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Engineering & Design

September 11, 2026

Village Board and Planning Board, Village of Suffern
Mayor Michael F. Curley and Richard Gandon, Planning Board Chair
61 Washington Avenue
Suffern, NY 10901

Extell Avon - 37 Washington Avenue
Tax Lot: 54.36-1-6
Village of Suffern, Rockland County, New York
CED Project No. 20000643D

Dear Mayor Curley and Chairman Gandon,

Below please find our responses to comments received from Bonnie Franson from Nelson Pope Voorhis dated December 10, 2025 regarding SEQR items to address the projects Part 3 EAF. The comments have been repeated here for clarity. We are seeking concurrence on the responses provided to ultimately secure the SEQR Negative Declaration (Conditioned Negative Declaration issued by the Planning Board on January 21, 2026).

The Applicant, Suffern WA, LLC, has submitted a petition to the Village of Suffern Board of Trustees rezone certain lands known as 37 Washington Avenue (the "Project Site"), in the Village of Suffern, Rockland County, New York to the Village's existing Transit Development District "TDD" zoning district (the "Rezoning Petition").

- 11/14/25 Nelson+Pope – Bonnie Franson, AICP CEP, PP (SEQR, Site Plan & Architectural Comments)
- 11/14/25 Nelson+Pope – Thomas C. Dixon, P.E. (Site Plan & SWPPP Comments)

SEQR items to address for Part 3 EAF:

Comment 1: Impact on Land

Comment 1a: Address demolition activities, and how the site will be secured, and how demolition will occur in a manner which does not impact the adjoining Village Community Center and the Place of Worship. Consider control of fugitive dust emissions and materials.

Response 1a: **Demolition of the remaining building and site improvements will be completed in accordance with all applicable codes and regulations. The applicant's engineers will assess the proposed demolition and excavation and implement measures to prevent damage to adjacent property and structures, which details can be outlined prior to any site plan approval from the Planning Board. At that time, an engineering plan will be prepared for the demolition.**

Construction fencing shall be installed around the perimeter of the site for security.

Dust control shall follow the Standard and Specifications for Dust Control per the New York State Standards and Specifications for Erosion and Sediment Control as noted in the SWPPP (See Appendix A).

Comment 1b: Provide estimate of total disturbance.

Response 1b: **The limit of disturbance shown on the erosion and sediment control plan estimates 2 acres of disturbance.**

Comment 1c: Address how staging and construction will occur on the site, since the building is occupying the entirety. Address the two adjoining southerly uses, and how they will be "protected" during construction.

Response 1c: **The applicant will have an engineering plan prepared for the safe demolition of the existing structure and site. At this time a general contractor has not been selected to work through staging. Once we have a fully engineered plan, the selected general contractor will work with your construction official to generate a staging plan that will comply with all local ordinances.**

Comment 1d: Indicate that no blasting is anticipated. To our knowledge, no Geotech conducted.

Response 1d: **No blasting is anticipated; geotechnical investigations are pending. In the unlikely event that blasting is required, it will be conducted in accordance with all local, State and federal regulations.**

Comment 2: Impact on Flooding

Comment 2a: A draft SWPPP has been submitted. Review the N+P comments. Address whether stormwater is going directly into any below ground stormwater facilities or will it be discharged to Suffern Place and/or Washington Avenue before entering the system. This needs to be especially reviewed by the Village.

Response 2a: **The site is not in a FEMA Flood zone. Based on the Rockland County Drainage Agency's June 13, 2023, review, the site is "outside the jurisdiction of the RCDA" See Appendix F. After development of the site, the impervious cover is reduced by 10% corresponding to a reduction in total runoff and peak flows compared to pre-development. Landscaping at patio and street level has been designed for the site. Stormwater runoff is directed to above ground stormwater planters and discharged to the curbline on Suffern Place and Washington**

Avenue. Per the NYSDEC Stormwater Management Design Manual, Stormwater Planters (Runoff Reduction technique #RR-7 are Small, landscaped stormwater treatment devices designed in this case as filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality. Currently, no subsurface drainage system exists in the vicinity of the site. As such we maintained the existing condition gutter discharge for the proposed reduced flows from the site. The gutter discharge of the buildings along Suffern Place and Washington Avenue has been replicated. All new drainage piping and structures are proposed for the site. Also the NYSDOT email dated 11/12/25 from Shahid Quadri stated, "New connection to a NYS drainage system (in Lafayette Avenue Rt 59) is not preferred." (See Appendix B)

Comment 3: Impacts on Plants and Animals

Comment 3a: Need to only address the existing conditions, and that there is no habitat available for the timber rattlesnake.

Response 3a: Comment noted. The paved, developed area provides no habitat for the timber rattlesnake.

Comment 4: Impacts on Aesthetic Resources

Comment 4a: Address visibility from Washington Soldiers Monument.

See also comments under Community Character.

Response 4a: Project is 300 feet away from the monument and may be visible when there are no leaves on the trees at the Washington Ave Park. The location of this residential project will coincide with the Washington Avenue Park and the project provides additional open space for the residents. See Rendering for view from the monument to the proposed building, Appendix E.

Comment 5: Impact on Historic and Archaeological Resources

Comment 5a: Provide SHPO determination letter.

Response 5a: See the attached (Appendix C) SHPO Letter of No Impact dated 12/31/25.

Comment 6: Impact on Transportation

Comment 6a: Address N+P traffic comments.

Traffic comments dated 11/19/25 Nelson+Pope – Thomas C. Dixon, P.E.

Comment 1: The overall study methodology is consistent with standard traffic engineering practices.

Response 1: **Comment Noted.**

Comment 2: The traffic volume projections from existing through No-Build and Build conditions appear to be accurate and consistent with standard methods.

Response 2: **Comment Noted.**

Comment 3: Trip generation for the proposed project was estimated using the Institute of Transportation Engineers *Trip Generation Manual*, 11th Edition, and the resulting calculations are appropriate.

Response 3: **Comment Noted.**

Comment 4: Based on the review of the traffic analyses, the northbound and southbound Washington Avenue approaches currently experience significant delays. These delays are expected to worsen following project construction. Although traffic generated by the project does not materially change the already poor levels of services, improvements at the intersection should be considered.

Response 4: **Comment Noted. Improvements at the intersection will be as directed by NYSDOT.**

Comment 5: Please conduct a crash analysis for the study area intersections using the most recent three years of available crash data.

Response 5: **Accident information was obtained from the New York State Department of Transportation (NYSDOT) for the latest three-year period (January 1, 2022 – December 31, 2024) for the Study Area Intersections. The accident data is summarized in Table No. 1 by location, date, time, traffic control, severity, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision, and apparent contributing factors. A review of the accident data indicates typical type of accidents which includes rear-end and overtaking accidents with apparent contributing factors such as failure to yield right of way, following too closely, improper passing or lane usage. See Appendix D.**

Based on a review of the accident data and anticipated site generated traffic, it is expected that the proposed residential development will not have a significant impact on the accident rates on the area roadways.

Continuation of comments received from Bonnie Franson with Nelson Pope Voorhis dated December 10, 2025.

Comment 6b: Address the proposed impact to the sidewalk system by the proposed pulloff. The recommendation is to remove it and have continuous sidewalk system.

Response 6b: **The sidewalk and drop off area have been designed for pedestrian and vehicle safety. The width and length of the drop off area allows two (2) cars to get off the roadway. This is to accommodate the current trends in delivery like Fedex, UPS, Amazon, Doordash and rideshare like Uber, common in Transit Oriented Development projects. The concrete sidewalk along Washington Avenue and Suffern Place is a minimum of 6 feet wide with a 2.5-foot-wide brick paver along the roadway. This sidewalk section widens to between 8.3 and 9.2 feet in width at the drop off area at the main entrance to the building. This is similar to how the sidewalk widens to 12 feet at the driveway entrance to the parking garage.**

Comment 6c: Provide an indication from NYSDOT that they conclude there will not be any significant impact or mitigations needed. A permit submission is not required; want sufficient evidence that NYSDOT has determined that there will not be significant impact.

Response 6c: **We have received a response from Jason Brenner, NYSDOT (Appendix D). DOT has no further comments at this time. Mitigation for impacts as may be determined by the NYSDOT will be designed and permitted by the NYSDOT as required.**

Comment 7: <u>Impact on Energy</u>

Comment 7a: Please provide the gross floor area of the entire area. Describe proposed heating/cooling (it is unclear if the building exceeds the FEAF threshold) for purposes of addressing in the FEAF.

Response 7a: **Each unit will have its own heating and cooling system controlled by the tenant. Common areas will have their own system controlled by the owner. These systems have not been engineered yet. The gross floor area is 226,790 s.f.**

Comment 8: <u>Impact on Noise, Odor and Light</u>

Comment 8a: Provide cumulative light levels for the building. Is any directed to adjoining properties?

Response 8a: **Please refer to the Lighting Plan (Sheet C-800) which identifies the proposed site lighting and light poles along the Washington Avenue and Suffern Place frontages. All the proposed poles along Suffern Place are located within the ROW, the poles along Washington Avenue are on the ROW/Property line and poles on the northern side of the site (adjacent to surface parking) are just inside the site boundary. Based on these locations, the illumination from these fixtures does encroach beyond the project property lines. These proposed, at grade illumination levels are provided on the plan for reference.**

Additional lighting design for the building shall be provided as part of the site plan review that will follow after the SEQR Neg Dec and the proposed Rezoning. Patio lighting, shall be bollard type and 'accent lighting' not directed skyward. Garage lighting shall be shielded.

Comment 8b: Indicate when demolition/construction will occur vis-à-vis adjoining place of worship and community center activities and operations and the potential for noise impacts. Discuss demolition/construction hours.

Response 8b: **The project seeks to comply with Chapter 175 (Noise) of the Village Code: 175-3.E. – Operation of heavy equipment (i.e. pile driver, bulldozer, pneumatic hammer, grinder, noise or other construction equipment which creates a noise disturbance), will be limited to between 7:00 a.m. and 8:00 p.m. on weekdays and except in cases of urgent necessity in the interest of public safety.**

175-3.F. - Any construction, excavation, demolition, alteration or repair which creates a noise disturbance, will be limited to between 8:00 a.m. and 8:00 p.m. on weekdays and 10:00 a.m. and 8:00 p.m. on Saturdays and Sundays and except in cases of urgent necessity in the interest of public safety.

Comment 9: <u>Impact on Human Health</u>

Comment 9a: Need to test subsurface soil conditions prior to SEQR determination sufficient to know whether there are any potential contaminants.

Response 9a: **Soil testing was performed in May of 2026. See the attached Site Remediation Plan (Appendix G), which was approved by Nelson Pope Voorhis August 12, 2026.**

Comment 9b: Develop a protocol for conducting onsite testing between NegDec and prior to site plan approval and/or issuance of building permit to ensure any potential remediation occurs and that safeguards are in place to protect public and adjoining uses.

Response 9b: **Soil testing was performed in May of 2026. See the attached Site Remediation Plan, which was approved by Nelson Pope Voorhis August 12, 2026 (Appendix G).**

Comment 10: Consistency with Community Plans

Comment 10a: Provide narrative as to why the zone change will not be impactful on adjoining uses.

The proposed Project and the proposed zoning amendments are consistent with the Village's community plans, including the purpose of the Transit Development District ("TDD") as outlined in the proposed Zoning Petition submitted by the Applicant and the correspondence proposed local law. First, according to Local Law No. 6 of 2015, which enacted the TDD, "the purpose of the Transit Development District is to facilitate redevelopment of properties in proximity to the Village of Suffern train station." Among the benefits to be accomplished were "to encourage a liveable, walkable community for residents in proximity to mass transit and supportive of existing commercial districts' and to develop "new multi-family buildings" to be "located within easy walking distance to downtown shops and merchants."

While TDD was initially limited to a single parcel within 500 feet of the train station, the benefits of TDD on the downtown business area have become obvious, as new shops and restaurants have been opened in response to that single TDD project on Orange Avenue, now known as "The Sheldon" apartment building. We have therefore seen how TDD has been a catalyst for downtown growth.

According to the Transit Oriented Development Institute, components of a TOD (referred to as a TDD in the Suffern Zoning Code) include walkable design, a train station as a focus, a mix of uses (office, retail, residence) in close proximity to one another, and a "high density, walkable district within a 10-minute walking circle surrounding the train station".

The Project Site is approximately 0.3 miles (walking distance) from the Suffern train station. It is approximately 900 feet (walking distance through municipal parking lot B) from the Hallett Place bus station, which is served by Hudson Link bus service. Direct commuter bus service to New York City is available at the intersection of Orange and Lafayette Avenues, approximately 0.3 miles away (walking distance along Lafayette Avenue).

The Project Site is also served by Transport of Rockland (TOR) local buses. TOR operates on a "flag" system, as opposed to standard stops only. TOR routes 59 and L3 transit along Lafayette Avenue, approximately 230 feet from the Site. TOR route 93 stops at the Hallett Place bus station.

It is for these reasons that the Project Site is appropriate for the expansion of TDD zoning district and is in compliance with the Village's community plans. The Project Site is adjacent to the downtown business district, which boasts a mix of shops, restaurants, entertainment venues, and offices. From its Suffern Place frontage, it is a short walk to the Suffern train station, the Hallett Street bus station, and other public transportation.

The Project incorporates transit oriented design principles that encourage a liveable, walkable community for residents in proximity to mass transit and supportive of existing commercial districts. The Project will result in a new multi-family buildings which will provide an additional housing resource in the Village. The additional population would be located within easy walking distance to downtown shops and merchants; and

The Project will be located within walking distance to a train station providing mass transit to and from connections to the New York City area and points north, along with other transit options.

Lastly, the Project will revitalize former industrial property within the Village's downtown area to create a downtown core area that provides a livable space with amenities within walking distance. To this end, we highlight that the Project Site is surrounded by commercial and office uses and will bring housing options for such commercial and office uses.

Comment 11: <u>Community Character</u>

Comment 11a: Address any concerns raised by the Fire Inspector.

Response 11a: **The building will be compliant with the NYS Fire Code.**

Comment 11b: Describe any safety/security measures to be integrated into project design.

Response 11b: **Access control will be installed on all doors. Surveillance cameras are proposed in all common areas.**

Comment 11c: Provide alternative options for building design. Note as per discussion of architecture with the Planning Board – as the planner during that time period, and as confirmed with the Village Attorney, the Village did not like the

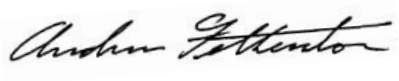
design of the Avon building and had wanted an architectural design which would be more in character with the older, historic character of the Village. Essentially Avon indicated that either the Village would accept the design as is, or they would move out of the Village. Avon should not be used as an example of what is acceptable from an architectural perspective. The architects should consider some of the design concepts they have been integrating into the Bellefield project in Hyde Park where materials are used to link it to some of the historic fabric of the surrounds. The building can be a modern expression but include some elements that reflect some of the historic design/materials of the Village.

Response 11c: **The applicant presented the Trustees with the renderings and they were all pleased with design. The design is a result of alternatives and iterations shown to the Trustees. Considerations were given to the surrounding fabric by utilizing similar materials such as brick. Additionally, many elements break up the mass of the building such as horizontal cornices, material changes and vertical groupings of windows. The previously submitted architectural plans reviewed by the trustees are attached.**

If you have any questions regarding the above project responses, please feel free to call me at (845) 875-4948. We look forward to the continued discussions with the Board on this project at the next available meeting.

Sincerely,

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.



Andrew Fetherston, P.E., CFM, CPESC, CPSWQ
Regional Discipline Leader

CC: Betty Vanderbeek, Village Clerk, bvanderbeek@suffernny.gov
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Appendix A | SWPPP

(See separately provided attachment)

Colliers Engineering & Design

Preliminary Stormwater Pollution Prevention Plan

September 30, 2025

37 Washington Avenue Development
Tax Lot 54.36-1-6.1
Village of Suffern, Rockland County, New York

Digitally signed by Connor Patrick McCormack
Date: 2025.09.30 17:27:06-04'00'

Prepared for:

Suffern WA LLC
308 West 94th Street
Suite 231
New York, NY 10025

Prepared by:

Connor P. McCormack, P.E.
New York Professional
Licensed Professional Engineer
License No. 103756

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Project No. 20000643D

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Appendix 4 – GP-0-25-001
Appendix 5 – DRAFT Notice of Intent (NOI)
Appendix 6 – Draft Notice of Termination (NOT)
Appendix 7 – MS4 Acceptance Form
Appendix 8 – NRCS Hydrologic Soil Mapping
Appendix 9 – Construction Site Logbook
Appendix 10 – NYSDEC Construction Stormwater Inspection Manual
Appendix 11 – Contractor Certification Form
Appendix 12 – NYSDEC Deep-Ripping & Decompaction Manual
Appendix 13 – NRCC Extreme Precipitation Tables
Appendix 14 – Erosion and Sediment Control Plans

EXECUTIVE SUMMARY

Project Name:	**Operator Name and Address:**
37 Washington Avenue Development Suffern, Orange County New York	Suffern WA LLC 308 West 94th Street, Suite 231 New York NY 10025
Project Engineer and Firm:	**Contractor Name and Address:**
Connor P McCormack, P.E. Colliers Engineering & Design CT, PC 555 Hudson Valley Avenue, Suite 101 New Windsor, NY 12553 (845) 564-4495	TBD
Project Location:	**MS4 Contact:**
Tax lot: 54.36-1-6.1 Village of Suffern Rockland County New York	Village of Suffern

Figure 1: Project Location Aerial



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INTRODUCTION

This project, known as 37 Washington Avenue, is located on Tax Lot 54.36-1-6.1, in the Village of Suffern New York. The Project site is approximately 1.87 acres in size with roadway frontage along Washington Avenue to the East and Suffern Place on the west. An existing railroad ROW is located along the northern property line. The existing parcel is currently developed with an existing building and parking lot, making over 99% of the site impervious surface. The existing building roof leaders and northern parking lot drain to the curb line along either Washington Avenue or Suffern Place. No drainage structures currently exist within the roadways adjacent to the project site. Drainage from the site is conveyed south along the curb lines to the drainage system within NYS Route 59. The project site is not located within the 100-year flood plain.

The project will redevelop the site with a 5-story multi-family residential building. The 70,613 SF building will contain 121 dwelling units and 242 garage parking spaces below the building. Additional sidewalk and utility improvements are proposed. The building will also have a green garage rooftop space.

The proposed project falls under the New York State DEC definition of redevelopment with a decrease in impervious area. Therefore, stormwater improvements on the site have been limited to modifications to the drainage facilities to accommodate the new site layout in accordance with the 2024 New York State Stormwater Management Design Manual and local requirements. Water Quality treatment and peak runoff attenuation of the design storms have been accomplished through reduction of the existing impervious area.

Due to the size and nature of the project, coverage under the State Pollutant Discharge Elimination System Permit (SPDES GP 0-25-001) administered by New York State Department of Environmental Conservation (NYSDEC) is required. It is not anticipated that a waiver from the 5-acre limit of soil disturbance will be sought for this project.

STORMWATER MANAGEMENT GOALS

The Stormwater Pollution Prevention Plan (SWPPP) has been prepared in compliance with the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-25-001 (See ***Appendix 3***). The SWPPP is a plan for controlling runoff and pollutants from a site during and after construction activities. The principal objective of this document is to comply with the SPDES Permit for construction activities by planning and implementing the following practices:

- Reduction or elimination of erosion and sediment loading to water bodies during and after construction.
- Control of the impact of stormwater runoff on the water quality of the receiving waters.
- Control of the peak rate of runoff during and after construction.
- Maintenance of stormwater controls during and after completion of construction.

Classification & Standards

The activities associated with this project are eligible for coverage under this permit. Using the General Permit guidelines for coverage, a summary of classification and requirements is provided below:

Project Type:

Multifamily Residential and redevelopment.

Parking lot construction and reconstruction.

Classification: Appendix B, Table 2, of the GP-0-25-001 "Construction activities that require the preparation of a SWPPP that includes Post Construction Stormwater Practices".

This project is located within the Village of Suffern, a regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4). The following guidance documents, in addition to various resources located on the NYS Department of Environmental Conservation website, were used in preparation of this SWPPP.

The New York State Stormwater Management Design Manual, by New York State Department of Environmental Conservation, August 2024.

New York Standard Specifications for Erosion and Sediment Control, by New York State Department of Environmental Conservation, November 2016.

The SWPPP is intended to be a *'living'* document and should be revised and updated whenever site conditions dictate. Any proposed modifications shall be reviewed by the owner/operator prior to incorporation in the SWPPP and implementation at the project site. The certifying engineer of this SWPPP document shall be notified of any proposed modifications to this document. Modifications shall be in accordance with the NYSDEC technical standards.

METHODOLOGY

1. The watersheds are divided into subareas, by topography, soils, and land use. A summary of the watershed areas, composite curve numbers, and travel times are shown in Table 1.
2. Rainfall depths used for this analysis are those published by the NRCC Atlas 14 Precipitation Tables for the project location for the 100, 10, and 1-year frequency storms as directed in the NYSSMDM.
3. Topographical mapping is taken from a survey titled "Topographic survey for Extell development, prepared by Colliers Engineering & Design, dated 2/6/25; and supplemented with best available mapping.
4. The required water quality volume (WQv) was calculated in accordance with chapter 9 of the NYSSMDM.
5. The provided RRv was calculated through the use of the NYSDEC 2024 DM Green Infrastructure (GI) Worksheets.

6. As this project is defined as redevelopment with a decrease in impervious area, the study shows reduction in peak flows for the redevelopment areas and treatment of the water quality requirements per chapter 9 of the NYSSMDM.
7. The peak flows from the watersheds in the existing condition are computed using the runoff curve numbers taken from TR-55 to determine undeveloped peak runoff and runoff hydrographs at the design points. The existing peak flows are presented in the report.
8. In the post-development condition, the peak flows from the proposed development are computed using the runoff curve numbers taken from TR-55. The watersheds are adjusted for the proposed improvements and grading of the site. The runoff flows are hydraulically routed for updated travel times, diversions, and new storage structures, as necessary. The resulting proposed peak flows at the design point are presented in the report.
9. Erosion and sediment control plans and details have been included with the site plans. A full Erosion & Sediment Control Plan (plans and construction sequencing) designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (aka the "bluebook") will be included upon development of the full SWPPP.
10. Maps showing the various drainage conditions are enclosed in this report. Schematic diagrams of the flow models in the existing and proposed conditions are included in the HydroCAD output within the Appendix.
11. A Notice of Intent (NOI) for GP-0-25-001 and "Draft" MS4 SWPPP Acceptance form were prepared and included in the Appendix of this report.

DISCUSSION

Discussion of Design Points

Runoff from the project site generally flows from north to south and leaves the project site via the curb line in either Washington Avenue or Suffern Place. No known drainage stormwater infrastructure exists within either Washington Avenue or Suffern Place, adjacent to the project site. Based on the existing and proposed drainage patterns, the site has been analyzed with two design points. These locations have been discussed below.

Design Point 1 is located at the southwest corner of the project, within Suffern Place. In the existing condition, runoff to this design point comes from the western building roof leaders discharging to grade, and a small portion of the existing parking lot. In the proposed condition, a portion of the western side of the building will be routing the 3 stormwater planters before discharging to the Suffern place curb line.

Design Point 2 is located at the southeast corner of the project, within Washington Avenue. In the existing condition, runoff to this design point comes from the eastern portion of the building's roof leaders discharging to grade. Additionally, the northern parking lot and southeastern loading dock areas also discharge to this design point. In the proposed condition, runoff from the eastern portion of the project will discharge to the curbline within Washington Avenue.

The Design Point locations, the pre- and post-development land use, travel times flow paths, and watersheds are clearly identified on the watershed maps found in the Appendix of this report. The pre-development (hereafter "existing") and post-development (hereafter "proposed") watershed characteristics can be found in Table 1 below.

Table 1: Watershed Characteristics

Existing Conditions			
WS Name	**Area**	**CN**	**Tc (min)**
EWS 1	0.86	98	6.0
EWS 2	1.65	98	6.0
Totals	2.51	-	-
Proposed Conditions			
WS Name	**Area**	**CN**	**Tc**
PWS-1A	0.12	97	6.0
PWS-1B	0.11	97	6.0
PWS-1C	0.11	97	6.0
PWS-1D	0.52	98	6.0
PWS-2A	1.65	96	6.0
Totals	2.51	-	-

The minimum Tc of 6 minutes, or 0.10 hours, is shown above and noted on the watershed maps in the catchment areas where the composite travel time did not meet this minimum.

Soil Types

Soil data for this project was obtained from the NRCS Web Soil Survey (WSS) as operated by the USDA Natural Resources Conservation Service (NRCS) (See ***Appendix 7)***

One soil designation was identified throughout the entire project site. The project site soils include "Ux" Urban Land. A further detailed description of the soil characteristics and properties can be found in ***Appendix 7*** of this report.

Hydrologic Soil Group (HSG)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long duration storms. The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). Conservatively dual class soil groups are considered "D" soils. The UX land use has a "unranked" HSG. Therefore, to be conservative, HSG "D" will be used for this project.

Table 2: Hydrologic soil groups

HSG	Soil (abbreviation)
N/A (D used)	UX

Redevelopment

As defined in Chapter 9 of the NYSSMDM, redevelopment activity is disturbance and reconstruction of existing impervious surfaces. This includes impervious surfaces removed within the last five (5) years. Redevelopment is distinguished from new development in that new development refers to construction on land where there had not been previous construction. Redevelopment specifically applies to constructed areas with impervious surfaces.

According to the Design Manual, redevelopment of previously developed sites is encouraged from a watershed protection standpoint because it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. At the same time, redevelopment provides an opportunity to correct existing problems and reduce pollutant discharges from older developed areas that were constructed without effective stormwater pollution controls.

Site constraints associated with pre-developed project sites are another factor that makes it more difficult to provide standard stormwater practices (SMPs). The biggest constraints encountered on this site are primarily the presence of highly compacted and poorly drained soil. Chapter 9 of the NYSSMDM sets forth alternative design criteria for certain redevelopment projects because the technical standards contained elsewhere in the Manual were primarily intended for new development projects and compliance with those standards may present a challenge to some redevelopment projects.

The existing site almost entirely covered with impervious surface. These surfaces include buildings, asphalt, concrete and sidewalks. An aerial of the site has been included on the following page, further illustrating how substantially developed the site was with impervious surfaces.



Figure 2: Existing Site Aerial

A portion of our proposed site improvements will involve the replacement of existing impervious surfaces with maintained lawn areas, planter beds and green rooftop plantings. A vital part of this removal will be the deep ripping and decompaction of the underlying soil (as applicable). This along with required soil restoration will be critical for these areas to function as "good/dense" grass areas.

As outlined in chapter 9.2.1.B.I of the stormwater design manual, if the redevelopment plan proposes a reduction of existing impervious cover by a minimum of 25% of the total disturbed, impervious area, then the stormwater criteria for both water quality and quantity have been achieved.

The proposed site improvements will result in a net **decrease** in the total impervious area on the site as shown in Table 3 below. Please note that impervious surface that is to remain outside the limit of disturbance is not included in the calculation below. These areas include the existing roadway and some sidewalk locations.

Table 3: Redevelopment Impervious Cover Comparison

Redevelopment Area Calculation (Acres)						
Existing Tributary Impervious Area (Acres)	Existing Impervious Area to be Disturbed (Acres)	Proposed Tributary Impervious Area (Acres)	Net Change in Tributary Impervious Area (Acres)	Net Change in Tributary Impervious Area (%)	Impervious Area Treated by SMP (%)	Minimum Required SMP treatment area (Acres)
2.01	2.01	1.82	-0.19	-10%	15%	0.31

Section 9.2.A.II of the NYSSMDM details the sizing criteria for both water quantity and water quality control practices. Based on this section, the WQ treatment requirement is as follows.

Combination of impervious area reduction and standard SMP.

$0\%\ ALT = 25\% - (10\%\ IC_{RED} + 0\%\ SMP + 15\%\ RRv)$

Based on Table 3 and the calculations above, the project meets the Water Quality requirements for a redevelopment project with a decrease in impervious area.

Zero-Net Increase:

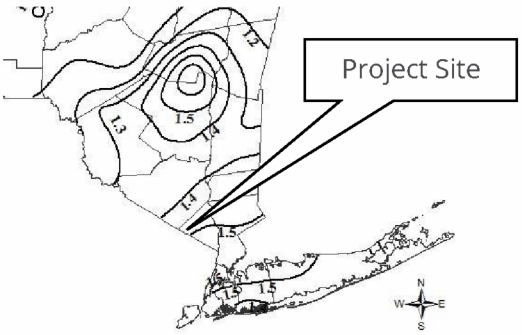
The project falls under the definition of redevelopment with a decrease in impervious area. Therefore, the peak mitigation requirements have been designed to 9.2.1.C., as shown in the HydroCAD model, the proposed development will result in a 0% change to the hydrology or a reduction in the peak flows. Therefore, the project meets this requirement for channel protection (CPv), overbank flood protection (Qp), and extreme flood protection (Qf). A table for the pre a post peak flow is included below.

Table 4: Existing and Proposed Peak Flow Summary

	Storm Events	**Existing**	**Proposed**	**Diff.**	**Percent**
DP 1	1	3.23	3.17	-0.06	-1.86%
	10	5.93	5.69	-0.24	-4.05%
	100	10.53	10.23	-0.30	-2.85%
DP 2	1	6.17	5.93	-0.24	-3.89%
	10	11.34	11.19	-0.15	-1.32%
	100	20.14	20.05	-0.09	-0.45%

Water Quality Volume (WQv):

Due to the redevelopment nature of the project, the Water Quality Volume (WQv) has been designed to treat 15% of the disturbed impervious area. The design captures and treats 90% of the average annual stormwater runoff volume. The WQv is directly related to the impervious cover created at a site. The 90% rainfall event value (P) used in the calculations (1.50") is shown below in the portion of Figure 4.1 from Section 4.2, page 4-3 in the NYSSMDM.



90% Rule:

$WQ_v = [(P)(R_v)(A)] /12$
$R_v = 0.05+0.009(I)$
I = Impervious Cover (Percent)
Minimum $R_v = 0.2$
P = 90% Rainfall Event Number (See Figure 4.1)
A = site area in acres

As discussed within the redevelopment section of the report, the water quality and runoff reduction requirements will only need to be provided for 15% of the disturbed impervious area. This is equal to 0.31 acres. Three Stormwater Planter are proposed to treat a total 0.33 acres, exceeding the design requirements. Water quality calculation has been provided in Table 5 below.

Table 5: Required Water Quality Calculation

Description (HydroCAD designation)	Catchment (GI Worksheet numbering)	Total Area (acres)	Impervious Area (acres)	Percent Impervious (I) %	Runoff Coefficient Rv	Required WQv (cf)	Provided WQv (cf)
P-1A [WS 1A]	1	0.12	0.11	95%	0.90	565	565
P-1A [WS 1A]	2	0.11	0.11	95%	0.90	560	560
P-1A [WS 1A]	3	0.11	0.11	95%	0.90	560	560
	TOTAL	**0.34**	**0.33**	95%	**0.90**	**159,580**	**159,580**

Runoff Reduction Volume

The runoff reduction volume (RRv) requirement for this project has been achieved by impervious cover reduction and the use of stormwater planters to provide water quality volume. This meets the design requirement for a redevelopment project. The total RRv provided for the project is 837 CF.

Runoff Reduction Volume (RRv) through Site Planning:

The application of site planning and green infrastructure to reduce water quality volume with runoff reduction practices can either reduce the required water quality volume to be treated; or can

completely account for the required water quality volume. The summary of this analysis can be found below. The combination of practices provided on site exceeds the minimum required water quality and runoff reduction for the proposed development.

The basic premise of runoff reduction is to recognize the water quality benefits of certain practices by allowing for a reduction in the water quality treatment volume. Runoff reduction is first achieved through better site design during the planning stages and has been implemented in the planning and design of this project as described in this report.

In accordance with Section 5.1 "Planning for Green Infrastructure: Reduction of Impervious Cover" of the NYSDEC Stormwater Management Design Manual, the proposed site plan has been designed to meet the planning techniques as follows:

Table 6: Green Infrastructure Site Planning

Preservation of undisturbed Areas	
Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	Not applicable for this project, the site is a redevelopment with 99% existing impervious cover.
Preservations of Buffers	
Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Not applicable for this project due to the redevelopment.
Reduction of Clearing & Grading	
Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Not applicable for this project due to the redevelopment.
Locating Development in Less Sensitive Areas	
Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	The proposed development is on a redeveloped site.
Open Space Design	

Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Not applicable for this project due to the redevelopment.
Soil Restoration	
Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	Compacted soils located in open areas without shallow existing utilities will be tilled to restore the original properties of the soil prior to seeding. (*see **Appendix 11***)
Roadway Reduction	
Minimize roadway widths and lengths to reduce site impervious area.	Existing impervious areas have been removed.
Sidewalk Reduction	
Minimize sidewalk lengths and widths to reduce site impervious area.	Sidewalks added where needed to adequately and safely serve the pedestrian needs of the facility. Existing sidewalks have been removed to increase the greenspace on site.
Driveway Reduction	
Minimize driveway lengths and widths to reduce site impervious area.	Driveways have been reduced to the minimum required by Town and fire code, and to meet the end user's needs.
Cul-de-Sac Reduction	
Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A no Cul-de-Sacs are proposed.
Building Footprint Reduction	
Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	The building was designed to meet the potential end user's needs.
Parking Reduction	

Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	The parking is proposed under the building.

Green Infrastructure Techniques (GITs):
After considering the reductions through Site Planning mentioned above, RRv remains to be treated through GITs and/or Standard SMPs. Chapter 5 of the NYSSMDM outlines the various Green Infrastructure Techniques which can be implemented on-site to achieve runoff reduction. The GI Worksheets included in the ***Appendix*** of this report provide the calculations for the Green Infrastructure Techniques chosen to treat the Runoff Reduction Volume for this project. Below is a brief description of each Green Infrastructure Technique along with a discussion regarding the feasibility of each technique with respect to this project.

Table 7: Green Infrastructure Feasibility

Conservation of Natural Areas	
Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.	Not applicable for this project due to the redevelopment.
Sheetflow to Riparian Buffers or Filter Strips	
Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	Not applicable for this project.
Vegetated Open Swale	
The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration.	Not applicable for this project.

Tree Planting/Tree Box	
Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	Tree planting has been proposed through the site but has not been quantified as a stormwater mitigation.
Disconnection of Rooftop Runoff	
Direct runoff from residential rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	This practice has been utilized to mimic existing conditions. However, the roof leaders discharge to an impervious surface. Therefore, no credit has been taken for this practice.
Stream Daylighting for Redevelopment Projects	
Stream Daylight previously culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	This strategy is not applicable to the project.
Rain Garden	
Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	There are as many green locations proposed throughout the development, but rain gardens have not been proposed on site.
Green Roof	
Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	Green Space has been proposed on the roof of the garage, but the building has not been designed with a “Green Room”
Stormwater Planter	
Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to	**Three stormwater Planter have been proposed on site to treat runoff.**

decrease stormwater quantity and improve quality.	
Rain Tank or Cistern	
Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	This practice has not been used for the proposed development.
Porous Pavement	
Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Not utilized. The highly compacted soils preclude the use of this practice.

Soil restoration efforts, including mechanical decompaction and compost amendment in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM, are proposed for areas to be disturbed for improvements that will not be impervious at final buildout.

Refer to Tables 6 and 7 above for the decision-making matrices utilized here. The design for the project utilized reduction of the impervious area greater than 25% to attain the required runoff reduction volume and water quality for redevelopment projects.

EROSION & SEDIMENT CONTROL

Five (5) Acres or Greater of Disturbance

Construction must be staged in a way where no more than 5 acres is disturbed at one time. Typically, this is done by building the site in sections and fully stabilizing disturbed areas before moving to new sections of the project. Because the entire project area is less than 5 acres, this project will not be seeking a 5-acre waiver.

General Erosion Control Plan:

Construction operations shall be carried out in such a manner that erosion will be controlled and sediment migration minimized. Federal, State, and Local laws concerning pollution reduction will be followed. The control practices indicated on attached Erosion & Sediment Control Plans shall be installed and used on this project.

In the event control practices not contained within the attached Erosion & Sediment Control Plans are required due to unforeseen/unknown existing conditions this SWPPP document contains applicable Erosion and Sediment Control details in the site plans as reference. Details in the site plans are considered as needed and are not part of the construction documents for bidding purposes.

The list of measures and practices below are contained in the attached Erosion and Sediment Control Plans and shall be installed and maintained per the most current edition of the New York Standard Specifications for Erosion and Sediment Control Handbook. All erosion control measures implemented shall be in accordance with the construction sequence schedule as described in Section VI of this narrative.

Temporary Measures

- *Silt Fence* – Silt fence shall be placed at a minimum along the toe of all fill areas or any location where surface sheet flow could be expected in accordance with temporary soil erosion and sediment control plans serving to reduce runoff velocity and effect deposition of transported sediment load. Where silt fence ends, the end shall turn and run perpendicular to contours for a length of ten (10) feet, or for a difference in elevation of two (2) feet, whichever comes first.
- *Mulching* – Mulching of all disturbed surfaces will be mandatory. Hydroseeding with mulch only mixes will be the preferred method.
- *Stabilized Construction Access* - A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately. When necessary, wheels must be cleaned to remove sediment prior to entrance into public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

- *Concrete Washout Station* - A temporary concrete washout station is to be used near the entrance to the site. The station will have a depth of 24 inches and shall be a minimum of 10 feet by 10 feet. Station shall be lined with a 10mil waterproof plastic membrane. Tools or equipment that were used for concrete work will be cleaned here before leaving the site.

Permanent Measures

- *Topsoil, Seed & Mulch* – Final vegetative stabilization shall be used at all locations where the ground has been disturbed, and impervious covers are not specified. Mulch shall be applied with, or immediately after seeding.

Maintenance and Inspection of Measures

All temporary and permanent soil erosion and sediment measures shall be maintained by the contractor during the life of the project. The contractor shall have a *trained contractor,* as defined in the GP-0-25-001 (See ***Appendix 3***), on site at all times. The *trained contractor* shall be responsible for the day-to-day construction and maintenance of all erosion and sediment control measures.

All temporary measures (silt fence, inlet protection, etc.) and permanent measures (landscaping) shall be inspected by the *Qualified Inspector* every seven (7) calendar days. The *Qualified Inspector* role and inspection requirements are outlined in Part IV.C of the GP-0-25-001 (See ***Appendix 3***). All inspections are required to be completed within one calendar day. Any comments, suggestions or corrective actions the *Qualified Inspector* notes shall be addressed by the contractor within 24 hours of the inspection.

Construction Sequence:

The construction sequence for the proposed development will be as follows:

- The contractor shall have a pre-construction meeting with the applicable Municipalities representatives prior to the start of construction.
- Install construction entrance.
- Stake limits of disturbance and install silt fence/silt sox as shown on the plans.
- Contractor shall demolish the existing building and other site features as shown on the plans.
- Install sediment ponds. Install temporary swales to direct all open soil area disturbance to sediment ponds as necessary. Locations and size of the erosions and sediment control practices are noted on the plan. These may vary depending on the contractor's schedule and approach but 3,600 cf of storage must be provided at a minimum per acre of upstream disturbance. Sediment traps shall be installed in accordance with the plans and details. Sediment traps and basins shall be sized in accordance with the New York standards and specifications for erosion and sediment control manual.
- The contractor shall rough grade the site to allow for the building foundation construction.
- The lawn, paths and vegetated areas can be rough graded. Proposed drainage structures shall be installed with inlet protection. Disturbed soils shall be temporarily stabilized as soon as practical. Materials stored in stockpiles shall be cordoned off with silt fence per the appropriate specifications and details. The operator shall initiate stabilization measures as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than (14) days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Construct roads, drives, buildings, and install utilities
- Topsoil/hay/seed lawn areas.
- The project site must meet final stabilization criteria prior to removing all erosion and sediment control devices and closing out the project. Litter and construction debris shall be removed as practical throughout the life of the project.
    - *Final Stabilization* means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock riprap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement

- Upon final stabilization being met, Contractor shall clear drainage pipes and structures of any sediment which may have accumulated. Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the

incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

- Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

The applicant and the applicant's contractor are required to attend a preconstruction meeting with the project engineer MS4 officer and representative from the Municipal.

For additional, general Erosion and Sediment Control notes including seeding, please refer to the Erosion and Sediment Control Plans.

Good Housekeeping

Good housekeeping practices are inexpensive, relatively easy to implement and are often effective in preventing stormwater contamination. Specific activities that should be completed by the contractor are listed below:

Spill Inventory

The materials or substances listed below are expected to be present on-site during construction:

- Concrete
- Fertilizers
- Piping
- Paints (enamel & latex)
- Treated and non-treated wood
- Seed
- Tar
- Petroleum-based products
- Reinforcing steel
- Cleaning solvents
- Masonry block
- Paving materials

Material Management Practices

The following are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

- Products shall be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets (MSDS) shall be retained; they contain important product information.

- An effort shall be made to store only enough products required to do the job.
- All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure and/or on non-porous blacktop.
- Products shall be kept in their original containers with the original manufacturer's label.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all a product shall be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal shall be followed.
- The contractor's site superintendent shall inspect daily to ensure proper use and disposal of materials on site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices shall be followed for spill prevention and cleanup.

- Spills, of any size, of toxic or hazardous material and/or petroleum products shall be reported to the NYSDEC and Central Hudson's Environmental Affairs division.
- Manufacturer's recommended methods for spill cleanup shall be clearly posted, and site personnel shall be made aware of the procedures and the locations of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite. Equipment and materials shall include but not be limited to brooms, dust pans, mops, rags, gloves, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills shall be cleaned up immediately after discovery.
- The spill area shall be kept well ventilated, and personnel shall wear appropriate PPE to prevent injury from contact with a hazardous substance.
- The spill prevention plan shall be adjusted to include measures to prevent toxic or hazardous material of spills from recurring and how to clean up the spill. A description of the spill, what caused it, and the cleanup measures shall also be included.

The contractor's site superintendent is responsible for the day-to-day site operations and shall be the spill prevention and cleanup coordinator.

Product Specific Practices

The following product specific practices shall be followed onsite.

- Petroleum Products – All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used on site shall be applied according to manufacturer's recommendations.
- Fertilizers – Fertilizers shall be applied only in the minimum amounts recommended by the manufacturer. Use only fertilizers that have five (5) or less parts phosphorous. Once applied, fertilizers shall be worked into the soil to limit exposure to stormwater. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.

- Paints – All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the storm sewer system but shall be properly disposed of according to the manufacturer's instructions or state and local regulations.
- Concrete Trucks – Concrete trucks shall not be allowed to wash out or discharge surplus concrete or drum wash water on the site, unless in approved clean-out areas.
- Waste Disposal – All waste materials shall be collected and stored in a securely lidded metal dumpster rented from a licensed solid waste management company. The dumpster shall meet all local and any State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied as necessary, and the trash shall be hauled to a NYSDEC permitted landfill. No construction waste materials shall be buried onsite. All personnel shall be instructed regarding the correct procedure for waste disposal.
- Hazardous Waste – All hazardous waste materials shall be disposed of in a manner specified by local or State regulations or the manufacturer. Site personnel shall be instructed in these practices.
- Sanitary Waste – All sanitary waste shall be collected from the portable units by a licensed sanitary waste management contractor, as required by local regulation and as required to protect public health and safety.
- Recyclable Waste – All recyclable waste (cardboard, wood, etc.) shall be collected and recycled on a weekly schedule.

Responsible Parties

Implementation of SWPPP

The owner/operator is responsible for implementing the provisions of the SWPPP and ensuring that the appropriate contractors and subcontractors on the site provide certification in accordance with the provisions of the GP-0-25-001.

The owner/operator is also responsible to have a *Trained Contractor* and *Qualified Inspector* inspect the active construction site in accordance with section 6.3 of this report and all provisions for inspections defined in the GP-0-25-001, (See ***Appendix 10)*** A *Trained Contractor* cannot conduct *Qualified Inspector* site inspections unless they meet the *Qualified Inspector* qualifications listed in appendices of the GP-0-25-001.

Inspection Requirements

The owner/operator is responsible for implementing inspections of all erosion and sediment control measures. To do so, the owner/operator shall have a *Qualified Inspector* inspect the site in accordance with the guidelines of Part IV of the GP-0-25-001. A sample inspection template is provided in this document (See ***Appendix 9***).

The owner/operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be kept on site and be made available to the permitting authority upon request. The

owner/operator shall also retain a copy of this SWPPP document at the construction site during the life of the project.

End of Project – Termination of Permit

Final Inspection

Prior to filing the Notice of Termination (NOT), or at the end of permit term, the owner/operator shall have a Qualified Inspector perform a final site inspection. The inspector shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods. Final stabilization means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80% has been established on all unpaved areas and areas not covered by permanent structures.

Notice of Termination (NOT)

When the site has finally stabilized, the owner/operator must submit a Notice of Termination (NOT) form to terminate coverage under SPDES General Permit GP-0-25-001. The permittee must identify all the permanent stormwater management structures that have been constructed. In addition, a manual describing the operation and maintenance practices that will be necessary for the structures(s) to function as designed after the site is stabilized must be developed and in place. The permittee must also certify that the permanent structure(s) has been constructed in conformance with this document. A copy of the NOT is provided in this document (see ***Appendix 5***).

Record Keeping

The owner/operator shall retain copies of SWPPP, any reports submitted in conjunction with this permit, and records of all data used to complete the NOI & NOT for a period of at least five (5) years from the date that the site is finally stabilized.

SUMMARY OF PROPOSED STORMWATER IMPROVEMENTS

The proposed project falls under the New York State definition of redevelopment with a decrease in impervious area. Three stormwater features have been proposed to meet the water quality requirements for the project. The site runoff has been attenuated for peak flows in the peak design storms. The proposed redevelopment areas treat the required water quality through reduction of proposed impervious areas and standard mitigation practices. The design utilizes DEC approved practices that help maintain the existing hydrology.

CONCLUSION

As the storm water pollution prevention plan meets the water quality requirements for redevelopment projects and meets peak flow mitigation to the applicable standards, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed site improvements.

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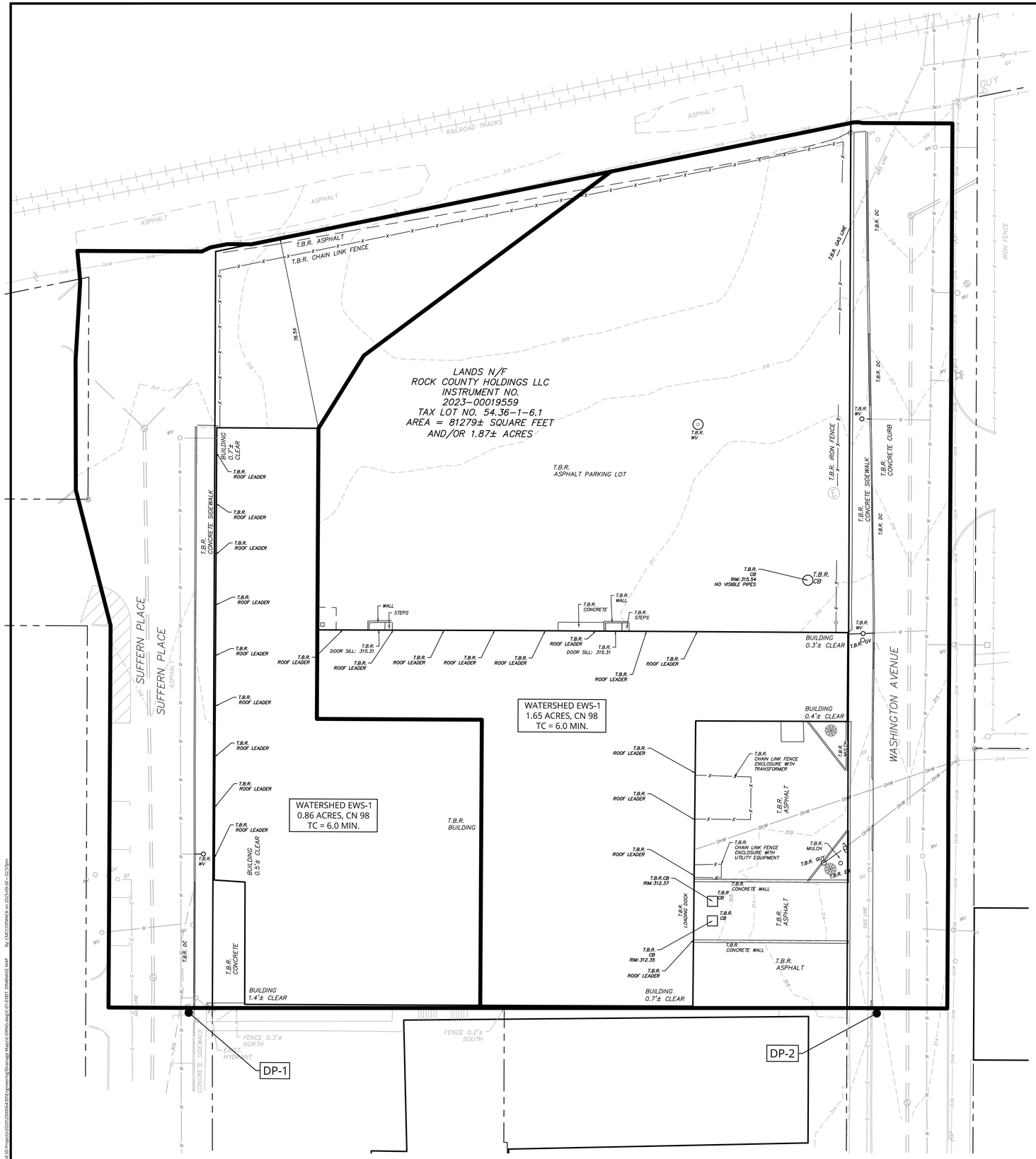
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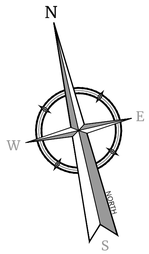
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Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial
Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy

Appendix 1

Watershed Maps





LEGEND

SYMBOL	DESCRIPTION
	DRAINAGE AREA BOUNDARY
→ → —	TIME OF CONCENTRATION (Tc) PATH
SF L = 10' S = 5.0%	Tc PATH TYPE IDENTIFIER: SF = SHEET FLOW, SCF = SHALLOW CONCENTRATED FLOW, CF= CHANNEL/CONDUIT FLOW; LENGTH OF TC PATH; SLOPE OF Tc PATH
PDA 1-B-7 A = 0.100 AC. CN = 76 TC = 4.8 MIN.	DRAINAGE AREA LABEL; POA-BASIN LABEL-DRAINAGE AREA NO.; DRAINAGE AREA; CURVE NUMBER; TIME OF CONCENTRATION
RehA (HSG C)	SOIL TYPE (HYDROLOGIC SOIL GROUP)
	SOIL TYPE BOUNDARY

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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REV	DATE	DESCRIPTION

SUFFERN WA LLC

DRAINAGE MAPS

37 WASHINGTON AVENUE DEVELOPMENT

TAX LOT: 54.36-1-6.1
VILLAGE OF SUFFERN
ROCKLAND COUNTY
NEW YORK STATE

Colliers Engineering & Design
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555 Hudson Valley Avenue, Suite 101
New Windsor, NY 12553
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COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE:	DRAWN BY:
AS SHOWN	KAS
DESIGNED BY:	REVIEWED BY:
CPM	ABF
DATE ISSUED:	PROJECT NUMBER:
09/30/2025	20000643D

SHEET NAME:

EXISTING DRAINAGE AREA MAP

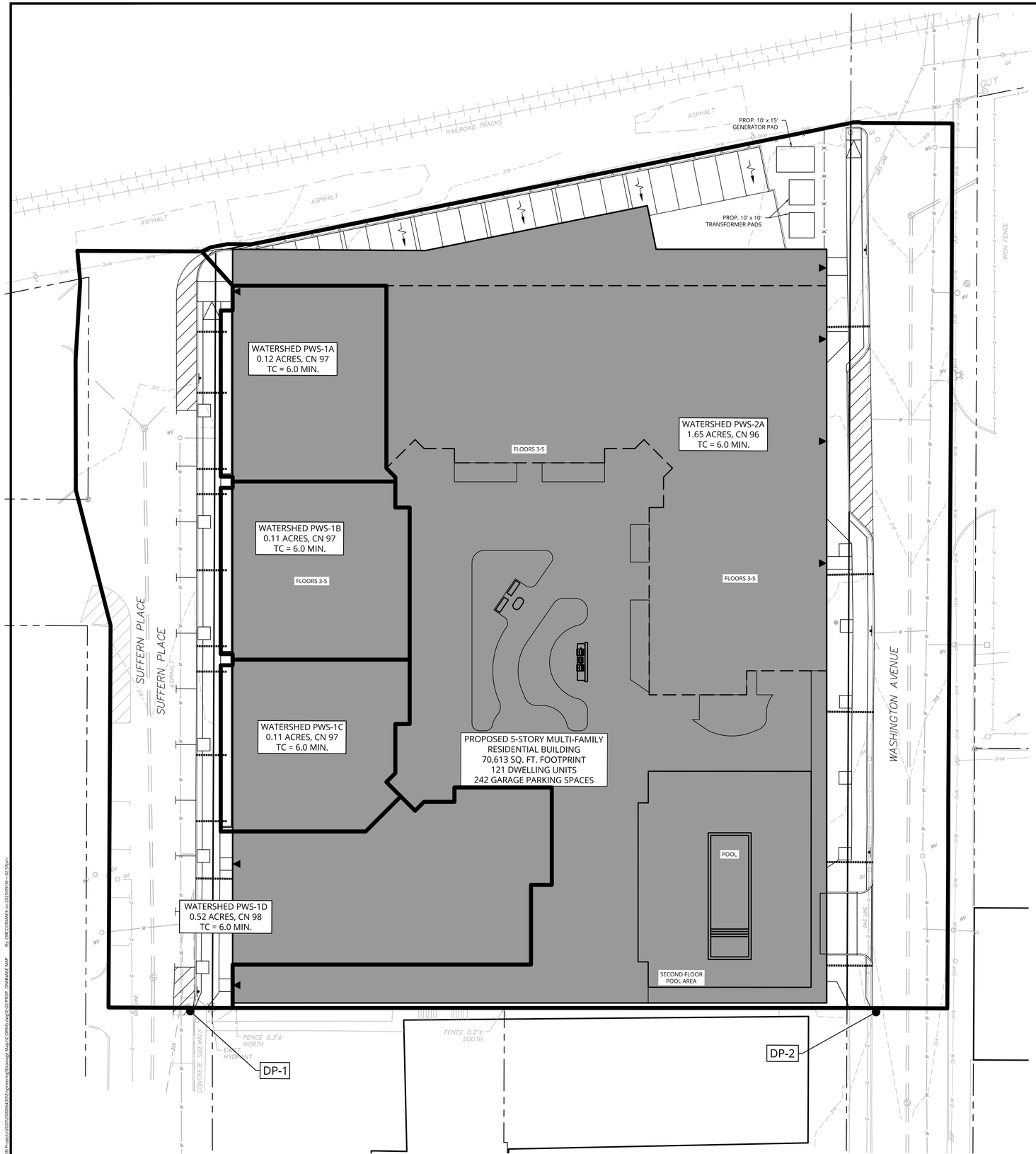
DRAWING NUMBER:

C-01

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

C:\Civil 3D Projects\2020\20000643D\Engineering\Drainage Maps\20000643D Eng Exh C-01 EXIST. DRAINAGE MAP - By CMCCORMACK on 2025-09-30 - 10:27pm



LEGEND

SYMBOL	DESCRIPTION
	DRAINAGE AREA BOUNDARY
→ → —	TIME OF CONCENTRATION (Tc) PATH
SF L = 10' S = 5.0%	Tc PATH TYPE IDENTIFIER: SF = SHEET FLOW; SCF = SHALLOW CONCENTRATED FLOW; CF= CHANNEL/CONDUIT FLOW; LENGTH OF TC PATH; SLOPE OF Tc PATH
PDA 1-B-7 A = 0.100 AC. CN = 76 TC = 4.8 MIN.	DRAINAGE AREA LABEL; POA-BASIN LABEL-DRAINAGE AREA NO.; DRAINAGE AREA; CURVE NUMBER; TIME OF CONCENTRATION
RehA (HSG C)	SOIL TYPE (HYDROLOGIC SOIL GROUP)
	SOIL TYPE BOUNDARY

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

C:\Civil 3D Projects\2025\20000643D\Engineering\Drainage Maps\CONVEX.dwg, 9/30/2025 8:39:53 AM, By: CMCCORMACK

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REV	DATE	DESCRIPTION

SUFFERN WA LLC

DRAINAGE MAPS

37 WASHINGTON AVENUE DEVELOPMENT

TAX LOT: 54.36-1-6.1
VILLAGE OF SUFFERN
ROCKLAND COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue, Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE: AS SHOWN	DRAWN BY: KAS
DESIGNED BY: CPM	REVIEWED BY: ABF
DATE ISSUED: 09/30/2025	PROJECT NUMBER: 20000643D

SHEET NAME:

PROPOSED DRAINAGE AREA MAP

DRAWING NUMBER:

C-02

Appendix 2

HydroCAD Data



Subcat Reach Pond Link

Routing Diagram for 37 wash hydro
Prepared by Colliers Engineering & Design, Printed 9/30/2025
HydroCAD® 10.20-5c s/n 04431 © 2023 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	Type II 24-hr		Default	24.00	1	2.74	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.98	2
3	100-yr	Type II 24-hr		Default	24.00	1	8.81	2

Summary for Subcatchment 1S: Existing 1 Suff

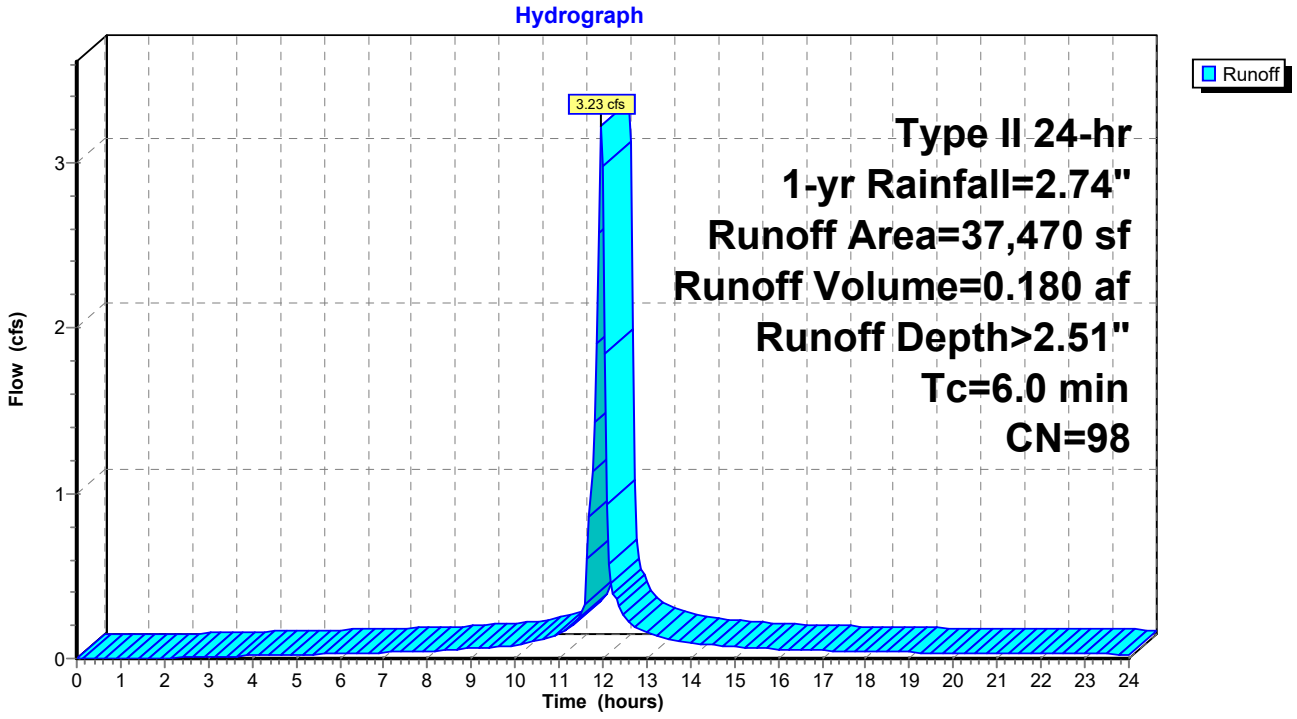
Runoff = 3.23 cfs @ 11.96 hrs, Volume= 0.180 af, Depth> 2.51"
Routed to nonexistent node 4R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
37,470	98	Paved parking, HSG D
0	80	>75% Grass cover, Good, HSG D
37,470	98	Weighted Average
37,470		100.00% Impervious Area

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

Subcatchment 1S: Existing 1 Suff



Summary for Subcatchment 3S: Existing 2 - Wash

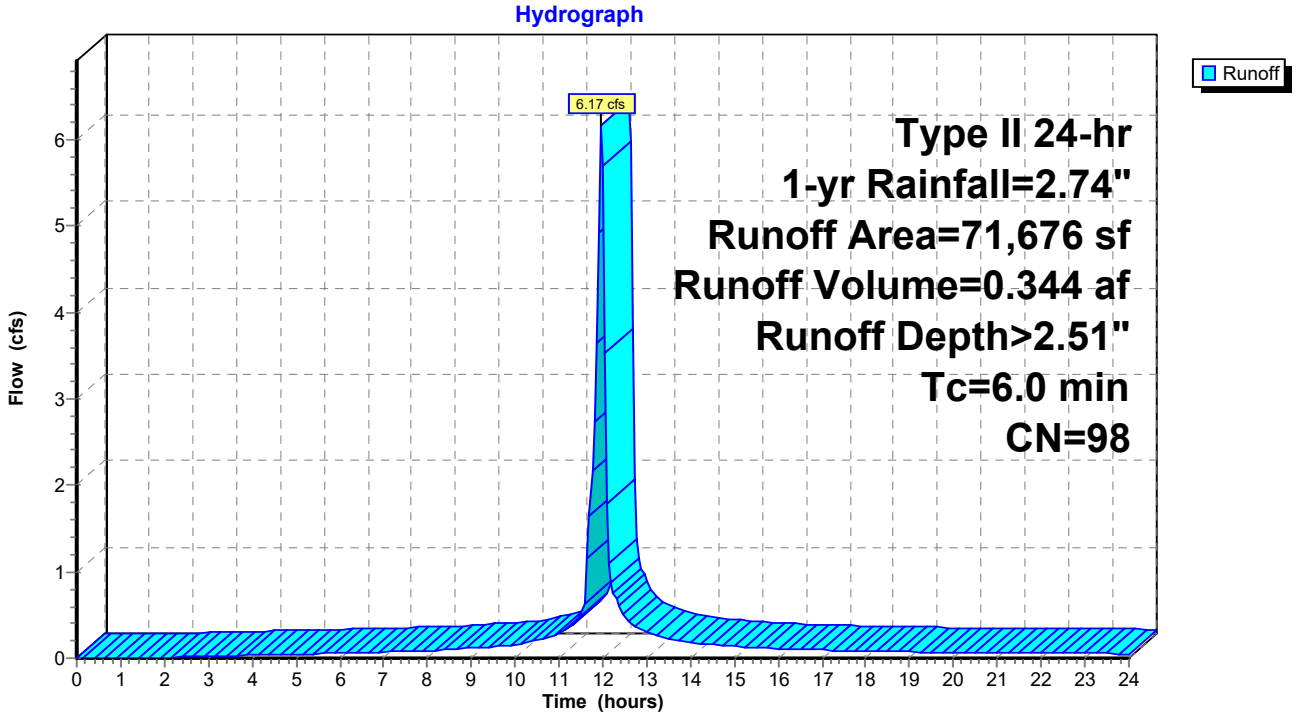
Runoff = 6.17 cfs @ 11.96 hrs, Volume= 0.344 af, Depth> 2.51"
Routed to nonexistent node 4R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
71,394	98	Paved parking, HSG D
282	80	>75% Grass cover, Good, HSG D
71,676	98	Weighted Average
282		0.39% Pervious Area
71,394		99.61% Impervious Area

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

Subcatchment 3S: Existing 2 - Wash



Summary for Subcatchment 1S: Existing 1 Suff

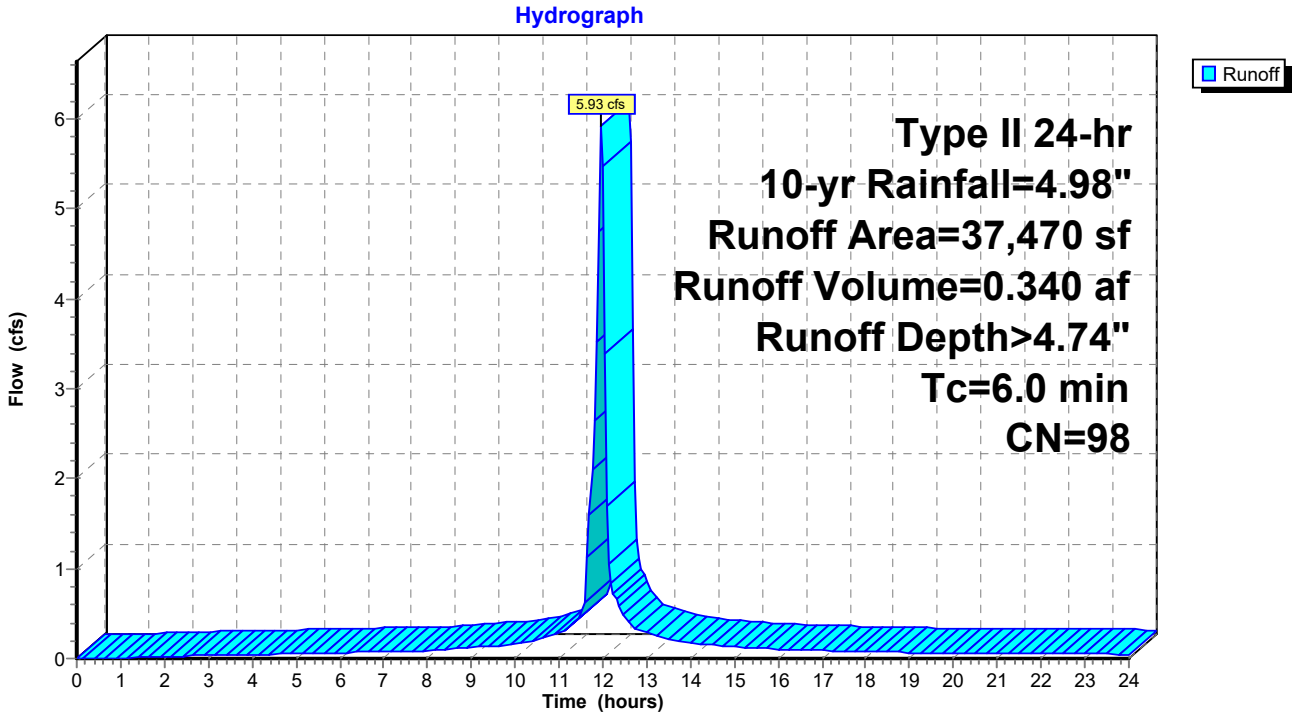
Runoff = 5.93 cfs @ 11.96 hrs, Volume= 0.340 af, Depth> 4.74"
Routed to nonexistent node 4R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
37,470	98	Paved parking, HSG D
0	80	>75% Grass cover, Good, HSG D
37,470	98	Weighted Average
37,470		100.00% Impervious Area

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

Subcatchment 1S: Existing 1 Suff



Summary for Subcatchment 3S: Existing 2 - Wash

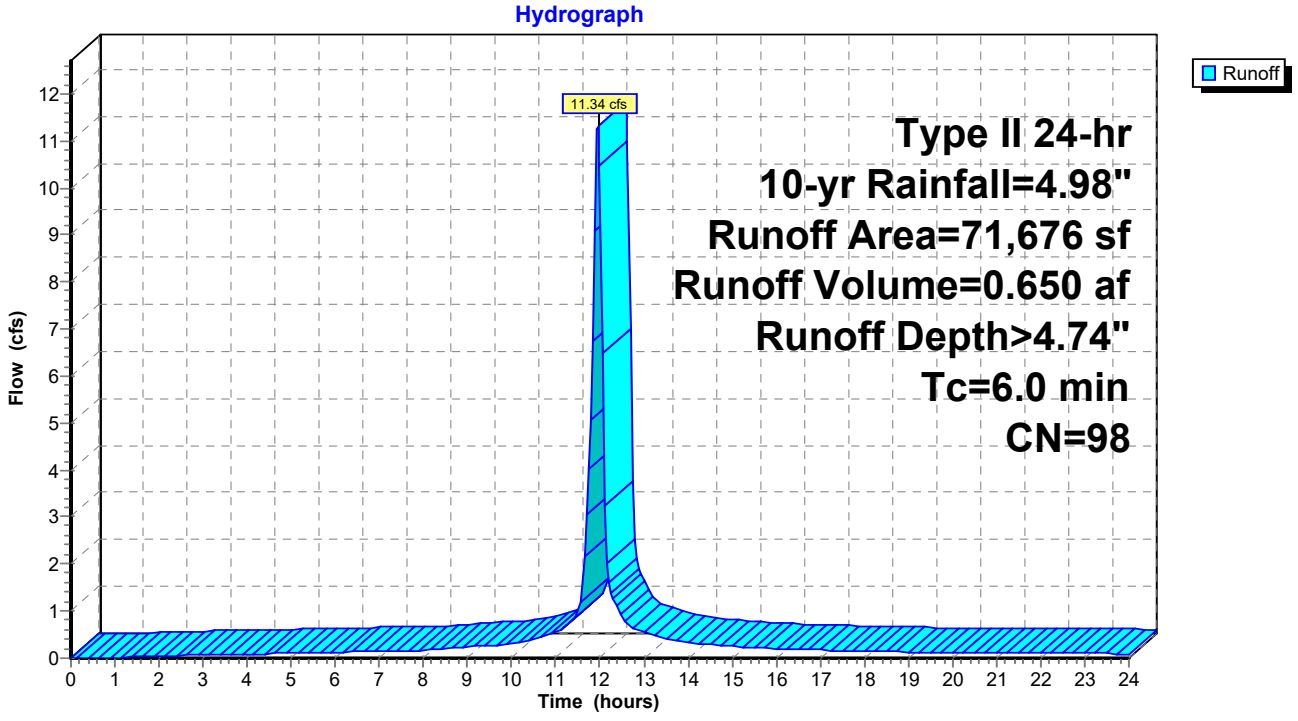
Runoff = 11.34 cfs @ 11.96 hrs, Volume= 0.650 af, Depth> 4.74"
Routed to nonexistent node 4R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
71,394	98	Paved parking, HSG D
282	80	>75% Grass cover, Good, HSG D
71,676	98	Weighted Average
282		0.39% Pervious Area
71,394		99.61% Impervious Area

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

Subcatchment 3S: Existing 2 - Wash



Summary for Subcatchment 1S: Existing 1 Suff

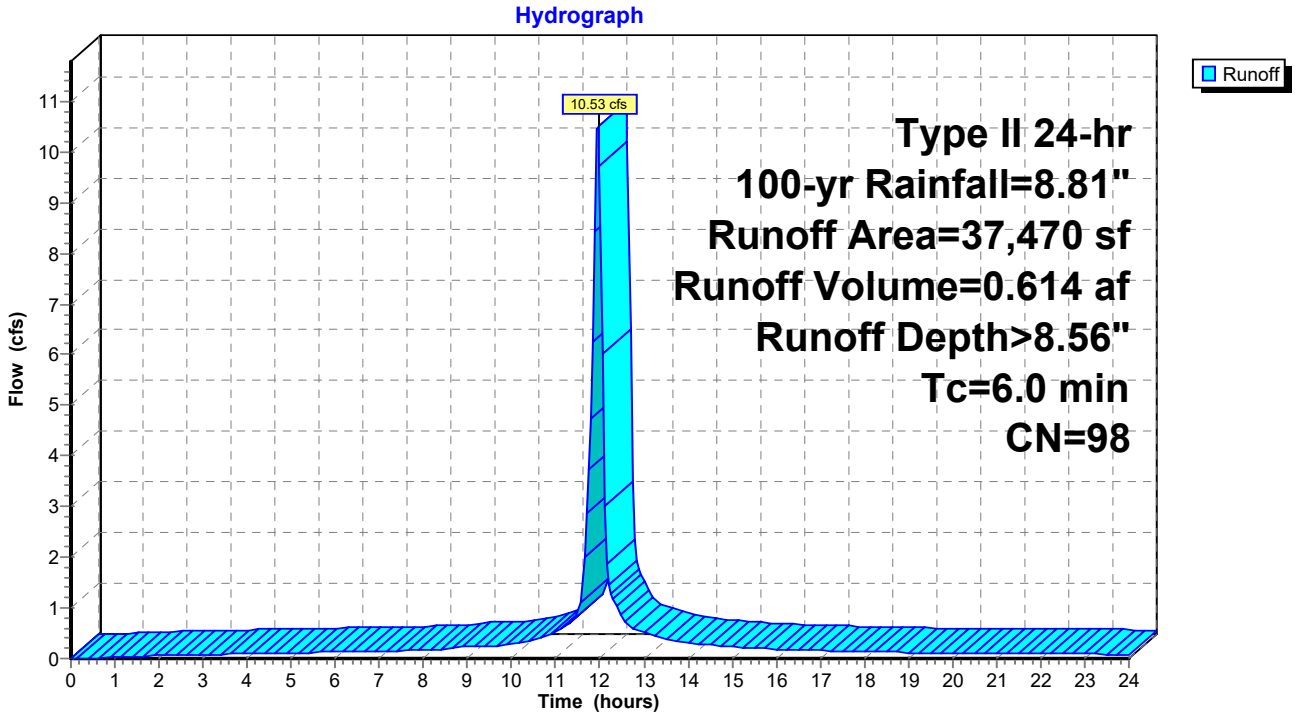
Runoff = 10.53 cfs @ 11.96 hrs, Volume= 0.614 af, Depth> 8.56"
Routed to nonexistent node 4R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
37,470	98	Paved parking, HSG D
0	80	>75% Grass cover, Good, HSG D
37,470	98	Weighted Average
37,470		100.00% Impervious Area

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

Subcatchment 1S: Existing 1 Suff



Summary for Subcatchment 3S: Existing 2 - Wash

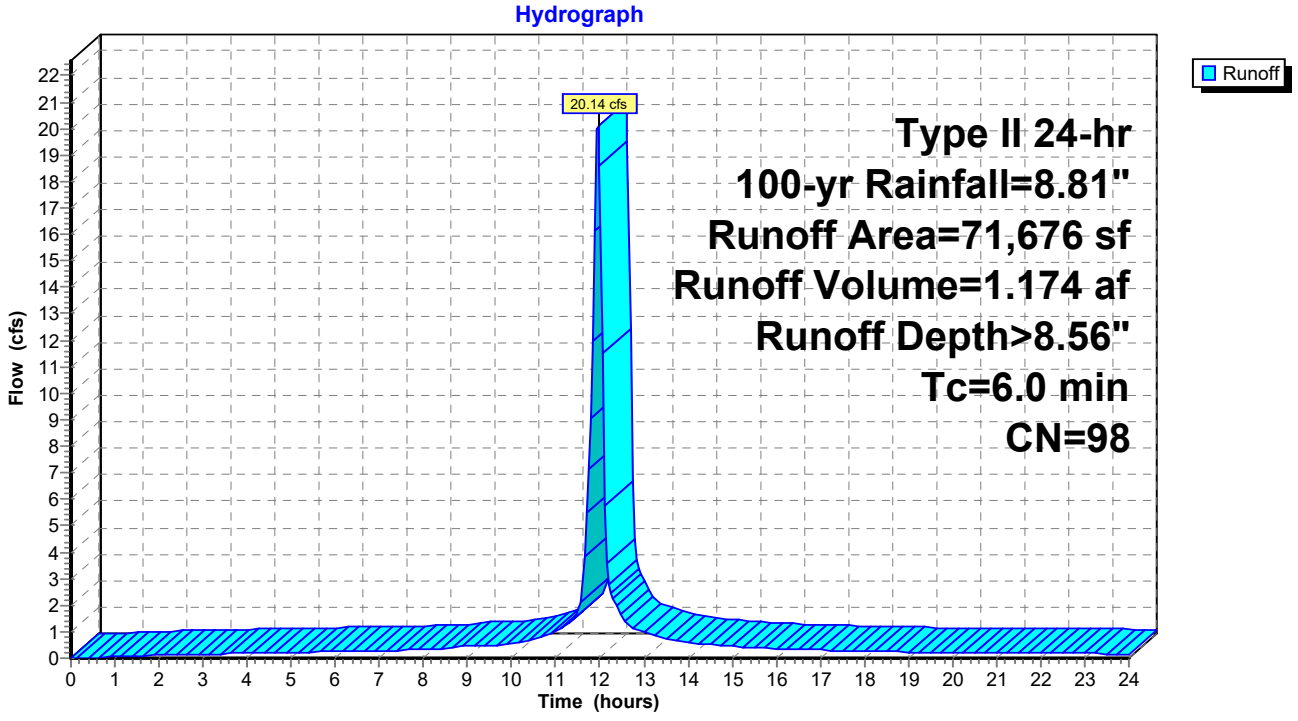
Runoff = 20.14 cfs @ 11.96 hrs, Volume= 1.174 af, Depth> 8.56"
Routed to nonexistent node 4R

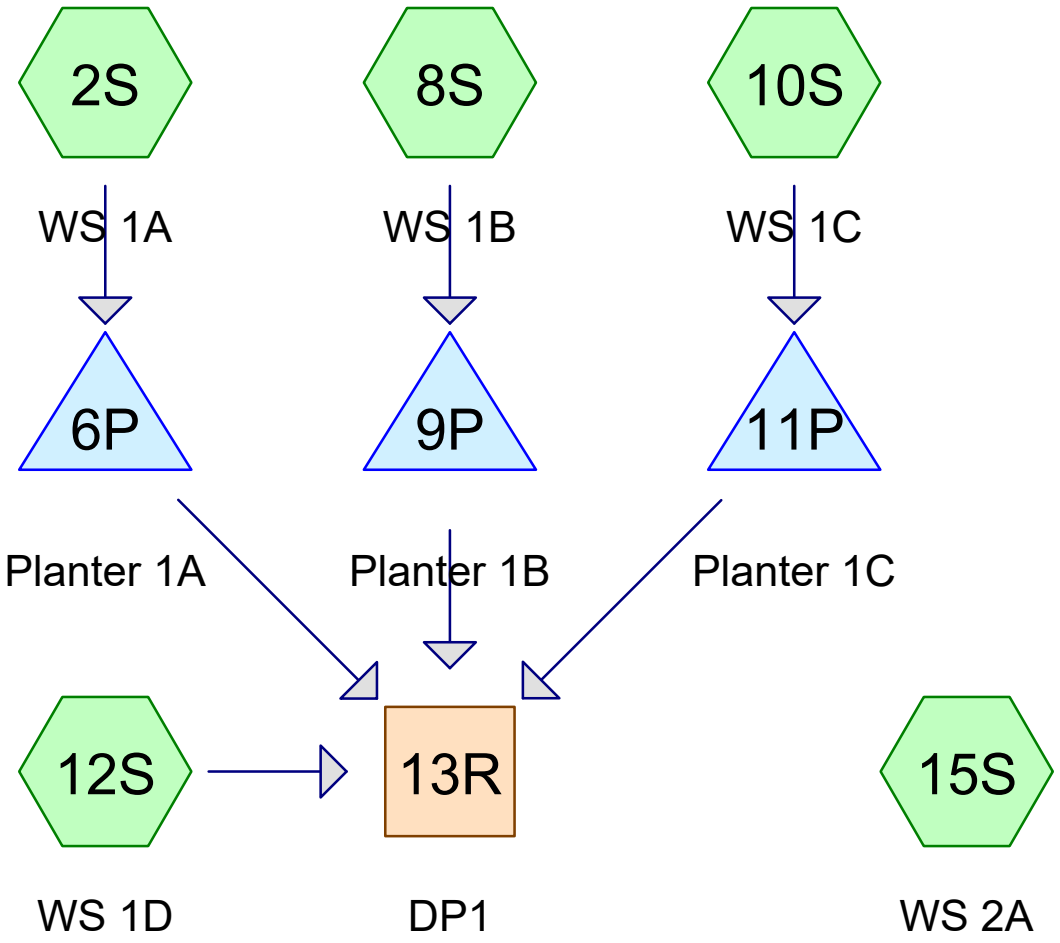
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
71,394	98	Paved parking, HSG D
282	80	>75% Grass cover, Good, HSG D
71,676	98	Weighted Average
282		0.39% Pervious Area
71,394		99.61% Impervious Area

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

Subcatchment 3S: Existing 2 - Wash





Subcat Reach Pond Link

Routing Diagram for 37 wash hydro

Prepared by Colliers Engineering & Design, Printed 9/30/2025

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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	Type II 24-hr		Default	24.00	1	2.74	2
2	10-yr	Type II 24-hr		Default	24.00	1	4.98	2
3	100-yr	Type II 24-hr		Default	24.00	1	8.81	2

Summary for Subcatchment 2S: WS 1A

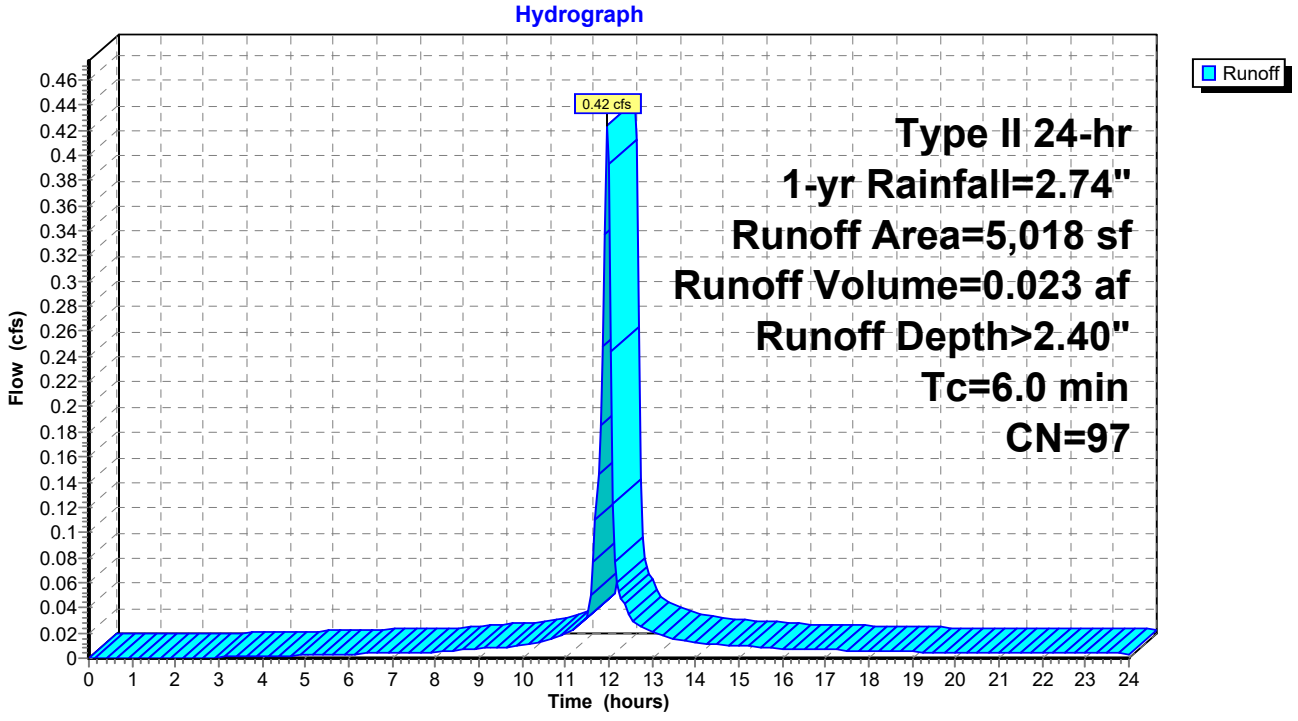
Runoff = 0.42 cfs @ 11.96 hrs, Volume= 0.023 af, Depth> 2.40"
Routed to Pond 6P : Planter 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
4,758	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
5,018	97	Weighted Average
260		5.18% Pervious Area
4,758		94.82% Impervious Area

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

Subcatchment 2S: WS 1A



Summary for Subcatchment 8S: WS 1B

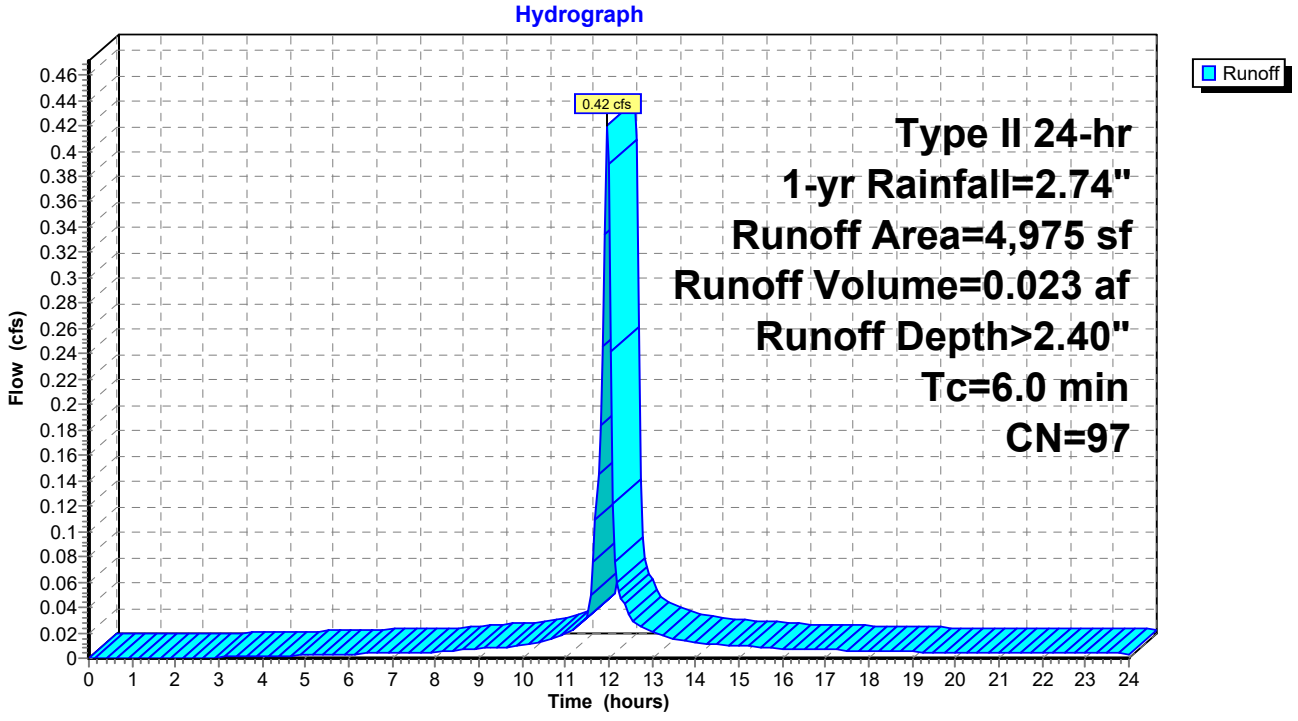
Runoff = 0.42 cfs @ 11.96 hrs, Volume= 0.023 af, Depth> 2.40"
Routed to Pond 9P : Planter 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
4,715	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,975	97	Weighted Average
260		5.23% Pervious Area
4,715		94.77% Impervious Area

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

Subcatchment 8S: WS 1B



Summary for Subcatchment 10S: WS 1C

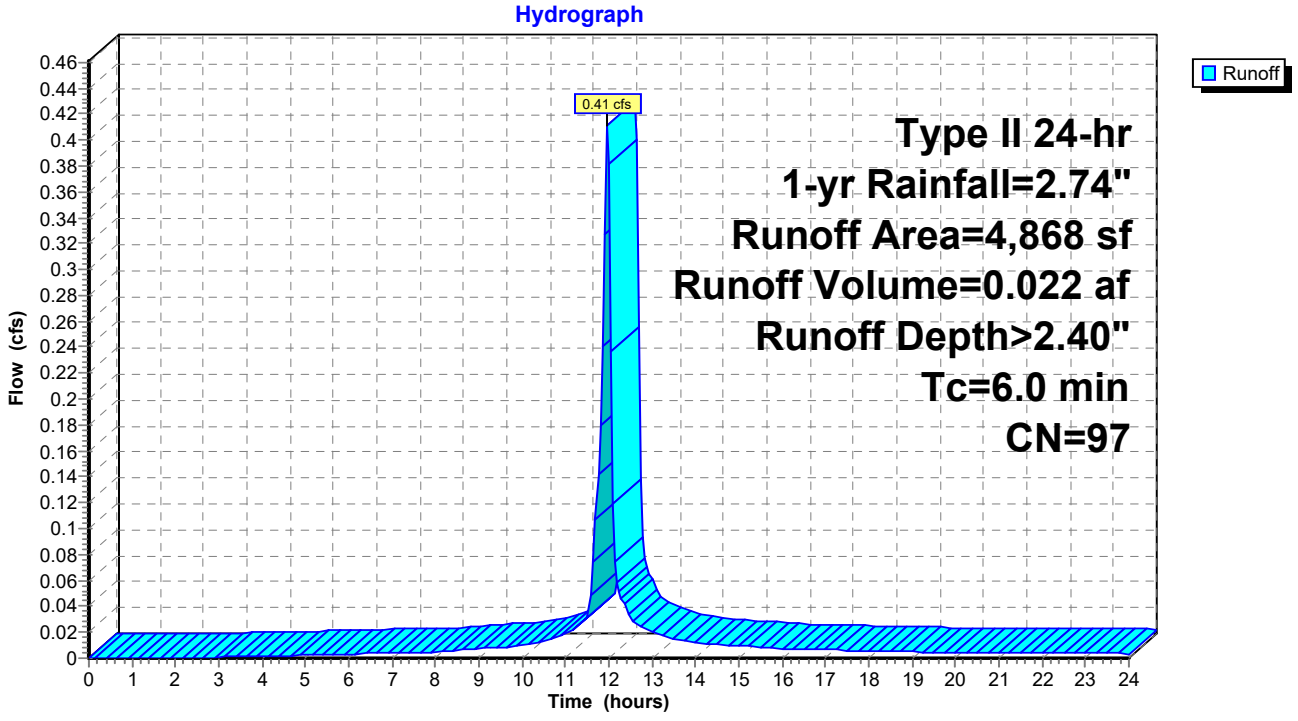
Runoff = 0.41 cfs @ 11.96 hrs, Volume= 0.022 af, Depth> 2.40"
Routed to Pond 11P : Planter 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
4,608	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,868	97	Weighted Average
260		5.34% Pervious Area
4,608		94.66% Impervious Area

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

Subcatchment 10S: WS 1C



Summary for Subcatchment 12S: WS 1D

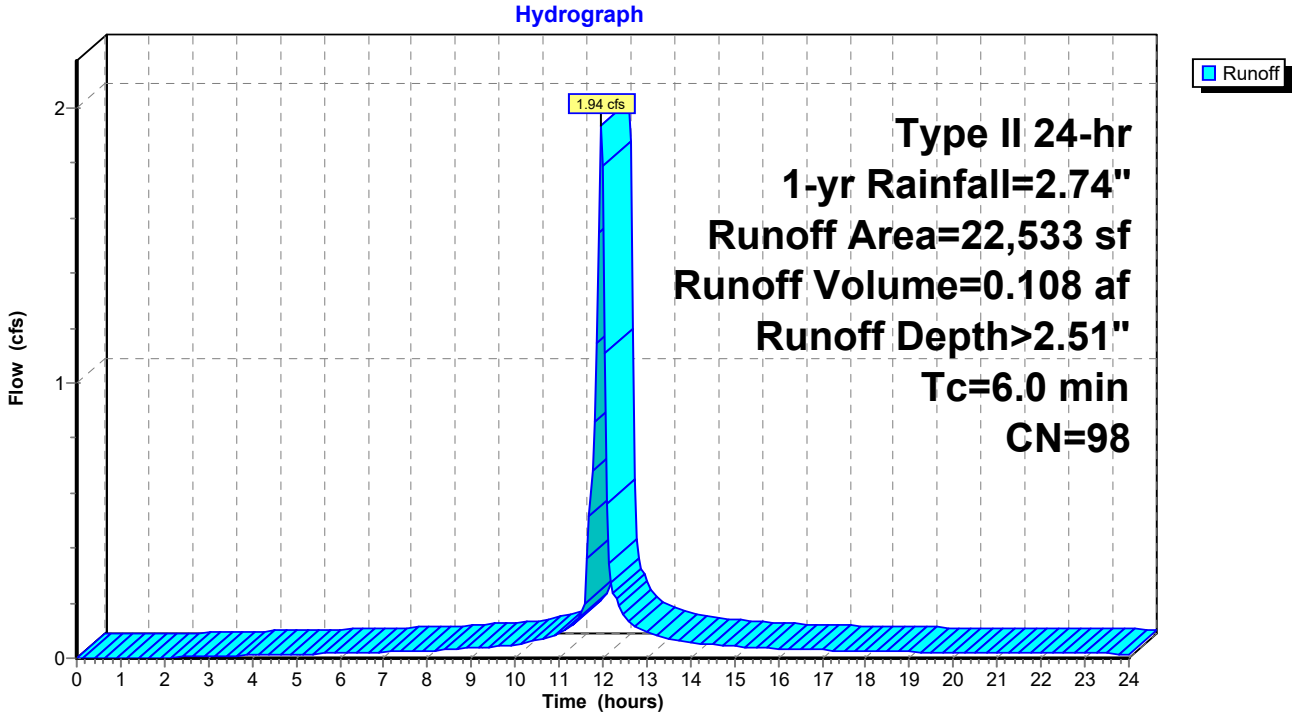
Runoff = 1.94 cfs @ 11.96 hrs, Volume= 0.108 af, Depth> 2.51"
Routed to Reach 13R : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
21,949	98	Paved parking, HSG D
584	80	>75% Grass cover, Good, HSG D
22,533	98	Weighted Average
584		2.59% Pervious Area
21,949		97.41% Impervious Area

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

Subcatchment 12S: WS 1D



Summary for Subcatchment 15S: WS 2A

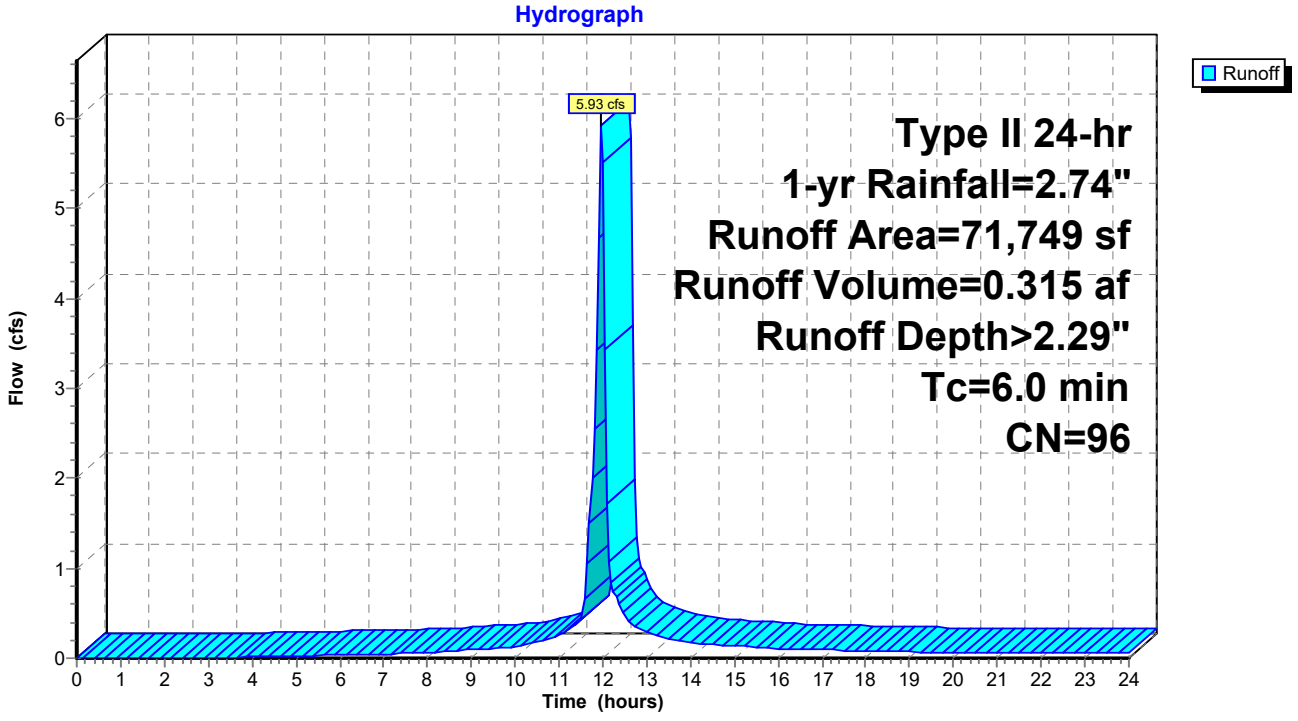
Runoff = 5.93 cfs @ 11.96 hrs, Volume= 0.315 af, Depth> 2.29"
Routed to nonexistent node 5R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.74"

Area (sf)	CN	Description
64,331	98	Paved parking, HSG D
7,418	80	>75% Grass cover, Good, HSG D
71,749	96	Weighted Average
7,418		10.34% Pervious Area
64,331		89.66% Impervious Area

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

Subcatchment 15S: WS 2A

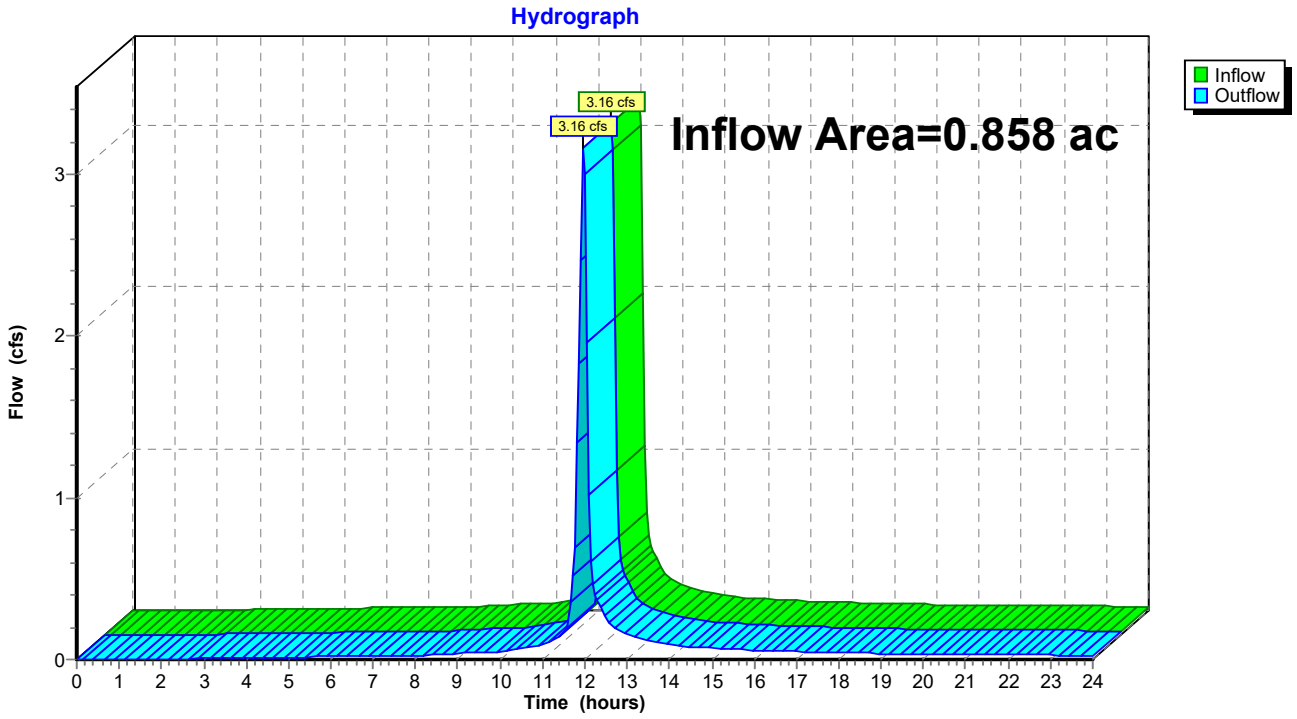


Summary for Reach 13R: DP1

Inflow Area = 0.858 ac, 96.35% Impervious, Inflow Depth > 2.21" for 1-yr event
Inflow = 3.16 cfs @ 11.97 hrs, Volume= 0.158 af
Outflow = 3.16 cfs @ 11.97 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 5R

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

Reach 13R: DP1



Summary for Pond 6P: Planter 1A

Inflow Area = 0.115 ac, 94.82% Impervious, Inflow Depth > 2.40" for 1-yr event
Inflow = 0.42 cfs @ 11.96 hrs, Volume= 0.023 af
Outflow = 0.42 cfs @ 11.98 hrs, Volume= 0.017 af, Atten= 1%, Lag= 0.9 min
Primary = 0.42 cfs @ 11.98 hrs, Volume= 0.017 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.10' @ 11.98 hrs Surf.Area= 260 sf Storage= 286 cf

Plug-Flow detention time= 151.9 min calculated for 0.017 af (74% of inflow)
Center-of-Mass det. time= 63.8 min (829.8 - 765.9)

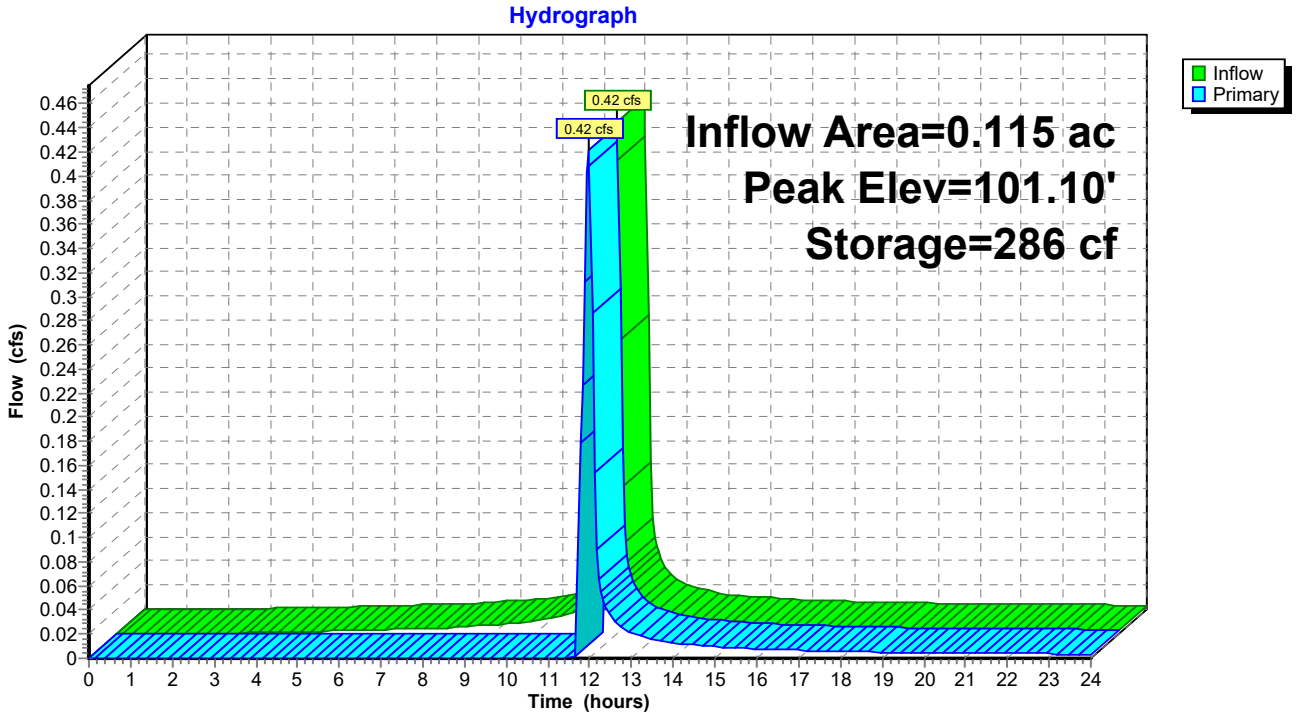
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.40 cfs @ 11.98 hrs HW=101.10' (Free Discharge)
└**1=Orifice/Grate** (Weir Controls 0.40 cfs @ 1.01 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: Planter 1A



Summary for Pond 9P: Planter 1B

Inflow Area = 0.114 ac, 94.77% Impervious, Inflow Depth > 2.40" for 1-yr event
Inflow = 0.42 cfs @ 11.96 hrs, Volume= 0.023 af
Outflow = 0.42 cfs @ 11.98 hrs, Volume= 0.017 af, Atten= 1%, Lag= 0.9 min
Primary = 0.42 cfs @ 11.98 hrs, Volume= 0.017 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.10' @ 11.98 hrs Surf.Area= 260 sf Storage= 285 cf

Plug-Flow detention time= 153.6 min calculated for 0.017 af (74% of inflow)
Center-of-Mass det. time= 64.2 min (830.1 - 765.9)

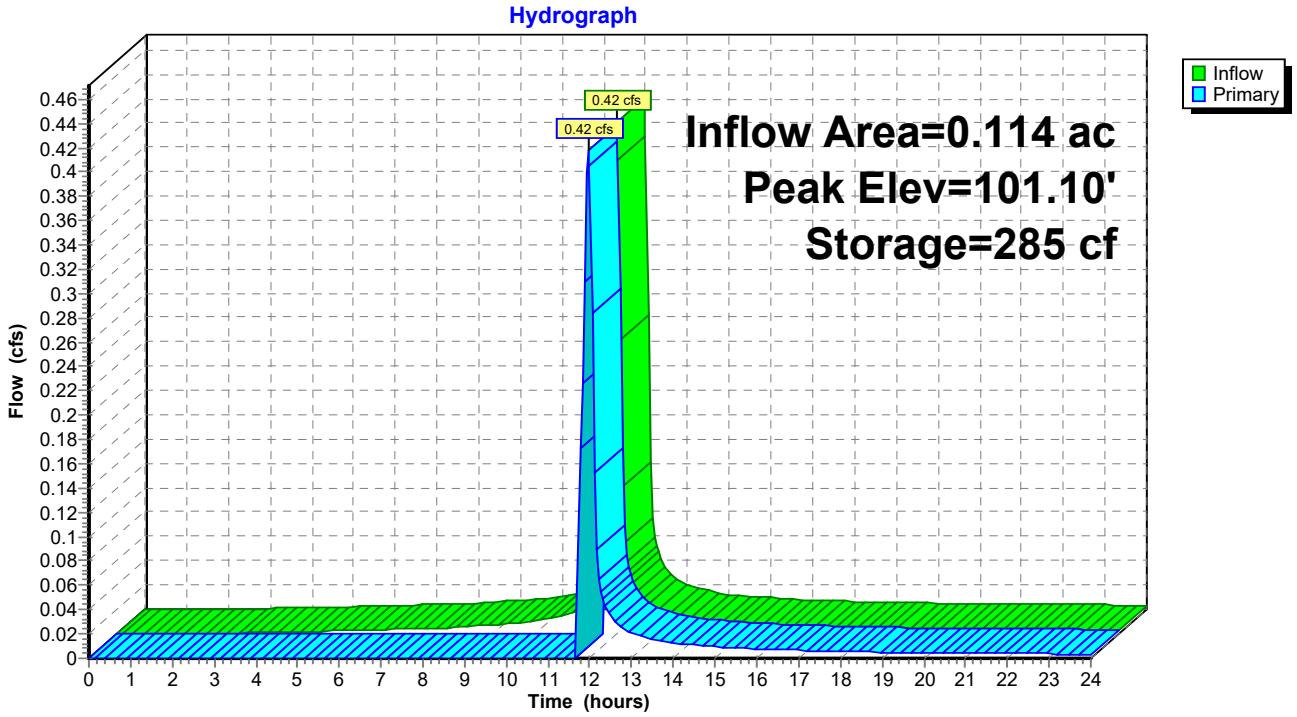
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.40 cfs @ 11.98 hrs HW=101.09' (Free Discharge)
└**1=Orifice/Grate** (Weir Controls 0.40 cfs @ 1.01 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Planter 1B



Summary for Pond 11P: Planter 1C

Inflow Area = 0.112 ac, 94.66% Impervious, Inflow Depth > 2.40" for 1-yr event
Inflow = 0.41 cfs @ 11.96 hrs, Volume= 0.022 af
Outflow = 0.41 cfs @ 11.98 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.9 min
Primary = 0.41 cfs @ 11.98 hrs, Volume= 0.016 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.10' @ 11.98 hrs Surf.Area= 260 sf Storage= 285 cf

Plug-Flow detention time= 155.4 min calculated for 0.016 af (73% of inflow)
Center-of-Mass det. time= 65.2 min (831.1 - 765.9)

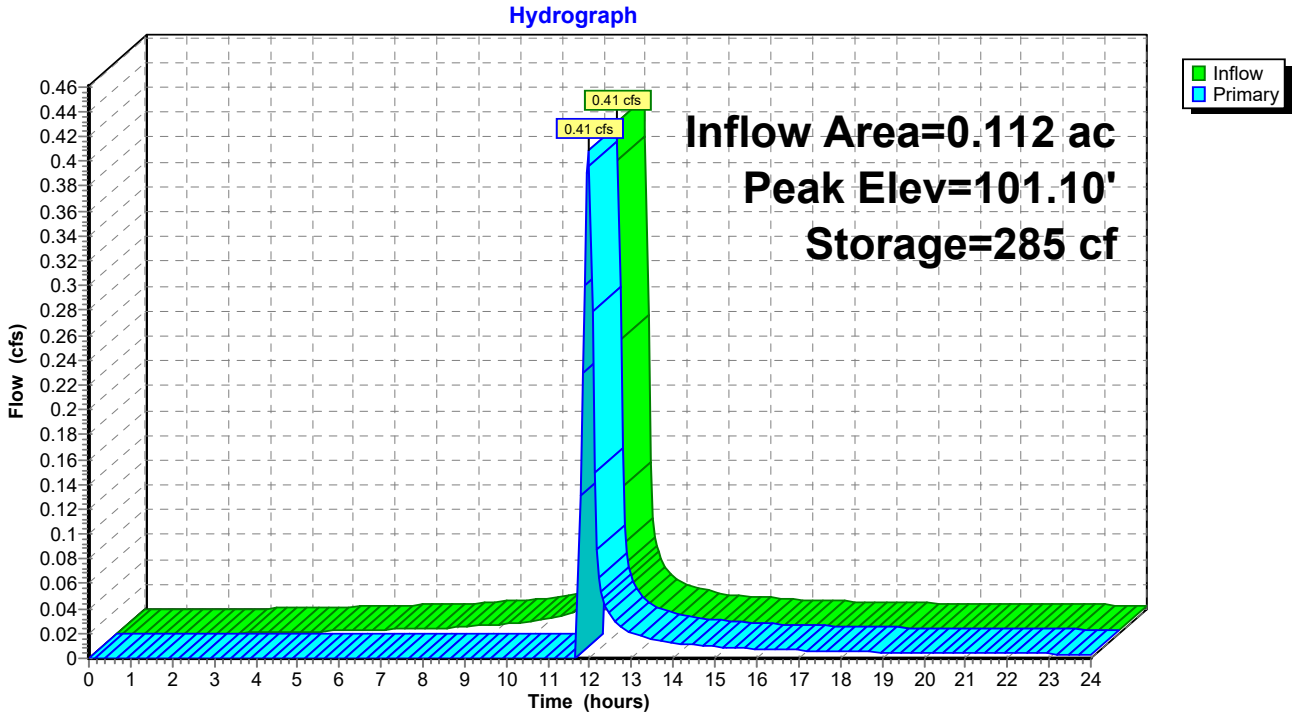
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.39 cfs @ 11.98 hrs HW=101.09' (Free Discharge)
└**1=Orifice/Grate** (Weir Controls 0.39 cfs @ 1.00 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Planter 1C



Summary for Subcatchment 2S: WS 1A

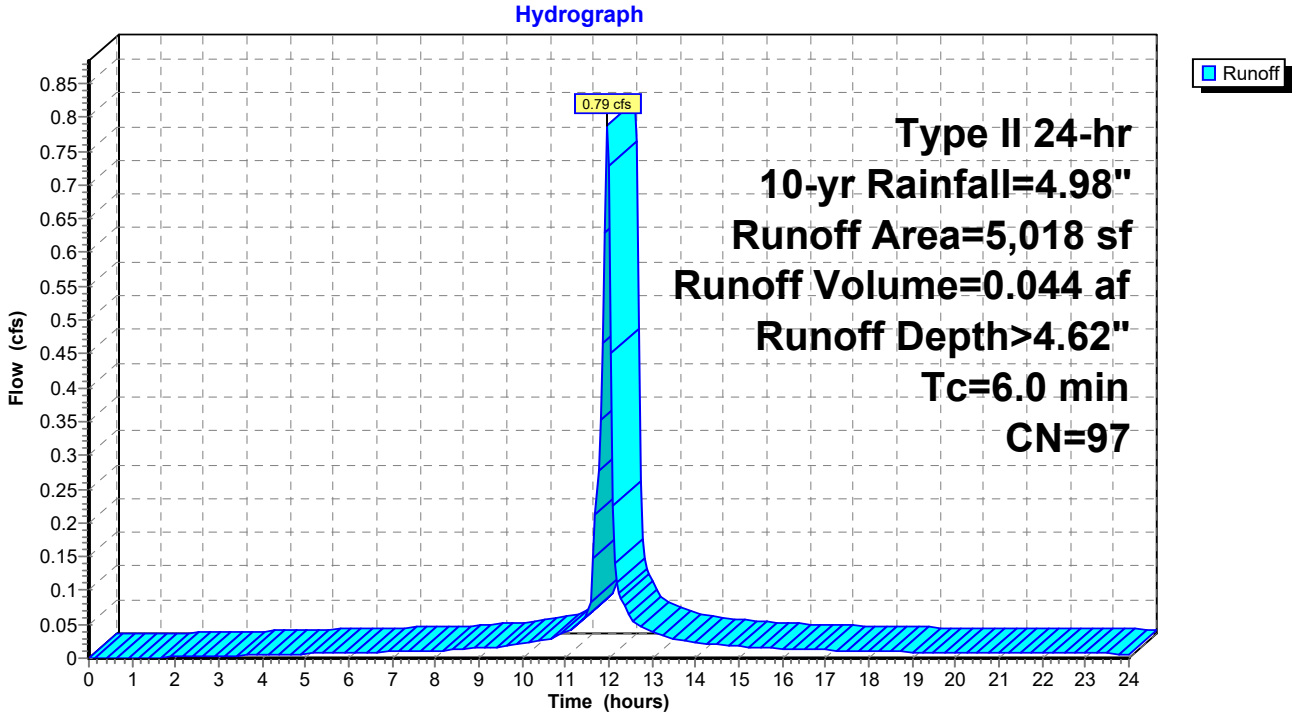
Runoff = 0.79 cfs @ 11.96 hrs, Volume= 0.044 af, Depth> 4.62"
Routed to Pond 6P : Planter 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
4,758	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
5,018	97	Weighted Average
260		5.18% Pervious Area
4,758		94.82% Impervious Area

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

Subcatchment 2S: WS 1A



Summary for Subcatchment 8S: WS 1B

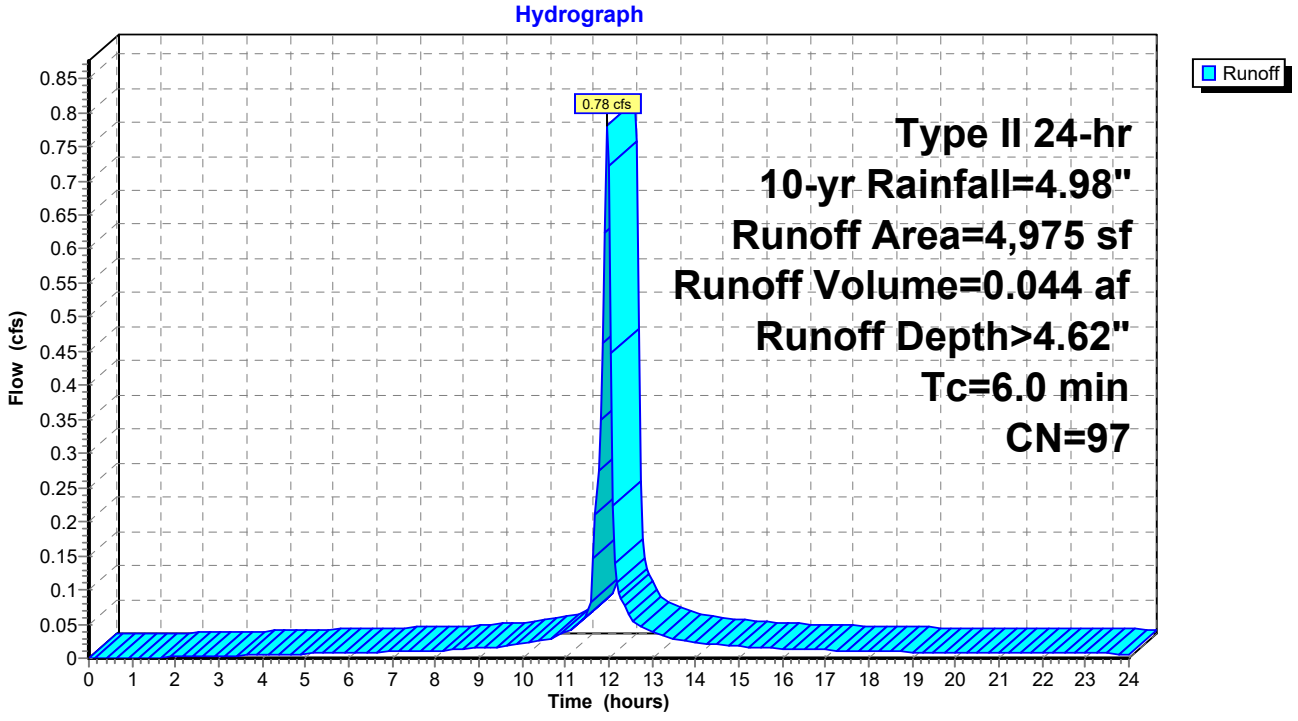
Runoff = 0.78 cfs @ 11.96 hrs, Volume= 0.044 af, Depth> 4.62"
Routed to Pond 9P : Planter 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
4,715	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,975	97	Weighted Average
260		5.23% Pervious Area
4,715		94.77% Impervious Area

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

Subcatchment 8S: WS 1B



Summary for Subcatchment 10S: WS 1C

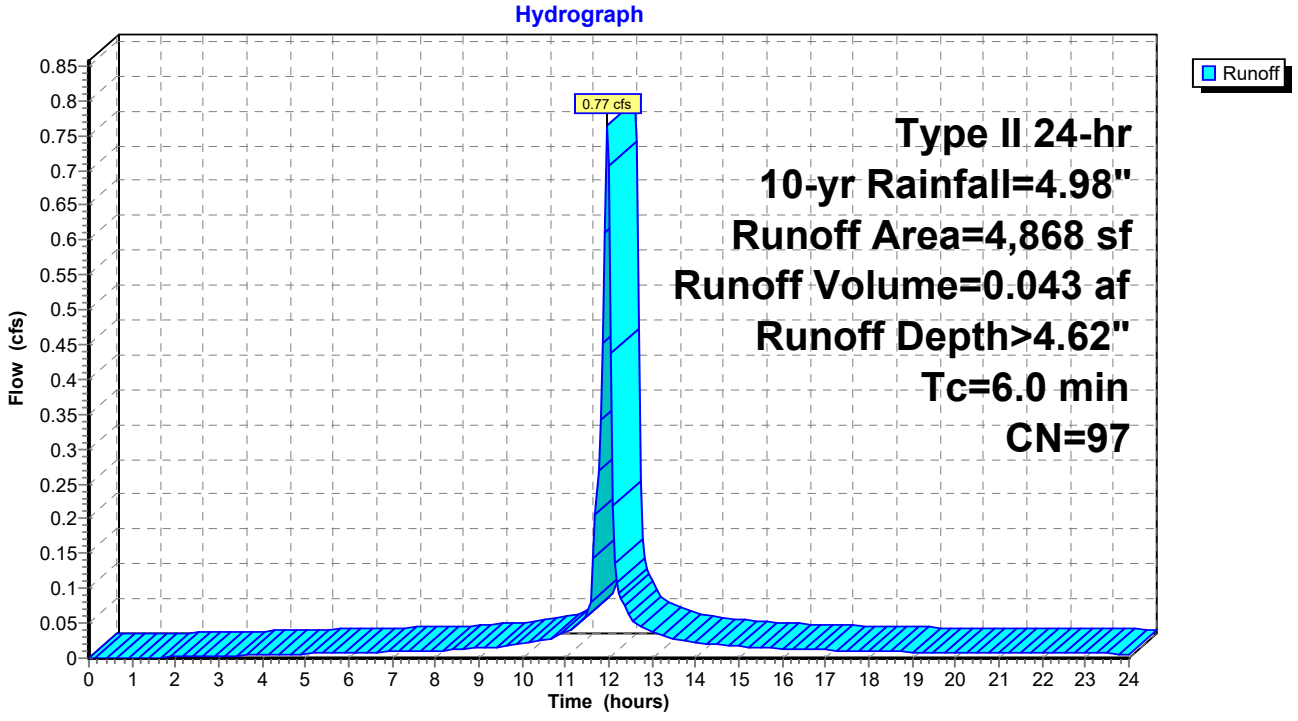
Runoff = 0.77 cfs @ 11.96 hrs, Volume= 0.043 af, Depth> 4.62"
Routed to Pond 11P : Planter 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
4,608	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,868	97	Weighted Average
260		5.34% Pervious Area
4,608		94.66% Impervious Area

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

Subcatchment 10S: WS 1C



Summary for Subcatchment 12S: WS 1D

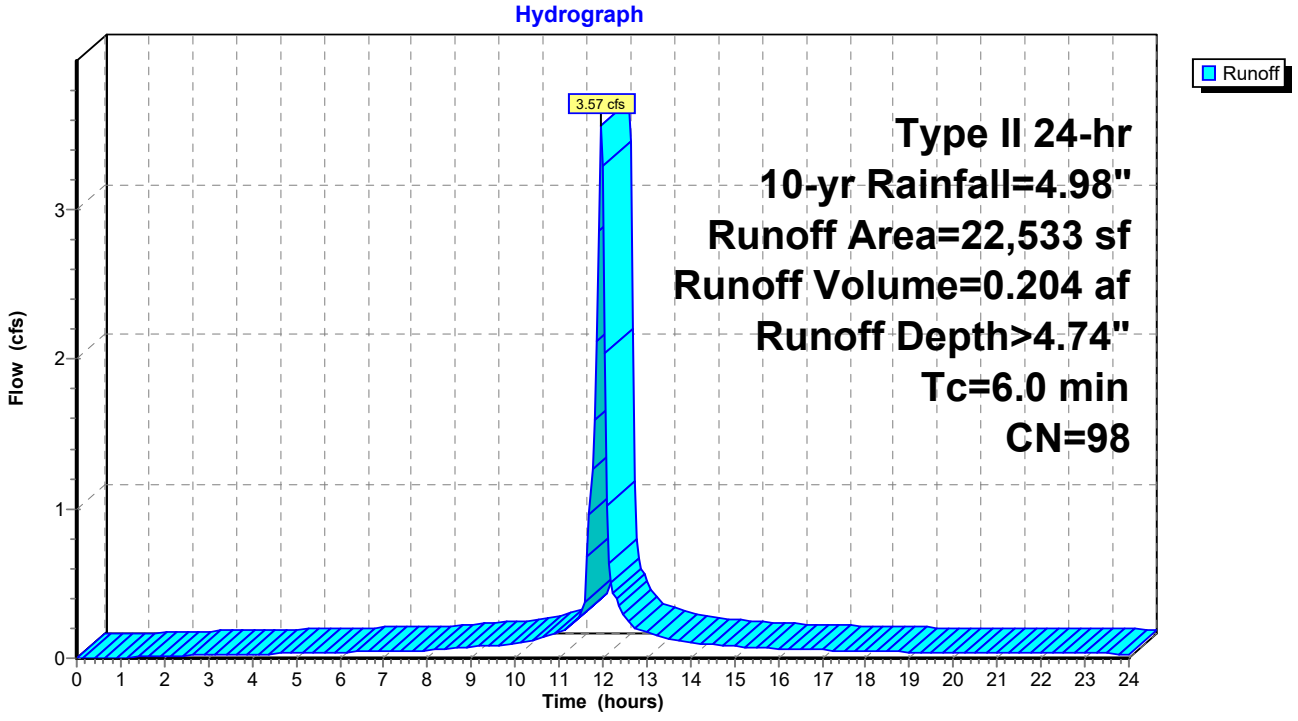
Runoff = 3.57 cfs @ 11.96 hrs, Volume= 0.204 af, Depth> 4.74"
Routed to Reach 13R : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
21,949	98	Paved parking, HSG D
584	80	>75% Grass cover, Good, HSG D
22,533	98	Weighted Average
584		2.59% Pervious Area
21,949		97.41% Impervious Area

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

Subcatchment 12S: WS 1D



Summary for Subcatchment 15S: WS 2A

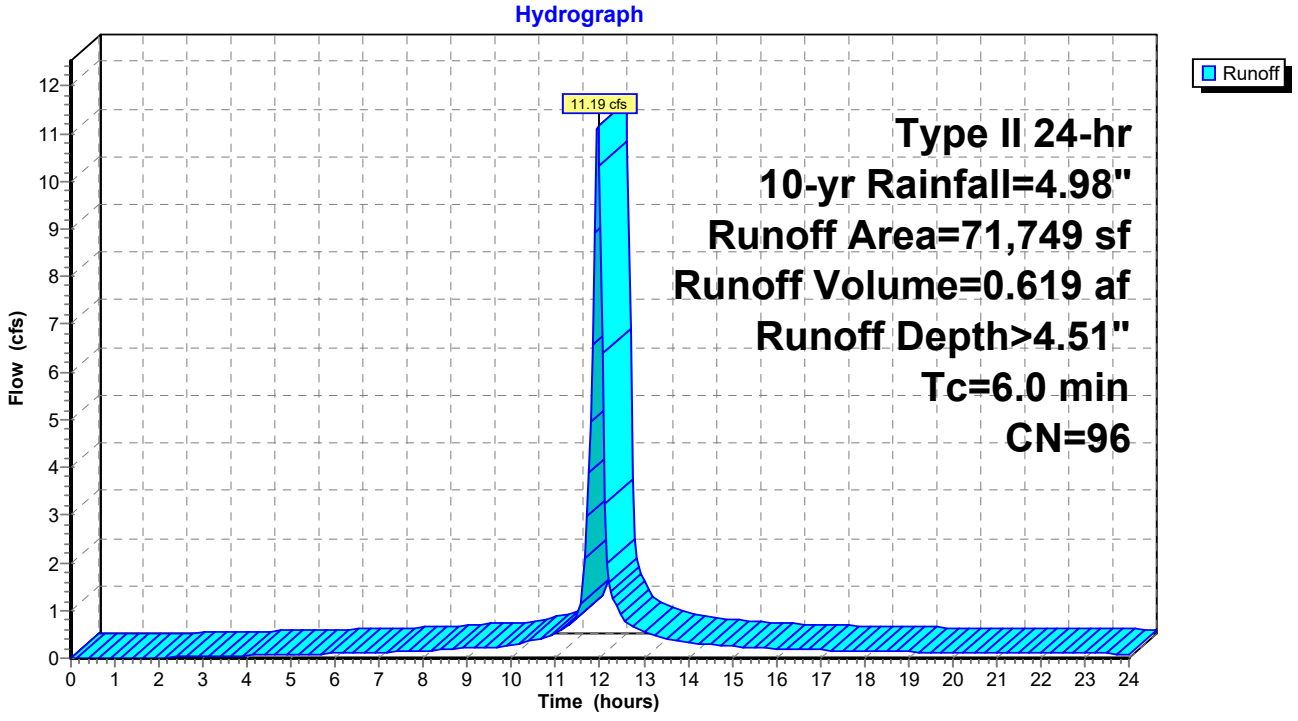
Runoff = 11.19 cfs @ 11.96 hrs, Volume= 0.619 af, Depth> 4.51"
Routed to nonexistent node 5R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=4.98"

Area (sf)	CN	Description
64,331	98	Paved parking, HSG D
7,418	80	>75% Grass cover, Good, HSG D
71,749	96	Weighted Average
7,418		10.34% Pervious Area
64,331		89.66% Impervious Area

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

Subcatchment 15S: WS 2A

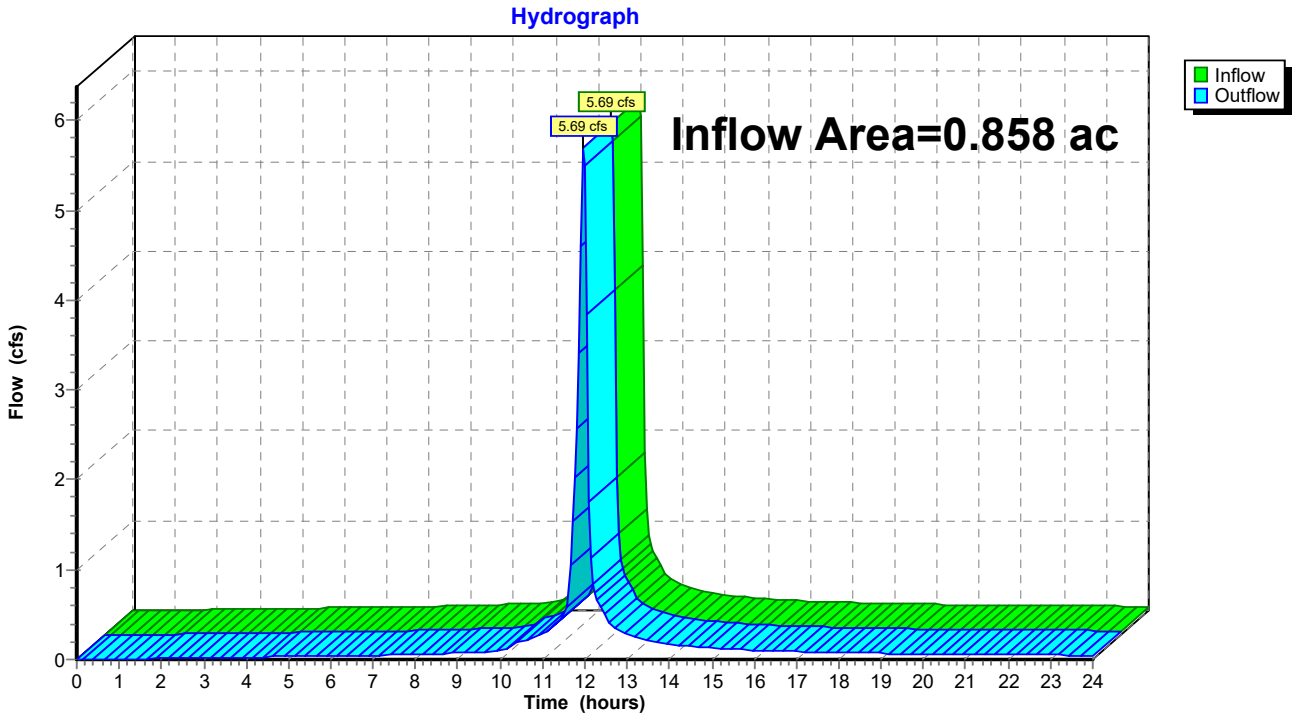


Summary for Reach 13R: DP1

Inflow Area = 0.858 ac, 96.35% Impervious, Inflow Depth > 4.44" for 10-yr event
Inflow = 5.69 cfs @ 11.97 hrs, Volume= 0.318 af
Outflow = 5.69 cfs @ 11.97 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 5R

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

Reach 13R: DP1



Summary for Pond 6P: Planter 1A

Inflow Area = 0.115 ac, 94.82% Impervious, Inflow Depth > 4.62" for 10-yr event
Inflow = 0.79 cfs @ 11.96 hrs, Volume= 0.044 af
Outflow = 0.75 cfs @ 11.99 hrs, Volume= 0.038 af, Atten= 5%, Lag= 1.6 min
Primary = 0.75 cfs @ 11.99 hrs, Volume= 0.038 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.20' @ 11.99 hrs Surf.Area= 260 sf Storage= 311 cf

Plug-Flow detention time= 113.3 min calculated for 0.038 af (87% of inflow)
Center-of-Mass det. time= 49.9 min (801.3 - 751.4)

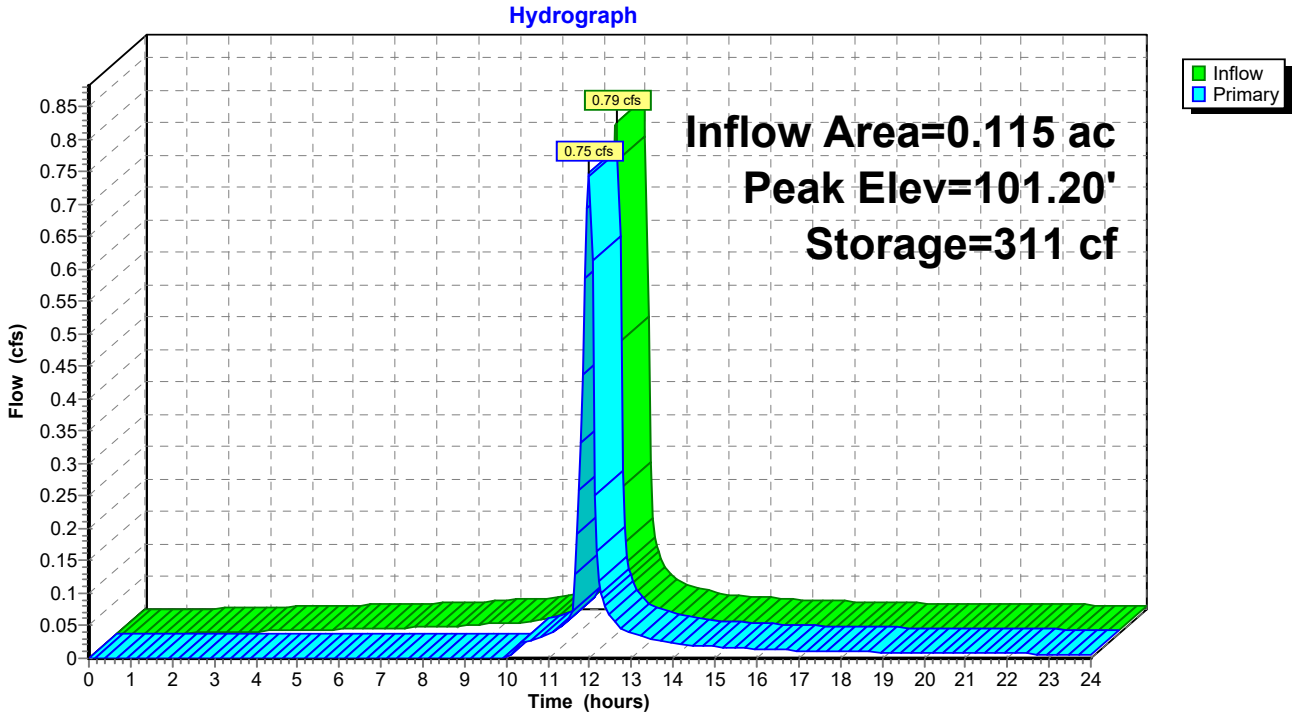
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.73 cfs @ 11.99 hrs HW=101.19' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.73 cfs @ 2.10 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: Planter 1A



Summary for Pond 9P: Planter 1B

Inflow Area = 0.114 ac, 94.77% Impervious, Inflow Depth > 4.62" for 10-yr event
Inflow = 0.78 cfs @ 11.96 hrs, Volume= 0.044 af
Outflow = 0.74 cfs @ 11.99 hrs, Volume= 0.038 af, Atten= 5%, Lag= 1.6 min
Primary = 0.74 cfs @ 11.99 hrs, Volume= 0.038 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.19' @ 11.99 hrs Surf.Area= 260 sf Storage= 311 cf

Plug-Flow detention time= 113.1 min calculated for 0.038 af (86% of inflow)
Center-of-Mass det. time= 50.2 min (801.6 - 751.4)

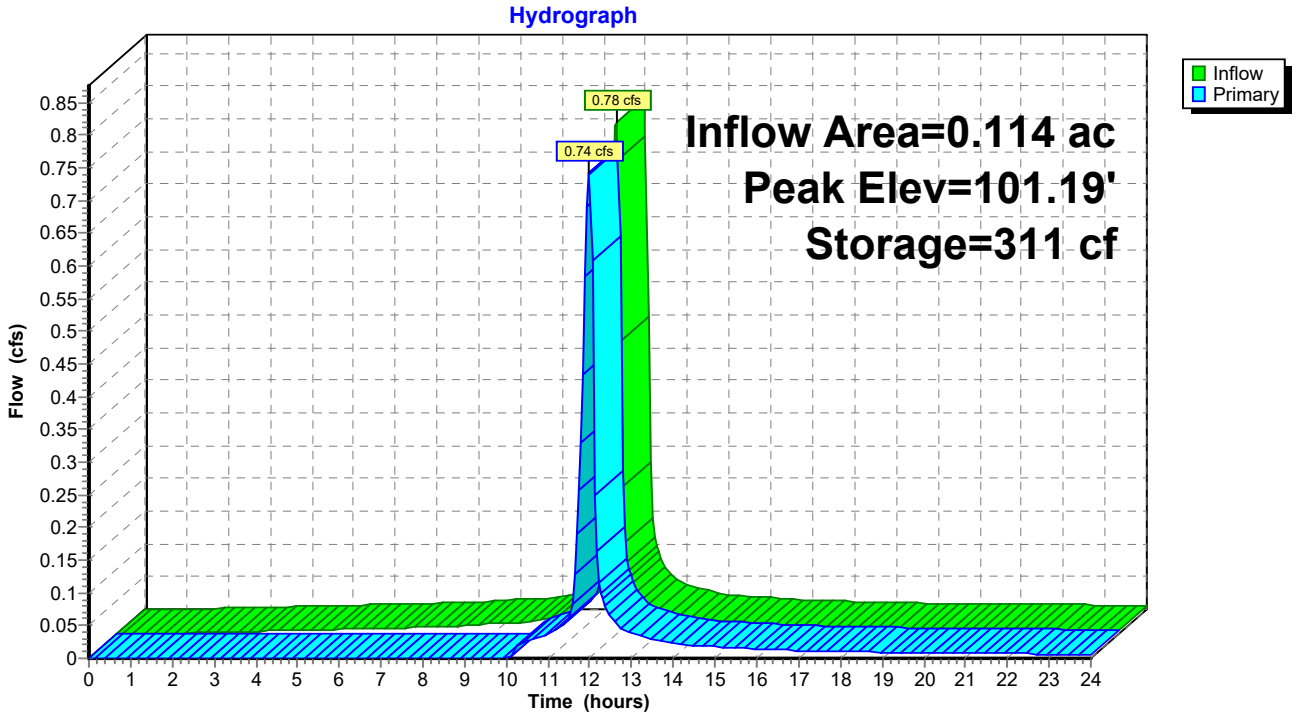
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.73 cfs @ 11.99 hrs HW=101.19' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.73 cfs @ 2.08 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Planter 1B



Summary for Pond 11P: Planter 1C

Inflow Area = 0.112 ac, 94.66% Impervious, Inflow Depth > 4.62" for 10-yr event
Inflow = 0.77 cfs @ 11.96 hrs, Volume= 0.043 af
Outflow = 0.73 cfs @ 11.99 hrs, Volume= 0.037 af, Atten= 5%, Lag= 1.6 min
Primary = 0.73 cfs @ 11.99 hrs, Volume= 0.037 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.19' @ 11.99 hrs Surf.Area= 260 sf Storage= 309 cf

Plug-Flow detention time= 114.6 min calculated for 0.037 af (86% of inflow)
Center-of-Mass det. time= 50.8 min (802.2 - 751.4)

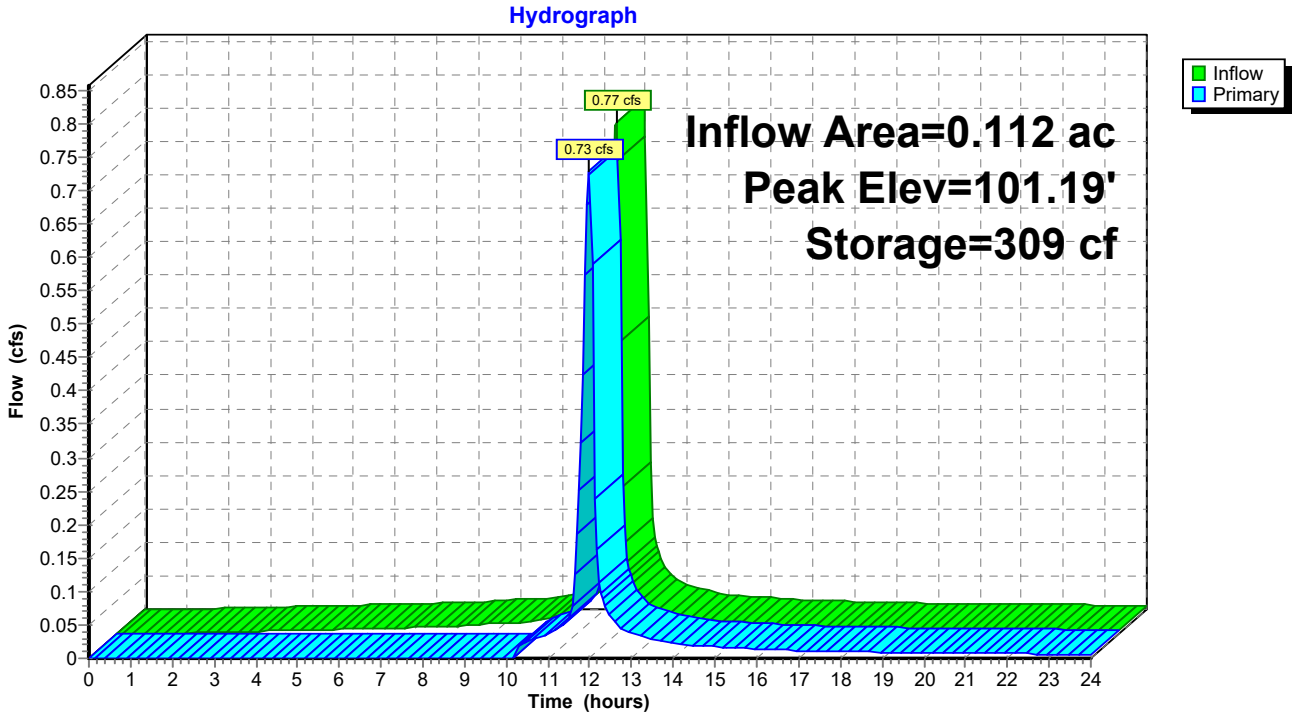
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.71 cfs @ 11.99 hrs HW=101.18' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.71 cfs @ 2.04 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Planter 1C



Summary for Subcatchment 2S: WS 1A

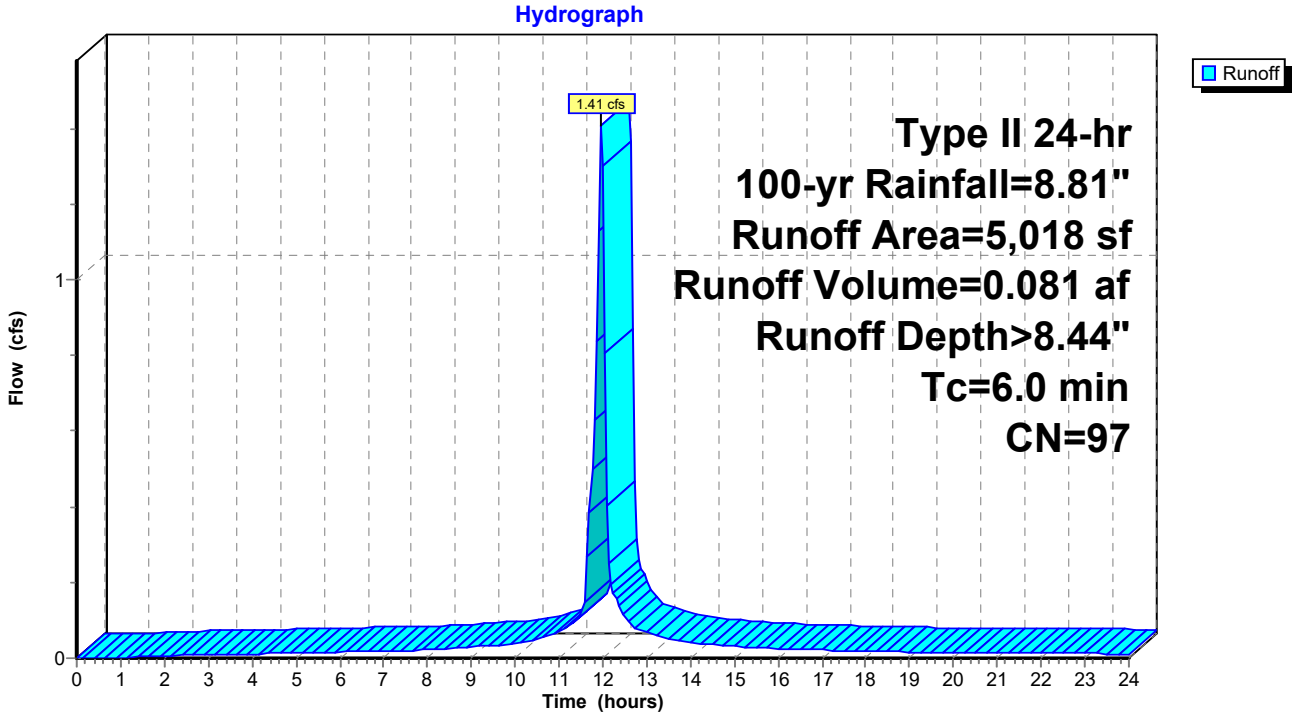
Runoff = 1.41 cfs @ 11.96 hrs, Volume= 0.081 af, Depth> 8.44"
Routed to Pond 6P : Planter 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
4,758	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
5,018	97	Weighted Average
260		5.18% Pervious Area
4,758		94.82% Impervious Area

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

Subcatchment 2S: WS 1A



Summary for Subcatchment 8S: WS 1B

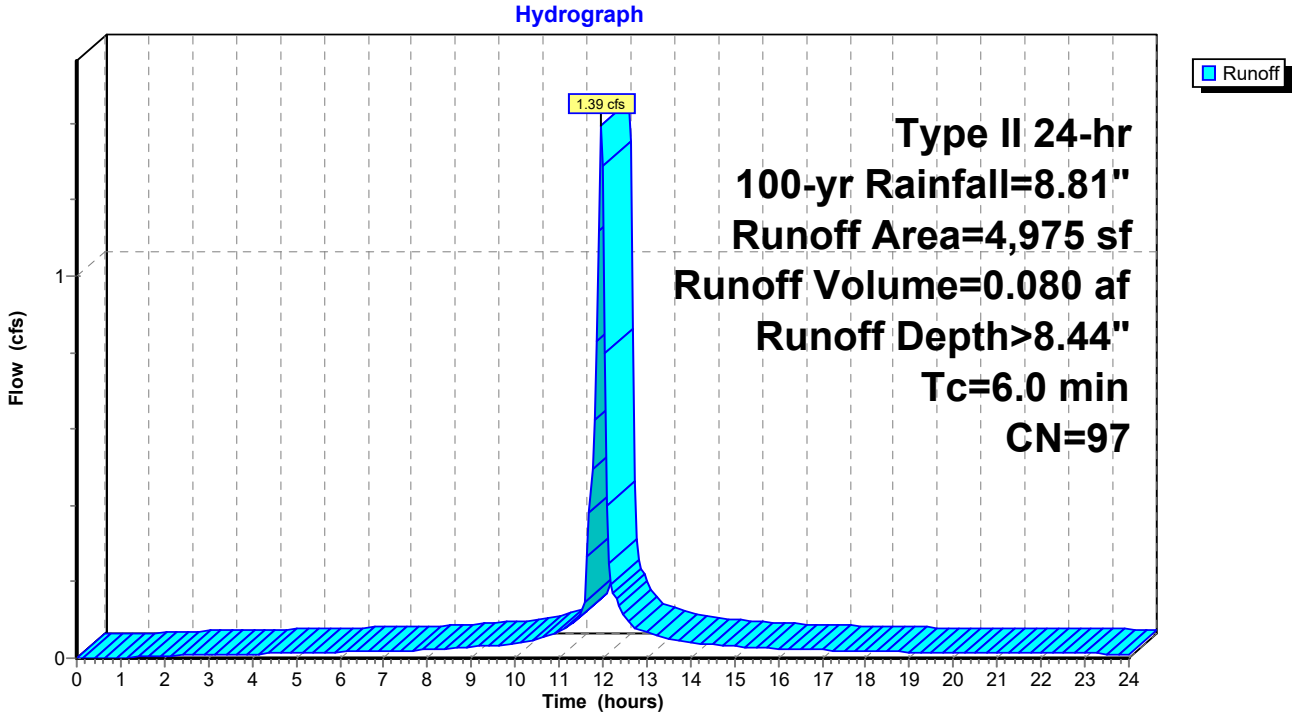
Runoff = 1.39 cfs @ 11.96 hrs, Volume= 0.080 af, Depth> 8.44"
Routed to Pond 9P : Planter 1B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
4,715	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,975	97	Weighted Average
260		5.23% Pervious Area
4,715		94.77% Impervious Area

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

Subcatchment 8S: WS 1B



Summary for Subcatchment 10S: WS 1C

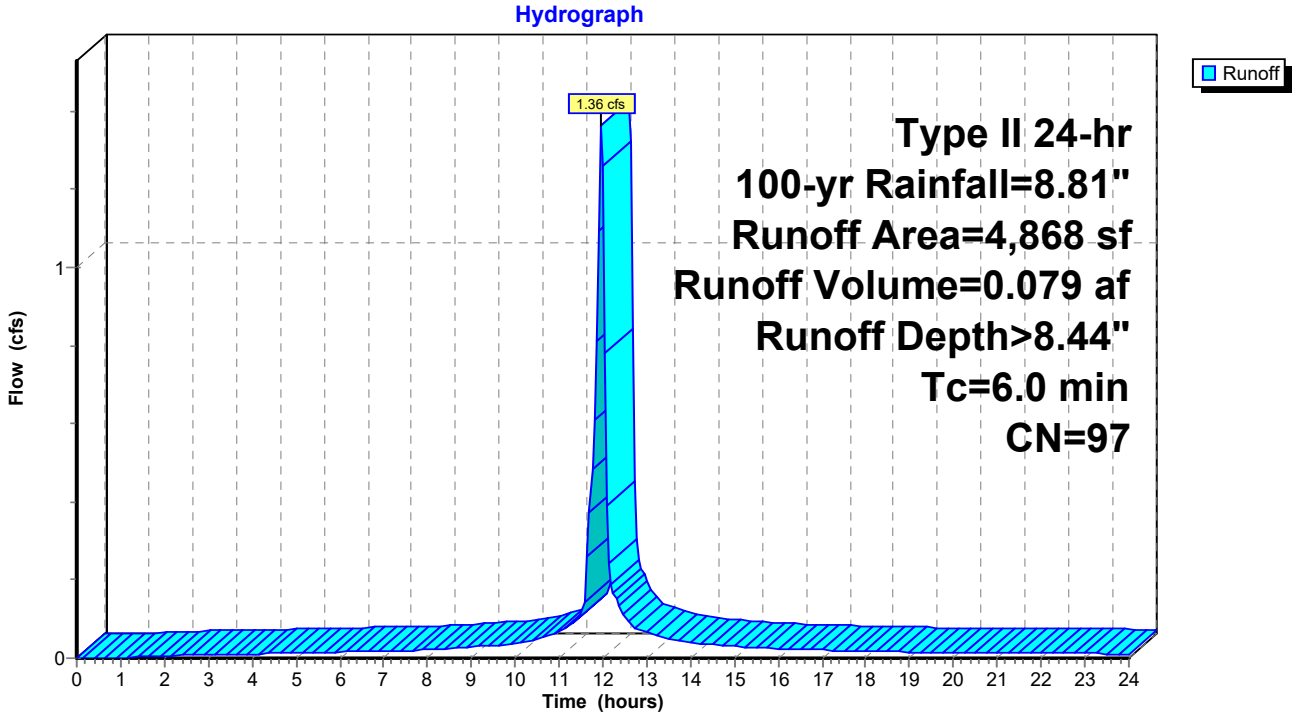
Runoff = 1.36 cfs @ 11.96 hrs, Volume= 0.079 af, Depth> 8.44"
Routed to Pond 11P : Planter 1C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
4,608	98	Paved parking, HSG D
260	80	>75% Grass cover, Good, HSG D
4,868	97	Weighted Average
260		5.34% Pervious Area
4,608		94.66% Impervious Area

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

Subcatchment 10S: WS 1C



Summary for Subcatchment 12S: WS 1D

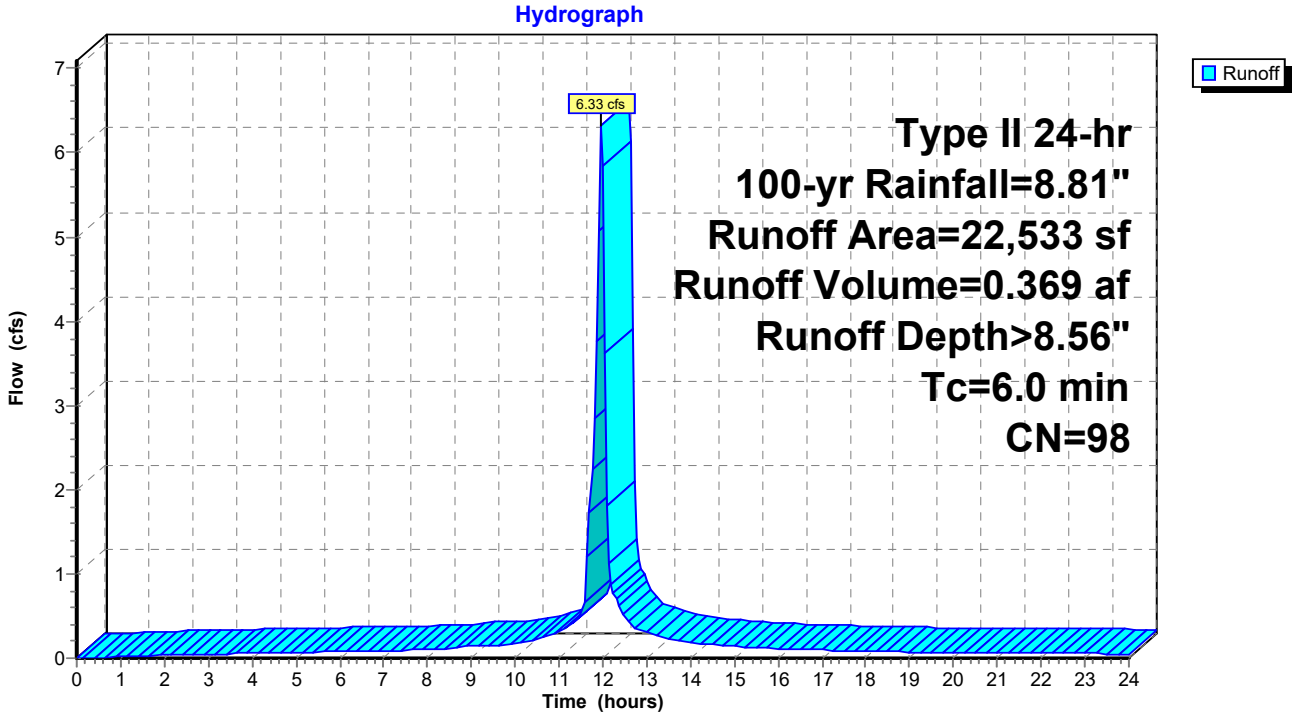
Runoff = 6.33 cfs @ 11.96 hrs, Volume= 0.369 af, Depth> 8.56"
Routed to Reach 13R : DP1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
21,949	98	Paved parking, HSG D
584	80	>75% Grass cover, Good, HSG D
22,533	98	Weighted Average
584		2.59% Pervious Area
21,949		97.41% Impervious Area

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

Subcatchment 12S: WS 1D



Summary for Subcatchment 15S: WS 2A

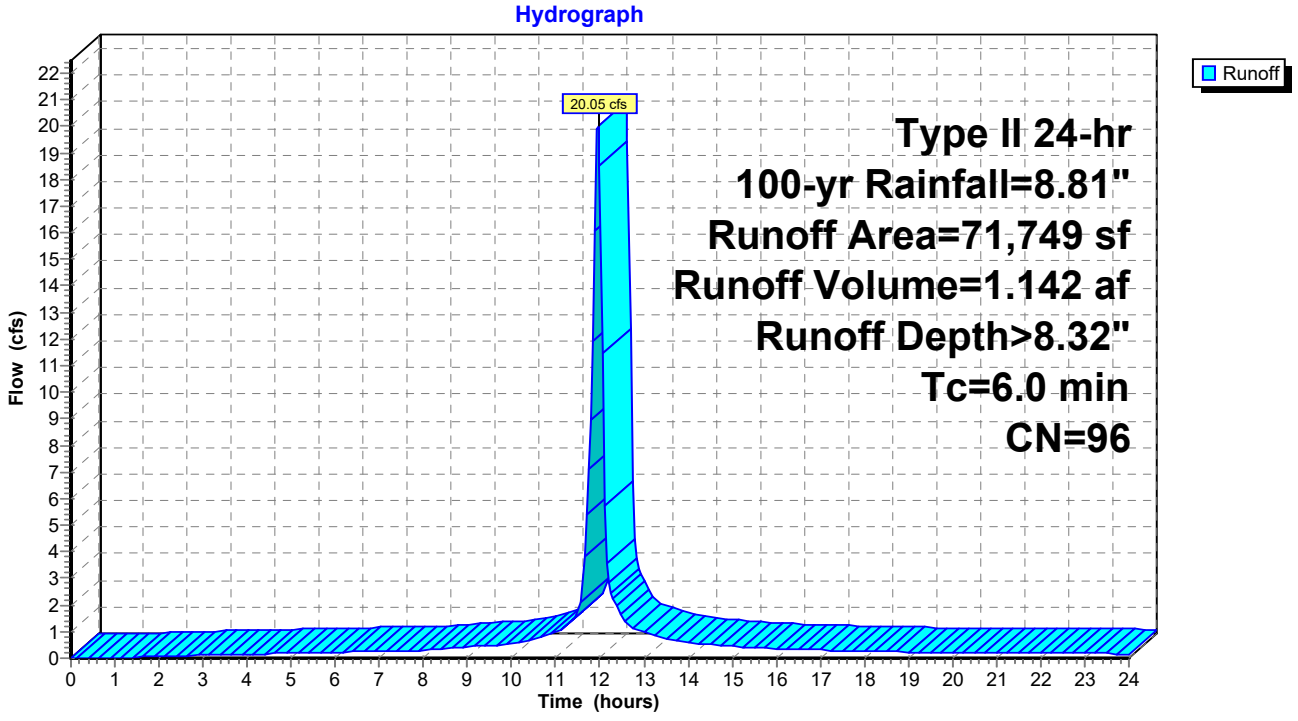
Runoff = 20.05 cfs @ 11.96 hrs, Volume= 1.142 af, Depth> 8.32"
Routed to nonexistent node 5R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=8.81"

Area (sf)	CN	Description
64,331	98	Paved parking, HSG D
7,418	80	>75% Grass cover, Good, HSG D
71,749	96	Weighted Average
7,418		10.34% Pervious Area
64,331		89.66% Impervious Area

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

Subcatchment 15S: WS 2A

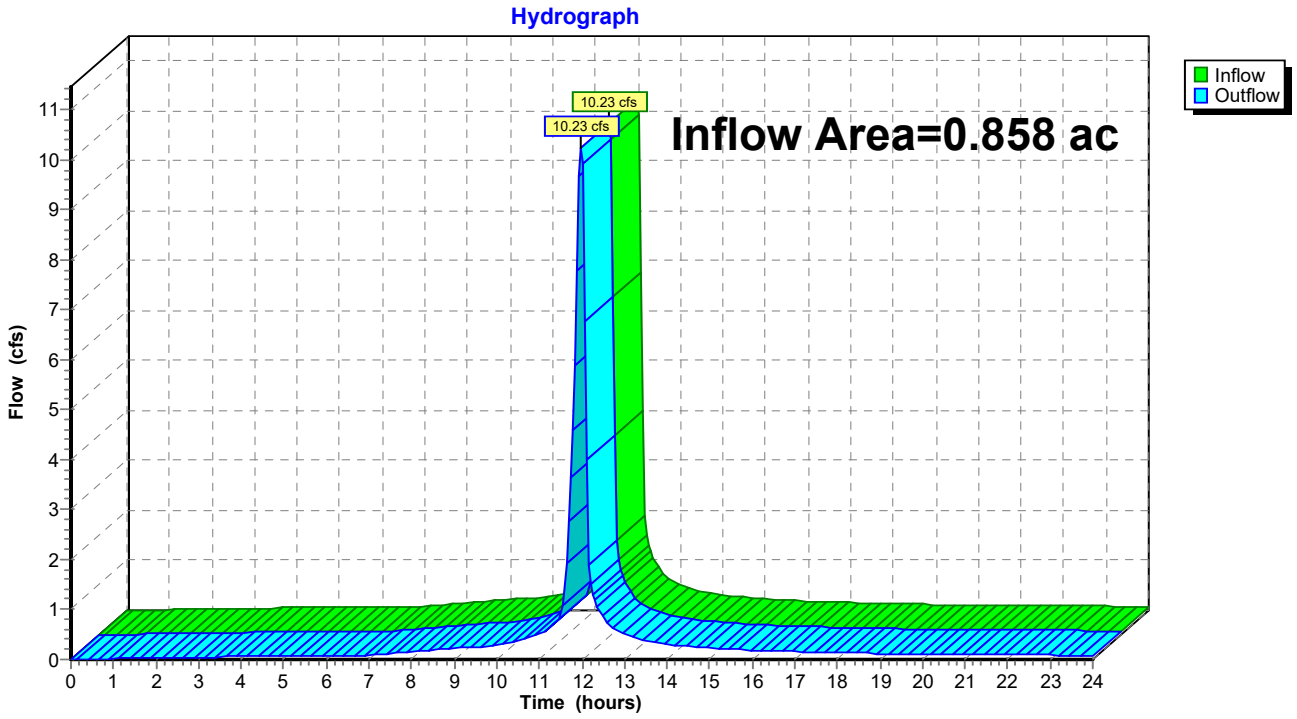


Summary for Reach 13R: DP1

Inflow Area = 0.858 ac, 96.35% Impervious, Inflow Depth > 8.26" for 100-yr event
Inflow = 10.23 cfs @ 11.98 hrs, Volume= 0.591 af
Outflow = 10.23 cfs @ 11.98 hrs, Volume= 0.591 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 5R

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

Reach 13R: DP1



Summary for Pond 6P: Planter 1A

Inflow Area = 0.115 ac, 94.82% Impervious, Inflow Depth > 8.44" for 100-yr event
Inflow = 1.41 cfs @ 11.96 hrs, Volume= 0.081 af
Outflow = 1.41 cfs @ 12.00 hrs, Volume= 0.075 af, Atten= 0%, Lag= 2.1 min
Primary = 1.41 cfs @ 12.00 hrs, Volume= 0.075 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.51' @ 11.99 hrs Surf.Area= 260 sf Storage= 393 cf

Plug-Flow detention time= 78.0 min calculated for 0.075 af (92% of inflow)
Center-of-Mass det. time= 36.9 min (777.8 - 740.9)

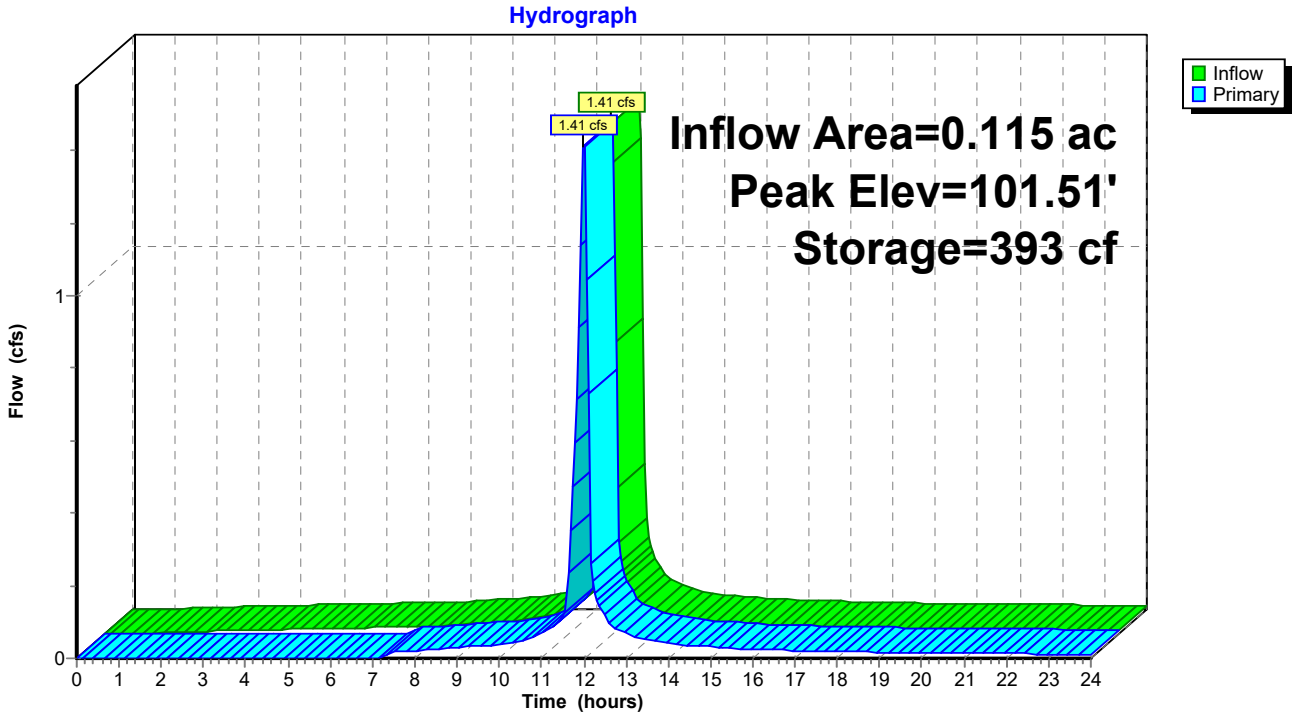
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.28 cfs @ 12.00 hrs HW=101.51' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 1.20 cfs @ 3.43 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.08 cfs @ 0.22 fps)

Pond 6P: Planter 1A



Summary for Pond 9P: Planter 1B

Inflow Area = 0.114 ac, 94.77% Impervious, Inflow Depth > 8.44" for 100-yr event
Inflow = 1.39 cfs @ 11.96 hrs, Volume= 0.080 af
Outflow = 1.38 cfs @ 12.00 hrs, Volume= 0.074 af, Atten= 1%, Lag= 2.1 min
Primary = 1.38 cfs @ 12.00 hrs, Volume= 0.074 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.51' @ 11.99 hrs Surf.Area= 260 sf Storage= 393 cf

Plug-Flow detention time= 78.5 min calculated for 0.074 af (92% of inflow)
Center-of-Mass det. time= 37.1 min (778.1 - 740.9)

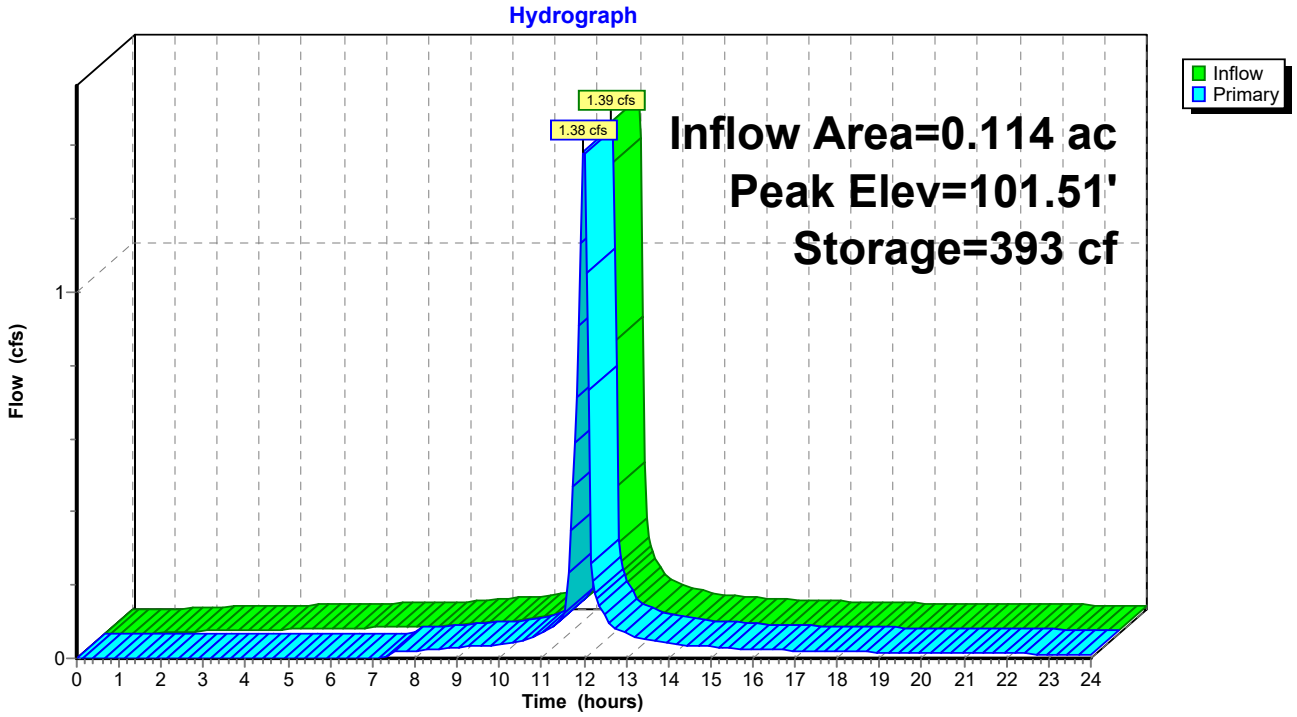
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.25 cfs @ 12.00 hrs HW=101.50' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 1.19 cfs @ 3.42 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.06 cfs @ 0.19 fps)

Pond 9P: Planter 1B



Summary for Pond 11P: Planter 1C

Inflow Area = 0.112 ac, 94.66% Impervious, Inflow Depth > 8.44" for 100-yr event
Inflow = 1.36 cfs @ 11.96 hrs, Volume= 0.079 af
Outflow = 1.30 cfs @ 12.00 hrs, Volume= 0.073 af, Atten= 5%, Lag= 2.1 min
Primary = 1.30 cfs @ 12.00 hrs, Volume= 0.073 af
Routed to Reach 13R : DP1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 101.51' @ 11.99 hrs Surf.Area= 260 sf Storage= 392 cf

Plug-Flow detention time= 80.3 min calculated for 0.073 af (92% of inflow)
Center-of-Mass det. time= 37.7 min (778.7 - 740.9)

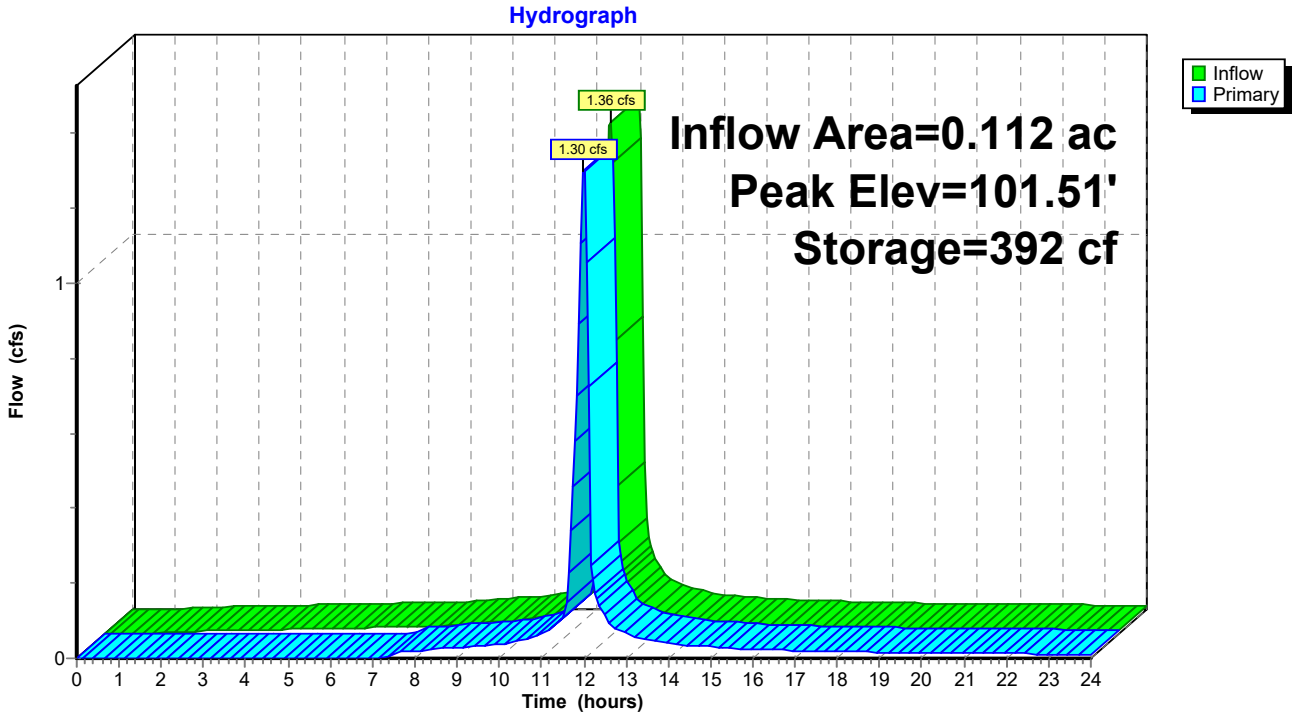
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	455 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	260	0	0
101.75	260	455	455

Device	Routing	Invert	Outlet Devices
#1	Primary	101.00'	**4.0" Horiz. Orifice/Grate X 4.00** C= 0.600 Limited to weir flow at low heads
#2	Primary	101.50'	**64.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.21 cfs @ 12.00 hrs HW=101.50' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 1.19 cfs @ 3.41 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.02 cfs @ 0.13 fps)

Pond 11P: Planter 1C



Appendix 3

NYSDEC Green Infrastructure Worksheets

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?	
Design Point:	
P=	1.50 inches

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1	0.12	0.11	95	0.90	565	Stormwater Planter
2	0.11	0.11	95	0.90	560	Stormwater Planter
3	0.11	0.11	95	0.90	550	Stormwater Planter
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	0.34	0.32	95	0.90	**1676**	**Required WQv**

Stormwater Planter (RR-7)

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**
1	0.12	0.11	95	0.90	565	1.50	Stormwater Planter

Select stormwater planter type	Filtration Stormwater Planter

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrain required
Is the contributing area a designated hotspot?	No	
Does the contributing area exceed 15,000 sf?	No	
Does contributing area contain parking lot or roadway runoff?	No	
Enter depth to seasonal high water table (ft)	3	
Enter depth to bedrock (ft)	3	
Enter depth of surface layer (inches)	3	
Enter drainage layer depth (inches)	10	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	565	cf	
Enter Depth of Soil Media	df	1.5	ft	
Permeability Flow Rate	k	1	ft/day	
Enter Average Height of Ponding	hf	0.5	ft	
Filter Time	tf	2	days	
Required Filter Area	Af	212	sf	
Enter Provided Filter Area	Af	260	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	693.3333333	cf	

Calculate Runoff Reduction		
RRv Provided	**277**	**cf**

Stormwater Planter (RR-7)

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**
2	0.11	0.11	95	0.90	560	1.50	Stormwater

Select stormwater planter type	Filtration Stormwater Planter	
Design Criteria		
Enter underlying soil infiltration rate (based on	0	Underdrain required
Is the contributing area a designated hotspot?	No	
Does the contributing area exceed 15,000 sf?	No	
Does contributing area contain parking lot or	No	
Enter depth to seasonal high water table (ft)	3	
Enter depth to bedrock (ft)	3	
Enter depth of surface layer (inches)	3	
Enter drainage layer depth (inches)	10	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	560	cf	
Enter Depth of Soil Media	df	1.5	ft	
Permeability Flow Rate	k	1	ft/day	
Enter Average Height of Ponding	hf	0.5	ft	
Filter Time	tf	2	days	
Required Filter Area	Af	210	sf	
Enter Provided Filter Area	Af	260	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	693.3333333	cf	

Calculate Runoff Reduction		
RRv Provided	**277**	**cf**

Stormwater Planter (RR-7)

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	0.11	0.11	95	0.90	550	1.50	Stormwater

Select stormwater planter type	Filtration Stormwater Planter	
Design Criteria		
Enter underlying soil infiltration rate (based on	0	Underdrain required
Is the contributing area a designated hotspot?	No	
Does the contributing area exceed 15,000 sf?	No	
Does contributing area contain parking lot or	No	
Enter depth to seasonal high water table (ft)	3	
Enter depth to bedrock (ft)	3	
Enter depth of surface layer (inches)	3	
Enter drainage layer depth (inches)	10	

Sizing Criteria				
		Value	Units	Notes
Water Quality Volume	WQv	550	cf	
Enter Depth of Soil Media	df	1.5	ft	
Permeability Flow Rate	k	1	ft/day	
Enter Average Height of Ponding	hf	0.5	ft	
Filter Time	tf	2	days	
Required Filter Area	Af	206	sf	
Enter Provided Filter Area	Af	260	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	693.3333333	cf	

Calculate Runoff Reduction		
RRv Provided	**277**	**cf**

Appendix 4

SPDES General Permit GP 0-25-001

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

C*onstruction activities* constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:

    a. one or more acres; or

    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or

    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.

        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or

        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or

        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or

        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:

    a. already covered by a different SPDES permit; or

    b. covered under a different SPDES permit that was denied, terminated, or revoked; or

    c. identified in an expired individual SPDES permit that was not renewed; or

    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.

3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:

    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or

    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.

4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:

    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

        i. 1-5 acres of disturbance - 20 feet; or

        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

    a. obtain all such necessary permits; or

    b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

    a. For linear transportation and linear utility project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb two or more acres of *steep slope*.

    b. For all other project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

    a. Wastewater from washout of concrete; and

    b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

    c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

    d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

    e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

    a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

    i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

    ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

    iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

    i. meets all other eligibility requirements of Part I.A.; and

    ii. will occur in NYSDEC's Regions 3-9; and

    iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

    iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

    a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

    b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

        i. for all eNOIs:

            1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 “Governmental Immunity from Zoning and Other Legislation”; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

   a. all areas of disturbance have achieved *final stabilization;* and

   b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

   a. all documentation necessary to demonstrate eligibility with this permit; and

   b. this permit; and

   c. the *SWPPP*; and

   d. the signed SWPPP Preparer Certification Form; and

   e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

   f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

b. The written Request to Disturb Greater Than Five Acres must include:

i. The SPDES permit identification number (Permit ID); and

ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

    a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

    b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

    c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

    d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

    e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

    f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

        i. the revised area of disturbance and/or *impervious area(s)*; and

        ii. the revised SMP information, if applicable; and

        iii. a narrative description of what has changed; and

        iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

    Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

    a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

        i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s; and

        ii. Control *stormwater discharge*s, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

        iii. *Minimize* the amount of soil exposed during *construction activity*; and

        iv. *Minimize* the disturbance of *steep slope*; and

        v. *Minimize* sediment *discharge*s from the site; and

        vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharge*s, unless *infeasible*; and

        vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

where the intended function of a specific area of the site dictates that it be compacted; and

viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

   In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

   1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

   2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

   3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

    a. The owner or operator must consider:

        i. the following physical risks due to climate change:

            (i) increasing temperature; and

            (ii) increasing precipitation; and

            (iii) increasing variability in precipitation, including chance of drought; and

            (iv) increasing frequency and severity of flooding; and

            (v) rising sea level; and

            (vi) increasing storm surge; and

            (vii) shifting ecology.

        ii. for each of the following:

            (i) overall site planning; and

            (ii) location, elevation, and sizing of:

                a. control measures and practices; and

                b. conveyance system(s); and

                c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. 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 SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

   a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

   b. SMPs must be designed in conformance with the *performance criteria*:

      i. in the DM; or

      ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

      iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

(i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

(ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

(iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

(iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

(v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

(vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

    i. begin implementing corrective actions within one business day; and

    ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

    i. begin the engineering design process within five business days; and

    ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

    a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

   a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

   b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

   c. all areas of disturbance that have not achieved *final stabilization*; and

   d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

   e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

iii. Total area that has achieved *temporary stabilization*; and

iv. Total area that has achieved *final stabilization*; and

k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

m. Identification and status of all corrective actions that were required by previous inspection; and

n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

   i. all soil disturbance activities have ceased; and

   ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

   iii. all temporary, structural erosion and sediment control measures have been removed; and

   iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

   v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

    a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

    b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

    c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

    d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

    a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

g. the *discharge* is in violation of section 17-0501 of the ECL; and

h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

   i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

   ii. the size of the *discharge(s)*; and

   iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

   iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

    a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

        (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

        (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

        Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

    b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

    1. the chief executive officer of the agency; or

    2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

    c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

    I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint source*s, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

- All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

Within the municipal boundaries of NYC:

- Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

The following *construction activities*:

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover*
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

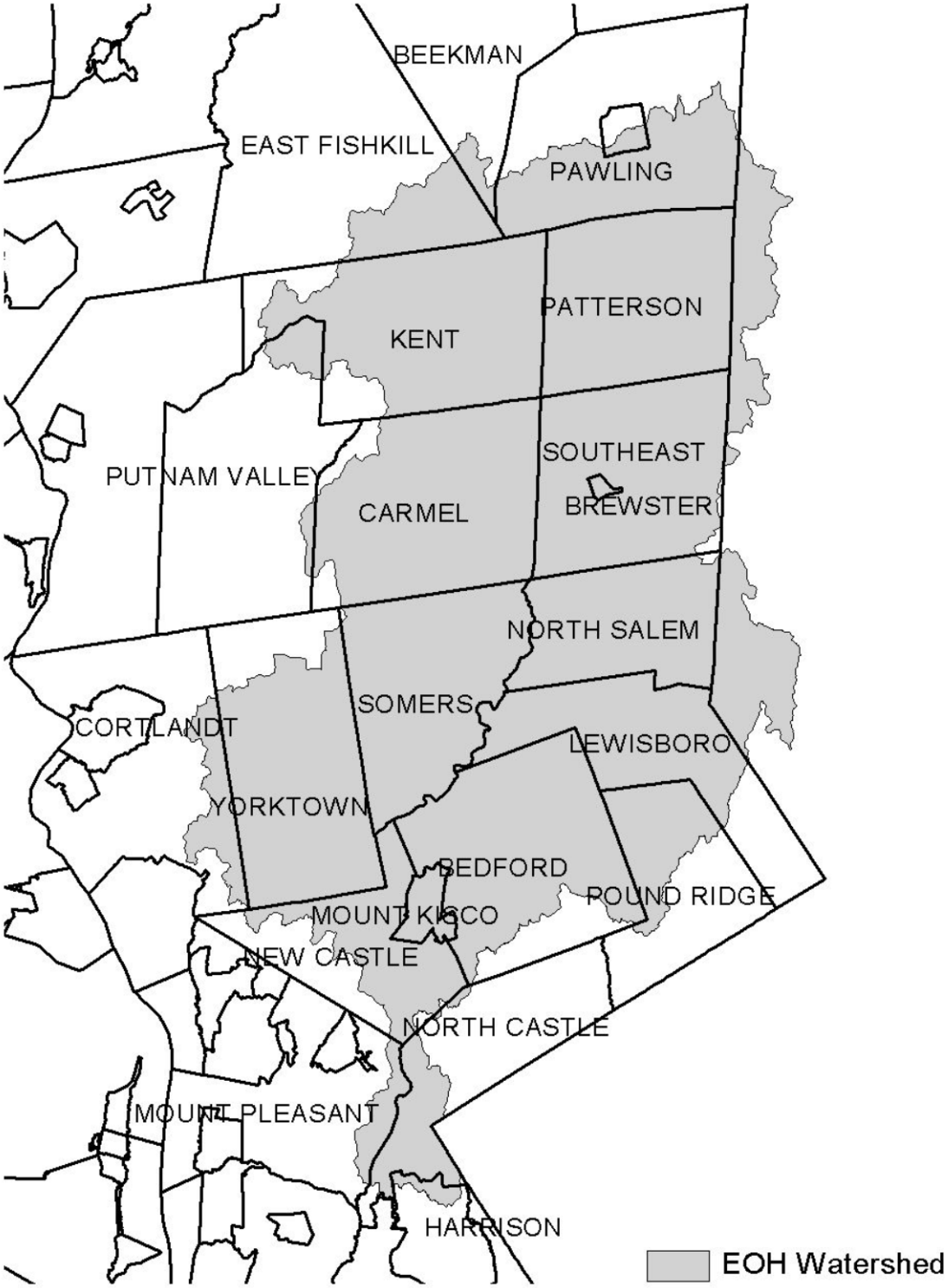


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

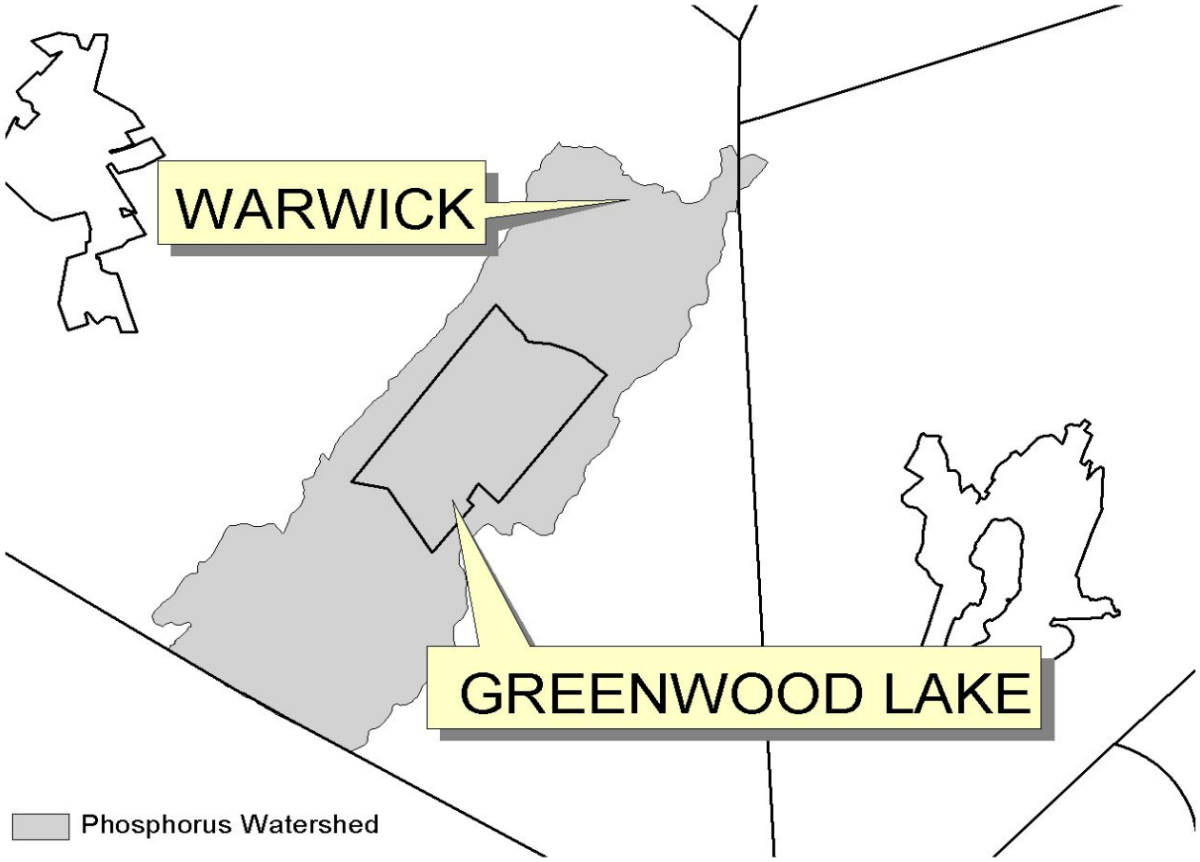


Figure 4 - Oscawana Lake Watershed

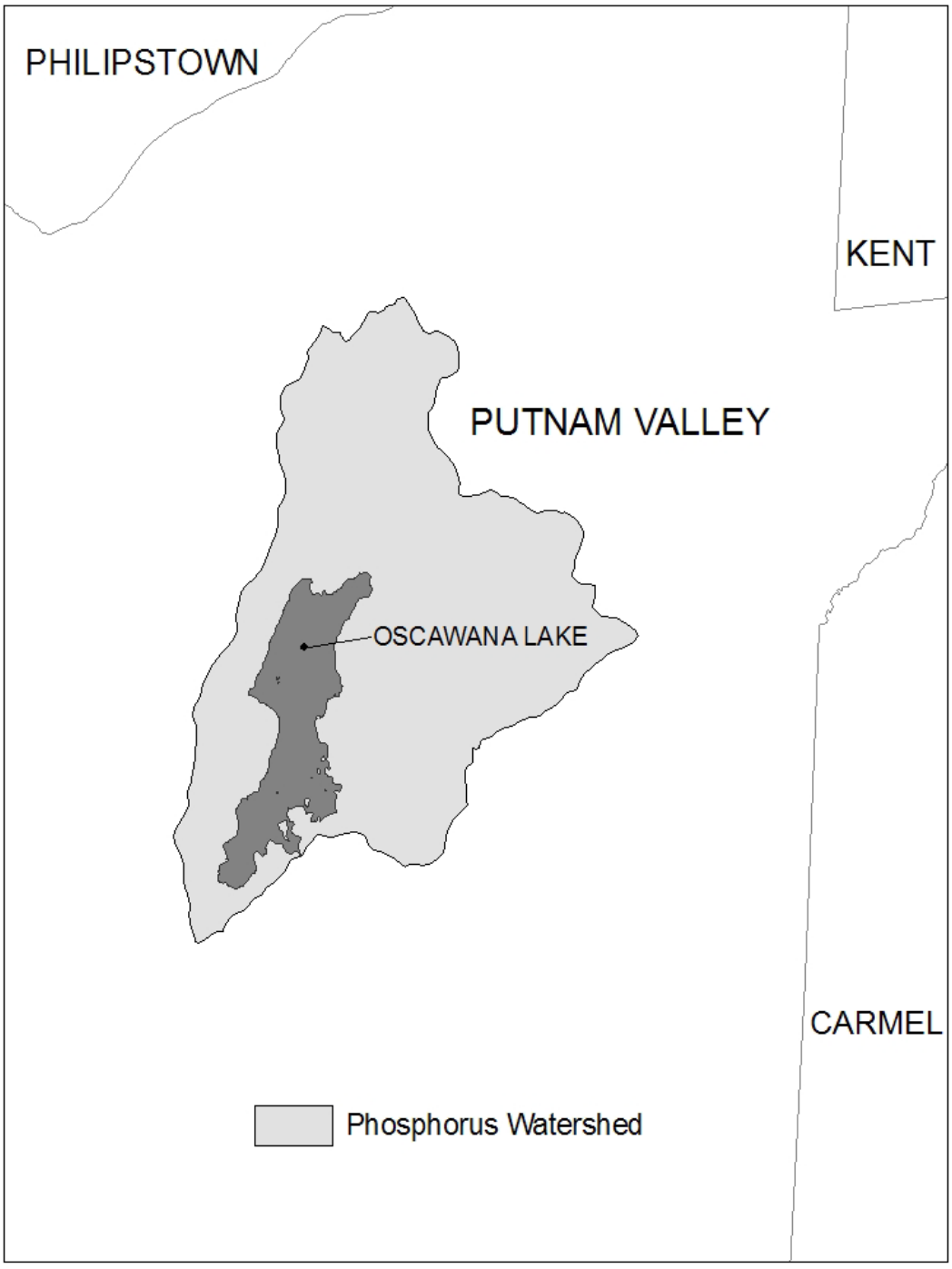
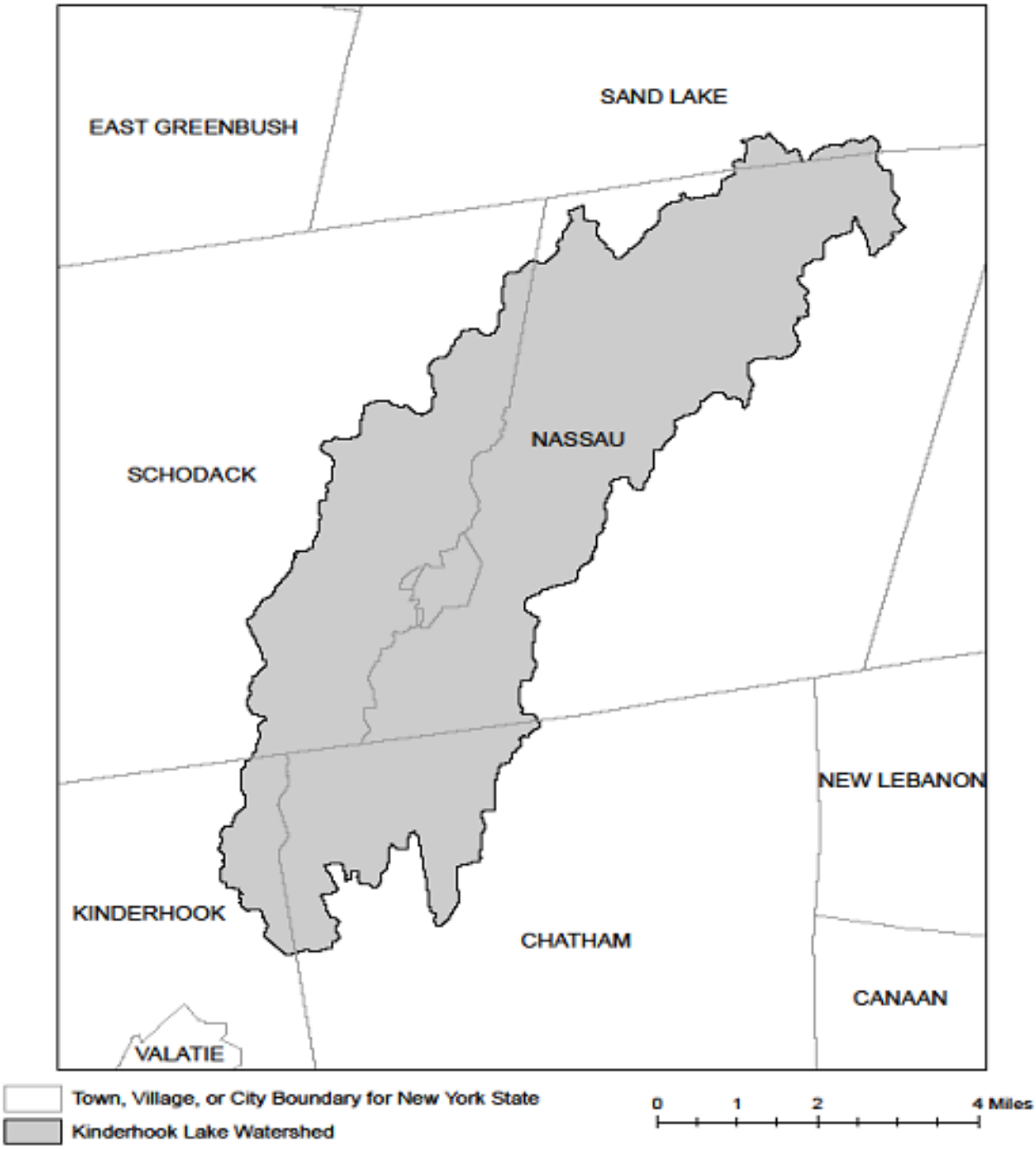


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX F – SWPPP Preparer Certification Form

The SWPPP Preparer Certification Form required by this permit begins on the following page.

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature

Date

Revised: January 2025

APPENDIX G – MS4 SWPPP Acceptance Form

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis
59-17 Junction Blvd., 9th Floor; Flushing, NY 11373

SWPPP Acceptance/Approval

Application Number:

I. Project Owner/Operator Information

1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:

II. Project Site Information

5. Project/Site Name:
6. Street Address:
7. City/State/Zip:

III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance/Approval

8. SWPPP Reviewed by:
9. Title/Position: /
10. Date Final SWPPP Reviewed and Accepted:
11. Acceptance/Approval Expiration Date:

IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity

12. Name of MS4: *CITY OF NEW YORK*
13. MS4 SPDES Permit Identification Number: *NY-0287890*
14. Contact Person:
15. Street Address: *59-17 Junction Blvd. 9th Floor*
16. City/State/Zip: *Flushing, NY 11373*
17. Telephone Number:

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).

Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Conditions of Acceptance/Approval and Additional Information

Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.

MS4 No Jurisdiction Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information

a. Owner/Operator Name:

b. Contact Person:

c. Street Address:

d. City/State/Zip:

II. Project Site Information

a. Project/Site Name:

b. Street Address:

c. City/State/Zip:

d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

a. Name of MS4 Operator:

b. MS4 SPDES Permit ID Number: NYR20A

c. Street Address:

d. City/State/Zip:

e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

a. Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.:

b. Title/Position:

c. Signature:

d. Date:

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

Appendix 5

Draft Notice of Intent (NOI)

Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.11

(Submission #: HQF-VNFE-8QE9H, version 1)

Details

Originally Started By	Connor P McCormack
Alternate Identifier	37 Washington Avenue Devlopment —Region 3
Submission ID	HQF-VNFE-8QE9H
Status	Draft

Form Input

Eligibility

Disturbance Threshold

1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?
Yes

1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?
NONE PROVIDED

1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?
NONE PROVIDED

1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?
NONE PROVIDED

Other SPDES Permits

2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?
NONE PROVIDED

Threatened and Endangered Species

3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?
NONE PROVIDED

State Historic Preservation Act (SHPA)

4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?
NONE PROVIDED

State Environmental Quality Review (SEQR)

5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?
NONE PROVIDED

Uniform Procedures Act (UPA) Permits

6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001?
NONE PROVIDED

Steep Slope

7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?
NONE PROVIDED

Owner/Operator Information

8. Owner/Operator Name
Suffern WA LLC

9. Owner/Operator Contact Person Information

First and Last Name	Phone	E-mail
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*

10. Owner/Operator Mailing Address

308 West 94th Street Suite 231
New York, NY 10025
USA

11. Is the billing contact different from the Owner/Operator Contact?
No

12. What type of organization is the owner/operator?
Corporation

12.b. Is the owner/operator registered with the Department of State to do business in New York State?
Yes

12.b.i. Department of State ID #
NONE PROVIDED

The Department of State ID can be found using the following link:
Department of State | Division of Corporations

Site Information

13. Project/Site Name
37 Washington Avenue Devlopment

14. Site Address

37 Washington Avenue
Suffern, NY 10901
Rockland

DEC Region
3

15. Site Latitude & Longitude
41.11602655259855,-74.14967121122719

Project Details

16. This eNOI submission is for:
NONE PROVIDED

17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".
NONE PROVIDED

18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.
NONE PROVIDED

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

19. Total Site Area (acres)
NONE PROVIDED

20. Total Area to be Disturbed (acres)
NONE PROVIDED

21. Existing Impervious Area to be Disturbed (acres)
NONE PROVIDED

22. Future Impervious Area Within Disturbed Area (acres)
NONE PROVIDED

Nature of the project:
NONE PROVIDED

23. Do you plan to disturb more than 5 acres of soil at any one time?
NONE PROVIDED

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
NONE PROVIDED

B (%)
NONE PROVIDED

C (%)
NONE PROVIDED

D (%)
NONE PROVIDED

25. Enter the planned start and end dates of the disturbance activities.

Start Date
NONE PROVIDED

End Date
NONE PROVIDED

26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
NONE PROVIDED

27. Type of waterbody identified in question 26?
NONE PROVIDED

28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?
NONE PROVIDED

29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?
NONE PROVIDED

30. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
NONE PROVIDED

31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
NONE PROVIDED

32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
NONE PROVIDED

33. Is this property owned by a state authority, state agency, federal government or local government?
NONE PROVIDED

Required SWPPP Components

General SWPPP Requirements

34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?

NONE PROVIDED

35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?

NONE PROVIDED

36. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?

NONE PROVIDED

SWPPP Preparer

39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

NONE PROVIDED

40. Name of the person who prepared the SWPPP

NONE PROVIDED

41. SWPPP Preparer Organization Name

NONE PROVIDED

42. SWPPP Preparer Contact Information

First and Last Name	Phone	E-mail
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*

43. SWPPP Preparer Address

> *[NO STREET ADDRESS SPECIFIED]*
>
> *[NO CITY SPECIFIED]*, *[NO STATE SPECIFIED][NO ZIP CODE SPECIFIED]*

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Upload the completed form

Download SWPPP Preparer Certification Form

44. Please upload the SWPPP Preparer Certification

> *NONE PROVIDED*
>
> **Comment**
>
> *NONE PROVIDED*

44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?
NONE PROVIDED

Erosion & Sediment Control Criteria

45. Has a construction sequence schedule for the planned management practices been prepared?
NONE PROVIDED

Other Permits

56. Identify other permits, existing and new, that are required for this project/facility.
NONE PROVIDED

57. Is this NOI for a change in owner/operator per Part I.G.?
NONE PROVIDED

MS4 SWPPP Acceptance

59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?
NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the Owner/Operator Certification Form by clicking the link below.
Owner/Operator Certification Form

61. Upload Owner/Operator Certification Form

> *NONE PROVIDED*
> **Comment**
> *NONE PROVIDED*

61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?
NONE PROVIDED

Additional Project Information

62. Enter any additional pertinent project information in the text box below.

NONE PROVIDED

APPENDIX J – Owner/Operator Certification Form

The Owner/Operator Certification Form required by this permit begins on the following page.

Appendix 6

DRAFT Notice of Termination (NOT)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

Appendix 7

MS4 Acceptance Form

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

Appendix 8

NRCS Hydrologic Soil Mapping

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Rockland County, New York



September 26, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:920 if printed on A landscape (11" x 8.5") sheet.

N

0 10 20 40 60 Meters

0 40 80 160 240 Feet

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York
Survey Area Data: Version 22, Aug 25, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 31, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ux	Urban land	2.5	100.0%
Totals for Area of Interest		**2.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockland County, New York

Ux—Urban land

Map Unit Setting

National map unit symbol: 9v5g
Mean annual precipitation: 47 to 50 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: Unranked

Minor Components

Holyoke

Percent of map unit: 5 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 5 percent
Hydric soil rating: No

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Yalesville

Percent of map unit: 5 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Hydric soil rating: No

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Appendix 9

Appendix H – Construction Site Logbook

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents
   a. Preamble to Site Assessment and Inspections
   b. Operator's Certification
   c. Qualified Professional's Credentials & Certification
   d. Pre-Construction Site Assessment Checklist

II. Construction Duration Inspections
   a. Directions
   b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports
   a. Operator's Compliance Response Form

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____

Permit No. _____ **Date of Authorization** _____

Name of Operator _____

Prime Contractor _____

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

c. Qualified Professional's Credentials & Certification

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

d. Pre-construction Site Assessment Checklist
(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[✓] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?
[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals
[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[ ] [ ] [ ] The plan is contained in the SWPPP on page _____
[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

(4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Professional (print name)	**Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA
[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions
Yes No NA
[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing
Yes No NA
[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering
Yes No NA
[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader
Yes No NA
[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales
Yes No NA
[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

Runoff Control Practices (continued)

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

b. Modifications to the SWPPP (To be completed as described below)

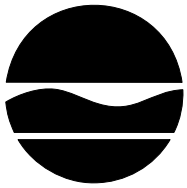
The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

Appendix 10

NYSDEC Construction Stormwater Inspection Manual



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Construction Stormwater Inspection Manual

Primarily for Government Inspectors Evaluating Compliance with Construction Stormwater Control Requirements

New York State
Department of Environmental Conservation

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Version 1.05 (8/27/07)

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ATTACHMENTS

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1.0 INTRODUCTION AND PURPOSE

The New York State Department of Environmental Conservation Division of Water (DOW) considers there to be two types of inspections germane to construction stormwater; compliance inspections and self-inspections.

This manual is for use by DOW and other regulatory oversight construction stormwater inspectors in performing compliance inspections, as well as for site operators in performing self inspections. The manual should be used in conjunction with the *New York State Standards and Specifications for Erosion and Sediment Control,* August 2005.

1.1 Compliance Inspections

Regulatory compliance inspections are performed by regulatory oversight authorities such as DOW staff, or representatives of DOW and local municipal construction stormwater inspectors. These inspections are intended to determine compliance with the state or local requirements for control of construction stormwater through erosion and sediment control and post construction practices. Compliance inspections focus on determinations of compliance with legal and water quality standards. Typically, compliance inspections can be further sub-categorized to include comprehensive inspections, and follow-up or reconnaissance inspections.

Compliance inspectors will focus on determining whether:

- the project is causing water quality standard violations;
- the required Stormwater Pollution Prevention Plan (SWPPP) includes appropriate erosion and sediment controls and, to some extent, post construction controls;
- the owner/operator is complying with the SWPPP;
- where required, self-inspections are being properly performed; and
- where self-inspections are required, the owner/operator responds appropriately to the self-inspector's reports.

1.1.1 Comprehensive Inspection

Comprehensive inspections are designed to verify permittee compliance with all applicable regulatory requirements, effluent controls, and compliance schedules. This inspection involves records reviews, visual observations, and evaluations of management practices, effluents, and receiving waters.

Comprehensive inspections should be conducted according to a neutral or random inspection scheme, or in accordance with established priorities. A neutral monitoring scheme provides some objective basis for scheduling inspections and sampling visits by establishing a system (whether complex factor-based, alphabetic, or geographic) for setting prioritiesto ensure that a particular facility is not unfairly selected for inspection or sampling. The selection of which

facility to inspect must be made without bias to ensure that the regulatory oversight authority, if challenged for being arbitrary and capricious manner, can reasonably defend itself.

A neutral inspection scheme should set the criteria the inspector uses to choose which facilities to inspect, but the schedule for the actual inspection should remain confidential, and may be kept separate from the neutral plan.

A routine comprehensive compliance inspection is most effective when it is unannounced or conducted with very little advance warning.

1.1.2 Reconnaissance Inspection

A reconnaissance inspection is performed in lieu of, or following a comprehensive inspection to obtain a preliminary overview of an owner/operator's compliance program, to respond to a citizen complaint, or to assess a non-permitted site. The inspector performs a brief (generally about an hour) visual inspection of the site, discharges and receiving waters. A reconnaissance inspection uses the inspector's experience and judgement to summarize potential compliance problems, without conducting a full comprehensive inspection. The objective of a reconnaissance inspection is to expand inspection coverage without increasing inspection resource expenditures. The reconnaissance inspection is the shortest and least resource intensive of all inspections.

Reconnaissance inspections may be initiated in response to known or suspected violations, a public complaint, a violation of regulatory requirements, or as follow-up to verify that necessary actions were taken in response to a previous inspection.

1.2 Self-inspections

For some projects, the site owner/operator is required by their State Pollutant Discharge Elimination System (SPDES) Permit and/or local requirements to have a qualified professional[1] perform a "self-inspection" at the site. In self-inspections, the qualified professional determines whether the site is being managed in accordance with the SWPPP, and whether the SWPPP's recommended erosion and sediment controls are effective. If activities are not in accordance with the SWPPP, or if the SWPPP erosion and sediment controls are not effective, the qualified professional inspecting the site recommends corrections to the owner/operator.

[1] A "Qualified professional" is a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), licensed landscape architect or soil scientist.

2.0 PRE-INSPECTION ACTIVITIES

2.1 Regulatory Oversight Authorities

This section is intended for inspectors with regulatory oversight authority such as agents of the DOW or a local municipality, or others acting on their behalf, such as county Soil and Water Conservation District staff. Examples of other regulatory oversight authorities include: the United States Environmental Protection Agency (EPA); New York City Department of Environmental Protection (DEP), Adirondack Park Agency (APA); the Lake George Park Commission (LGPC), and the Skaneateles Lake Watershed Authority (SLWA). Before arriving on-site to conduct the inspection, considerations concerning communication, documentation and equipment must be made.

Regulatory oversight authority is granted by state or local law to government agencies or, depending upon the particular law, an authorized representative of state or local government. SPDES rules 6 NYCRR 750-2.3 and Environmental Conservation Law 17-0303(6) and 17-0829(a) all allow for authorized representatives of the (NYSDEC) commissioner to perform all the duties of an inspector.

2.1.1 Communication

Coordination with Other Entities

Where appropriate, prior to selecting sites for inspection, compliance inspectors should communicate with other regulatory oversight authorities to avoid unnecessary duplication or to coordinate follow-up to inspections performed by other regulatory oversight authorities.

Announced vs. Unannounced Inspection

Inspections may be announced or unannounced. Each method has its own advantages and disadvantages. Unannounced inspections are preferred, however many job sites are not continuously manned, or not always staffed by someone who is familiar with the SWPPP, thus necessitating an announced inspection. As an alternative, when an announced inspection is necessary, inspectors should try to give as little advanced warning as possible (24 hours is suggested).

Itinerary

For obvious safety reasons, inspectors should be sure to inform someone in their office which site or sites they will be visiting prior to leaving the to perform inspections.

2.1.2 Documentation

Data Review

The inspector should review any available information such as:

- Notice of Intent
- Stormwater Pollution Prevention Plan
- Past inspection records
- Phasing plan

- Construction sequence
- Inspection and Maintenance schedules
- Site specific issues
- Consent Orders
- Access agreements

Inspection Form

The inspector should have copies of, and be familiar with, the inspection form used by their regulatory oversight authority (example in Attachment 1) before leaving the office. Static information such as name, location and permit number can be entered onto the inspection form prior to arriving at the inspection site.

Credentials

Inspectors should always carry proper identification to prove that they are employed by an entity with jurisdictional authority. Failure to display proper credentials may be legal grounds for denial of entry to a site.

2.1.3 Equipment

Personal Protective Equipment

DOW employees must conform to the DOW Health and Safety policy as it relates to personal protective equipment. Other regulatory oversight authorities should have their own safety policies or, if not, may wish to consult the OSHA health and safety tool at: www.osha.gov/dep/etools/ehasp/ to develop a health and safety plan.

The following is a list of some of the most common health and safety gear that may be needed:

- Hard hat (Class G, Type1 or better)
- Safety toe shoes
- Reflective vest
- Hearing protection (to achieve 85 dBA - 8 hr TWA)
- Safety glasses with side shields

If the construction is on an industrial site or a hazardous waste site, special training may be required prior to entering the site. The inspector should consult with OSHA or NYSDEC prior to entering such a site.

Monitoring Equipment

The following is a list of some equipment that may be helpful to document facts and verify compliance:

- Digital Camera
- Measuring tape or wheel
- Hand level or clinometer
- Turbidity meter (in limited circumstances)

2.2 Permittee's Self-inspection

This section is intended for qualified professionals who conduct site self-inspections on behalf of owner/operators. Self-inspectors are responsible for performing inspections in accordance with permit requirements and reporting to site owners and operators the results and any recommendations resulting from the inspection.

Prior to conducting inspections, qualified professionals should ensure familiarity with the Stormwater Pollution Prevention Plan and previous inspection reports.

3.0 ON-SITE INSPECTION PROCESS

3.1 Compliance Inspections

3.1.1 Professionalism

Don't Pretend to Possess Knowledge

Unless the inspector has experience with a particular management practice, do not pretend to possess knowledge. Inspectors cannot be expert in all areas; their job is to collect information, not to demonstrate superior wisdom. Site operators are often willing to talk to someone who is inquisitive and interested. Within reason, asking questions to obtain new information about a management practice, construction technique or piece of equipment is one of the inspector's main roles in an inspection.

Don't Recommend Solutions

The inspector should not recommend solutions or endorse products. The solution to a compliance problem may appear obvious based on the inspector's experience. However, the responsibility should be placed on the site owner to implement a workable solution to a compliance problem that meets NYSDEC standards. The inspector should refer the site operator to the New York Standards and Specifications for Erosion and Sediment Control (the Blue Book) or the New York State Stormwater Management Design Manual (the Design Manual).

Key advice must be offered carefully. One experienced stormwater inspector suggests saying: "I can't direct you or make recommendations, but what we've seen work in other situations is ..."

The way inspectors present themselves is important to the effectiveness of the inspection. An inspector cannot be overly familiar, but will be more effective if able to establish a minimum level of communication.

3.1.2 Safety

DOW employees must conform to Division health and safety policies when on a construction site. Other regulatory oversight authorities should have their own safety policies or, if not, may

wish to consult the OSHA health and safety tool at:

www.osha.gov/dep/etools/ehasp to develop a health and safety plan.

Some general protections for construction sites are:

- Beware of heavy equipment, avoid operator blind spots and make sure of operator eye contact around heavy equipment.
- Avoid walking on rock rip-rap if possible. Loose rock presents a slip hazard.
- Stay out of confined spaces like tanks, trenches and foundation holes.
- Avoid lightning danger. Monitor weather conditions, get out of water, avoid open areas and high points, do not huddle in groups or near trees.
- Protect yourself from sun and heat exposure. Use sun screen or shading clothing. Remain hydrated by drinking water, watching for signs of heat cramps, exhaustion (fatigue, nausea, dizziness, headache, cool or moist skin), or stroke (high body temperature; red, hot and dry skin)
- Protect yourself from cold weather. Wear multiple layers of thin clothing. Wear a warm hat. Drink warm fluids or eat hot foods, and keep dry.
- Avoid scaffolding in excess of 4 feet above grade.
- Beware of ticks, stinging insects, snakes and poison ivy or sumac.

3.1.3 Legal access

DOW has general powers, set forth under ECL 17-0303, subparagraph 6, to enter premises for inspections. In addition, ECL 3-0301.2 conveys general statutory authority granting the DOW the power to access private property to fulfill DOW obligations under the law.

ECL 15-0305 gives the DOW the authority to enter at all times in or upon any property, public or private, for the purpose of inspecting or investigating conditions affecting the construction of improvements to or developments of water resources for the public health, safety or welfare.

ECL 17-0829 allows an authorized DOW representative, upon presentation of their credentials, to enter upon any premises where any effluent source is located, or in which records are required to be maintained. The representative may at reasonable times have access to, and sample discharges/pollutants to the waters or to publicly owned treatment plants where the effluent source is located. This subparagraph provides DOW representatives performing their duties authority to enter a site to pursue administrative violations. Pursuing criminal violations may require a warrant or the owner's permission to enter the site.

For sites that are permitted, DOW has authority under the permit to enter the site.

If the owner/operator's representatives onsite deny access, the inspector *should not* physically force entry. Under these circumstances the attorney representing the inspector should be immediately notified and consideration should be given to soliciting the aid of a law officer to obtain entry.

DOW staff have the right to enter at any reasonable time. If no one is available, and the site is fenced or posted, DOW staff should make all reasonable efforts to identify, contact and notify the owner that the DOW is entering the site. If the inspector has made all reasonable efforts to contact site owners, but was unable to do so, the site can then be accessed. All efforts should be taken not to cause any damage to the facility.

Other regulatory oversight authorities should seek advice on their legal authorities to enter a job site. Municipalities that have adopted Article 6 of the New York State Sample Local Law for Stormwater Management and Erosion and Sediment Control (NYSDEC, 2004, updated 2006) will have legal authority to enter sites in accordance with that chapter and any other existing municipal authority .

Agents of DOW have authority similar DOW staff authority to enter sites. However, DOW staff enjoy significant personal liability protections as state employees. That liability protection may not be the same for authorized representatives of DOW. For authorized representatives of DOW (or other regulatory oversight authorities), it is prudent to obtain permission to enter the site. If such permission is denied, the authorized representatives should inform the appropriate DOW contact, usually the regional water manager.

3.1.4 Find the Legally Responsible Party (Construction Manager, Self-inspector)

The first action a compliance inspector should take upon entering a construction site is to find the construction trailer or the construction or project manager if they are available. The inspector should present appropriate identification to the site's responsible party and state the reason for the inspection; construction stormwater complaint response or neutral construction stormwater inspection. If the inspection is initiated as a response to a complaint, frequently the responsible party will ask who made the complaint. DOW keeps private individual complainants confidential. If the complainant is another regulatory oversight authority, DOW tends to make that known to the site's responsible party.

3.1.5 On-site records review (NOI, SWPPP, Self-inspection Reports, Permit)

Generally, the compliance inspector should next review the on-site records. Verify that a copy of the construction stormwater permit and NOI are on-site. Verify that the acreage, site conditions, and receiving water listed on the NOI are accurate. Compare the on-site documentation with documentation already submitted to, or obtained by the compliance inspector.

If the SWPPP has not been reviewed in the office, verify that it exists and contains the minimum required components (16 for a basic plan and 22 for a full plan). On-site review of the SWPPP should determine if: there is an appropriate phasing plan; the acreage disturbed in each phase, construction sequence for each phase; proposed implementation of erosion and sediment control measures; and, where required, post construction controls. For each of the erosion and sediment control practices, the SWPPP must show design details in accordance with the NYS Standards for Erosion and Sediment Controls. The SWPPP must also include provisions for maintenance of practices during construction. On-site review of post construction controls is generally limited to verification that the proposed stormwater management practices are shown on the site plan.

Where self-inspections are required, self-inspection reports are a significant tool for the compliance inspector to determine the performance history of the site. The self-inspection reports should be done with the required frequency . Self-inspection reports must include all the details required by the permit. Generally, it is desirable for permit information to be shown on a site plan. The compliance inspector should become familiar with the report and use that familiarity to judge whether the self-inspections are being performed correctly and that the site operator is correcting deficiencies noted in the report.

3.1.6 Walk the Site

During wet weather conditions, it may be advantageous to observe the receiving waters prior to walking the rest of the site. At some point during the inspection, the receiving water conditions must be observed and noted. It is critical to note if there is a substantial visible contrast to natural conditions, or evidence of deposition, streambank erosion, construction debris or waste materials (e.g. concrete washdown) in the receiving stream.

Each inspector should evaluate actual implementation and maintenance of practices on-site compared to how implementation and maintenance is detailed in the SWPPP. At a minimum, the compliance inspector should observe all areas of active construction. Observing equipment or materials storage, recently stabilized areas, or stockpile areas is also appropriate to evaluate the effectiveness of management practices.

3.1.7 Taking Photographs

Evidence of poor receiving water conditions and poor or ineffective practices should be documented with digital photographs. Those photographs should be logged date stamped and stored on media that cannot be edited (e.g. write only CDs). Photos should also be appended to the site inspector's report.

It is also beneficial to take photographs of good practices for educational and technology transfer reasons.

3.1.8 Exit Interview

Clearly communicate expectations and consequences. If it is clear from the inspection that the owner/operator must modify the SWPPP, or modify management practices within an assigned period (e.g. 24 hours, 48 hours, one week, two weeks), then that finding should be communicated at the time of the exit interview. The inspector should assign the period based on factors such as how long it would reasonably take to complete such modifications and the level of risk to water quality associated with failure to make such modifications.

The inspector should make clear that NYSDEC reserves rights to future enforcement actions. If the inspector's supervisor or enforcement coordinator determines additional enforcement actions are necessary, the inspector *should not* reassure the owner/operator that the current situation is acceptable.

3.2 Non-permitted Site Inspections

For sites not authorized in accordance with state or local laws, the process will be abbreviated. First verify the need for authorization and observe receiving waters to detect water quality standard violations. If there is a violation, notify the owner of the violation or other compliance actions in response to their illicit activity. For DOW staff, Attachment 2 or a similar notice can be used to notify the site owner/operator that stormwater authorization is required.

3.3 Self-inspections

The role of the self-inspector is to verify that the site is complying with stormwater requirements. In particular, the self-inspector verifies that the SWPPP is being properly implemented. The self-inspector also documents SWPPP implementation so regulatory agencies can review implementation activities.

It is <u>not</u> the role of the self-inspector to report directly to regulatory authorities.

Appendix H of *The New York Standards and Specifications for Erosion and Sediment Control* - August 2005 (the Blue Book) includes a Construction Duration Inspection checklist that can be used by the owner/operators qualified professional for self-inspections. The Blue Book is available on the NYSDEC website.

3.3.1 Purpose

The self inspector should ensure that the project's SWPPP is being properly implemented. This includes ensuring that the erosion and sediment control practices are properly installed and being maintained in accordance with the SWPPP/Blue Book.

The project must be properly phased to limit the disturbance to less than five acres, and the construction sequence for each phase must be followed. The SWPPP must also be modified to address evolving circumstances. Finally, and most importantly, receiving waters must be protected.

If a soil disturbance will be greater than five acres at any given time, the site operator must obtain written permission from the DOW regional office.

3.3.2 Pre-construction Conference

The parties responsible for various aspects of stormwater compliance should be identified at the pre-construction conference. Responsible parties may include, but are not limited to, owner's engineer, owner/operator/permittee, contractors, and subcontractors.

Typical responsibilities include: installation of erosion and sediment control (E & SC) practices; maintenance of E & SC practices, inspection of E&SC practices, installation of post construction stormwater management practices (SMPs), inspection of post construction SMPs, SWPPP revisions, and contractor direction.

All parties should clearly know what is expected of them. Responsible parties should complete the Pre-construction Site Assessment Checklist provided in Appendix H of the Blue Book.

3.3.3 Inspection Preparation

The inspector should review the project's SWPPP (including the phasing plan, construction sequence and site specific issues) and the last few inspection reports (if the inspector has them available).

3.3.4 Self-inspection Components

Inspect installation, performance and maintenance of all E&SC practices

The self inspector should inspect all areas that are under active construction or disturbance and areas that are vulnerable to erosion. The self-inspector should also inspect areas that will be disturbed prior to the next inspection for measures required prior to construction (e.g. silt barriers, stabilized construction entrance, diversions). Finally, self-inspectors should inspect post-construction controls during and after installation.

Identify site deficiencies and corrective measures

The self-inspector's reports must be maintained in a log book on site and the log book must be made available to the regulatory authorities. Although the legal responsibility for filing a Notice of Termination lies with the owner/operator, the self-inspector may also be called upon to perform a final site inspection, including post construction SMPs, prior to filing the Notice of Termination.

4.0 POST-INSPECTION ACTIVITIES

4.1 Regulatory Oversight Authorities

This section is intended for inspectors with regulatory oversight authority such as agents of the DOW or a local municipality, or others acting on their behalf (such as County Soil and Water Conservation District staff.) Upon completion of an inspection, inspection results should be documented for the record.

4.1.1 Written Notification

The inspector should inform the permittee or the on-site representative of their inspection results in writing by sending the permittee a complete, signed copy of the inspection report. The inspection report should be transmitted under a cover letter which elaborates on any deficiencies noted in the inspection report. It is not a good idea to commend exceptional efforts by the owner/operator in a letter, because such letters tend to undermine enforcement efforts when compliance status at a site degrades.

The inspector should consider providing a copy of the cover letter and inspection report to other parties with including:

- Permittee
- Contractor(s)
- Other regulatory oversight authorities
- Other parties present during the inspection (e.g. SWPPP preparer, permittee's self-inspector, etc.)

For DOW staff, an example of the inspection cover letter is included as Attachment 3.

4.1.2 Inspection Tracking

DOW staff must enter their inspection results into the electronic *Water Compliance System*.

Local municipalities and other regulatory oversight authorities are encouraged to develop an electronic tracking system in which to record their inspections.

4.2 Permittee's Self-inspections

This section is intended for qualified professionals who conduct site inspections for permittees in accordance with a SPDES permit or local requirements.

4.2.1 Written Records

Inspection Reports
The inspector shall prepare a written report summarizing inspection results. The inspection report is then provided to the permittee, or the permittee's duly authorized representative, and to the contractor responsible for implementing stormwater controls on-site in order to correct deficiencies noted in the inspection report. Finally, the inspection report must be added to the site log book that is required to be maintained on-site, and be available to regulatory oversight authorities for review.

4.2.2 Stormwater Pollution Prevention Plan Revisions

The inspector must inform the permittee of his/her duty to amend the Stormwater Pollution Prevention Plan (SWPPP) whenever an inspection proves the SWPPP to be ineffective in:

- Eliminating or significantly minimizing pollutants from on-site sources
- Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity
- Eliminating discharges that cause a substantial visible contrast to natural conditions

ATTACHMENT 1

Construction Stormwater Compliance Inspection Report

Project Name and Location: Municipality: County:	Date:	Page 1 of 2
	Permit # (if any): **NYR**	
	Entry Time:	Exit Time:
On-site Representative(s) and contact information:	Weather Conditions:	
Name and Address of SPDES Permittee/Title/Phone/Fax Numbers: Contacted: Yes ☐ No ☐		

INSPECTION CHECKLIST

SPDES Authority

	Yes	No	N/A		Law, rule or permit citation
1.	☐	☐	☐	Is a copy of the NOI posted at the construction site for public viewing?	
2.	☐	☐	☐	Is an up-to-date copy of the signed SWPPP retained at the construction site?	
3.	☐	☐	☐	Is a copy of the SPDES General Permit retained at the construction site?	

SWPPP Content

	Yes	No	N/A		Law, rule or permit citation
4.	☐	☐	☐	Does the SWPPP describe and identify the erosion & sediment control measures to be employed?	
5.	☐	☐	☐	Does the SWPPP provide a maintenance schedule for the erosion & sediment control measures?	
6.	☐	☐	☐	Does the SWPPP describe and identify the post-construction SW control measures to be employed?	
7.	☐	☐	☐	Does the SWPPP identify the contractor(s) and subcontractor(s) responsible for each measure?	
8.	☐	☐	☐	Does the SWPPP include all the necessary 'CONTRACTOR CERTIFICATION' statements?	
9.	☐	☐	☐	Is the SWPPP signed/certified by the permittee?	

Recordkeeping

	Yes	No	N/A		Law, rule or permit citation
10.	☐	☐	☐	Are inspections performed as required by the permit (every 7 days and after ½" rain event)?	
11.	☐	☐	☐	Are the site inspections performed by a qualified professional?	
12.	☐	☐	☐	Are all required reports properly signed/certified?	
13.	☐	☐	☐	Does the SWPPP include copies of the monthly/quarterly written summaries of compliance status?	

Visual Observations

	Yes	No	N/A		Law, rule or permit citation
14.	☐	☐	☐	Are all erosion and sediment control measures installed/constructed?	
15.	☐	☐	☐	Are all erosion and sediment control measures maintained properly?	
16.	☐	☐	☐	Have all disturbances of 5 acres or more been approved prior to the disturbance?	
17.	☐	☐	☐	Are stabilization measures initiated in inactive areas?	
18.	☐	☐	☐	Are permanent stormwater control measures implemented?	
19.	☐	☐	☐	Was there a discharge into the receiving water on the day of inspection?	
20.	☐	☐	☐	Are receiving waters free of there evidence of turbidity, sedimentation, or oil ? (If no , complete Page 2)	

Overall Inspection Rating: ❑ Satisfactory ❑ Marginal ❑ Unsatisfactory	
Name/Agency of Lead Inspector:	**Signature of Lead Inspector:**
Names/Agencies of Other Inspectors:	

Water Quality Observations

Describe the discharge(s) [source(s), impact on receiving water(s), etc.] _____

_____

_____

_____

_____

Describe the quality of the receiving water(s) both upstream and downstream of the discharge_____

_____

_____

_____

_____

Describe any other water quality standards or permit violations _____

_____

_____

Additional Comments:_____

_____

_____

_____

_____

_____

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_____

☐ Photographs attached

ATTACHMENT 2

**** NOTICE ****

On March 10, 2003, provisions of the Federal Clean Water Act went into effect that apply to many construction operations.

If your construction operations result in the disturbance of one acre or greater and stormwater runoff from your site reaches surface waters (i.e., lake, stream, road side ditch, swale, storm sewer system, etc.), the stormwater runoff from your site must be covered by a State Pollutant Discharge Elimination System (SPDES) Permit issued by the New York State Department of Environmental Conservation (NYSDEC).

To facilitate your compliance with the law, NYSDEC has issued a General Permit which may be applicable to your project. To obtain coverage under this General Permit, you need to prepare a Stormwater Pollution Prevention Plan (SWPPP) and then file a Notice of Intent (NOI) to the NYSDEC headquarters in Albany. The NOI form is available on the DEC website. You may also obtain a copy of the NOI form at the nearest NYSDEC regional offices.

When you file your NOI you are certifying that you have developed a SWPPP and that it will be implemented prior to commencing construction. When you submit the NOI you need to indicate if your SWPPP is in conformance with published NYSDEC technical standards; if it is, your SPDES permit coverage will be effective in as few as five business days. If your SWPPP does not conform to the DEC technical standards, coverage will not be available for at least 60 business days.

Failure to have the required permit can result in legal actions which include Stop Work Orders and/or monetary penalties of up to $37,500/day

If your construction operations are already in progress and you are not covered by an appropriate NYSDEC permit contact the NYSDEC Regional Water Engineer as soon as possible. If your construction field operations have not yet commenced, review the NOI and the General Permit on the DEC's website or at the DEC regional office for your area. When you are comfortable that you understand and comply with the requirements, file your NOI.

The requirement to file an NOI does not replace any local requirements. Developers/Contractors are directed to contact the Local Code Enforcement Officer or Stormwater Management Officer for local requirements.

ATTACHMENT 3

<< Date >>

Mr. John Smith
123 Main Street
Ferracane, NY 12345

Re: Stormwater Inspection
SPDES Permit Identification No. NYR10Z000 (through SPDES No. GP-02-01)
Blowing Leaves Subdivision
Gasper (T), Eaton (Co.)

Dear Mr. Smith:

On the afternoon of << date >> I conducted an inspection of the construction activities associated with the Blowing Leaves Subdivision located on County Route 1 in the town of Gasper, Eaton County. The inspection was conducted in the presence of you and Mr. Samuel Siltfence of Acme Excavating Co., Inc. The purpose of the inspection was to verify compliance with the *State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activity* ("the general permit").

The overall rating for the project at the time of the inspection was ***unsatisfactory***. A copy of my inspection report is attached for your information. In addition to the report, I would like to elaborate on the following:

SPDES Authority

- In accordance with subdivision 750-2.1 (a) of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR), a copy of your permit must be retained at the construction site. You did not have a copy of the general permit at the site. **Your failure to retain a copy of the general permit at the construction site is a violation of 6 NYCRR Part 750-2.1 (a).** Please retain a copy of the general permit at the site from this point forward.

SWPPP Content

- In accordance with Part III.E.2. of the general permit, contractors and subcontractors must certify that they understand the terms and conditions of the general permit and the SWPPP before undertaking any construction activity at the site. Your SWPPP does not include a certification statement from Acme Excavating Co., Inc. **The failure of your contractor to sign this certification before undertaking construction activity at the site is a violation of Part III.E.2. of the general permit.** Please obtain copies of all necessary certifications and provide copies of them to each party who holds a copy of your SWPPP.

- In accordance with Part V.H.2. of the general permit, SWPPP's must be certified by the permittee. Your SWPPP was not certified by you. **Your failure to certify your SWPPP is a**

violation of Part V.H.2. of the general permit. Please certify your SWPPP.

Recordkeeping

- In accordance with Parts III.D.3.a. and III.D.3.b. of the general permit, permittees must have a qualified professional conduct site inspections within 24 hours of the end of 0.5" or greater rain events and at least once per week. A review of your records revealed that your "self-inspections" are only being conducted about two or three times per month. **Your failure to have a qualified professional conduct inspections at the required frequency is a violation of Part III.D.3.b. of the general permit.** Please immediately direct your qualified professional to conduct your site inspections at the required frequency.

- Although the frequency of self-inspections does not meet rquirements, the quality of them is very good. Your qualified professional has accurately noted the same SWPPP deficiencies and necessary maintenance activities that I also observed, and prepared thorough sketches on the self-inspection site maps.

- In accordance with Part V.H.2. of the general permit, the permittee must certify all reports required by the permit. A review of your records showed that your self-inspection reports were not certified. **Your failure to certify your self-inspection reports is a violation of Part V.H.2. of the general permit.** Please sign and certify any and all existing and future self-inspection reports.

Visual Observations

- In accordance with Parts III.A.2. and III.A.3. of the general permit, all erosion and sediment controls (E&SC) measures must be installed (as detailed in the SWPPP) prior to the initiation of construction. During the inspection, I noted all of your E&SC measures have been correctly installed at the right times and locations.

- In accordance with Part V.L. of the general permit, all of the E&SC measures at your site must be maintained properly. While on site I observed that, among other things, the section of silt fence in place parallel to County Route 1 is in various stages of disrepair. **The failure of your contractor to adequately maintain the E&SC measures currently in place at your site is a violation of Part V.L of the general permit.** Please direct your contractor to repair this silt fence immediately and to diligently maintain all of the other required E&SC measures as they are brought to his attention by your qualified professional.

- This inspection was conducted during a rain event which resulted in a stormwater discharge to the municipal separate storm sewer system (MS4) being operated by the Eaton County Department of Public Works. Your discharge was visibly turbid whereas upstream water MS4 was clear. As a result, the discharge from the MS4 outfall into Karimipour Creek was causing

Mr. John Smith << Date >>
Re: SPDES Inspection
Blowing Leaves Subdivision
Gasper (T), Eaton (Co.)

slight turbidity. Please be advised that the narrative water quality standard for turbidity in Karimipour Creek is “no increase that will cause a substantial visible contrast to natural conditions.” I attribute the lack of maintenance of your E&SC measures to be the primary cause of the turbid discharge. Please be reminded that the general permit does not authorize you cause or contribute to a condition in contravention of any water quality standards.

If you have any questions or comments, please feel free to contact me at (999) 456-5432.

Sincerely,

Hector D. Inspector, CPESC
Environmental Program Specialist 2

HDI:ms
Attachment

cc w/att.: Chester Checkdam, (T) Gasper Code Enforcement Officer
Samuel Siltfence, Acme Excavating Co., Inc.

Appendix 11

Contractor Certification Form

CONTRACTOR'S CERTIFICATION
Pursuant to
NYS DEC GENERAL PERMIT GP-0-25-001

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 30 Part III.A.7. contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the SWPPP. The owner or operator must have each of the contractors and subcontractors identify at least one person from their company to be trained contractor that will be responsible for implementation of the SWPPP. The owner or operator must ensure that at least one trained contractor is on site daily when soil disturbance activities are being performed. The owner or operator must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the commencement of construction activities:

"I hereby certify under penalty of law that I understand and agree to comply with the requirements of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations" In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the trained contractor responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The owner or operator must attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after the commencement of construction activities, they must also sign the certification statement and provide the information listed above prior to performing construction activities."

Signature	Print Name	Date

Contracting Firm Information:

Contracting Firm Name:

Address:

Telephone Number:

Address of Site: _____

Name of trained individual responsible for SWPPP implementation, and who shall be on site on a daily basis when soil disturbance activities are being performed:

Name: _____ Title: _____

Appendix 12

NYSDEC Deep-Ripping & Decompaction Manual

New York State
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water

Deep-Ripping and Decompaction

April 2008

New York State
Department of Environmental Conservation

Document Prepared by:

John E. Lacey,
Land Resource Consultant and Environmental Compliance Monitor
(Formerly with the Division of Agricultural Protection and Development Services,
NYS Dept. of Agriculture & Markets)

Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) “Deep Ripping;” and 2) “Decompaction” (deep subsoiling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil’s water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.



Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper “rips” through severely compressed subsoil.

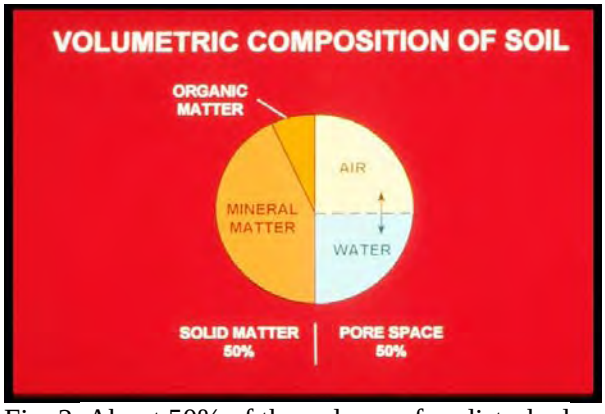


Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterallly) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the "two-phase" practice of Deep Ripping and Decompaction first became established as a "best management practice" through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).



Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive "deep ripping" through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by "decompaction," i.e.: "sub-soiling," through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area's direct surface infiltration of rainfall by providing the open site's mitigated soil condition and lowers the demand on concentrated runoff control structures

- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures

- Decreases runoff volume generated and provides hydrologic source control

- May be planned for application in feasible open locations either alone or in

conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas

- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility / Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implement maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil

In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology, Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot

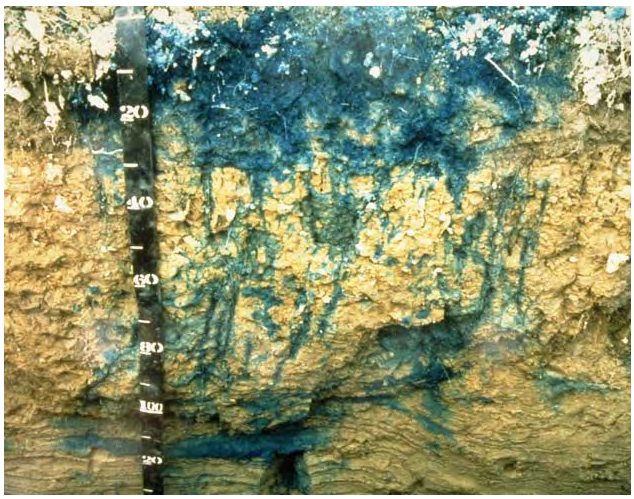


Fig. 4. Profile (in centimeters) displaying the infiltration test result of the natural undisturbed horizons of a soil in Hydrologic Soil Group C.

lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompation (subsoiling); and other measures may be more practical.

Slope

The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture

Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a "plastic" or "liquid" state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the "slicing and smearing" of the material or added "squeezing and compression" instead of the necessary fracturing. Ample drying time is needed for a "rippable" soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The "poor man's Atterberg field test" for soil plasticity is a simple "hand-roll" method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a "plastic" state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.



Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistence, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is reapplied on the site (see Figure 12); and

2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, "decompaction," mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area's soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only "scarify" the uppermost surface portion of the mass of compacted subsoil material. The term "chisel plow" is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only lighter land-fitting (see Figure 6).



Fig. 6. A light duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.



Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a "heavy duty" agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like "lifting and shattering" action up through the soil layers as it is pulled.

Pulling-Power of Equipment

Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompacting a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.



Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.



Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

Depth and Patterns of Movement

As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompation (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.



Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.



Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompation (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas

For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.

- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.

- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¾-inch cone penetrometer.)



Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.



Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors

In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

● A second series of passes makes a broad “S” shaped pattern of rips, continually and gradually alternating the “S” curves between opposite edges inside the compacted corridor.

● The third and final series again uses the broad, alternating S pattern, but it is “flip-flopped” to continually cross the previous S pattern along the corridor’s centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompation is completed, two items are essential for maintaining a site’s soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.



Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.



Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland.The cost of deep ripping and decompacting (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at $1800 per day, the net cost is $900 per acre. If the Phase 2) Decompacting or deep subsoiling takes 3/4 the time as Phase 1, it costs $675 per acre for a combined total of $1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

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Internet Access:

- Examples of implements:

V-Rippers. Access by internet search of *John Deere Ag -New Equipment for 915* (larger-frame model) *V-Rippe*; and, *for 913* (smaller-frame model) *V-Ripper*. Deep, angled-leg subsoiler. Access by internet search of: B*igham Brothers Shear Bolt Paratill-Subsoiler.* http://salesmanual.deere.com/sales/salesmanual/en_NA/primary_tillage/2008/feature/rippers/915v_pattern_frame.html?sbu=ag&link=prodcat Last visited March 08.

- Soils data of USDA Natural Resources Conservation Service. *NRCS Web Soil Survey.* http://websoilsurvey.nrcs.usda.gov/app/ and *USDA-NRCS Official Soil Series Descriptions; View by Name.* http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdname.cgi . *Last visited Jan. 08.*

- Soil penetrometer information. Access by internet searches of: *Diagnosing Soil Compaction using a Penetrometer (soil compaction tester), PSU Extension;* as well as *Dickey-john Soil Compaction Tester*. http://www.dickey-johnproducts.com/pdf/SoilCompactionTest.pdf and http://cropsoil.psu.edu/Extension/Facts/uc178pdf Last visited Sept. 07

Appendix 13

NRCC Precipitation Tables

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point

Smoothing	No
State	New York
Location	New York, United States
Latitude	41.116 degrees North
Longitude	74.149 degrees West
Elevation	90 feet
Date/Time	Wed Sep 24 2025 17:11:56 GMT-0400 (Eastern Daylight Time)

Extreme Precipitation Estimates

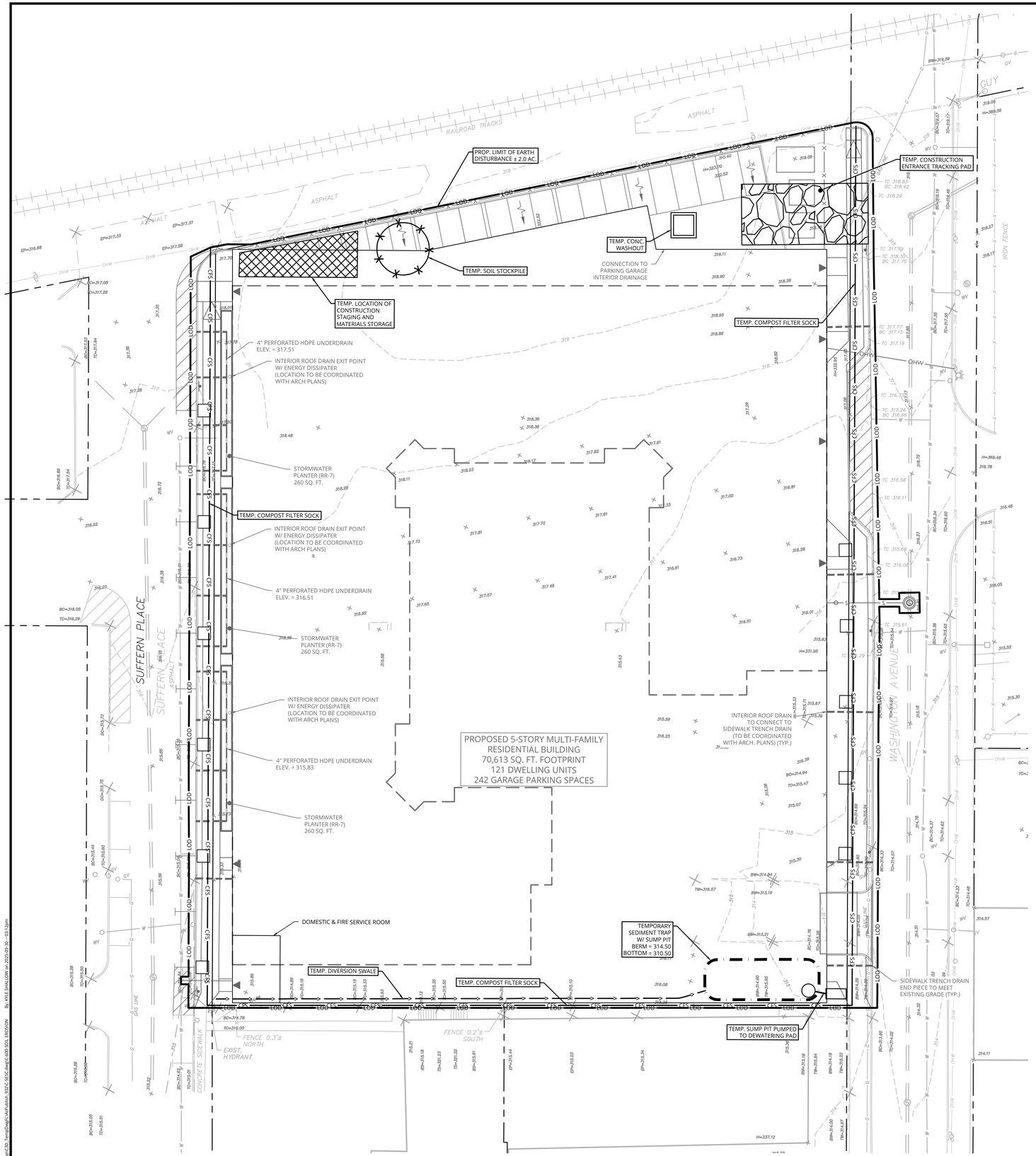
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr
1yr	0.34	0.52	0.63	0.85	1.05	1.25	**1yr**	0.90	1.22	1.45	1.85	2.24
2yr	0.40	0.62	0.76	1.02	1.26	1.51	**2yr**	1.09	1.47	1.73	2.23	2.76
5yr	0.46	0.71	0.89	1.22	1.55	1.86	**5yr**	1.34	1.81	2.13	2.73	3.42
10yr	0.52	0.81	1.00	1.40	1.80	2.17	**10yr**	1.56	2.13	2.49	3.18	4.02
25yr	0.62	0.95	1.18	1.68	2.21	2.68	**25yr**	1.91	2.62	3.06	3.91	4.99
50yr	0.71	1.07	1.34	1.92	2.58	3.15	**50yr**	2.23	3.08	3.58	4.57	5.87
100yr	0.81	1.22	1.53	2.21	3.02	3.69	**100yr**	2.61	3.61	4.20	5.35	6.92
200yr	0.92	1.38	1.75	2.54	3.54	4.34	**200yr**	3.05	4.24	4.92	6.26	8.16
500yr	1.10	1.64	2.11	3.07	4.36	5.37	**500yr**	3.77	5.25	6.07	7.74	10.14

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr
1yr	0.29	0.45	0.55	0.74	0.91	1.14	**1yr**	0.79	1.11	1.26	1.59	2.05
2yr	0.38	0.59	0.73	0.99	1.22	1.47	**2yr**	1.05	1.44	1.68	2.17	2.69
5yr	0.43	0.67	0.83	1.13	1.44	1.72	**5yr**	1.24	1.68	1.97	2.52	3.16
10yr	0.47	0.73	0.90	1.26	1.63	1.93	**10yr**	1.40	1.88	2.24	2.81	3.60
25yr	0.54	0.82	1.02	1.46	1.92	2.24	**25yr**	1.66	2.19	2.62	3.26	4.26
50yr	0.59	0.90	1.13	1.62	2.18	2.51	**50yr**	1.88	2.45	2.98	3.66	4.86
100yr	0.66	1.00	1.26	1.82	2.49	2.82	**100yr**	2.15	2.76	3.39	4.11	5.57
200yr	0.74	1.12	1.41	2.05	2.85	3.18	**200yr**	2.46	3.11	3.88	4.65	6.39
500yr	0.86	1.29	1.66	2.41	3.42	3.73	**500yr**	2.95	3.65	4.64	5.50	7.70

Appendix 14

Erosion and Sediment Control Plan & Details



LEGEND FOR EROSION CONTROL DURING CONSTRUCTION

- LOD — LIMIT OF DISTURBANCE
- CFS — COMPOST FILTER SOCK
- STABILIZED CONSTRUCTION ENTRANCE
- MATERIAL STOCKPILE
- CONCRETE WASHOUT

N E S W NORTH

GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS FOR DISTURBANCES LESS THAN FIVE (5) ACRES AND SEVEN (7) DAYS FOR DISTURBANCES GREATER THAN FIVE (5) ACRES, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
3. PERMANENT VEGETATION TO BE SEEDED OR SODDED (SEE PLANS) ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE 2016 NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL OR AS AMENDED.
5. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIVE (5) DAYS OF THE PRELIMINARY GRADING.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
7. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
8. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
9. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
10. UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
11. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
12. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.
13. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
14. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
15. CONCRETE WASHOUT, DUMPSTER, & STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCTION MEETING. THEY SHALL BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE AND STAGING AREAS AND SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
16. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
17. ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.
18. PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.
19. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE MUNICIPAL ENGINEER.
20. ALL TEMPORARY, STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED, WHEN ALL CONSTRUCTION ACTIVITY IDENTIFIED IN THE SWPPP HAS BEEN COMPLETED, ALL AREAS OF DISTURBANCE HAVE ACHIEVED FINAL STABILIZATION** AND ALL POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE SWPPP AND ARE OPERATIONAL.
21. EROSION & SEDIMENT CONTROL INSPECTIONS MUST NOTE THE AMOUNT OF AREA DISTURBED

**FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP OR WASHED/CRUSHED STONE HAVE BEEN APPLIED ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY PERMANENT STRUCTURES, CONCRETE OR PAVEMENT.

22. UPON FINAL STABILIZATION BEING MET, THE CONTRACTOR SHALL CLEAR DRAINAGE PIPES AND STRUCTURES OF ANY SEDIMENT WHICH MAY HAVE ACCUMULATED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AS MAY BE NECESSARY, REQUIRED AND/OR REQUESTED BY AUTHORITIES, TO PREVENT THE INCIDENTAL DISCHARGE OF SILT LADEN RUNOFF FROM ENTERING A WATER COURSE OR A DRAINAGE SYSTEM. THE GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES STATES THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS.

MAINTENANCE PLAN DURING CONSTRUCTION:

INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH GP-0-25-001 OR AS AMENDED. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THE PROJECT. THE SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 25% OF ITS' CAPACITY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 4" DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE LANDSCAPE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

NOTE: DURING THE CONSTRUCTION OF A PHASE, EACH SUBSEQUENT PHASE WILL HAVE REACHED FINAL STABILIZATION BEFORE INITIATING THE NEXT PHASE.

MAINTENANCE AGREEMENT NOTE:

THE OWNER/APPLICANT SHALL ENTER INTO AN ENFORCEABLE MAINTENANCE AGREEMENT WITH THE MUNICIPALITY (IF AN MS4 COMMUNITY) RELATED TO MAINTENANCE OF STORMWATER FACILITIES. THE OWNER/APPLICANT IS RESPONSIBLE TO PERFORM ALL REQUIRED MAINTENANCE BOTH DURING CONSTRUCTION AND LONG-TERM. THE NATURE OF THE AGREEMENT IS TO ALLOW THE MUNICIPALITY TO PERFORM MAINTENANCE AT THEIR OPTION SHOULD THE OWNER/APPLICANT FAIL TO ADEQUATELY MAINTAIN THE SYSTEM AS DETERMINED BY THE MUNICIPAL ENGINEER. MAINTENANCE OF THE STORMWATER SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED SWPPP AND DETAIL SHEETS.

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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REV	DATE	DESCRIPTION

SUFFERN WA LLC

SITE PLAN

37 WASHINGTON AVENUE DEVELOPMENT

TAX LOT: 54.36-1-6.1
VILLAGE OF SUFFERN
ROCKLAND COUNTY
NEW YORK STATE

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue, Suite 101
New Windsor, NY 12553
Phone:845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE:	DRAWN BY:
AS SHOWN	KAS
DESIGNED BY:	REVIEWED BY:
JED	ABF
DATE ISSUED:	PROJECT NUMBER:
09/30/2025	20000643D

SHEET NAME:

SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C-600

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

C:\Temp\CTB_Temp\Dwg\FLAsh.dsh, 152xC-SESC.dwg,C-600 SOIL EROSION, By: KYLE SHALLOW on 2025-09-30 - 03:12pm

Appendix B | November 12, 2025 Email from NYSDOT

Andrew Fetherston

From: Andrew Fetherston <Andrew.Fetherston@collierseng.com>
Sent: Friday, November 14, 2025 10:07 AM
To: Quadri, Shahid (DOT-CONSULTANT); A. Peter Russillo
Cc: Ronald Rieman; Ahmed, Mahmoud (DOT); Brenner, Jason (DOT); Joanne Cioffi; Bonnie Franson; Ali Scharf; Nathan Swiatycki (nathan@blackfoxequities.com); Moshe Botnick (MBotnick@extell.com); Gottlieb, Charles; Justin Dates; Brittney Fowler; 20000643d@project.collierseng.com
Subject: RE: 37 Washington St. Suffern
Attachments: 250930_ 37 Washington SWPPP-reduced.pdf

Shahid, Thanks very much for reviewing our project. Below are responses to your questions:

SEQRA: The Village of Suffern Planning Board declared themselves Lead Agency under SEQRA. The project was determined to be a Type 1 Action. A SEQRA determination is pending from the Lead Agency.

Drainage: A Stormwater Pollution Prevention Plan (attached) was prepared and submitted to the Planning Board. Based on our knowledge of the site dating back to the development of the Avon properties (now Regeneron) in the early 2000's, updated land surveys, our review of the existing conditions, our site visit with Suffern DPW and our proposed reduction of peak flows and water quality mitigation required by the SPDES permit, we designed improvements to match existing drainage patterns and conditions. Presently there is no subsurface drainage piping from the site to drainage system in Rt 59 (Lafayette Avenue). Drainage from rooftops and ground surfaces along Suffern Place and Washington Avenue currently discharge to the curb and drain south towards Rt 59. We propose to maintain that drainage pattern, upgrading that system on the project site to accommodate the proposed development.

We note your comment "*New connection to a NYS drainage system is not preferred*".

Our traffic engineers look forward to working with the NYSDOT based on their pending review of our March 4, 2025 Traffic Impact Report.

Please call me with any questions. Thank you

Andrew Fetherston, P.E., CFM, CPESC, CPSWQ
Regional Discipline Leader | Civil/Site
New Windsor, New York

Colliers Engineering & Design
andrew.fetherston@collierseng.com
Cell: 845 548 2603 | Main: 877 627 3772
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From: Quadri, Shahid (DOT-CONSULTANT) <Shahid.Quadri@dot.ny.gov>
Sent: Wednesday, November 12, 2025 7:27 PM
To: A. Peter Russillo <A.Peter.Russillo@collierseng.com>
Cc: Andrew Fetherston <andrew.fetherston@collierseng.com>; Ronald Rieman <ronald.rieman@collierseng.com>; Ahmed, Mahmoud (DOT) <Mahmoud.Ahmed@dot.ny.gov>; Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Subject: RE: 37 Washington St. Suffern

This Message originated outside your organization.

Hi Peter,

Here's my comments:

SEQR:

The proposed site consists of 121 dwelling units (multi story building) What type of SEQR review is been performed?

Drainage:

The proposed plan state that drainage and grading plans show proposed stormwater pipe to be "connection to route 59 storm drainage, to be investigated"
The Plans do not show existing drainage storm pipes, either on Washington Av, or on Suffern Pl.
Is the existing drainage system connected to RT 59 drainage?
New connection to a NYS drainage system is not preferred. Was a drainage study or SWPPP performed

Traffic Study:

I will be sending the TS to the Regional Traffic & Safety group for review, comments to follow their review.

Thanks
Shahid

From: Quadri, Shahid (DOT-CONSULTANT)
Sent: Tuesday, November 11, 2025 10:32 PM
To: A. Peter Russillo <A.Peter.Russillo@collierseng.com>
Cc: Andrew Fetherston <andrew.fetherston@collierseng.com>; Ronald Rieman <ronald.rieman@collierseng.com>
Subject: RE: 37 Washington St. Suffern

Hi Peter,

I plan to review tomorrow

Thanks
Shahid

From: A. Peter Russillo <A.Peter.Russillo@collierseng.com>
Sent: Tuesday, November 11, 2025 3:35 PM
To: Quadri, Shahid (DOT-CONSULTANT) <Shahid.Quadri@dot.ny.gov>

Cc: Andrew Fetherston <andrew.fetherston@collierseng.com>; Ronald Rieman <ronald.rieman@collierseng.com>
Subject: 37 Washington St. Suffern

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Shahid:

Good afternoon.

Just following up to see if you've had a chance to review the information related to the 37 Washington St. development. As I believe I mentioned during our call last week, we're anticipating being on the planning board agenda for the 19th and would greatly appreciate any input you may have before then.

Best regards,

A. Peter Russillo, P.E., PTOE
Sr. Project Manager | Transportation
Senior Associate
a.peter.russillo@collierseng.com
Direct: 914 984 4699 | Cell: 914 391 7024 | Main: 877 627 3772
400 Columbus Avenue Suite 180E | Valhalla, New York 10595



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Appendix C | SHPO Letter of No Impact dated December 31, 2025

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

KATHY MOSER
Acting Commissioner

December 31, 2025

Connor McCormack
Project Manager
Colliers Engineering & Design
555 Hudson Valley Avenue
Suite 101
New Windsor , NY 12553

Re: DEC
37 Washington Avenue Development
37 Washington Ave, Suffern, NY 10901
25PR11853

Dear Connor McCormack:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please contact Olivia Holland at the following email address:

Olivia.Holland@parks.ny.gov

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

Appendix D | NYSDOT Correspondence and Crash Analysis

Andrew Fetherston

From: andrew.fetherston@collierseng.com
Subject: FW: 37 Washington St. Suffern

Expires: Tuesday, March 17, 2026 12:00 AM

From: A. Peter Russillo <a.peter.russillo@collierseng.com>
Sent: Wednesday, December 17, 2025 10:49 AM
To: Andrew Fetherston <andrew.fetherston@collierseng.com>
Subject: FW: 37 Washington St. Suffern

See below, just got this.

A. Peter Russillo, P.E., PTOE
Sr. Project Manager | Transportation
Valhalla, New York

Colliers Engineering & Design
a.peter.russillo@collierseng.com
Direct: 914 984 4699 | Cell: 914 391 7024 | Main: 877 627 3772
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From: Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Sent: Wednesday, December 17, 2025 10:48 AM
To: A. Peter Russillo <a.peter.russillo@collierseng.com>
Cc: Ronald Rieman <ronald.rieman@collierseng.com>
Subject: RE: 37 Washington St. Suffern

This Message originated outside your organization.

Peter,

I do not any comments at this time for the TIS.

JASON BRENNER, P.E.
Professional Engineer
Traffic & Safety Group, Hudson Valley Region

New York State Department of Transportation
4 Burnett Blvd. Poughkeepsie NY 12603
845-437-5144(O) | jason.brenner@dot.ny.gov

From: A. Peter Russillo <a.peter.russillo@collierseng.com>
Sent: Thursday, December 11, 2025 1:37 PM
To: Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Cc: Ronald Rieman <ronald.rieman@collierseng.com>
Subject: FW: 37 Washington St. Suffern

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Jason:

Good afternoon.

I see Shahid sent information to you on the above reference project (see below) and your response relative to the railroad.

Do you have any further comments on our traffic impact study?

Thanks,

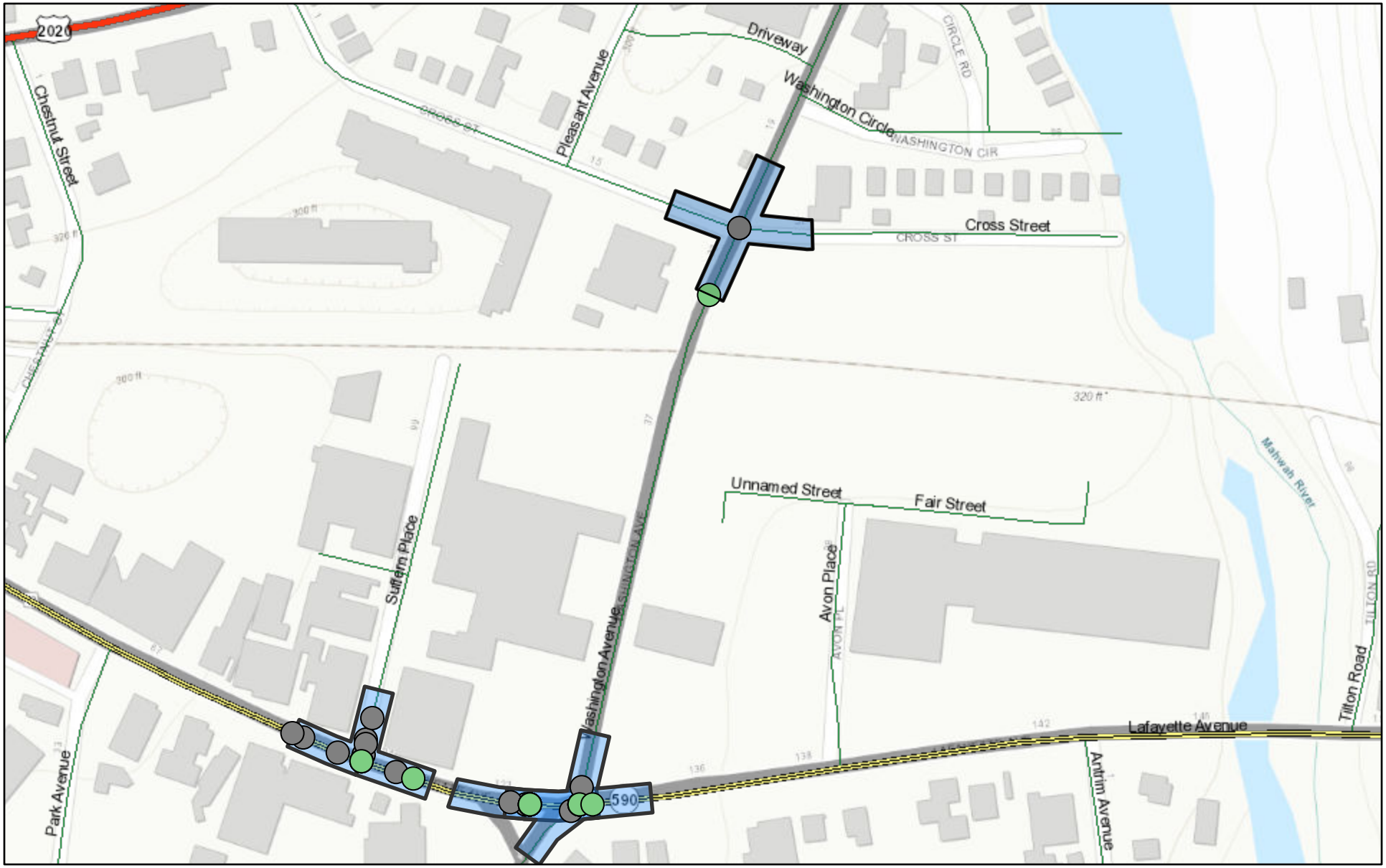
A. Peter Russillo, P.E., PTOE
Sr. Project Manager | Transportation
Valhalla, New York

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Study Area Intersections - Accident Data 2022-2024



12/17/2025

Results Layer

US Highways

Streets

Interstates

State Routes

1:3,000

0 0.02 0.04 0.07 mi

0 0.03 0.06 0.12 km

State of New Jersey, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, New York State Department Of Transportation.

Colliers Engineering & Design

TABLE NO. 1

ACCIDENT DATA SUMMARY
NYS ROUTE 59 BETWEEN SUFFERN PLACE AND WASHINGTON AVE; WASHINGTON AVE AND CROSS STREET
STUDY PERIOD: JANUARY 1, 2022 THROUGH DECEMBER 31, 2024

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	# of Vehicles Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
ROUTE 59	15M WEST OF SUFFERN PL	59 85011018	4/13/2022	3:40 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(NOT APPLICABLE) / V2:(DRIVER INATTENTION)
LAFAYETTE AVE	AT THE INTERSECTION OF SUFFERN PL	59 85011018	5/11/2022	8:10 PM	NONE	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	RIGHT ANGLE	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
ROUTE 59	11M NORTH-WEST OF SUFFERN PL	59 85011017	5/23/2022	7:50 PM	NONE	PDO	2-0	DAWN	DRY	CLEAR	OVERTAKING	V1:(NOT APPLICABLE) / V2:(TURNING IMPROPER)
LAFAYETTE AVE	75M EAST OF SUFFERN PL	59 85011018	8/23/2022	5:45 PM	NONE	I	2-2	DAYLIGHT	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(UNSAFE SPEED) / V2:(FAILURE TO YIELD RIGHT OF
LAFAYETTE AVE	85M WEST OF SUFFERN PL	59 85011017	12/5/2022	2:59 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	OVERTAKING	V1:(FAILURE TO YIELD RIGHT OF WAY,DRIVER
SUFFERN PL	AT THE INTERSECTION OF LAFAYETTE AVE	-	2/2/2023	6:03 PM	NONE	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	OTHER	V1:(NOT APPLICABLE) / V2:(BACKING UNSAFELY)
LAFAYETTE AVE	AT THE INTERSECTION OF SUFFERN PL	59 85011018	3/22/2023	8:43 PM	STOP SIGN	I	2-2	DARK-ROAD LIGHTED	DRY	CLEAR	OTHER	V1:(NOT ENTERED) / V2:(FAILURE TO YIELD RIGHT OF
LAFAYETTE AVE	AT THE INTERSECTION OF SUFFERN PL	59 85011018	4/5/2023	10:22 AM	NO PASSING ZONE	PDO	3-0	DAYLIGHT	DRY	CLOUDY	OTHER	V1:(NOT APPLICABLE) / V2:(TURNING
LAFAYETTE AVE	AT THE INTERSECTION OF SUFFERN PL	59 85011018	4/24/2023	4:04 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLOUDY	LEFT TURN (AGAINST OTHER CAR)	V1:(UNSAFE SPEED) / V2:(FAILURE TO YIELD RIGHT OF
LAFAYETTE AVE	AT THE INTERSECTION OF SUFFERN PL	59 85011018	3/8/2024	4:00 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(NOT APPLICABLE) / V2:(DRIVER INATTENTION)
SUFFERN PL	AT THE INTERSECTION OF LAFAYETTE AVE	-	4/4/2024	10:23 AM	NONE	PDO	2-0	DAYLIGHT	WET	CLOUDY	OVERTAKING	V1:(REACTION TO OTHER UNINVOLVED VEHICL) /
LAFAYETTE AVE	100M WEST OF SUFFERN PL	59 85011017	8/1/2024	3:55 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(TURNING IMPROPER) / V2:(NOT APPLICABLE)
SUFFERN PL	AT THE INTERSECTION OF LAFAYETTE AVE	-	8/31/2024	12:30 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	SIDESWIPE	V1:(NOT APPLICABLE) / V2:(BACKING UNSAFELY)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	6/27/2022	9:00 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	RAIN	REAR END	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
ROUTE 59	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	6/29/2022	12:39 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(NOT APPLICABLE) / V2:(FOLLOWING TOO
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	7/15/2022	9:29 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(VIEW OBSTRUCTED/LIMITED,FAILURE TO YIELD RIGHT OF WAY) / V2:(NOT APPLICABLE)
SUFFERN PL	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	7/26/2022	11:55 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	SIDESWIPE	V1:(REACTION TO OTHER UNINVOLVED VEHICL) / V2:(REACTION TO OTHER UNINVOLVED VEHICL)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	10/11/2022	11:53 AM	TRAFFIC SIGNAL	I	2-1	DAYLIGHT	DRY	CLEAR	OTHER	V1:(FAILURE TO YIELD RIGHT OF WAY) / V2:(NOT APPLICABLE)
WASHINGTON AVE	0M OF LAFAYETTE AVE	-	10/28/2022	3:36 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	11/1/2022	6:40 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	RAIN	LEFT TURN (AGAINST OTHER CAR)	V1:(FAILURE TO YIELD RIGHT OF WAY) / V2:(NOT APPLICABLE)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	11/11/2022	3:32 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	RAIN	REAR END	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	11/15/2022	1:50 PM	TRAFFIC SIGNAL	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	V1:(OVERSIZED VEHICLE)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	3/1/2023	6:21 PM	NONE	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	REAR END	V1:(NOT APPLICABLE) / V2:(BACKING UNSAFELY)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	3/2/2023	8:49 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	CLOUDY	REAR END	V1:(REACTION TO OTHER UNINVOLVED VEHICL) / V2:(FOLLOWING TOO CLOSELY)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	5/31/2023	12:35 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(NOT ENTERED) / V2:(DRIVER INATTENTION)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	6/6/2023	9:10 PM	NO PASSING ZONE	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLOUDY	REAR END	V1:(BACKING UNSAFELY) / V2:(NOT APPLICABLE)
LAFAYETTE AVE	68M WEST OF WASHINGTON AVE	59 85011018	7/28/2023	3:27 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION) / V2:(NOT ENTERED)
LAFAYETTE AVE	68M WEST OF WASHINGTON AVE	59 85011018	8/8/2023	9:12 PM	NO PASSING ZONE	I	3-3	DARK-ROAD LIGHTED	DRY	CLEAR	OTHER	V1:(ALCOHOL INVOLVEMENT,UNSAFE SPEED) / V2:(NOT ENTERED) / V3:(NOT ENTERED)
LAFAYETTE AVE	68M WEST OF WASHINGTON AVE	59 85011018	9/6/2023	12:20 AM	TRAFFIC SIGNAL	PDO	1-0	DARK-ROAD LIGHTED	DRY	CLEAR	OTHER	V1:(ILLNESS)
LAFAYETTE AVE	68M WEST OF WASHINGTON AVE	59 85011018	9/14/2023	3:34 PM	TRAFFIC SIGNAL	I	3-2	DAYLIGHT	DRY	CLEAR	OTHER	V1:(CELL PHONE (HAND HELD)) / V2:(NOT APPLICABLE) / V3:(NOT APPLICABLE)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	10/3/2023	6:54 AM	TRAFFIC SIGNAL	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	V1:(FAILURE TO YIELD RIGHT OF WAY)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	10/19/2023	8:14 AM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE)
LAFAYETTE AVE	20M EAST OF WASHINGTON AVE	59 85011018	10/27/2023	1:46 PM	NONE	I	1-1	DAYLIGHT	DRY	CLEAR	OTHER	V1:(NOT ENTERED)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	12/14/2023	4:58 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(UNKNOWN) / V2:(TRAFFIC CONTROL DEVICES DISREGARDED)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	6/9/2024	6:33 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	8/5/2024	4:37 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(NOT APPLICABLE) / V2:(DRIVER INATTENTION,PASSING OR LANE USAGE IMPROPERLY)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	59 85011018	8/16/2024	11:09 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)
SUFFERN PL	60M NORTH OF LAFAYETTE AVE	-	8/30/2024	3:32 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	UNKNOWN	V1:(NOT APPLICABLE) / V2:(BACKING UNSAFELY)
WASHINGTON AVE	AT THE INTERSECTION OF LAFAYETTE AVE	-	9/16/2024	6:23 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OTHER	V1:(TURNING IMPROPER,DRIVER INEXPERIENCE)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	9/19/2024	8:31 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	SIDESWIPE	V1:(PASSING OR LANE USAGE IMPROPERLY) / V2:(NOT APPLICABLE)
LAFAYETTE AVE	AT THE INTERSECTION OF WASHINGTON AVE	59 85011018	12/8/2024	6:22 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	RIGHT TURN (WITH OTHER CAR)	V1:(TRAFFIC CONTROL DEVICES DISREGARDED) / V2:(NOT APPLICABLE)
WASHINGTON AVE	AT THE INTERSECTION OF CROSS ST	-	5/3/2023	11:27 PM	NO PASSING ZONE	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLOUDY	LEFT TURN (AGAINST OTHER CAR)	V1:(NOT APPLICABLE) / V2:(PASSING OR LANE USAGE IMPROPERLY)
WASHINGTON AVE	100M SOUTH OF CROSS ST	-	10/10/2023	8:53 PM	NONE	I	1-1	DARK-ROAD LIGHTED	DRY	CLEAR	OTHER	V1:(VIEW OBSTRUCTED/LIMITED)
WASHINGTON AVE	AT THE INTERSECTION OF CROSS ST	-	4/9/2024	9:22 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION) / V2:(NOT APPLICABLE)

Appendix E | Rendering - View from Monument



VIEW FROM MONUMENT ON WASHINGTON AVENUE

PREPARED BY:
MINNO ■ WASKO
ARCHITECTS AND PLANNERS
204 N. UNION STREET, LAMBERTVILLE, NEW JERSEY 08530
GATEWAY TWO, SUITE 1706, NEWARK, NEW JERSEY 07102
MINNOWASKO.COM

WASHINGTON AVENUE

VILLAGE OF SUFFERN, ROCKLAND COUNTY, NEW YORK
BLOCK 1-6, LOT 54.36

PREPARED FOR:
EXTELL DEVELOPMENT
805 Third Avenue, 7th Floor
New York, NY 10022

ISSUE:	
DATE:	**FOR:**
02-17-2025	PRELIM & FINAL SITE PLAN
02-21-2025	PRELIM & FINAL SITE PLAN
01-27-2026	PRELIM & FINAL SITE PLAN

A-12

PERSPECTIVE

21-0964-05
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Appendix F | June 13, 2023 Rockland County Drainage Agency Review

Rockland County
Ed Day, Rockland County Executive

DRAINAGE AGENCY
DIVISION OF THE HIGHWAY DEPARTMENT
23 New Hempstead Road
New City, New York 10956
Phone: (845) 638-5060 Fax: (845) 708-7116

Charles H. "Skip" Vezzetti
Superintendent of Highways
Chairman, Drainage Agency

Vincent Altieri, Esq.
Executive Director

Via email: clerk@suffernny.gov

June 13, 2023

Ms. Melissa Reimer, Village Clerk
Village of Suffern Board of Trustees
61 Washington Avenue
Suffern, NY 10901

Re: **Suffern WA, LLC: Multi-story, Multi-family Apartment Building**
Location: 37 Washington Avenue, Suffern
Parcel ID(s): Section 54.36, Block 1, Lot(s) 6.1
Municipality: Village of Suffern

Dear Ms. Melissa Reimer:

The Rockland County Drainage Agency (RCDA) previously reviewed the above referenced proposal included with your Lead Agency Coordination notification memo for parcel ID: 54.36- 1-6 and a copy of the zone change petition referencing the parcel ID: 54.36-1-6.1. The RCDA provided a jurisdictional determination letter based on the parcel ID, 54.36-1-6, referenced in the Lead Agency notification referral. Based on further review of other records, the RCDA determined the following:

- The subdivided parcel with an address of 37 Washington Avenue has a new parcel ID: 54.36-1-6.1,
- The subdivided parcel with an address of 1 Avon Plaza has original parcel ID: 54.36-1- 6.

Please note that the subdivided parcel with original parcel ID of 54.36-1-6 and 1 Avon Plaza address is within the RCDA jurisdiction as previously determined.

The subdivided parcel, parcel ID: 54.36-1-6.1, with an address of 37 Washington Avenue is outside the jurisdiction of the RCDA, pursuant to the Rockland County Stream Control Act, Chapter 846. Therefore, a Stream Control Act permit from the RCDA is not required for developments within this site. Also, the RCDA has no further comments regarding the proposal, pursuant to the State Environmental Quality Review (SEQR).

The RCDA recommends that the municipal land use boards and/or departments review all development proposals for this site and ensure that developments with increase in impervious areas and/or land disturbances will not result any increase in stormwater runoff from the site and will have adequate measures to prevent soil erosion and control sediment from leaving the site.

Please contact me at (845) 638-5060 or by e-mail: ThottakS@co.rockland.ny.us, if you have any questions regarding this matter.

Very truly yours,

Shajan S. Thottakara, P.E., CFM
Rockland County Drainage Agency

c: Vincent Altieri, Esq., RCDA (by email)
Gary Barnett, Manager, Suffern WA, LLC (by email: MBotnick@extell.com)
Building Department, Village of Suffern (by email: tshedler@suffernny.gov)
Planning Boards Village of Suffern (by email: jcioffi@suffernny.gov)
Rockland County Planning Department (by email)

Appendix G| Site Remediation Plan

Colliers
Engineering
& Design

Site Remediation Plan

July 24, 2026

37 Washington Avenue
Suffern, New York, Rockland County

Colliers Engineering & Design
555 Hudson Valley Drive, Suite 101
New Windsor, New York 12553
Colliersengineering.com

Project No. 20000643D

Colliers
Engineering & Design

Site Remediation Plan for 37 Washington Avenue

SITE BACKGROUND

The property located at 37 Washington Avenue Tax Lot #54.36-1-6.1), Suffern, New York is a1.87 acre commercially zoned parcel that is bordered by Washing Avenue to the east and Suffern Place to the west. Across an unnamed street to the north are mixed use residential and commercial properties. (Enclosure 1).

The site is relatively flat with the northern portion of the property covered with an asphalt parking area; the southern portion of the site contains a one-story block and concrete building that is used as a commercial warehouse and storage facility.

The property owners have plans to redevelop the site into a multi-unit residential facility that will be four-stories high and will include an underground garage/parking area. To achieve the redevelopment goals, it is the intention of the property owners to rezone the property from its current commercial use to a residential zoning.

SITE INVESTIGATIONS

In May 2026, Colliers Engineering & Design (CED) was asked to conduct a preliminary investigation of the site which included the advancement of five (5) geo-probe borings across the northern portion of the site (Enclosure 1) provides a site plan that shows the location of the boreholes. Select soil samples were collected from each of the borings for chemical analysis to determine soil quality. Samples were collected from depths ranging between 3 and 8 feet below grade. Samples were collected in accordance with the guidelines set forth in the New York State Department of Environmental Conservation DER-10 guidance document. The samples were delivered to a New York State Department of Health-(NYSDOH) approved analytical laboratory on the date of sample collection.

The laboratory results are summarized in Enclosure 2. The results indicate that the soil quality meets NYSDEC Commercial Soil Cleanup standards. There were however some exceedances of the NYSDEC Residential Soil Cleanup Standard---which were not unexpected due to the commercial environment surrounding the site and the fact that fill/structural fill was presumably imported to the site during the site's original construction in the 1960's. Exceedances of the Residential Soil Cleanup standards were generally in the category of Metals and Semi-Volatile Organic compounds---namely the benzo-pyrenes—which presumably are derived from leaching of the compounds in the overlying asphalt parking lot.

SITE REMEDIATION PLAN

With the expectation that the property will be rezoned from commercial use to residential use to accommodate the planned site redevelopment, a Remediation Plan is needed that will be protective of human health and the environment. That plan encompasses two elements that are consistent with NYSDEC approved remediations for other sites under similar circumstances.

The first a Soils or Materials Management Plan or S/MMP and second, Engineering and Institutional Controls that are designed to eliminate the exposure pathway between the impacted soils and site workers, residents and tenants of the planned residential structure. This plan will be utilized during all excavation activities including the removal of approximately 30, 000 cubic yards of material that will be removed for the construction of the subterranean parking garage,

SOILS/MATERIALS MANAGEMENT PLAN

The Soils/Materials Management Plan will be designed for the use of construction and maintenance contractors who might have occasion to dig, excavate or otherwise be exposed to impacted subsurface materials. The S/MMP will describe methods of identifying impacted soils; procedures for soil characterization, handling, storage, transport, and disposal; and requirements for engineering controls and air monitoring to be implemented during site work to control fugitive dusts and particulates.

As it pertains to groundwater, the depth to groundwater at the site is presently unknown however, no groundwater was encountered in the soil borings that were advanced for the soil's investigation to a depth of 8 feet below grade. Therefore, it is presently presumed that the S/MMP will not need a groundwater element. Should that condition change, CED will make modifications to the Plan such that groundwater handling, use, storage, staging and disposal will be addressed. Where necessary, groundwater containment or treatment and disposal processes during construction will be required to be managed to minimize the potential risk of exposure. The Plan will describe the groundwater management practices, including permitting, treatment, filtration, storage, discharge and/or transportation and disposal as applicable.

The Plan will further provide health and safety plan (HASP) requirements and summarize the contractor's on-site workers' training requirements for minimizing contact with the contaminated soil and groundwater. The focus of the HASP to be developed by the contractor will be to provide the workers who may come into contact with impacted media with the proper procedures and personal protective equipment requirements to guard against exposure to impact media.

Based upon the characteristics of the contamination that was identified at the site (I.e., no detections of volatile organic compounds, it is CED's position that soil gas will not be generated in the subsurface soils. As such, no vapor barrier or vapor mitigation measures for any new construction appear warranted at this time.

ENGINEERING AND INSTITUTIONAL CONTROLS

The Site Remediation Plan for this site will consist of both Engineering and Institutional Controls

As Engineering Controls. CED proposes that the asphalt and concrete surfaces for the redeveloped site will provide adequate barriers and eliminate any exposure pathways. These caps will be segregated by a demarcation barrier. The barrier will provide a physical and visible barrier designed to notify on-site workers of the presence of impacted material and to take necessary precautions for workers' health and safety.

Presently, the specifications for finished asphalt surfaces provide for a minimum cap of twelve (12) inches thick consisting of six (6) Inches of asphalt and six (6) inches of sub-base compressed and compacted.

The specification for finished concrete surfaces provides for a minimum 10.5-inch-thick layer consisting of 1.5" Top Course, 3" Binder, 6" subbase.

In areas that will be finished as landscaped areas, the finished surface covers provide for planting bed areas and are proposed to receive a 3" layer of shredded hardwood bark mulch.

With the site plans for engineered caps of sufficient thickness, compaction and strength for asphalt and concrete, it is CED's opinion that these caps will provide effective barriers between any impacted soil and site workers, residents and tenants of the future building.

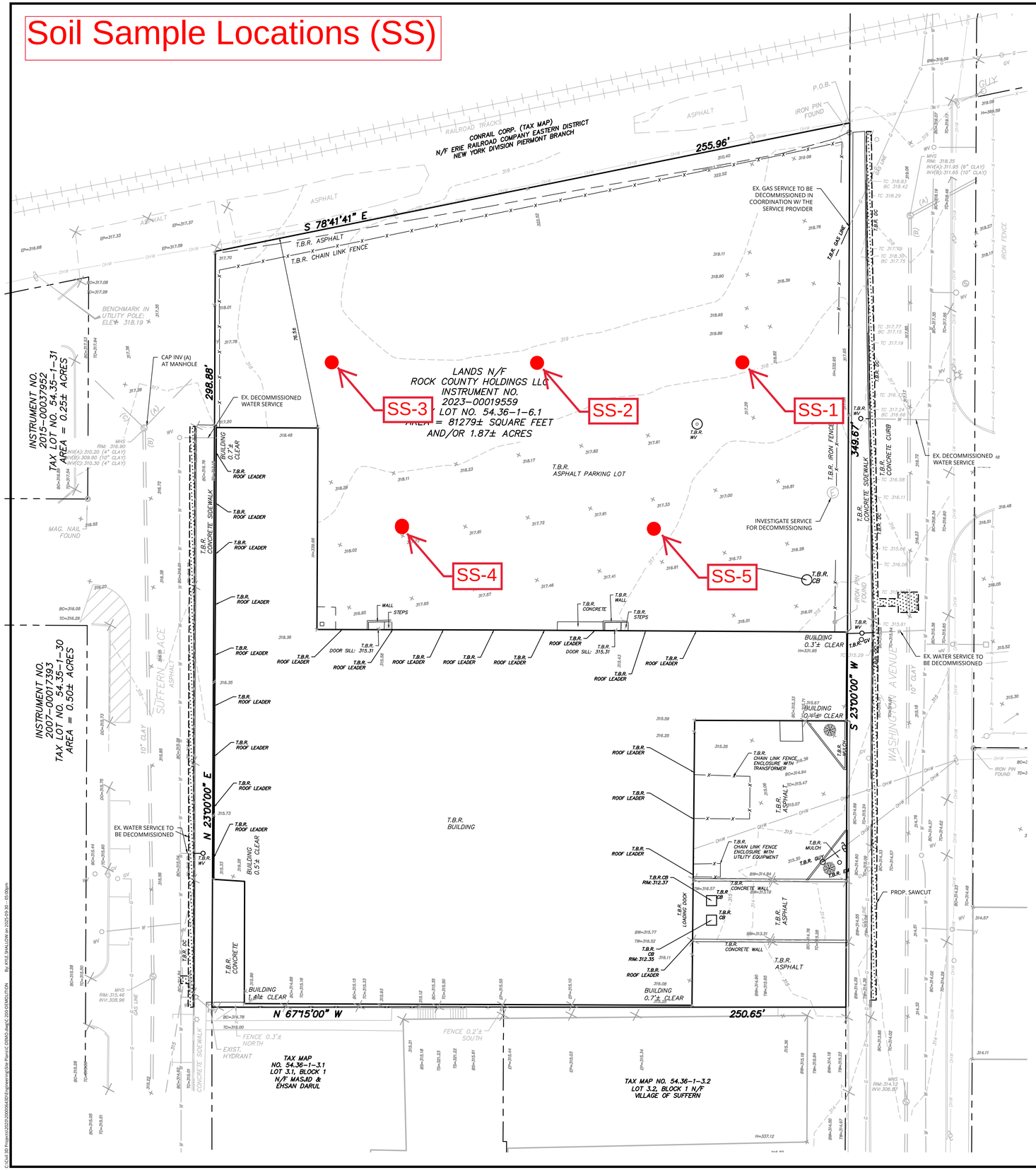
As Institutional Controls, CED proposes a site wide Deed Restriction that notifies tenants, residences and on-site workers of the presence of impacted soils and prohibits any activities that may expose workers and residents to subsurface soil. It is noted that the Soils/Materials Management Plan may be used as a tool to monitor any future subsurface maintenance work such that exposure to impacted soils and /or groundwater will be prevented.

410 Eagleview Blvd, Suite 104
Exton, PA 19341
Main: 610.254.9140

Colliers
Engineering
& Design

ENCLOSURE (1)

Soil Sample Locations (SS)



DEMOLITION NOTES:

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION. UDIG NY, 811 OR WWW.UDIGNY.ORG. A PRE-DEMOLITION CONFERENCE WILL NEED TO BE ARRANGED WITH UDIG NY AND MUST BE HELD A MINIMUM OF 7 DAYS BEFORE THE START OF ANY DEMOLITION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL DEMOLITION DEBRIS TO BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
4. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS, AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO COLLIERS ENGINEERING & DESIGN IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
5. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:
   - A. ENSURING COPIES OF ALL PERMITS AND APPROVALS MUST BE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW (SEE "EROSION AND SEDIMENT CONTROL PLAN," THIS DRAWING SET).
   - B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
   - C. ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   - D. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   - E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
   - F. CLEAN THE EXISTING UTILITY STRUCTURES ON-SITE PRIOR TO CONSTRUCTION AND VERIFY THE INVERTS FOR CONNECTION.
6. COLLIERS ENGINEERING & DESIGN IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE O.S.H.A. REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
7. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
8. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE "MANUAL ON UNIFORM TRAFFIC CONTROL", AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.
9. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY (AS APPLICABLE).
10. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
11. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL O.S.H.A. AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
12. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
13. DEMOLITION SHALL NOT PROCEED UNTIL THE APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE MARKED IN THE FIELD AND ALL UTILITY CONNECTIONS ARE SUITABLY SHUT OFF AND DISCONNECTED AND PROPER DEMOLITION PERMITS ARE IN PLACE WITH THE APPROPRIATE JURISDICTION.
14. PROTECT ALL EXISTING UTILITIES TO REMAIN (INCLUDING DRAINAGE STRUCTURES, HYDRANTS, VALVES, SEWER MANHOLES, ETC.) DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIMSELF OR SUB-CONTRACTORS.
15. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING SERVICE, INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF POTENTIAL FOR CHEMICAL TOXIC, OR RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAW AND REGULATIONS.

DEMOLITION LEGEND

- PROPERTY BOUNDARY
- EXISTING CURB
- DEPRESSED CURB
- PAVEMENT STRIPING
- OVERHEAD WIRES (OHW)
- EASEMENTS
- MAJOR CONTOUR
- MINOR CONTOUR
- STORMWATER PIPES
- TREEROW / HEDGE
- TREELINE
- BOUNDARY EVIDENCE
- SIGN
- POST / BOLLARD
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- SANITARY MANHOLE
- SANITARY CLEANOUT
- DRAINAGE MANHOLE
- CATCH BASIN
- SAWCUT AREA

TBR = TO BE REMOVED
UTP = UTILITY POLE
DI = DRAIN INLET
CB = CATCH BASIN
GR. = GRATE
CO = CLEANOUT

N
W E
S

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Engineering & Design

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REV	DATE	DESCRIPTION

SUFFERN WA LLC

SITE PLAN

37 WASHINGTON AVENUE DEVELOPMENT

TAX LOT: 54.36-1-6.1
VILLAGE OF SUFFERN
ROCKLAND COUNTY
NEW YORK STATE

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue, Suite 101
New Windsor, NY 12553
Phone:845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C.

SCALE:	DRAWN BY:
AS SHOWN	KAS
DESIGNED BY:	REVIEWED BY:
JED	ABF
DATE ISSUED:	PROJECT NUMBER:
09/30/2025	20000643D

SHEET NAME:

EXISTING CONDITIONS & SITE DEOMOLITION PLAN

DRAWING NUMBER:

C-200

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING DOCUMENT BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY DOCUMENTS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

C:\Job 20 Projects\2020\20000643D\Engineering\Site Plans\C-DEMO.dwg|C-200-DEMOLITION, By:KYLE SHALLOW at 2025-09-30, -15:00pm

410 Eagleview Blvd, Suite 104
Exton, PA 19341
Main: 610.254.9140

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ENCLOSURE (2)

Could Not evaluate result .. Verify manually
Result exceeds at least one criterion
Positive result detected below all criteria

									SS-1		SS-2		SS-3		SS-4		SS-5	
								CLIENT ID:	SS-1		SS-2		SS-3		SS-4		SS-5	
								LAB ID:	AD60888-001		AD60888-002		AD60888-003		AD60888-004		AD60888-005	
								COLLECTION DATE:	5/27/2026		5/27/2026		5/27/2026		5/27/2026		5/27/2026	
								SAMPLE MATRIX:	Soil/Terracore		Soil/Terracore		Soil/Terracore		Soil/Terracore		Soil/Terracore	
								SAMPLE UNITS:	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
			NY Soil TAGM	NY SCC	Part375 Restricted	Part375 Unrestricted	Commercial											
TestCode	CAS#	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
		Metals																
HG-SOIL	7439-97-6	Mercury	0.1	0.18	0.3	0.18	1.1		ND	0.090	ND	0.097	ND	0.10	ND	0.097	ND	0.090
MET-RCRA-MS	7440-38-2	Arsenic	7.5 or SB	13	16	13	16		1.9	0.22	6.7	0.23	3.9	0.25	4.2	0.23	2.4	0.22
MET-RCRA-MS	7440-39-3	Barium	300 or SB	410	410	410	410		38	0.54	47	0.58	53	0.62	57	0.58	47	0.54
MET-RCRA-MS	7440-43-9	Cadmium	1.0 or SB	2.5	2.5	2.5	3.7		ND	0.086	0.70	0.093	ND	0.099	0.14	0.093	0.14	0.086
MET-RCRA-MS	7440-47-3	Chromium	10 or SB	30	110	30	1700		7.2	1.1	5.9	1.2	16	1.2	16	1.2	12	1.1
MET-RCRA-MS	7439-92-1	Lead	Note Pb	63	400	63	1,000		7.4	0.32	92	0.35	8.6	0.37	51	0.35	14	0.32
MET-RCRA-MS	7782-49-2	Selenium	2.0 or SB	3.9	110	3.9	1700		1.2	1.1	1.4	1.2	2.1	1.2	1.5	1.2	2.0	1.1
MET-RCRA-MS	7440-22-4	Silver	SB	NS	110	2	1700		ND	0.22	ND	0.23	ND	0.25	ND	0.23	ND	0.22
		PCBs																
PCB-8082	1336-36-3	Aroclor (Total)	NA	NA	1	0.1	1		0.078	0.027	ND	0.029	ND	0.031	ND	0.029	0.052	0.027
PCB-8082	12674-11-2	Aroclor-1016	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	11104-28-2	Aroclor-1221	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	11141-16-5	Aroclor-1232	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	53469-21-9	Aroclor-1242	SEE BELOW	0.1	1	0.1	1		0.078	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	12672-29-6	Aroclor-1248	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	11097-69-1	Aroclor-1254	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	11096-82-5	Aroclor-1260	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	37324-23-5	Aroclor-1262	SEE BELOW	0.1	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	ND	0.027
PCB-8082	11100-14-4	Aroclor-1268	NA	NA	1	0.1	1		ND	0.027	ND	0.029	ND	0.031	ND	0.029	0.052	0.027
		SemiVolatiles																
BNA-8270	92-52-4	1,1'-Biphenyl	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	95-94-3	1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	123-91-1	1,4-Dioxane	NA	0.1	5.7	0.1	36		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	58-90-2	2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	95-95-4	2,4,5-Trichlorophenol	0.1	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	88-06-2	2,4,6-Trichlorophenol	NA	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	120-83-2	2,4-Dichlorophenol	0.4	NS	NA	NA	NA		ND	0.027	ND	0.0097	ND	0.010	ND	0.0097	ND	0.027
BNA-8270	105-67-9	2,4-Dimethylphenol	NA	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	51-28-5	2,4-Dinitrophenol	0.200 (M)	NS	NA	NA	NA		ND	0.54	ND	0.19	ND	0.21	ND	0.19	ND	0.54
BNA-8270	121-14-2	2,4-Dinitrotoluene	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	606-20-2	2,6-Dinitrotoluene	1	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	91-58-7	2-Chloronaphthalene	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	95-57-8	2-Chlorophenol	0.8	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	91-57-6	2-Methylnaphthalene	36.4	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	95-48-7	2-Methylphenol	0.100 (M)	0.33	100	0.33	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	88-74-4	2-Nitroaniline	0.430 (M)	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	88-75-5	2-Nitrophenol	0.330 (M)	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	106-44-5	3&4-Methylphenol	0.9	0.33	100	0.33	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	91-94-1	3,3'-Dichlorobenzidine	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	99-09-2	3-Nitroaniline	0.500 (M)	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	534-52-1	4,6-Dinitro-2-methylphenol	NA	NS	NA	NA	NA		ND	0.54	ND	0.19	ND	0.21	ND	0.19	ND	0.54
BNA-8270	101-55-3	4-Bromophenyl-phenylether	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	59-50-7	4-Chloro-3-methylphenol	0.240 (M)	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	106-47-8	4-Chloroaniline	0.220 (M)	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	7005-72-3	4-Chlorophenyl-phenylether	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	100-01-6	4-Nitroaniline	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	100-02-7	4-Nitrophenol	0.100 (M)	NS	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	83-32-9	Acenaphthene	50	20	100	20	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	208-96-8	Acenaphthylene	41	100	100	100	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	98-86-2	Acetophenone	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	120-12-7	Anthracene	50	100	100	100	500		ND	0.11	ND	0.039	ND	0.041	0.052	0.039	ND	0.11
BNA-8270	1912-24-9	Atrazine	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	100-52-7	Benzaldehyde	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	56-55-3	Benzo[a]anthracene	0.224 (M)	1	1.4	1	37		0.32	0.11	0.048	0.039	ND	0.041	0.31	0.039	0.37	0.11
BNA-8270	50-32-8	Benzo[a]pyrene	0.061 (M)	1	1	1	3.7		0.29	0.11	0.047	0.039	ND	0.041	0.34	0.039	0.38	0.11
BNA-8270	205-99-2	Benzo[b]fluoranthene	1.1	1	1.4	1	37		0.39	0.11	0.069	0.039	ND	0.041	0.41	0.039	0.62	0.11
BNA-8270	191-24-2	Benzo[g,h,i]perylene	50	0.64	4.9	0.64	47		0.16	0.11	ND	0.039	ND	0.041	0.22	0.039	0.28	0.11
BNA-8270	207-08-9	Benzo[k]fluoranthene	1.1	0.8	4.9	0.8	47		0.13	0.11	ND	0.039	ND	0.041	0.17	0.039	0.22	0.11
BNA-8270	111-91-1	bis(2-Chloroethoxy)methane	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	111-44-4	bis(2-Chloroethyl)ether	NA	NS	NS	NA	NA		ND	0.041	ND	0.015	ND	0.016	ND	0.015	ND	0.041
BNA-8270	108-60-1	bis(2-Chloroisopropyl)ether	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	117-81-7	bis(2-Ethylhexyl)phthalate	50	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	1.4	0.039	ND	0.11
BNA-8270	85-68-7	Butylbenzylphthalate	50	NS	NS	NA	NA		0.14	0.11	ND	0.039	ND	0.041	0.18	0.039	ND	0.11
BNA-8270	105-60-2	Caprolactam	NA	NA	NA	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	86-74-8	Carbazole	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	218-01-9	Chrysene	0.4	1	4.9	1	47		0.30	0.11	0.063	0.039	ND	0.041	0.30	0.039	0.40	0.11
BNA-8270	53-70-3	Dibenzo[a,h]anthracene	0.014 (M)	0.33	0.33	0.33	3.7		ND	0.11	ND	0.039	ND	0.041	0.059	0.039	ND	0.11
BNA-8270	132-64-9	Dibenzofuran	6.2	2.1	18	2.1	180		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	84-66-2	Diethylphthalate	7.1	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	131-11-3	Dimethylphthalate	2	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	84-74-2	Di-n-butylphthalate	8.1	NS	NS	NA	NA		ND	0.54	ND	0.19	ND	0.21	ND	0.19	ND	0.54
BNA-8270	117-84-0	Di-n-octylphthalate	50	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	206-44-0	Fluoranthene	50	85	100	85	500		0.65	0.11	0.090	0.039	ND	0.041	0.53	0.039	0.67	0.11
BNA-8270	86-73-7	Fluorene	50	30	100	30	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	118-74-1	Hexachlorobenzene	0.41	0.33	0.33	0.33	1.8		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	87-68-3	Hexachlorobutadiene	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	77-47-4	Hexachlorocyclopentadiene	NA	NS	NS	NA	NA		ND	0.54	ND	0.19	ND	0.21	ND	0.19	ND	0.54
BNA-8270	67-72-1	Hexachloroethane	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	193-39-5	Indeno(1,2,3-cd)pyrene	3.2	0.5	1.4	0.5	37		0.20	0.11	ND	0.039	ND	0.041	0.23	0.039	0.30	0.11
BNA-8270	78-59-1	Isophorone	4.4	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	91-20-3	Naphthalene	13	12	100	12	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	98-95-3	Nitrobenzene	0.200 (M)	0.08	1.8	NA	8.9		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	621-64-7	N-Nitroso-di-n-propylamine	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	86-30-6	N-Nitrosodiphenylamine	NA	NS	NS	NA	NA		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	87-86-5	Pentachlorophenol	1.00 (M)	0.8	1.3	0.8	6.9		ND	0.54	ND	0.19	ND	0.21	ND	0.19	ND	0.54
BNA-8270	85-01-8	Phenanthrene	50	1.1	4.9	1.1	47		0.33	0.11	0.051	0.039	ND	0.041	0.24	0.039	0.26	0.11
BNA-8270	108-95-2	Phenol	0.03 (M)	0.33	100	0.33	500		ND	0.11	ND	0.039	ND	0.041	ND	0.039	ND	0.11
BNA-8270	129-00-0	Pyrene	50	64	100	64	500		0.49	0.11	0.092	0.039	ND	0.041	0.48	0.039	0.69	0.11
		Volatiles																
VO-8260	71-55-6	1,1,1-Trichloroethane	0.8	0.68	100	0.68	500		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	79-34-5	1,1,2,2-Tetrachloroethane	0.6	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	6	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	79-00-5	1,1,2-Trichloroethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-34-3	1,1-Dichloroethane	0.2	0.27	47	0.27	240		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-35-4	1,1-Dichloroethene	0.4	0.24	0.98	0.24	5.1		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	87-61-6	1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	120-82-1	1,2,4-Trichlorobenzene	3.4	NS	NS	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	96-12-8	1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	106-93-4	1,2-Dibromoethane	NA	NA	NA	NA	NA		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	95-50-1	1,2-Dichlorobenzene	7.9	1.1	100	1.1	500		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	107-06-2	1,2-Dichloroethane	0.1	0.02	5.8	0.02	30		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	78-87-5	1,2-Dichloropropane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	541-73-1	1,3-Dichlorobenzene	1.6	2.6	38	2.6	280		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	542-75-6	1,3-Dichloropropene (Total)	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	106-46-7	1,4-Dichlorobenzene	8.5	1.8	24	1.8	130		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	123-91-1	1,4-Dioxane	NA	0.1	5.7	0.1	36		ND	0.16	ND	0.13	ND	0.11	ND	0.12	ND	0.14
VO-8260	78-93-3	2-Butanone	0.3	0.10	100	0.10	500		0.0048	0.0031	ND	0.0026	0.024	0.0022	ND	0.0023	ND	0.0027
VO-8260	591-78-6	2-Hexanone	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	108-10-1	4-Methyl-2-pentanone	1	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	67-64-1	Acetone	0.2	0.03	100	0.03	500		0.058	0.016	ND	0.013	0.13	0.011	ND	0.012	ND	0.014
VO-8260	71-43-2	Benzene	0.06	0.06	3.7	0.06	50		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	74-97-5	Bromochloromethane	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-27-4	Bromodichloromethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-25-2	Bromoform	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	74-83-9	Bromomethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-15-0	Carbon disulfide	2.7	NS	NA	NA	NA		ND	0.0078	ND	0.0066	ND	0.0054	ND	0.0059	ND	0.0068
VO-8260	56-23-5	Carbon tetrachloride	0.6	0.76	7.1	0.76	41		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	108-90-7	Chlorobenzene	1.7	4.5	100	4.5	500		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-00-3	Chloroethane	1.9	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	67-66-3	Chloroform	0.3	0.37	24	0.37	180		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	74-87-3	Chloromethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	156-59-2	cis-1,2-Dichloroethene	NA	0.19	41	0.19	500		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	10061-01-5	cis-1,3-Dichloropropene	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	110-82-7	Cyclohexane	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	124-48-1	Dibromochloromethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-71-8	Dichlorodifluoromethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	100-41-4	Ethylbenzene	5.5	1	76	1	390		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	98-82-8	Isopropylbenzene	NA	NS	NA	NS	NA		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	179601-23-1	m&p-Xylenes	1.2	0.26	100	0.26	500		ND	0.0022	ND	0.0018	ND	0.0015	ND	0.0016	ND	0.0019
VO-8260	79-20-9	Methyl Acetate	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	108-87-2	Methylcyclohexane	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-09-2	Methylene chloride	0.1	0.05	81	0.05	500		0.0040	0.0031	ND	0.0026	0.0040	0.0022	0.0038	0.0023	0.0029	0.0027
VO-8260	1634-04-4	Methyl-t-butyl ether	NA	0.1	100	0.1	500		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	95-47-6	o-Xylene	1.2	0.26	100	0.26	500		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	100-42-5	Styrene	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	127-18-4	Tetrachloroethene	1.4	1.3	18	1.3	81		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	108-88-3	Toluene	1.5	0.7	100	0.7	500		0.0020	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
VO-8260	156-60-5	trans-1,2-Dichloroethene	0.3	0.19	100	0.19	500		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	10061-02-6	trans-1,3-Dichloropropene	NA	NA	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	79-01-6	Trichloroethene	0.7	0.47	6.4	0.47	54		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-69-4	Trichlorofluoromethane	NA	NS	NA	NA	NA		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	75-01-4	Vinyl chloride	0.2	0.03	0.48	0.03	7.1		ND	0.0031	ND	0.0026	ND	0.0022	ND	0.0023	ND	0.0027
VO-8260	1330-20-7	Xylenes (Total)	NA	NA	100	0.26	500		ND	0.0016	ND	0.0013	ND	0.0011	ND	0.0012	ND	0.0014
		Wet Chemistry																
%SOLIDS	PERSOL	% Solids	NA	NA	NA	NA	NA		93(Percent)		86(Percent)		81(Percent)		86(Percent)		93(Percent)	