06		0.06
0.25	0.00		0.00	13.25	0.05		0.05
0.50	0.00		0.00	13.50	0.04		0.04
0.75	0.00		0.00	13.75	0.04		0.04
1.00	0.00		0.00	14.00	0.04		0.04
1.25	0.00		0.00	14.25	0.03		0.03
1.50	0.00		0.00	14.50	0.03		0.03
1.75	0.00		0.00	14.75	0.03		0.03
2.00	0.00		0.00	15.00	0.03		0.03
2.25	0.00		0.00	15.25	0.03		0.03
2.50	0.00		0.00	15.50	0.03		0.03
2.75	0.00		0.00	15.75	0.02		0.02
3.00	0.00		0.00	16.00	0.02		0.02
3.25	0.00		0.00	16.25	0.02		0.02
3.50	0.00		0.00	16.50	0.02		0.02
3.75	0.00		0.00	16.75	0.02		0.02
4.00	0.00		0.00	17.00	0.02		0.02
4.25	0.00		0.00	17.25	0.02		0.02
4.50	0.00		0.00	17.50	0.02		0.02
4.75	0.00		0.00	17.75	0.02		0.02
5.00	0.00		0.00	18.00	0.02		0.02
5.25	0.00		0.00	18.25	0.02		0.02
5.50	0.00		0.00	18.50	0.02		0.02
5.75	0.00		0.00	18.75	0.02		0.02
6.00	0.00		0.00	19.00	0.02		0.02
6.25	0.00		0.00	19.25	0.02		0.02
6.50	0.00		0.00	19.50	0.02		0.02
6.75	0.00		0.00	19.75	0.02		0.02
7.00	0.00		0.00	20.00	0.02		0.02
7.25	0.00		0.00	20.25	0.02		0.02
7.50	0.00		0.00	20.50	0.02		0.02
7.75	0.00		0.00	20.75	0.01		0.01
8.00	0.00		0.00	21.00	0.01		0.01
8.25	0.00		0.00	21.25	0.01		0.01
8.50	0.00		0.00	21.50	0.01		0.01
8.75	0.00		0.00	21.75	0.01		0.01
9.00	0.00		0.00	22.00	0.01		0.01
9.25	0.00		0.00	22.25	0.01		0.01
9.50	0.00		0.00	22.50	0.01		0.01
9.75	0.00		0.00	22.75	0.01		0.01
10.00	0.00		0.00	23.00	0.01		0.01
10.25	0.00		0.00	23.25	0.01		0.01
10.50	0.00		0.00	23.50	0.01		0.01
10.75	0.00		0.00	23.75	0.01		0.01
11.00	0.00		0.00	24.00	0.01		0.01
11.25	0.01		0.01				
11.50	0.02		0.02				
11.75	0.05		0.05				
12.00	0.40		0.40				
12.25	0.20		0.20				
12.50	0.13		0.13				
12.75	0.07		0.07				

Summary for Pond I-4 (4A): Stormtech System

Inflow Area = 3.744 ac, 58.36% Impervious, Inflow Depth > 2.19" for 2-yr event
 Inflow = 10.36 cfs @ 12.04 hrs, Volume= 0.684 af
 Outflow = 0.47 cfs @ 14.26 hrs, Volume= 0.315 af, Atten= 95%, Lag= 133.3 min
 Discarded = 0.12 cfs @ 9.10 hrs, Volume= 0.163 af
 Primary = 0.35 cfs @ 14.26 hrs, Volume= 0.152 af
 Routed to Reach DP-2 :

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 406.37' @ 14.26 hrs Surf.Area= 0.239 ac Storage= 0.396 af

Plug-Flow detention time= 292.4 min calculated for 0.314 af (46% of inflow)
 Center-of-Mass det. time= 154.7 min (979.4 - 824.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	404.00'	0.330 af	58.58'W x 177.78'L x 5.50'H Field A 1.315 af Overall - 0.490 af Embedded = 0.825 af x 40.0% Voids
#2A	404.75'	0.490 af	ADS_StormTech MC-3500 d +Cap x 192 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 192 Chambers in 8 Rows Cap Storage= 14.9 cf x 2 x 8 rows = 238.4 cf
		0.820 af	Total Available Storage

Storage Group A created with Chamber Wizard

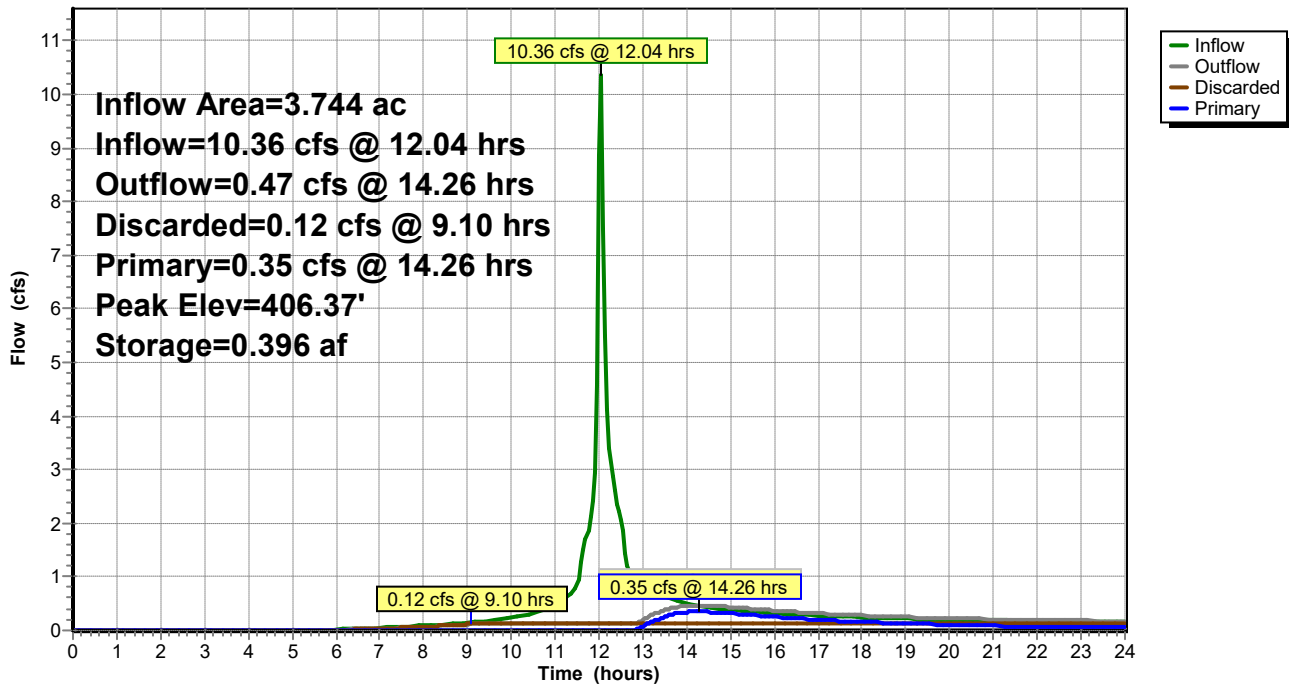
Device	Routing	Invert	Outlet Devices
#1	Primary	404.00'	12.0" Round Culvert L= 20.0' Ke= 0.200 Inlet / Outlet Invert= 404.00' / 403.00' S= 0.0500 ' / Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	406.15'	9.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 1	407.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Discarded	404.00'	0.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.12 cfs @ 9.10 hrs HW=404.06' (Free Discharge)
 ↑ **4=Exfiltration** (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=0.35 cfs @ 14.26 hrs HW=406.37' (Free Discharge)
 ↑ **1=Culvert** (Passes 0.35 cfs of 6.47 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.35 cfs @ 1.60 fps)
 ↑ **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond I-4 (4A): Stormtech System

Hydrograph



NY-235 Elm-Proposed

NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Pond I-4 (4A): Stormtech System

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	404.00	0.00	0.00	0.00
0.50	0.00	0.000	404.00	0.00	0.00	0.00
1.00	0.00	0.000	404.00	0.00	0.00	0.00
1.50	0.00	0.000	404.00	0.00	0.00	0.00
2.00	0.00	0.000	404.00	0.00	0.00	0.00
2.50	0.00	0.000	404.00	0.00	0.00	0.00
3.00	0.00	0.000	404.00	0.00	0.00	0.00
3.50	0.00	0.000	404.00	0.00	0.00	0.00
4.00	0.00	0.000	404.00	0.00	0.00	0.00
4.50	0.00	0.000	404.00	0.00	0.00	0.00
5.00	0.00	0.000	404.00	0.00	0.00	0.00
5.50	0.01	0.000	404.00	0.00	0.00	0.00
6.00	0.02	0.000	404.00	0.01	0.01	0.00
6.50	0.03	0.001	404.01	0.02	0.02	0.00
7.00	0.05	0.001	404.02	0.03	0.03	0.00
7.50	0.07	0.002	404.02	0.05	0.05	0.00
8.00	0.09	0.003	404.03	0.07	0.07	0.00
8.50	0.11	0.004	404.04	0.09	0.09	0.00
9.00	0.15	0.005	404.05	0.11	0.11	0.00
9.50	0.19	0.007	404.07	0.12	0.12	0.00
10.00	0.24	0.011	404.11	0.12	0.12	0.00
10.50	0.33	0.017	404.18	0.12	0.12	0.00
11.00	0.47	0.028	404.30	0.12	0.12	0.00
11.50	0.82	0.049	404.51	0.12	0.12	0.00
12.00	8.87	0.144	405.10	0.12	0.12	0.00
12.50	2.06	0.330	406.03	0.12	0.12	0.00
13.00	0.83	0.373	406.25	0.19	0.12	0.07
13.50	0.62	0.390	406.34	0.38	0.12	0.26
14.00	0.51	0.396	406.37	0.46	0.12	0.34
14.50	0.44	0.396	406.37	0.46	0.12	0.34
15.00	0.39	0.394	406.36	0.44	0.12	0.32
15.50	0.35	0.392	406.35	0.41	0.12	0.28
16.00	0.32	0.390	406.34	0.37	0.12	0.25
16.50	0.29	0.388	406.32	0.34	0.12	0.22
17.00	0.27	0.386	406.31	0.32	0.12	0.20
17.50	0.26	0.384	406.30	0.30	0.12	0.18
18.00	0.24	0.382	406.30	0.28	0.12	0.16
18.50	0.23	0.381	406.29	0.27	0.12	0.15
19.00	0.22	0.379	406.28	0.25	0.12	0.13
19.50	0.21	0.378	406.27	0.24	0.12	0.12
20.00	0.20	0.377	406.27	0.23	0.12	0.11
20.50	0.19	0.376	406.26	0.22	0.12	0.10
21.00	0.18	0.375	406.26	0.21	0.12	0.09
21.50	0.18	0.374	406.25	0.20	0.12	0.08
22.00	0.17	0.373	406.25	0.19	0.12	0.07
22.50	0.17	0.372	406.24	0.19	0.12	0.07
23.00	0.16	0.371	406.24	0.18	0.12	0.06
23.50	0.16	0.370	406.23	0.18	0.12	0.06
24.00	0.15	0.369	406.23	0.17	0.12	0.05

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment PDA-1A:

Runoff = 5.43 cfs @ 12.19 hrs, Volume= 0.553 af, Depth> 1.24"
 Routed to Reach DP-1 :

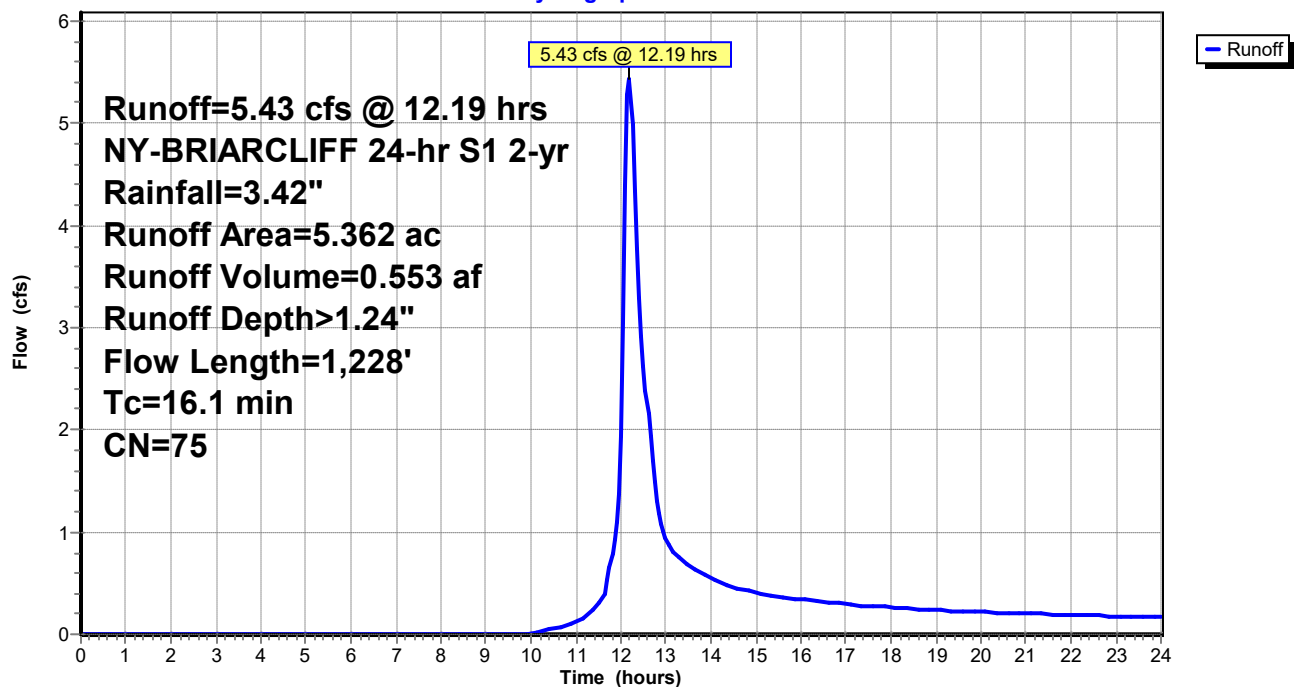
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.421	70	Woods, Good, HSG C
4.674	74	>75% Grass cover, Good, HSG C
0.267	98	Paved parking, HSG C
5.362	75	Weighted Average
5.095		95.02% Pervious Area
0.267		4.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	150	0.0333	0.22		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.2	442	0.0238	2.31		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.5	636	0.0197	6.90	5.42	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Corrugated PP, smooth interior
16.1	1,228	Total			

Subcatchment PDA-1A:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.66	0.95
0.25	0.01	0.00	0.00	13.25	2.56	0.69	0.77
0.50	0.02	0.00	0.00	13.50	2.61	0.72	0.67
0.75	0.03	0.00	0.00	13.75	2.66	0.74	0.60
1.00	0.05	0.00	0.00	14.00	2.70	0.77	0.54
1.25	0.06	0.00	0.00	14.25	2.73	0.79	0.50
1.50	0.07	0.00	0.00	14.50	2.76	0.81	0.47
1.75	0.08	0.00	0.00	14.75	2.80	0.83	0.44
2.00	0.09	0.00	0.00	15.00	2.83	0.85	0.41
2.25	0.11	0.00	0.00	15.25	2.85	0.87	0.39
2.50	0.12	0.00	0.00	15.50	2.88	0.88	0.37
2.75	0.13	0.00	0.00	15.75	2.90	0.90	0.35
3.00	0.15	0.00	0.00	16.00	2.93	0.91	0.34
3.25	0.16	0.00	0.00	16.25	2.95	0.93	0.33
3.50	0.17	0.00	0.00	16.50	2.97	0.94	0.32
3.75	0.19	0.00	0.00	16.75	2.99	0.96	0.30
4.00	0.20	0.00	0.00	17.00	3.02	0.97	0.29
4.25	0.22	0.00	0.00	17.25	3.04	0.98	0.29
4.50	0.23	0.00	0.00	17.50	3.05	1.00	0.28
4.75	0.25	0.00	0.00	17.75	3.07	1.01	0.27
5.00	0.26	0.00	0.00	18.00	3.09	1.02	0.26
5.25	0.28	0.00	0.00	18.25	3.11	1.03	0.25
5.50	0.30	0.00	0.00	18.50	3.13	1.04	0.25
5.75	0.31	0.00	0.00	18.75	3.14	1.05	0.24
6.00	0.33	0.00	0.00	19.00	3.16	1.07	0.24
6.25	0.35	0.00	0.00	19.25	3.17	1.08	0.23
6.50	0.37	0.00	0.00	19.50	3.19	1.09	0.23
6.75	0.39	0.00	0.00	19.75	3.20	1.10	0.22
7.00	0.41	0.00	0.00	20.00	3.22	1.11	0.22
7.25	0.43	0.00	0.00	20.25	3.23	1.12	0.21
7.50	0.45	0.00	0.00	20.50	3.25	1.13	0.21
7.75	0.47	0.00	0.00	20.75	3.26	1.14	0.21
8.00	0.49	0.00	0.00	21.00	3.27	1.14	0.20
8.25	0.52	0.00	0.00	21.25	3.29	1.15	0.20
8.50	0.54	0.00	0.00	21.50	3.30	1.16	0.20
8.75	0.57	0.00	0.00	21.75	3.31	1.17	0.19
9.00	0.60	0.00	0.00	22.00	3.33	1.18	0.19
9.25	0.63	0.00	0.00	22.25	3.34	1.19	0.19
9.50	0.66	0.00	0.00	22.50	3.35	1.20	0.18
9.75	0.69	0.00	0.00	22.75	3.36	1.21	0.18
10.00	0.73	0.00	0.01	23.00	3.37	1.21	0.18
10.25	0.77	0.00	0.03	23.25	3.39	1.22	0.18
10.50	0.81	0.01	0.05	23.50	3.40	1.23	0.17
10.75	0.86	0.01	0.09	23.75	3.41	1.24	0.17
11.00	0.92	0.02	0.13	24.00	3.42	1.25	0.17
11.25	0.99	0.03	0.19				
11.50	1.08	0.05	0.29				
11.75	1.27	0.09	0.66				
12.00	1.87	0.32	1.94				
12.25	2.19	0.48	4.98				
12.50	2.36	0.57	2.62				
12.75	2.44	0.62	1.48				

Summary for Subcatchment PDA-1B:

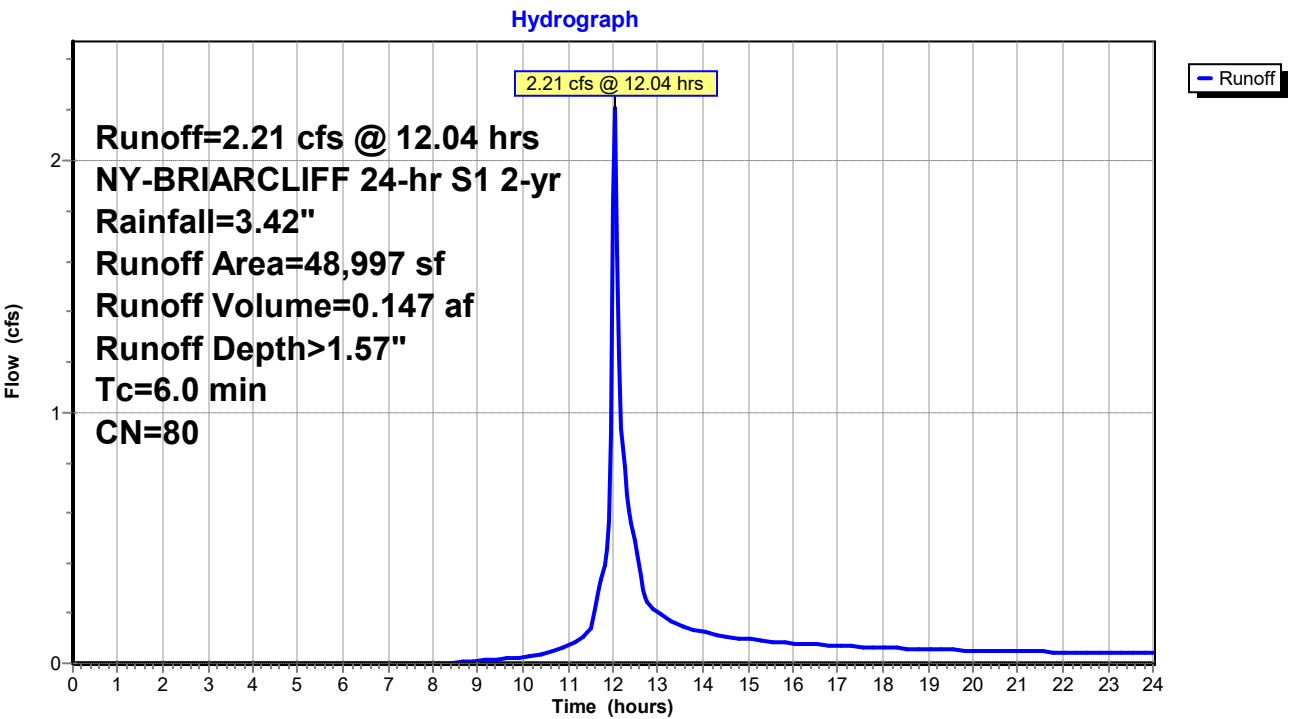
Runoff = 2.21 cfs @ 12.04 hrs, Volume= 0.147 af, Depth> 1.57"
Routed to Reach DP-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (sf)	CN	Description
37,525	74	>75% Grass cover, Good, HSG C
11,472	98	Paved parking, HSG C
48,997	80	Weighted Average
37,525		76.59% Pervious Area
11,472		23.41% Impervious Area

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

Subcatchment PDA-1B:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.89	0.20
0.25	0.01	0.00	0.00	13.25	2.56	0.93	0.17
0.50	0.02	0.00	0.00	13.50	2.61	0.97	0.15
0.75	0.03	0.00	0.00	13.75	2.66	1.00	0.14
1.00	0.05	0.00	0.00	14.00	2.70	1.03	0.13
1.25	0.06	0.00	0.00	14.25	2.73	1.05	0.12
1.50	0.07	0.00	0.00	14.50	2.76	1.08	0.11
1.75	0.08	0.00	0.00	14.75	2.80	1.10	0.10
2.00	0.09	0.00	0.00	15.00	2.83	1.12	0.10
2.25	0.11	0.00	0.00	15.25	2.85	1.14	0.09
2.50	0.12	0.00	0.00	15.50	2.88	1.16	0.09
2.75	0.13	0.00	0.00	15.75	2.90	1.18	0.08
3.00	0.15	0.00	0.00	16.00	2.93	1.20	0.08
3.25	0.16	0.00	0.00	16.25	2.95	1.21	0.08
3.50	0.17	0.00	0.00	16.50	2.97	1.23	0.07
3.75	0.19	0.00	0.00	16.75	2.99	1.25	0.07
4.00	0.20	0.00	0.00	17.00	3.02	1.26	0.07
4.25	0.22	0.00	0.00	17.25	3.04	1.28	0.07
4.50	0.23	0.00	0.00	17.50	3.05	1.29	0.07
4.75	0.25	0.00	0.00	17.75	3.07	1.30	0.06
5.00	0.26	0.00	0.00	18.00	3.09	1.32	0.06
5.25	0.28	0.00	0.00	18.25	3.11	1.33	0.06
5.50	0.30	0.00	0.00	18.50	3.13	1.34	0.06
5.75	0.31	0.00	0.00	18.75	3.14	1.36	0.06
6.00	0.33	0.00	0.00	19.00	3.16	1.37	0.06
6.25	0.35	0.00	0.00	19.25	3.17	1.38	0.05
6.50	0.37	0.00	0.00	19.50	3.19	1.39	0.05
6.75	0.39	0.00	0.00	19.75	3.20	1.41	0.05
7.00	0.41	0.00	0.00	20.00	3.22	1.42	0.05
7.25	0.43	0.00	0.00	20.25	3.23	1.43	0.05
7.50	0.45	0.00	0.00	20.50	3.25	1.44	0.05
7.75	0.47	0.00	0.00	20.75	3.26	1.45	0.05
8.00	0.49	0.00	0.00	21.00	3.27	1.46	0.05
8.25	0.52	0.00	0.00	21.25	3.29	1.47	0.05
8.50	0.54	0.00	0.00	21.50	3.30	1.48	0.05
8.75	0.57	0.00	0.01	21.75	3.31	1.49	0.05
9.00	0.60	0.00	0.01	22.00	3.33	1.50	0.04
9.25	0.63	0.01	0.01	22.25	3.34	1.51	0.04
9.50	0.66	0.01	0.02	22.50	3.35	1.52	0.04
9.75	0.69	0.01	0.02	22.75	3.36	1.53	0.04
10.00	0.73	0.02	0.03	23.00	3.37	1.54	0.04
10.25	0.77	0.03	0.03	23.25	3.39	1.55	0.04
10.50	0.81	0.04	0.04	23.50	3.40	1.56	0.04
10.75	0.86	0.05	0.05	23.75	3.41	1.56	0.04
11.00	0.92	0.06	0.07	24.00	3.42	1.57	0.04
11.25	0.99	0.08	0.09				
11.50	1.08	0.11	0.14				
11.75	1.27	0.18	0.34				
12.00	1.87	0.49	1.84				
12.25	2.19	0.68	0.78				
12.50	2.36	0.79	0.49				
12.75	2.44	0.85	0.25				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment PDA-2A:

Runoff = 10.36 cfs @ 12.04 hrs, Volume= 0.684 af, Depth> 2.19"
Routed to Pond I-4 (4A) : Stormtech System

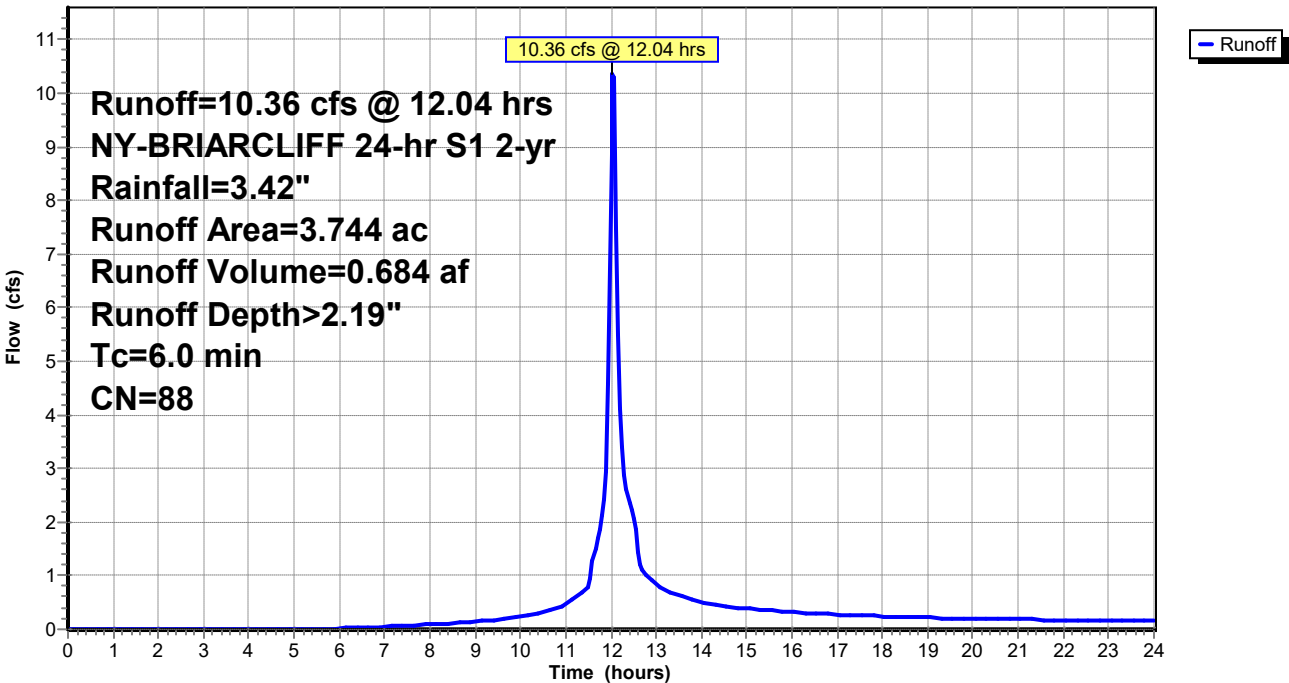
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
2.185	98	Paved parking, HSG C
3.744	88	Weighted Average
1.559		41.64% Pervious Area
2.185		58.36% Impervious Area

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

Subcatchment PDA-2A:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	1.39	0.83
0.25	0.01	0.00	0.00	13.25	2.56	1.44	0.71
0.50	0.02	0.00	0.00	13.50	2.61	1.48	0.62
0.75	0.03	0.00	0.00	13.75	2.66	1.52	0.56
1.00	0.05	0.00	0.00	14.00	2.70	1.55	0.51
1.25	0.06	0.00	0.00	14.25	2.73	1.58	0.47
1.50	0.07	0.00	0.00	14.50	2.76	1.61	0.44
1.75	0.08	0.00	0.00	14.75	2.80	1.64	0.41
2.00	0.09	0.00	0.00	15.00	2.83	1.66	0.39
2.25	0.11	0.00	0.00	15.25	2.85	1.69	0.37
2.50	0.12	0.00	0.00	15.50	2.88	1.71	0.35
2.75	0.13	0.00	0.00	15.75	2.90	1.73	0.33
3.00	0.15	0.00	0.00	16.00	2.93	1.75	0.32
3.25	0.16	0.00	0.00	16.25	2.95	1.78	0.31
3.50	0.17	0.00	0.00	16.50	2.97	1.79	0.29
3.75	0.19	0.00	0.00	16.75	2.99	1.81	0.28
4.00	0.20	0.00	0.00	17.00	3.02	1.83	0.27
4.25	0.22	0.00	0.00	17.25	3.04	1.85	0.26
4.50	0.23	0.00	0.00	17.50	3.05	1.87	0.26
4.75	0.25	0.00	0.00	17.75	3.07	1.88	0.25
5.00	0.26	0.00	0.00	18.00	3.09	1.90	0.24
5.25	0.28	0.00	0.00	18.25	3.11	1.91	0.24
5.50	0.30	0.00	0.01	18.50	3.13	1.93	0.23
5.75	0.31	0.00	0.01	18.75	3.14	1.94	0.22
6.00	0.33	0.00	0.02	19.00	3.16	1.96	0.22
6.25	0.35	0.00	0.03	19.25	3.17	1.97	0.21
6.50	0.37	0.01	0.03	19.50	3.19	1.99	0.21
6.75	0.39	0.01	0.04	19.75	3.20	2.00	0.20
7.00	0.41	0.01	0.05	20.00	3.22	2.01	0.20
7.25	0.43	0.02	0.06	20.25	3.23	2.03	0.20
7.50	0.45	0.02	0.07	20.50	3.25	2.04	0.19
7.75	0.47	0.03	0.08	20.75	3.26	2.05	0.19
8.00	0.49	0.03	0.09	21.00	3.27	2.06	0.18
8.25	0.52	0.04	0.10	21.25	3.29	2.08	0.18
8.50	0.54	0.04	0.11	21.50	3.30	2.09	0.18
8.75	0.57	0.05	0.13	21.75	3.31	2.10	0.17
9.00	0.60	0.06	0.15	22.00	3.33	2.11	0.17
9.25	0.63	0.07	0.16	22.25	3.34	2.12	0.17
9.50	0.66	0.09	0.19	22.50	3.35	2.13	0.17
9.75	0.69	0.10	0.21	22.75	3.36	2.14	0.16
10.00	0.73	0.11	0.24	23.00	3.37	2.15	0.16
10.25	0.77	0.13	0.28	23.25	3.39	2.17	0.16
10.50	0.81	0.15	0.33	23.50	3.40	2.18	0.16
10.75	0.86	0.18	0.39	23.75	3.41	2.19	0.15
11.00	0.92	0.21	0.47	24.00	3.42	2.20	0.15
11.25	0.99	0.25	0.60				
11.50	1.08	0.30	0.82				
11.75	1.27	0.42	1.86				
12.00	1.87	0.86	8.87				
12.25	2.19	1.12	3.39				
12.50	2.36	1.26	2.06				
12.75	2.44	1.33	1.04				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment PDA-2B:

Runoff = 13.82 cfs @ 12.17 hrs, Volume= 1.333 af, Depth> 2.19"
 Routed to Reach DP-2 :

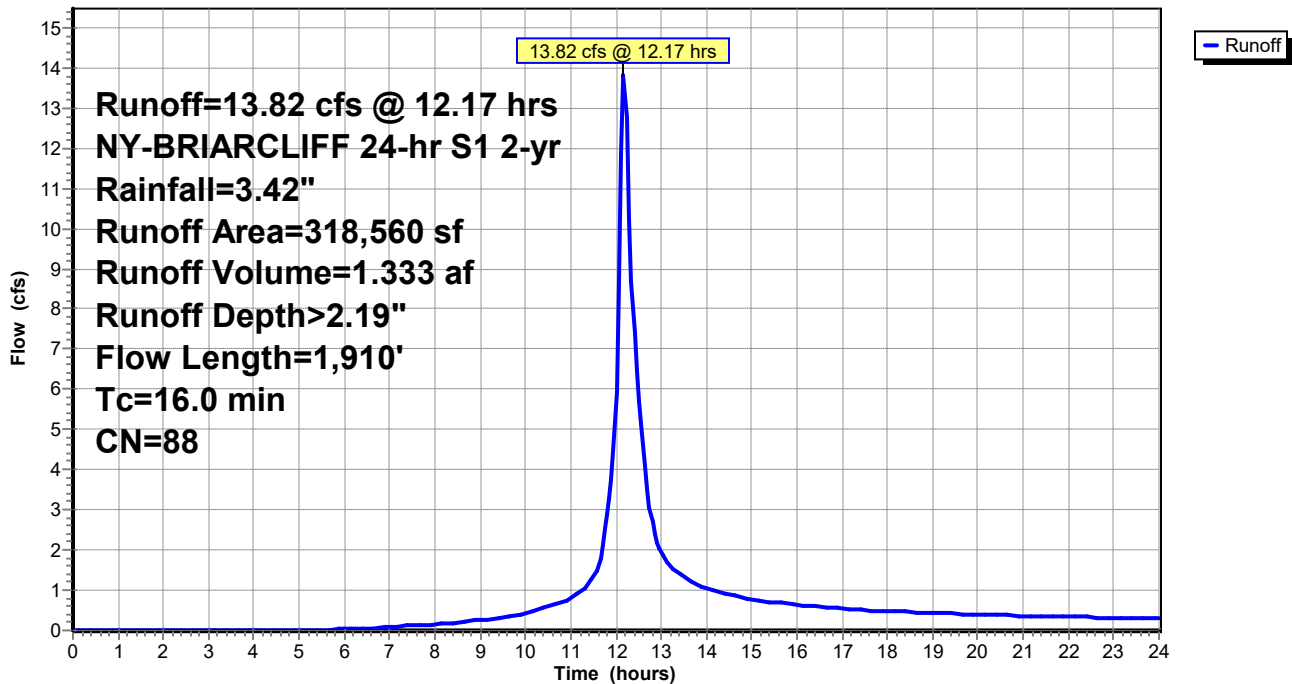
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (sf)	CN	Description
136,359	74	>75% Grass cover, Good, HSG C
182,201	98	Paved parking, HSG C
318,560	88	Weighted Average
136,359		42.80% Pervious Area
182,201		57.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0200	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
2.2	409	0.0440	3.15		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.8	341	0.0235	3.11		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	768	0.0455	12.16	14.93	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Corrugated PP, smooth interior
0.8	292	0.1642	6.08		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
16.0	1,910	Total			

Subcatchment PDA-2B:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	1.39	1.92
0.25	0.01	0.00	0.00	13.25	2.56	1.44	1.54
0.50	0.02	0.00	0.00	13.50	2.61	1.48	1.32
0.75	0.03	0.00	0.00	13.75	2.66	1.52	1.17
1.00	0.05	0.00	0.00	14.00	2.70	1.55	1.06
1.25	0.06	0.00	0.00	14.25	2.73	1.58	0.97
1.50	0.07	0.00	0.00	14.50	2.76	1.61	0.90
1.75	0.08	0.00	0.00	14.75	2.80	1.64	0.84
2.00	0.09	0.00	0.00	15.00	2.83	1.66	0.78
2.25	0.11	0.00	0.00	15.25	2.85	1.69	0.74
2.50	0.12	0.00	0.00	15.50	2.88	1.71	0.70
2.75	0.13	0.00	0.00	15.75	2.90	1.73	0.67
3.00	0.15	0.00	0.00	16.00	2.93	1.75	0.64
3.25	0.16	0.00	0.00	16.25	2.95	1.78	0.61
3.50	0.17	0.00	0.00	16.50	2.97	1.79	0.59
3.75	0.19	0.00	0.00	16.75	2.99	1.81	0.57
4.00	0.20	0.00	0.00	17.00	3.02	1.83	0.55
4.25	0.22	0.00	0.00	17.25	3.04	1.85	0.53
4.50	0.23	0.00	0.00	17.50	3.05	1.87	0.51
4.75	0.25	0.00	0.00	17.75	3.07	1.88	0.50
5.00	0.26	0.00	0.00	18.00	3.09	1.90	0.48
5.25	0.28	0.00	0.00	18.25	3.11	1.91	0.47
5.50	0.30	0.00	0.01	18.50	3.13	1.93	0.45
5.75	0.31	0.00	0.02	18.75	3.14	1.94	0.44
6.00	0.33	0.00	0.03	19.00	3.16	1.96	0.43
6.25	0.35	0.00	0.04	19.25	3.17	1.97	0.42
6.50	0.37	0.01	0.06	19.50	3.19	1.99	0.41
6.75	0.39	0.01	0.07	19.75	3.20	2.00	0.40
7.00	0.41	0.01	0.09	20.00	3.22	2.01	0.39
7.25	0.43	0.02	0.10	20.25	3.23	2.03	0.39
7.50	0.45	0.02	0.12	20.50	3.25	2.04	0.38
7.75	0.47	0.03	0.14	20.75	3.26	2.05	0.37
8.00	0.49	0.03	0.16	21.00	3.27	2.06	0.36
8.25	0.52	0.04	0.18	21.25	3.29	2.08	0.36
8.50	0.54	0.04	0.21	21.50	3.30	2.09	0.35
8.75	0.57	0.05	0.23	21.75	3.31	2.10	0.34
9.00	0.60	0.06	0.26	22.00	3.33	2.11	0.34
9.25	0.63	0.07	0.30	22.25	3.34	2.12	0.33
9.50	0.66	0.09	0.34	22.50	3.35	2.13	0.33
9.75	0.69	0.10	0.38	22.75	3.36	2.14	0.32
10.00	0.73	0.11	0.43	23.00	3.37	2.15	0.32
10.25	0.77	0.13	0.50	23.25	3.39	2.17	0.31
10.50	0.81	0.15	0.58	23.50	3.40	2.18	0.31
10.75	0.86	0.18	0.68	23.75	3.41	2.19	0.30
11.00	0.92	0.21	0.82	24.00	3.42	2.20	0.30
11.25	0.99	0.25	1.01				
11.50	1.08	0.30	1.32				
11.75	1.27	0.42	2.51				
12.00	1.87	0.86	5.92				
12.25	2.19	1.12	12.04				
12.50	2.36	1.26	5.71				
12.75	2.44	1.33	3.07				

Summary for Subcatchment PDA-2C:

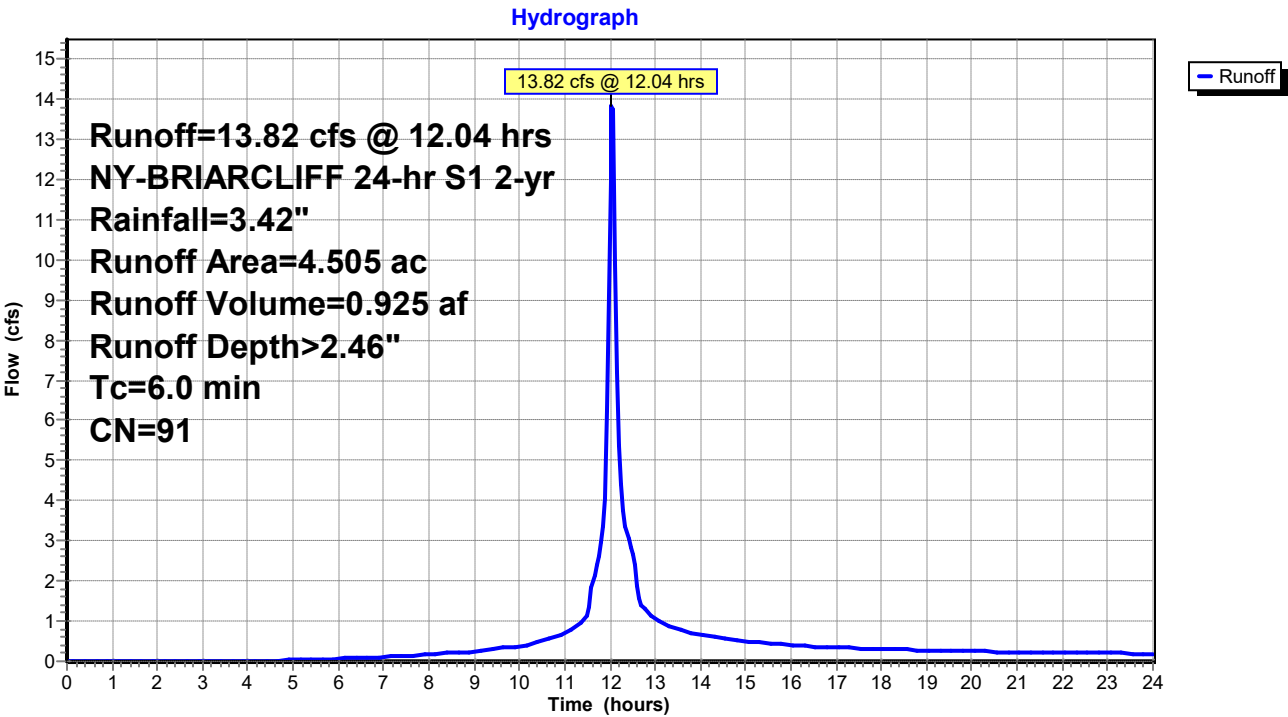
Runoff = 13.82 cfs @ 12.04 hrs, Volume= 0.925 af, Depth> 2.46"
Routed to Reach DP-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
1.240	74	>75% Grass cover, Good, HSG C
3.265	98	Paved parking, HSG C
4.505	91	Weighted Average
1.240		27.52% Pervious Area
3.265		72.48% Impervious Area

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

Subcatchment PDA-2C:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-2C:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	1.62	1.06
0.25	0.01	0.00	0.00	13.25	2.56	1.67	0.91
0.50	0.02	0.00	0.00	13.50	2.61	1.71	0.79
0.75	0.03	0.00	0.00	13.75	2.66	1.75	0.71
1.00	0.05	0.00	0.00	14.00	2.70	1.79	0.65
1.25	0.06	0.00	0.00	14.25	2.73	1.82	0.60
1.50	0.07	0.00	0.00	14.50	2.76	1.85	0.56
1.75	0.08	0.00	0.00	14.75	2.80	1.88	0.52
2.00	0.09	0.00	0.00	15.00	2.83	1.91	0.49
2.25	0.11	0.00	0.00	15.25	2.85	1.93	0.46
2.50	0.12	0.00	0.00	15.50	2.88	1.96	0.44
2.75	0.13	0.00	0.00	15.75	2.90	1.98	0.42
3.00	0.15	0.00	0.00	16.00	2.93	2.00	0.40
3.25	0.16	0.00	0.00	16.25	2.95	2.03	0.39
3.50	0.17	0.00	0.00	16.50	2.97	2.05	0.37
3.75	0.19	0.00	0.00	16.75	2.99	2.07	0.36
4.00	0.20	0.00	0.00	17.00	3.02	2.09	0.34
4.25	0.22	0.00	0.01	17.25	3.04	2.10	0.33
4.50	0.23	0.00	0.02	17.50	3.05	2.12	0.32
4.75	0.25	0.00	0.02	17.75	3.07	2.14	0.31
5.00	0.26	0.00	0.03	18.00	3.09	2.16	0.30
5.25	0.28	0.01	0.04	18.25	3.11	2.17	0.30
5.50	0.30	0.01	0.05	18.50	3.13	2.19	0.29
5.75	0.31	0.01	0.06	18.75	3.14	2.20	0.28
6.00	0.33	0.02	0.07	19.00	3.16	2.22	0.27
6.25	0.35	0.02	0.08	19.25	3.17	2.23	0.27
6.50	0.37	0.02	0.09	19.50	3.19	2.25	0.26
6.75	0.39	0.03	0.10	19.75	3.20	2.26	0.26
7.00	0.41	0.04	0.11	20.00	3.22	2.28	0.25
7.25	0.43	0.04	0.12	20.25	3.23	2.29	0.25
7.50	0.45	0.05	0.14	20.50	3.25	2.30	0.24
7.75	0.47	0.06	0.15	20.75	3.26	2.32	0.24
8.00	0.49	0.07	0.17	21.00	3.27	2.33	0.23
8.25	0.52	0.08	0.19	21.25	3.29	2.34	0.23
8.50	0.54	0.09	0.21	21.50	3.30	2.35	0.22
8.75	0.57	0.10	0.23	21.75	3.31	2.37	0.22
9.00	0.60	0.12	0.25	22.00	3.33	2.38	0.21
9.25	0.63	0.13	0.28	22.25	3.34	2.39	0.21
9.50	0.66	0.15	0.31	22.50	3.35	2.40	0.21
9.75	0.69	0.17	0.34	22.75	3.36	2.41	0.20
10.00	0.73	0.19	0.38	23.00	3.37	2.42	0.20
10.25	0.77	0.21	0.44	23.25	3.39	2.43	0.20
10.50	0.81	0.24	0.50	23.50	3.40	2.44	0.20
10.75	0.86	0.27	0.58	23.75	3.41	2.45	0.19
11.00	0.92	0.31	0.70	24.00	3.42	2.47	0.19
11.25	0.99	0.35	0.87				
11.50	1.08	0.42	1.18				
11.75	1.27	0.55	2.62				
12.00	1.87	1.05	11.96				
12.25	2.19	1.33	4.42				
12.50	2.36	1.48	2.65				
12.75	2.44	1.56	1.33				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Summary for Subcatchment PDA-2D:

Runoff = 8.51 cfs @ 12.18 hrs, Volume= 0.886 af, Depth> 1.06"
Routed to Reach DP-2 :

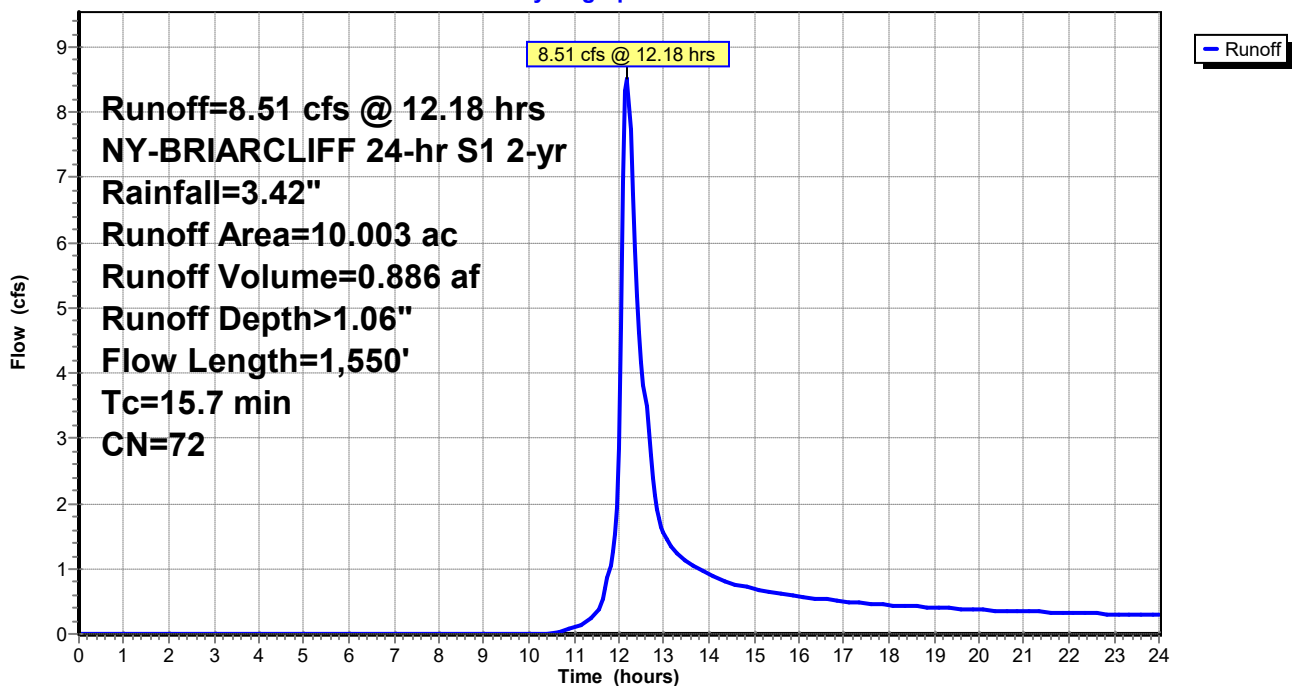
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
6.404	70	Woods, Good, HSG C
3.434	74	>75% Grass cover, Good, HSG C
0.165	98	Paved parking, HSG C
10.003	72	Weighted Average
9.838		98.35% Pervious Area
0.165		1.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	150	0.0400	0.24		Sheet Flow, Sheet
					Grass: Short n= 0.150 P2= 3.00"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow,
					Grassed Waterway Kv= 15.0 fps
15.7	1,550	Total			

Subcatchment PDA-2D:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-2D:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.53	1.56
0.25	0.01	0.00	0.00	13.25	2.56	0.56	1.27
0.50	0.02	0.00	0.00	13.50	2.61	0.59	1.11
0.75	0.03	0.00	0.00	13.75	2.66	0.61	1.00
1.00	0.05	0.00	0.00	14.00	2.70	0.63	0.91
1.25	0.06	0.00	0.00	14.25	2.73	0.65	0.84
1.50	0.07	0.00	0.00	14.50	2.76	0.67	0.78
1.75	0.08	0.00	0.00	14.75	2.80	0.69	0.73
2.00	0.09	0.00	0.00	15.00	2.83	0.71	0.69
2.25	0.11	0.00	0.00	15.25	2.85	0.72	0.66
2.50	0.12	0.00	0.00	15.50	2.88	0.74	0.63
2.75	0.13	0.00	0.00	15.75	2.90	0.75	0.60
3.00	0.15	0.00	0.00	16.00	2.93	0.77	0.57
3.25	0.16	0.00	0.00	16.25	2.95	0.78	0.55
3.50	0.17	0.00	0.00	16.50	2.97	0.79	0.53
3.75	0.19	0.00	0.00	16.75	2.99	0.81	0.52
4.00	0.20	0.00	0.00	17.00	3.02	0.82	0.50
4.25	0.22	0.00	0.00	17.25	3.04	0.83	0.48
4.50	0.23	0.00	0.00	17.50	3.05	0.84	0.47
4.75	0.25	0.00	0.00	17.75	3.07	0.85	0.46
5.00	0.26	0.00	0.00	18.00	3.09	0.86	0.45
5.25	0.28	0.00	0.00	18.25	3.11	0.87	0.43
5.50	0.30	0.00	0.00	18.50	3.13	0.88	0.42
5.75	0.31	0.00	0.00	18.75	3.14	0.89	0.41
6.00	0.33	0.00	0.00	19.00	3.16	0.90	0.40
6.25	0.35	0.00	0.00	19.25	3.17	0.91	0.40
6.50	0.37	0.00	0.00	19.50	3.19	0.92	0.39
6.75	0.39	0.00	0.00	19.75	3.20	0.93	0.38
7.00	0.41	0.00	0.00	20.00	3.22	0.94	0.37
7.25	0.43	0.00	0.00	20.25	3.23	0.95	0.37
7.50	0.45	0.00	0.00	20.50	3.25	0.96	0.36
7.75	0.47	0.00	0.00	20.75	3.26	0.97	0.35
8.00	0.49	0.00	0.00	21.00	3.27	0.98	0.35
8.25	0.52	0.00	0.00	21.25	3.29	0.98	0.34
8.50	0.54	0.00	0.00	21.50	3.30	0.99	0.33
8.75	0.57	0.00	0.00	21.75	3.31	1.00	0.33
9.00	0.60	0.00	0.00	22.00	3.33	1.01	0.32
9.25	0.63	0.00	0.00	22.25	3.34	1.02	0.32
9.50	0.66	0.00	0.00	22.50	3.35	1.02	0.31
9.75	0.69	0.00	0.00	22.75	3.36	1.03	0.31
10.00	0.73	0.00	0.00	23.00	3.37	1.04	0.31
10.25	0.77	0.00	0.00	23.25	3.39	1.05	0.30
10.50	0.81	0.00	0.00	23.50	3.40	1.05	0.30
10.75	0.86	0.00	0.04	23.75	3.41	1.06	0.29
11.00	0.92	0.01	0.10	24.00	3.42	1.07	0.29
11.25	0.99	0.01	0.19				
11.50	1.08	0.02	0.33				
11.75	1.27	0.05	0.86				
12.00	1.87	0.24	2.85				
12.25	2.19	0.37	7.74				
12.50	2.36	0.46	4.17				
12.75	2.44	0.50	2.39				

Summary for Subcatchment PDA-3:

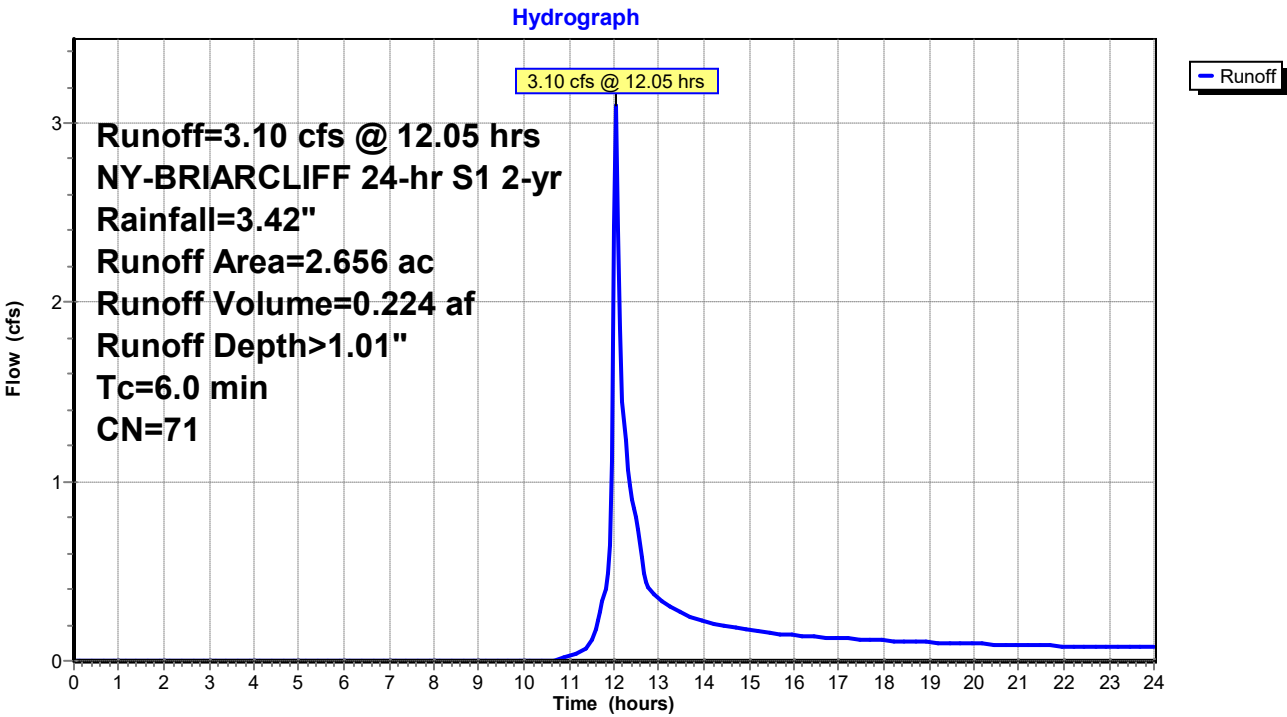
Runoff = 3.10 cfs @ 12.05 hrs, Volume= 0.224 af, Depth> 1.01"
Routed to Reach DP-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
2.046	70	Woods, Good, HSG C
0.562	74	>75% Grass cover, Good, HSG C
0.048	98	Paved parking, HSG C
2.656	71	Weighted Average
2.608		98.19% Pervious Area
0.048		1.81% Impervious Area

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

Subcatchment PDA-3:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.50	0.34
0.25	0.01	0.00	0.00	13.25	2.56	0.52	0.30
0.50	0.02	0.00	0.00	13.50	2.61	0.55	0.26
0.75	0.03	0.00	0.00	13.75	2.66	0.57	0.24
1.00	0.05	0.00	0.00	14.00	2.70	0.59	0.22
1.25	0.06	0.00	0.00	14.25	2.73	0.61	0.20
1.50	0.07	0.00	0.00	14.50	2.76	0.63	0.19
1.75	0.08	0.00	0.00	14.75	2.80	0.65	0.18
2.00	0.09	0.00	0.00	15.00	2.83	0.66	0.17
2.25	0.11	0.00	0.00	15.25	2.85	0.68	0.16
2.50	0.12	0.00	0.00	15.50	2.88	0.69	0.16
2.75	0.13	0.00	0.00	15.75	2.90	0.71	0.15
3.00	0.15	0.00	0.00	16.00	2.93	0.72	0.14
3.25	0.16	0.00	0.00	16.25	2.95	0.73	0.14
3.50	0.17	0.00	0.00	16.50	2.97	0.75	0.13
3.75	0.19	0.00	0.00	16.75	2.99	0.76	0.13
4.00	0.20	0.00	0.00	17.00	3.02	0.77	0.13
4.25	0.22	0.00	0.00	17.25	3.04	0.78	0.12
4.50	0.23	0.00	0.00	17.50	3.05	0.79	0.12
4.75	0.25	0.00	0.00	17.75	3.07	0.80	0.12
5.00	0.26	0.00	0.00	18.00	3.09	0.81	0.11
5.25	0.28	0.00	0.00	18.25	3.11	0.82	0.11
5.50	0.30	0.00	0.00	18.50	3.13	0.83	0.11
5.75	0.31	0.00	0.00	18.75	3.14	0.84	0.10
6.00	0.33	0.00	0.00	19.00	3.16	0.85	0.10
6.25	0.35	0.00	0.00	19.25	3.17	0.86	0.10
6.50	0.37	0.00	0.00	19.50	3.19	0.87	0.10
6.75	0.39	0.00	0.00	19.75	3.20	0.88	0.10
7.00	0.41	0.00	0.00	20.00	3.22	0.89	0.09
7.25	0.43	0.00	0.00	20.25	3.23	0.90	0.09
7.50	0.45	0.00	0.00	20.50	3.25	0.91	0.09
7.75	0.47	0.00	0.00	20.75	3.26	0.92	0.09
8.00	0.49	0.00	0.00	21.00	3.27	0.92	0.09
8.25	0.52	0.00	0.00	21.25	3.29	0.93	0.09
8.50	0.54	0.00	0.00	21.50	3.30	0.94	0.09
8.75	0.57	0.00	0.00	21.75	3.31	0.95	0.08
9.00	0.60	0.00	0.00	22.00	3.33	0.96	0.08
9.25	0.63	0.00	0.00	22.25	3.34	0.96	0.08
9.50	0.66	0.00	0.00	22.50	3.35	0.97	0.08
9.75	0.69	0.00	0.00	22.75	3.36	0.98	0.08
10.00	0.73	0.00	0.00	23.00	3.37	0.98	0.08
10.25	0.77	0.00	0.00	23.25	3.39	0.99	0.08
10.50	0.81	0.00	0.00	23.50	3.40	1.00	0.08
10.75	0.86	0.00	0.01	23.75	3.41	1.01	0.08
11.00	0.92	0.00	0.02	24.00	3.42	1.01	0.07
11.25	0.99	0.01	0.05				
11.50	1.08	0.02	0.10				
11.75	1.27	0.04	0.33				
12.00	1.87	0.22	2.43				
12.25	2.19	0.34	1.23				
12.50	2.36	0.42	0.80				
12.75	2.44	0.46	0.42				

Summary for Subcatchment PDA-4:

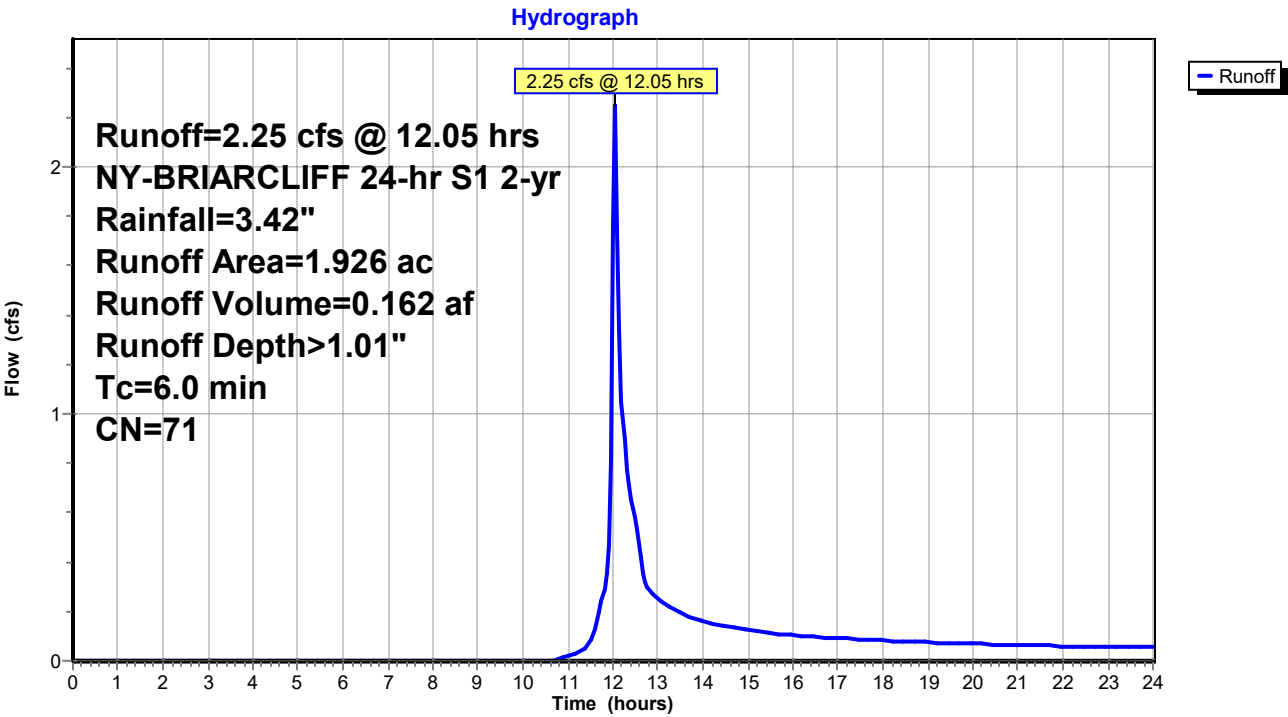
Runoff = 2.25 cfs @ 12.05 hrs, Volume= 0.162 af, Depth> 1.01"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
1.480	70	Woods, Good, HSG C
0.418	74	>75% Grass cover, Good, HSG C
0.028	98	Paved parking, HSG C
1.926	71	Weighted Average
1.898		98.55% Pervious Area
0.028		1.45% Impervious Area

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

Subcatchment PDA-4:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.50	0.25
0.25	0.01	0.00	0.00	13.25	2.56	0.52	0.22
0.50	0.02	0.00	0.00	13.50	2.61	0.55	0.19
0.75	0.03	0.00	0.00	13.75	2.66	0.57	0.17
1.00	0.05	0.00	0.00	14.00	2.70	0.59	0.16
1.25	0.06	0.00	0.00	14.25	2.73	0.61	0.15
1.50	0.07	0.00	0.00	14.50	2.76	0.63	0.14
1.75	0.08	0.00	0.00	14.75	2.80	0.65	0.13
2.00	0.09	0.00	0.00	15.00	2.83	0.66	0.12
2.25	0.11	0.00	0.00	15.25	2.85	0.68	0.12
2.50	0.12	0.00	0.00	15.50	2.88	0.69	0.11
2.75	0.13	0.00	0.00	15.75	2.90	0.71	0.11
3.00	0.15	0.00	0.00	16.00	2.93	0.72	0.10
3.25	0.16	0.00	0.00	16.25	2.95	0.73	0.10
3.50	0.17	0.00	0.00	16.50	2.97	0.75	0.10
3.75	0.19	0.00	0.00	16.75	2.99	0.76	0.09
4.00	0.20	0.00	0.00	17.00	3.02	0.77	0.09
4.25	0.22	0.00	0.00	17.25	3.04	0.78	0.09
4.50	0.23	0.00	0.00	17.50	3.05	0.79	0.09
4.75	0.25	0.00	0.00	17.75	3.07	0.80	0.08
5.00	0.26	0.00	0.00	18.00	3.09	0.81	0.08
5.25	0.28	0.00	0.00	18.25	3.11	0.82	0.08
5.50	0.30	0.00	0.00	18.50	3.13	0.83	0.08
5.75	0.31	0.00	0.00	18.75	3.14	0.84	0.08
6.00	0.33	0.00	0.00	19.00	3.16	0.85	0.07
6.25	0.35	0.00	0.00	19.25	3.17	0.86	0.07
6.50	0.37	0.00	0.00	19.50	3.19	0.87	0.07
6.75	0.39	0.00	0.00	19.75	3.20	0.88	0.07
7.00	0.41	0.00	0.00	20.00	3.22	0.89	0.07
7.25	0.43	0.00	0.00	20.25	3.23	0.90	0.07
7.50	0.45	0.00	0.00	20.50	3.25	0.91	0.07
7.75	0.47	0.00	0.00	20.75	3.26	0.92	0.07
8.00	0.49	0.00	0.00	21.00	3.27	0.92	0.06
8.25	0.52	0.00	0.00	21.25	3.29	0.93	0.06
8.50	0.54	0.00	0.00	21.50	3.30	0.94	0.06
8.75	0.57	0.00	0.00	21.75	3.31	0.95	0.06
9.00	0.60	0.00	0.00	22.00	3.33	0.96	0.06
9.25	0.63	0.00	0.00	22.25	3.34	0.96	0.06
9.50	0.66	0.00	0.00	22.50	3.35	0.97	0.06
9.75	0.69	0.00	0.00	22.75	3.36	0.98	0.06
10.00	0.73	0.00	0.00	23.00	3.37	0.98	0.06
10.25	0.77	0.00	0.00	23.25	3.39	0.99	0.06
10.50	0.81	0.00	0.00	23.50	3.40	1.00	0.06
10.75	0.86	0.00	0.01	23.75	3.41	1.01	0.05
11.00	0.92	0.00	0.02	24.00	3.42	1.01	0.05
11.25	0.99	0.01	0.04				
11.50	1.08	0.02	0.07				
11.75	1.27	0.04	0.24				
12.00	1.87	0.22	1.76				
12.25	2.19	0.34	0.89				
12.50	2.36	0.42	0.58				
12.75	2.44	0.46	0.30				

Summary for Subcatchment PDA-5:

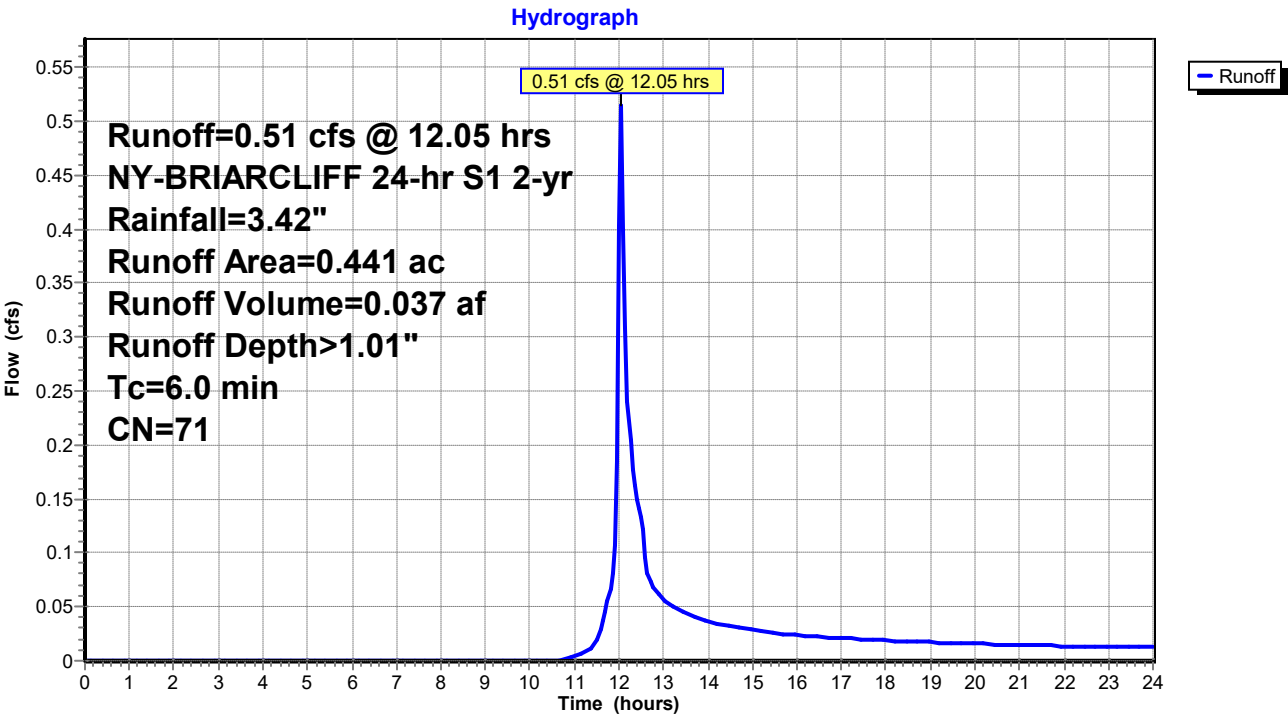
Runoff = 0.51 cfs @ 12.05 hrs, Volume= 0.037 af, Depth> 1.01"
Routed to Reach DP-5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

Area (ac)	CN	Description
0.293	70	Woods, Good, HSG C
0.148	74	>75% Grass cover, Good, HSG C
0.441	71	Weighted Average
0.441		100.00% Pervious Area

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

Subcatchment PDA-5:



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NY-BRIARCLIFF 24-hr S1 2-yr Rainfall=3.42"

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Hydrograph for Subcatchment PDA-5:

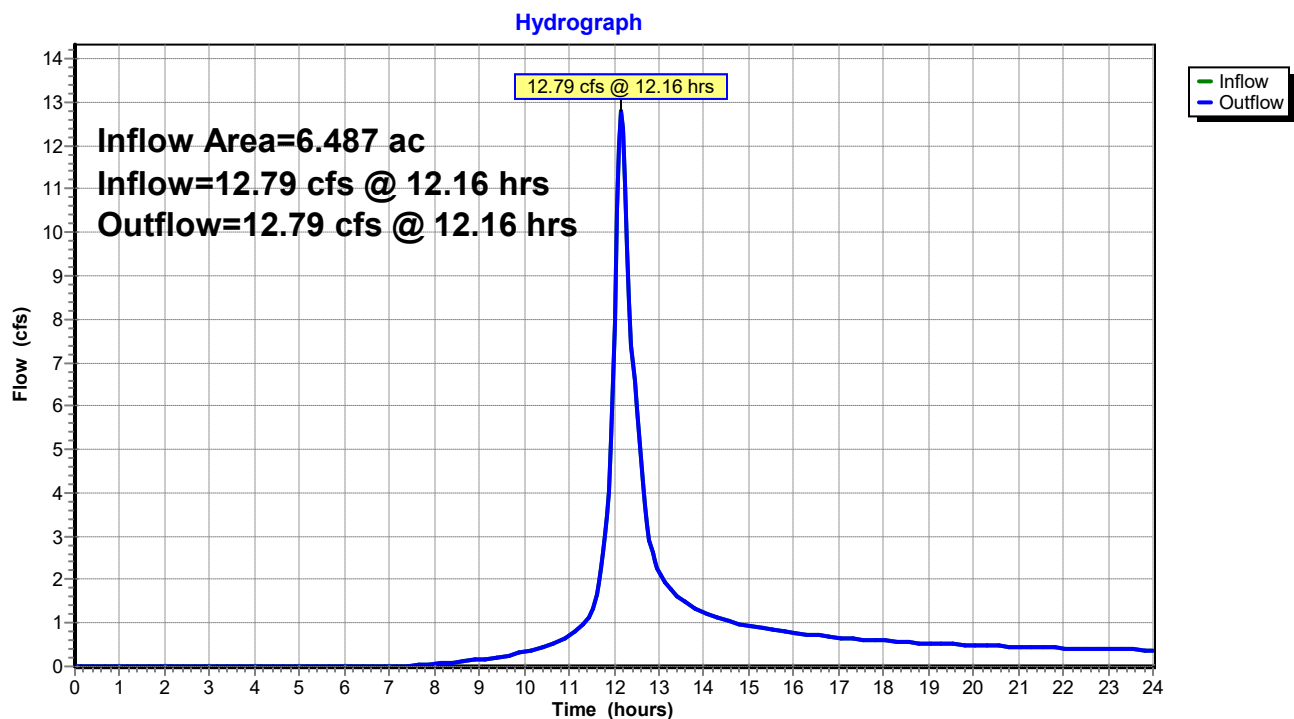
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	2.51	0.50	0.06
0.25	0.01	0.00	0.00	13.25	2.56	0.52	0.05
0.50	0.02	0.00	0.00	13.50	2.61	0.55	0.04
0.75	0.03	0.00	0.00	13.75	2.66	0.57	0.04
1.00	0.05	0.00	0.00	14.00	2.70	0.59	0.04
1.25	0.06	0.00	0.00	14.25	2.73	0.61	0.03
1.50	0.07	0.00	0.00	14.50	2.76	0.63	0.03
1.75	0.08	0.00	0.00	14.75	2.80	0.65	0.03
2.00	0.09	0.00	0.00	15.00	2.83	0.66	0.03
2.25	0.11	0.00	0.00	15.25	2.85	0.68	0.03
2.50	0.12	0.00	0.00	15.50	2.88	0.69	0.03
2.75	0.13	0.00	0.00	15.75	2.90	0.71	0.02
3.00	0.15	0.00	0.00	16.00	2.93	0.72	0.02
3.25	0.16	0.00	0.00	16.25	2.95	0.73	0.02
3.50	0.17	0.00	0.00	16.50	2.97	0.75	0.02
3.75	0.19	0.00	0.00	16.75	2.99	0.76	0.02
4.00	0.20	0.00	0.00	17.00	3.02	0.77	0.02
4.25	0.22	0.00	0.00	17.25	3.04	0.78	0.02
4.50	0.23	0.00	0.00	17.50	3.05	0.79	0.02
4.75	0.25	0.00	0.00	17.75	3.07	0.80	0.02
5.00	0.26	0.00	0.00	18.00	3.09	0.81	0.02
5.25	0.28	0.00	0.00	18.25	3.11	0.82	0.02
5.50	0.30	0.00	0.00	18.50	3.13	0.83	0.02
5.75	0.31	0.00	0.00	18.75	3.14	0.84	0.02
6.00	0.33	0.00	0.00	19.00	3.16	0.85	0.02
6.25	0.35	0.00	0.00	19.25	3.17	0.86	0.02
6.50	0.37	0.00	0.00	19.50	3.19	0.87	0.02
6.75	0.39	0.00	0.00	19.75	3.20	0.88	0.02
7.00	0.41	0.00	0.00	20.00	3.22	0.89	0.02
7.25	0.43	0.00	0.00	20.25	3.23	0.90	0.02
7.50	0.45	0.00	0.00	20.50	3.25	0.91	0.02
7.75	0.47	0.00	0.00	20.75	3.26	0.92	0.01
8.00	0.49	0.00	0.00	21.00	3.27	0.92	0.01
8.25	0.52	0.00	0.00	21.25	3.29	0.93	0.01
8.50	0.54	0.00	0.00	21.50	3.30	0.94	0.01
8.75	0.57	0.00	0.00	21.75	3.31	0.95	0.01
9.00	0.60	0.00	0.00	22.00	3.33	0.96	0.01
9.25	0.63	0.00	0.00	22.25	3.34	0.96	0.01
9.50	0.66	0.00	0.00	22.50	3.35	0.97	0.01
9.75	0.69	0.00	0.00	22.75	3.36	0.98	0.01
10.00	0.73	0.00	0.00	23.00	3.37	0.98	0.01
10.25	0.77	0.00	0.00	23.25	3.39	0.99	0.01
10.50	0.81	0.00	0.00	23.50	3.40	1.00	0.01
10.75	0.86	0.00	0.00	23.75	3.41	1.01	0.01
11.00	0.92	0.00	0.00	24.00	3.42	1.01	0.01
11.25	0.99	0.01	0.01				
11.50	1.08	0.02	0.02				
11.75	1.27	0.04	0.05				
12.00	1.87	0.22	0.40				
12.25	2.19	0.34	0.20				
12.50	2.36	0.42	0.13				
12.75	2.44	0.46	0.07				

Summary for Reach DP-1:

Inflow Area = 6.487 ac, 8.18% Impervious, Inflow Depth > 2.62" for 10-yr event
 Inflow = 12.79 cfs @ 12.16 hrs, Volume= 1.417 af
 Outflow = 12.79 cfs @ 12.16 hrs, Volume= 1.417 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-1:



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Hydrograph for Reach DP-1:

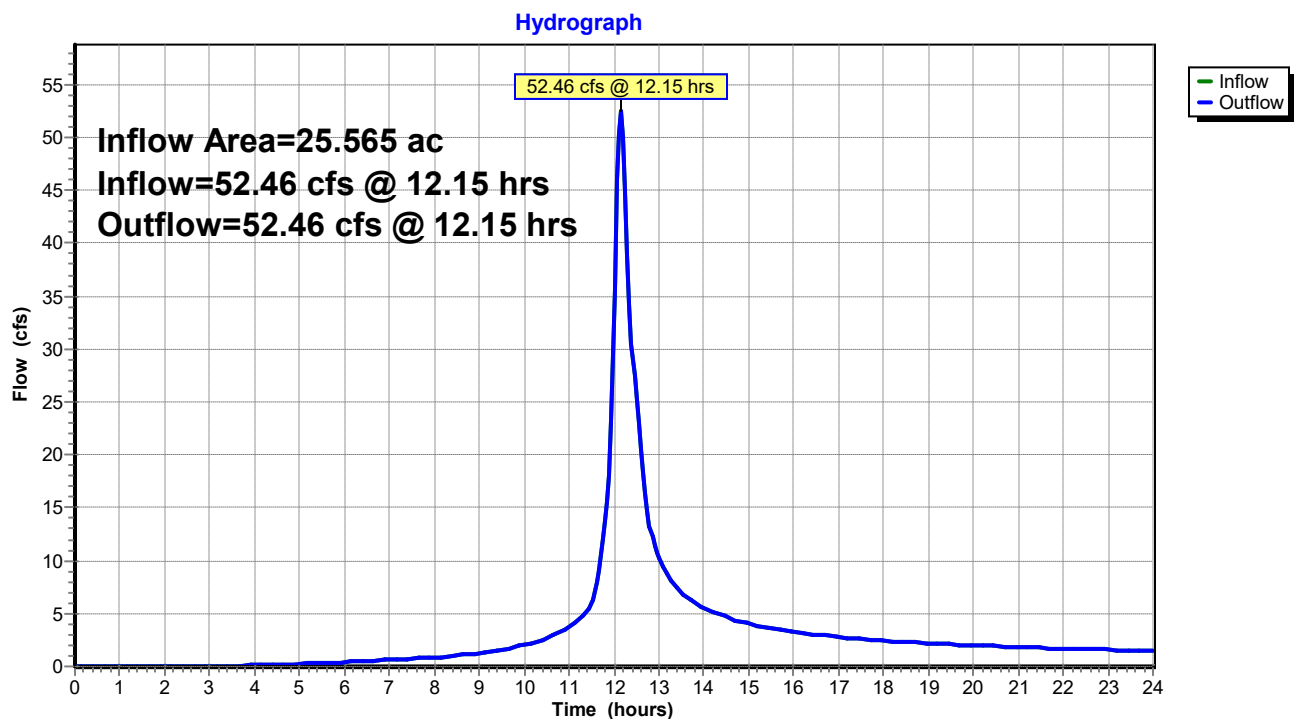
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	2.15		2.15
0.25	0.00		0.00	13.25	1.76		1.76
0.50	0.00		0.00	13.50	1.53		1.53
0.75	0.00		0.00	13.75	1.36		1.36
1.00	0.00		0.00	14.00	1.24		1.24
1.25	0.00		0.00	14.25	1.14		1.14
1.50	0.00		0.00	14.50	1.06		1.06
1.75	0.00		0.00	14.75	0.99		0.99
2.00	0.00		0.00	15.00	0.94		0.94
2.25	0.00		0.00	15.25	0.89		0.89
2.50	0.00		0.00	15.50	0.84		0.84
2.75	0.00		0.00	15.75	0.81		0.81
3.00	0.00		0.00	16.00	0.77		0.77
3.25	0.00		0.00	16.25	0.74		0.74
3.50	0.00		0.00	16.50	0.71		0.71
3.75	0.00		0.00	16.75	0.69		0.69
4.00	0.00		0.00	17.00	0.67		0.67
4.25	0.00		0.00	17.25	0.64		0.64
4.50	0.00		0.00	17.50	0.63		0.63
4.75	0.00		0.00	17.75	0.61		0.61
5.00	0.00		0.00	18.00	0.59		0.59
5.25	0.00		0.00	18.25	0.58		0.58
5.50	0.00		0.00	18.50	0.56		0.56
5.75	0.00		0.00	18.75	0.55		0.55
6.00	0.00		0.00	19.00	0.53		0.53
6.25	0.00		0.00	19.25	0.52		0.52
6.50	0.01		0.01	19.50	0.51		0.51
6.75	0.01		0.01	19.75	0.50		0.50
7.00	0.01		0.01	20.00	0.49		0.49
7.25	0.02		0.02	20.25	0.48		0.48
7.50	0.02		0.02	20.50	0.47		0.47
7.75	0.04		0.04	20.75	0.46		0.46
8.00	0.06		0.06	21.00	0.45		0.45
8.25	0.08		0.08	21.25	0.45		0.45
8.50	0.10		0.10	21.50	0.44		0.44
8.75	0.13		0.13	21.75	0.43		0.43
9.00	0.16		0.16	22.00	0.42		0.42
9.25	0.19		0.19	22.25	0.42		0.42
9.50	0.23		0.23	22.50	0.41		0.41
9.75	0.28		0.28	22.75	0.40		0.40
10.00	0.33		0.33	23.00	0.40		0.40
10.25	0.40		0.40	23.25	0.39		0.39
10.50	0.48		0.48	23.50	0.39		0.39
10.75	0.58		0.58	23.75	0.38		0.38
11.00	0.73		0.73	24.00	0.38		0.38
11.25	0.93		0.93				
11.50	1.26		1.26				
11.75	2.62		2.62				
12.00	7.89		7.89				
12.25	11.14		11.14				
12.50	5.92		5.92				
12.75	3.27		3.27				

Summary for Reach DP-2:

Inflow Area = 25.565 ac, 38.32% Impervious, Inflow Depth > 2.99" for 10-yr event
 Inflow = 52.46 cfs @ 12.15 hrs, Volume= 6.365 af
 Outflow = 52.46 cfs @ 12.15 hrs, Volume= 6.365 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-2:



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Hydrograph for Reach DP-2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	10.18		10.18
0.25	0.00		0.00	13.25	8.26		8.26
0.50	0.00		0.00	13.50	7.04		7.04
0.75	0.00		0.00	13.75	6.18		6.18
1.00	0.00		0.00	14.00	5.54		5.54
1.25	0.00		0.00	14.25	5.04		5.04
1.50	0.00		0.00	14.50	4.65		4.65
1.75	0.00		0.00	14.75	4.32		4.32
2.00	0.00		0.00	15.00	4.05		4.05
2.25	0.00		0.00	15.25	3.81		3.81
2.50	0.00		0.00	15.50	3.61		3.61
2.75	0.00		0.00	15.75	3.43		3.43
3.00	0.02		0.02	16.00	3.27		3.27
3.25	0.03		0.03	16.25	3.13		3.13
3.50	0.05		0.05	16.50	3.00		3.00
3.75	0.06		0.06	16.75	2.89		2.89
4.00	0.10		0.10	17.00	2.78		2.78
4.25	0.13		0.13	17.25	2.69		2.69
4.50	0.17		0.17	17.50	2.60		2.60
4.75	0.21		0.21	17.75	2.52		2.52
5.00	0.25		0.25	18.00	2.44		2.44
5.25	0.28		0.28	18.25	2.37		2.37
5.50	0.33		0.33	18.50	2.31		2.31
5.75	0.37		0.37	18.75	2.25		2.25
6.00	0.41		0.41	19.00	2.19		2.19
6.25	0.45		0.45	19.25	2.13		2.13
6.50	0.50		0.50	19.50	2.08		2.08
6.75	0.55		0.55	19.75	2.03		2.03
7.00	0.60		0.60	20.00	1.99		1.99
7.25	0.65		0.65	20.25	1.95		1.95
7.50	0.71		0.71	20.50	1.91		1.91
7.75	0.77		0.77	20.75	1.87		1.87
8.00	0.84		0.84	21.00	1.83		1.83
8.25	0.91		0.91	21.25	1.79		1.79
8.50	1.01		1.01	21.50	1.76		1.76
8.75	1.13		1.13	21.75	1.73		1.73
9.00	1.26		1.26	22.00	1.70		1.70
9.25	1.41		1.41	22.25	1.67		1.67
9.50	1.58		1.58	22.50	1.64		1.64
9.75	1.78		1.78	22.75	1.61		1.61
10.00	2.02		2.02	23.00	1.59		1.59
10.25	2.30		2.30	23.25	1.56		1.56
10.50	2.65		2.65	23.50	1.54		1.54
10.75	3.10		3.10	23.75	1.51		1.51
11.00	3.71		3.71	24.00	1.49		1.49
11.25	4.58		4.58				
11.50	6.03		6.03				
11.75	12.10		12.10				
12.00	35.57		35.57				
12.25	44.77		44.77				
12.50	25.14		25.14				
12.75	14.65		14.65				

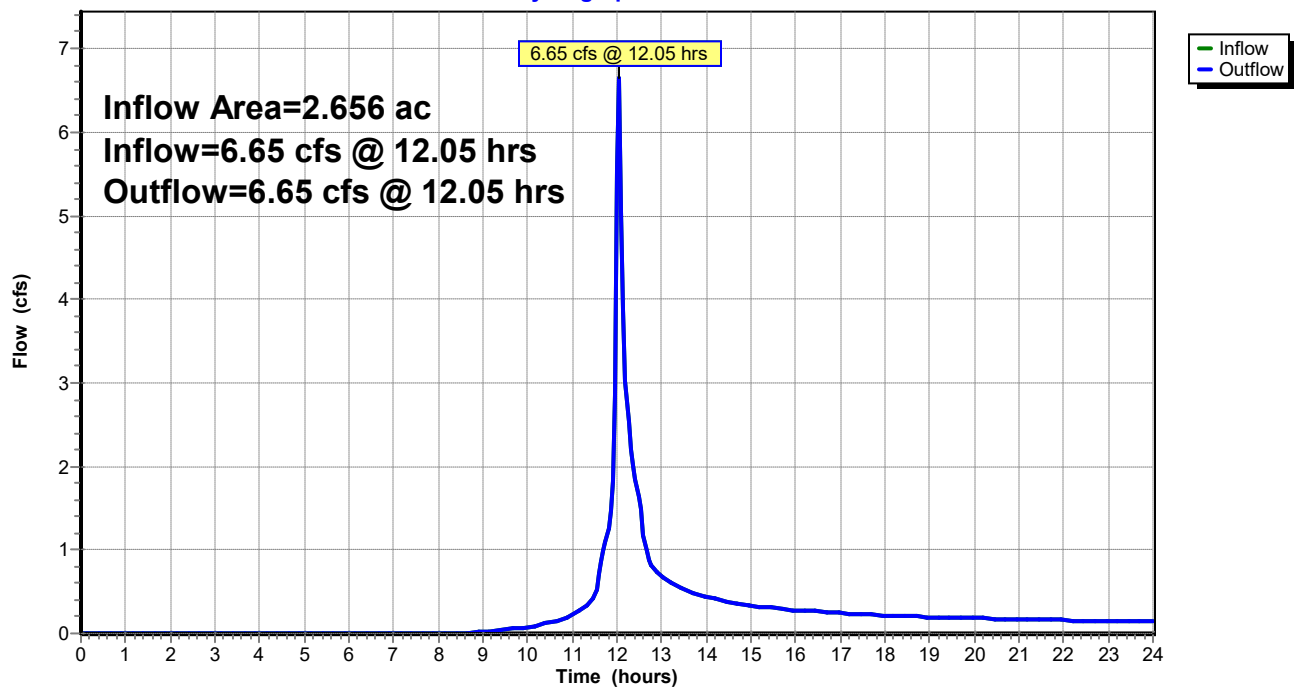
Summary for Reach DP-3:

Inflow Area = 2.656 ac, 1.81% Impervious, Inflow Depth > 2.21" for 10-yr event
 Inflow = 6.65 cfs @ 12.05 hrs, Volume= 0.490 af
 Outflow = 6.65 cfs @ 12.05 hrs, Volume= 0.490 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-3:

Hydrograph



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Hydrograph for Reach DP-3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.68		0.68
0.25	0.00		0.00	13.25	0.59		0.59
0.50	0.00		0.00	13.50	0.52		0.52
0.75	0.00		0.00	13.75	0.47		0.47
1.00	0.00		0.00	14.00	0.43		0.43
1.25	0.00		0.00	14.25	0.40		0.40
1.50	0.00		0.00	14.50	0.38		0.38
1.75	0.00		0.00	14.75	0.36		0.36
2.00	0.00		0.00	15.00	0.34		0.34
2.25	0.00		0.00	15.25	0.32		0.32
2.50	0.00		0.00	15.50	0.30		0.30
2.75	0.00		0.00	15.75	0.29		0.29
3.00	0.00		0.00	16.00	0.28		0.28
3.25	0.00		0.00	16.25	0.27		0.27
3.50	0.00		0.00	16.50	0.26		0.26
3.75	0.00		0.00	16.75	0.25		0.25
4.00	0.00		0.00	17.00	0.24		0.24
4.25	0.00		0.00	17.25	0.24		0.24
4.50	0.00		0.00	17.50	0.23		0.23
4.75	0.00		0.00	17.75	0.22		0.22
5.00	0.00		0.00	18.00	0.22		0.22
5.25	0.00		0.00	18.25	0.21		0.21
5.50	0.00		0.00	18.50	0.21		0.21
5.75	0.00		0.00	18.75	0.20		0.20
6.00	0.00		0.00	19.00	0.20		0.20
6.25	0.00		0.00	19.25	0.19		0.19
6.50	0.00		0.00	19.50	0.19		0.19
6.75	0.00		0.00	19.75	0.19		0.19
7.00	0.00		0.00	20.00	0.18		0.18
7.25	0.00		0.00	20.25	0.18		0.18
7.50	0.00		0.00	20.50	0.18		0.18
7.75	0.00		0.00	20.75	0.17		0.17
8.00	0.00		0.00	21.00	0.17		0.17
8.25	0.00		0.00	21.25	0.17		0.17
8.50	0.00		0.00	21.50	0.16		0.16
8.75	0.01		0.01	21.75	0.16		0.16
9.00	0.02		0.02	22.00	0.16		0.16
9.25	0.03		0.03	22.25	0.16		0.16
9.50	0.04		0.04	22.50	0.15		0.15
9.75	0.06		0.06	22.75	0.15		0.15
10.00	0.08		0.08	23.00	0.15		0.15
10.25	0.10		0.10	23.25	0.15		0.15
10.50	0.13		0.13	23.50	0.15		0.15
10.75	0.17		0.17	23.75	0.14		0.14
11.00	0.22		0.22	24.00	0.14		0.14
11.25	0.30		0.30				
11.50	0.44		0.44				
11.75	1.10		1.10				
12.00	5.54		5.54				
12.25	2.54		2.54				
12.50	1.64		1.64				
12.75	0.84		0.84				

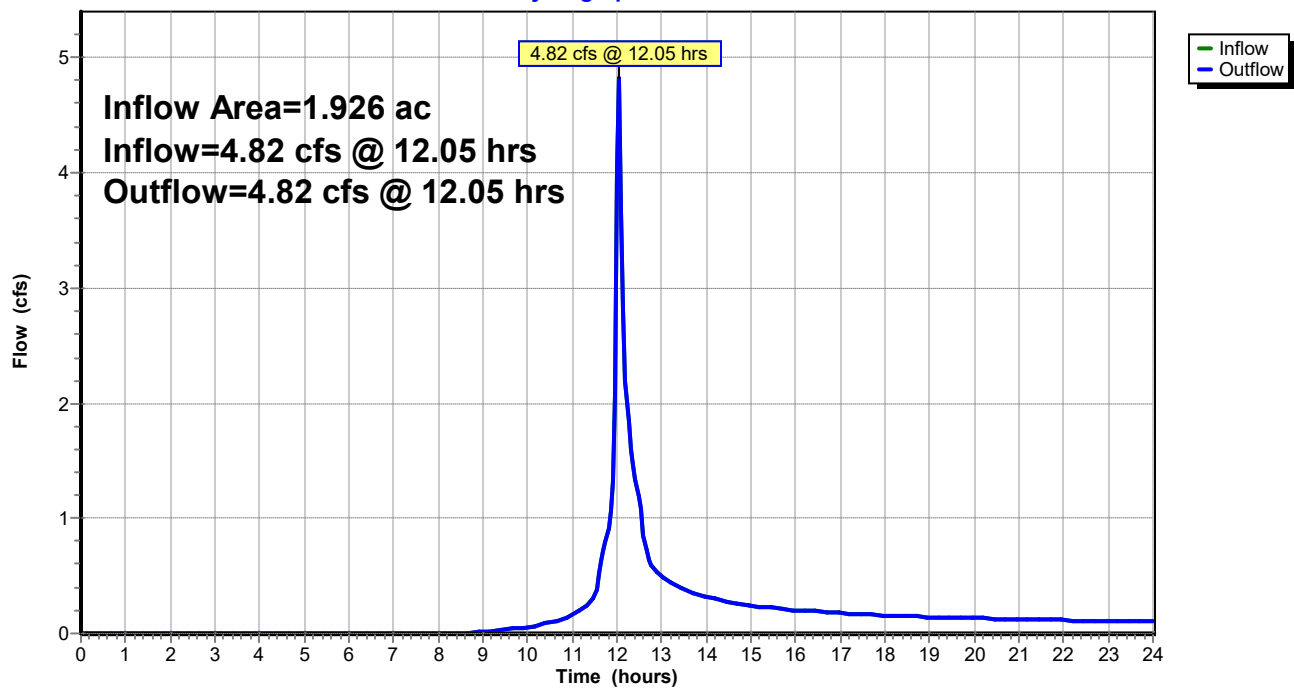
Summary for Reach DP-4:

Inflow Area = 1.926 ac, 1.45% Impervious, Inflow Depth > 2.21" for 10-yr event
 Inflow = 4.82 cfs @ 12.05 hrs, Volume= 0.355 af
 Outflow = 4.82 cfs @ 12.05 hrs, Volume= 0.355 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-4:

Hydrograph



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Hydrograph for Reach DP-4:

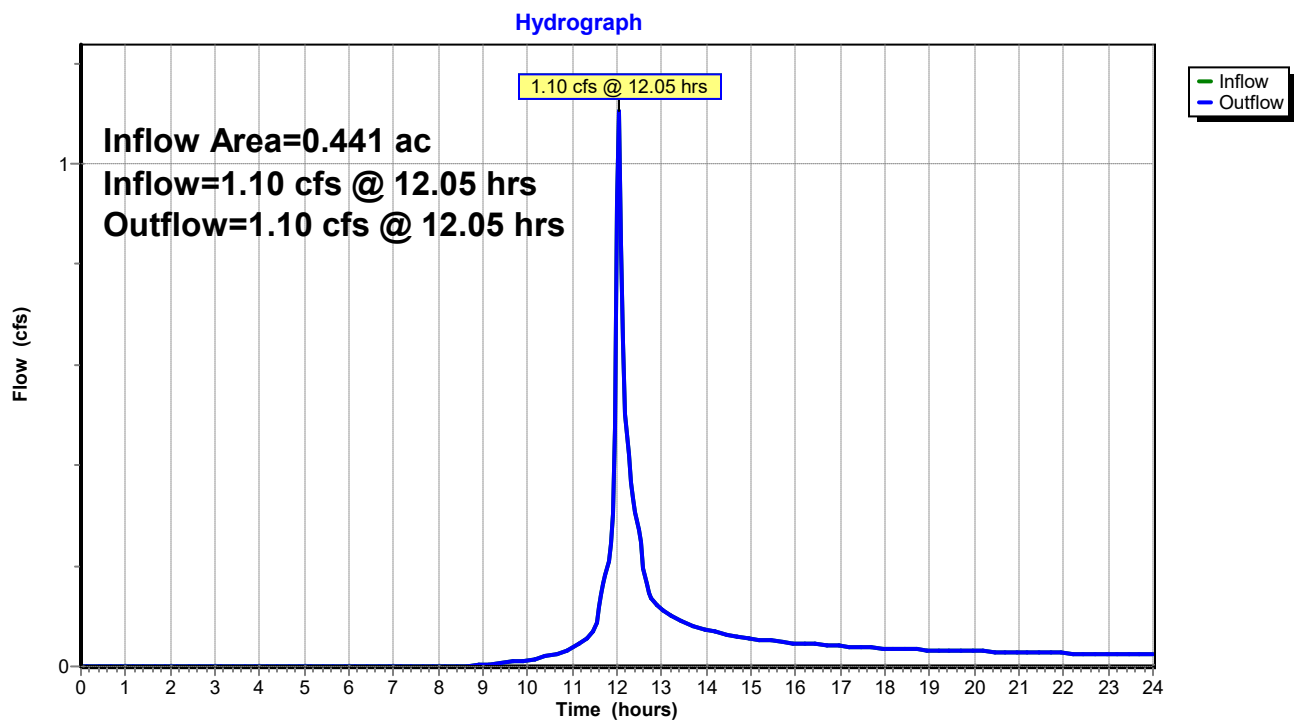
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.50		0.50
0.25	0.00		0.00	13.25	0.43		0.43
0.50	0.00		0.00	13.50	0.38		0.38
0.75	0.00		0.00	13.75	0.34		0.34
1.00	0.00		0.00	14.00	0.31		0.31
1.25	0.00		0.00	14.25	0.29		0.29
1.50	0.00		0.00	14.50	0.27		0.27
1.75	0.00		0.00	14.75	0.26		0.26
2.00	0.00		0.00	15.00	0.24		0.24
2.25	0.00		0.00	15.25	0.23		0.23
2.50	0.00		0.00	15.50	0.22		0.22
2.75	0.00		0.00	15.75	0.21		0.21
3.00	0.00		0.00	16.00	0.20		0.20
3.25	0.00		0.00	16.25	0.20		0.20
3.50	0.00		0.00	16.50	0.19		0.19
3.75	0.00		0.00	16.75	0.18		0.18
4.00	0.00		0.00	17.00	0.18		0.18
4.25	0.00		0.00	17.25	0.17		0.17
4.50	0.00		0.00	17.50	0.17		0.17
4.75	0.00		0.00	17.75	0.16		0.16
5.00	0.00		0.00	18.00	0.16		0.16
5.25	0.00		0.00	18.25	0.15		0.15
5.50	0.00		0.00	18.50	0.15		0.15
5.75	0.00		0.00	18.75	0.15		0.15
6.00	0.00		0.00	19.00	0.14		0.14
6.25	0.00		0.00	19.25	0.14		0.14
6.50	0.00		0.00	19.50	0.14		0.14
6.75	0.00		0.00	19.75	0.13		0.13
7.00	0.00		0.00	20.00	0.13		0.13
7.25	0.00		0.00	20.25	0.13		0.13
7.50	0.00		0.00	20.50	0.13		0.13
7.75	0.00		0.00	20.75	0.12		0.12
8.00	0.00		0.00	21.00	0.12		0.12
8.25	0.00		0.00	21.25	0.12		0.12
8.50	0.00		0.00	21.50	0.12		0.12
8.75	0.01		0.01	21.75	0.12		0.12
9.00	0.02		0.02	22.00	0.11		0.11
9.25	0.02		0.02	22.25	0.11		0.11
9.50	0.03		0.03	22.50	0.11		0.11
9.75	0.04		0.04	22.75	0.11		0.11
10.00	0.06		0.06	23.00	0.11		0.11
10.25	0.07		0.07	23.25	0.11		0.11
10.50	0.09		0.09	23.50	0.11		0.11
10.75	0.12		0.12	23.75	0.10		0.10
11.00	0.16		0.16	24.00	0.10		0.10
11.25	0.22		0.22				
11.50	0.32		0.32				
11.75	0.80		0.80				
12.00	4.02		4.02				
12.25	1.84		1.84				
12.50	1.19		1.19				
12.75	0.61		0.61				

Summary for Reach DP-5:

Inflow Area = 0.441 ac, 0.00% Impervious, Inflow Depth > 2.21" for 10-yr event
 Inflow = 1.10 cfs @ 12.05 hrs, Volume= 0.081 af
 Outflow = 1.10 cfs @ 12.05 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-5:



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Hydrograph for Reach DP-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.11		0.11
0.25	0.00		0.00	13.25	0.10		0.10
0.50	0.00		0.00	13.50	0.09		0.09
0.75	0.00		0.00	13.75	0.08		0.08
1.00	0.00		0.00	14.00	0.07		0.07
1.25	0.00		0.00	14.25	0.07		0.07
1.50	0.00		0.00	14.50	0.06		0.06
1.75	0.00		0.00	14.75	0.06		0.06
2.00	0.00		0.00	15.00	0.06		0.06
2.25	0.00		0.00	15.25	0.05		0.05
2.50	0.00		0.00	15.50	0.05		0.05
2.75	0.00		0.00	15.75	0.05		0.05
3.00	0.00		0.00	16.00	0.05		0.05
3.25	0.00		0.00	16.25	0.04		0.04
3.50	0.00		0.00	16.50	0.04		0.04
3.75	0.00		0.00	16.75	0.04		0.04
4.00	0.00		0.00	17.00	0.04		0.04
4.25	0.00		0.00	17.25	0.04		0.04
4.50	0.00		0.00	17.50	0.04		0.04
4.75	0.00		0.00	17.75	0.04		0.04
5.00	0.00		0.00	18.00	0.04		0.04
5.25	0.00		0.00	18.25	0.04		0.04
5.50	0.00		0.00	18.50	0.03		0.03
5.75	0.00		0.00	18.75	0.03		0.03
6.00	0.00		0.00	19.00	0.03		0.03
6.25	0.00		0.00	19.25	0.03		0.03
6.50	0.00		0.00	19.50	0.03		0.03
6.75	0.00		0.00	19.75	0.03		0.03
7.00	0.00		0.00	20.00	0.03		0.03
7.25	0.00		0.00	20.25	0.03		0.03
7.50	0.00		0.00	20.50	0.03		0.03
7.75	0.00		0.00	20.75	0.03		0.03
8.00	0.00		0.00	21.00	0.03		0.03
8.25	0.00		0.00	21.25	0.03		0.03
8.50	0.00		0.00	21.50	0.03		0.03
8.75	0.00		0.00	21.75	0.03		0.03
9.00	0.00		0.00	22.00	0.03		0.03
9.25	0.01		0.01	22.25	0.03		0.03
9.50	0.01		0.01	22.50	0.03		0.03
9.75	0.01		0.01	22.75	0.03		0.03
10.00	0.01		0.01	23.00	0.02		0.02
10.25	0.02		0.02	23.25	0.02		0.02
10.50	0.02		0.02	23.50	0.02		0.02
10.75	0.03		0.03	23.75	0.02		0.02
11.00	0.04		0.04	24.00	0.02		0.02
11.25	0.05		0.05				
11.50	0.07		0.07				
11.75	0.18		0.18				
12.00	0.92		0.92				
12.25	0.42		0.42				
12.50	0.27		0.27				
12.75	0.14		0.14				

Summary for Pond I-4 (4A): Stormtech System

Inflow Area = 3.744 ac, 58.36% Impervious, Inflow Depth > 3.79" for 10-yr event
 Inflow = 16.02 cfs @ 12.04 hrs, Volume= 1.182 af
 Outflow = 3.36 cfs @ 12.50 hrs, Volume= 0.801 af, Atten= 79%, Lag= 27.5 min
 Discarded = 0.12 cfs @ 6.70 hrs, Volume= 0.185 af
 Primary = 3.24 cfs @ 12.50 hrs, Volume= 0.616 af
 Routed to Reach DP-2 :

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 407.05' @ 12.50 hrs Surf.Area= 0.239 ac Storage= 0.520 af

Plug-Flow detention time= 204.7 min calculated for 0.801 af (68% of inflow)
 Center-of-Mass det. time= 88.7 min (896.5 - 807.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	404.00'	0.330 af	58.58'W x 177.78'L x 5.50'H Field A 1.315 af Overall - 0.490 af Embedded = 0.825 af x 40.0% Voids
#2A	404.75'	0.490 af	ADS_StormTech MC-3500 d +Cap x 192 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 192 Chambers in 8 Rows Cap Storage= 14.9 cf x 2 x 8 rows = 238.4 cf
		0.820 af	Total Available Storage

Storage Group A created with Chamber Wizard

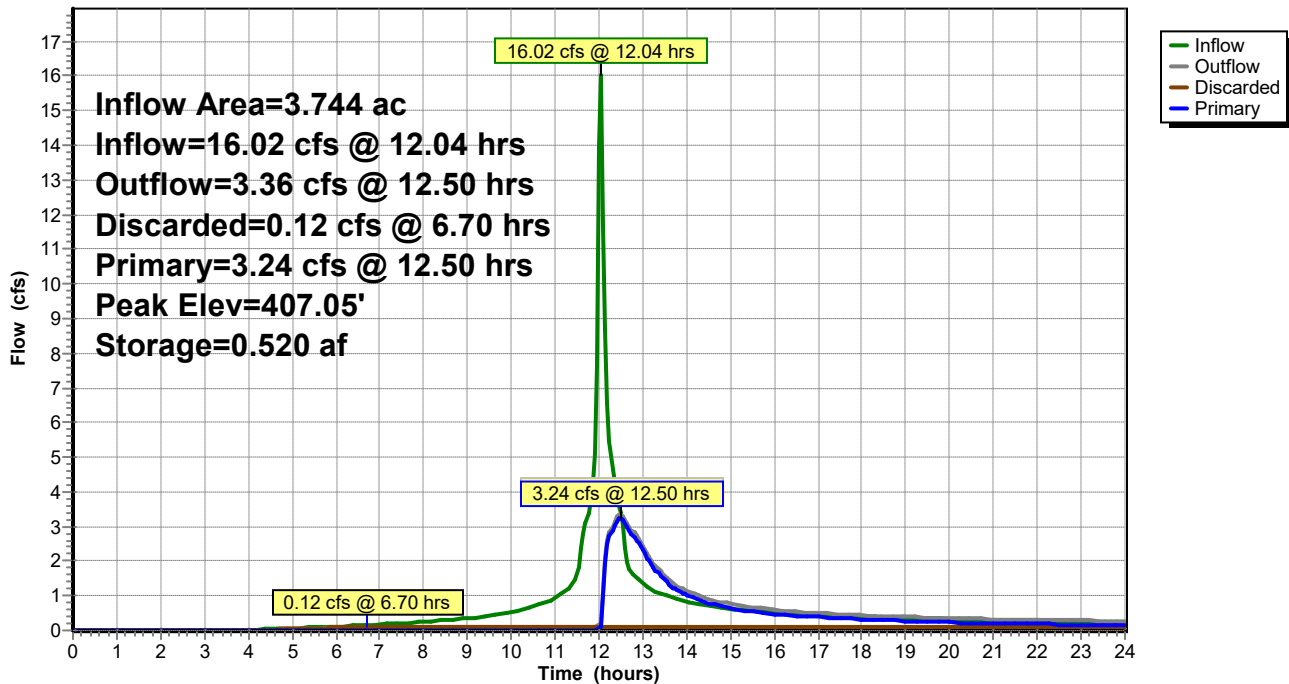
Device	Routing	Invert	Outlet Devices
#1	Primary	404.00'	12.0" Round Culvert L= 20.0' Ke= 0.200 Inlet / Outlet Invert= 404.00' / 403.00' S= 0.0500 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	406.15'	9.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 1	407.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Discarded	404.00'	0.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.12 cfs @ 6.70 hrs HW=404.06' (Free Discharge)
 ↑ **4=Exfiltration** (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=3.22 cfs @ 12.50 hrs HW=407.05' (Free Discharge)
 ↑ **1=Culvert** (Passes 3.22 cfs of 7.55 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 3.08 cfs @ 3.49 fps)
 ↑ **3=Sharp-Crested Rectangular Weir** (Weir Controls 0.14 cfs @ 0.73 fps)

Pond I-4 (4A): Stormtech System

Hydrograph



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Pond I-4 (4A): Stormtech System

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	404.00	0.00	0.00	0.00
0.50	0.00	0.000	404.00	0.00	0.00	0.00
1.00	0.00	0.000	404.00	0.00	0.00	0.00
1.50	0.00	0.000	404.00	0.00	0.00	0.00
2.00	0.00	0.000	404.00	0.00	0.00	0.00
2.50	0.00	0.000	404.00	0.00	0.00	0.00
3.00	0.00	0.000	404.00	0.00	0.00	0.00
3.50	0.00	0.000	404.00	0.00	0.00	0.00
4.00	0.02	0.000	404.00	0.00	0.00	0.00
4.50	0.04	0.001	404.01	0.02	0.02	0.00
5.00	0.06	0.002	404.02	0.04	0.04	0.00
5.50	0.09	0.003	404.03	0.06	0.06	0.00
6.00	0.11	0.004	404.04	0.09	0.09	0.00
6.50	0.14	0.005	404.05	0.11	0.11	0.00
7.00	0.17	0.006	404.07	0.12	0.12	0.00
7.50	0.21	0.009	404.10	0.12	0.12	0.00
8.00	0.25	0.013	404.14	0.12	0.12	0.00
8.50	0.29	0.020	404.20	0.12	0.12	0.00
9.00	0.35	0.028	404.29	0.12	0.12	0.00
9.50	0.43	0.039	404.41	0.12	0.12	0.00
10.00	0.53	0.054	404.56	0.12	0.12	0.00
10.50	0.68	0.073	404.76	0.12	0.12	0.00
11.00	0.94	0.101	404.89	0.12	0.12	0.00
11.50	1.55	0.145	405.10	0.12	0.12	0.00
12.00	13.97	0.314	405.94	0.12	0.12	0.00
12.50	3.36	0.520	407.05	3.36	0.12	3.24
13.00	1.35	0.479	406.82	2.43	0.12	2.31
13.50	1.01	0.446	406.64	1.57	0.12	1.45
14.00	0.83	0.429	406.55	1.14	0.12	1.02
14.50	0.71	0.419	406.49	0.91	0.12	0.79
15.00	0.63	0.413	406.46	0.77	0.12	0.65
15.50	0.57	0.408	406.43	0.67	0.12	0.55
16.00	0.52	0.404	406.41	0.60	0.12	0.48
16.50	0.48	0.401	406.40	0.55	0.12	0.43
17.00	0.45	0.399	406.38	0.50	0.12	0.38
17.50	0.42	0.396	406.37	0.47	0.12	0.35
18.00	0.40	0.394	406.36	0.44	0.12	0.32
18.50	0.37	0.393	406.35	0.41	0.12	0.29
19.00	0.36	0.391	406.34	0.39	0.12	0.27
19.50	0.34	0.390	406.34	0.37	0.12	0.25
20.00	0.33	0.389	406.33	0.36	0.12	0.23
20.50	0.31	0.387	406.32	0.34	0.12	0.22
21.00	0.30	0.386	406.32	0.33	0.12	0.21
21.50	0.29	0.385	406.31	0.31	0.12	0.19
22.00	0.28	0.384	406.31	0.30	0.12	0.18
22.50	0.27	0.383	406.30	0.29	0.12	0.17
23.00	0.26	0.383	406.30	0.29	0.12	0.16
23.50	0.26	0.382	406.29	0.28	0.12	0.16
24.00	0.25	0.381	406.29	0.27	0.12	0.15

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-1A:

Runoff = 10.79 cfs @ 12.18 hrs, Volume= 1.136 af, Depth> 2.54"
 Routed to Reach DP-1 :

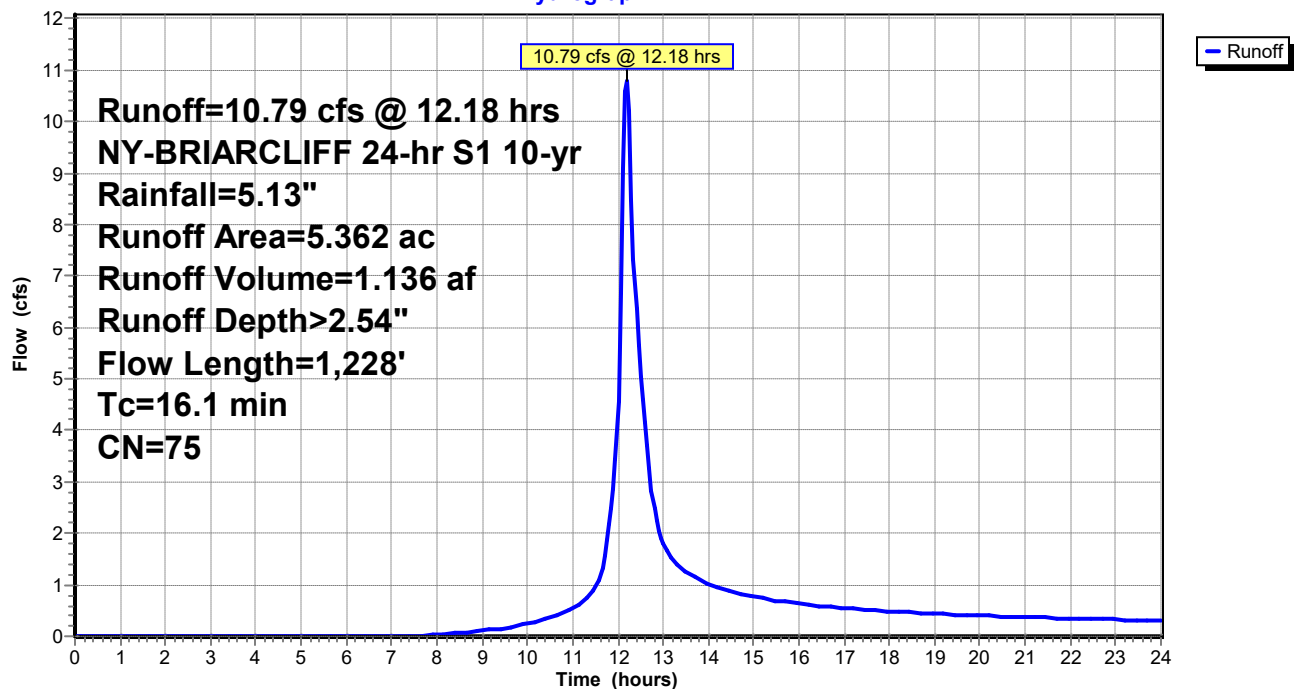
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.421	70	Woods, Good, HSG C
4.674	74	>75% Grass cover, Good, HSG C
0.267	98	Paved parking, HSG C
5.362	75	Weighted Average
5.095		95.02% Pervious Area
0.267		4.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	150	0.0333	0.22		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.2	442	0.0238	2.31		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.5	636	0.0197	6.90	5.42	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Corrugated PP, smooth interior
16.1	1,228	Total			

Subcatchment PDA-1A:

Hydrograph



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.46	1.79
0.25	0.02	0.00	0.00	13.25	3.81	1.52	1.45
0.50	0.04	0.00	0.00	13.50	3.88	1.58	1.26
0.75	0.05	0.00	0.00	13.75	3.95	1.63	1.12
1.00	0.07	0.00	0.00	14.00	4.01	1.67	1.02
1.25	0.09	0.00	0.00	14.25	4.06	1.71	0.94
1.50	0.11	0.00	0.00	14.50	4.11	1.75	0.87
1.75	0.13	0.00	0.00	14.75	4.16	1.79	0.81
2.00	0.15	0.00	0.00	15.00	4.21	1.82	0.77
2.25	0.17	0.00	0.00	15.25	4.25	1.86	0.73
2.50	0.19	0.00	0.00	15.50	4.29	1.89	0.69
2.75	0.21	0.00	0.00	15.75	4.33	1.92	0.66
3.00	0.23	0.00	0.00	16.00	4.37	1.95	0.63
3.25	0.25	0.00	0.00	16.25	4.40	1.97	0.61
3.50	0.27	0.00	0.00	16.50	4.44	2.00	0.58
3.75	0.29	0.00	0.00	16.75	4.47	2.03	0.56
4.00	0.32	0.00	0.00	17.00	4.50	2.05	0.54
4.25	0.34	0.00	0.00	17.25	4.53	2.07	0.53
4.50	0.36	0.00	0.00	17.50	4.56	2.10	0.51
4.75	0.39	0.00	0.00	17.75	4.59	2.12	0.50
5.00	0.41	0.00	0.00	18.00	4.62	2.14	0.48
5.25	0.44	0.00	0.00	18.25	4.64	2.16	0.47
5.50	0.46	0.00	0.00	18.50	4.67	2.18	0.46
5.75	0.49	0.00	0.00	18.75	4.70	2.21	0.45
6.00	0.52	0.00	0.00	19.00	4.72	2.23	0.44
6.25	0.54	0.00	0.00	19.25	4.75	2.24	0.43
6.50	0.57	0.00	0.00	19.50	4.77	2.26	0.42
6.75	0.60	0.00	0.00	19.75	4.79	2.28	0.41
7.00	0.63	0.00	0.00	20.00	4.82	2.30	0.40
7.25	0.66	0.00	0.00	20.25	4.84	2.32	0.39
7.50	0.70	0.00	0.00	20.50	4.86	2.34	0.39
7.75	0.73	0.00	0.01	20.75	4.88	2.35	0.38
8.00	0.77	0.00	0.03	21.00	4.90	2.37	0.37
8.25	0.80	0.01	0.05	21.25	4.92	2.39	0.36
8.50	0.84	0.01	0.06	21.50	4.94	2.40	0.36
8.75	0.88	0.01	0.09	21.75	4.96	2.42	0.35
9.00	0.93	0.02	0.11	22.00	4.98	2.44	0.35
9.25	0.97	0.03	0.13	22.25	5.00	2.45	0.34
9.50	1.02	0.03	0.16	22.50	5.02	2.47	0.34
9.75	1.07	0.04	0.20	22.75	5.04	2.48	0.33
10.00	1.13	0.06	0.24	23.00	5.06	2.50	0.33
10.25	1.19	0.07	0.29	23.25	5.08	2.51	0.32
10.50	1.26	0.09	0.35	23.50	5.10	2.53	0.32
10.75	1.34	0.11	0.43	23.75	5.11	2.54	0.31
11.00	1.42	0.14	0.54	24.00	5.13	2.56	0.31
11.25	1.53	0.18	0.69				
11.50	1.66	0.23	0.94				
11.75	1.94	0.35	1.87				
12.00	2.78	0.82	4.56				
12.25	3.24	1.12	9.75				
12.50	3.50	1.30	5.05				
12.75	3.62	1.39	2.83				

Summary for Subcatchment PDA-1B:

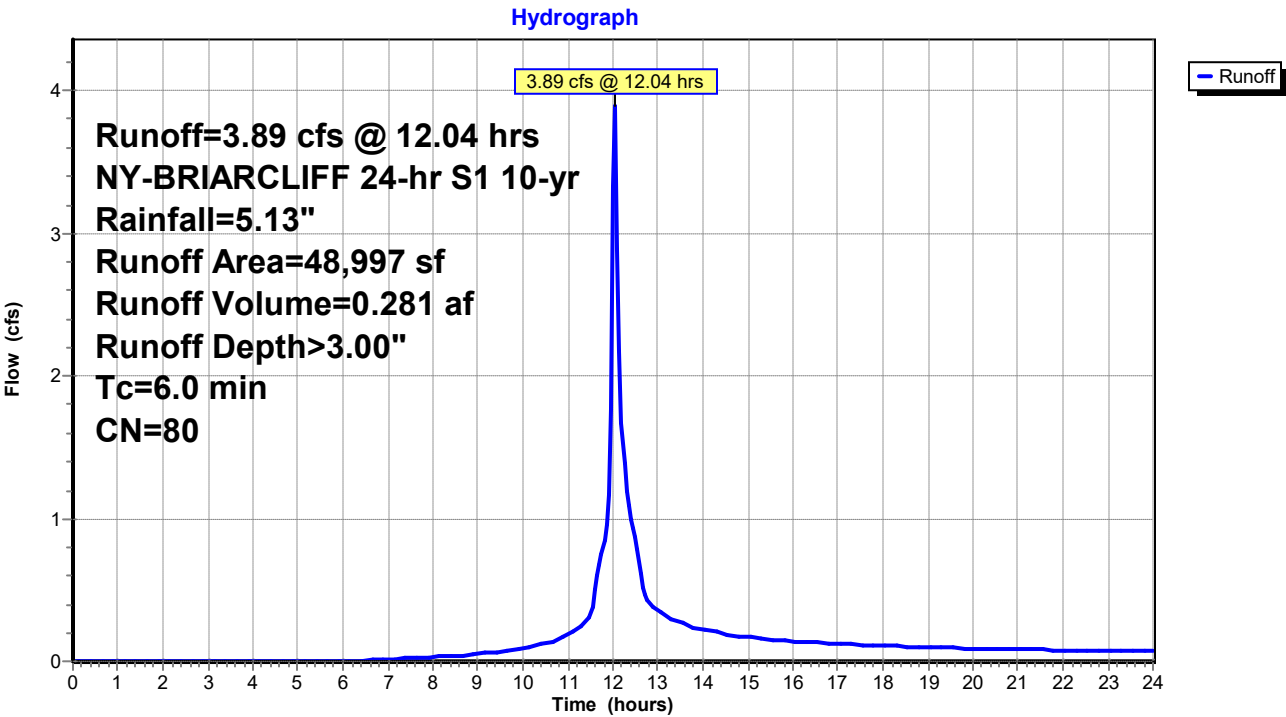
Runoff = 3.89 cfs @ 12.04 hrs, Volume= 0.281 af, Depth> 3.00"
Routed to Reach DP-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (sf)	CN	Description
37,525	74	>75% Grass cover, Good, HSG C
11,472	98	Paved parking, HSG C
48,997	80	Weighted Average
37,525		76.59% Pervious Area
11,472		23.41% Impervious Area

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

Subcatchment PDA-1B:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.82	0.36
0.25	0.02	0.00	0.00	13.25	3.81	1.88	0.31
0.50	0.04	0.00	0.00	13.50	3.88	1.94	0.27
0.75	0.05	0.00	0.00	13.75	3.95	2.00	0.24
1.00	0.07	0.00	0.00	14.00	4.01	2.05	0.22
1.25	0.09	0.00	0.00	14.25	4.06	2.09	0.21
1.50	0.11	0.00	0.00	14.50	4.11	2.14	0.19
1.75	0.13	0.00	0.00	14.75	4.16	2.18	0.18
2.00	0.15	0.00	0.00	15.00	4.21	2.21	0.17
2.25	0.17	0.00	0.00	15.25	4.25	2.25	0.16
2.50	0.19	0.00	0.00	15.50	4.29	2.28	0.15
2.75	0.21	0.00	0.00	15.75	4.33	2.32	0.15
3.00	0.23	0.00	0.00	16.00	4.37	2.35	0.14
3.25	0.25	0.00	0.00	16.25	4.40	2.38	0.14
3.50	0.27	0.00	0.00	16.50	4.44	2.41	0.13
3.75	0.29	0.00	0.00	16.75	4.47	2.43	0.13
4.00	0.32	0.00	0.00	17.00	4.50	2.46	0.12
4.25	0.34	0.00	0.00	17.25	4.53	2.49	0.12
4.50	0.36	0.00	0.00	17.50	4.56	2.51	0.11
4.75	0.39	0.00	0.00	17.75	4.59	2.54	0.11
5.00	0.41	0.00	0.00	18.00	4.62	2.56	0.11
5.25	0.44	0.00	0.00	18.25	4.64	2.58	0.11
5.50	0.46	0.00	0.00	18.50	4.67	2.61	0.10
5.75	0.49	0.00	0.00	18.75	4.70	2.63	0.10
6.00	0.52	0.00	0.00	19.00	4.72	2.65	0.10
6.25	0.54	0.00	0.00	19.25	4.75	2.67	0.10
6.50	0.57	0.00	0.01	19.50	4.77	2.69	0.09
6.75	0.60	0.00	0.01	19.75	4.79	2.71	0.09
7.00	0.63	0.01	0.01	20.00	4.82	2.73	0.09
7.25	0.66	0.01	0.02	20.25	4.84	2.75	0.09
7.50	0.70	0.01	0.02	20.50	4.86	2.77	0.09
7.75	0.73	0.02	0.02	20.75	4.88	2.79	0.08
8.00	0.77	0.03	0.03	21.00	4.90	2.81	0.08
8.25	0.80	0.03	0.03	21.25	4.92	2.83	0.08
8.50	0.84	0.04	0.04	21.50	4.94	2.84	0.08
8.75	0.88	0.05	0.04	21.75	4.96	2.86	0.08
9.00	0.93	0.06	0.05	22.00	4.98	2.88	0.08
9.25	0.97	0.08	0.06	22.25	5.00	2.90	0.08
9.50	1.02	0.09	0.07	22.50	5.02	2.91	0.08
9.75	1.07	0.11	0.08	22.75	5.04	2.93	0.07
10.00	1.13	0.13	0.09	23.00	5.06	2.94	0.07
10.25	1.19	0.15	0.11	23.25	5.08	2.96	0.07
10.50	1.26	0.18	0.13	23.50	5.10	2.98	0.07
10.75	1.34	0.21	0.15	23.75	5.11	2.99	0.07
11.00	1.42	0.25	0.18	24.00	5.13	3.01	0.07
11.25	1.53	0.30	0.23				
11.50	1.66	0.37	0.32				
11.75	1.94	0.53	0.75				
12.00	2.78	1.09	3.33				
12.25	3.24	1.43	1.39				
12.50	3.50	1.63	0.87				
12.75	3.62	1.73	0.44				

Summary for Subcatchment PDA-2A:

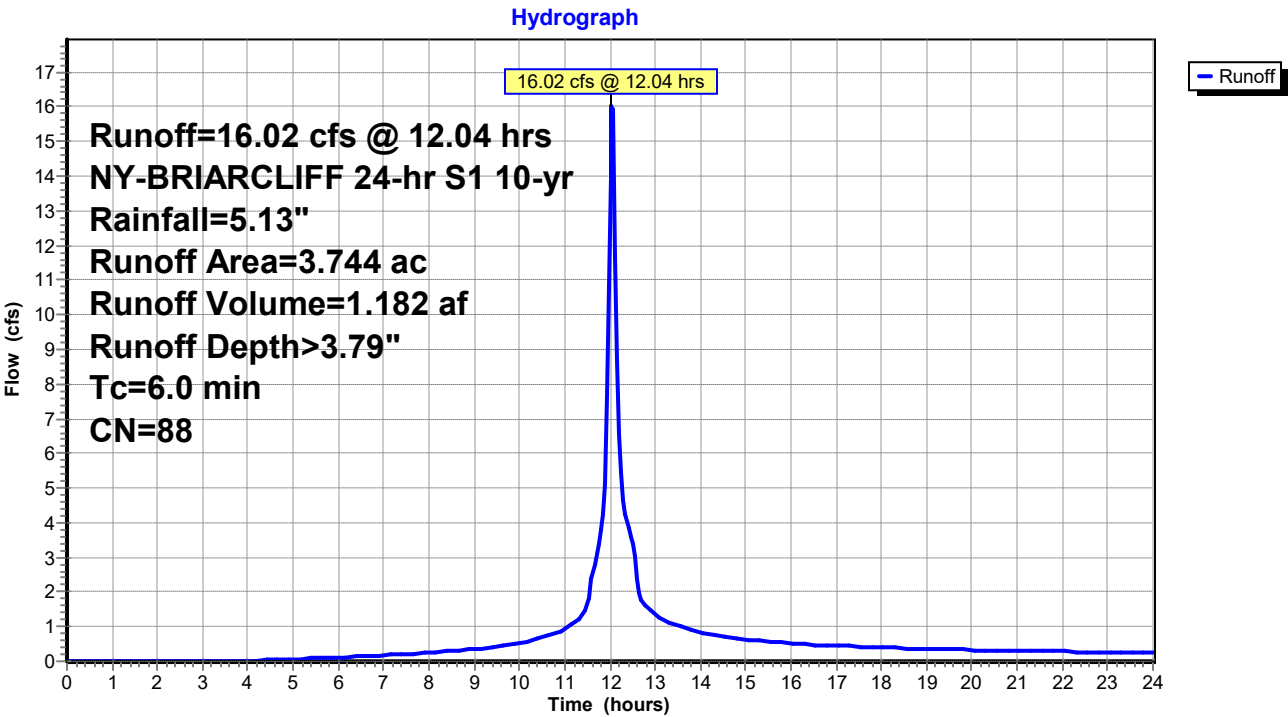
Runoff = 16.02 cfs @ 12.04 hrs, Volume= 1.182 af, Depth> 3.79"
Routed to Pond I-4 (4A) : Stormtech System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
2.185	98	Paved parking, HSG C
3.744	88	Weighted Average
1.559		41.64% Pervious Area
2.185		58.36% Impervious Area

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

Subcatchment PDA-2A:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	2.47	1.35
0.25	0.02	0.00	0.00	13.25	3.81	2.55	1.16
0.50	0.04	0.00	0.00	13.50	3.88	2.62	1.01
0.75	0.05	0.00	0.00	13.75	3.95	2.68	0.91
1.00	0.07	0.00	0.00	14.00	4.01	2.74	0.83
1.25	0.09	0.00	0.00	14.25	4.06	2.79	0.77
1.50	0.11	0.00	0.00	14.50	4.11	2.84	0.71
1.75	0.13	0.00	0.00	14.75	4.16	2.88	0.67
2.00	0.15	0.00	0.00	15.00	4.21	2.92	0.63
2.25	0.17	0.00	0.00	15.25	4.25	2.96	0.60
2.50	0.19	0.00	0.00	15.50	4.29	3.00	0.57
2.75	0.21	0.00	0.00	15.75	4.33	3.04	0.54
3.00	0.23	0.00	0.00	16.00	4.37	3.07	0.52
3.25	0.25	0.00	0.00	16.25	4.40	3.10	0.50
3.50	0.27	0.00	0.00	16.50	4.44	3.14	0.48
3.75	0.29	0.00	0.01	16.75	4.47	3.17	0.46
4.00	0.32	0.00	0.02	17.00	4.50	3.20	0.45
4.25	0.34	0.00	0.03	17.25	4.53	3.23	0.43
4.50	0.36	0.01	0.04	17.50	4.56	3.25	0.42
4.75	0.39	0.01	0.05	17.75	4.59	3.28	0.41
5.00	0.41	0.01	0.06	18.00	4.62	3.31	0.40
5.25	0.44	0.02	0.07	18.25	4.64	3.33	0.39
5.50	0.46	0.02	0.09	18.50	4.67	3.36	0.37
5.75	0.49	0.03	0.10	18.75	4.70	3.38	0.37
6.00	0.52	0.04	0.11	19.00	4.72	3.40	0.36
6.25	0.54	0.04	0.13	19.25	4.75	3.43	0.35
6.50	0.57	0.05	0.14	19.50	4.77	3.45	0.34
6.75	0.60	0.06	0.15	19.75	4.79	3.47	0.33
7.00	0.63	0.08	0.17	20.00	4.82	3.49	0.33
7.25	0.66	0.09	0.19	20.25	4.84	3.52	0.32
7.50	0.70	0.10	0.21	20.50	4.86	3.54	0.31
7.75	0.73	0.12	0.22	20.75	4.88	3.56	0.31
8.00	0.77	0.13	0.25	21.00	4.90	3.58	0.30
8.25	0.80	0.15	0.27	21.25	4.92	3.60	0.30
8.50	0.84	0.17	0.29	21.50	4.94	3.62	0.29
8.75	0.88	0.19	0.32	21.75	4.96	3.63	0.29
9.00	0.93	0.21	0.35	22.00	4.98	3.65	0.28
9.25	0.97	0.24	0.39	22.25	5.00	3.67	0.28
9.50	1.02	0.27	0.43	22.50	5.02	3.69	0.27
9.75	1.07	0.30	0.47	22.75	5.04	3.71	0.27
10.00	1.13	0.33	0.53	23.00	5.06	3.73	0.26
10.25	1.19	0.37	0.59	23.25	5.08	3.74	0.26
10.50	1.26	0.41	0.68	23.50	5.10	3.76	0.26
10.75	1.34	0.47	0.79	23.75	5.11	3.78	0.25
11.00	1.42	0.53	0.94	24.00	5.13	3.79	0.25
11.25	1.53	0.60	1.16				
11.50	1.66	0.70	1.55				
11.75	1.94	0.92	3.39				
12.00	2.78	1.62	13.97				
12.25	3.24	2.03	5.46				
12.50	3.50	2.27	3.36				
12.75	3.62	2.38	1.68				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-2B:

Runoff = 21.79 cfs @ 12.17 hrs, Volume= 2.302 af, Depth> 3.78"
 Routed to Reach DP-2 :

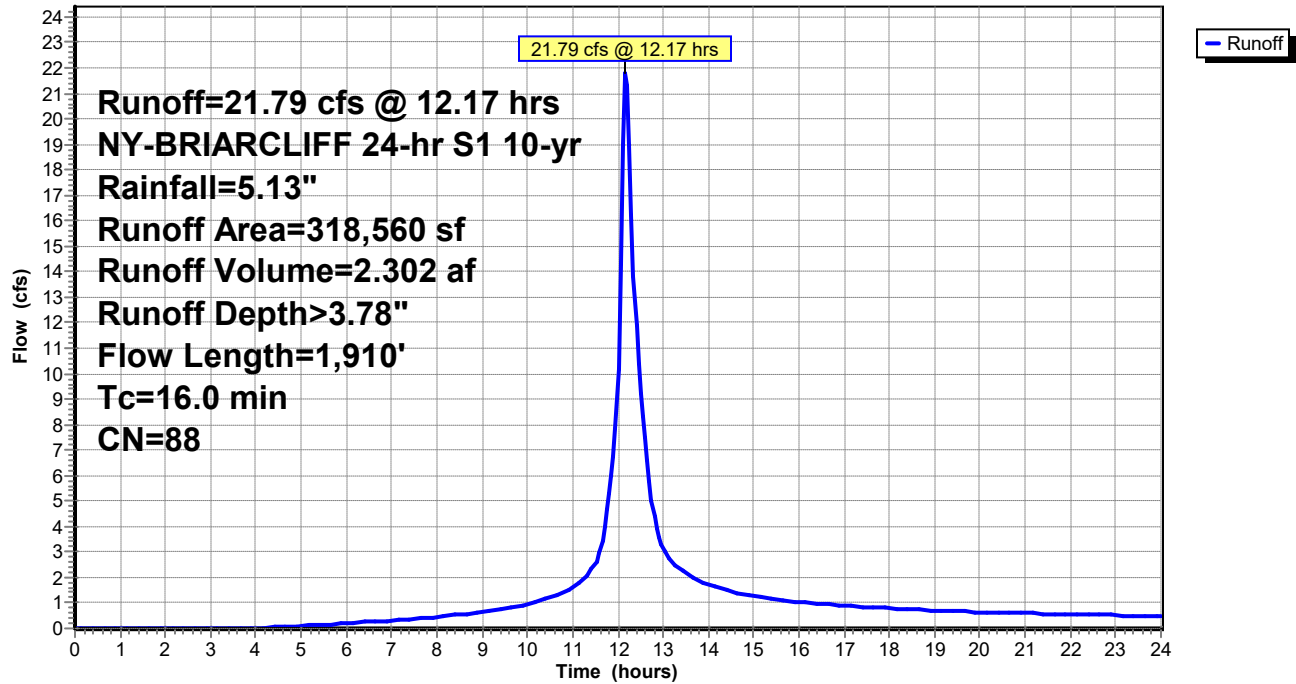
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (sf)	CN	Description
136,359	74	>75% Grass cover, Good, HSG C
182,201	98	Paved parking, HSG C
318,560	88	Weighted Average
136,359		42.80% Pervious Area
182,201		57.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0200	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
2.2	409	0.0440	3.15		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.8	341	0.0235	3.11		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	768	0.0455	12.16	14.93	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Corrugated PP, smooth interior
0.8	292	0.1642	6.08		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
16.0	1,910	Total			

Subcatchment PDA-2B:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	2.47	3.12
0.25	0.02	0.00	0.00	13.25	3.81	2.55	2.50
0.50	0.04	0.00	0.00	13.50	3.88	2.62	2.15
0.75	0.05	0.00	0.00	13.75	3.95	2.68	1.91
1.00	0.07	0.00	0.00	14.00	4.01	2.74	1.72
1.25	0.09	0.00	0.00	14.25	4.06	2.79	1.58
1.50	0.11	0.00	0.00	14.50	4.11	2.84	1.46
1.75	0.13	0.00	0.00	14.75	4.16	2.88	1.36
2.00	0.15	0.00	0.00	15.00	4.21	2.92	1.28
2.25	0.17	0.00	0.00	15.25	4.25	2.96	1.21
2.50	0.19	0.00	0.00	15.50	4.29	3.00	1.15
2.75	0.21	0.00	0.00	15.75	4.33	3.04	1.09
3.00	0.23	0.00	0.00	16.00	4.37	3.07	1.04
3.25	0.25	0.00	0.00	16.25	4.40	3.10	1.00
3.50	0.27	0.00	0.00	16.50	4.44	3.14	0.96
3.75	0.29	0.00	0.00	16.75	4.47	3.17	0.92
4.00	0.32	0.00	0.02	17.00	4.50	3.20	0.89
4.25	0.34	0.00	0.04	17.25	4.53	3.23	0.86
4.50	0.36	0.01	0.06	17.50	4.56	3.25	0.84
4.75	0.39	0.01	0.08	17.75	4.59	3.28	0.81
5.00	0.41	0.01	0.11	18.00	4.62	3.31	0.79
5.25	0.44	0.02	0.13	18.25	4.64	3.33	0.76
5.50	0.46	0.02	0.15	18.50	4.67	3.36	0.74
5.75	0.49	0.03	0.18	18.75	4.70	3.38	0.73
6.00	0.52	0.04	0.20	19.00	4.72	3.40	0.71
6.25	0.54	0.04	0.23	19.25	4.75	3.43	0.69
6.50	0.57	0.05	0.26	19.50	4.77	3.45	0.67
6.75	0.60	0.06	0.28	19.75	4.79	3.47	0.66
7.00	0.63	0.08	0.31	20.00	4.82	3.49	0.65
7.25	0.66	0.09	0.35	20.25	4.84	3.52	0.63
7.50	0.70	0.10	0.38	20.50	4.86	3.54	0.62
7.75	0.73	0.12	0.42	20.75	4.88	3.56	0.61
8.00	0.77	0.13	0.45	21.00	4.90	3.58	0.60
8.25	0.80	0.15	0.50	21.25	4.92	3.60	0.58
8.50	0.84	0.17	0.54	21.50	4.94	3.62	0.57
8.75	0.88	0.19	0.59	21.75	4.96	3.63	0.56
9.00	0.93	0.21	0.65	22.00	4.98	3.65	0.55
9.25	0.97	0.24	0.71	22.25	5.00	3.67	0.55
9.50	1.02	0.27	0.78	22.50	5.02	3.69	0.54
9.75	1.07	0.30	0.87	22.75	5.04	3.71	0.53
10.00	1.13	0.33	0.96	23.00	5.06	3.73	0.52
10.25	1.19	0.37	1.08	23.25	5.08	3.74	0.51
10.50	1.26	0.41	1.22	23.50	5.10	3.76	0.50
10.75	1.34	0.47	1.40	23.75	5.11	3.78	0.50
11.00	1.42	0.53	1.65	24.00	5.13	3.79	0.49
11.25	1.53	0.60	1.99				
11.50	1.66	0.70	2.53				
11.75	1.94	0.92	4.67				
12.00	2.78	1.62	10.15				
12.25	3.24	2.03	19.00				
12.50	3.50	2.27	9.22				
12.75	3.62	2.38	4.99				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-2C:

Runoff = 20.49 cfs @ 12.04 hrs, Volume= 1.541 af, Depth> 4.10"
Routed to Reach DP-2 :

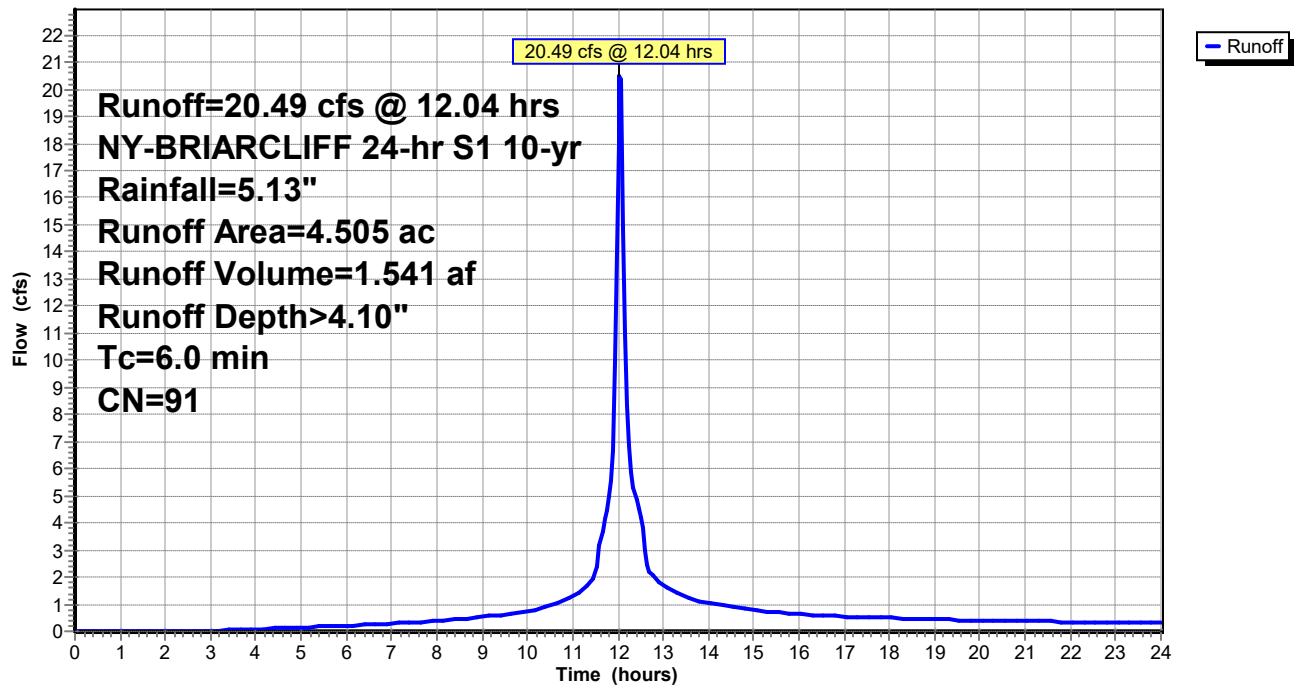
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
1.240	74	>75% Grass cover, Good, HSG C
3.265	98	Paved parking, HSG C
4.505	91	Weighted Average
1.240		27.52% Pervious Area
3.265		72.48% Impervious Area

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

Subcatchment PDA-2C:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-2C:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	2.75	1.68
0.25	0.02	0.00	0.00	13.25	3.81	2.83	1.44
0.50	0.04	0.00	0.00	13.50	3.88	2.90	1.26
0.75	0.05	0.00	0.00	13.75	3.95	2.97	1.14
1.00	0.07	0.00	0.00	14.00	4.01	3.02	1.03
1.25	0.09	0.00	0.00	14.25	4.06	3.08	0.95
1.50	0.11	0.00	0.00	14.50	4.11	3.13	0.89
1.75	0.13	0.00	0.00	14.75	4.16	3.17	0.83
2.00	0.15	0.00	0.00	15.00	4.21	3.22	0.78
2.25	0.17	0.00	0.00	15.25	4.25	3.26	0.74
2.50	0.19	0.00	0.00	15.50	4.29	3.30	0.70
2.75	0.21	0.00	0.00	15.75	4.33	3.33	0.67
3.00	0.23	0.00	0.02	16.00	4.37	3.37	0.64
3.25	0.25	0.00	0.03	16.25	4.40	3.40	0.62
3.50	0.27	0.00	0.05	16.50	4.44	3.44	0.59
3.75	0.29	0.01	0.06	16.75	4.47	3.47	0.57
4.00	0.32	0.01	0.08	17.00	4.50	3.50	0.55
4.25	0.34	0.02	0.09	17.25	4.53	3.53	0.53
4.50	0.36	0.02	0.11	17.50	4.56	3.56	0.52
4.75	0.39	0.03	0.12	17.75	4.59	3.58	0.50
5.00	0.41	0.04	0.14	18.00	4.62	3.61	0.49
5.25	0.44	0.05	0.16	18.25	4.64	3.64	0.47
5.50	0.46	0.06	0.17	18.50	4.67	3.66	0.46
5.75	0.49	0.07	0.19	18.75	4.70	3.69	0.45
6.00	0.52	0.08	0.21	19.00	4.72	3.71	0.44
6.25	0.54	0.09	0.23	19.25	4.75	3.74	0.43
6.50	0.57	0.10	0.25	19.50	4.77	3.76	0.42
6.75	0.60	0.12	0.27	19.75	4.79	3.78	0.41
7.00	0.63	0.13	0.29	20.00	4.82	3.80	0.40
7.25	0.66	0.15	0.31	20.25	4.84	3.83	0.39
7.50	0.70	0.17	0.33	20.50	4.86	3.85	0.39
7.75	0.73	0.19	0.36	20.75	4.88	3.87	0.38
8.00	0.77	0.21	0.39	21.00	4.90	3.89	0.37
8.25	0.80	0.23	0.41	21.25	4.92	3.91	0.36
8.50	0.84	0.26	0.45	21.50	4.94	3.93	0.36
8.75	0.88	0.28	0.48	21.75	4.96	3.95	0.35
9.00	0.93	0.31	0.52	22.00	4.98	3.97	0.35
9.25	0.97	0.34	0.57	22.25	5.00	3.99	0.34
9.50	1.02	0.37	0.62	22.50	5.02	4.00	0.33
9.75	1.07	0.41	0.68	22.75	5.04	4.02	0.33
10.00	1.13	0.45	0.75	23.00	5.06	4.04	0.32
10.25	1.19	0.50	0.84	23.25	5.08	4.06	0.32
10.50	1.26	0.55	0.95	23.50	5.10	4.07	0.31
10.75	1.34	0.61	1.09	23.75	5.11	4.09	0.31
11.00	1.42	0.68	1.29	24.00	5.13	4.11	0.31
11.25	1.53	0.76	1.57				
11.50	1.66	0.87	2.07				
11.75	1.94	1.11	4.47				
12.00	2.78	1.87	17.96				
12.25	3.24	2.29	6.88				
12.50	3.50	2.54	4.21				
12.75	3.62	2.66	2.10				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-2D:

Runoff = 18.27 cfs @ 12.17 hrs, Volume= 1.906 af, Depth> 2.29"
Routed to Reach DP-2 :

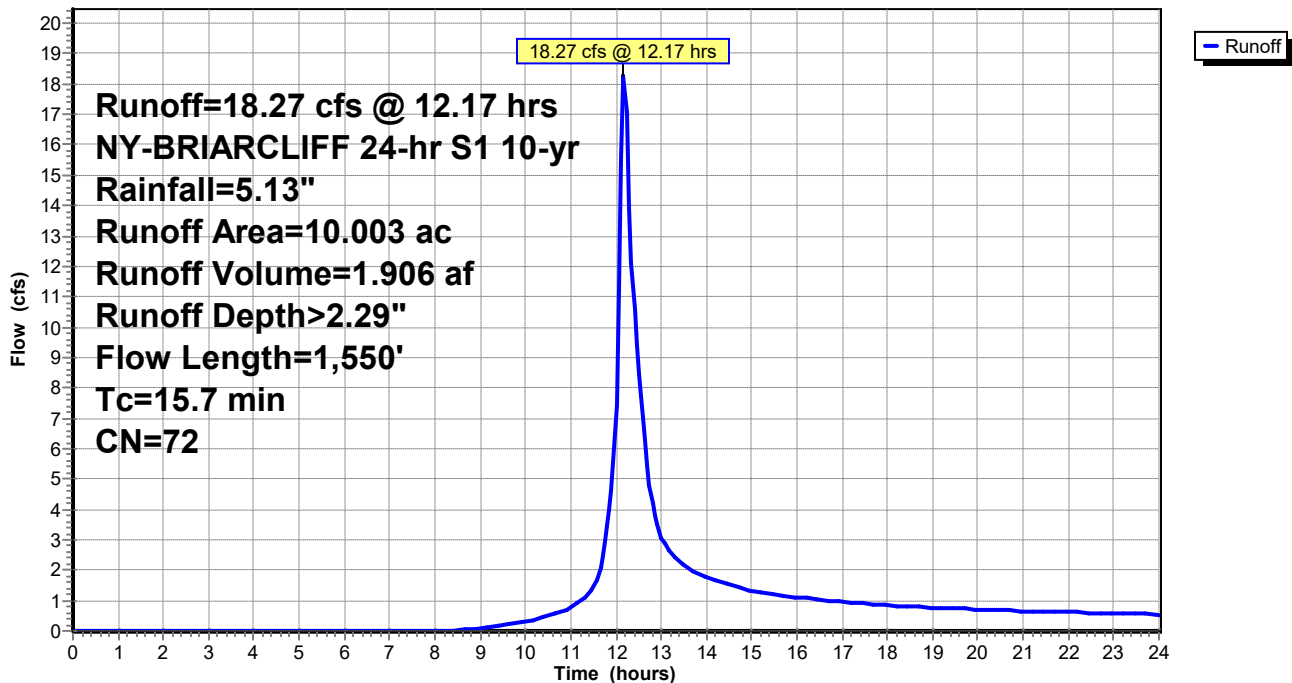
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
6.404	70	Woods, Good, HSG C
3.434	74	>75% Grass cover, Good, HSG C
0.165	98	Paved parking, HSG C
10.003	72	Weighted Average
9.838		98.35% Pervious Area
0.165		1.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	150	0.0400	0.24		Sheet Flow, Sheet
					Grass: Short n= 0.150 P2= 3.00"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow,
					Grassed Waterway Kv= 15.0 fps
15.7	1,550	Total			

Subcatchment PDA-2D:

Hydrograph



NY-235 Elm-Proposed

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Hydrograph for Subcatchment PDA-2D:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.27	3.07
0.25	0.02	0.00	0.00	13.25	3.81	1.33	2.50
0.50	0.04	0.00	0.00	13.50	3.88	1.38	2.18
0.75	0.05	0.00	0.00	13.75	3.95	1.42	1.94
1.00	0.07	0.00	0.00	14.00	4.01	1.47	1.77
1.25	0.09	0.00	0.00	14.25	4.06	1.50	1.63
1.50	0.11	0.00	0.00	14.50	4.11	1.54	1.51
1.75	0.13	0.00	0.00	14.75	4.16	1.58	1.42
2.00	0.15	0.00	0.00	15.00	4.21	1.61	1.34
2.25	0.17	0.00	0.00	15.25	4.25	1.64	1.27
2.50	0.19	0.00	0.00	15.50	4.29	1.67	1.21
2.75	0.21	0.00	0.00	15.75	4.33	1.70	1.15
3.00	0.23	0.00	0.00	16.00	4.37	1.72	1.11
3.25	0.25	0.00	0.00	16.25	4.40	1.75	1.06
3.50	0.27	0.00	0.00	16.50	4.44	1.77	1.02
3.75	0.29	0.00	0.00	16.75	4.47	1.80	0.99
4.00	0.32	0.00	0.00	17.00	4.50	1.82	0.96
4.25	0.34	0.00	0.00	17.25	4.53	1.84	0.93
4.50	0.36	0.00	0.00	17.50	4.56	1.87	0.90
4.75	0.39	0.00	0.00	17.75	4.59	1.89	0.87
5.00	0.41	0.00	0.00	18.00	4.62	1.91	0.85
5.25	0.44	0.00	0.00	18.25	4.64	1.93	0.83
5.50	0.46	0.00	0.00	18.50	4.67	1.95	0.81
5.75	0.49	0.00	0.00	18.75	4.70	1.97	0.79
6.00	0.52	0.00	0.00	19.00	4.72	1.99	0.77
6.25	0.54	0.00	0.00	19.25	4.75	2.00	0.75
6.50	0.57	0.00	0.00	19.50	4.77	2.02	0.74
6.75	0.60	0.00	0.00	19.75	4.79	2.04	0.72
7.00	0.63	0.00	0.00	20.00	4.82	2.06	0.71
7.25	0.66	0.00	0.00	20.25	4.84	2.07	0.69
7.50	0.70	0.00	0.00	20.50	4.86	2.09	0.68
7.75	0.73	0.00	0.00	20.75	4.88	2.11	0.67
8.00	0.77	0.00	0.00	21.00	4.90	2.12	0.66
8.25	0.80	0.00	0.00	21.25	4.92	2.14	0.64
8.50	0.84	0.00	0.02	21.50	4.94	2.15	0.63
8.75	0.88	0.00	0.05	21.75	4.96	2.17	0.62
9.00	0.93	0.01	0.09	22.00	4.98	2.19	0.61
9.25	0.97	0.01	0.13	22.25	5.00	2.20	0.60
9.50	1.02	0.01	0.18	22.50	5.02	2.21	0.60
9.75	1.07	0.02	0.24	22.75	5.04	2.23	0.59
10.00	1.13	0.03	0.30	23.00	5.06	2.24	0.58
10.25	1.19	0.04	0.38	23.25	5.08	2.26	0.57
10.50	1.26	0.05	0.48	23.50	5.10	2.27	0.56
10.75	1.34	0.07	0.61	23.75	5.11	2.28	0.55
11.00	1.42	0.09	0.78	24.00	5.13	2.30	0.55
11.25	1.53	0.12	1.03				
11.50	1.66	0.16	1.43				
11.75	1.94	0.27	2.96				
12.00	2.78	0.68	7.46				
12.25	3.24	0.95	16.17				
12.50	3.50	1.12	8.48				
12.75	3.62	1.20	4.78				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-3:

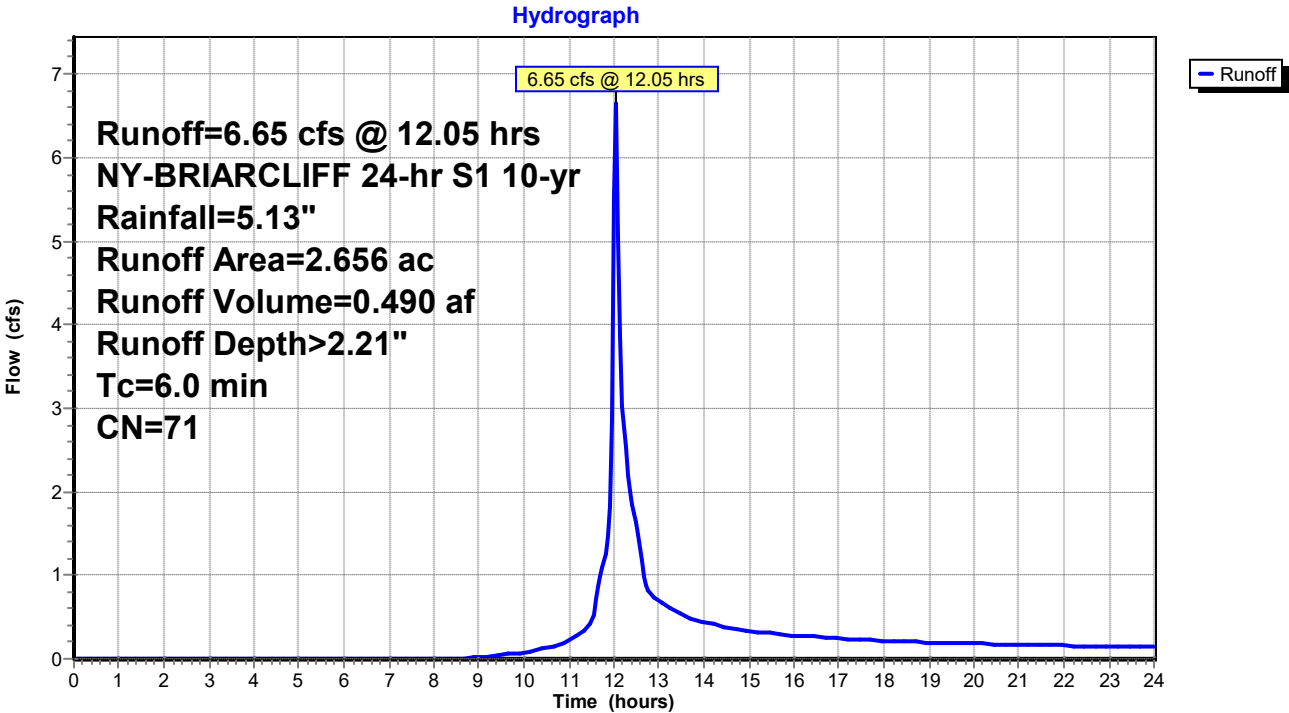
Runoff = 6.65 cfs @ 12.05 hrs, Volume= 0.490 af, Depth> 2.21"
Routed to Reach DP-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
2.046	70	Woods, Good, HSG C
0.562	74	>75% Grass cover, Good, HSG C
0.048	98	Paved parking, HSG C
2.656	71	Weighted Average
2.608		98.19% Pervious Area
0.048		1.81% Impervious Area

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

Subcatchment PDA-3:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.21	0.68
0.25	0.02	0.00	0.00	13.25	3.81	1.26	0.59
0.50	0.04	0.00	0.00	13.50	3.88	1.31	0.52
0.75	0.05	0.00	0.00	13.75	3.95	1.36	0.47
1.00	0.07	0.00	0.00	14.00	4.01	1.40	0.43
1.25	0.09	0.00	0.00	14.25	4.06	1.44	0.40
1.50	0.11	0.00	0.00	14.50	4.11	1.47	0.38
1.75	0.13	0.00	0.00	14.75	4.16	1.51	0.36
2.00	0.15	0.00	0.00	15.00	4.21	1.54	0.34
2.25	0.17	0.00	0.00	15.25	4.25	1.57	0.32
2.50	0.19	0.00	0.00	15.50	4.29	1.60	0.30
2.75	0.21	0.00	0.00	15.75	4.33	1.62	0.29
3.00	0.23	0.00	0.00	16.00	4.37	1.65	0.28
3.25	0.25	0.00	0.00	16.25	4.40	1.68	0.27
3.50	0.27	0.00	0.00	16.50	4.44	1.70	0.26
3.75	0.29	0.00	0.00	16.75	4.47	1.72	0.25
4.00	0.32	0.00	0.00	17.00	4.50	1.75	0.24
4.25	0.34	0.00	0.00	17.25	4.53	1.77	0.24
4.50	0.36	0.00	0.00	17.50	4.56	1.79	0.23
4.75	0.39	0.00	0.00	17.75	4.59	1.81	0.22
5.00	0.41	0.00	0.00	18.00	4.62	1.83	0.22
5.25	0.44	0.00	0.00	18.25	4.64	1.85	0.21
5.50	0.46	0.00	0.00	18.50	4.67	1.87	0.21
5.75	0.49	0.00	0.00	18.75	4.70	1.89	0.20
6.00	0.52	0.00	0.00	19.00	4.72	1.91	0.20
6.25	0.54	0.00	0.00	19.25	4.75	1.93	0.19
6.50	0.57	0.00	0.00	19.50	4.77	1.94	0.19
6.75	0.60	0.00	0.00	19.75	4.79	1.96	0.19
7.00	0.63	0.00	0.00	20.00	4.82	1.98	0.18
7.25	0.66	0.00	0.00	20.25	4.84	2.00	0.18
7.50	0.70	0.00	0.00	20.50	4.86	2.01	0.18
7.75	0.73	0.00	0.00	20.75	4.88	2.03	0.17
8.00	0.77	0.00	0.00	21.00	4.90	2.04	0.17
8.25	0.80	0.00	0.00	21.25	4.92	2.06	0.17
8.50	0.84	0.00	0.00	21.50	4.94	2.07	0.16
8.75	0.88	0.00	0.01	21.75	4.96	2.09	0.16
9.00	0.93	0.00	0.02	22.00	4.98	2.10	0.16
9.25	0.97	0.01	0.03	22.25	5.00	2.12	0.16
9.50	1.02	0.01	0.04	22.50	5.02	2.13	0.15
9.75	1.07	0.02	0.06	22.75	5.04	2.15	0.15
10.00	1.13	0.02	0.08	23.00	5.06	2.16	0.15
10.25	1.19	0.03	0.10	23.25	5.08	2.18	0.15
10.50	1.26	0.04	0.13	23.50	5.10	2.19	0.15
10.75	1.34	0.06	0.17	23.75	5.11	2.20	0.14
11.00	1.42	0.08	0.22	24.00	5.13	2.22	0.14
11.25	1.53	0.11	0.30				
11.50	1.66	0.14	0.44				
11.75	1.94	0.24	1.10				
12.00	2.78	0.64	5.54				
12.25	3.24	0.90	2.54				
12.50	3.50	1.06	1.64				
12.75	3.62	1.14	0.84				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-4:

Runoff = 4.82 cfs @ 12.05 hrs, Volume= 0.355 af, Depth> 2.21"
Routed to Reach DP-4 :

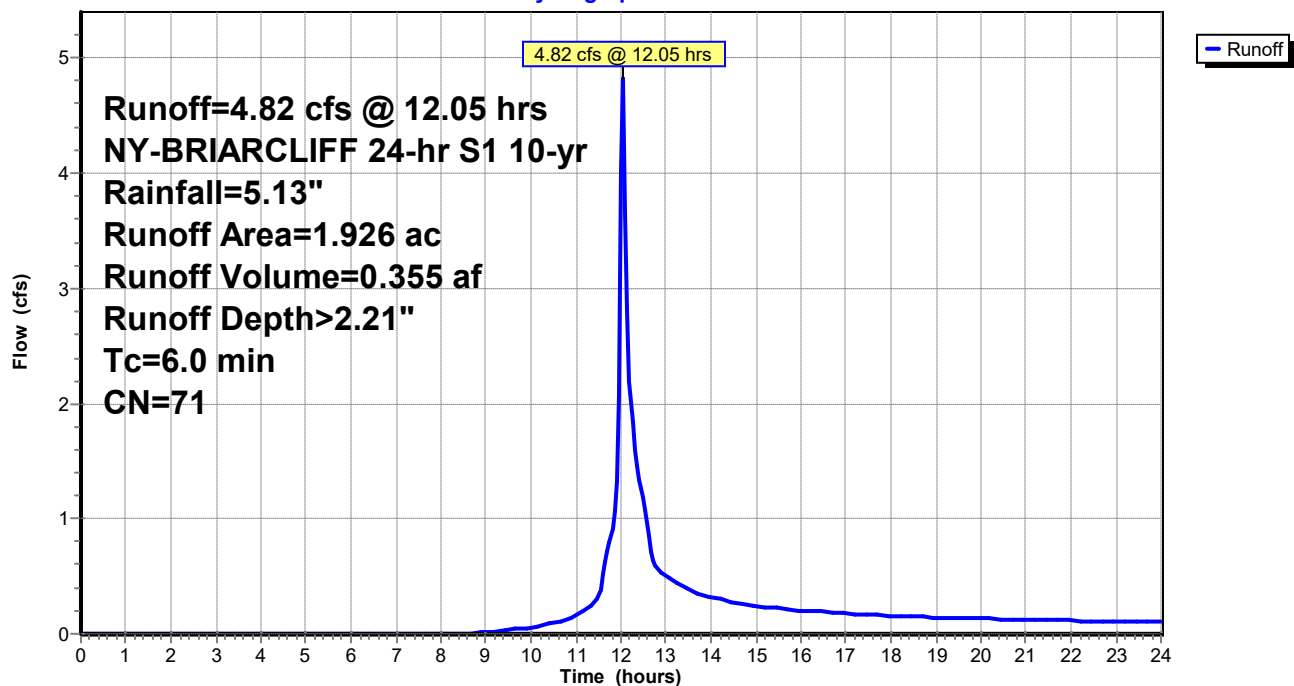
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
1.480	70	Woods, Good, HSG C
0.418	74	>75% Grass cover, Good, HSG C
0.028	98	Paved parking, HSG C
1.926	71	Weighted Average
1.898		98.55% Pervious Area
0.028		1.45% Impervious Area

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

Subcatchment PDA-4:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.21	0.50
0.25	0.02	0.00	0.00	13.25	3.81	1.26	0.43
0.50	0.04	0.00	0.00	13.50	3.88	1.31	0.38
0.75	0.05	0.00	0.00	13.75	3.95	1.36	0.34
1.00	0.07	0.00	0.00	14.00	4.01	1.40	0.31
1.25	0.09	0.00	0.00	14.25	4.06	1.44	0.29
1.50	0.11	0.00	0.00	14.50	4.11	1.47	0.27
1.75	0.13	0.00	0.00	14.75	4.16	1.51	0.26
2.00	0.15	0.00	0.00	15.00	4.21	1.54	0.24
2.25	0.17	0.00	0.00	15.25	4.25	1.57	0.23
2.50	0.19	0.00	0.00	15.50	4.29	1.60	0.22
2.75	0.21	0.00	0.00	15.75	4.33	1.62	0.21
3.00	0.23	0.00	0.00	16.00	4.37	1.65	0.20
3.25	0.25	0.00	0.00	16.25	4.40	1.68	0.20
3.50	0.27	0.00	0.00	16.50	4.44	1.70	0.19
3.75	0.29	0.00	0.00	16.75	4.47	1.72	0.18
4.00	0.32	0.00	0.00	17.00	4.50	1.75	0.18
4.25	0.34	0.00	0.00	17.25	4.53	1.77	0.17
4.50	0.36	0.00	0.00	17.50	4.56	1.79	0.17
4.75	0.39	0.00	0.00	17.75	4.59	1.81	0.16
5.00	0.41	0.00	0.00	18.00	4.62	1.83	0.16
5.25	0.44	0.00	0.00	18.25	4.64	1.85	0.15
5.50	0.46	0.00	0.00	18.50	4.67	1.87	0.15
5.75	0.49	0.00	0.00	18.75	4.70	1.89	0.15
6.00	0.52	0.00	0.00	19.00	4.72	1.91	0.14
6.25	0.54	0.00	0.00	19.25	4.75	1.93	0.14
6.50	0.57	0.00	0.00	19.50	4.77	1.94	0.14
6.75	0.60	0.00	0.00	19.75	4.79	1.96	0.13
7.00	0.63	0.00	0.00	20.00	4.82	1.98	0.13
7.25	0.66	0.00	0.00	20.25	4.84	2.00	0.13
7.50	0.70	0.00	0.00	20.50	4.86	2.01	0.13
7.75	0.73	0.00	0.00	20.75	4.88	2.03	0.12
8.00	0.77	0.00	0.00	21.00	4.90	2.04	0.12
8.25	0.80	0.00	0.00	21.25	4.92	2.06	0.12
8.50	0.84	0.00	0.00	21.50	4.94	2.07	0.12
8.75	0.88	0.00	0.01	21.75	4.96	2.09	0.12
9.00	0.93	0.00	0.02	22.00	4.98	2.10	0.11
9.25	0.97	0.01	0.02	22.25	5.00	2.12	0.11
9.50	1.02	0.01	0.03	22.50	5.02	2.13	0.11
9.75	1.07	0.02	0.04	22.75	5.04	2.15	0.11
10.00	1.13	0.02	0.06	23.00	5.06	2.16	0.11
10.25	1.19	0.03	0.07	23.25	5.08	2.18	0.11
10.50	1.26	0.04	0.09	23.50	5.10	2.19	0.11
10.75	1.34	0.06	0.12	23.75	5.11	2.20	0.10
11.00	1.42	0.08	0.16	24.00	5.13	2.22	0.10
11.25	1.53	0.11	0.22				
11.50	1.66	0.14	0.32				
11.75	1.94	0.24	0.80				
12.00	2.78	0.64	4.02				
12.25	3.24	0.90	1.84				
12.50	3.50	1.06	1.19				
12.75	3.62	1.14	0.61				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Summary for Subcatchment PDA-5:

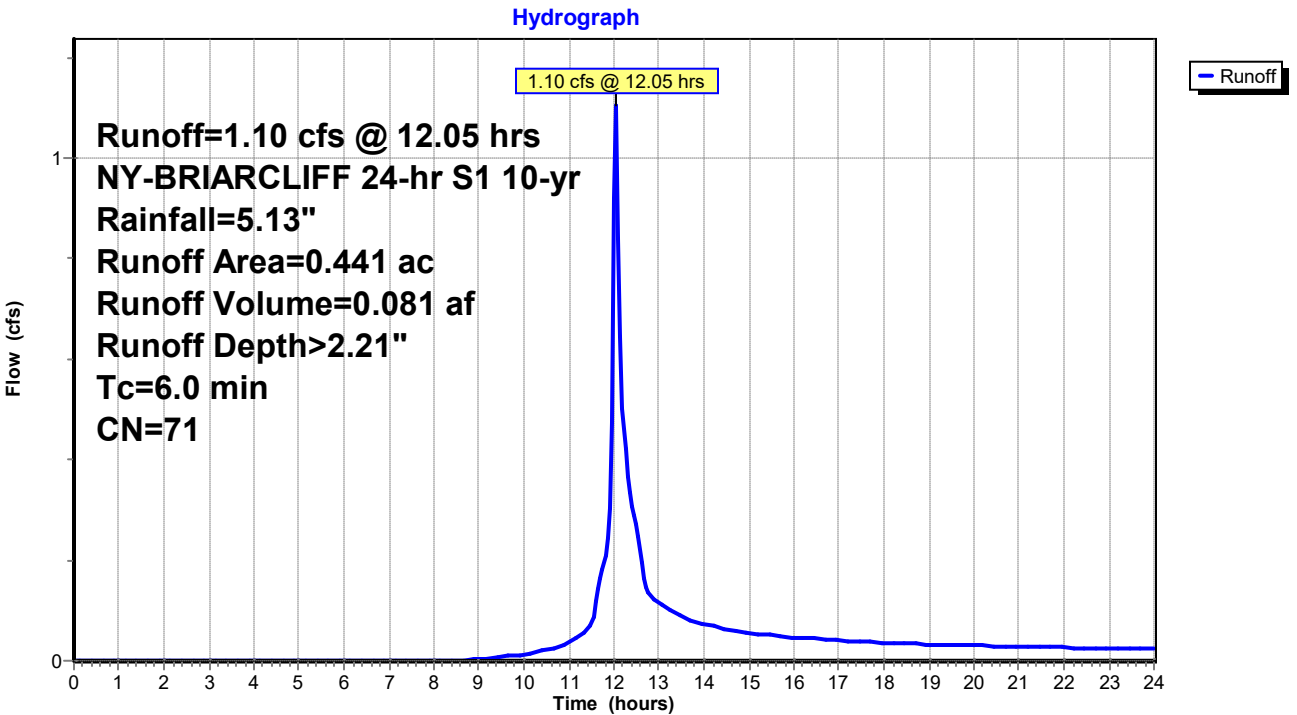
Runoff = 1.10 cfs @ 12.05 hrs, Volume= 0.081 af, Depth> 2.21"
Routed to Reach DP-5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

Area (ac)	CN	Description
0.293	70	Woods, Good, HSG C
0.148	74	>75% Grass cover, Good, HSG C
0.441	71	Weighted Average
0.441		100.00% Pervious Area

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

Subcatchment PDA-5:



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 10-yr Rainfall=5.13"

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Hydrograph for Subcatchment PDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.72	1.21	0.11
0.25	0.02	0.00	0.00	13.25	3.81	1.26	0.10
0.50	0.04	0.00	0.00	13.50	3.88	1.31	0.09
0.75	0.05	0.00	0.00	13.75	3.95	1.36	0.08
1.00	0.07	0.00	0.00	14.00	4.01	1.40	0.07
1.25	0.09	0.00	0.00	14.25	4.06	1.44	0.07
1.50	0.11	0.00	0.00	14.50	4.11	1.47	0.06
1.75	0.13	0.00	0.00	14.75	4.16	1.51	0.06
2.00	0.15	0.00	0.00	15.00	4.21	1.54	0.06
2.25	0.17	0.00	0.00	15.25	4.25	1.57	0.05
2.50	0.19	0.00	0.00	15.50	4.29	1.60	0.05
2.75	0.21	0.00	0.00	15.75	4.33	1.62	0.05
3.00	0.23	0.00	0.00	16.00	4.37	1.65	0.05
3.25	0.25	0.00	0.00	16.25	4.40	1.68	0.04
3.50	0.27	0.00	0.00	16.50	4.44	1.70	0.04
3.75	0.29	0.00	0.00	16.75	4.47	1.72	0.04
4.00	0.32	0.00	0.00	17.00	4.50	1.75	0.04
4.25	0.34	0.00	0.00	17.25	4.53	1.77	0.04
4.50	0.36	0.00	0.00	17.50	4.56	1.79	0.04
4.75	0.39	0.00	0.00	17.75	4.59	1.81	0.04
5.00	0.41	0.00	0.00	18.00	4.62	1.83	0.04
5.25	0.44	0.00	0.00	18.25	4.64	1.85	0.04
5.50	0.46	0.00	0.00	18.50	4.67	1.87	0.03
5.75	0.49	0.00	0.00	18.75	4.70	1.89	0.03
6.00	0.52	0.00	0.00	19.00	4.72	1.91	0.03
6.25	0.54	0.00	0.00	19.25	4.75	1.93	0.03
6.50	0.57	0.00	0.00	19.50	4.77	1.94	0.03
6.75	0.60	0.00	0.00	19.75	4.79	1.96	0.03
7.00	0.63	0.00	0.00	20.00	4.82	1.98	0.03
7.25	0.66	0.00	0.00	20.25	4.84	2.00	0.03
7.50	0.70	0.00	0.00	20.50	4.86	2.01	0.03
7.75	0.73	0.00	0.00	20.75	4.88	2.03	0.03
8.00	0.77	0.00	0.00	21.00	4.90	2.04	0.03
8.25	0.80	0.00	0.00	21.25	4.92	2.06	0.03
8.50	0.84	0.00	0.00	21.50	4.94	2.07	0.03
8.75	0.88	0.00	0.00	21.75	4.96	2.09	0.03
9.00	0.93	0.00	0.00	22.00	4.98	2.10	0.03
9.25	0.97	0.01	0.01	22.25	5.00	2.12	0.03
9.50	1.02	0.01	0.01	22.50	5.02	2.13	0.03
9.75	1.07	0.02	0.01	22.75	5.04	2.15	0.03
10.00	1.13	0.02	0.01	23.00	5.06	2.16	0.02
10.25	1.19	0.03	0.02	23.25	5.08	2.18	0.02
10.50	1.26	0.04	0.02	23.50	5.10	2.19	0.02
10.75	1.34	0.06	0.03	23.75	5.11	2.20	0.02
11.00	1.42	0.08	0.04	24.00	5.13	2.22	0.02
11.25	1.53	0.11	0.05				
11.50	1.66	0.14	0.07				
11.75	1.94	0.24	0.18				
12.00	2.78	0.64	0.92				
12.25	3.24	0.90	0.42				
12.50	3.50	1.06	0.27				
12.75	3.62	1.14	0.14				

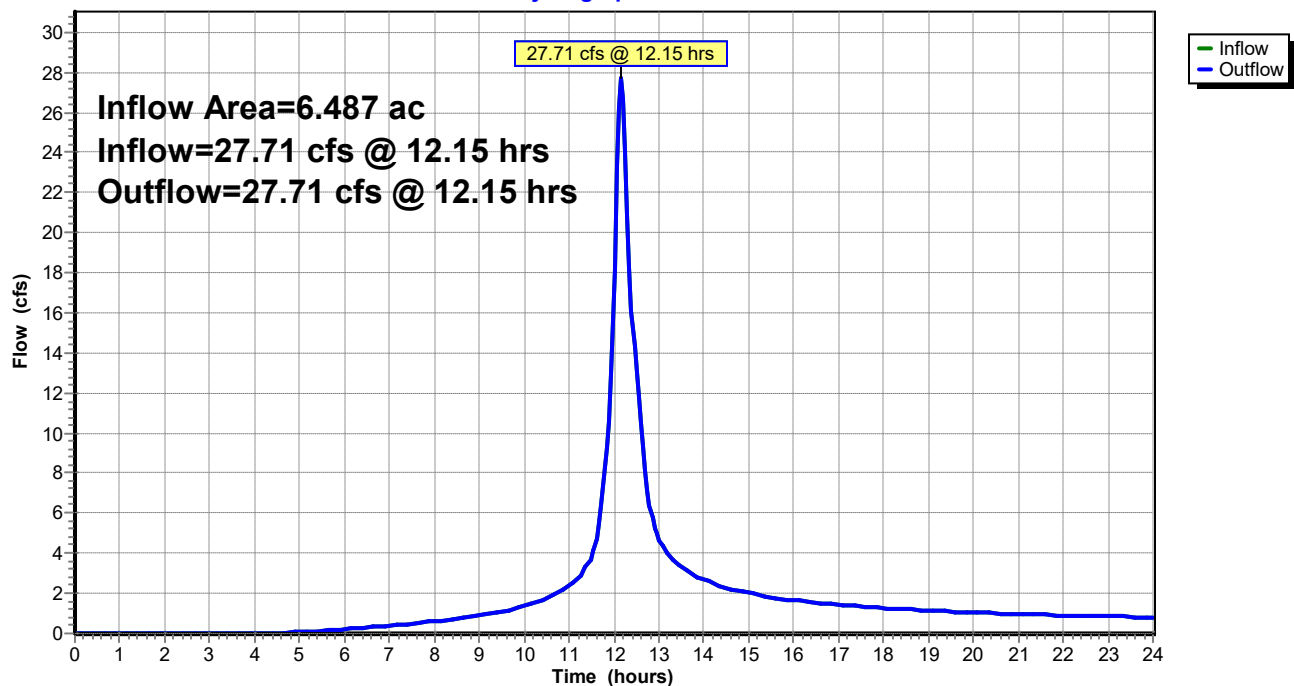
Summary for Reach DP-1:

Inflow Area = 6.487 ac, 8.18% Impervious, Inflow Depth > 6.27" for 100-yr event
 Inflow = 27.71 cfs @ 12.15 hrs, Volume= 3.387 af
 Outflow = 27.71 cfs @ 12.15 hrs, Volume= 3.387 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-1:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Reach DP-1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	4.66		4.66
0.25	0.00		0.00	13.25	3.80		3.80
0.50	0.00		0.00	13.50	3.29		3.29
0.75	0.00		0.00	13.75	2.94		2.94
1.00	0.00		0.00	14.00	2.67		2.67
1.25	0.00		0.00	14.25	2.46		2.46
1.50	0.00		0.00	14.50	2.28		2.28
1.75	0.00		0.00	14.75	2.14		2.14
2.00	0.00		0.00	15.00	2.01		2.01
2.25	0.00		0.00	15.25	1.90		1.90
2.50	0.00		0.00	15.50	1.81		1.81
2.75	0.00		0.00	15.75	1.73		1.73
3.00	0.00		0.00	16.00	1.65		1.65
3.25	0.00		0.00	16.25	1.59		1.59
3.50	0.00		0.00	16.50	1.53		1.53
3.75	0.01		0.01	16.75	1.48		1.48
4.00	0.01		0.01	17.00	1.43		1.43
4.25	0.02		0.02	17.25	1.38		1.38
4.50	0.02		0.02	17.50	1.34		1.34
4.75	0.04		0.04	17.75	1.30		1.30
5.00	0.07		0.07	18.00	1.26		1.26
5.25	0.11		0.11	18.25	1.23		1.23
5.50	0.14		0.14	18.50	1.20		1.20
5.75	0.18		0.18	18.75	1.17		1.17
6.00	0.22		0.22	19.00	1.14		1.14
6.25	0.26		0.26	19.25	1.12		1.12
6.50	0.30		0.30	19.50	1.09		1.09
6.75	0.34		0.34	19.75	1.07		1.07
7.00	0.38		0.38	20.00	1.05		1.05
7.25	0.43		0.43	20.25	1.02		1.02
7.50	0.48		0.48	20.50	1.00		1.00
7.75	0.54		0.54	20.75	0.99		0.99
8.00	0.59		0.59	21.00	0.97		0.97
8.25	0.66		0.66	21.25	0.95		0.95
8.50	0.73		0.73	21.50	0.93		0.93
8.75	0.80		0.80	21.75	0.92		0.92
9.00	0.89		0.89	22.00	0.90		0.90
9.25	0.98		0.98	22.25	0.89		0.89
9.50	1.09		1.09	22.50	0.88		0.88
9.75	1.21		1.21	22.75	0.86		0.86
10.00	1.36		1.36	23.00	0.85		0.85
10.25	1.54		1.54	23.25	0.84		0.84
10.50	1.75		1.75	23.50	0.83		0.83
10.75	2.02		2.02	23.75	0.81		0.81
11.00	2.39		2.39	24.00	0.80		0.80
11.25	2.91		2.91				
11.50	3.76		3.76				
11.75	7.30		7.30				
12.00	18.20		18.20				
12.25	24.04		24.04				
12.50	12.99		12.99				
12.75	7.16		7.16				

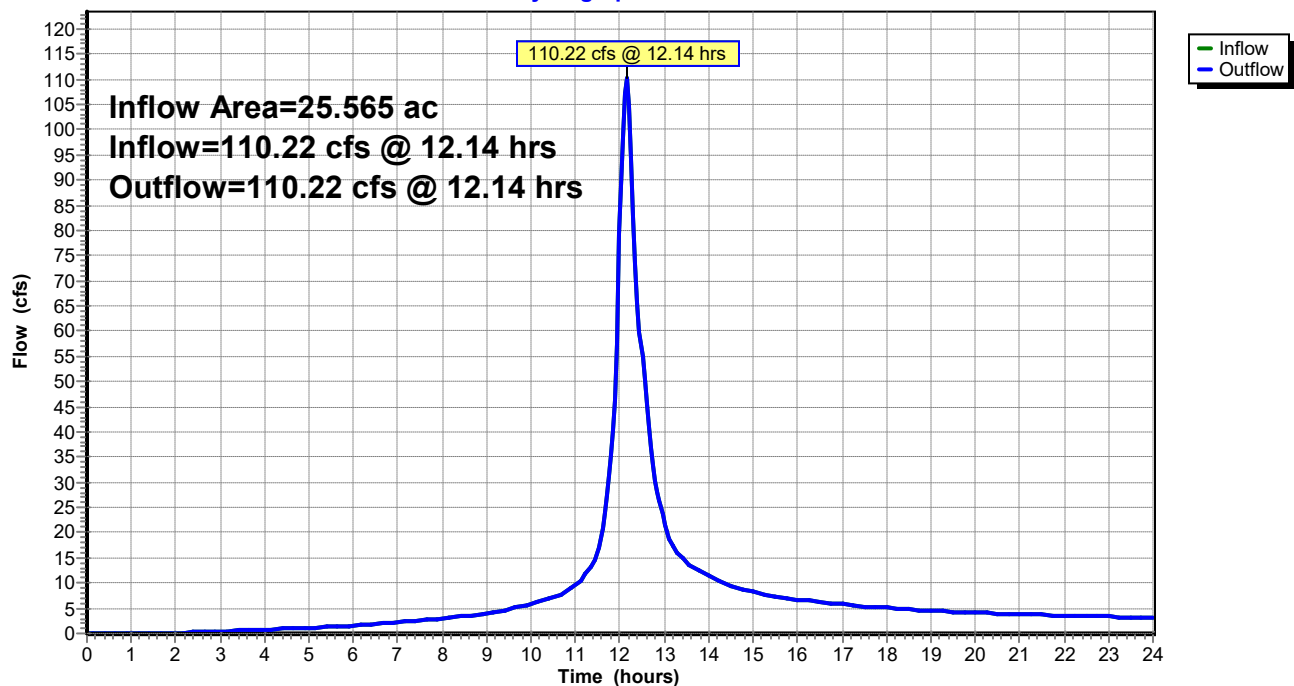
Summary for Reach DP-2:

Inflow Area = 25.565 ac, 38.32% Impervious, Inflow Depth > 6.77" for 100-yr event
 Inflow = 110.22 cfs @ 12.14 hrs, Volume= 14.432 af
 Outflow = 110.22 cfs @ 12.14 hrs, Volume= 14.432 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-2:

Hydrograph



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Reach DP-2:

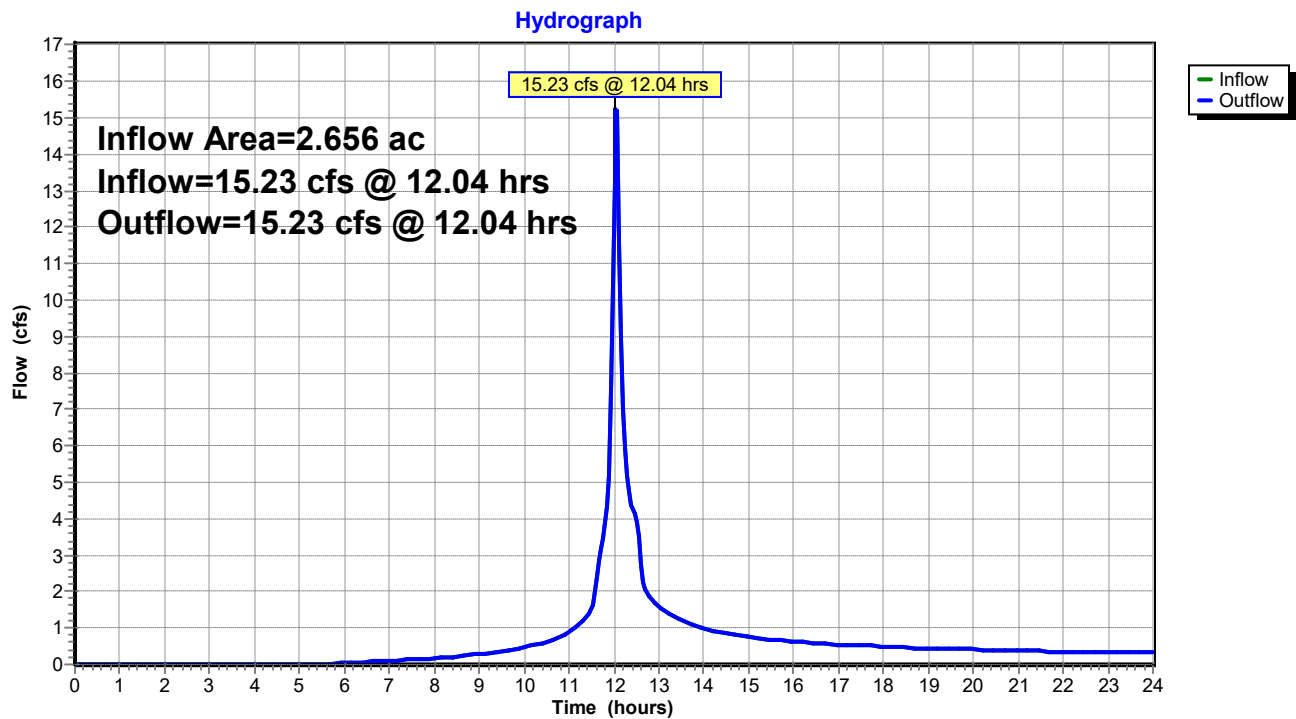
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	21.50		21.50
0.25	0.00		0.00	13.25	16.40		16.40
0.50	0.00		0.00	13.50	14.15		14.15
0.75	0.00		0.00	13.75	12.60		12.60
1.00	0.00		0.00	14.00	11.31		11.31
1.25	0.00		0.00	14.25	10.30		10.30
1.50	0.00		0.00	14.50	9.48		9.48
1.75	0.04		0.04	14.75	8.82		8.82
2.00	0.08		0.08	15.00	8.27		8.27
2.25	0.14		0.14	15.25	7.80		7.80
2.50	0.23		0.23	15.50	7.39		7.39
2.75	0.32		0.32	15.75	7.04		7.04
3.00	0.41		0.41	16.00	6.72		6.72
3.25	0.50		0.50	16.25	6.44		6.44
3.50	0.59		0.59	16.50	6.18		6.18
3.75	0.68		0.68	16.75	5.96		5.96
4.00	0.76		0.76	17.00	5.75		5.75
4.25	0.84		0.84	17.25	5.55		5.55
4.50	0.93		0.93	17.50	5.38		5.38
4.75	1.01		1.01	17.75	5.22		5.22
5.00	1.09		1.09	18.00	5.06		5.06
5.25	1.19		1.19	18.25	4.92		4.92
5.50	1.31		1.31	18.50	4.79		4.79
5.75	1.45		1.45	18.75	4.67		4.67
6.00	1.59		1.59	19.00	4.55		4.55
6.25	1.73		1.73	19.25	4.45		4.45
6.50	1.88		1.88	19.50	4.34		4.34
6.75	2.04		2.04	19.75	4.25		4.25
7.00	2.20		2.20	20.00	4.15		4.15
7.25	2.38		2.38	20.25	4.07		4.07
7.50	2.56		2.56	20.50	3.98		3.98
7.75	2.76		2.76	20.75	3.91		3.91
8.00	2.97		2.97	21.00	3.83		3.83
8.25	3.20		3.20	21.25	3.76		3.76
8.50	3.45		3.45	21.50	3.69		3.69
8.75	3.73		3.73	21.75	3.63		3.63
9.00	4.04		4.04	22.00	3.57		3.57
9.25	4.38		4.38	22.25	3.51		3.51
9.50	4.78		4.78	22.50	3.45		3.45
9.75	5.23		5.23	22.75	3.39		3.39
10.00	5.77		5.77	23.00	3.34		3.34
10.25	6.41		6.41	23.25	3.29		3.29
10.50	7.21		7.21	23.50	3.24		3.24
10.75	8.21		8.21	23.75	3.19		3.19
11.00	9.67		9.67	24.00	3.15		3.15
11.25	12.17		12.17				
11.50	16.18		16.18				
11.75	31.26		31.26				
12.00	79.24		79.24				
12.25	94.32		94.32				
12.50	54.87		54.87				
12.75	33.21		33.21				

Summary for Reach DP-3:

Inflow Area = 2.656 ac, 1.81% Impervious, Inflow Depth > 5.67" for 100-yr event
 Inflow = 15.23 cfs @ 12.04 hrs, Volume= 1.256 af
 Outflow = 15.23 cfs @ 12.04 hrs, Volume= 1.256 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-3:



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Reach DP-3:

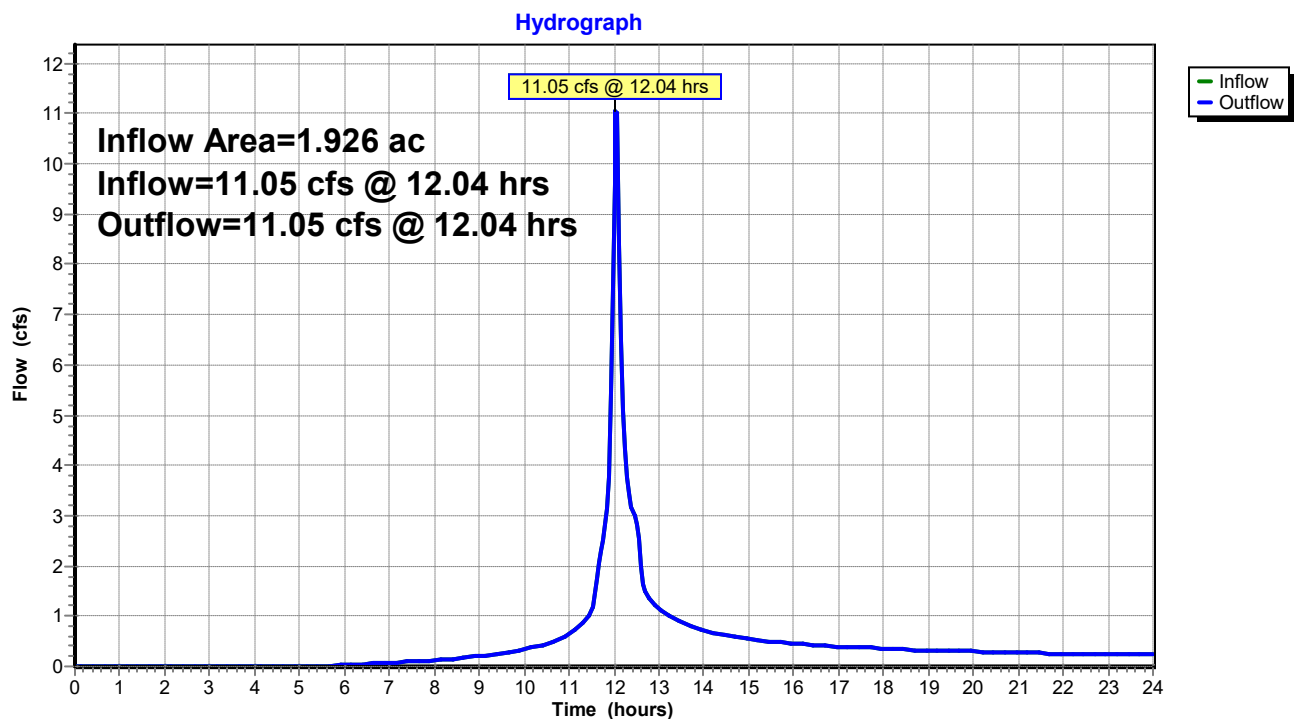
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.57		1.57
0.25	0.00		0.00	13.25	1.35		1.35
0.50	0.00		0.00	13.50	1.19		1.19
0.75	0.00		0.00	13.75	1.08		1.08
1.00	0.00		0.00	14.00	0.99		0.99
1.25	0.00		0.00	14.25	0.92		0.92
1.50	0.00		0.00	14.50	0.86		0.86
1.75	0.00		0.00	14.75	0.81		0.81
2.00	0.00		0.00	15.00	0.76		0.76
2.25	0.00		0.00	15.25	0.72		0.72
2.50	0.00		0.00	15.50	0.69		0.69
2.75	0.00		0.00	15.75	0.66		0.66
3.00	0.00		0.00	16.00	0.63		0.63
3.25	0.00		0.00	16.25	0.61		0.61
3.50	0.00		0.00	16.50	0.59		0.59
3.75	0.00		0.00	16.75	0.57		0.57
4.00	0.00		0.00	17.00	0.55		0.55
4.25	0.00		0.00	17.25	0.53		0.53
4.50	0.00		0.00	17.50	0.52		0.52
4.75	0.00		0.00	17.75	0.50		0.50
5.00	0.00		0.00	18.00	0.49		0.49
5.25	0.00		0.00	18.25	0.48		0.48
5.50	0.01		0.01	18.50	0.46		0.46
5.75	0.02		0.02	18.75	0.45		0.45
6.00	0.04		0.04	19.00	0.44		0.44
6.25	0.05		0.05	19.25	0.43		0.43
6.50	0.06		0.06	19.50	0.42		0.42
6.75	0.08		0.08	19.75	0.42		0.42
7.00	0.10		0.10	20.00	0.41		0.41
7.25	0.11		0.11	20.25	0.40		0.40
7.50	0.13		0.13	20.50	0.39		0.39
7.75	0.15		0.15	20.75	0.38		0.38
8.00	0.17		0.17	21.00	0.38		0.38
8.25	0.20		0.20	21.25	0.37		0.37
8.50	0.22		0.22	21.50	0.36		0.36
8.75	0.25		0.25	21.75	0.36		0.36
9.00	0.28		0.28	22.00	0.35		0.35
9.25	0.32		0.32	22.25	0.35		0.35
9.50	0.36		0.36	22.50	0.34		0.34
9.75	0.41		0.41	22.75	0.34		0.34
10.00	0.47		0.47	23.00	0.33		0.33
10.25	0.54		0.54	23.25	0.33		0.33
10.50	0.62		0.62	23.50	0.32		0.32
10.75	0.74		0.74	23.75	0.32		0.32
11.00	0.89		0.89	24.00	0.31		0.31
11.25	1.12		1.12				
11.50	1.52		1.52				
11.75	3.45		3.45				
12.00	13.23		13.23				
12.25	5.95		5.95				
12.50	3.87		3.87				
12.75	1.93		1.93				

Summary for Reach DP-4:

Inflow Area = 1.926 ac, 1.45% Impervious, Inflow Depth > 5.67" for 100-yr event
 Inflow = 11.05 cfs @ 12.04 hrs, Volume= 0.911 af
 Outflow = 11.05 cfs @ 12.04 hrs, Volume= 0.911 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-4:



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Reach DP-4:

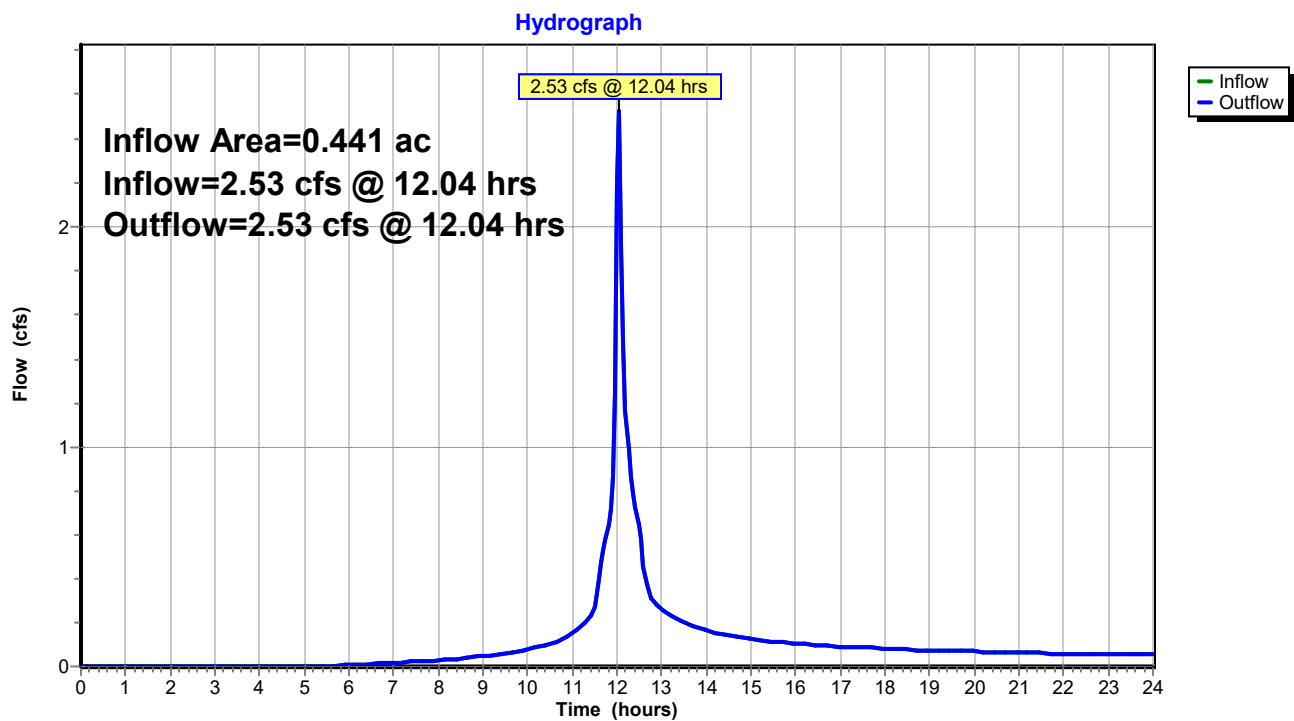
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.14		1.14
0.25	0.00		0.00	13.25	0.98		0.98
0.50	0.00		0.00	13.50	0.87		0.87
0.75	0.00		0.00	13.75	0.78		0.78
1.00	0.00		0.00	14.00	0.72		0.72
1.25	0.00		0.00	14.25	0.67		0.67
1.50	0.00		0.00	14.50	0.62		0.62
1.75	0.00		0.00	14.75	0.58		0.58
2.00	0.00		0.00	15.00	0.55		0.55
2.25	0.00		0.00	15.25	0.52		0.52
2.50	0.00		0.00	15.50	0.50		0.50
2.75	0.00		0.00	15.75	0.48		0.48
3.00	0.00		0.00	16.00	0.46		0.46
3.25	0.00		0.00	16.25	0.44		0.44
3.50	0.00		0.00	16.50	0.43		0.43
3.75	0.00		0.00	16.75	0.41		0.41
4.00	0.00		0.00	17.00	0.40		0.40
4.25	0.00		0.00	17.25	0.39		0.39
4.50	0.00		0.00	17.50	0.37		0.37
4.75	0.00		0.00	17.75	0.36		0.36
5.00	0.00		0.00	18.00	0.35		0.35
5.25	0.00		0.00	18.25	0.35		0.35
5.50	0.01		0.01	18.50	0.34		0.34
5.75	0.02		0.02	18.75	0.33		0.33
6.00	0.03		0.03	19.00	0.32		0.32
6.25	0.04		0.04	19.25	0.31		0.31
6.50	0.05		0.05	19.50	0.31		0.31
6.75	0.06		0.06	19.75	0.30		0.30
7.00	0.07		0.07	20.00	0.30		0.30
7.25	0.08		0.08	20.25	0.29		0.29
7.50	0.10		0.10	20.50	0.28		0.28
7.75	0.11		0.11	20.75	0.28		0.28
8.00	0.13		0.13	21.00	0.27		0.27
8.25	0.14		0.14	21.25	0.27		0.27
8.50	0.16		0.16	21.50	0.26		0.26
8.75	0.18		0.18	21.75	0.26		0.26
9.00	0.21		0.21	22.00	0.26		0.26
9.25	0.23		0.23	22.25	0.25		0.25
9.50	0.26		0.26	22.50	0.25		0.25
9.75	0.30		0.30	22.75	0.24		0.24
10.00	0.34		0.34	23.00	0.24		0.24
10.25	0.39		0.39	23.25	0.24		0.24
10.50	0.45		0.45	23.50	0.23		0.23
10.75	0.53		0.53	23.75	0.23		0.23
11.00	0.65		0.65	24.00	0.23		0.23
11.25	0.81		0.81				
11.50	1.10		1.10				
11.75	2.50		2.50				
12.00	9.59		9.59				
12.25	4.31		4.31				
12.50	2.81		2.81				
12.75	1.40		1.40				

Summary for Reach DP-5:

Inflow Area = 0.441 ac, 0.00% Impervious, Inflow Depth > 5.67" for 100-yr event
 Inflow = 2.53 cfs @ 12.04 hrs, Volume= 0.208 af
 Outflow = 2.53 cfs @ 12.04 hrs, Volume= 0.208 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach DP-5:



NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Reach DP-5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.26		0.26
0.25	0.00		0.00	13.25	0.22		0.22
0.50	0.00		0.00	13.50	0.20		0.20
0.75	0.00		0.00	13.75	0.18		0.18
1.00	0.00		0.00	14.00	0.16		0.16
1.25	0.00		0.00	14.25	0.15		0.15
1.50	0.00		0.00	14.50	0.14		0.14
1.75	0.00		0.00	14.75	0.13		0.13
2.00	0.00		0.00	15.00	0.13		0.13
2.25	0.00		0.00	15.25	0.12		0.12
2.50	0.00		0.00	15.50	0.11		0.11
2.75	0.00		0.00	15.75	0.11		0.11
3.00	0.00		0.00	16.00	0.11		0.11
3.25	0.00		0.00	16.25	0.10		0.10
3.50	0.00		0.00	16.50	0.10		0.10
3.75	0.00		0.00	16.75	0.09		0.09
4.00	0.00		0.00	17.00	0.09		0.09
4.25	0.00		0.00	17.25	0.09		0.09
4.50	0.00		0.00	17.50	0.09		0.09
4.75	0.00		0.00	17.75	0.08		0.08
5.00	0.00		0.00	18.00	0.08		0.08
5.25	0.00		0.00	18.25	0.08		0.08
5.50	0.00		0.00	18.50	0.08		0.08
5.75	0.00		0.00	18.75	0.08		0.08
6.00	0.01		0.01	19.00	0.07		0.07
6.25	0.01		0.01	19.25	0.07		0.07
6.50	0.01		0.01	19.50	0.07		0.07
6.75	0.01		0.01	19.75	0.07		0.07
7.00	0.02		0.02	20.00	0.07		0.07
7.25	0.02		0.02	20.25	0.07		0.07
7.50	0.02		0.02	20.50	0.06		0.06
7.75	0.03		0.03	20.75	0.06		0.06
8.00	0.03		0.03	21.00	0.06		0.06
8.25	0.03		0.03	21.25	0.06		0.06
8.50	0.04		0.04	21.50	0.06		0.06
8.75	0.04		0.04	21.75	0.06		0.06
9.00	0.05		0.05	22.00	0.06		0.06
9.25	0.05		0.05	22.25	0.06		0.06
9.50	0.06		0.06	22.50	0.06		0.06
9.75	0.07		0.07	22.75	0.06		0.06
10.00	0.08		0.08	23.00	0.06		0.06
10.25	0.09		0.09	23.25	0.05		0.05
10.50	0.10		0.10	23.50	0.05		0.05
10.75	0.12		0.12	23.75	0.05		0.05
11.00	0.15		0.15	24.00	0.05		0.05
11.25	0.19		0.19				
11.50	0.25		0.25				
11.75	0.57		0.57				
12.00	2.20		2.20				
12.25	0.99		0.99				
12.50	0.64		0.64				
12.75	0.32		0.32				

Summary for Pond I-4 (4A): Stormtech System

Inflow Area = 3.744 ac, 58.36% Impervious, Inflow Depth > 7.78" for 100-yr event
 Inflow = 27.87 cfs @ 12.04 hrs, Volume= 2.429 af
 Outflow = 10.61 cfs @ 12.24 hrs, Volume= 2.030 af, Atten= 62%, Lag= 12.3 min
 Discarded = 0.12 cfs @ 3.65 hrs, Volume= 0.210 af
 Primary = 10.49 cfs @ 12.24 hrs, Volume= 1.820 af
 Routed to Reach DP-2 :

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 409.42' @ 12.24 hrs Surf.Area= 0.239 ac Storage= 0.813 af

Plug-Flow detention time= 149.3 min calculated for 2.026 af (83% of inflow)
 Center-of-Mass det. time= 69.5 min (854.5 - 785.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	404.00'	0.330 af	58.58'W x 177.78'L x 5.50'H Field A 1.315 af Overall - 0.490 af Embedded = 0.825 af x 40.0% Voids
#2A	404.75'	0.490 af	ADS_StormTech MC-3500 d +Cap x 192 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 192 Chambers in 8 Rows Cap Storage= 14.9 cf x 2 x 8 rows = 238.4 cf
		0.820 af	Total Available Storage

Storage Group A created with Chamber Wizard

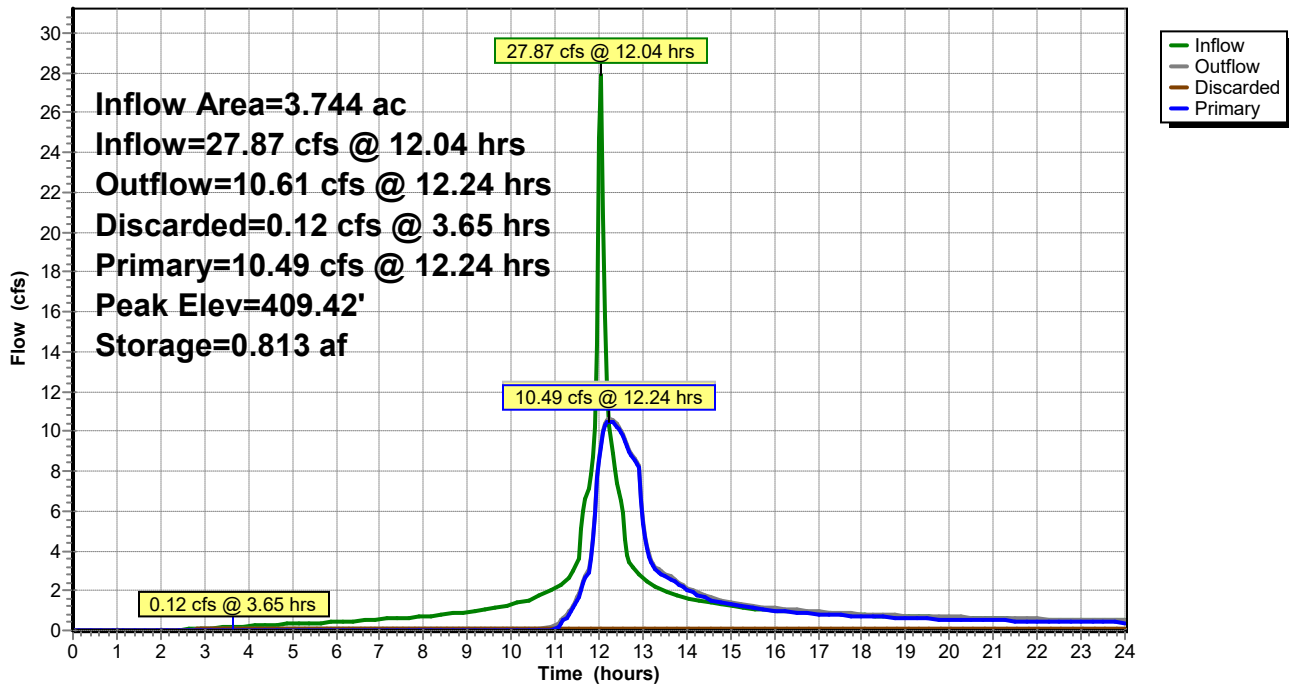
Device	Routing	Invert	Outlet Devices
#1	Primary	404.00'	12.0" Round Culvert L= 20.0' Ke= 0.200 Inlet / Outlet Invert= 404.00' / 403.00' S= 0.0500 ' / Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	406.15'	9.0" Vert. Orifice/Grate X 2.00 C= 0.600 Limited to weir flow at low heads
#3	Device 1	407.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Discarded	404.00'	0.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.12 cfs @ 3.65 hrs HW=404.06' (Free Discharge)
 ↳ **4=Exfiltration** (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=10.48 cfs @ 12.24 hrs HW=409.42' (Free Discharge)
 ↳ **1=Culvert** (Inlet Controls 10.48 cfs @ 13.35 fps)
 ↳ **2=Orifice/Grate** (Passes < 7.24 cfs potential flow)
 ↳ **3=Sharp-Crested Rectangular Weir** (Passes < 43.26 cfs potential flow)

Pond I-4 (4A): Stormtech System

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Pond I-4 (4A): Stormtech System

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	404.00	0.00	0.00	0.00
0.50	0.00	0.000	404.00	0.00	0.00	0.00
1.00	0.00	0.000	404.00	0.00	0.00	0.00
1.50	0.00	0.000	404.00	0.00	0.00	0.00
2.00	0.00	0.000	404.00	0.00	0.00	0.00
2.50	0.05	0.001	404.01	0.02	0.02	0.00
3.00	0.11	0.003	404.03	0.06	0.06	0.00
3.50	0.16	0.005	404.05	0.11	0.11	0.00
4.00	0.22	0.008	404.08	0.12	0.12	0.00
4.50	0.27	0.013	404.13	0.12	0.12	0.00
5.00	0.32	0.020	404.21	0.12	0.12	0.00
5.50	0.37	0.029	404.30	0.12	0.12	0.00
6.00	0.43	0.041	404.43	0.12	0.12	0.00
6.50	0.49	0.055	404.57	0.12	0.12	0.00
7.00	0.56	0.071	404.75	0.12	0.12	0.00
7.50	0.63	0.091	404.84	0.12	0.12	0.00
8.00	0.71	0.114	404.95	0.12	0.12	0.00
8.50	0.81	0.140	405.08	0.12	0.12	0.00
9.00	0.93	0.171	405.23	0.12	0.12	0.00
9.50	1.08	0.207	405.41	0.12	0.12	0.00
10.00	1.29	0.251	405.63	0.12	0.12	0.00
10.50	1.59	0.305	405.90	0.12	0.12	0.00
11.00	2.11	0.375	406.26	0.21	0.12	0.09
11.50	3.32	0.449	406.65	1.63	0.12	1.51
12.00	24.70	0.631	407.73	8.62	0.12	8.50
12.50	6.51	0.762	408.89	10.03	0.12	9.91
13.00	2.59	0.557	407.26	5.51	0.12	5.39
13.50	1.95	0.500	406.93	2.84	0.12	2.72
14.00	1.60	0.469	406.76	2.18	0.12	2.06
14.50	1.38	0.451	406.67	1.70	0.12	1.58
15.00	1.22	0.441	406.61	1.43	0.12	1.30
15.50	1.10	0.434	406.57	1.25	0.12	1.13
16.00	1.01	0.429	406.54	1.12	0.12	1.00
16.50	0.93	0.425	406.52	1.02	0.12	0.90
17.00	0.87	0.421	406.50	0.94	0.12	0.82
17.50	0.82	0.418	406.49	0.88	0.12	0.76
18.00	0.77	0.416	406.47	0.83	0.12	0.71
18.50	0.73	0.414	406.46	0.78	0.12	0.66
19.00	0.70	0.412	406.45	0.74	0.12	0.62
19.50	0.66	0.410	406.44	0.71	0.12	0.59
20.00	0.64	0.408	406.43	0.67	0.12	0.55
20.50	0.61	0.407	406.42	0.65	0.12	0.52
21.00	0.59	0.405	406.42	0.62	0.12	0.50
21.50	0.57	0.404	406.41	0.60	0.12	0.48
22.00	0.55	0.403	406.41	0.58	0.12	0.46
22.50	0.53	0.402	406.40	0.56	0.12	0.44
23.00	0.52	0.401	406.39	0.54	0.12	0.42
23.50	0.50	0.400	406.39	0.52	0.12	0.40
24.00	0.49	0.399	406.38	0.51	0.12	0.39

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-1A:

Runoff = 23.67 cfs @ 12.17 hrs, Volume= 2.750 af, Depth> 6.16"
Routed to Reach DP-1 :

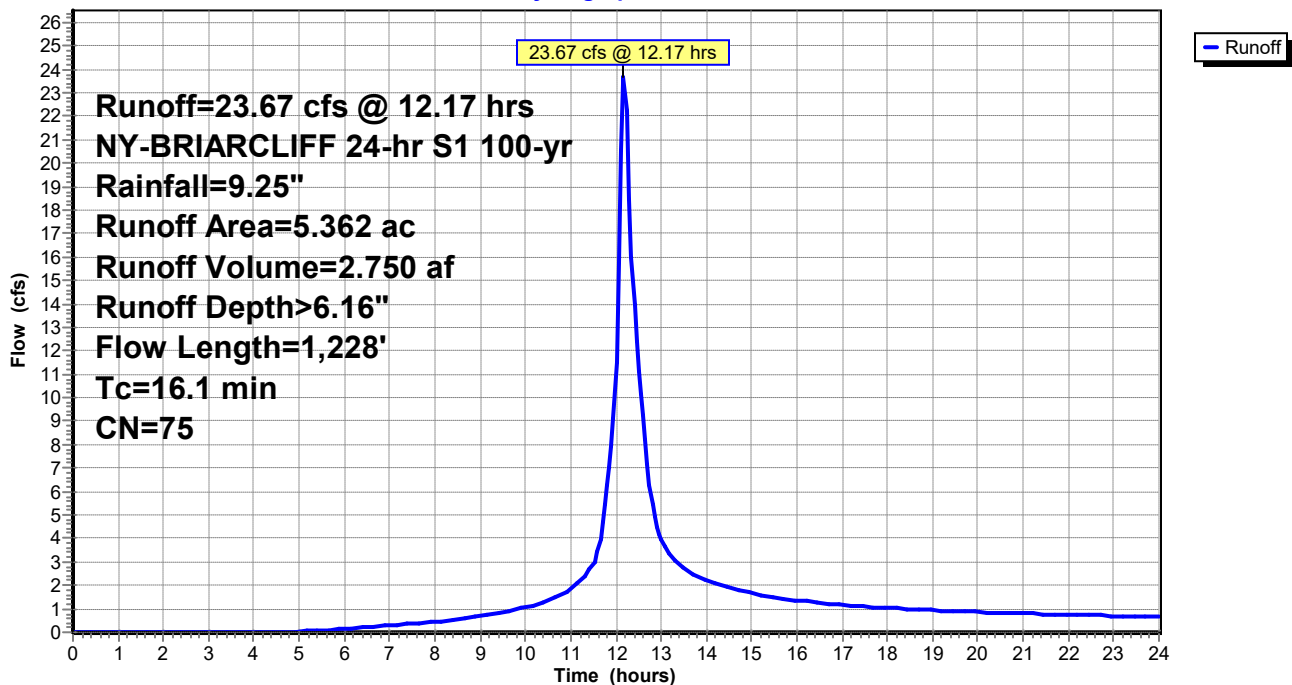
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.421	70	Woods, Good, HSG C
4.674	74	>75% Grass cover, Good, HSG C
0.267	98	Paved parking, HSG C
5.362	75	Weighted Average
5.095		95.02% Pervious Area
0.267		4.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	150	0.0333	0.22		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
3.2	442	0.0238	2.31		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.5	636	0.0197	6.90	5.42	Pipe Channel, 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Corrugated PP, smooth interior
16.1	1,228	Total			

Subcatchment PDA-1A:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-1A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	3.82	3.92
0.25	0.03	0.00	0.00	13.25	6.78	3.96	3.17
0.50	0.07	0.00	0.00	13.50	6.92	4.08	2.74
0.75	0.10	0.00	0.00	13.75	7.04	4.18	2.44
1.00	0.13	0.00	0.00	14.00	7.15	4.28	2.21
1.25	0.17	0.00	0.00	14.25	7.25	4.37	2.03
1.50	0.21	0.00	0.00	14.50	7.34	4.45	1.89
1.75	0.24	0.00	0.00	14.75	7.43	4.53	1.76
2.00	0.28	0.00	0.00	15.00	7.52	4.61	1.66
2.25	0.32	0.00	0.00	15.25	7.60	4.68	1.57
2.50	0.35	0.00	0.00	15.50	7.67	4.75	1.49
2.75	0.39	0.00	0.00	15.75	7.74	4.81	1.43
3.00	0.43	0.00	0.00	16.00	7.81	4.87	1.36
3.25	0.47	0.00	0.00	16.25	7.88	4.93	1.31
3.50	0.51	0.00	0.00	16.50	7.94	4.99	1.26
3.75	0.55	0.00	0.00	16.75	8.00	5.04	1.22
4.00	0.60	0.00	0.00	17.00	8.06	5.10	1.17
4.25	0.64	0.00	0.00	17.25	8.12	5.15	1.14
4.50	0.68	0.00	0.00	17.50	8.17	5.20	1.10
4.75	0.73	0.00	0.01	17.75	8.23	5.25	1.07
5.00	0.78	0.00	0.04	18.00	8.28	5.30	1.04
5.25	0.82	0.01	0.06	18.25	8.33	5.34	1.01
5.50	0.87	0.01	0.09	18.50	8.38	5.39	0.99
5.75	0.92	0.02	0.12	18.75	8.43	5.43	0.96
6.00	0.97	0.03	0.15	19.00	8.48	5.47	0.94
6.25	1.03	0.03	0.18	19.25	8.52	5.52	0.92
6.50	1.08	0.05	0.21	19.50	8.57	5.56	0.90
6.75	1.14	0.06	0.25	19.75	8.61	5.60	0.88
7.00	1.19	0.07	0.28	20.00	8.66	5.64	0.86
7.25	1.25	0.09	0.32	20.25	8.70	5.68	0.84
7.50	1.31	0.11	0.36	20.50	8.74	5.71	0.83
7.75	1.38	0.13	0.41	20.75	8.78	5.75	0.81
8.00	1.44	0.15	0.45	21.00	8.82	5.79	0.80
8.25	1.51	0.17	0.50	21.25	8.86	5.82	0.78
8.50	1.59	0.20	0.56	21.50	8.90	5.86	0.77
8.75	1.66	0.23	0.62	21.75	8.94	5.89	0.76
9.00	1.74	0.26	0.69	22.00	8.97	5.93	0.74
9.25	1.83	0.30	0.76	22.25	9.01	5.96	0.73
9.50	1.92	0.34	0.85	22.50	9.05	5.99	0.72
9.75	2.01	0.39	0.95	22.75	9.08	6.03	0.71
10.00	2.12	0.44	1.06	23.00	9.12	6.06	0.70
10.25	2.23	0.50	1.20	23.25	9.15	6.09	0.69
10.50	2.35	0.57	1.37	23.50	9.18	6.12	0.68
10.75	2.49	0.65	1.59	23.75	9.22	6.15	0.67
11.00	2.65	0.74	1.88	24.00	9.25	6.18	0.66
11.25	2.84	0.86	2.28				
11.50	3.08	1.01	2.92				
11.75	3.58	1.36	5.46				
12.00	4.95	2.41	11.53				
12.25	5.75	3.07	21.18				
12.50	6.22	3.47	11.15				
12.75	6.44	3.66	6.25				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-1B:

Runoff = 7.59 cfs @ 12.04 hrs, Volume= 0.637 af, Depth> 6.80"
Routed to Reach DP-1 :

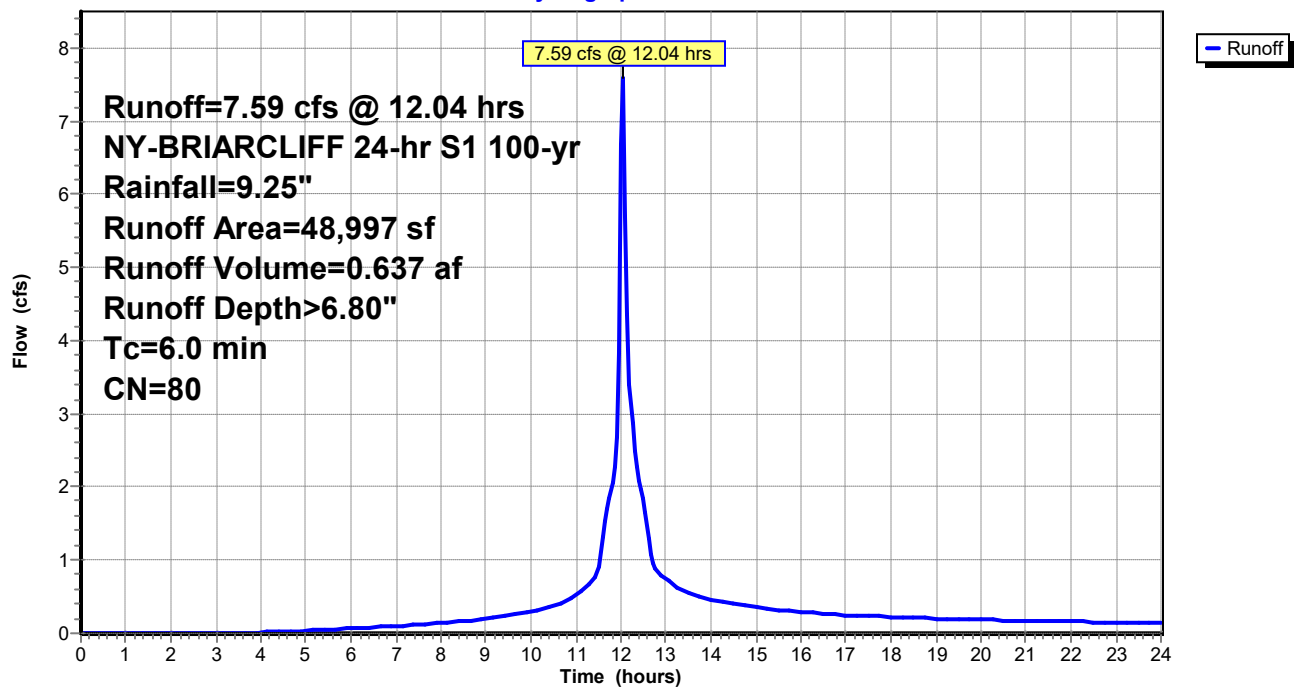
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (sf)	CN	Description
37,525	74	>75% Grass cover, Good, HSG C
11,472	98	Paved parking, HSG C
48,997	80	Weighted Average
37,525		76.59% Pervious Area
11,472		23.41% Impervious Area

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

Subcatchment PDA-1B:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-1B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	4.35	0.73
0.25	0.03	0.00	0.00	13.25	6.78	4.49	0.63
0.50	0.07	0.00	0.00	13.50	6.92	4.62	0.56
0.75	0.10	0.00	0.00	13.75	7.04	4.73	0.50
1.00	0.13	0.00	0.00	14.00	7.15	4.83	0.46
1.25	0.17	0.00	0.00	14.25	7.25	4.93	0.42
1.50	0.21	0.00	0.00	14.50	7.34	5.01	0.40
1.75	0.24	0.00	0.00	14.75	7.43	5.10	0.37
2.00	0.28	0.00	0.00	15.00	7.52	5.17	0.35
2.25	0.32	0.00	0.00	15.25	7.60	5.25	0.33
2.50	0.35	0.00	0.00	15.50	7.67	5.32	0.32
2.75	0.39	0.00	0.00	15.75	7.74	5.38	0.30
3.00	0.43	0.00	0.00	16.00	7.81	5.45	0.29
3.25	0.47	0.00	0.00	16.25	7.88	5.51	0.28
3.50	0.51	0.00	0.00	16.50	7.94	5.57	0.27
3.75	0.55	0.00	0.01	16.75	8.00	5.63	0.26
4.00	0.60	0.00	0.01	17.00	8.06	5.68	0.25
4.25	0.64	0.01	0.02	17.25	8.12	5.74	0.24
4.50	0.68	0.01	0.02	17.50	8.17	5.79	0.24
4.75	0.73	0.02	0.03	17.75	8.23	5.84	0.23
5.00	0.78	0.03	0.04	18.00	8.28	5.89	0.22
5.25	0.82	0.04	0.04	18.25	8.33	5.94	0.22
5.50	0.87	0.05	0.05	18.50	8.38	5.98	0.21
5.75	0.92	0.06	0.06	18.75	8.43	6.03	0.21
6.00	0.97	0.08	0.07	19.00	8.48	6.07	0.20
6.25	1.03	0.09	0.07	19.25	8.52	6.12	0.20
6.50	1.08	0.11	0.08	19.50	8.57	6.16	0.19
6.75	1.14	0.13	0.09	19.75	8.61	6.20	0.19
7.00	1.19	0.15	0.10	20.00	8.66	6.24	0.18
7.25	1.25	0.17	0.11	20.25	8.70	6.28	0.18
7.50	1.31	0.20	0.12	20.50	8.74	6.32	0.18
7.75	1.38	0.23	0.13	20.75	8.78	6.36	0.17
8.00	1.44	0.26	0.14	21.00	8.82	6.40	0.17
8.25	1.51	0.29	0.15	21.25	8.86	6.43	0.17
8.50	1.59	0.33	0.17	21.50	8.90	6.47	0.16
8.75	1.66	0.37	0.18	21.75	8.94	6.51	0.16
9.00	1.74	0.41	0.20	22.00	8.97	6.54	0.16
9.25	1.83	0.46	0.22	22.25	9.01	6.58	0.16
9.50	1.92	0.51	0.24	22.50	9.05	6.61	0.15
9.75	2.01	0.57	0.27	22.75	9.08	6.64	0.15
10.00	2.12	0.64	0.30	23.00	9.12	6.68	0.15
10.25	2.23	0.71	0.33	23.25	9.15	6.71	0.15
10.50	2.35	0.79	0.38	23.50	9.18	6.74	0.15
10.75	2.49	0.88	0.44	23.75	9.22	6.77	0.14
11.00	2.65	1.00	0.52	24.00	9.25	6.81	0.14
11.25	2.84	1.13	0.63				
11.50	3.08	1.31	0.84				
11.75	3.58	1.70	1.84				
12.00	4.95	2.85	6.67				
12.25	5.75	3.55	2.86				
12.50	6.22	3.98	1.83				
12.75	6.44	4.18	0.91				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-2A:

Runoff = 27.87 cfs @ 12.04 hrs, Volume= 2.429 af, Depth> 7.78"
Routed to Pond I-4 (4A) : Stormtech System

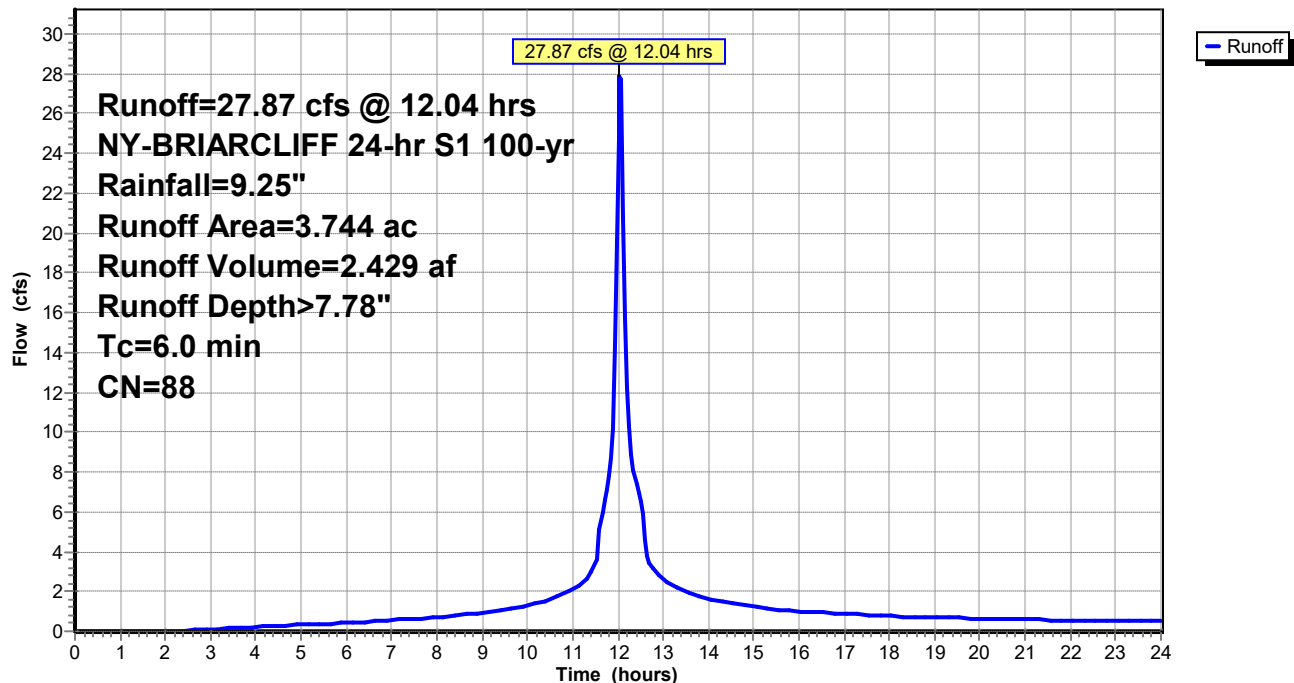
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
2.185	98	Paved parking, HSG C
3.744	88	Weighted Average
1.559		41.64% Pervious Area
2.185		58.36% Impervious Area

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

Subcatchment PDA-2A:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-2A:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	5.23	2.59
0.25	0.03	0.00	0.00	13.25	6.78	5.38	2.22
0.50	0.07	0.00	0.00	13.50	6.92	5.51	1.95
0.75	0.10	0.00	0.00	13.75	7.04	5.63	1.76
1.00	0.13	0.00	0.00	14.00	7.15	5.74	1.60
1.25	0.17	0.00	0.00	14.25	7.25	5.84	1.48
1.50	0.21	0.00	0.00	14.50	7.34	5.93	1.38
1.75	0.24	0.00	0.00	14.75	7.43	6.01	1.30
2.00	0.28	0.00	0.00	15.00	7.52	6.10	1.22
2.25	0.32	0.00	0.02	15.25	7.60	6.17	1.16
2.50	0.35	0.00	0.05	15.50	7.67	6.25	1.10
2.75	0.39	0.01	0.08	15.75	7.74	6.32	1.05
3.00	0.43	0.02	0.11	16.00	7.81	6.38	1.01
3.25	0.47	0.03	0.14	16.25	7.88	6.45	0.97
3.50	0.51	0.04	0.16	16.50	7.94	6.51	0.93
3.75	0.55	0.05	0.19	16.75	8.00	6.57	0.90
4.00	0.60	0.06	0.22	17.00	8.06	6.63	0.87
4.25	0.64	0.08	0.24	17.25	8.12	6.68	0.84
4.50	0.68	0.10	0.27	17.50	8.17	6.74	0.82
4.75	0.73	0.11	0.29	17.75	8.23	6.79	0.79
5.00	0.78	0.14	0.32	18.00	8.28	6.84	0.77
5.25	0.82	0.16	0.35	18.25	8.33	6.89	0.75
5.50	0.87	0.18	0.37	18.50	8.38	6.94	0.73
5.75	0.92	0.21	0.40	18.75	8.43	6.99	0.71
6.00	0.97	0.24	0.43	19.00	8.48	7.04	0.70
6.25	1.03	0.27	0.46	19.25	8.52	7.08	0.68
6.50	1.08	0.30	0.49	19.50	8.57	7.12	0.66
6.75	1.14	0.33	0.52	19.75	8.61	7.17	0.65
7.00	1.19	0.37	0.56	20.00	8.66	7.21	0.64
7.25	1.25	0.41	0.59	20.25	8.70	7.25	0.62
7.50	1.31	0.45	0.63	20.50	8.74	7.29	0.61
7.75	1.38	0.50	0.67	20.75	8.78	7.33	0.60
8.00	1.44	0.54	0.71	21.00	8.82	7.37	0.59
8.25	1.51	0.59	0.76	21.25	8.86	7.41	0.58
8.50	1.59	0.64	0.81	21.50	8.90	7.45	0.57
8.75	1.66	0.70	0.87	21.75	8.94	7.48	0.56
9.00	1.74	0.76	0.93	22.00	8.97	7.52	0.55
9.25	1.83	0.83	1.00	22.25	9.01	7.56	0.54
9.50	1.92	0.90	1.08	22.50	9.05	7.59	0.53
9.75	2.01	0.98	1.17	22.75	9.08	7.63	0.52
10.00	2.12	1.06	1.29	23.00	9.12	7.66	0.52
10.25	2.23	1.15	1.42	23.25	9.15	7.69	0.51
10.50	2.35	1.26	1.59	23.50	9.18	7.73	0.50
10.75	2.49	1.38	1.81	23.75	9.22	7.76	0.49
11.00	2.65	1.51	2.11	24.00	9.25	7.79	0.49
11.25	2.84	1.68	2.55				
11.50	3.08	1.89	3.32				
11.75	3.58	2.35	7.09				
12.00	4.95	3.62	24.70				
12.25	5.75	4.38	10.27				
12.50	6.22	4.84	6.51				
12.75	6.44	5.05	3.21				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-2B:

Runoff = 38.95 cfs @ 12.17 hrs, Volume= 4.732 af, Depth> 7.76"
 Routed to Reach DP-2 :

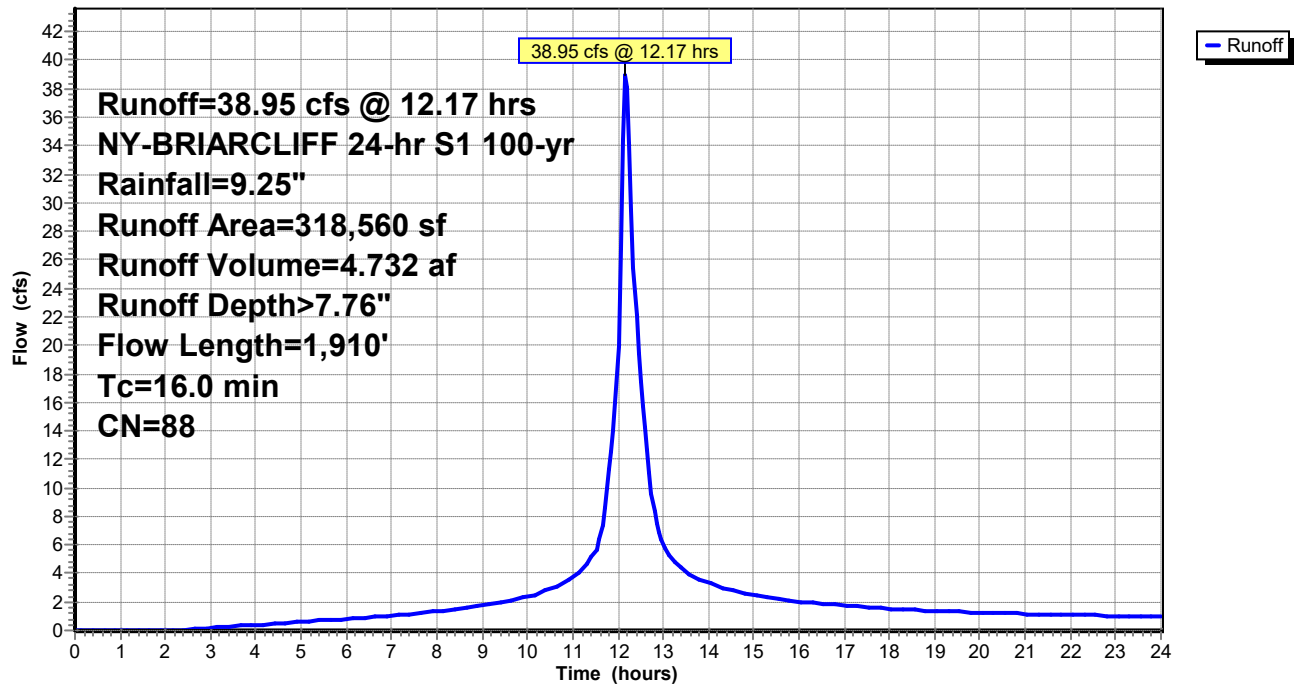
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (sf)	CN	Description
136,359	74	>75% Grass cover, Good, HSG C
182,201	98	Paved parking, HSG C
318,560	88	Weighted Average
136,359		42.80% Pervious Area
182,201		57.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.0200	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
2.2	409	0.0440	3.15		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
1.8	341	0.0235	3.11		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	768	0.0455	12.16	14.93	Pipe Channel, 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Corrugated PP, smooth interior
0.8	292	0.1642	6.08		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
16.0	1,910	Total			

Subcatchment PDA-2B:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-2B:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	5.23	5.97
0.25	0.03	0.00	0.00	13.25	6.78	5.38	4.80
0.50	0.07	0.00	0.00	13.50	6.92	5.51	4.13
0.75	0.10	0.00	0.00	13.75	7.04	5.63	3.67
1.00	0.13	0.00	0.00	14.00	7.15	5.74	3.32
1.25	0.17	0.00	0.00	14.25	7.25	5.84	3.05
1.50	0.21	0.00	0.00	14.50	7.34	5.93	2.82
1.75	0.24	0.00	0.00	14.75	7.43	6.01	2.63
2.00	0.28	0.00	0.00	15.00	7.52	6.10	2.48
2.25	0.32	0.00	0.02	15.25	7.60	6.17	2.34
2.50	0.35	0.00	0.07	15.50	7.67	6.25	2.22
2.75	0.39	0.01	0.12	15.75	7.74	6.32	2.12
3.00	0.43	0.02	0.18	16.00	7.81	6.38	2.02
3.25	0.47	0.03	0.23	16.25	7.88	6.45	1.94
3.50	0.51	0.04	0.28	16.50	7.94	6.51	1.87
3.75	0.55	0.05	0.34	16.75	8.00	6.57	1.80
4.00	0.60	0.06	0.39	17.00	8.06	6.63	1.74
4.25	0.64	0.08	0.44	17.25	8.12	6.68	1.68
4.50	0.68	0.10	0.49	17.50	8.17	6.74	1.63
4.75	0.73	0.11	0.54	17.75	8.23	6.79	1.58
5.00	0.78	0.14	0.59	18.00	8.28	6.84	1.53
5.25	0.82	0.16	0.65	18.25	8.33	6.89	1.49
5.50	0.87	0.18	0.70	18.50	8.38	6.94	1.45
5.75	0.92	0.21	0.75	18.75	8.43	6.99	1.41
6.00	0.97	0.24	0.81	19.00	8.48	7.04	1.38
6.25	1.03	0.27	0.86	19.25	8.52	7.08	1.35
6.50	1.08	0.30	0.92	19.50	8.57	7.12	1.32
6.75	1.14	0.33	0.98	19.75	8.61	7.17	1.29
7.00	1.19	0.37	1.05	20.00	8.66	7.21	1.26
7.25	1.25	0.41	1.11	20.25	8.70	7.25	1.24
7.50	1.31	0.45	1.18	20.50	8.74	7.29	1.21
7.75	1.38	0.50	1.26	20.75	8.78	7.33	1.19
8.00	1.44	0.54	1.34	21.00	8.82	7.37	1.17
8.25	1.51	0.59	1.43	21.25	8.86	7.41	1.14
8.50	1.59	0.64	1.52	21.50	8.90	7.45	1.12
8.75	1.66	0.70	1.62	21.75	8.94	7.48	1.10
9.00	1.74	0.76	1.74	22.00	8.97	7.52	1.09
9.25	1.83	0.83	1.87	22.25	9.01	7.56	1.07
9.50	1.92	0.90	2.01	22.50	9.05	7.59	1.05
9.75	2.01	0.98	2.18	22.75	9.08	7.63	1.03
10.00	2.12	1.06	2.38	23.00	9.12	7.66	1.02
10.25	2.23	1.15	2.61	23.25	9.15	7.69	1.00
10.50	2.35	1.26	2.90	23.50	9.18	7.73	0.99
10.75	2.49	1.38	3.27	23.75	9.22	7.76	0.97
11.00	2.65	1.51	3.75	24.00	9.25	7.79	0.96
11.25	2.84	1.68	4.44				
11.50	3.08	1.89	5.52				
11.75	3.58	2.35	9.97				
12.00	4.95	3.62	19.93				
12.25	5.75	4.38	34.19				
12.50	6.22	4.84	17.40				
12.75	6.44	5.05	9.57				

NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-2C:

Runoff = 34.41 cfs @ 12.04 hrs, Volume= 3.060 af, Depth> 8.15"
Routed to Reach DP-2 :

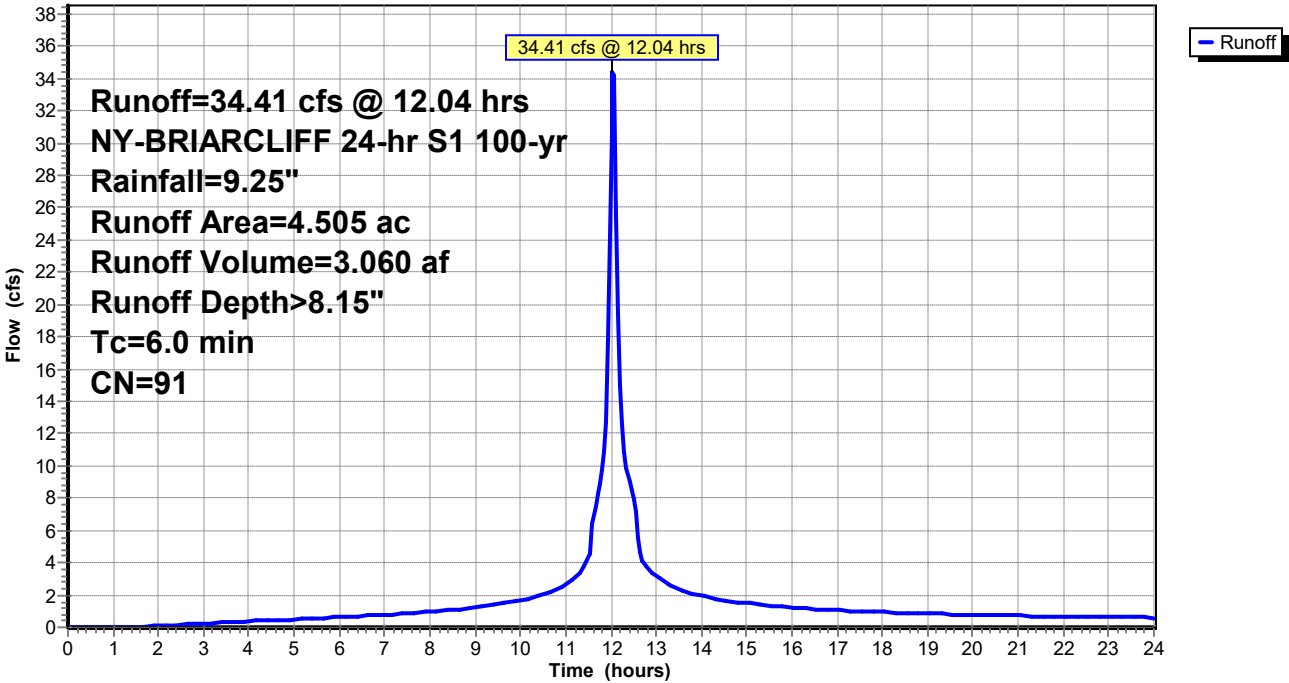
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
1.240	74	>75% Grass cover, Good, HSG C
3.265	98	Paved parking, HSG C
4.505	91	Weighted Average
1.240		27.52% Pervious Area
3.265		72.48% Impervious Area

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

Subcatchment PDA-2C:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-2C:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	5.57	3.16
0.25	0.03	0.00	0.00	13.25	6.78	5.72	2.71
0.50	0.07	0.00	0.00	13.50	6.92	5.86	2.38
0.75	0.10	0.00	0.00	13.75	7.04	5.97	2.15
1.00	0.13	0.00	0.00	14.00	7.15	6.08	1.95
1.25	0.17	0.00	0.00	14.25	7.25	6.18	1.81
1.50	0.21	0.00	0.00	14.50	7.34	6.28	1.68
1.75	0.24	0.00	0.04	14.75	7.43	6.37	1.58
2.00	0.28	0.01	0.08	15.00	7.52	6.45	1.49
2.25	0.32	0.01	0.12	15.25	7.60	6.53	1.41
2.50	0.35	0.02	0.16	15.50	7.67	6.60	1.34
2.75	0.39	0.03	0.20	15.75	7.74	6.67	1.28
3.00	0.43	0.04	0.24	16.00	7.81	6.74	1.23
3.25	0.47	0.06	0.27	16.25	7.88	6.80	1.18
3.50	0.51	0.08	0.31	16.50	7.94	6.87	1.13
3.75	0.55	0.09	0.34	16.75	8.00	6.93	1.09
4.00	0.60	0.11	0.37	17.00	8.06	6.99	1.06
4.25	0.64	0.14	0.40	17.25	8.12	7.04	1.02
4.50	0.68	0.16	0.44	17.50	8.17	7.10	0.99
4.75	0.73	0.19	0.47	17.75	8.23	7.15	0.96
5.00	0.78	0.21	0.50	18.00	8.28	7.20	0.94
5.25	0.82	0.24	0.53	18.25	8.33	7.25	0.91
5.50	0.87	0.27	0.57	18.50	8.38	7.30	0.89
5.75	0.92	0.31	0.60	18.75	8.43	7.35	0.87
6.00	0.97	0.34	0.63	19.00	8.48	7.40	0.85
6.25	1.03	0.38	0.67	19.25	8.52	7.44	0.83
6.50	1.08	0.42	0.71	19.50	8.57	7.49	0.81
6.75	1.14	0.46	0.74	19.75	8.61	7.53	0.79
7.00	1.19	0.50	0.78	20.00	8.66	7.57	0.77
7.25	1.25	0.54	0.83	20.25	8.70	7.61	0.76
7.50	1.31	0.59	0.87	20.50	8.74	7.66	0.74
7.75	1.38	0.64	0.92	20.75	8.78	7.70	0.73
8.00	1.44	0.70	0.97	21.00	8.82	7.73	0.72
8.25	1.51	0.75	1.03	21.25	8.86	7.77	0.70
8.50	1.59	0.81	1.09	21.50	8.90	7.81	0.69
8.75	1.66	0.87	1.16	21.75	8.94	7.85	0.68
9.00	1.74	0.94	1.24	22.00	8.97	7.89	0.67
9.25	1.83	1.01	1.32	22.25	9.01	7.92	0.66
9.50	1.92	1.09	1.42	22.50	9.05	7.96	0.65
9.75	2.01	1.18	1.54	22.75	9.08	7.99	0.64
10.00	2.12	1.27	1.68	23.00	9.12	8.03	0.63
10.25	2.23	1.37	1.84	23.25	9.15	8.06	0.62
10.50	2.35	1.48	2.05	23.50	9.18	8.09	0.61
10.75	2.49	1.60	2.32	23.75	9.22	8.13	0.60
11.00	2.65	1.75	2.70	24.00	9.25	8.16	0.59
11.25	2.84	1.92	3.23				
11.50	3.08	2.14	4.20				
11.75	3.58	2.62	8.88				
12.00	4.95	3.93	30.56				
12.25	5.75	4.71	12.59				
12.50	6.22	5.17	7.96				
12.75	6.44	5.39	3.92				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-2D:

Runoff = 42.25 cfs @ 12.17 hrs, Volume= 4.819 af, Depth> 5.78"
 Routed to Reach DP-2 :

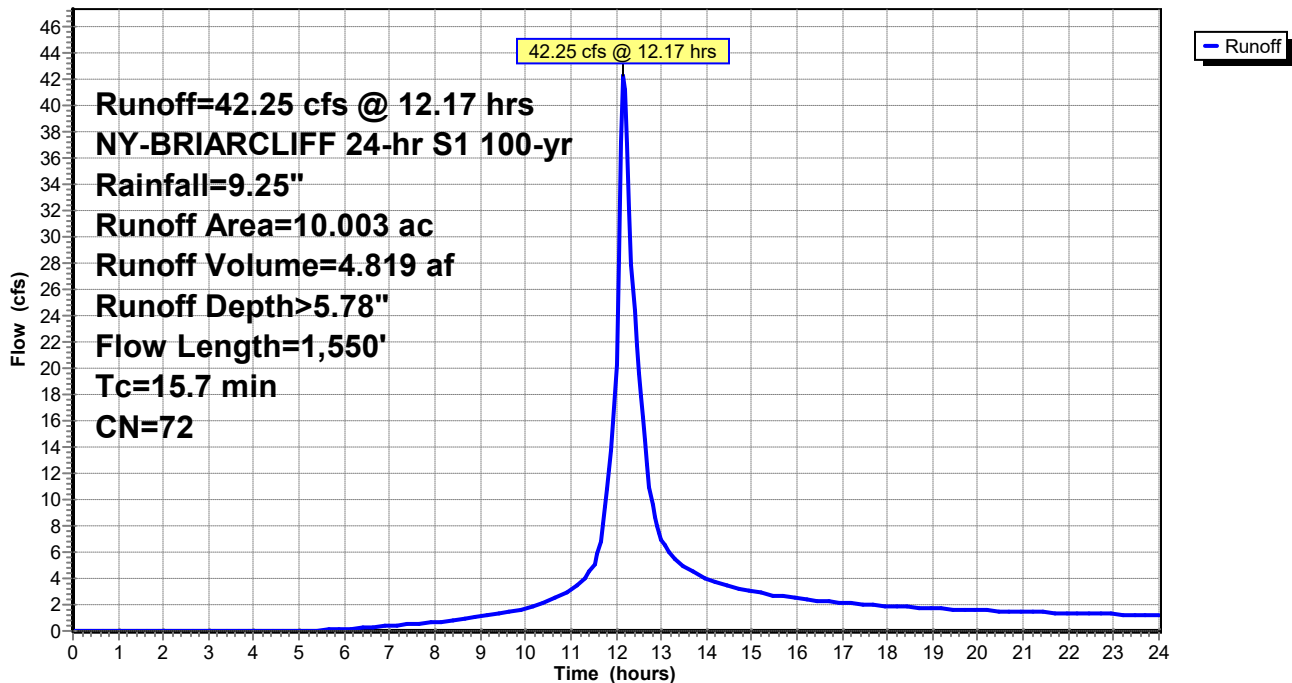
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
6.404	70	Woods, Good, HSG C
3.434	74	>75% Grass cover, Good, HSG C
0.165	98	Paved parking, HSG C
10.003	72	Weighted Average
9.838		98.35% Pervious Area
0.165		1.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	150	0.0400	0.24		Sheet Flow, Sheet
					Grass: Short n= 0.150 P2= 3.00"
5.1	1,400	0.0914	4.53		Shallow Concentrated Flow,
					Grassed Waterway Kv= 15.0 fps
15.7	1,550	Total			

Subcatchment PDA-2D:

Hydrograph



NY-235 Elm-Proposed

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-2D:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	3.51	6.98
0.25	0.03	0.00	0.00	13.25	6.78	3.64	5.67
0.50	0.07	0.00	0.00	13.50	6.92	3.76	4.92
0.75	0.10	0.00	0.00	13.75	7.04	3.86	4.38
1.00	0.13	0.00	0.00	14.00	7.15	3.96	3.98
1.25	0.17	0.00	0.00	14.25	7.25	4.04	3.66
1.50	0.21	0.00	0.00	14.50	7.34	4.12	3.40
1.75	0.24	0.00	0.00	14.75	7.43	4.20	3.18
2.00	0.28	0.00	0.00	15.00	7.52	4.27	3.00
2.25	0.32	0.00	0.00	15.25	7.60	4.34	2.84
2.50	0.35	0.00	0.00	15.50	7.67	4.41	2.70
2.75	0.39	0.00	0.00	15.75	7.74	4.47	2.58
3.00	0.43	0.00	0.00	16.00	7.81	4.53	2.47
3.25	0.47	0.00	0.00	16.25	7.88	4.59	2.37
3.50	0.51	0.00	0.00	16.50	7.94	4.64	2.28
3.75	0.55	0.00	0.00	16.75	8.00	4.70	2.20
4.00	0.60	0.00	0.00	17.00	8.06	4.75	2.13
4.25	0.64	0.00	0.00	17.25	8.12	4.80	2.06
4.50	0.68	0.00	0.00	17.50	8.17	4.85	2.00
4.75	0.73	0.00	0.00	17.75	8.23	4.90	1.94
5.00	0.78	0.00	0.00	18.00	8.28	4.94	1.89
5.25	0.82	0.00	0.01	18.25	8.33	4.99	1.84
5.50	0.87	0.00	0.05	18.50	8.38	5.03	1.79
5.75	0.92	0.01	0.09	18.75	8.43	5.07	1.75
6.00	0.97	0.01	0.14	19.00	8.48	5.12	1.71
6.25	1.03	0.01	0.20	19.25	8.52	5.16	1.67
6.50	1.08	0.02	0.25	19.50	8.57	5.20	1.63
6.75	1.14	0.03	0.31	19.75	8.61	5.24	1.60
7.00	1.19	0.04	0.37	20.00	8.66	5.27	1.57
7.25	1.25	0.05	0.44	20.25	8.70	5.31	1.53
7.50	1.31	0.07	0.51	20.50	8.74	5.35	1.50
7.75	1.38	0.08	0.58	20.75	8.78	5.39	1.48
8.00	1.44	0.10	0.66	21.00	8.82	5.42	1.45
8.25	1.51	0.12	0.75	21.25	8.86	5.46	1.43
8.50	1.59	0.14	0.84	21.50	8.90	5.49	1.40
8.75	1.66	0.16	0.95	21.75	8.94	5.52	1.38
9.00	1.74	0.19	1.06	22.00	8.97	5.56	1.35
9.25	1.83	0.22	1.19	22.25	9.01	5.59	1.33
9.50	1.92	0.26	1.34	22.50	9.05	5.62	1.31
9.75	2.01	0.30	1.51	22.75	9.08	5.65	1.29
10.00	2.12	0.34	1.72	23.00	9.12	5.69	1.27
10.25	2.23	0.39	1.96	23.25	9.15	5.72	1.26
10.50	2.35	0.45	2.25	23.50	9.18	5.75	1.24
10.75	2.49	0.52	2.63	23.75	9.22	5.78	1.22
11.00	2.65	0.61	3.13	24.00	9.25	5.81	1.20
11.25	2.84	0.72	3.83				
11.50	3.08	0.86	4.96				
11.75	3.58	1.18	9.48				
12.00	4.95	2.16	20.25				
12.25	5.75	2.79	37.06				
12.50	6.22	3.17	19.60				
12.75	6.44	3.36	10.98				

NY-235 Elm-Proposed

Prepared by JMC PLLC

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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Summary for Subcatchment PDA-3:

Runoff = 15.23 cfs @ 12.04 hrs, Volume= 1.256 af, Depth> 5.67"
Routed to Reach DP-3 :

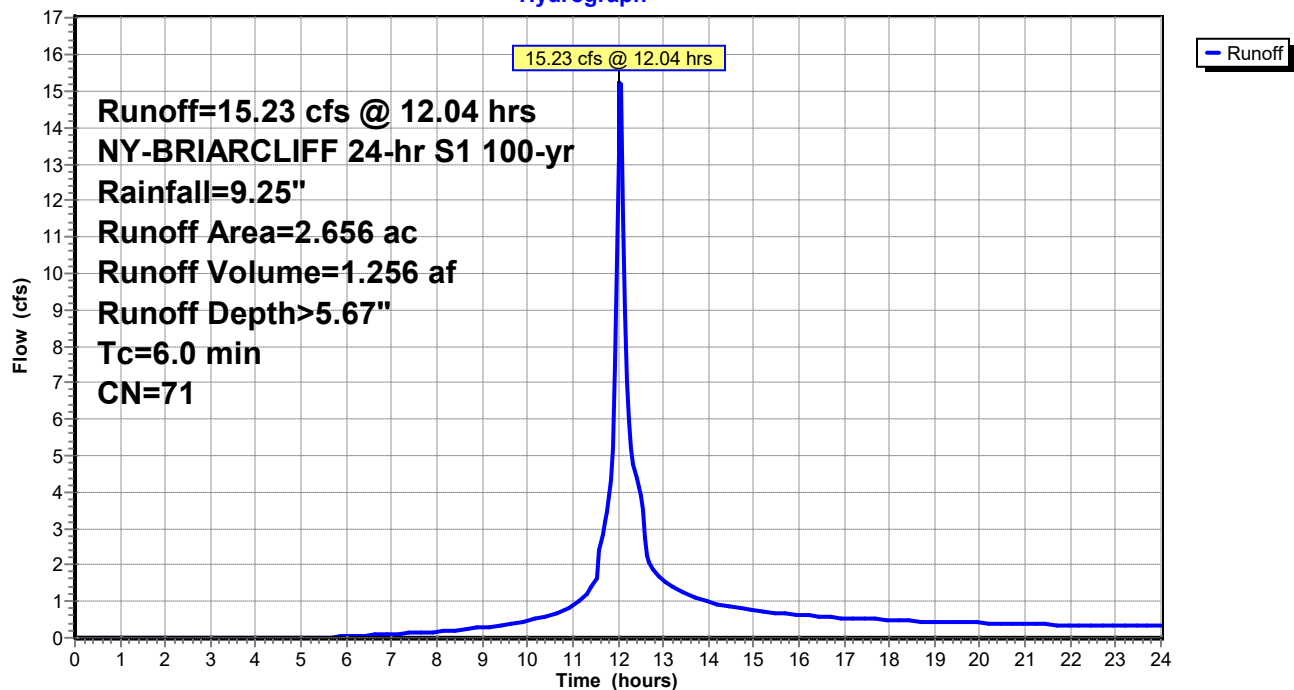
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
2.046	70	Woods, Good, HSG C
0.562	74	>75% Grass cover, Good, HSG C
0.048	98	Paved parking, HSG C
2.656	71	Weighted Average
2.608		98.19% Pervious Area
0.048		1.81% Impervious Area

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

Subcatchment PDA-3:

Hydrograph



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-3:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	3.41	1.57
0.25	0.03	0.00	0.00	13.25	6.78	3.54	1.35
0.50	0.07	0.00	0.00	13.50	6.92	3.65	1.19
0.75	0.10	0.00	0.00	13.75	7.04	3.75	1.08
1.00	0.13	0.00	0.00	14.00	7.15	3.85	0.99
1.25	0.17	0.00	0.00	14.25	7.25	3.93	0.92
1.50	0.21	0.00	0.00	14.50	7.34	4.02	0.86
1.75	0.24	0.00	0.00	14.75	7.43	4.09	0.81
2.00	0.28	0.00	0.00	15.00	7.52	4.16	0.76
2.25	0.32	0.00	0.00	15.25	7.60	4.23	0.72
2.50	0.35	0.00	0.00	15.50	7.67	4.30	0.69
2.75	0.39	0.00	0.00	15.75	7.74	4.36	0.66
3.00	0.43	0.00	0.00	16.00	7.81	4.42	0.63
3.25	0.47	0.00	0.00	16.25	7.88	4.47	0.61
3.50	0.51	0.00	0.00	16.50	7.94	4.53	0.59
3.75	0.55	0.00	0.00	16.75	8.00	4.58	0.57
4.00	0.60	0.00	0.00	17.00	8.06	4.63	0.55
4.25	0.64	0.00	0.00	17.25	8.12	4.68	0.53
4.50	0.68	0.00	0.00	17.50	8.17	4.73	0.52
4.75	0.73	0.00	0.00	17.75	8.23	4.78	0.50
5.00	0.78	0.00	0.00	18.00	8.28	4.82	0.49
5.25	0.82	0.00	0.00	18.25	8.33	4.87	0.48
5.50	0.87	0.00	0.01	18.50	8.38	4.91	0.46
5.75	0.92	0.00	0.02	18.75	8.43	4.95	0.45
6.00	0.97	0.01	0.04	19.00	8.48	5.00	0.44
6.25	1.03	0.01	0.05	19.25	8.52	5.04	0.43
6.50	1.08	0.02	0.06	19.50	8.57	5.08	0.42
6.75	1.14	0.02	0.08	19.75	8.61	5.12	0.42
7.00	1.19	0.03	0.10	20.00	8.66	5.15	0.41
7.25	1.25	0.04	0.11	20.25	8.70	5.19	0.40
7.50	1.31	0.05	0.13	20.50	8.74	5.23	0.39
7.75	1.38	0.07	0.15	20.75	8.78	5.26	0.38
8.00	1.44	0.08	0.17	21.00	8.82	5.30	0.38
8.25	1.51	0.10	0.20	21.25	8.86	5.33	0.37
8.50	1.59	0.12	0.22	21.50	8.90	5.37	0.36
8.75	1.66	0.15	0.25	21.75	8.94	5.40	0.36
9.00	1.74	0.17	0.28	22.00	8.97	5.43	0.35
9.25	1.83	0.20	0.32	22.25	9.01	5.47	0.35
9.50	1.92	0.23	0.36	22.50	9.05	5.50	0.34
9.75	2.01	0.27	0.41	22.75	9.08	5.53	0.34
10.00	2.12	0.31	0.47	23.00	9.12	5.56	0.33
10.25	2.23	0.36	0.54	23.25	9.15	5.59	0.33
10.50	2.35	0.42	0.62	23.50	9.18	5.62	0.32
10.75	2.49	0.49	0.74	23.75	9.22	5.65	0.32
11.00	2.65	0.57	0.89	24.00	9.25	5.68	0.31
11.25	2.84	0.67	1.12				
11.50	3.08	0.81	1.52				
11.75	3.58	1.12	3.45				
12.00	4.95	2.08	13.23				
12.25	5.75	2.70	5.95				
12.50	6.22	3.08	3.87				
12.75	6.44	3.26	1.93				

Summary for Subcatchment PDA-4:

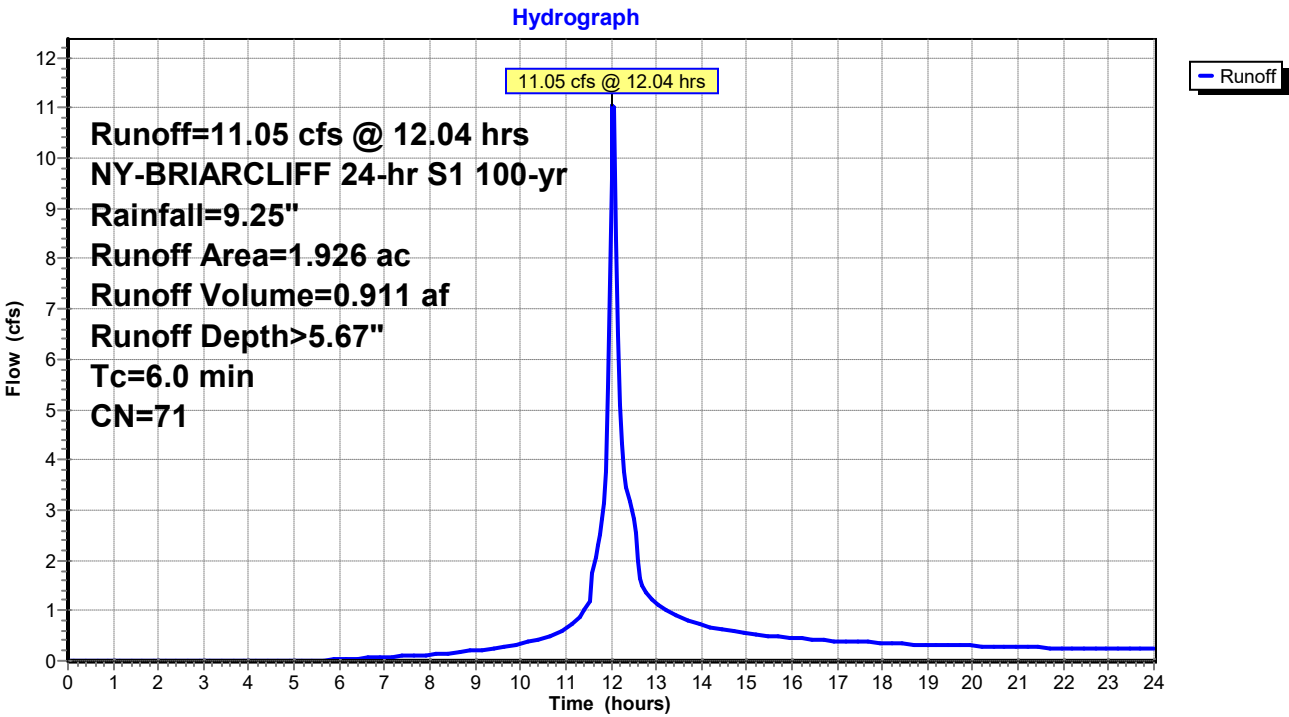
Runoff = 11.05 cfs @ 12.04 hrs, Volume= 0.911 af, Depth> 5.67"
Routed to Reach DP-4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
1.480	70	Woods, Good, HSG C
0.418	74	>75% Grass cover, Good, HSG C
0.028	98	Paved parking, HSG C
1.926	71	Weighted Average
1.898		98.55% Pervious Area
0.028		1.45% Impervious Area

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

Subcatchment PDA-4:



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-4:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	3.41	1.14
0.25	0.03	0.00	0.00	13.25	6.78	3.54	0.98
0.50	0.07	0.00	0.00	13.50	6.92	3.65	0.87
0.75	0.10	0.00	0.00	13.75	7.04	3.75	0.78
1.00	0.13	0.00	0.00	14.00	7.15	3.85	0.72
1.25	0.17	0.00	0.00	14.25	7.25	3.93	0.67
1.50	0.21	0.00	0.00	14.50	7.34	4.02	0.62
1.75	0.24	0.00	0.00	14.75	7.43	4.09	0.58
2.00	0.28	0.00	0.00	15.00	7.52	4.16	0.55
2.25	0.32	0.00	0.00	15.25	7.60	4.23	0.52
2.50	0.35	0.00	0.00	15.50	7.67	4.30	0.50
2.75	0.39	0.00	0.00	15.75	7.74	4.36	0.48
3.00	0.43	0.00	0.00	16.00	7.81	4.42	0.46
3.25	0.47	0.00	0.00	16.25	7.88	4.47	0.44
3.50	0.51	0.00	0.00	16.50	7.94	4.53	0.43
3.75	0.55	0.00	0.00	16.75	8.00	4.58	0.41
4.00	0.60	0.00	0.00	17.00	8.06	4.63	0.40
4.25	0.64	0.00	0.00	17.25	8.12	4.68	0.39
4.50	0.68	0.00	0.00	17.50	8.17	4.73	0.37
4.75	0.73	0.00	0.00	17.75	8.23	4.78	0.36
5.00	0.78	0.00	0.00	18.00	8.28	4.82	0.35
5.25	0.82	0.00	0.00	18.25	8.33	4.87	0.35
5.50	0.87	0.00	0.01	18.50	8.38	4.91	0.34
5.75	0.92	0.00	0.02	18.75	8.43	4.95	0.33
6.00	0.97	0.01	0.03	19.00	8.48	5.00	0.32
6.25	1.03	0.01	0.04	19.25	8.52	5.04	0.31
6.50	1.08	0.02	0.05	19.50	8.57	5.08	0.31
6.75	1.14	0.02	0.06	19.75	8.61	5.12	0.30
7.00	1.19	0.03	0.07	20.00	8.66	5.15	0.30
7.25	1.25	0.04	0.08	20.25	8.70	5.19	0.29
7.50	1.31	0.05	0.10	20.50	8.74	5.23	0.28
7.75	1.38	0.07	0.11	20.75	8.78	5.26	0.28
8.00	1.44	0.08	0.13	21.00	8.82	5.30	0.27
8.25	1.51	0.10	0.14	21.25	8.86	5.33	0.27
8.50	1.59	0.12	0.16	21.50	8.90	5.37	0.26
8.75	1.66	0.15	0.18	21.75	8.94	5.40	0.26
9.00	1.74	0.17	0.21	22.00	8.97	5.43	0.26
9.25	1.83	0.20	0.23	22.25	9.01	5.47	0.25
9.50	1.92	0.23	0.26	22.50	9.05	5.50	0.25
9.75	2.01	0.27	0.30	22.75	9.08	5.53	0.24
10.00	2.12	0.31	0.34	23.00	9.12	5.56	0.24
10.25	2.23	0.36	0.39	23.25	9.15	5.59	0.24
10.50	2.35	0.42	0.45	23.50	9.18	5.62	0.23
10.75	2.49	0.49	0.53	23.75	9.22	5.65	0.23
11.00	2.65	0.57	0.65	24.00	9.25	5.68	0.23
11.25	2.84	0.67	0.81				
11.50	3.08	0.81	1.10				
11.75	3.58	1.12	2.50				
12.00	4.95	2.08	9.59				
12.25	5.75	2.70	4.31				
12.50	6.22	3.08	2.81				
12.75	6.44	3.26	1.40				

Summary for Subcatchment PDA-5:

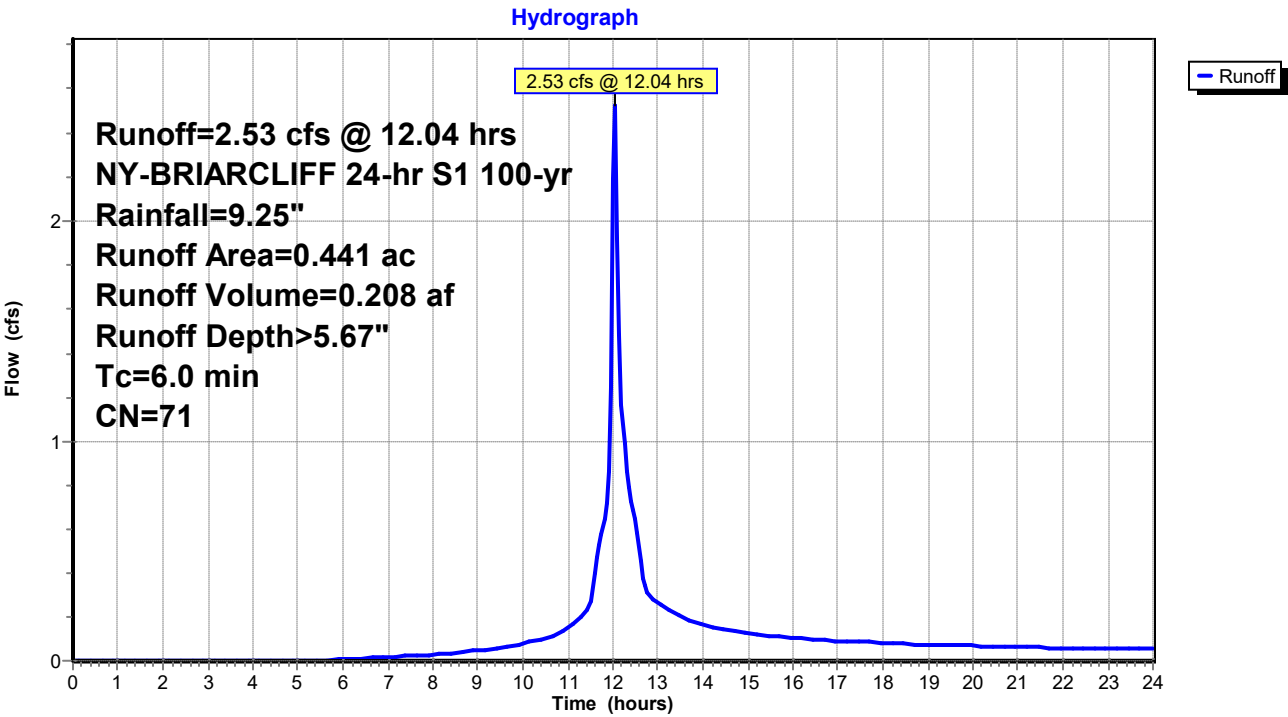
Runoff = 2.53 cfs @ 12.04 hrs, Volume= 0.208 af, Depth> 5.67"
Routed to Reach DP-5 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

Area (ac)	CN	Description
0.293	70	Woods, Good, HSG C
0.148	74	>75% Grass cover, Good, HSG C
0.441	71	Weighted Average
0.441		100.00% Pervious Area

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

Subcatchment PDA-5:



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NY-BRIARCLIFF 24-hr S1 100-yr Rainfall=9.25"

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Hydrograph for Subcatchment PDA-5:

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	6.63	3.41	0.26
0.25	0.03	0.00	0.00	13.25	6.78	3.54	0.22
0.50	0.07	0.00	0.00	13.50	6.92	3.65	0.20
0.75	0.10	0.00	0.00	13.75	7.04	3.75	0.18
1.00	0.13	0.00	0.00	14.00	7.15	3.85	0.16
1.25	0.17	0.00	0.00	14.25	7.25	3.93	0.15
1.50	0.21	0.00	0.00	14.50	7.34	4.02	0.14
1.75	0.24	0.00	0.00	14.75	7.43	4.09	0.13
2.00	0.28	0.00	0.00	15.00	7.52	4.16	0.13
2.25	0.32	0.00	0.00	15.25	7.60	4.23	0.12
2.50	0.35	0.00	0.00	15.50	7.67	4.30	0.11
2.75	0.39	0.00	0.00	15.75	7.74	4.36	0.11
3.00	0.43	0.00	0.00	16.00	7.81	4.42	0.11
3.25	0.47	0.00	0.00	16.25	7.88	4.47	0.10
3.50	0.51	0.00	0.00	16.50	7.94	4.53	0.10
3.75	0.55	0.00	0.00	16.75	8.00	4.58	0.09
4.00	0.60	0.00	0.00	17.00	8.06	4.63	0.09
4.25	0.64	0.00	0.00	17.25	8.12	4.68	0.09
4.50	0.68	0.00	0.00	17.50	8.17	4.73	0.09
4.75	0.73	0.00	0.00	17.75	8.23	4.78	0.08
5.00	0.78	0.00	0.00	18.00	8.28	4.82	0.08
5.25	0.82	0.00	0.00	18.25	8.33	4.87	0.08
5.50	0.87	0.00	0.00	18.50	8.38	4.91	0.08
5.75	0.92	0.00	0.00	18.75	8.43	4.95	0.08
6.00	0.97	0.01	0.01	19.00	8.48	5.00	0.07
6.25	1.03	0.01	0.01	19.25	8.52	5.04	0.07
6.50	1.08	0.02	0.01	19.50	8.57	5.08	0.07
6.75	1.14	0.02	0.01	19.75	8.61	5.12	0.07
7.00	1.19	0.03	0.02	20.00	8.66	5.15	0.07
7.25	1.25	0.04	0.02	20.25	8.70	5.19	0.07
7.50	1.31	0.05	0.02	20.50	8.74	5.23	0.06
7.75	1.38	0.07	0.03	20.75	8.78	5.26	0.06
8.00	1.44	0.08	0.03	21.00	8.82	5.30	0.06
8.25	1.51	0.10	0.03	21.25	8.86	5.33	0.06
8.50	1.59	0.12	0.04	21.50	8.90	5.37	0.06
8.75	1.66	0.15	0.04	21.75	8.94	5.40	0.06
9.00	1.74	0.17	0.05	22.00	8.97	5.43	0.06
9.25	1.83	0.20	0.05	22.25	9.01	5.47	0.06
9.50	1.92	0.23	0.06	22.50	9.05	5.50	0.06
9.75	2.01	0.27	0.07	22.75	9.08	5.53	0.06
10.00	2.12	0.31	0.08	23.00	9.12	5.56	0.06
10.25	2.23	0.36	0.09	23.25	9.15	5.59	0.05
10.50	2.35	0.42	0.10	23.50	9.18	5.62	0.05
10.75	2.49	0.49	0.12	23.75	9.22	5.65	0.05
11.00	2.65	0.57	0.15	24.00	9.25	5.68	0.05
11.25	2.84	0.67	0.19				
11.50	3.08	0.81	0.25				
11.75	3.58	1.12	0.57				
12.00	4.95	2.08	2.20				
12.25	5.75	2.70	0.99				
12.50	6.22	3.08	0.64				
12.75	6.44	3.26	0.32				

NY-235 Elm-Proposed

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Multi-Event Tables

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Events for Reach DP-1:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	4.16	4.16	0.00	0
2-yr	6.52	6.52	0.00	0
10-yr	12.79	12.79	0.00	0
100-yr	27.71	27.71	0.00	0

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Multi-Event Tables

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Events for Reach DP-2:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	20.65	20.65	0.00	0
2-yr	29.25	29.25	0.00	0
10-yr	52.46	52.46	0.00	0
100-yr	110.22	110.22	0.00	0

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Events for Reach DP-3:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	1.80	1.80	0.00	0
2-yr	3.10	3.10	0.00	0
10-yr	6.65	6.65	0.00	0
100-yr	15.23	15.23	0.00	0

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Multi-Event Tables

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Events for Reach DP-4:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	1.30	1.30	0.00	0
2-yr	2.25	2.25	0.00	0
10-yr	4.82	4.82	0.00	0
100-yr	11.05	11.05	0.00	0

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Events for Reach DP-5:

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
1-yr	0.30	0.30	0.00	0
2-yr	0.51	0.51	0.00	0
10-yr	1.10	1.10	0.00	0
100-yr	2.53	2.53	0.00	0

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Multi-Event Tables

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Events for Pond I-4 (4A): Stormtech System

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1-yr	7.78	0.12	0.12	0.00	406.15	0.354
2-yr	10.36	0.47	0.12	0.35	406.37	0.396
10-yr	16.02	3.36	0.12	3.24	407.05	0.520
100-yr	27.87	10.61	0.12	10.49	409.42	0.813

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Multi-Event Tables

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Events for Subcatchment PDA-1A:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	3.43	0.364	0.81
2-yr	3.42	5.43	0.553	1.24
10-yr	5.13	10.79	1.136	2.54
100-yr	9.25	23.67	2.750	6.16

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Events for Subcatchment PDA-1B:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	1.52	0.102	1.09
2-yr	3.42	2.21	0.147	1.57
10-yr	5.13	3.89	0.281	3.00
100-yr	9.25	7.59	0.637	6.80

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Multi-Event Tables

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Events for Subcatchment PDA-2A:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	7.78	0.506	1.62
2-yr	3.42	10.36	0.684	2.19
10-yr	5.13	16.02	1.182	3.79
100-yr	9.25	27.87	2.429	7.78

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Events for Subcatchment PDA-2B:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	10.32	0.985	1.62
2-yr	3.42	13.82	1.333	2.19
10-yr	5.13	21.79	2.302	3.78
100-yr	9.25	38.95	4.732	7.76

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Events for Subcatchment PDA-2C:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	10.69	0.700	1.86
2-yr	3.42	13.82	0.925	2.46
10-yr	5.13	20.49	1.541	4.10
100-yr	9.25	34.41	3.060	8.15

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Multi-Event Tables

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Events for Subcatchment PDA-2D:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	5.03	0.564	0.68
2-yr	3.42	8.51	0.886	1.06
10-yr	5.13	18.27	1.906	2.29
100-yr	9.25	42.25	4.819	5.78

NY-235 Elm-Proposed

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Multi-Event Tables

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Events for Subcatchment PDA-3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	1.80	0.141	0.64
2-yr	3.42	3.10	0.224	1.01
10-yr	5.13	6.65	0.490	2.21
100-yr	9.25	15.23	1.256	5.67

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Multi-Event Tables

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Events for Subcatchment PDA-4:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	1.30	0.102	0.64
2-yr	3.42	2.25	0.162	1.01
10-yr	5.13	4.82	0.355	2.21
100-yr	9.25	11.05	0.911	5.67

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Multi-Event Tables

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Events for Subcatchment PDA-5:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr	2.78	0.30	0.023	0.64
2-yr	3.42	0.51	0.037	1.01
10-yr	5.13	1.10	0.081	2.21
100-yr	9.25	2.53	0.208	5.67

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- 1 Routing Diagram
- 2 Rainfall Events Listing (selected events)

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- 5 Reach DP-2:
- 7 Reach DP-3:
- 9 Reach DP-4:
- 11 Reach DP-5:
- 13 Pond I-4 (4A): Stormtech System
- 16 Subcat PDA-1A:
- 18 Subcat PDA-1B:
- 20 Subcat PDA-2A:
- 22 Subcat PDA-2B:
- 25 Subcat PDA-2C:
- 27 Subcat PDA-2D:
- 29 Subcat PDA-3:
- 31 Subcat PDA-4:
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2-yr Event

- 35 Reach DP-1:
- 37 Reach DP-2:
- 39 Reach DP-3:
- 41 Reach DP-4:
- 43 Reach DP-5:
- 45 Pond I-4 (4A): Stormtech System
- 48 Subcat PDA-1A:
- 50 Subcat PDA-1B:
- 52 Subcat PDA-2A:
- 54 Subcat PDA-2B:
- 57 Subcat PDA-2C:
- 59 Subcat PDA-2D:
- 61 Subcat PDA-3:
- 63 Subcat PDA-4:
- 65 Subcat PDA-5:

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- 69 Reach DP-2:
- 71 Reach DP-3:
- 73 Reach DP-4:
- 75 Reach DP-5:
- 77 Pond I-4 (4A): Stormtech System
- 80 Subcat PDA-1A:
- 82 Subcat PDA-1B:
- 84 Subcat PDA-2A:
- 86 Subcat PDA-2B:
- 89 Subcat PDA-2C:

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Multi-Event Tables

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139 Subcat PDA-2A:

140 Subcat PDA-2B:

141 Subcat PDA-2C:

142 Subcat PDA-2D:

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144 Subcat PDA-4:

145 Subcat PDA-5:

APPENDIX C

NYSDEC STORMWATER SIZING CALCULATIONS

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?						
What is the nature of this construction project? Redevelopment with no increase in impervious area						
Design Point:						
P=	3.00	inches				
Calculate Required WQv						
Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1						
2						
3	3.74	2.19	58	0.58	23,454	Underground Infiltration System
4	7.31	4.18	57	0.56	44,980	
5	4.51	3.27	72	0.70	34,453	
6	10.00	0.17	2	0.06	7,064	
7						
8						
9						
10						
11						
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28						
29						
30						
Total	25.57	9.80	38	0.39	109950	Required WQv

Step 2 - Calculate Water Quality Volume

2.52	af
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Steps 3 and 5 - Apply RR Techniques and Standard SMPs

Runoff Reduction Volume and Treated Volumes						
	Runoff Reduction Techniques/Standard SMPs		Total Contributing Area	Total Contributing Impervious Area	WQv Reduced (RRv)	WQv Treated
			(acres)	(acres)	(cf)	(cf)
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0	
	Disconnection of Rooftop Runoff	RR-4		0.00	0	
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0	
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.00	0.00	0	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4	3.74	2.19	23,454	0
	Infiltration Bioretention	F-4	0.00	0.00	0	0
	Filtration Bioretention	F-5	0.00	0.00	0	0
	Bioslope	F-6	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0
	Wet Pond	P-2	0.00	0.00		0
	Wet Extended Detention	P-3	0.00	0.00		0
	Multiple Pond System	P-4	0.00	0.00		0
	Shallow Wetland	W-1	0.00	0.00		0
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0
	Pond/Wetland System	W-3	0.00	0.00		0
	Pocket Wetland	W-4	0.00	0.00		0
	Gravel Wetland	W-5	0.00	0.00		0
	Surface Sand Filter	F-1	0.00	0.00		0
	Underground Sand Filter	F-2	0.00	0.00		0
	Perimeter Sand Filter	F-3	0.00	0.00		0
	Wet Swale	O-2	0.00	0.00		0
Alt. SMPs	Flow Based Alternative Practice	-	0.00	0.00		0
	Volume Based Alternative Practice	-				
Totals by RR Technique →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			3.74	2.19	23,454	0
Totals by Standard SMP →			0.00	0.00		0
Totals by Alternative SMP →			0.00	0.00		0
Totals (RR Techniques + all SMPs) →			3.74	2.19	23,454	0

Underground Infiltration (I-4)

Design Point:							
Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	Precipitation (in)	Description
3	3.74	2.19	58	0.58	23,454	3.00	Underground Infiltration System
Design Criteria							
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)			0.5				
Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?			No				
Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?			No				
Is the contributing area greater than 10 acres?			No				
Enter depth to seasonal high water table (ft)			2				
Enter depth to bedrock (ft)			6.56				
Enter pretreatment volume provided (cf)			6664.67				
Sizing Criteria							
		Value	Units	Notes			
Water Quality Volume		WQv	23454	cf			
Depth of Bottom Stone		db	6.0	ft			
Required Surface Area		Ab	3,909	sf			
Enter Surface Area Provided		Ab	8236.5	sf			
Enter Volume of Stone		Vs	21560.58	cf	Volume of stone shall account for 40% voids		
Enter Volume of System		Vsys	35722.62	cf	Volume of system shall exclude stone		
Water Quality Volume Provided		WQv	57283.2	cf			
Determine Runoff Reduction							
RRv Provided		23,454	cf				

Underground Infiltration (I-4)

Total Area	3.74	acres
Total Impervious	2	acres
Total RRV Provided	23,454	cf
Total WQv Provided	0	cf

APPENDIX D

TEMPORARY & PERMANENT EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE CHECKLIST

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Stabilized Construction Entrance	Daily	• Periodic top dressing with additional aggregate as required • Clean sediment in public right-of-ways immediately
Silt Fence	Weekly + After Each Rain	• Remove & redistribute sediment when bulges develop in the silt fence.
Inlet Protection	Weekly + After Each Rain	• Remove sediment as necessary and replace filter fabric, crushed stone etc. • Any broken and damaged components should be replaced. • Check all materials for proper anchorage and secure as necessary.
Concrete Washout	Daily	• Damaged or leaking facilities shall be deactivated and repaired or replaced immediately.
	After Each Rain	• Pump excess rainwater that has accumulated over hardened concrete to a stabilized area.
		• Remove accumulated hardened material when 75% of the storage capacity of the structure is filled. Replace plastic liner with each cleaning of the washout facility.

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist
(Cont'd)

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Level Spreader	Weekly + After Each Rain	• Remove sediment accumulated as needed to ensure the level spreader operates properly and large flows are prevented from carrying sediment over the level lip. • Check for rilling within/around the level spreader and repair as required.
Temporary Swale	Weekly + After Each Rain	• Immediately remove any sediment and reestablish vegetative cover as required. • Inspect entire swale and surrounding area for rilling and repair as required with the placement of additional topsoil, then seeding and mulching, as outlined in Figure No. 3.14 of the NYSDEC New York State Standards and Specifications for Erosion and Sediment Control.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Rip-Rap Apron/Energy Dissipator and Check Dams	Annually + After Major Storms	• Check for evidence of flows going around the structure. • Check for evidence at downstream toe and repair as needed. • Clean sediment and install additional aggregate as necessary.
Drain Inlets	Monthly	• Check for blockage and/or erosion at top of each inlet. Repair/remove as necessary. • Check for sediment and debris collected within sumps and clean out as necessary.
Subsurface Stormwater Management Detention Facility	Annually + After Major Storms	• Check level of sediment and debris accumulated within the system. • Check structural integrity of the system pipes, structures, etc. for cracking, bulging or deterioration. Repair/remove as necessary. • Confirm all inlets and outlet structures/pipes are operating properly.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
StormTech Subsurface Retention Facility	(See Manufacturer's Maintenance Guidelines)	• Check level of sediment accumulated within the isolator row through the access manhole. If 3 inches of sediment or greater, clean out utilizing a high pressure water nozzle to scour and suspend sediments. • Flush all sediment to access manhole and remove using a vacuum truck.
Hydrodynamic Water Quality Structure	(See Manufacturer's Maintenance Guidelines)	• Open access cover for visual inspection and measure the distance from the standing water surface to the sediment pile with a measuring stick or tape. If less than 4 feet, insert hose from vacuum truck into the sump and screen through both access covers to clean out the standing water, layer of oil, sediment, trash, etc. • The screen must be powerwashed to ensure it is free of trash and debris.

The owner/operator responsible for inspection and maintenance as outlined above:

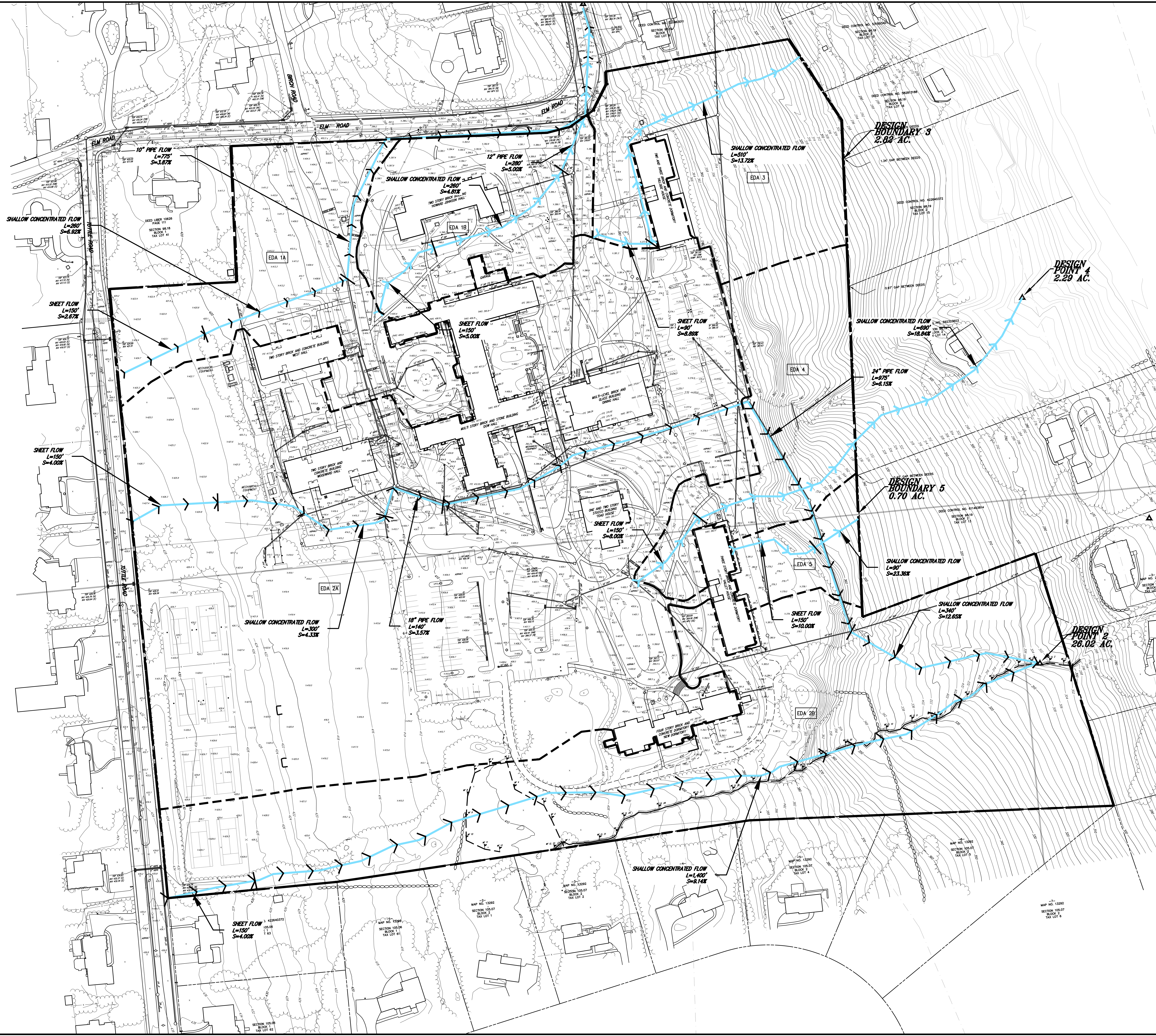
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APPENDIX E

DRAWINGS

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EXISTING DRAINAGE LEGEND

- EXISTING GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- BOUNDARY OF COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- HYDROLOGIC SOIL GROUP 'C'
- HYDROLOGIC SOIL GROUP 'B'

SOIL TYPE TABLE		
DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
CrC	B	DOWNER-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES
UIC	B	HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES
UIC	B	HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES

ROSE ENTERPRISES GROUP, INC.
8383 WILSHIRE BOULEVARD, SUITE 632
BEVERLY HILLS, CA 90211

SULLIVAN ARCHITECTURE, P.C.
31 MAMARONECK AVENUE, 7TH FLOOR
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EXISTING DRAINAGE AREA MAP

RENAISSANCE BRIARCLIFF MANOR
235 ELM ROAD
VILLAGE OF BRIARCLIFF MANOR, NEW YORK

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Project No: 24072
2407-24072 EDA

DA-1

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**DESIGN
POINT 4
30.86 AC**

**DESIGN
POINT 2
30.86 AC**

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
CrC	B	DOWNER-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES
UIC	B	HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES
UIC	B	HAMMONTON-URBAN LAND COMPLEX, 0 TO 5 PERCENT SLOPES

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24072-DRAINAGE	PDA
Drawing No:	
DA-2	