

**AGENDA PACKET**

**SEPTEMBER 19, 2023 MEETING**

**Part 1 of 3**

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**TOWN OF LEWISBORO**  
**Westchester County, New York**



**Planning Board**  
**79 Bouton Road**  
**South Salem, New York 10590**

**Tel: (914) 763-5592**  
**Fax: (914) 875-9148**  
**Email: [planning@lewisborogov.com](mailto:planning@lewisborogov.com)**

**AGENDA**

**Tuesday, September 19, 2023**

**The Commons / Courtroom at 79 Bouton Road**

Meeting will start at 7:30 p.m. and end at or before 11:00 p.m.

**I. SITE DEVELOPMENT PLAN REVIEW**

**Cal #03-23PB, Cal #05-23SW**

**19 Mark Mead Road LLC parking, 19 Mark Mead Road, Cross River, NY 10518; Sheet 20, Block 10800 Lot 1 (19 Mark Mead Road LLC, owner of record) – Application for construction of 25 parking spaces for Bacio restaurant and four residential spaces.**

**Cal #09-19WP, Cal #05-19SW**

**Kranz vacant land, 0 Elmwood Road, South Salem, NY 10590, Sheet 43, Block 10302, Lot 23 (Alexander Kranz, owner of record) – Application for a single-family residence, driveway, septic system and well.**

**Cal #04-19PB, Cal #17-19WP, Cal #06-19SW**

**Pound Ridge Stone, 2 West Road, South Salem, NY 10590; Sheet 49B, Block 9831, Lot 1 (Two West Road LLC, owner of record) – The Planning Board Resolution for a Negative Declaration of Significance, Site Development Plan Approval, Special Use Permit Approval, Town Wetland Activity Permit Approval and Town Stormwater Permit Approval granted on August 17, 2021 for site upgrades including additional parking and storage areas expired August 17, 2023. Reapproval resubmittal.**

**II. LOT-LINE CHANGE**

**Cal #02-22PB, Cal #03-22WP and Cal #02-22SW**

**Hollander/Audemard residences, 153 Post Office Road, South Salem, NY 10590; Sheet 32A, Block 10804, Lot 19 (Cassie & Seth Hollander, owners of record) and 151 Post Office Road Sheet 32A, Block 10804, Lot 91 (Olivier & Rebecca Audemard, owners of record) – Reapproval for lot-line change and driveway work; Planning Board approval expired March 20, 2023.**

**III. WETLAND PERMIT REVIEWS**

**Cal #22-23WP, Cal #02-23WV**

**Merchan and Valencia Residence, 1324 Route 35, South Salem, NY 10590; Sheet 39, Block 10543, Lot 22 (Lina Merchan and Fabio Valencia, owners of record) - Application for remediation of wetlands.**

**Cal #26-23WP**

**Scott's Dam Reservoir Rehabilitation, 0 Wakeman Road, South Salem, NY 10590; Sheet 47, Block 10057, Lot 11 (Norwalk City First Taxing District, owner of record) - Application for dam improvements and a temporary accessway.**

**Cal #22-23WP**

**Samberg Residence, 6 Cove Road, South Salem, NY 10590; Sheet 33B, Block 11157; Lot 29 (Mitchell & Lynn Samberg, owners of record) – Application for a garage renovation and installation of a driveway, walkway and steps.**

**Cal #29-23WP, Cal #09-23SW**

**Bernabo vacant land, 96 Post Office Road, Waccabuc, NY 10597; Sheet 25, Block 10812, Lot 3 (Alex Bernabo, owner of record) – Application for a new well, septic and house.**

**Cal #24-23WP**

**Lindberg driveway, 74 Elmwood Road, South Salem, NY 10590; Sheet 55, Block 10302, Lot 11 (Kevin & Naomi Lindberg, owners of record) – Application for paving an existing gravel driveway.**

**Cal #37-23WP**

**Pollinator Garden, 28 Fairmount Road, Goldens Bridge, NY 10526; Sheet 7, Block 11137, Lot 25 (Town of Lewisboro, owner of record) – Application for the installation of a pollinator garden.**

**IV. SPECIAL USE PERMIT**

**Cal #02-10PB**

**Bedford Audubon Society, 35 Todd Road, Katonah, NY 10536; Sheet 5, Block 10776, Lots 7 & 30 and Sheet 5, Block 10777, Lot 3 (Bedford Audubon Society, owner of record) – Application for the renewal of a Special Use Permit or a private nature preserve.**

**Cal #01-13PB**

**Verizon Wireless, 117 Waccabuc Road, Goldens Bridge, NY 10526; Sheet 11, Block 11137, Lot 52 (Ash Tree Development, LLC, owner of record) - Application for the renewal of a Special Use Permit for a colocator on an existing cell tower.**

**V. CORRESPONDENCE**

**Cal #08-02PB**

**JVG Estates (formerly Popoli Subdivision / 1437 Route 35) Bluestone Lane, South Salem, NY 10590, Sheet 40, Block 10552, (formerly known as Lots 3, 4 & 5) current owners of record:**

- **Monica & Vito Di Matteo, Sheet 40, Block 10552, Lot 3 (was Lot 3 on plat) 5 Bluestone Lane**
- **Adam & Julieann Giardina, Sheet 40, Block 10552, Lot 41 (was Lot 4 on plat) 6 Bluestone Lane**
- **Jennifer Bayley & Gavin Jones, Sheet 40, Block 10552, Lot 42 (was Lot 5 on plat) 4 Bluestone Lane - Request for wetland bond reduction.**

**Referral from Wilton, CT Inland Wetlands Commission – Zitterman Residence, 24 Silver Spring Road, Wilton, CT – Application for a flagstone patio in gravel, plant above retaining wall and removal of a small shed within a regulated area.**

**Resident complaint regarding LED lighting at Wild Oaks Townhouses, Park Road, Goldens Bridge, NY 10526**

**VI. MINUTES OF August 15, 2023.**



**VII. NEXT MEETING DATE: October 17, 2023.**

**VIII. ADJOURN MEETING.**

**MEMORANDUM**

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Kevin Kelly, Building Inspector

FROM: Jan K. Johannessen, AICP   
Joseph M. Cermele, P.E., CFM   
Town Consulting Professionals

DATE: September 15, 2023

RE: Site Development Plan Approval  
19 Mark Mead Road, LLC  
19 Mark Mead Road  
Sheet 20, Block 10800, Lot 1

**PROJECT DESCRIPTION**

The subject property consists of ±0.9 acre of land and is located at 19 Mark Mead Road within the RB and R-1/2A Zoning Districts. The subject property is currently developed with a single-family home and detached garage with access via North Salem Road. The applicant is proposing to demolish the existing garage and construct a 25-space overflow parking lot for the adjacent Bacio Trattoria Restaurant within the RB portion of the lot.

**SEQRA**

The proposed action has been preliminarily identified as an Unlisted Action under the State Environmental Quality Review Act (SEQRA). Prior to taking action on this pending application, the Planning Board must issue a determination of significance.

**REQUIRED APPROVALS/REFERRALS**

1. Site Development Plan Approval is required from the Planning Board; unless waived by the Planning Board, a public hearing is required to be held on the Site Development Plan.
2. A Town Stormwater Permit is required from the Planning Board.
3. The application requires referral to the Architectural and Community Appearance Review Council (ACARC).
4. Work proposed within the Town right-of-way will require a Driveway Opening Permit from the Town Highway Superintendent.
5. The application must be referred to the Westchester County Planning Board in accordance with Section 239-m of the General Municipal Law. The Planning Board Administrator will coordinate this referral.
6. It is our understanding that the subject property is located within a Designated Main Street Area (DMSA) and that the Stormwater Pollution Prevention Plan (SWPPP) requires approval from the New York City Department of Environmental Protection (NYCDEP).
7. The subject property is located within the NYC East of Hudson Watershed and proposed land disturbance exceeds 5,000 s.f. Coverage under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.

**COMMENTS**

1. This office defers review of the plan for zoning compliance to the Building Inspector. It is recommended that the application be referred to the Building Inspector for review.
2. As previously noted, the following comments pertain to the submitted Short Environmental Assessment Form (EAF):
  - a. Question #2 should include the NYSDEC, NYCDEP and Town Highway Department.
  - b. Question #10 should be answered “No” as no water service is proposed.
  - c. Question #11 should be answered “No” as no sewer service is proposed.

- d. The EAF should be prepared using the EAF mapper tool provided by the NYSDEC and should include the automatically generated information sheet.
3. As previously requested, provide information relating to the need for additional parking, including total number of seats within the restaurant and a parking calculation, per the Zoning Code. Identify the existing number of parking spaces provided on the Bacio Trattoria parcel.
4. Illustrate the existing accessible parking spaces on the Bacio Trattoria parcel. When combining the existing and proposed number of spaces, additional accessible spaces may be required, per the ADA Rules and Regulations. We defer to the Building Inspector on this matter.
5. As previously requested, provide a site layout plan illustrating all existing to remain and proposed improvements, including zoning and dimensions, but excluding topography and grading.
6. As previously noted, the Bulk Zoning Table should be revised to include an existing conditions column.
7. As previously identified, the plan shall be revised to illustrate and dimension all required minimum landscape buffer and zoning setbacks lines.
8. As previously requested, illustrate and identify the zoning districts associated with off-site and adjacent properties, including those on the opposite side of the street.
9. As previously noted, per Section 220-15 of the Zoning Code, a landscape buffer of at least 30 feet is required adjacent to residential districts and 15 feet along all other property lines. A residence is located immediately east of the subject property (located on Mark Mead Road and within the R-1/2A District) and, therefore, a 30-foot buffer exists along the easterly property line. The Board had indicated its desire to see compliance along the easterly and westerly property lines but excepted encroachment along the norther buffer. We note that portions of the parking lot extended into the easterly 30-foot buffer and the westerly 15-foot buffer.
10. As previously noted, please confirm that the existing features to remain (house, walkways, etc.) and the proposed driveway, parking lot, and other surface features are included in the site coverage calculation. Provide an illustration and calculation of those items included within the coverage calculation.
11. As previously noted, while on a separate lot, the proposed parking lot is being established to serve the existing Bacio Trattoria Restaurant. As the subject property contains no principal commercial structure, the Board may wish to consider conditioning any approval that the parking lot would be

for the exclusive use of the Bacio Trattoria Restaurant. If the Restaurant were to sell, what would become of the parking lot? Should the properties be linked by deed? When not in use for overflow parking by Bacio Trattoria, will the parking lot be used for any other purpose or entity? Will it be secured?

12. It is recommended that the proposed sidewalk along the westerly side of North Salem Road be extended to the applicant's northern property line.
13. Regarding the parking area devoted to the on-site residence, considered flipping the spaces so that headlights are directed toward the on-site residence and not the off-site residence to the east. Screening should be provided along the east side of the parking area.
14. As previously noted, the approximate location of off-site structure and improvements on the adjacent parcels to the north and east should be illustrated on the site plan.
15. More design information is required for the proposed gravel parking area adjacent to the residential dwelling including, but not limited to, existing grading, proposed grading, drainage, etc.
16. Remove the old, proposed stormwater location line work from the site plans.
17. As previously noted, a detailed Lighting Plan, demonstrating compliance with Sections 220-14 of the Zoning Code, shall be submitted for review. Illuminance levels shall be measured in footcandles and shall be depicted via a Photometric Plan identifying proposed footcandle measurements.
18. As previously noted, unless otherwise approved, all light fixtures shall be full cut-off fixtures and shall direct the light downward toward the ground. Provide construction details and specifications for all proposed light fixtures and foundations; provide manufacturer catalog cut sheets for all exterior lighting.
19. As previously noted, the hours of operation associated with exterior lighting shall be identified on the plan. In general, and unless otherwise approved by the Planning Board, exterior illumination shall be turned off during non-operating hours.
20. As previously noted, per Section 220-55E(3) of the Zoning Code, within parking lots containing 25 spaces or more spaces, 10% of the surface within the parking area perimeter shall consist of planted islands. It does not appear this has been achieved. Provide a calculation on the plan to demonstrate compliance or need for a variance.

21. As previously noted, per Section 220-55E(4) of the Zoning Code, areas between the parking area and public streets shall be landscaped to include plantings at least 48 inches in height. Said plantings shall be at least 50% evergreen shrubbery and shall average at least one (1) for every ten (10) feet of frontage. It is recommended that the 15-foot landscape buffer be established along the street frontage, as required, and planted in compliance with this section. When proposing these planting locations, be sure that adequate site lines are maintained.
22. As previously noted, the project should be referred to the Highway Department for review of the driveway and crosswalk location, as well as proposed sidewalks, stairs, bollard lighting, ramps, and signs proposed to be constructed within the Town right-of-way. Improvements proposed within the right-of-way may require a license agreement with the Town Board.
23. As previously noted, spot grades and/or grading should be shown for the new sidewalk which runs along North Salem Road from the proposed parking lot to the existing restaurant.
24. As previously noted, the plans should be illustrated to show the well and septic system associated with the residence.
25. As previously noted, in accordance with Section 220-55D of the Zoning Code, the applicant shall demonstrate that the driveway grade does not exceed 3% within 30 feet of the street line or 12% at any other point; a driveway profile shall be provided.
26. As previously noted, in accordance with Section 220-55F of the Zoning Code, the maximum slope within a parking area shall not exceed 5%. The proposed parking lot appears to be steeper than 5%.
27. As previously noted, the applicant shall coordinate with the NYCDEP and provide written verification regarding their extent of jurisdiction. It is our understanding that the property is located within a Designated Main Street Area and will be subject to NYCDEP Approval.
28. Stormwater infiltration soil test locations and results should be added to the Site Plan.
29. The rim elevation associated with the proposed drain inlet located in the proposed parking lot appears to be set too low. Please correct.
30. The witnessed soil testing demonstrated soil percolation rates greater than five (5) inches per hour. As such, 100% of the water quality volume must be pretreated in accordance with the New York State Stormwater Management Design Manual. The plan proposes the use of isolator rows for pretreatment. We are in agreement with this approach. However, the volume of the isolator

rows must be increase based on the above and the piped interconnection between the isolator rows and the remainder of the system should be modified to ensure that all of the pre-treatment volume is contained prior to discharge to the detention system.

31. As previously noted, land disturbance is proposed to exceed  $\geq 5,000$  s.f. and will therefore require conformance with New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit (GP-0-20-001) and filing of a Notice of Intent (NOI) and SWPPP MS4 Acceptance Form with the NYSDEC. Submit draft copies to this office for review.
32. Regarding the new parking lot adjacent to the residential structure, the applicant shall provide stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surface for the 25-year, 24-hour storm event. Provide details of the stormwater mitigation system.
33. The applicant should provide clearer hydrology maps, pre and post. The maps located within the SWPPP are hard to follow. Each stormwater tributary should clearly be broken up to show the practiced and or area the stormwater is flowing to. Design points should also be provided.
34. As previously noted, we recommend adding a catch basin at the northwest corner of the parking lot. It appears that a portion of the parking lot will drain to this location with minimum pitch towards the south.
35. As previously noted, stormwater mitigation will be required for the proposed driveway. Currently, stormwater will run down the proposed driveway and onto North Salem Road.
36. As previously noted, the applicant shall call out the existing asphalt roadway swale and detail how the swale will be addressed when constructing the new driveway entrance.
37. Include tree protection, inlet protection and stabilized construction access locations on the Erosion and Sediment Control Plan. Additionally, provide an erosion control blanket detail, in accordance with the most recent version of the New York State Standards and Specifications for Erosion and Sediment Control.
38. Silt fence should be shown to be installed along the northern property line.
39. As previously noted, the plan shall illustrate and identify the size, slope, and material of all proposed drainage pipes. Provide details and include outlet protection.



Chairperson Janet Andersen  
Bacio Restaurant Parking – 19 Mark Mead Road  
September 15, 2023  
Page 7 of 7

40. As previously noted, the applicant should demonstrate that the proposed overflow parking sign complies with Chapter 185, Signs of the Town Code; provide a detail.

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

**PLANS REVIEWED, PREPARED BY SITE DESIGN CONSULTANTS, DATED AUGUST 29, 2023:**

- Prelim Site Plan (1 of 7)
- Existing Conditions Plan (2 of 7)
- Erosion & Sediment Control Plan (3 of 7)
- Landscape Plan (4 of 7)
- Erosion Notes and Details (5 of 7)
- Site Details (6 of 7)
- Stormwater Details (7 of 7)

**DOCUMENTS REVIEWED:**

- Stormwater Management Plan Report, prepared by Site Design Consultants, dated August 25, 2023

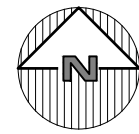
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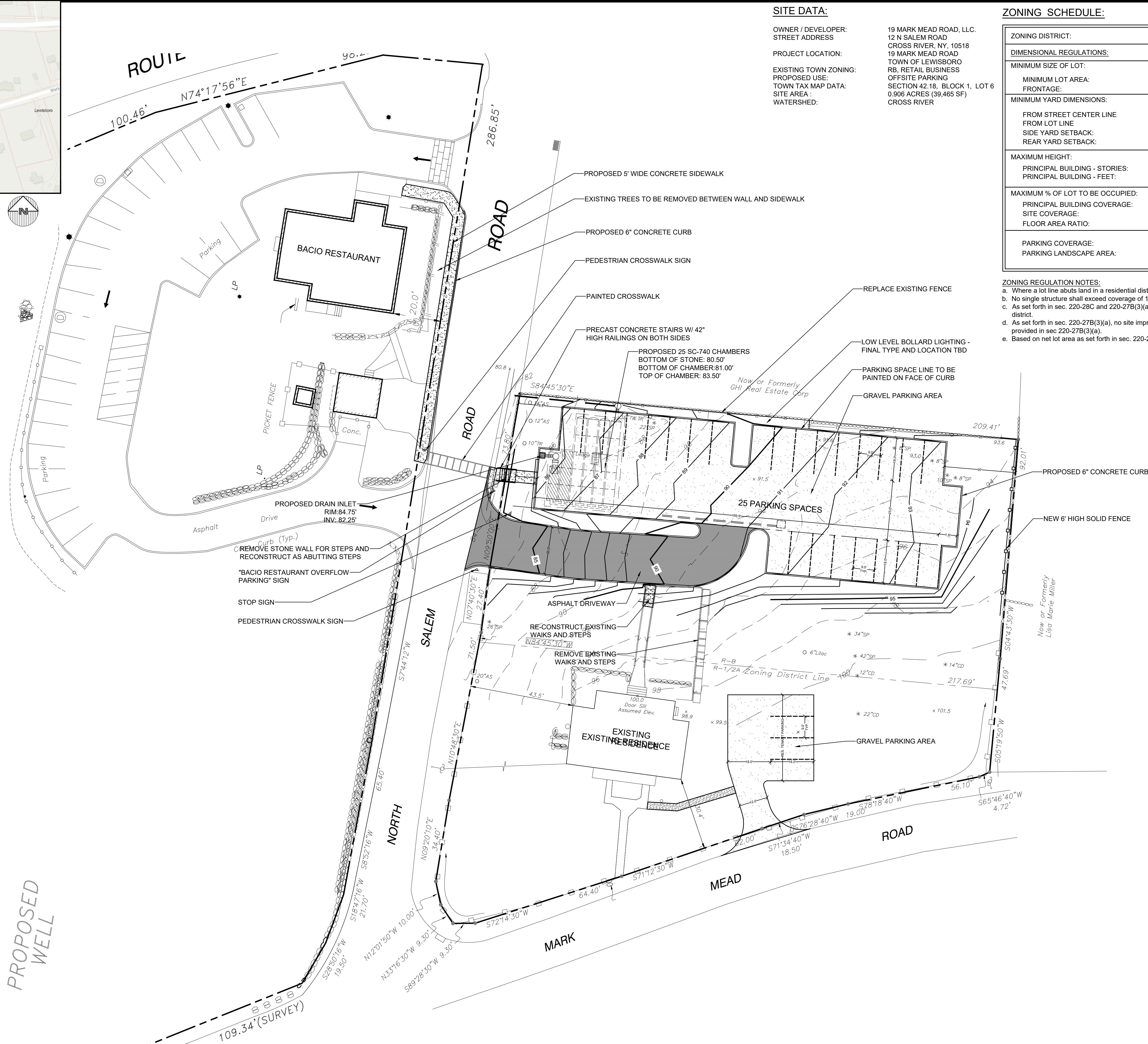




LOCATION MAP  
NOT TO SCALE



PROPOSED  
WELL



SITE DATA:

OWNER / DEVELOPER:  
STREET ADDRESS  
PROJECT LOCATION:  
EXISTING TOWN ZONING:  
PROPOSED USE:  
TOWN TAX MAP DATA:  
SITE AREA :  
WATERSHED:

19 MARK MEAD ROAD, LLC.  
12 N SALEM ROAD  
CROSS RIVER, NY, 10518  
19 MARK MEAD ROAD  
TOWN OF LEWISBORO  
RB, RETAIL BUSINESS  
OFFSITE PARKING  
SECTION 42.18, BLOCK 1, LOT 6  
0.906 ACRES (39,465 SF)  
CROSS RIVER

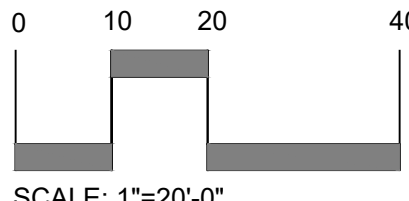
ZONING SCHEDULE:

ZONING DISTRICT: RB, RETAIL BUSINESS			
DIMENSIONAL REGULATIONS:	REQUIRED	PROVIDED	VARIANCE REQUIRED
MINIMUM SIZE OF LOT:			
MINIMUM LOT AREA:	1/2 ACRE	0.906 ACRE	NONE
FRONTAGE:	100 FT.	460 FT.	NONE
MINIMUM YARD DIMENSIONS:			
FROM STREET CENTER LINE	45 FT.	N/A	NONE
FROM LOT LINE	20 FT.	N/A	NONE
SIDE YARD SETBACK:	15 FT. (a.)	N/A	NONE
REAR YARD SETBACK:	30 FT. (a.)	N/A	NONE
MAXIMUM HEIGHT:			
PRINCIPAL BUILDING - STORIES:	2 1/2	N/A	NONE
PRINCIPAL BUILDING - FEET:	30 FEET	N/A	NONE
MAXIMUM % OF LOT TO BE OCCUPIED:			
PRINCIPAL BUILDING COVERAGE:	20% OF LOT AREA (b.)	N/A	NONE
SITE COVERAGE:	60% OF LOT AREA	N/A	NONE
FLOOR AREA RATIO:	0.30	N/A	NONE
PARKING COVERAGE:			
PARKING LANDSCAPE AREA:	10% OF PARKING	8,483 SF 4,657 SF 55%	NONE

ZONING REGULATION NOTES:  
a. Where a lot line abuts land in a residential district, the setback requirements for that residence district shall govern.  
b. No single structure shall exceed coverage of 10,000 square feet.  
c. As set forth in sec. 220-28C and 220-27B(3)(a), no site improvement shall be located closer than 100 feet to a residence district.  
d. As set forth in sec. 220-27B(3)(a), no site improvement shall be located closer than 200 feet to a residence district, except as provided in sec 220-27B(3)(a).  
e. Based on net lot area as set forth in sec. 220-27B(2).

LEGEND

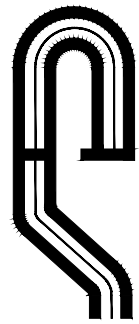
- 222 --- EXISTING GRADING
- x 222.8 EXISTING SPOT GRADE
- 94 PROPOSED GRADING
- x 94.5 PROPOSED SPOT GRADE
- PROPERTY LINE / RIGHT OF WAY
- PROPOSED CURB
- EXISTING STONE WALL



NOTE:  
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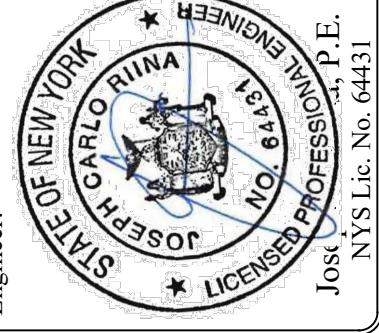
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PROJECT # 22-60

Site Design Consultants

Civil Engineers • Land Planners  
251-F Underhill Avenue, Yorktown Heights, NY 10598  
(914) 962-4488 - Fax: (914) 962-7386  
www.sitedesignconsultants.com



Revisions:	No.	Date	Comments:
	1.	4/28/23	Reduce Parking
	2.	8/29/23	Plan Update

SCALE: 1" = 20'	DRAWN BY: JCR	DATE: 3/10/23
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Prelim Site Plan

SITE PLAN  
PREPARED FOR  
19 MARK MEAD ROAD, LLC

19 MARK MEAD ROAD

Lewisboro

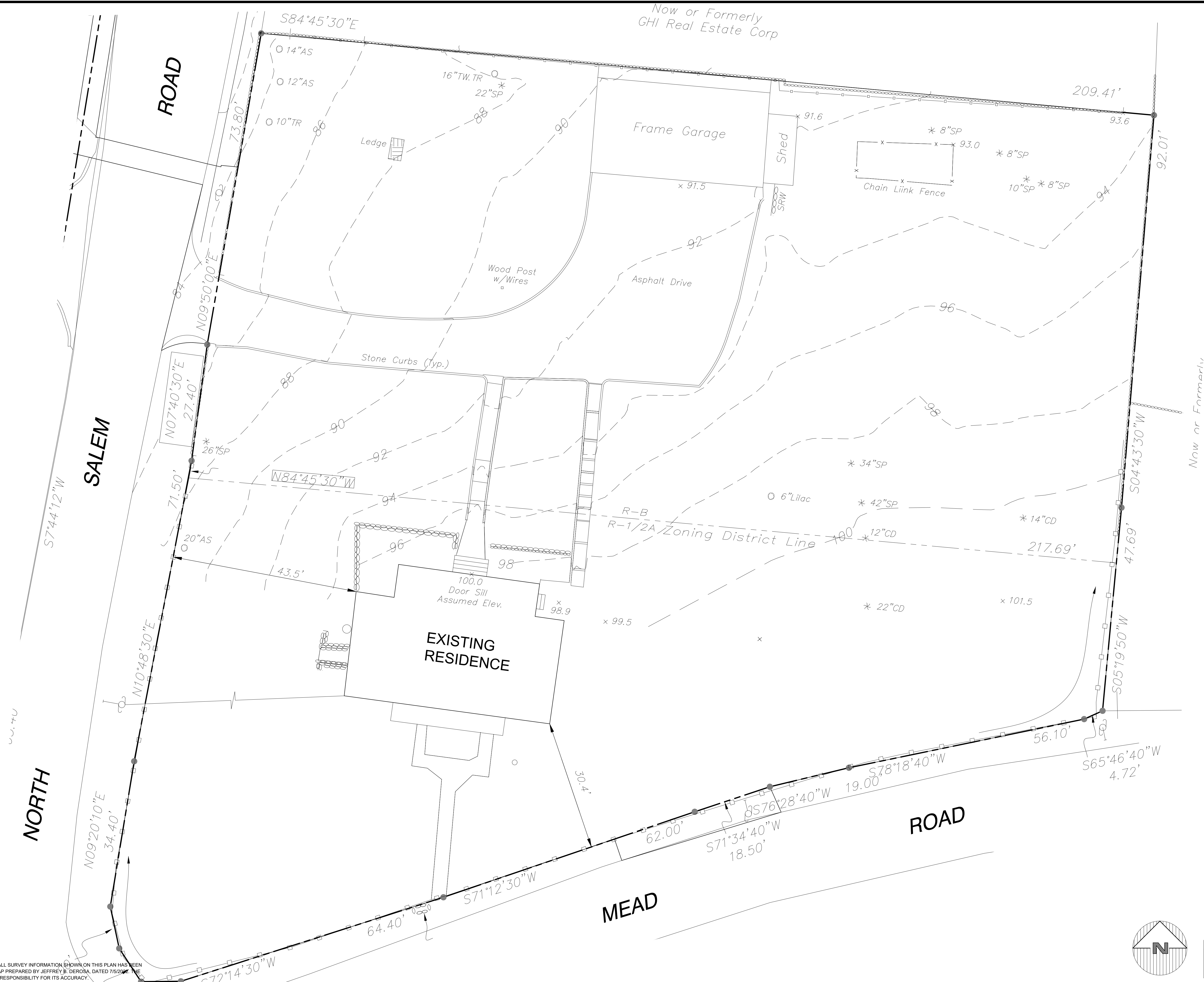
Westchester County, NY



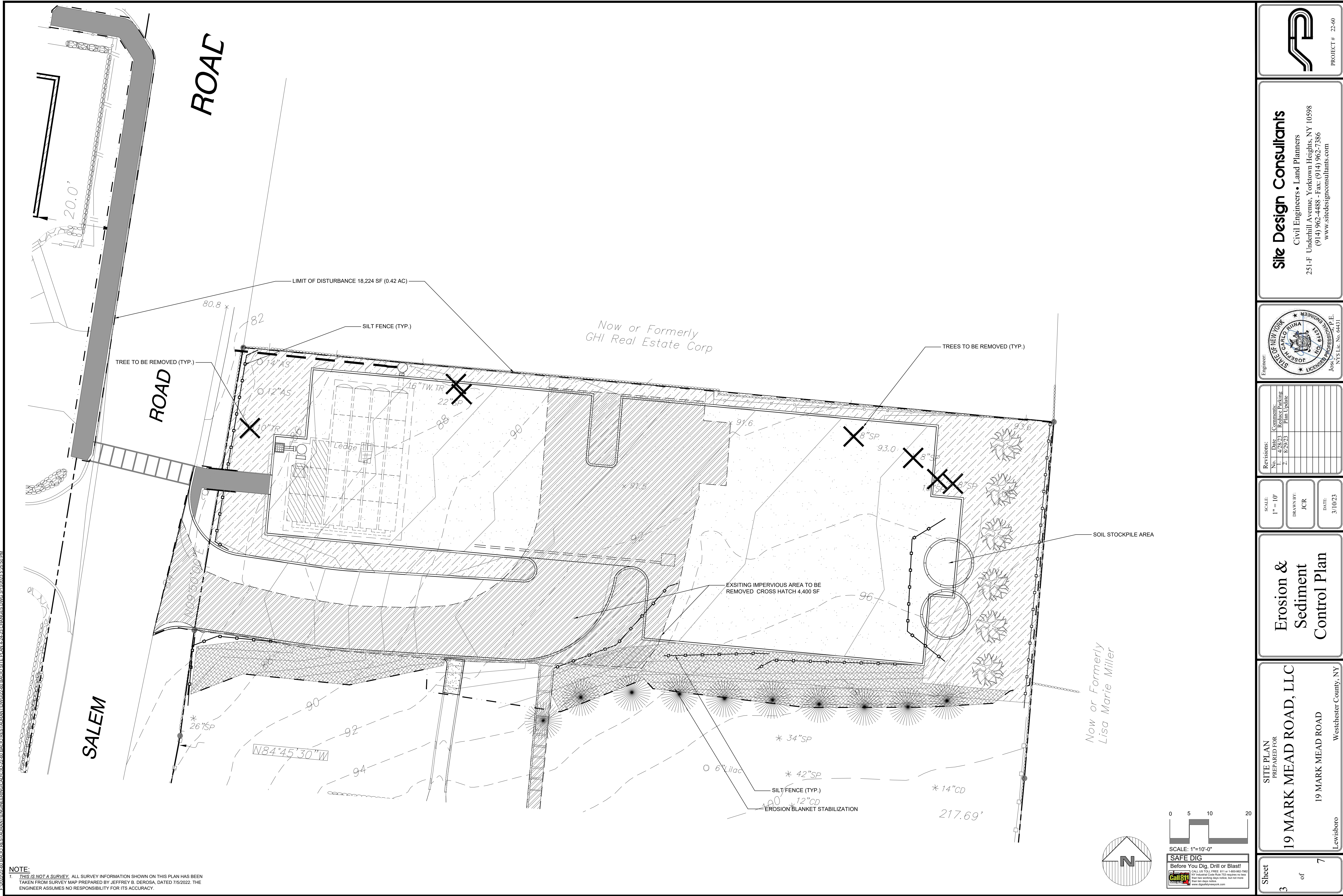
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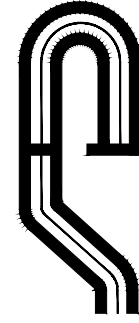






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PROJECT # 22-60

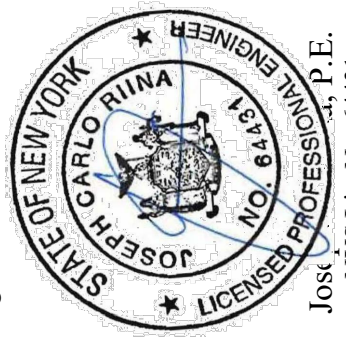
Site Design Consultants

Civil Engineers • Land Planners

251-F Underhill Avenue, Yorktown Heights, NY 10598

(914) 962-4488 - Fax: (914) 962-7386

www.sitedesignconsultants.com



Engineer:  
JOSEPH P. L. E. No. 64431

Revisions:	
No.	Date
1.	4/28/23
2.	8/29/23

SCALE: 1" = 10'

DRAWN BY: JCR

DATE: 3/10/23

Erosion & Sediment Control Plan

SITE PLAN PREPARED FOR

19 MARK MEAD ROAD, LLC

19 MARK MEAD ROAD


Lewisboro

Westchester County, NY

Sheet 3 of 7

SAFE DIG

Before You Dig, Drill or Blast!



CALL 811 TOLL FREE: 811 or 1-800-486-7887

NY Industrial Code Rule 232 requires no less than ten days notice.

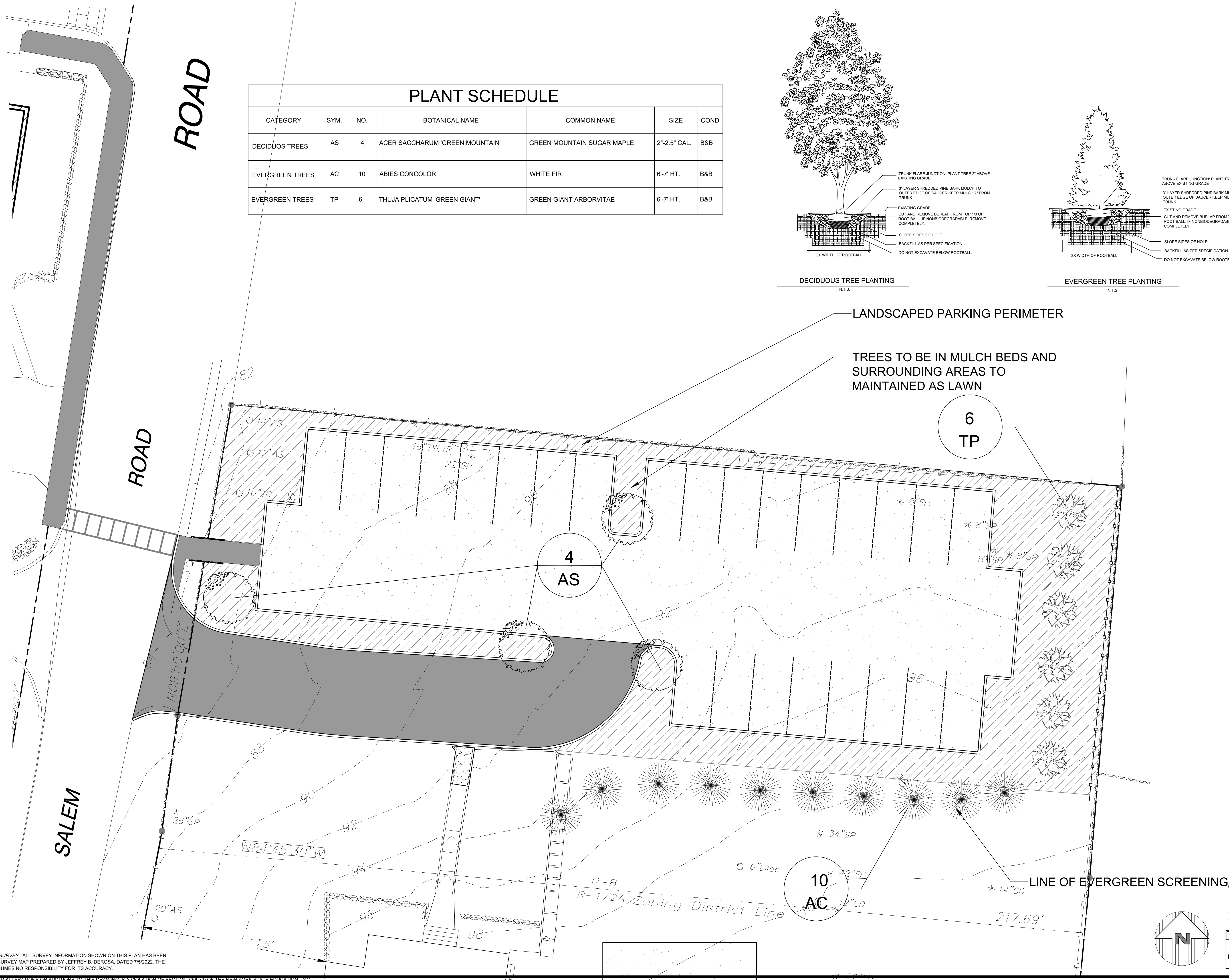
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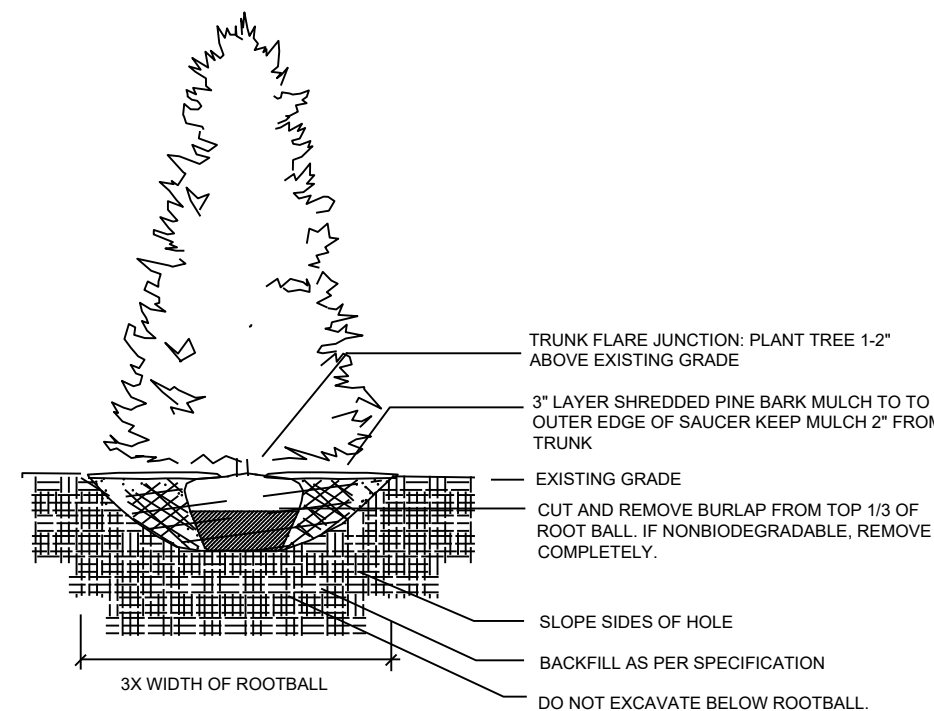
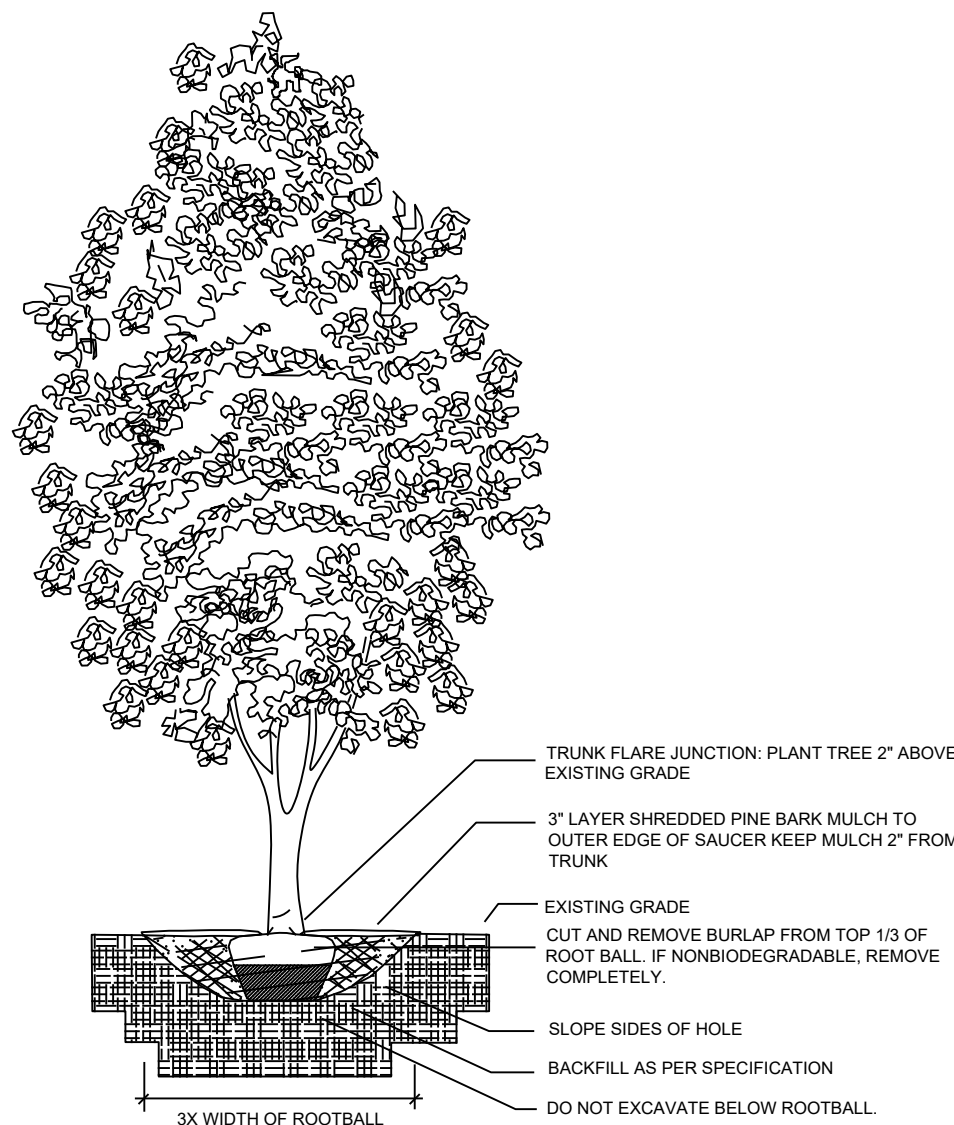
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PLANT SCHEDULE						
CATEGORY	SYM.	NO.	BOTANICAL NAME	COMMON NAME	SIZE	COND
DECIDUOS TREES	AS	4	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2"-2.5" CAL.	B&B
EVERGREEN TREES	AC	10	ABIES CONCOLOR	WHITE FIR	6'-7' HT.	B&B
EVERGREEN TREES	TP	6	THUJA PLICATUM 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6'-7' HT.	B&B





PROJECT # 22-60

Site Design Consultants

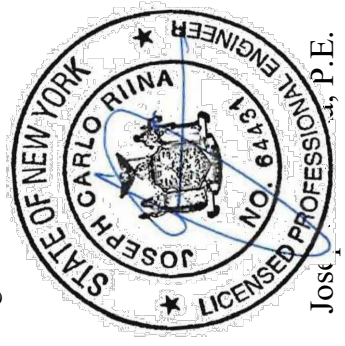
Civil Engineers • Land Planners

251-F Underhill Avenue, Yorktown Heights, NY 10598

(914) 962-4488 - Fax: (914) 962-7386

www.sitedesignconsultants.com

Engineer:



Revisions:	No.	Date	Comments:
	1.	4/28/23	Reduce Parking
	2.	8/29/23	Plan Update

SCALE: 1" = 10'

DRAWN BY: JCR

DATE: 3/10/23

Landscape Plan

SITE PLAN  
PREPARED FOR

19 MARK MEAD ROAD, LLC

19 MARK MEAD ROAD

Lewisboro

Westchester County, NY

Sheet

4

of

7



GENERAL EROSION CONTROL NOTES:

- Contractor shall be responsible for compliance with all sediment and erosion control practices. The sediment and erosion control practices are to be installed prior to any major soil disturbances, and maintained until permanent protection is established. Road surface flows from the site should be dissipated with tracking pad or appropriate measures during adjacent road shoulder regrading. Contractor is responsible for the installation and maintenance of all soil erosion and sedimentation control devices throughout the course of construction.
- Catch basin inlet protection must be installed and operating at all times until tributary areas have been stabilized. When possible flows should be stabilized before reaching inlet protection structure. Timely maintenance of sediment control structures is the responsibility of the Contractor.
- All structures shall be maintained in good working order at all times. The sediment level in all sediment traps shall be closely monitored and sediment removed promptly when maximum levels are reached or as ordered by the engineer. All sediment control structures shall be inspected on a regular basis, and after each heavy rain to insure proper operation as designed. An inspection schedule shall be set forth prior to the start of construction.
- The locations and the installation times of the sediment capturing standards shall be as specified in these plans, as ordered by the Engineer, and in accordance with the latest edition of the "New York Standards and Specifications for Erosion and Sediment Control" (NYSSESC).
- All topsoil shall be placed in a stabilized stockpile for reuse on the site. All stockpile material required for final grading and stored on site shall be temporarily seeded and mulched within 7 days. Refer to soil stockpile details.
- Any disturbed areas that will be left exposed more than 7 days and not subject to construction traffic, shall immediately receive temporary seeding. Mulch shall be used if the season prevents the establishment of a temporary cover. Disturbed areas shall not be limed and fertilized prior to temporary seeding.
- All disturbed areas within 500 feet of an inhabited dwelling shall be wetted as necessary to provide dust control.
- The contractor shall keep the roadways within the project clear of soil and debris and is responsible for any street cleaning necessary during the course of the project.
- Sediment and erosion control structures shall be removed and the area stabilized when the drainage area has been properly stabilized by permanent measures.
- All sediment and erosion control measures shall be installed in accordance with current edition of NYSSSEC.
- All regraded areas must be stabilized appropriately prior to any rock blasting, cutting, and/or filling of soils. Special care should be taken during construction to insure stability during maintenance and integrity of control structures.
- Any slopes graded at 3:1 or greater shall be stabilized with erosion blankets to be staked into place in accordance with the manufactures requirements. Erosion blankets may also be required at the discretion of Town officials or Project Engineer. When stabilized blanket is utilized for channel stabilization, place all of the volume of seed mix prior to laying net, or as recommended by the manufacturer.
- To prevent heavy construction equipment and trucks from tracking soil off-site, construct a pervious crushed stone pad. Locate and construct pads as detailed in these plans.
- Contractor is responsible for controlling dust by sprinkling exposed soil areas periodically with water as required. Contractor to supply all equipment and water.
- Contractor shall be responsible for construction inspections as per NYSDCE GP-0-20-001 and Town of Lewisboro Code.

MAINTENANCE OF TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES:

- N.Y.S.D.E.C. GP-0-20-001 EXPOSURE RESTRICTIONS - States that any exposed earthwork shall be stabilized in accordance with the guidelines of this plan.
- Trees and vegetation shall be protected at all times as shown on the detail drawing and as directed by the Engineer.
  - Care should be taken so as not to channel concentrated runoff through the areas of construction activity on the site.
  - Fill and site disturbances should not be created which causes water to pond off site or on adjacent properties.
  - Runoff from land disturbances shall not be discharged or have the potential to discharge off site without first being intercepted by a control structure, such as a sediment trap or silt fence. Sediment shall be removed before exceeding 50% of the retention structure's capacity.
  - For finished grading, adequate grade shall be provided so that water will not pond on lawns for more than 24 hours after rainfall, except in swale flow areas which may drain for as long as 48 hours after rainfall.
  - All swales and other areas of concentrated flow shall be properly stabilized with temporary control measures to prevent erosion and sediment travel. Surface flows over cut and fill areas shall be stabilized at all times.
  - All sites shall be stabilized with erosion control materials within 7 days of final grading.
  - Temporary sediment trapping devices shall be removed from the site within 30 days of final stabilization.

MAINTENANCE SCHEDULE:

	DAILY	WEEKLY	MONTHLY	AFTER RAINFALL	NECESSARY TO MAINTAIN FUNCTION	AFTER APPROVAL OF INSPECTOR
SILT FENCE	---	----	INSP.	INSP.	CLEAN/ REPLACE	REMOVE
WHEEL CLEANER	CLEAN	----	----	----	REPLACE	REMOVE
INLET PROTECTION	---	INSP.	INSP.	CLEAN	REPLACE	REMOVE

MAINTENANCE OF PERMANENT CONTROL STRUCTURES DURING CONSTRUCTION:

The stormwater management system and outlet structure shall be inspected on a regular basis and after every rainfall event. Sediment build up shall be removed from the inlet protection regularly to insure detention capacity and proper drainage. Outlet structure shall be free of obstructions. All piping and drain inlets shall be free of obstruction. Any sediment build up shall be removed.

MAINTENANCE OF CONTROLS AFTER CONSTRUCTION:

Controls (including respective outlet structures) should be inspected periodically for the first few months after construction and on an annual basis thereafter. They should also be inspected after major storm events.

DEBRIS AND LITTER REMOVAL:

Twice a year, inspect outlet structure and drain inlets for accumulated debris. Also, remove any accumulations during each mowing operation.

STRUCTURAL REPAIR/REPLACEMENT:

Outlet structure must be inspected twice a year for evidence of structural damage and repaired immediately.

EROSION CONTROL:

Unstable areas tributary to the basin shall immediately be stabilized with vegetation or other appropriate erosion control measures.

SEDIMENT REMOVAL:

Sediment should be removed after it has reached a maximum depth of five inches above the stormwater management system floor.

TOPSOIL:

Existing topsoil will be removed and stored in piles sufficiently as to avoid mixing with other excavation. Stockpiles shall be surrounded by erosion control as outlined on these plans. The furnishing of new topsoil shall be of a better or equal to the following criteria (SS713.01 NYSDOT):

- The pH of the material shall be 5.5 to 7.6.
- The organic content shall not be less than 2% or more than 70%.
- Gradation:

SIEVE SIZE	% PASSING BY WGT.
2 INCH	100
1 INCH	85 TO 100
1/4 INCH	65 TO 100
NO. 200 MESH	20 TO 80

PERMANENT VEGETATIVE COVER:

- Site preparation:
  - Install erosion control measures.
  - Scarify compacted soil areas.
  - Lime as required to ph 6.5.
  - Fertilize with 10-6-4 4 lbs/1,000 S.F.
  - Incorporate amendments into soil with disc harrow.
- Seed mixtures for use on swales and cut and fill areas.

MIXTURE	LBS./ACRE
ALT. A	
KENTUCKY BLUE GRASS	20
CREeping RED FESCUE	28
RYE GRASS OR REDTOP	5
ALT. B	
CREeping RED FESCUE	20
REDTOP	2
TALL FESCUE/SMOOTH BLOOMGRASS	20
- SEEDING
  - Prepare seed bed by raking to remove stones, twigs, roots and other foreign material.
  - Apply soil amendments and integrate into soil.
  - Apply seed uniformly by cyclone seeder culti-packer or hydro-seeder at rate indicated.
  - Stabilize seeded areas in drainage swales.
  - Irrigate to fully saturate soil layer, but not to dislodge planting soil.
  - Seed between April 1st and May 15th or August 15th and October 15th.
  - Seeding may occur May 15th and August 15th if adequate irrigation is provided.

TEMPORARY VEGETATIVE COVER:

SITE PREPARATION:

- Install erosion control measures.
- Scarify areas of compacted soil.
- Fertilize with 10-10-10 at 400/acre.
- Lime as required to ph 6.5.

SEED SPECIES:

MIXTURE	LBS./ACRE
Rapidly germinating annual ryegrass (or approved equal)	20
Perennial ryegrass	20
Cereal oats	36

SEEDING:

Same as permanent vegetative cover

CONTRACTOR CERTIFICATION STATEMENT

Certification Statement - All contractors and subcontractors as identified in a SWPPP, by the Owner or Operator, in accordance with Part III.A.5 of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-20-001, dated January 29, 2020, Page 19 to 20, shall sign a copy of the following Certification Statement before undertaking any construction activity at the Site identified in the SWPPP:

"I hereby certify that I understand and agree to comply with the terms and conditions 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 terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. 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."

Individual Contractor: \_\_\_\_\_  
Name and Title (please print): \_\_\_\_\_  
Signature of Contractor: \_\_\_\_\_  
Company / Contracting Firm: \_\_\_\_\_  
Name of Company: \_\_\_\_\_  
Address of Company: \_\_\_\_\_  
Telephone Number / Cell Number: \_\_\_\_\_  
Site Information: \_\_\_\_\_  
Address of Site: \_\_\_\_\_  
  
Today's Date: \_\_\_\_\_

OWNER / OPERATOR 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: \_\_\_\_\_  
  
E-mail: \_\_\_\_\_  
  
Signature: \_\_\_\_\_

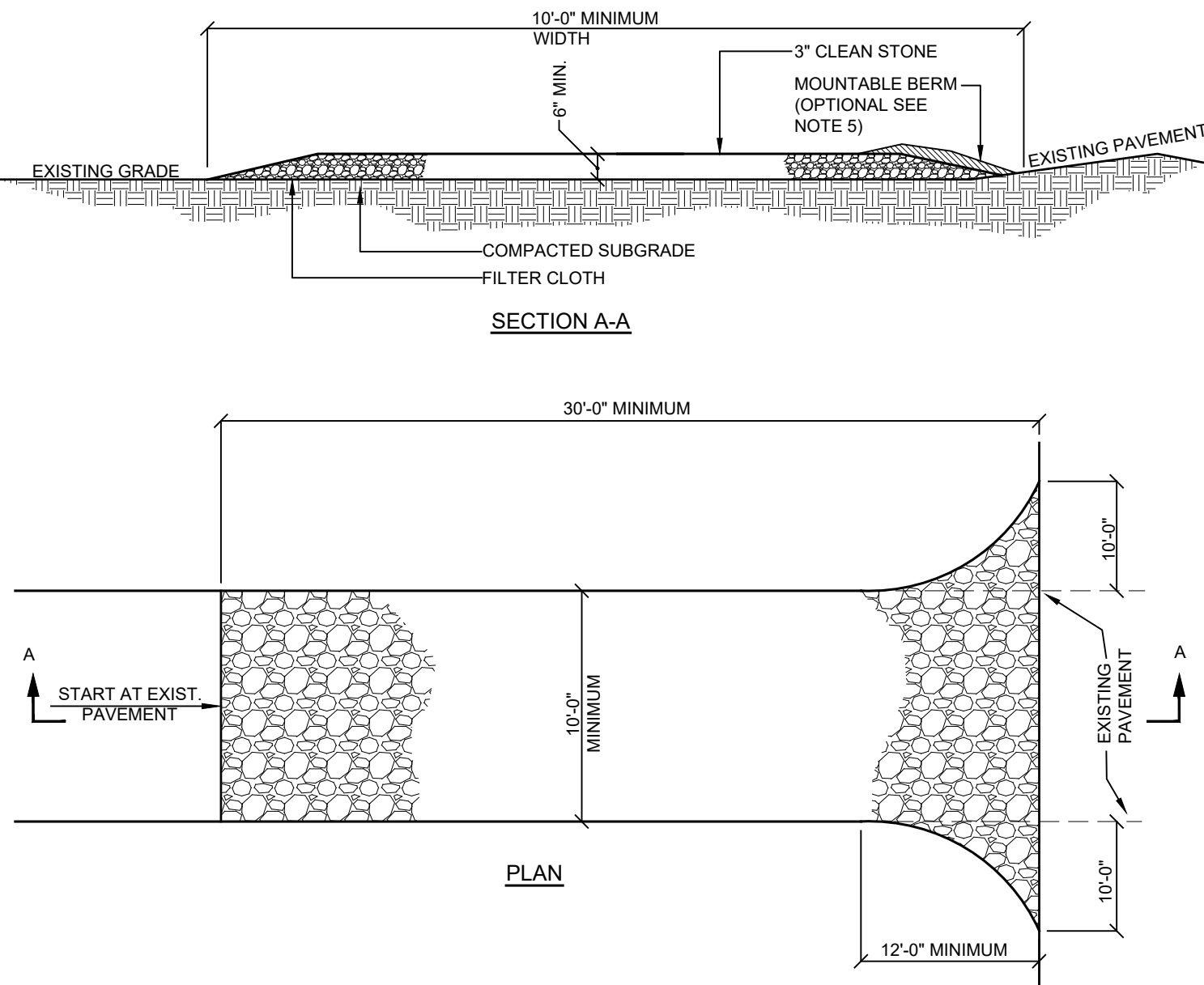
GENERAL CONSTRUCTION SEQUENCE:

REFER TO THE PLAN SET FOR ALL PLANS AND DETAILS WHICH RELATE TO CONSTRUCTION SEQUENCE.

- PRIOR TO THE BEGINNING OF ANY SITEWORK THE MAJOR FEATURES OF THE CONSTRUCTION MUST BE FIELD STAKED BY A LICENSED SURVEYOR. THESE INCLUDE THE BUILDING, LIMITS OF DISTURBANCE, UTILITY LINES, AND STORMWATER PRACTICES.
- PRIOR TO THE START OF THE PROJECT, AN ON-SITE PRE-CONSTRUCTION MEETING WILL BE HELD. THIS WILL BE ATTENDED BY THE PROJECT OWNER, THE OPERATOR RESPONSIBLE FOR COMPLYING WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING THE EROSION AND SEDIMENT CONTROL (E&SC) PLAN AND DETAILS, THE DESIGN ENGINEER, THE ENGINEER RESPONSIBLE FOR E&SC MONITORING DURING CONSTRUCTION, TOWN REPRESENTATIVES FROM THE ENGINEERING DEPARTMENT AND CODE ENFORCEMENT, AND REPRESENTATIVES FROM THE NYC DEP. THE NYC DEP SHALL BE NOTIFIED 48 HRS PRIOR TO THE PRECONSTRUCTION MEETING.
- A LICENSED SURVEYOR MUST DEFINE INFRASTRUCTURE LOCATIONS, LIMITS OF DISTURBANCE, STORMWATER BASIN LIMITS, AND GRADES IN THE FIELD PRIOR TO START OF ANY CONSTRUCTION. LIMITS OF DISTURBANCE SHALL BE MARKED WITH THE INSTALLATION OF CONSTRUCTION FENCE OR APPROVED EQUAL. THE EXTENTS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE CORDONED OFF TO MINIMIZE THE DISTURBANCE ON THIS AREA.
- INSTALL ALL PERIMETER EROSION CONTROL MEASURES, CONSTRUCTION ENTRANCE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND THE ASSOCIATED DETAILS. INSTALL SILT FENCING AT THE BOTTOM OF SLOPES. THE STANDARDS ESTABLISHED IN PART 1.B OF THE GP-020-001 INCLUDED IN APPENDIX B OF THIS SWPPP MUST BE ADHERED TO.
- STRIP SITE, CLEAR VEGETATION, AND PLACE TOPSOIL IN STOCKPILE LOCATIONS SHOWN ON THE PLAN.
- BEGIN DEMOLITION OF EXISTING BUILDING AND IMPROVEMENTS TO BE REMOVED. ALL DEMOLITION MATERIAL SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
- ROUGH GRADE BUILDING, DRIVEWAY, AND PARKING AREA.
- BEGIN THE EXCAVATION AND INSTALLATION OF THE STORMWATER MANAGEMENT SYSTEM. PROTECT TRENCHES AND OPEN EXCAVATIONS FROM EROSION. ENTRY INTO THE SYSTEM SHALL BE BLOCKED OFF UNTIL SITE HAS REACHED FINAL STABILIZATION. ONCE SYSTEM HAS BEEN INSTALLED, BACKFILL, SEED WHERE NECESSARY, AND REINSTALL MEASURES TO CORDON OFF THE SYSTEM FROM DISTURBANCE.
- DURING SITE CONSTRUCTION MAINTAIN AND RE-ESTABLISH AS REQUIRED EROSION CONTROL AND STABILIZATION MEASURES AS REQUIRED BY THE SITE PLAN AND DETAILS.
- INSTALL GRAVEL SURFACE. ONCE INSTALLED, INLET TO INFILTRATOR SYSTEM MAY BE UNBLOCKED.
- INSTALL AND BACKFILL CURBS, GRADE, PLACE FINAL SOIL TOPPING AND PUT IN PLACE PERMANENT VEGETATIVE COVER OVER ALL DISTURBED AREAS, LANDSCAPE BEDS, SLOPES, ETC.

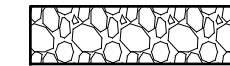
WINTER STABILIZATION NOTES:

IF CONSTRUCTION ACTIVITIES ARE EXPECTED TO EXTEND INTO OR OCCUR DURING THE WINTER SEASON THE CONTRACTOR SHALL ANTICIPATE PROPER STABILIZATION AND SEQUENCING. CONSTRUCTION SHALL BE SEQUENCED SUCH THAT WHEREVER POSSIBLE AREAS OF DISTURBANCE THAT CAN BE COMPLETED AND PERMANENTLY STABILIZED SHALL BE DONE BY APPLYING AND ESTABLISHING PERMANENT VEGETATIVE COVER BEFORE THE FIRST FROST. AREAS SUBJECT TO TEMPORARY DISTURBANCE THAT WILL NOT BE WORKED FOR AN EXTENDED PERIOD OF TIME SHALL BE TREATED WITH TEMPORARY SEED, MULCH, AND/OR EROSION BLANKETS.

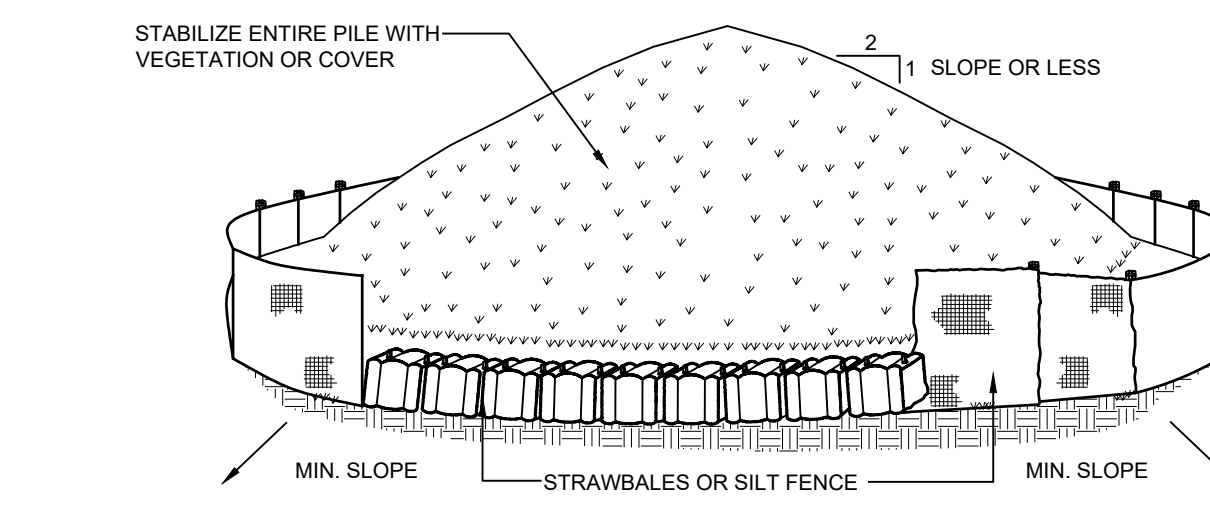


- INSTALLATION NOTES:**
- Stone size - use 3" min. Stone, or reclaimed or recycled concrete equivalent.
  - Length - as required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  - Thickness - not less than six (6) inches.
  - Width - 10 foot minimum, but not less than the full width at points where ingress or egress occur. 24 ft if single entrance to site.
  - Surface water - all surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
  - Maintenance - the entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right of way this may require periodic top dressing with additional stone as conditions demand and repair and/or cleanouts of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public right of way must be removed immediately.
  - Washing - wheels shall be cleaned to remove sediment prior to entrance onto public right of way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Periodic inspection and needed maintenance shall be provided after each rain

SYMBOL



E-3 STABILIZED CONSTRUCTION ENTRANCE DETAIL NOT TO SCALE

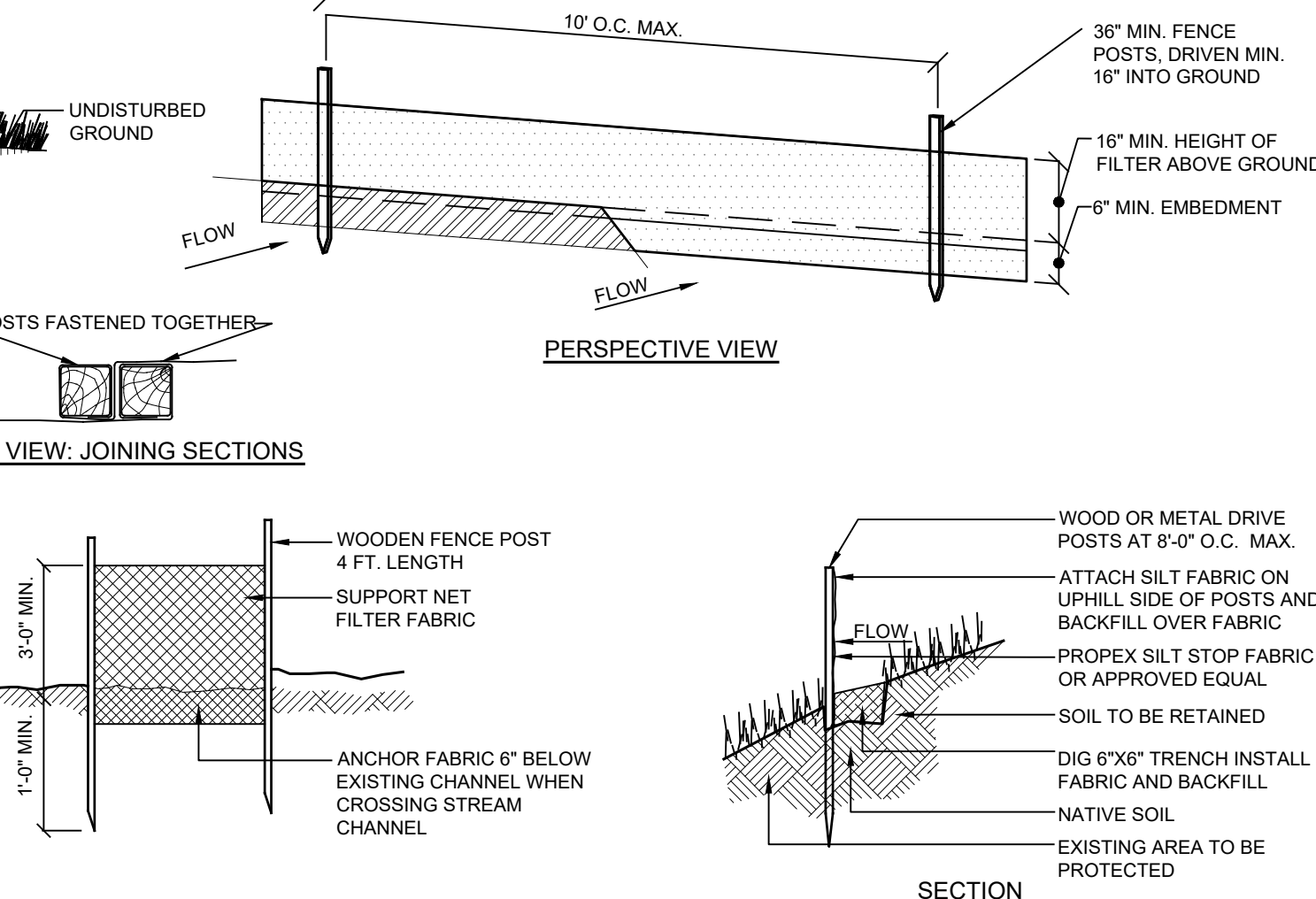


- NOTES:**
- Area chosen for stockpiling operations shall be dry and stable.
  - Maximum slope of stockpile shall be 1:2.
  - Upon completion of soil stockpiling, each pile shall be surrounded with either silt fencing or strawbales, then stabilized with vegetation or covered.
  - See detail for installation of silt fence.

SYMBOL



E-4 SOIL STOCKPILE DETAIL NOT TO SCALE



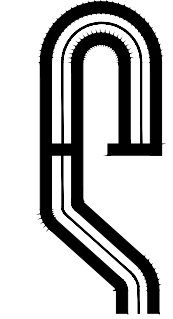
- NOTES:**
- Filter cloth to be fastened securely to post: steel either 1 or u type or 2" hardwood posts at top and mid section.
  - When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded. Filter cloth shall be min 100x, stabilinka 1140n or approved equal.
  - Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.
  - Excavate 4 inch trench along the lower perimeter of the site.
  - Unroll a section at a time and position the post against the back (downstream) wall of the trench (net side away from direction of flow).
  - Lay the toe-in flap of fabric onto the undisturbed bottom of the trench, backfill the trench and tamp the soil. Steeper slopes require an intercept trench.
  - Join sections as shown above.

E-1 SILT FENCE DETAIL NOT TO SCALE

E-2 INLET PROTECTION DETAIL NOT TO SCALE



E-1



PROJECT # 22-60

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Revisions:	No.	Date	Comments:
	1.	4/28/23	Reduce Parking
	2.	8/29/23	Plan Update

SCALE: #####	DRAWN BY: JCR	DATE: 3/10/23
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Erosion Notes And Details

19 MARK MEAD ROAD, LLC

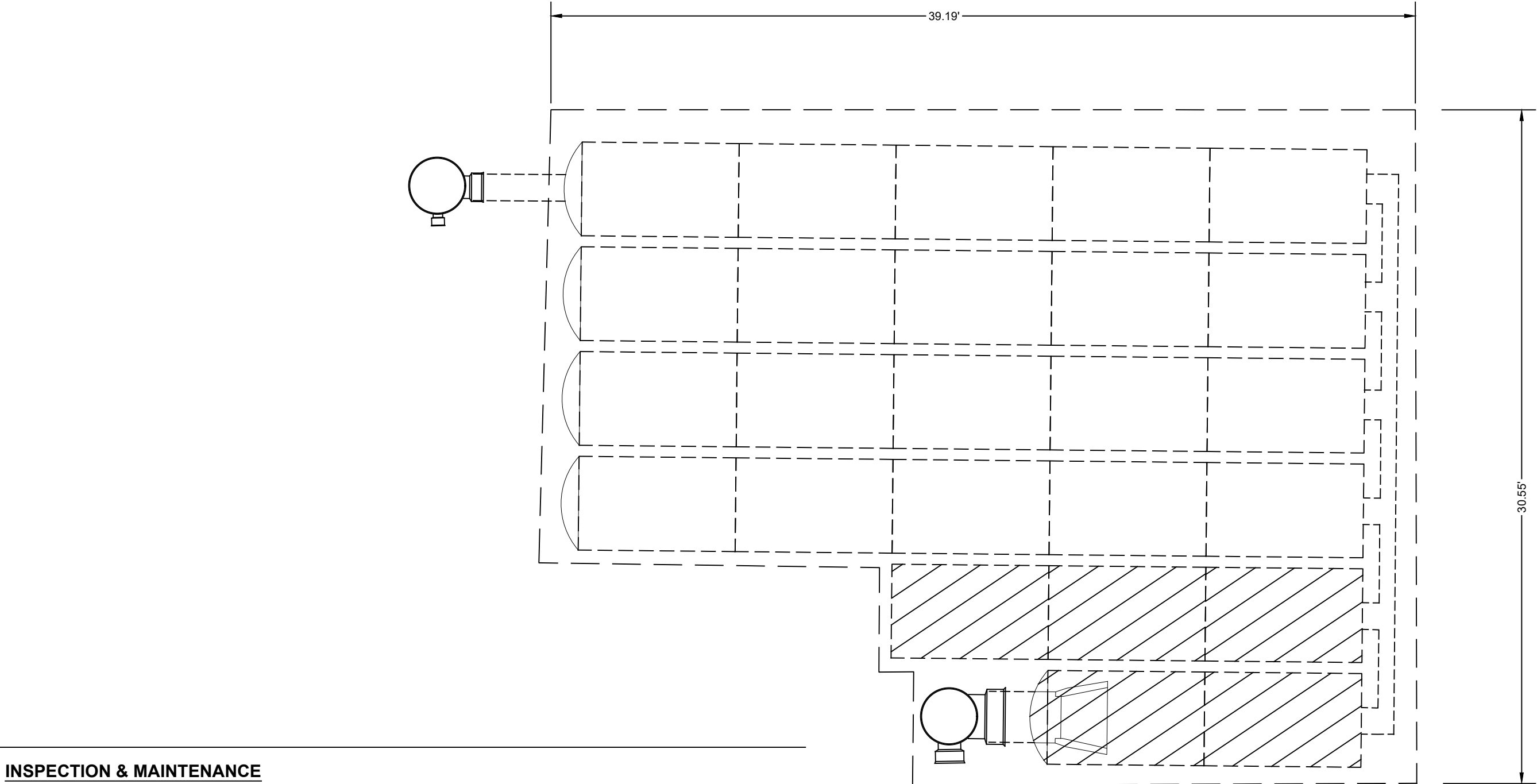
19 MARK MEAD ROAD  
Lewisboro  
Westchester County, NY





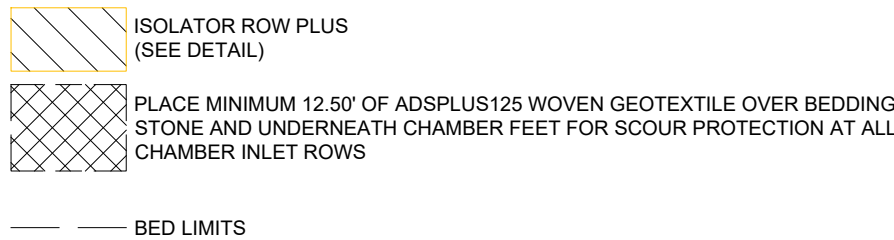


E:\2022\22-60 BACCO RESTAURANT ENGINEERING\CD\CD-22-60 BACCO RESTAURANT\DWG\22-60 BACCO SITE PLAN\4.3-21 CHANGES.DWG-11/19/2017 2:49:52 PM



#### INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROW PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.



#### NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

#### NOTES

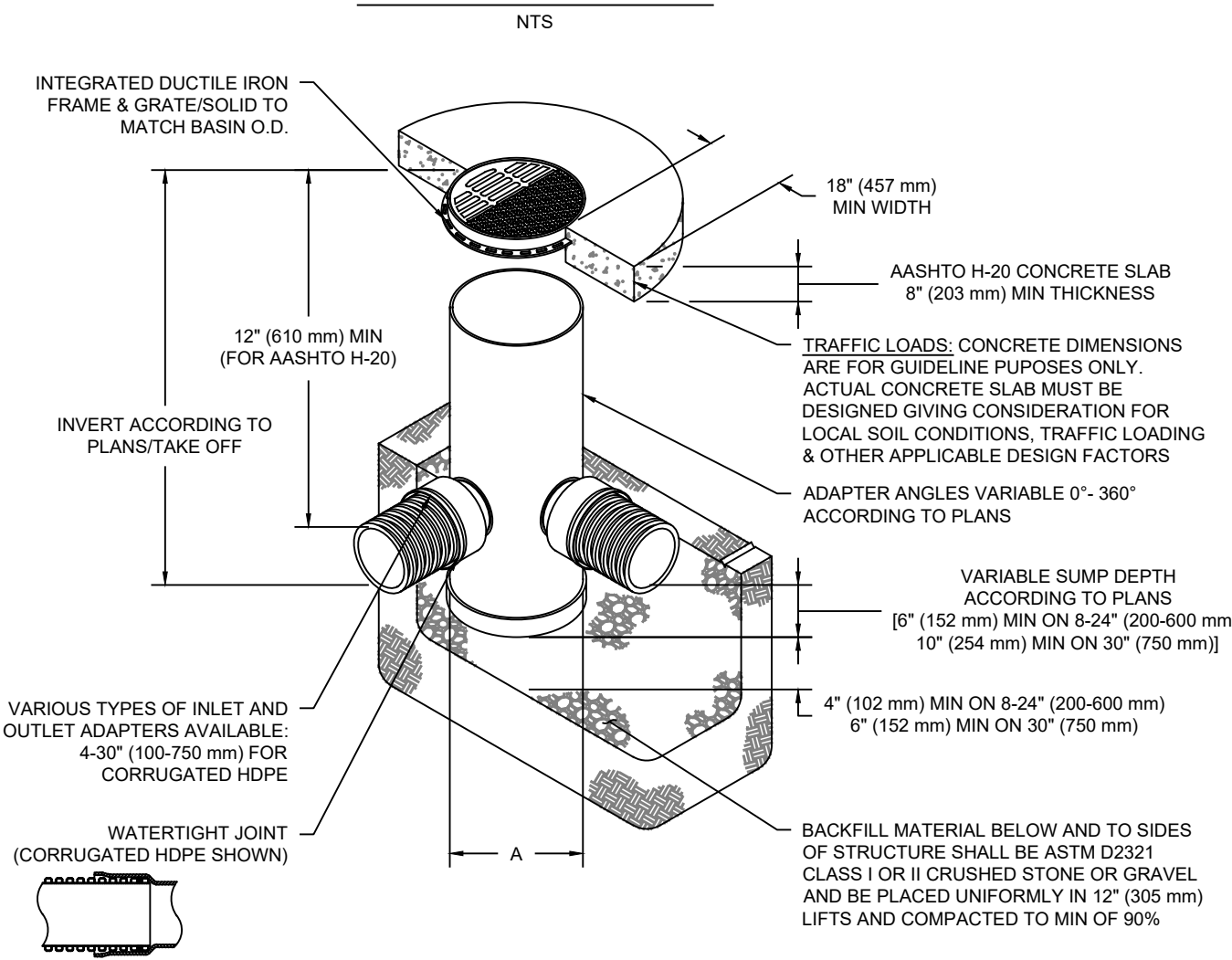
MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6 32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.

THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.

**NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

#### NYLOPLAST DRAIN BASIN

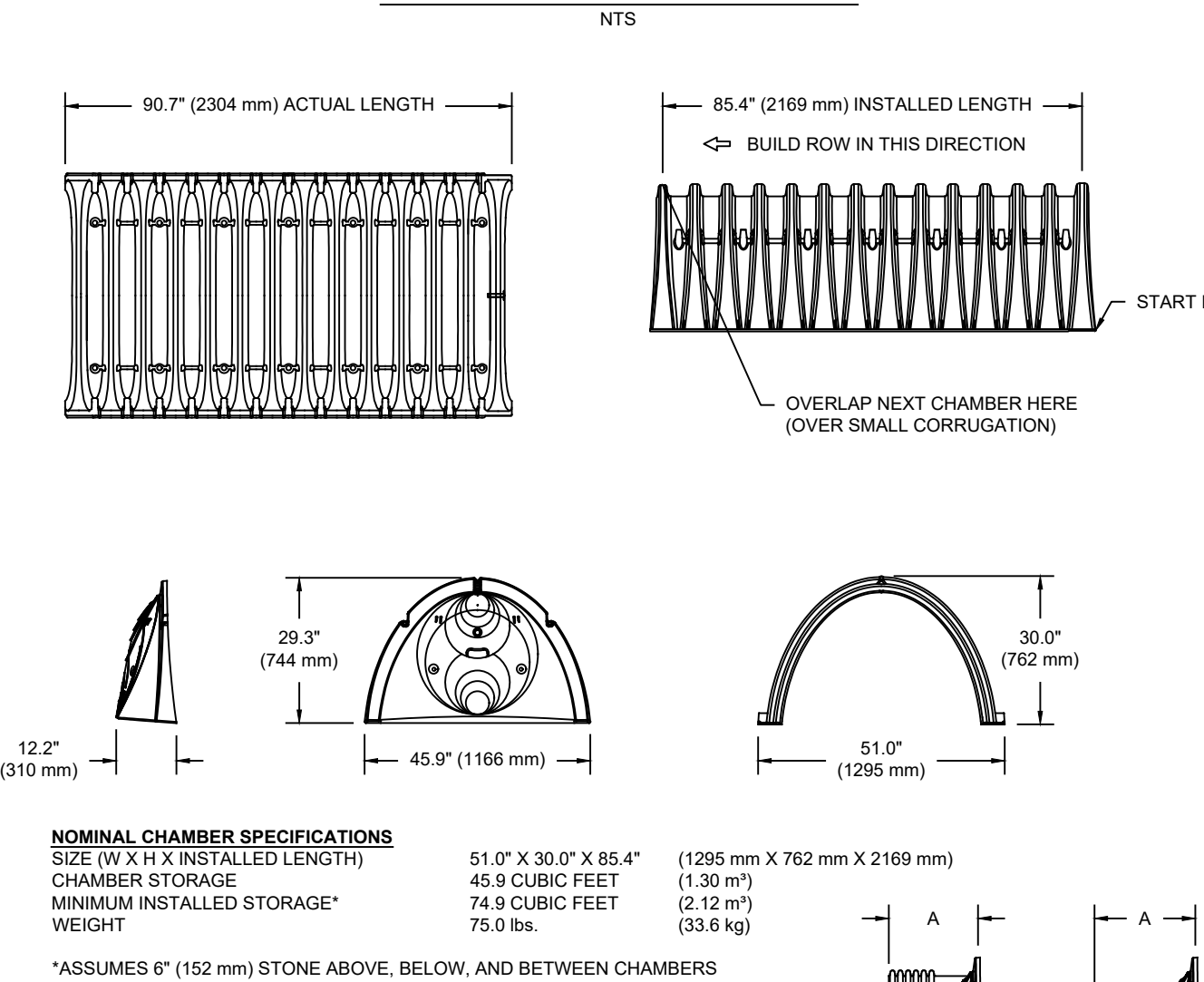


#### NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50/05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50/05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)
- TO ORDER CALL: 800-821-6710

A	PART #	GRATE/SOLID COVER OPTIONS
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY STANDARD LIGHT DUTY SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY STANDARD LIGHT DUTY SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10 STANDARD AASHTO H-20 SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10 STANDARD AASHTO H-20 SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10 STANDARD AASHTO H-20 SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-20 STANDARD AASHTO H-20 SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20 STANDARD AASHTO H-20 SOLID AASHTO H-20

#### SC-740 TECHNICAL SPECIFICATION



#### NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m³)
WEIGHT	75.0 lbs. (33.6 kg)

\*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BS"  
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "B"  
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE001 / SC740EPE001PC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	0.5" (13 mm)
SC740EPE008 / SC740EPE008PC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.6" (15 mm)
SC740EPE008 / SC740EPE008PC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.7" (18 mm)
SC740EPE101 / SC740EPE101PC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	1.2" (30 mm)
SC740EPE108 / SC740EPE108PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.3" (33 mm)
SC740EPE121 / SC740EPE121PC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.6" (41 mm)
SC740EPE128 / SC740EPE128PC	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	—
SC740ECEZ	—	—	—	—

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

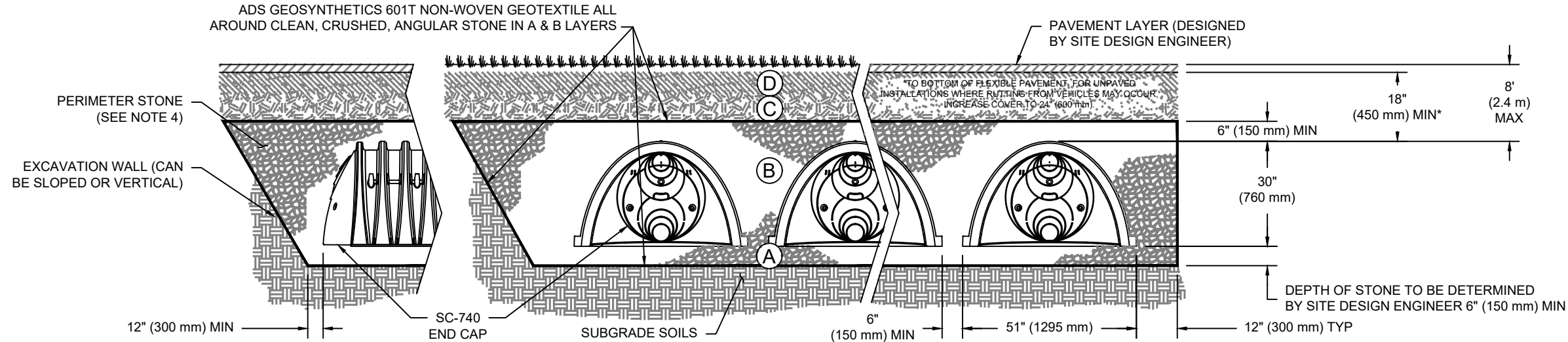
NOTE: ALL DIMENSIONS ARE NOMINAL

#### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D <b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C <b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2.4, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B <b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A <b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

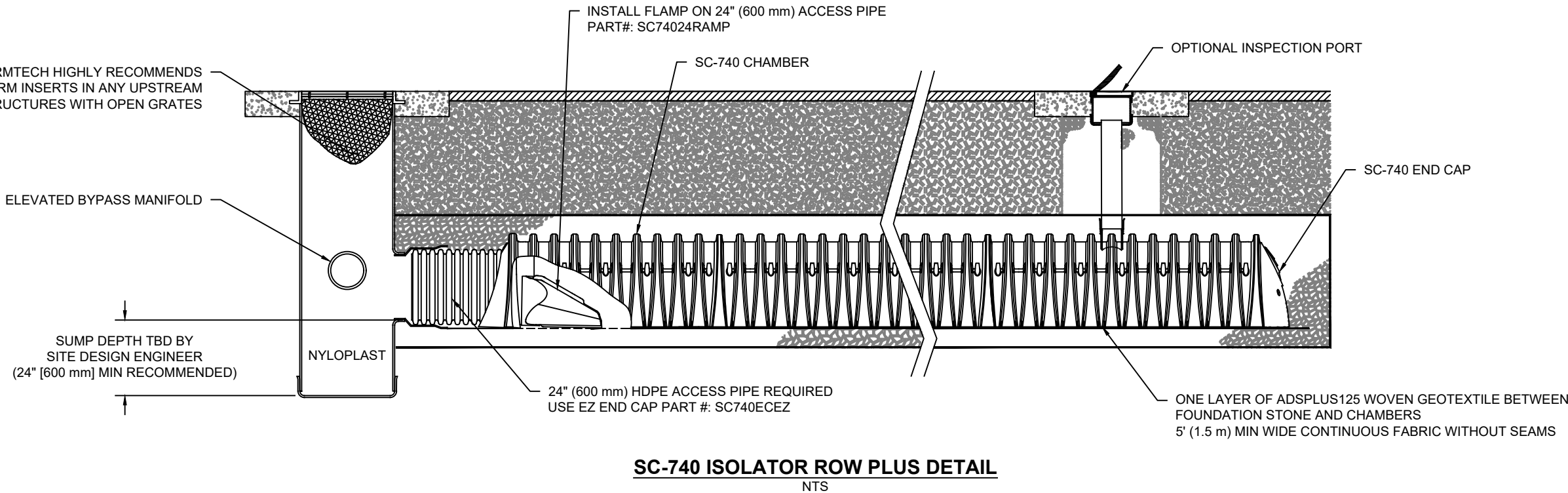
#### PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



#### NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT<sup>2</sup>. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



#### SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT<sup>2</sup>. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
  - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
  - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD. THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
  - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

#### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOTTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

#### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 360° (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



PROJECT # 22-60

## Site Design Consultants

Civil Engineers • Land Planners  
251-F Underhill Avenue, Yorktown Heights, NY 10598  
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Revisions:	No.	Date	Comments:
	1.	4/28/23	Reduce Parking
	2.	8/29/23	Plan Update

SCALE: #####	DRAWN BY: JCR	DATE: 3/10/23
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## Stormwater Details

SITE PLAN  
PREPARED FOR

19 MARK MEAD ROAD, LLC

19 MARK MEAD ROAD

Westchester County, NY

Sheet 7 of 7  
Lewistown



# **STORMWATER MANAGEMENT PLAN**

**Prepared for**

**19 Mark Mead Road, LLC.  
19 Mark Mead Road  
Town of Lewisboro, NY**

**Prepared by:**

**Site Design Consultants  
251F Underhill Avenue  
Yorktown Heights, New York 10598  
914-962-4488**

**Joseph C. Riina, P.E.  
NYS Lic. No. 64431**

**August 25, 2023**



**STORMWATER MANAGEMENT PLAN**

**Prepared for**

19 Mark Mead Road, LLC.  
19 Mark Mead Road  
Town of Lewisboro, NY

**Prepared For:** 19 Mark Mead Road, LLC.  
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Cross River, NY 10518

**Site Engineer:** Joseph C. Riina, P.E.  
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**August 25, 2023**



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## **1.0 Project Description**

The subject project address is 19 Mark Mead Road in the Town of Lewisboro, New York. It fronts on two roads, North Salem Road to the west and Mark Mead to the south. The asphalt driveway currently accesses North Salem Road. The 0.906 acre property currently contains a residential structure and free-standing garage, however it is split in approximately half with the northern portion being zoned business and the other residential. The property is nearly fully developed.

It is proposed to construct an overflow parking lot for the restaurant located on the west side of North Salem Road. The proposed development will require removing the existing free-standing garage and a portion of the asphalt driveway. A new gravel parking lot will be constructed to accommodate 25 parking spaces. The parking lot will be surrounded by a concrete curb containing the gravel surface. The driveway will continue to be asphalt but will be widened. A stairway will be constructed from the new parking area for connection to the restaurant. A crosswalk will be installed to a new concrete sidewalk which will extend to the north side and front entry to the restaurant. This will require removing a row of pine trees. Screening will be provided along the north and east perimeter of the parking lot by installing fencing and plantings. Also, a new drive and parking area will be constructed for the residence from the Mark Mead. The project will have a total disturbance of 18,224 sf and reduce the impervious area by 921 sf. To mitigate any increase in runoff a stormwater management system is proposed to provide detention so that there will be no increase in the rate of runoff up to the 100-year, 24 hour storm event. This disturbance will be managed during construction by implementing this stormwater management plan which will control stormwater runoff and related erosion potential. During construction, temporary erosion and sediment control measures will be installed and maintained. After construction surface runoff will drain to a subsurface chamber system.

The following Report and Plans describe in detail the design and implementation of the Stormwater Management Plan.

## **2.0 Site Hydrology**

The proposed improvements will not significantly change the surface runoff patterns. The area is slightly sloped downward and away toward North Salem Road.

Under the proposed condition the general direction of the surface runoff will not be altered. The proposed parking lot will be essentially on the existing grade surface with only minor modifications to the topography. The proposed improvements as shown will result in a change of the surface conditions. Therefore, there will be an increase in the volume of runoff generated by the project for a given rainfall event. This will be mitigated with the stormwater management system. It is proposed that all of the surface runoff from the new parking lot area will be collected and detained to maintain no increase in peak runoff up to the 100-year storm. The collected stormwater will be routed through a Stormtech SC-740 infiltrator system which will have a 6" overflow pipe. The system will route stormwater by means of infiltration as well as discharge excess flows through overflow pipe which will discharge to the paved gutter alongside North Salem Road. In each of the storm events analyzed the rate of surface discharge is well below the existing condition. The proposed sidewalk is included in the overall computation even though it does not directly discharge to the existing catch basin. The runoff from the sidewalk will receive Water Quality treatment via a planted filter strip along its west side.

In the planning, design and construction of the development, stormwater will be managed to minimize or eliminate potential off-site impacts. The proper implementation of temporary sediment and erosion control measures are used to achieve this goal. Erosion and Sediment Control measures have been established and will be implemented during construction until the completion of the project. The Erosion

and Sediment Control measures incorporate the sequence of construction and designed measures to be installed, operated and maintained during all aspects of construction. The erosion and sediment control measures are designed in accordance with the NYS Standards and Specifications for Erosion and Sediment Control.

### **3.0     Soils**

On-site soils were classified by using the USDA Natural Resources Conservation Service (NRCS) Websoil survey for Westchester County, NY, see Figure 4.1 – Soil Map.

The predominant soil type for this project is Paxton, which has a hydrologic classification of “C”. This is consistent with on-site soil testing. The erosion hazard level for these soil at the given slope is low. These soil properties are essential in the design and proper construction management of the site.

### **4.0     Stormwater Regulatory Requirements**

#### **Regulatory Obligation**

The project disturbance is greater than 5,000 sf and within the NYC DEP watershed, therefore requires filing of a Notice of Intent with the NYS DEC for compliance with General Permit 0-20-001 is required.

#### **4.2.1    Local Municipality**

In addition, this project requires approval under Chapter 189, Stormwater Management and Erosion and Sediment Control, of the Town of Lewisboro Code. The Code requires compliance for projects with a land disturbance activity of 5,000 s.f. or more. The Code requires compliance with the NYS DEC GP-0-20-001.

#### **4.2.2    NYC DEP**

This site is located within a Main Street Designated Area as set forth by the New York State City Department of Environmental Protection. Therefore, the project is required to comply with Section 18-39 (b) (4) (x) of “Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources.” The Regulations require mitigating construction activities increasing impervious areas. Therefore, requiring the capture and treatment of the 1-year, 24-hour storm. In order to provide a positive benefit to downstream surface waters, a treatment component must be designed into the project. The Design must also show proper Erosion and Sediment Controls during the construction of the project.

The technical standards providing guidance in the preparation of the E&SC and SWPPP are the latest revisions of the following:

- “New York Standards & Specifications for Erosion and Sediment Control” (NYSSESC) published by the Empire State Chapter of the Soil and Water Conservation Society; and.
- “New York State Stormwater Management Design Manual” prepared by the Center of Watershed Protection, for the NYS DEC;

- Town of Lewisboro – Town Code Chapter 189 Stormwater Management and Erosion and Sediment Control;
- NYC DEP Watershed – Chapter 18 of Title 15 of the Rules of the City of New York – Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Sources.

A stormwater analysis has been performed and Stormwater Management Systems have been designed to provide for the retention of stormwater. The basis of analysis was to capture and detain to attenuate the 100-year storm which has a runoff depth of 9.28". The subsurface chambers have the capacity to detain the 100-year storm event not increasing the peak rate of discharge over existing conditions.

## **5.0 Reducing Pollutant Impact**

### **Stormwater Management During Construction**

The Erosion and Sediment Control measures will be implemented during all phases of construction until the completion of the project. This will minimize or eliminate the potential short-term adverse impacts which may occur during construction. After completion, the erosion and sediment control will become a maintenance plan to ensure that permanent erosion and sediment controls continue to function and prevent the transport of sediments.

The plans include the Sequence of Construction and designed measures to be installed, operated, and maintained during all aspects of construction. The appropriate measures were selected and detailed in the plan for implementation by the site contractor. The main objective of the plan is to prevent erosion from occurring by stabilization of the construction site where possible. Sediment controls are to be used as a containment system to allow the removal of sediment from runoff to the greatest extent possible before leaving the work site. Control methods and standards utilized are provided in the NYS GUE&SC.

Prior to completion of the project, all permanent structural features will be cleaned, restored, and re-vegetated as necessary. The erosion and sediment control phase of the project is complete when all work is completed, and all areas are stabilized. The post-construction Stormwater Management Inspection and Maintenance agreement will describe the long-term inspection schedule, periodic maintenance requirements, and the responsible party.

## **6.0 Unified Stormwater Sizing Criteria**

### **6.1 Methodology**

To satisfy the requirements of the Town of Lewisboro a standard practice has been selected which meets the New York State Stormwater Design Manual January 2015.

### **6.2 Water Quality Volume (WQv)**

The proposed project will reduce the amount of imperviousness and therefore will not generate an increase in pollutant load which meets the intent of Chapter 5 of the NYS DEC SMDM. Furthermore, this project is located in the NYC DEP Main Street Designated Area and considered a "small project" and does not require fulfilling the requirement of meeting the minimum Runoff Reduction RRv.

### 6.3 Stream Channel Protection Volume Requirements (CPv)

This requirement is for the protection of stream channels from receiving erosive velocities. This goal is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event that remains after runoff reduction is applied to the project. Trout waters may be exempted to only provide 12-hour detention. It is also not required if the discharge is to a pipe or hardened channel. The detention time is measured by the center of mass method or plug flow calculation method. Further criteria for the application of the Cpv can be found in Section 4.4 of the SMDM.

### 6.4 Overbank Flood Control (Op)

The purpose of this sizing criteria for overbank flood control is to avoid an increase in the frequency and magnitude of out-of-bank flooding that may be the result of development. These are flow events where channel capacity is exceeded and spill over to flood plains. To meet the criteria the proposed stormwater management system for the project must attenuate the 10-year, 24-hour storm event to pre-development peak discharge rate. Detailed criteria can be found in Section 4.5 of the SMDM.

### 6.5 Extreme Flood Control Criteria (Qf)

The purpose of the extreme flood analysis is to prevent flood damage from large storm events by maintaining predevelopment 100-year flood plain boundaries and protecting the integrity of stormwater management practices. The basis of the analysis is to maintain pre-development peak rates of runoff for the 100-year, 24-hour storm event with proper stormwater management. Detailed criteria can be found in Section 4.6 of the SMDM.

## 7.0 Hydrologic Analysis

A hydrologic analysis was performed for the area of interest or subject to development site for existing and proposed conditions. In this analysis the existing and proposed conditions were compared to determine the increase in runoff volume to be controlled. The method used to compute project runoff was the Soil Conservation Service TR-55. The basis for the analysis was the Type III, 24-hour storm, for the 100-year storm event. The rainfall depth for the 100-year storm is 9.2 inches. The runoff coefficient "CN" and Time of Concentration for existing and post-development conditions were computed using Standard TR-55 criteria. The summary of the input can be found in Appendix C.

The contributing watershed is limited to the project site with the design point which is the municipal drainage system in North Salem Road where all of the current surface runoff flows to. The following table summarizes the runoff calculations shown in Appendix C.

#### **Drainage Summary:**

<b>Storm Frequency</b>	<b>Existing, cfs</b>	<b>Proposed, cfs</b>	<b>Net Change, cfs</b>	<b>% Change</b>
1 year	0.82	0.57	-0.25	-30.49%
2 year	1.21	0.85	-0.36	-29.75%
10 year	2.52	1.81	-0.71	-28.17%
25 year	3.47	2.60	-0.87	-25.07%
100 year	5.41	4.90	-0.51	-9.43%



The peak rate of discharge from the 24-hour rainfall for each rainfall event shows no increase over the existing condition; therefore, there are no downstream impacts associated with this project. The Stormtech units have been sized to attenuate peak flows from the 100-year.

## **8.0 Selected Stormwater Management Practices (SMPs)**

Since the only requirement is the attenuation of the increase in stormwater runoff during the 100-year storm event most of the runoff from the impervious areas is being collected and detained with a controlled release with no increase in peak runoff over existing conditions.

The selected practices are as follows:

### **Infiltration – Subsurface Chambers (I-3) NYS DEC SMDM:**

Stormwater Infiltration Practices capture and temporarily store stormwater. The stormwater is then infiltrated into the existing soil strata over an extended period of time allowing recharge into the groundwater.

#### **Required Elements:**

<b>Pre-Treatment Volume</b>	
Required	Provided
If Fc for underlying soils is less than 2.0 in/hr minimum pre-treatment volume of 25% is required.	N/A
If Fc for underlying soil greater than 2.0 in/hour, minimum pretreatment volume of 50% is required	N/A
If Fc for underlying soil greater than 5.0 in/hour, 100% of WQv must be pretreated	100%
Exit velocities from pretreatment volume shall be non-erosive (3.5 to 5.0 fps) during the 2-year storm event	Exit velocities are not a concern since there are no significant surface discharges.

<b>Treatment Volume</b>	
Required	Provided
Infiltration practice designed to exfiltrate entire WQv through floor of practice (side walls not included in sizing);	All criteria have been met. The subsurface infiltration system has been designed to exfiltrate the entire WQv and has been sized based solely on the surface area of the bottom.
Installation shall carefully follow the construction sequence.	All criteria have been met. The surface infiltration system has been designed to exfiltrate the entire WQv and has been sized based solely on the surface area of the bottom.
The surface area of the infiltration practice	All criteria have been met. The surface infiltration system has been designed to exfiltrate the entire WQv

shall be sized based on $A_p = V_w / n d t$ $A_p$ = surface area (SF) $V_w$ = Water Quality Volume (cf) $n$ = porosity (one used since open cavity) $d t$ = depth of practice	and has been sized based solely on the surface area of the bottom.
--	--

**Landscaping:**

Does not apply.

<b>Maintenance</b>	
Required	Provided
Infiltration practice shall never serve as a temporary sediment trap during construction.	This Erosion and Sediment Control Plan includes separate locations for temporary sediment traps which do not coincide with the practice locations.
An observation well shall be installed in every practice and shall have lockable cap.	The subsurface stormwater management system will have access manholes.
Direct access shall be provided to the practice for maintenance and rehabilitation.	Direct access and observation will be served by a manhole cover.

**9.0 Stormwater Management Practice Justification and Design**

The selection of the management practice was based on evaluating the site to determine what would best fit the conditions providing maximum benefits. The goal was to select practices which would meet attenuation standards and minimize the disturbance footprint. The selection of Stormwater Practices was based on the surface and subsurface conditions of the site. In addition, the site design concept is to create a natural and environmentally sensitive setting. These calculations are located in Appendix C.

**10.0 Erosion and Sediment Control Selection****Stabilized Construction Entrance:**

This has been specified for the entrance of the driveway. The installation will occur at the beginning of the project as described in the Suggested Construction Sequence. It will be maintained so as to prevent the tracking of sediment off-site.

**Silt / Sediment Fence:**

Silt fence has been specified to control and contain sediment from leaving areas under disturbance to undisturbed areas. The type, placement, and installation shall meet the requirements of the NYSGUESC. The fence shall be installed as best as possible following the contours and will be spaced in accordance with the same criteria. The fence will be inspected daily, repaired, and sediment removed. The location and details can be found on the site plan.

Soil Stockpile:

Areas are provided for temporary stockpiling of delivered soil material for the construction. These areas will be contained with sediment fence to prevent the movement of sediment. The stockpiles if not active for less than 14 days will be seeded and mulched. The stockpile areas were placed to best suit the proposed construction activity. The stockpile will be installed as described in the Construction Sequence. The location and detail can be found on the site plan.

Temporary and Permanent Vegetative Cover:

Disturbed areas that will not contain structures or other improvements must be stabilized. The stabilization may be temporary and in other cases permanent vegetative cover. The vegetative cover specifications are based on the NYS ES&C Manual. On the Construction Plans are notes, locations, and specifications as to the vegetative cover requirements. In the notes, there are specific situations and time constraints related to stabilization of disturbed areas. The specifications give seed and fertilizer mixes as well as placement.

**11.0 Construction Sequence**

A key object of the SWPPP is to reduce erosion and sedimentation potentials for the project. The construction sequence was developed to assist the site contractor. Its intent is to coordinate the installation of E&SCs with the site disturbing activities as a means to minimize the adverse impacts of the site work.

The Construction Sequence is also shown on the E&SC Notes and Details. A signature line for the Owner and Operator, if different, to certify that they have read, understand and agree to follow the Site Development, including the Construction Sequence and Erosion and Sedimentation Control Plan.

Responsible Party during and after Construction:

19 Mark Mead, LLC  
12 North Salem Road  
Cross River, NY 10518

**12.0 Maintenance of Stormwater Management Practices During Construction**

Regular site inspections will be performed by the Town or certified inspector throughout the construction of the project. Inspections will be made weekly and after major rainfall events, i.e. ½" or greater. A report will be made of each inspection. 30

**13.0 Maintenance of Stormwater Management Practices After Construction**

This will be clearly detailed in the Stormwater Management Inspection and Maintenance Agreement. These responsibilities will reside with the Town.

The following is the proposed Inspection and Maintenance Schedule:

Control to be Inspected	Inspection Frequency	Maintenance Threshold Criteria	Maintenance Procedure
-------------------------	----------------------	--------------------------------	-----------------------

Subsurface Infiltrators	Bi-annually	3"+ accumulated sediment	JetVac debris and sediment. Replace gravel surface when necessary.
-------------------------	-------------	--------------------------	--

Drain Inlets:

Access through grate structure and remove debris and sediment with hand tools.

In General:

- Controls should be inspected periodically for the first few months after construction and on a semi-annual basis thereafter. They should also be inspected after major storm events (greater than 0.5 inches).
- All stormwater controls shall be inspected and cleaned of any debris or sediment.
- Any erosion shall be repaired and stabilized with seeding and mulch or stone.

Please note that additional notes regarding maintenance activities are contained on the project Construction Drawings and should be adhered to during and after construction.

**15.0 Conclusion**

The Stormwater Management Plan has been established for this project in accordance with the requirements of Town of Lewisboro Chapter 189 Stormwater Management and Erosion and Sediment Control. This plan will effectively control stormwater generated by this project during and after construction. The management of the stormwater is based on controlling increases in peak runoff. Overall, it would improve even the existing conditions.

The effectiveness of the stormwater practices selected in design will be insured by implementing a maintenance plan. The maintenance plan details specific activities, safeguards and provisions to be monitored and performed by specified frequencies. By adhering to the maintenance plan, optimum performance of the stormwater practices can be expected.

In conclusion, the Stormwater Management System will not create negative downstream impacts as a result of this project.

August 25, 2023

Joseph C. Riina, P.E.  
NYS License No. 64431

---

## **Figures**

Figure 1.1 – Location Map

Figure 1.2 – Vicinity Map

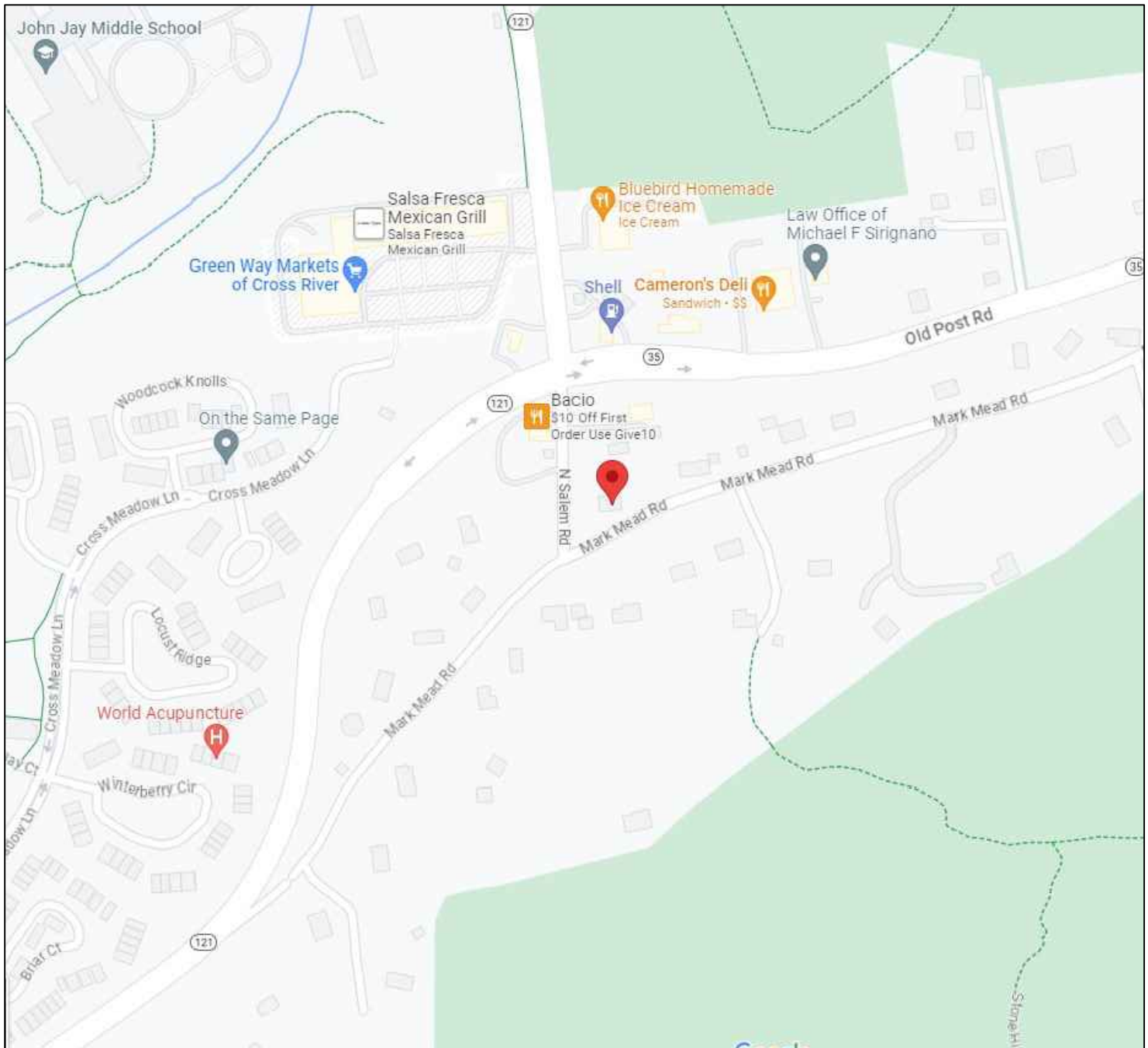
Figure 1.3 – CRIS Map

Figure 1a & 1b – Pre/Post Development Conditions Watershed Map

Figure 4.1, 4.1b, & 4.1c - Soils Information

Figure 3.1 – Stormwater Site Planning and Practice Selection Flow Chart

Figure 8.1 – Soil Restoration



**NOTE:**

1. Map Source: Google Maps.

FIG 1.1 Location Map

**19 MARK MEAD ROAD, LLC.**

Town of Lewisboro

Westchester County, New York

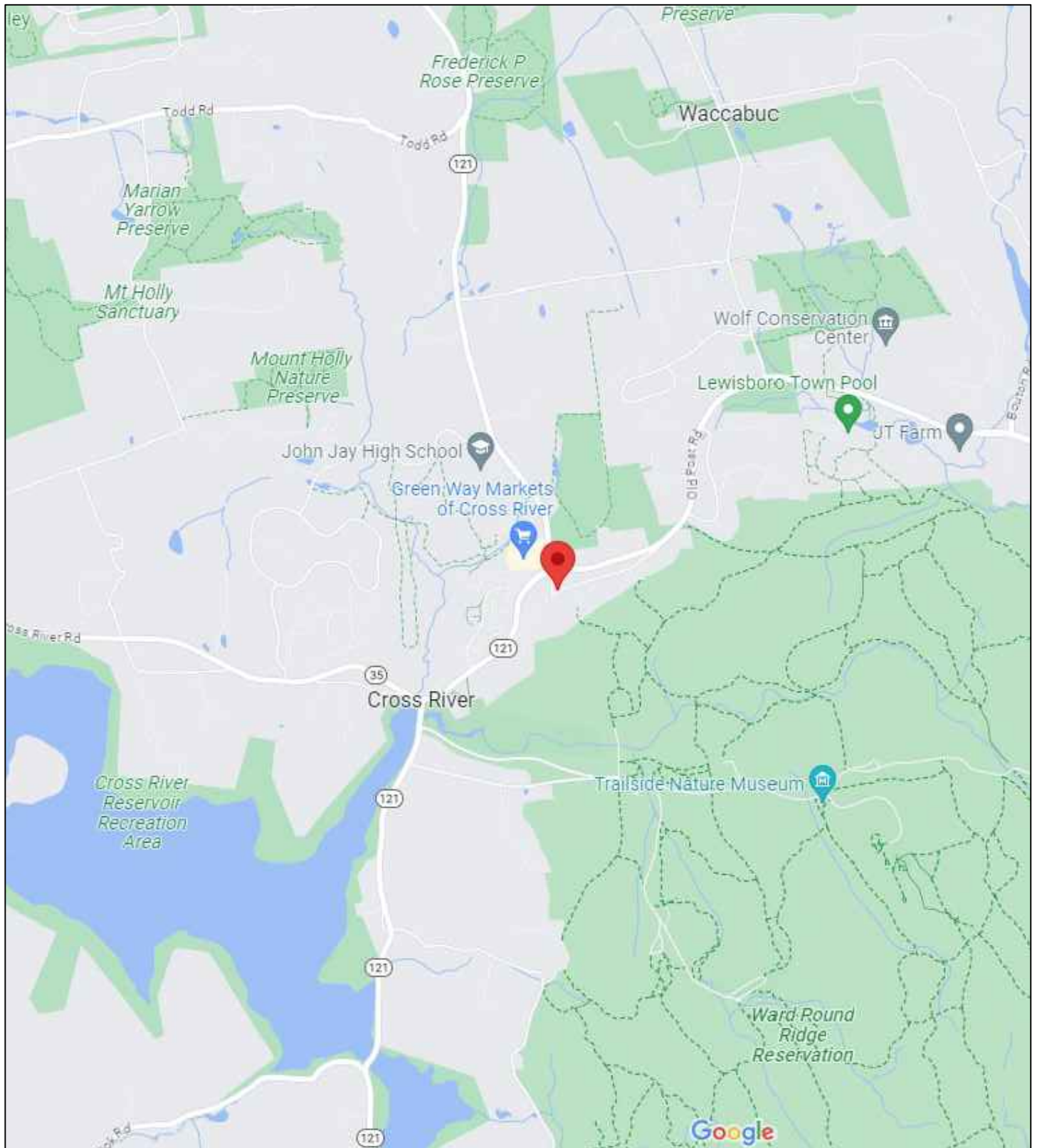
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Civil Engineers • Land Planners

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[www.sitedesignconsultants.com](http://www.sitedesignconsultants.com)



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**NOTE:**

1. Map Source: Google Maps.

FIG 1.2 Vicinity Map

**19 MARK MEAD ROAD, LLC.**

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Westchester County, New York

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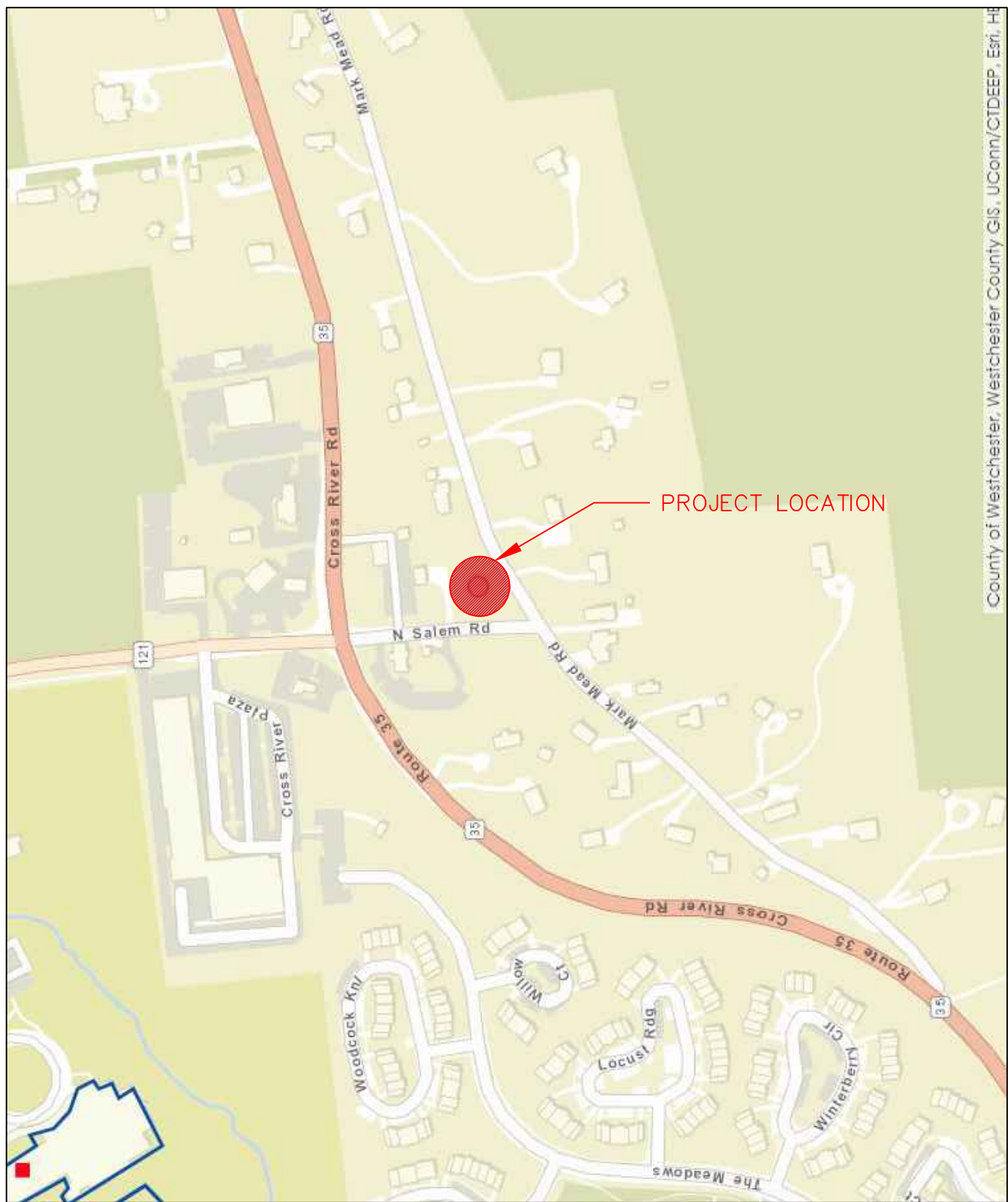
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County of Westchester, Westchester County GIS, UConn/CITDEEP, Esri, H

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**NOTE:**

1. Map Source: CRIS (Cultural Resource Information System)

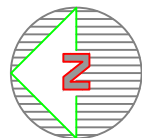


FIG 1.3 NYS OPRHP Historic Resource Map

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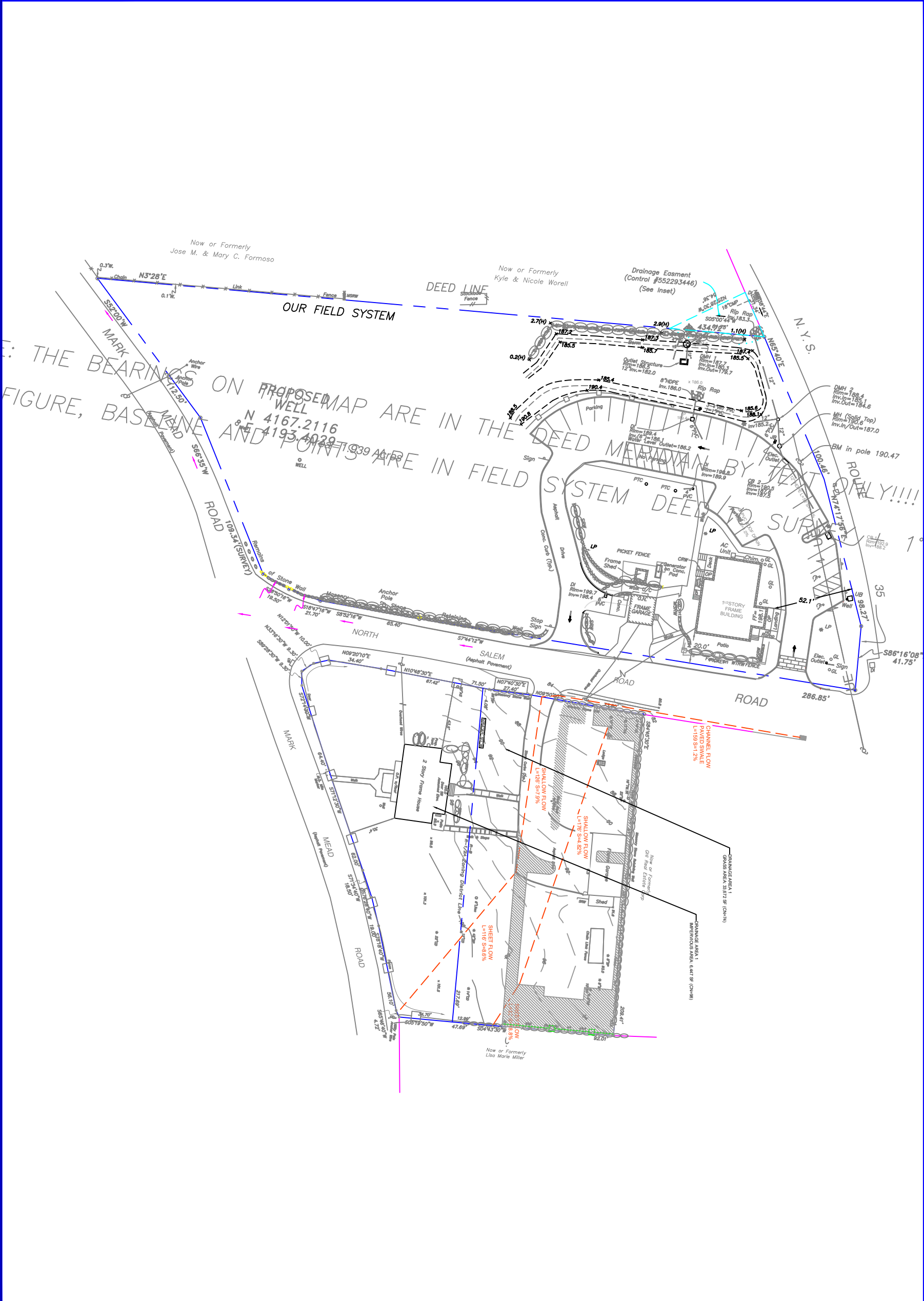


FIG 5.1 PRE DEVELOPMENT CONDITION WATERSHED

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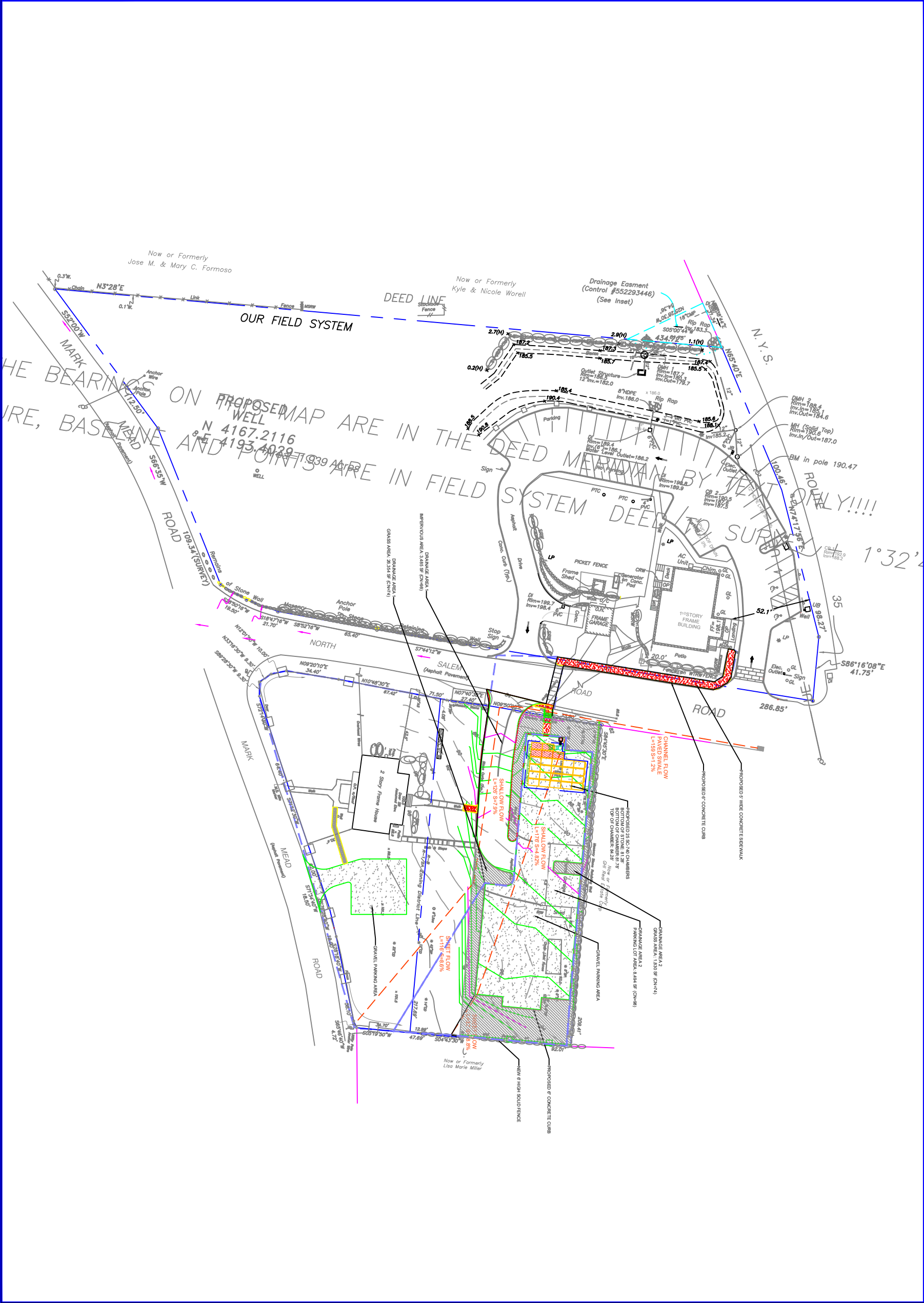


FIG 5.1 POST DEVELOPMENT CONDITION WATERSHED

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DATE: 7/7/2021  
REVISED: 8/28/2023



**NOTE:**

1. Map Source: USDA National Resources Conservation Service, National Cooperative Soil Survey, Web Soil Survey Map.

FIG 4.1 Soils Map

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Westchester County, New York

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Soil Map—Westchester County, New York

MAP LEGEND

<b>Area of Interest (AOI)</b>			Spoil Area
	Area of Interest (AOI)		Stony Spot
<b>Soils</b>			Very Stony Spot
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
<b>Special Point Features</b>		<b>Water Features</b>	
	Blowout		Streams and Canals
	Borrow Pit	<b>Transportation</b>	
	Clay Spot		Rails
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow	<b>Background</b>	
	Marsh or swamp		Aerial Photography
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: Westchester County, New York  
Survey Area Data: Version 18, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 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.



Web Soil Survey  
National Cooperative Soil Survey

8/28/2023  
Page 2 of 3

NOTE:

1. Map Source: USDA National Resources Conservation Service, National Cooperative Soil Survey, Web Soil Survey Map.

FIG 4.1 Soils Map

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### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	0.0	0.1%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	1.1	99.9%
Totals for Area of Interest		1.1	100.0%

#### NOTE:

1. Map Source: USDA National Resources Conservation Service, National Cooperative Soil Survey, Web Soil Survey Map.

FIG 4.1 Soils Map

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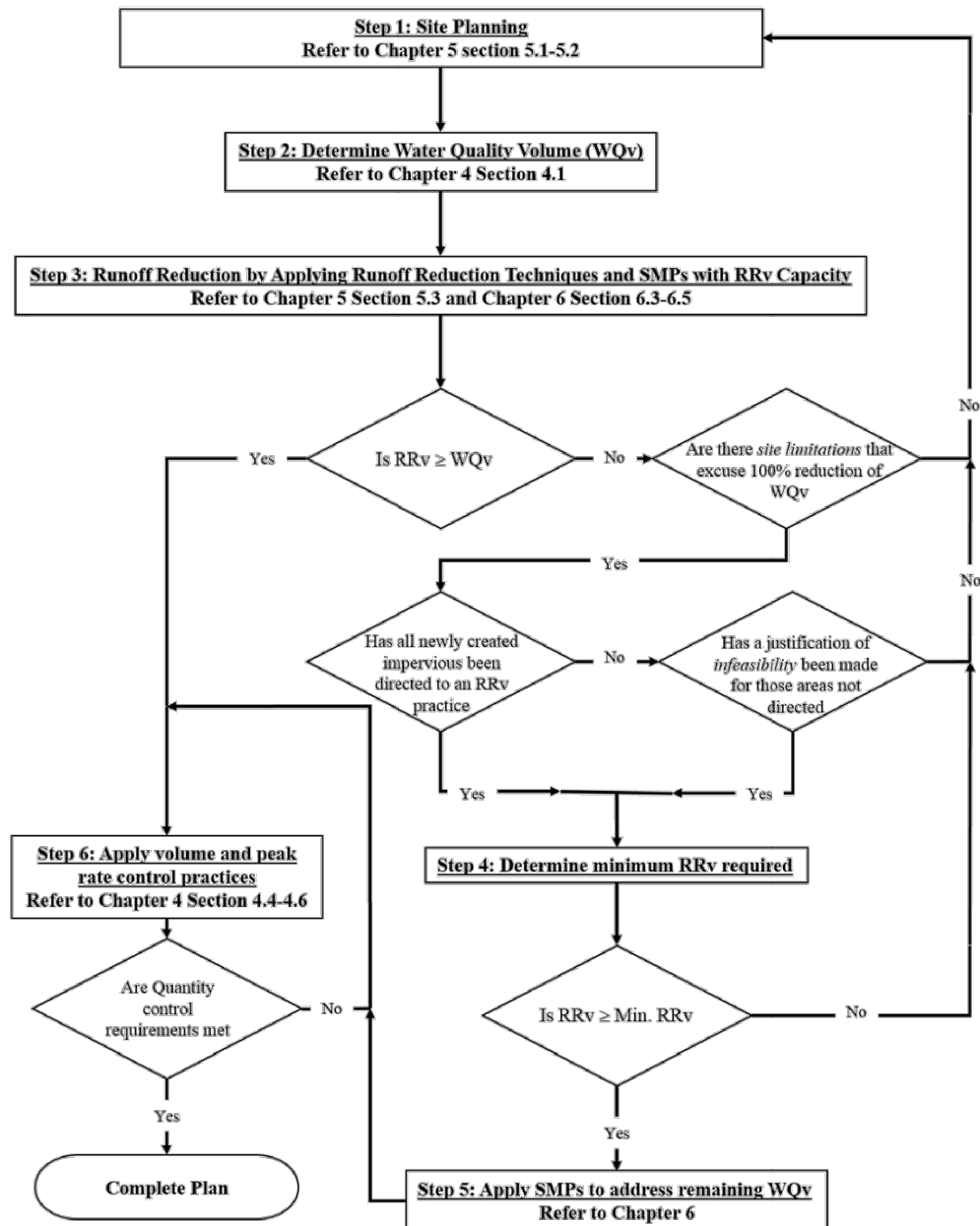
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# New York State Stormwater Management Design Manual

Chapter 3: Stormwater Management Planning

Section 3.6 The Six Step Process for Stormwater Site Planning and Practice Selection

Figure 3.1: Stormwater Site Planning and Practice Selection Flow Chart



3-1

## NOTE:

1. Source: NYS DEC Stormwater Design Manual - January 2015

FIGURE 3.1 - Stormwater Site Planning and Practice Selection Flow Chart

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Table 5.3 Soil Restoration Requirements		
Type of Soil Disturbance	Soil Restoration Requirement	
No soil disturbance	Restoration not permitted	
Minimal soil disturbance	Restoration not required	
Areas where topsoil is stripped only - no change in grade	HSG A & B	HSG C & D
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil
Areas of cut or fill	HSG A & B	HSG C & D
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (de-compaction and compost enhancement)	
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.	
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.	

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

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

August 2010

5-22

**NOTE:**

1. Source: NYS DEC Stormwater Design Manual - January 2015

FIG 8.1 Soil Restoration

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**Appendix A**

List of Approvals and Applications:

Town of Lewisboro Site Plan Approval – approval pending

Town of Lewisboro Building Permit – approval pending

SEQR Notice of Determination of Non-Significance

New York City Department of Environmental Protection

New York State Department of Environmental Conservation  
General Permit GP-0-20-001 “Notice of Intent”

New York State Department of Environmental Conservation  
SWPPP MS4 Acceptance Form

New York State Department of Environmental Conservation  
“Notice of Termination”



## **Appendix B**

NYS DEC General Permit No. GP-0-20-001

Town of Lewisboro – Chapter 189 Stormwater Management and Erosion and Sediment Control

NYC DEP Watershed – Chapter 18 of Title 15 of the Rules of the City of New York – Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Sources



Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP- 0-20-001

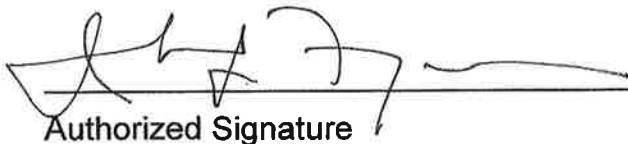
Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

  
Authorized Signature

1-23-20  
Date

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

## PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), 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 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, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. 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 GENERAL PERMIT FOR STORMWATER DISCHARGES FROM  
CONSTRUCTION ACTIVITIES**

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## Part 1. PERMIT COVERAGE AND LIMITATIONS

### A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department 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*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

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

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. 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 I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, 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 the *Stormwater Pollution Prevention Plan* ("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.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
  - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
  - (iii) *Minimize* the amount of soil exposed during *construction activity*;
  - (iv) *Minimize* the disturbance of *steep slopes*;
  - (v) *Minimize* sediment *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
  - (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;
  - (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 temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) 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 E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, must be managed by appropriate control measures.*
- d. **Pollution Prevention Measures.** 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 designed, installed, implemented and maintained to:
  - (i) *Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;*
  - (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. **Prohibited Discharges.** The following *discharges* are prohibited:
  - (i) *Wastewater from washout of concrete;*
  - (ii) *Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;*



- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
  - (iv) Soaps or solvents used in vehicle and equipment washing; and
  - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall 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 Requirements**

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, 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 post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

#### **a. Sizing Criteria for New Development**

- (i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall 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 shall 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 4.3 of the Design Manual.**

The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. 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 site discharges directly to tidal waters, or fifth order or larger streams.
- (iv) 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 discharges directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) 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 discharges directly 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 Watershed**

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (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 shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

- (ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall 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 shall 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 10.3 of the Design Manual.** The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. 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 site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) 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 *discharges* directly to tidal waters or fifth order or larger streams, or
  - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) 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 *discharges* directly 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* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
  - (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 Design Manual must be applied to all newly created pervious areas, or
  - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
  - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
  - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice 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 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) Overbank Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase 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 shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

**D. Maintaining Water Quality**

The Department expects that compliance with the conditions of this permit will control *discharges* 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 *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, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

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

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

### **E. Eligibility Under This General Permit**

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those 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"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

### **F. Activities Which Are Ineligible for Coverage Under This General Permit**

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;
4. *Construction activities or discharges from construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

*operator* has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name 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.
7. *Construction activities* for linear transportation projects and linear utility projects:
  - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
  - b. Which are undertaken on land with no existing *impervious cover*; and
  - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name 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.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive 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.
    - 1-5 acres of disturbance - 20 feet
    - 5-20 acres of disturbance - 50 feet
    - 20+ acres of disturbance - 100 feet, or
  - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
    - (i) the State Environmental Quality Review (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/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); or
  - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:



- (i) No Affect
- (ii) No Adverse Affect
- (iii) Executed Memorandum of Agreement, or

d. Documentation that:

- (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

## Part II. PERMIT COVERAGE

### A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4*. This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

## **B. Notice of Intent (NOI) Submittal**

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

## **C. Permit Authorization**

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
  - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
  - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
  - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
    - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
    - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
    - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
- (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "MS4 SWPPP Acceptance" form, or
  - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.
4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

#### **D. General Requirements For Owners or Operators With Permit Coverage**

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained 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.
3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

*use control MS4, the regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
  - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
  - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
  - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
  5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
  6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

*regulated, traditional land use control MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

#### **E. Permit Coverage for Discharges Authorized Under GP-0-15-002**

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

#### **F. Change of Owner or Operator**

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

*operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

### Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

#### A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. 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 I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- 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*;
  - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
  - d. to document the final construction conditions.
5. The Department 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 shall 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 the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department 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. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions 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 terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit 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* shall 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 construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

## **B. Required SWPPP Contents**

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
  - a. Background information about the scope of the project, including the location, type and size of project

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall 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)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. 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;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. 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;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

- j. 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*;
  - k. 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
  - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. 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. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, 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.

The post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. 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;
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
  - (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;
  - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. 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 Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria*, Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

### **C. Required SWPPP Components by Project Type**

Unless otherwise notified by the Department, *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 conformance with Part III.B.1 of this permit. *Owners or operators of the construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

## **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 post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall 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 shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

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. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit 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 if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

### C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
  - 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 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 E;

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than 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 E;
  - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
  - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
  - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
  - 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* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “*Final Stabilization*” and “*Post-Construction Stormwater Management Practice*” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.
  - e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.
  4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:



- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall 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;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. 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;
- h. Description and sketch 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;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. 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 post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper 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* shall 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* shall 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* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

## Part V. TERMINATION OF PERMIT COVERAGE

### A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
  - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
  - c. A new owner or operator has obtained coverage under this permit in accordance with Part II.F. of this permit.
  - d. The owner or operator obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the owner or operator shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the owner or operator shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the owner or operator to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector's* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the owner or operator must, prior to submitting the NOT, ensure one of the following:
- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices 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,
- d. for post-construction stormwater management practices 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 policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

## **Part VI. REPORTING AND RETENTION RECORDS**

### **A. Record Retention**

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

### **B. Addresses**

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

## **Part VII. STANDARD PERMIT CONDITIONS**

### **A. Duty to Comply**

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

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). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

#### **B. Continuation of the Expired General Permit**

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

#### **C. Enforcement**

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

#### **D. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

### **E. Duty to Mitigate**

The *owner or operator* and its contractors and subcontractors shall 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.

### **F. Duty to Provide Information**

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP 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 (5) 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.

### **G. Other Information**

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

### **H. Signatory Requirements**

1. All NOIs and NOTs shall be signed as follows:
  - a. For a corporation these forms shall be signed 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 permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
  - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (i) the chief executive officer of the agency, or
    - (ii) 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. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit 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.H.1. of this permit;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, 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 shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

#### **I. Property Rights**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

#### **J. 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 shall not be affected thereby.

#### **K. Requirement to Obtain Coverage Under an Alternative Permit**

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall



include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **L. Proper Operation and Maintenance**

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

#### **M. Inspection and Entry**

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, 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 conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

#### **N. Permit Actions**

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

#### **O. Definitions**

Definitions of key terms are included in Appendix A of this permit.

#### **P. Re-Opener Clause**

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

#### **Q. Penalties for Falsification of Forms and Reports**

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, 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 reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

## **R. Other Permits**

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

## **APPENDIX A – Acronyms and Definitions**

### **Acronyms**

APO – Agency Preservation Officer  
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)  
DOW – Division of Water  
EAF – Environmental Assessment Form  
ECL - 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  
OPRHP – Office of Parks, Recreation and Historic Places  
Qf – Extreme Flood  
Qp – Overbank Flood  
RRv – Runoff Reduction Volume  
RWE – Regional Water Engineer  
SEQR – State Environmental Quality Review  
SEQRA - State Environmental Quality Review Act  
SHPA – State Historic Preservation Act  
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.

**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** – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

**Alter Hydrology from Pre to Post-Development Conditions** - means 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** - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

**Commence (Commencement of) Construction Activities** - means 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.

**Construction Activity(ies)** - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, 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.

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

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

**Direct Discharge (to a specific surface waterbody)** - means that 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)** - means any addition of any pollutant to waters of the State through an outlet or *point source*.

**Embankment** – means an earthen or rock slope that supports a road/highway.

**Endangered or Threatened Species** – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

**Environmental Conservation Law (ECL)** - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

**Equivalent (Equivalence)** – means that 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** - 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.

**General SPDES permit** - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

**Groundwater(s)** - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

**Historic Property** – means 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)** - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

**Infeasible** – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

**Larger Common Plan of Development or Sale** - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger 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 (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Minimize** – means 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 (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):

- (i) Owned or operated by a State, city, town, 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;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

**Natural Buffer** – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – means 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.

**NOI Acknowledgment Letter** - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

**Nonpoint Source** - means 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** –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** - means 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 conditions.

**Performance Criteria** – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf ) in Part I.C.2. of the permit.

**Point Source** - means 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** - means 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** - means 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 Department 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department 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 post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** - means 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 Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice 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)** – means 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.).

**Regulated, Traditional Land Use Control MS4** - means 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).

**Routine Maintenance Activity** - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- 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),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- 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,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- 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*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

**Site limitations** – means 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** – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

**State Pollutant Discharge Elimination System (SPDES)** - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

**Steep Slope** – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name 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.

**Streambank** – as used in this permit, means 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)** – means 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 post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions 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** – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** - means that 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 Loads (TMDLs)** - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint sources*, and a margin of safety (MOS).

**Trained Contractor** - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department 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.6., 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

**Uniform Procedures Act (UPA) Permit** - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

**Water Quality Standard** - means 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 or not directly discharging to one of the 303(d) segments listed in Appendix E
- 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 E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

**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 watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- 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 projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, 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.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

**Table 1 (Continued) 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:**

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *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 project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- 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

**Table 2**  
**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES**  
**POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

- 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 E
- 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 E
- 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 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 larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- 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) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES  
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

**The following construction activities that involve soil disturbances of one (1) or more acres of land:**

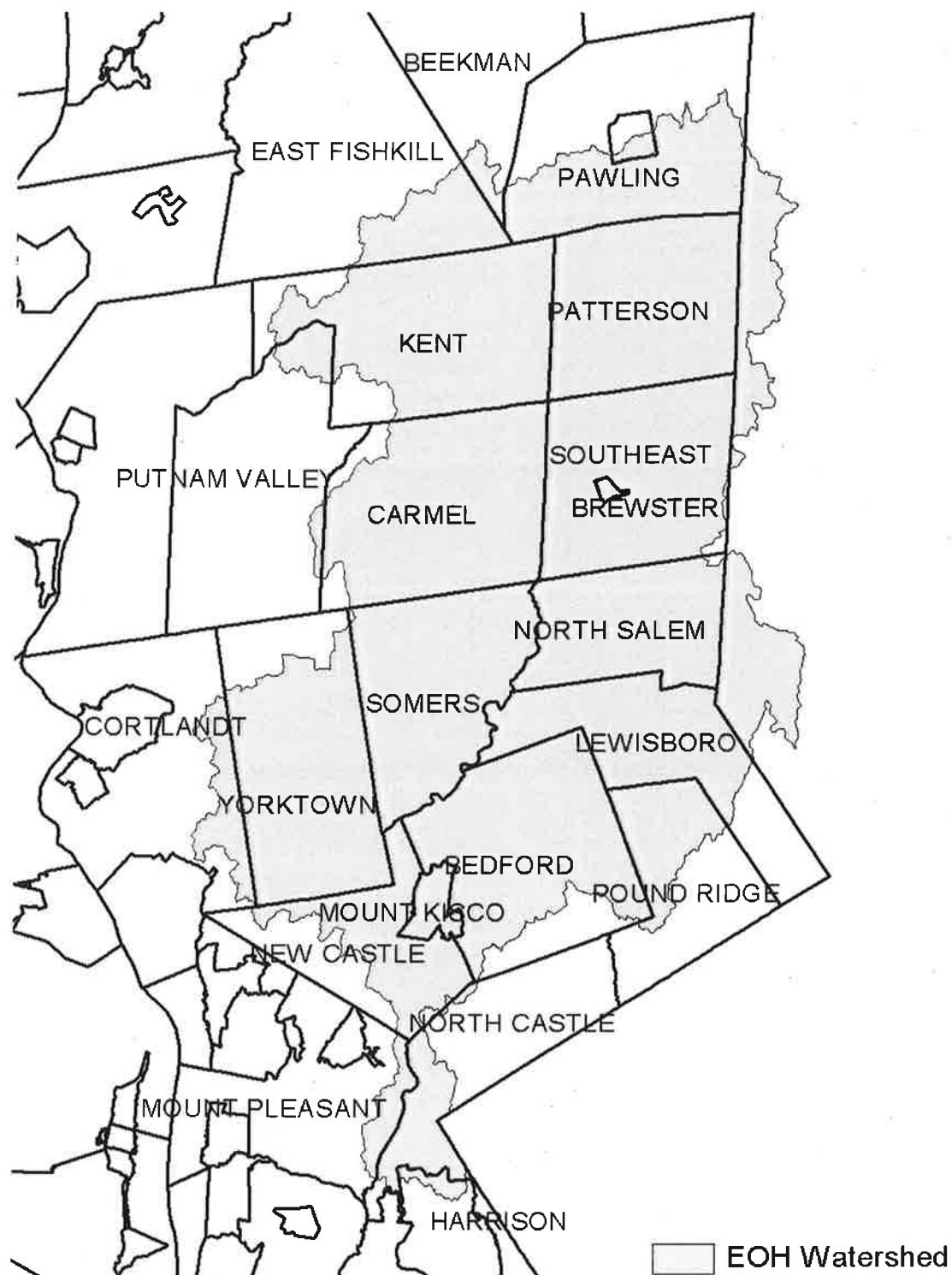
- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post 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 over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- 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 post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).**

- 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

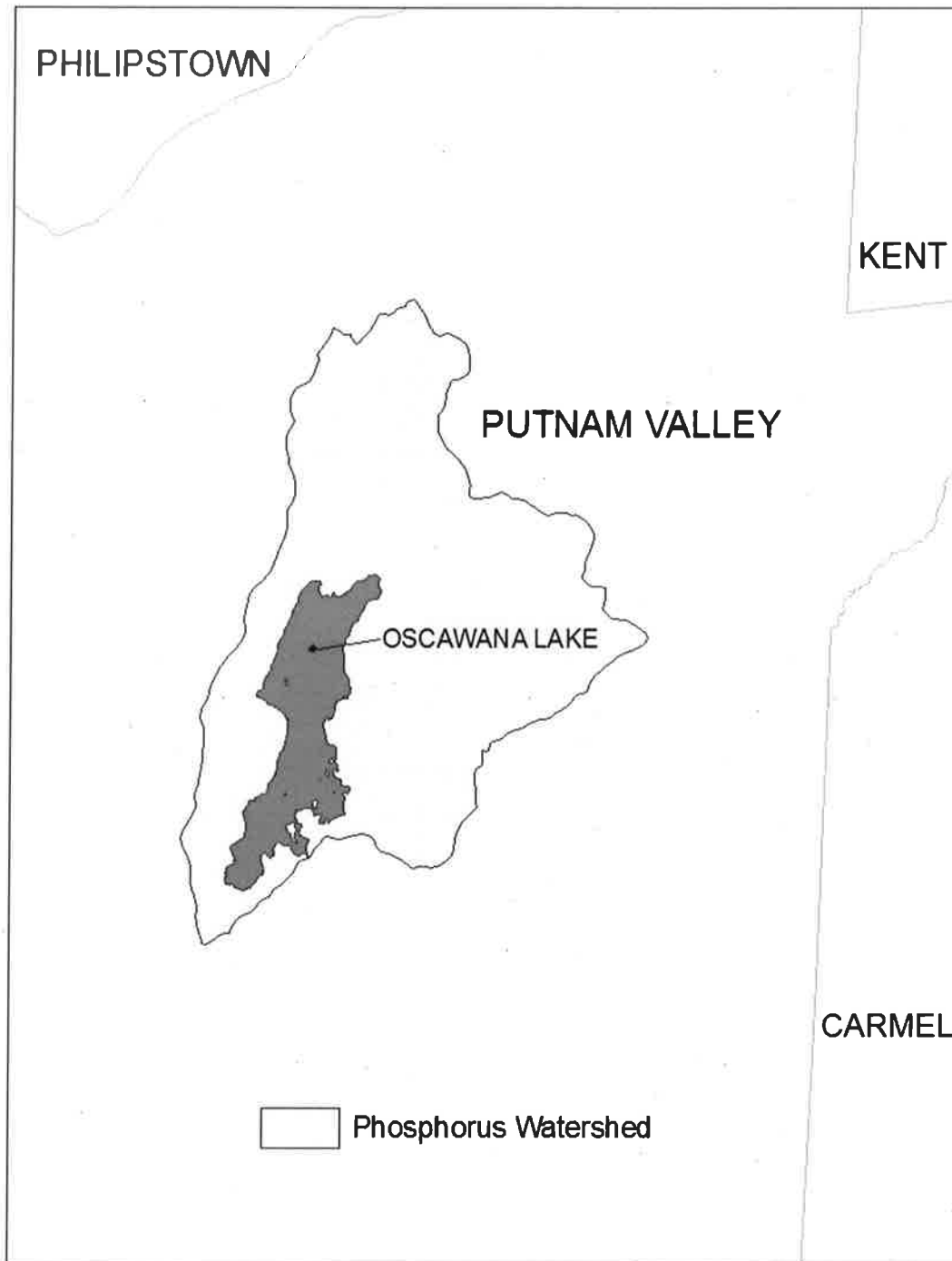
**Figure 1 - New York City Watershed East of the Hudson**

**Figure 2 - Onondaga Lake Watershed**

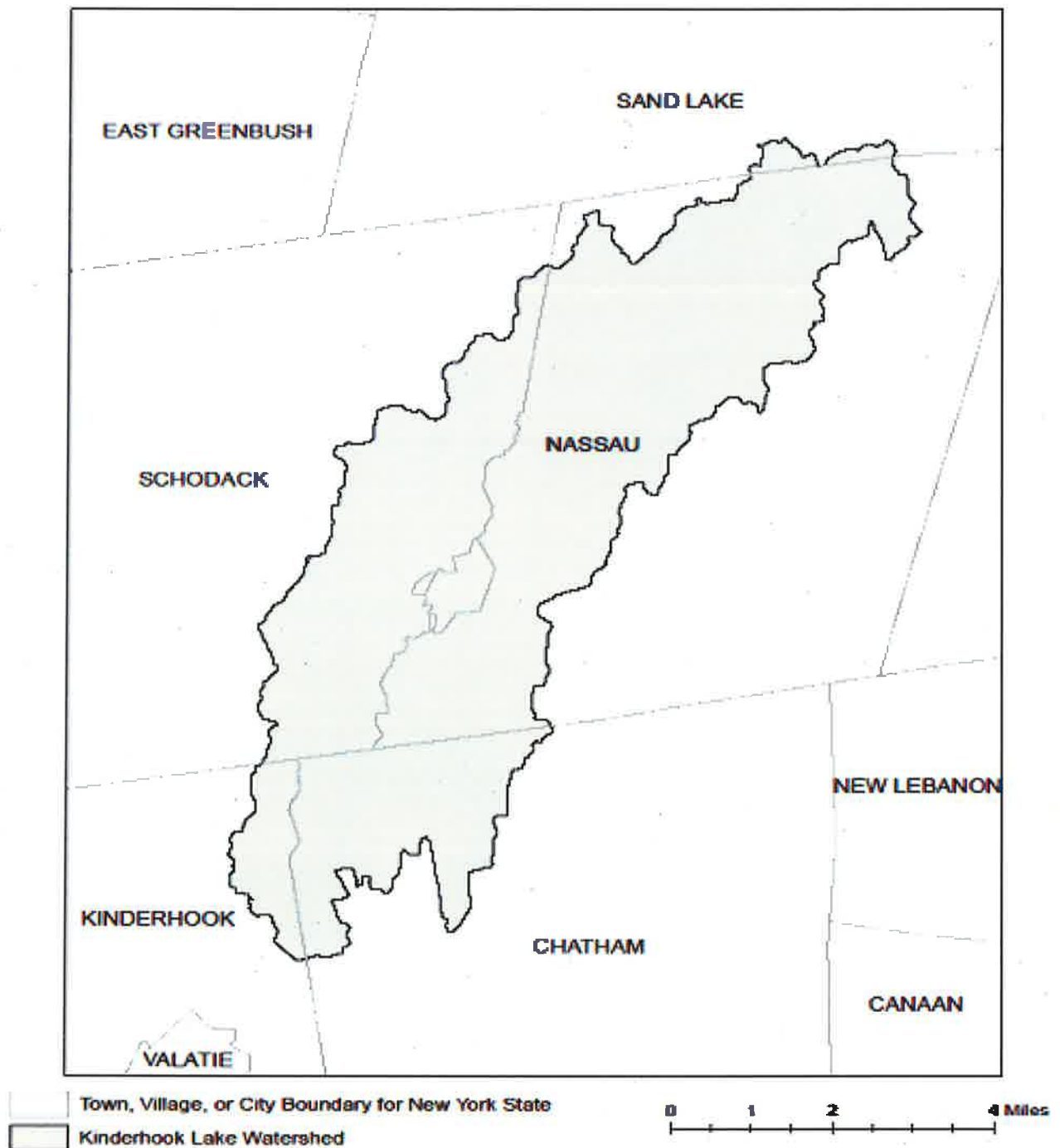
**Figure 3 - Greenwood Lake Watershed**



**Figure 4 - Oscawana Lake Watershed**



**Figure 5 - Kinderhook Lake Watershed**



## **APPENDIX D – Watersheds with Lower Disturbance Threshold**

**Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.**

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

## APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients



### 303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

### 303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

## APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
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	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 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	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 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	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

*Town of Lewisboro, NY  
Tuesday, August 29, 2023*

## Chapter 189. Stormwater Management and Erosion and Sediment Control

[HISTORY: Adopted by the Town Board of the Town of Lewisboro 12-18-2007 by L.L. No. 6-2007; amended in its entirety 11-19-2012 by L.L. No. 11-2012. Subsequent amendments noted where applicable.]

### **GENERAL REFERENCES**

Environmental quality review — See Ch. **110**.

Flood damage prevention — See Ch. **126**.

Storm sewer system — See Ch. **188**.

Subdivision of land — See Ch. **195**.

Wetlands and watercourses — See Ch. **217**.

Zoning — See Ch. **220**.

## Article I. Title, Findings of Fact and Purpose

### § 189-1. Title.

This chapter shall be known as the "Stormwater Management and Erosion and Sediment Control Law" of the Town of Lewisboro.

### § 189-2. Findings of fact.

It is hereby determined that:

- A. Land development activities and associated increases in site impervious cover often alter the hydrologic response of local watersheds and water bodies and increase stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition.
- B. This stormwater runoff contributes to increased quantities of waterborne pollutants, including siltation of aquatic habitat for fish and other desirable species.
- C. Clearing and grading during construction tend to increase soil erosion and add to the loss of native vegetation necessary for terrestrial and aquatic habitats.
- D. Improper design and construction of stormwater management practices (SMPs) can increase the velocity of stormwater runoff, thereby increasing stream bank erosion and sedimentation.
- E. Impervious surfaces allow less water to percolate into the soil, thereby decreasing groundwater recharge and stream baseflow.
- F. Substantial economic losses can result from these adverse impacts on the waters of the municipality.
- G. Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from land development activities.

- H. The regulation of stormwater runoff discharges from land development activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will minimize threats to public health and safety.
- I. Regulation of land development activities by means of performance standards governing stormwater management and site design will produce development compatible with the natural functions of a particular site or an entire watershed and thereby mitigate the adverse effects of erosion and sedimentation from development.

## § 189-3. Purpose.

The purpose of this chapter is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction and to address the findings of fact in § 189-2 hereof. The provisions of this chapter seek to meet those purposes by achieving the following objectives:

- A. Meet the requirements of Minimum Measures 4 and 5 of the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), as may be amended or revised from time to time.
- B. Require land development activities to conform to the substantive requirements of the NYSDEC SPDES General Permit for Construction Activities, as may be amended or revised from time to time. Projects resulting in land disturbance of equal to or greater than 5,000 square feet may require a Town stormwater permit and coverage under the SPDES General Permit for Construction Activities, as applicable per §§ 189-5 and 189-7 of this chapter.
- C. Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels.
- D. Minimize increases in pollution caused by stormwater runoff from land development activities, which would otherwise degrade local water quality.
- E. Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable.
- F. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.

## Article II. Definitions

### § 189-4. Terms defined.

As used in this chapter, the following terms shall have the meanings indicated:

#### **AGRICULTURAL ACTIVITY**

The activity of an active farm, including grazing and watering livestock, irrigating crops, harvesting crops, using the land for growing agricultural products, and cutting timber for sale, but shall not include the operation of a dude ranch or similar operation, or the construction of new structures associated with agricultural activities.

#### **APPLICANT**



A property owner or agent of a property owner who has filed an application for a land development activity.

**BUILDING**

Any structure, either temporary or permanent, or extension thereof or addition thereto, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

**CHANNEL or STREAM CHANNEL**

A natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

**CLEARING**

Any activity that removes the vegetative surface cover.

**DAYS**

Unless explicitly defined otherwise, "days" refers to calendar days. If the date specified for taking action does not fall on a business day, the specified date for taking the relevant action shall be the next business day.

**DESIGN MANUAL**

The most recent version of the "New York State Stormwater Management Design Manual," including applicable updates, together which serve as the official guide for stormwater management principles, methods and practices.

**DEVELOPER**

A person who undertakes land development activities.

**EROSION CONTROL MANUAL**

The most recent version of the "New York Standards and Specifications for Erosion and Sediment Control."

**GRADING**

Excavation or fill of material, including the resulting conditions thereof.

**GREEN INFRASTRUCTURE PRACTICE**

As set forth in Chapter 5 of the New York State Stormwater Management Design Manual.

**INDUSTRIAL STORMWATER PERMIT**

A State Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

**INFILTRATION**

The process of percolating stormwater into the subsoil.

**LAND DEVELOPMENT ACTIVITY**

Construction activity, including clearing, grubbing, grading, filling, excavating, or stockpiling activities that results in soil disturbance. Clearing activities include, but are not limited to, logging equipment operations, the cutting and skidding of trees, and stump removal and/or brush root removal. Land development activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

**LAND DISTURBANCE**

See "land development activity" as defined herein.

**LANDOWNER**

The legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

**LARGER COMMON PLAN OF DEVELOPMENT OR SALE**

A contiguous area where multiple separate and distinct land development activities are occurring, or will occur, under one plan. The term "plan" in "larger 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 (SEQRA) application, zoning request, computer design, etc.] or physical demarcation (including signs, lot stakes, surveyor markings, etc.) indicating that land development activities may occur on a specific plot. For discrete construction projects that are located within a "larger common plan of development or sale" that are at least 1/4 mile apart, each activity can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

**MAINTENANCE AGREEMENT**

A legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.

**NONPOINT SOURCE POLLUTION**

Pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silvicultural, mining, construction, subsurface disposal and urban runoff sources. Any source of pollution that is not point source pollution.

**NYSDEC**

The New York State Department of Environmental Conservation.

**PERSON**

Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

**PHASING**

Clearing a parcel of land in distinct pieces or parts, with the stabilization of each piece completed before the clearing of the next.

**POINT SOURCE POLLUTION**

Pollution from a single identifiable localized source, typically a discernable, confined and discrete conveyance.

**POLLUTANT OF CONCERN**

Sediment or a water quality measurement that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from land development activity.

**PROJECT**

See "land development activity" as defined herein.

**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, 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 hours of NYSDEC-endorsed training in proper erosion and sediment control principles every three years.

**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 postconstruction stormwater management practices 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 in order to prepare a SWPPP that conforms to the NYSDEC's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law, shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

**RECHARGE**

The replenishment of underground water reserves.

**ROUTINE MAINTENANCE**

Land development activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- A. Regrading of gravel roads or parking lots.
- B. Stream bank restoration projects (does not include the placement of spoil material).
- C. Cleaning and shaping of existing roadside ditches and culverts that maintain the approximate original line and grade, and hydraulic capacity of the ditch.
- D. Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity or purpose of the ditch if the changes to the line and grade, hydraulic capacity and purpose of the ditch are installed to improve water quality and quantity controls (e.g., installing grass-lined ditch).
- E. Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment.
- F. Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose underlying soil or disturb the bottom six inches of subbase material.
- G. Long-term use of equipment storage areas at or near highway maintenance facilities.
- H. 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.
- I. Replacement of curbs, gutters, sidewalks and guide rail posts.

**SEDIMENT CONTROL**

Measures designed in accordance with the Erosion Control Manual that prevent eroded sediment from dispersing beyond the limits of land development activity.

**SILVICULTURAL ACTIVITY**

The cultivation of forest trees and forestry, including timber harvesting, logging and forest management.

**SPDES GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES**

A permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to developers of land development activities to regulate disturbance of one or more acres of land or 5,000 square feet or more within the NYC East of Hudson Watershed.

**SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM MUNICIPAL SEPARATE STORMWATER SEWER SYSTEMS**

A permit under the New York State Pollutant Discharge Elimination System (SPDES) issued to municipalities to regulate discharges from municipal separate storm sewers (MS4) for compliance with EPA-established water quality standards and/or to specify stormwater control standards.

**STABILIZATION**

The use of practices designed in accordance with the Erosion Control Manual that prevent exposed soil from eroding.

**STABILIZED**

Means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a minimum density of 80% 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.

**STOP-WORK ORDER**

An order issued which requires that all land development activity and/or construction activity on a site be stopped.

**STORMWATER**

Rainwater, surface runoff, snowmelt and drainage.

**STORMWATER MANAGEMENT**

The use of structural or nonstructural practices that are designed to reduce stormwater runoff and mitigate its adverse impacts on property, natural resources and the environment.

**STORMWATER MANAGEMENT FACILITY**

One or a series of stormwater management practices installed, stabilized and operating for the purpose of controlling stormwater runoff.

**STORMWATER MANAGEMENT OFFICER (SMO)**

An employee or officer designated by the Town Board to administer and enforce this chapter, and, in certain situations, review and approve Town stormwater permits and SWPPPs, forward applications and SWPPPs to the Planning Board, and inspect land development activities and stormwater management practices. The SMO may rely on the Town Engineer for the review of SWPPPs and to conduct inspections on his/her behalf.

**STORMWATER MANAGEMENT PRACTICES (SMPs)**

Measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing flood damage and preventing or reducing point source or nonpoint source pollution inputs to stormwater runoff and water bodies.

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

A plan for controlling stormwater runoff and pollutants from a site during and after construction activities, prepared in conformance with this chapter, the SPDES General Permit for Construction Activities, and applicable NYSDEC technical standards.

**STORMWATER RUNOFF**

Flow on the surface of the ground, resulting from precipitation, snowmelt, surface runoff or drainage.

**SURFACE WATERS OF THE STATE OF NEW YORK**

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 or underground 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.

**303(d) LIST**

A list of all surface waters in the state for which beneficial uses of the water (drinking, recreation, aquatic habitat, and industrial use) are impaired by pollutants, prepared periodically by NYSDEC as required by Section 303(d) of the Clean Water Act. 303(d) listed waters are estuaries, lakes and streams that fall short of state surface water quality standards and are not expected to improve within the next two years.

**TOTAL MAXIMUM DAILY LOAD (TMDL)**

The sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a water body can receive on a daily basis and still meet water quality standards, and an allocation of the amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

**TOWN**

The Town of Lewisboro, Westchester County, New York.

**TOWN ENGINEER**

The duly appointed Town Engineer or his/her designated representative.

**TOWN STORMWATER PERMIT**

A permit issued by the SMO or Planning Board, as applicable, approving the SWPPP and authorizing a proposed land development activity.

**TRAINED CONTRACTOR**

An employee from the contracting (construction) company that has received four hours of NYSDEC-endorsed training in proper erosion and sediment control principles. After receiving the initial training, the trained contractor shall receive four hours of training every three years. It can also mean an employee from the contracting (construction) company that meets the qualified inspector qualifications as defined herein.

**WATERCOURSE**

A permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water, including any area that meets the definition of "watercourse" as set forth in Chapter **217**, Wetlands and Watercourses, of the Code of the Town of Lewisboro, as may be amended from time to time.

**WETLAND**

Areas meeting the definition of "wetland/freshwater wetland" as defined in Chapter **217**, Wetlands and Watercourses, of the Code of the Town of Lewisboro, as may be amended from time to time.

## Article III. Applicability and Exemptions

### § 189-5. Applicability.

- A. Unless exempted as set forth in § **189-6**, this chapter shall apply to any land development activity, as defined in § **189-4**, involving land disturbance of equal to or greater than 5,000 square feet including land disturbance that is part of a larger common plan of development or sale and totals 5,000 square feet or more.
- B. The provisions of this chapter shall not apply to any project that has been physically completed prior to the effective date of this chapter.
- C. A project that was approved prior to the effective date of this chapter, but which is not in conformity with the provisions of this chapter, may be continued subject to the following:

- (1) All such activities shall continue to be governed by the present regulations of the Town of Lewisboro.
- (2) No such activity shall be expanded, changed, enlarged or altered without compliance with this chapter.
- (3) If such activity is discontinued for 12 consecutive months, any resumption of the activity shall conform to this chapter.
- (4) If any use or activity is destroyed by human activities, a force of nature or an act of God, it shall not be resumed except in conformity with the provisions of this chapter.

## § 189-6. Exemptions.

The following activities and uses shall be exempt from the provisions of this chapter and may be conducted without approval of a Town stormwater permit, to the extent that they are not prohibited by this chapter or any other law, ordinance, rule or regulation:

- A. Agricultural activity as defined in this chapter.
- B. Silvicultural activities for which a forest management program has been approved by the Town and/or NYSDEC, except that landing areas and log haul roads are subject to the provisions of this chapter.
- C. Routine maintenance activities, as defined in this chapter, that disturb less than five acres, to be determined in consultation with the SMO, and are performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility.
- D. Repairs to any stormwater management practice or facility deemed necessary by the SMO in consultation with the Town Engineer.
- E. Land development activities for which a building permit has been approved on or before the effective date of this chapter.
- F. Emergency activity immediately necessary to protect life, property or natural resources.
- G. Cemetery graves.
- H. Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles, excluding telecommunications towers as defined and regulated in Chapter **220**, Zoning, of the Code of the Town of Lewisboro.
- I. Activities of an individual engaging in residential home gardening by growing flowers, vegetable and other plants primarily for the use by that person and his or her family.
- J. Landscaping and horticultural activities in connection with an existing structure.

## Article IV. Stormwater Pollution Prevention Plan Review Procedures

### § 189-7. Review procedures.

- A. No land development activity regulated under this chapter shall commence until a Town stormwater permit has been applied for and approved by either the SMO or Planning Board, as applicable. An application for a Town stormwater permit shall be filed with the SMO or Planning Board as applicable, and shall be accompanied by a completed SWPPP prepared in conformance with § **189-8** of this chapter. For projects also requiring coverage under the SPDES General Permit for

Construction Activities, applications must also be accompanied by all related NYSDEC forms and certifications.

- B. Applications for projects that will result in land disturbance totaling five or more acres of land and/or also require a subdivision, site development plan, special use permit, and/or wetland permit approval, as issued by the Planning Board, shall be submitted to the Planning Board for review and approval, in consultation with the Town Engineer. To the extent practicable, the review and approval of the Town stormwater permit and SWPPP shall run concurrently with the review and approval of the other above-noted applications.
- C. Applications for projects not subject to review as stated in § **189-7B** above shall be submitted to and approved by the SMO, in consultation with the Town Engineer.
- D. Upon written request by an applicant, the SMO or Planning Board may waive or modify the required SWPPP materials to address the specific instances of the application under consideration. Any such waiver shall not be automatic, but rather shall only be granted if such required materials are deemed not applicable, are not requisite in the interest of the public health, safety and general welfare, will still result in an SWPPP that is consistent with the findings and purpose of this chapter and will continue to comply with all applicable NYSDEC standards and requirements. The Planning Board may override any waiver issued by the SMO, while the SMO may not override any waiver issued by the Planning Board.
- E. Every Town stormwater permit issued pursuant to this chapter shall be in written form and shall be executed by either the SMO or Planning Board, as applicable.
- F. A Town stormwater permit shall not be issued until and unless the applicant has complied with the procedures of the State Environmental Quality Review Act.
- G. The Town stormwater permit shall expire upon completion of the acts specified and, unless otherwise indicated, shall be valid for a period of two years from the date of issue. Extensions may be granted by the approval authority upon written request of the applicant/developer. The approval authority may require a new application be filed if, in its judgment, the original intent of the permit is altered or extended by the renewal or if the applicant/developer has failed to abide by the terms of the original permit in any way.
- H. The provision for obtaining a Town stormwater permit is in addition to the requirement of obtaining coverage under the SPDES General Permit for Construction Activities, if applicable.
- I. Outstanding violations. No permit, certificate or approval shall be issued pursuant to this chapter if there is an outstanding violation or unpaid fine with regard to the property that is the subject of such application. Notwithstanding the above, a permit, certificate or approval may be issued to specifically address an outstanding violation or to address an immediate hazardous condition in the interest of the health, safety and welfare of the community. In the case of unpaid fines, no application shall be processed until such fine is paid.  
[Added 11-9-2020 by L.L. No. 9-2020]

## Article V. Stormwater Pollution Prevention Plan Requirements

### § 189-8. SWPPP requirements.

- A. All SWPPPs shall be prepared by a qualified professional, as defined in § **189-4** of this chapter.
- B. All SWPPPs shall be prepared in conformance with this chapter, the SPDES General Permit for Construction Activities, and the NYSDEC technical standards, as applicable.
- C. All SWPPPs shall provide the following background information and erosion and sediment controls:

- (1) Background information about the scope of the project, including location, type and size of project.
- (2) Site map/construction drawing(s) for the project, at a scale no smaller than one inch equals 100 feet, including a general location map. At a minimum, the site map shall 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), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharge(s).
- (3) Description of the soil(s) present at the site, including an identification of the hydrologic soil group (HSG).
- (4) Construction phasing plan and sequence of operations describing the intended sequence of construction activities, including tree removal, stumping, clearing and grubbing, excavation and grading, utility and infrastructure installation and any other land development activities.
- (5) A description of the minimum erosion and sediment control practices to be installed or implemented for each land development 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.
- (6) A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization.
- (7) 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.
- (8) A site map/construction drawing(s) specifying the location(s), size(s) and length(s) of each erosion and sediment control practice.
- (9) Maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
- (10) 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.
- (11) Description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in stormwater runoff.
- (12) Description of construction and waste materials expected to be stored on site with updates as appropriate, and a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
- (13) Identification of any elements of the design that are not in conformance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. 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 standards.



- (14) Stormwater quantity and quality controls, at the discretion of the SMO and/or the Town Engineer, may be required.

D. Postconstruction stormwater management practice component.

- (1) All construction projects identified as needing postconstruction stormwater management practices pursuant to the SPDES General Permit for Construction Activities shall prepare a SWPPP that includes practices designed in conformance with the Design Manual, including green infrastructure practices, in addition to the items listed under § 189-8C above. Where postconstruction stormwater management practices are not designed in conformance with this technical standard, the applicant must demonstrate equivalence to the technical standard.
- (2) At a minimum, the postconstruction stormwater practice component of the SWPPP shall include the following:
  - (a) Identification of all postconstruction stormwater management practices to be constructed as part of the project.
  - (b) Site map/construction drawing(s) showing the specific location(s) and size(s) of each postconstruction stormwater management practice.
  - (c) Hydrologic and hydraulic analysis for all structural components of the stormwater management control system for the applicable design storms. The analysis shall include tributary area maps with two-foot contours for the predevelopment and postdevelopment conditions.
  - (d) Detailed summary (including calculations) of the sizing criteria that was used to design all postconstruction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual.
  - (e) Identification of any elements of the design that are not in conformance with the Design Manual. 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 standards.
  - (f) Comparison of postdevelopment stormwater runoff conditions with predevelopment conditions.
  - (g) Dimensions, material specifications and installation details for each postconstruction stormwater management practice or facility.
  - (h) Site maps must include existing topography with two-foot contours, a proposed grading plan with a limit of disturbance line and the calculated area of disturbance in acres.
  - (i) An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each postconstruction stormwater management practice or facility. The plan shall identify the entity that will be responsible for the long-term operation and maintenance of each practice.

- E. Enhanced phosphorus. All projects that are required to conform to the enhanced phosphorus removal standards, pursuant to the SPDES General Permit for Construction Activities, shall prepare a SWPPP that includes postconstruction stormwater management practices designed in conformance with the enhanced phosphorus removal standards included in the Design Manual. At a minimum, the postconstruction stormwater management practice component of the SWPPP shall include items Subsection **D(2)(a)** through **D(2)(i)** above.

## § 189-9. Other environmental permits.

The applicant shall assure that all other applicable environmental permits have been or will be acquired for the land development activity prior to the issuance of a Town stormwater permit.

## § 189-10. Contractor certification.

- A. All certifications required pursuant to the SPDES General Permit for Construction Activities shall be submitted, endorsed and incorporated into the SWPPP.
- B. Each contractor and subcontractor identified in the SWPPP who will be responsible for installing, constructing, repairing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP and the postconstruction stormwater management practice installation must sign and date a copy of the following contractor certification statement before undertaking any land development activity: "I hereby certify that I understand and agree to comply with the terms and conditions 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 terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") General Permit 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 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."
- C. The certification must include the name and title of the person providing the signature, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.
- D. The certification statement(s) shall become part of the SWPPP for the land development activity.
- E. A copy of the SWPPP, including the above certification(s), shall be retained at the site of the land development activity during construction from the date of initiation of construction activities to the date of final stabilization.

## Article VI. Design Criteria

### § 189-11. Standards.

All land development activities shall be subject to the following performance and design criteria:

- A. For the purpose of this chapter, the following documents shall serve as the official guides and specifications for stormwater management and erosion and sedimentation control. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this chapter (The New York State technical guidance documents may be ordered from the NYSDEC and may be available on the NYSDEC website):
  - (1) The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation), most current version or its successor ("Design Manual").
  - (2) New York Standards and Specifications for Erosion and Sediment Control (Empire State Chapter of the Soil and Water Conservation Society), most current version or its successor ("Erosion Control Manual").
- B. Where stormwater management practices are not in accordance with the technical documents, described in Subsection **A** above, the applicant or developer must demonstrate equivalence to the technical standards contained in these documents.

- C. No land development activity shall cause an increase in turbidity that will result in substantial visible contrast to natural conditions in surface waters of the State of New York.

## Article VII. Inspection and Maintenance

### § 189-12. Applicant/developer inspection requirements.

- A. Inspection requirements shall be as specified within the SPDES General Permit for Construction Activities.
- B. The applicant or developer of the land development activity shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the applicant or developer to achieve compliance with the conditions of this chapter. Sediment shall be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by 50%.
- C. The applicant/developer must ensure that all erosion and sediment control practices and all postconstruction stormwater management practices identified in the SWPPP are maintained in effective operating conditions at all times.
- D. The applicant/developer shall inspect, in accordance with the requirements of the most current version of the Erosion Control Manual, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times. The applicant/developer shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the trained contractor. The applicant/developer shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed.
- E. For land development activities that disturb one or more acres of land, the applicant shall have a qualified inspector conduct site inspections and document the effectiveness of all erosion and sediment control practices every seven calendar days. Inspection reports shall be prepared in compliance with standards outlined within the SPDES General Permit for Construction Activities. Inspection reports shall be maintained on site and copies furnished to the SMO within seven days of inspection.
- F. Inspections of any postconstruction stormwater management practice that includes structural components shall be performed by a New York State licensed professional engineer.

### § 189-13. Maintenance easements and agreements.

- A. Maintenance easement. Prior to approving any postconstruction stormwater management practice or facility, the applicant or developer must execute a maintenance easement agreement that shall be binding on all subsequent landowners served by the stormwater management facility. The easement shall be in a form and manner of execution acceptable to the Town Attorney or Planning Board Attorney, as applicable, and shall provide for access to the facility at reasonable times for periodic inspection by the Town to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this chapter. The easement shall be recorded by the grantor in the office of the Westchester County Clerk, Division of Land Records, after final approval by the Town Attorney or Planning Board Attorney.
- B. Maintenance agreement. Prior to approving any postconstruction stormwater management practice or facility, the Town shall approve a formal maintenance agreement for stormwater management facilities binding on all subsequent landowners and recorded in the office of the Westchester County Clerk, Division of Land Records. The maintenance agreement shall be consistent with the terms and conditions of the "Sample Stormwater Control Facility Maintenance Agreement" as prepared by the NYSDEC and on file at the Town Clerk and Planning Board offices. The Town of

Lewisboro, in lieu of a maintenance agreement, at its sole discretion, may accept dedication of any existing or future stormwater management facility, provided that such facility meets all the requirements of this chapter and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

## § 189-14. Maintenance after construction.

The owner or operator of permanent stormwater management practices or facilities installed in accordance with this chapter shall operate and maintain the stormwater management practices to achieve the goals of this chapter. Proper operation and maintenance also includes, at a minimum, the following:

- A. A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the owner or operator to achieve the goals of this chapter, as stated in § 189-3, Purpose.
- B. Written procedures for operation and maintenance and training new maintenance personnel.
- C. Discharges from the stormwater management practices shall not exceed design criteria or cause or contribute to water quality standard violations in accordance with § 189-11C of this chapter.

## § 189-15. Administration and inspection; sureties.

### A. SMO inspections required.

- (1) The SMO may require such inspections as are necessary to determine compliance with the provisions of this chapter at various stages in construction to examine erosion and sediment controls and stormwater management practices. The SMO shall either approve that portion of the work completed or notify the applicant or developer wherein the work fails to comply with the requirements of this chapter and the SWPPP as approved. To obtain inspections, the applicant shall notify the SMO at least 48 hours before any of the following or as otherwise required by the SMO:

- (a) Start of construction.
- (b) Installation of sediment and erosion control measures.
- (c) Completion of site clearing.
- (d) Completion of rough grading.
- (e) Prior to backfilling any stormwater management practices.
- (f) Completion of final grading and stabilization of disturbed areas.
- (g) Closure of construction.
- (h) Completion of final landscaping.
- (i) Successful establishment of landscaping in public areas.
- (j) Removal of all temporary erosion and sedimentation controls.

- (2) If any violations are found, the applicant and developer shall be notified in writing of the nature of the violation and the required corrective actions. No further work shall be conducted except for site stabilization until any violations are corrected and all work previously completed has received approval by the SMO.

- B. The SMO is responsible for conducting inspections of stormwater management practices. All applicants are required to submit an as-built plan for all stormwater management practices and associated improvements located on site after final construction is completed. The as-built plan must show the final design specifications for all stormwater management facilities and must be certified by a NYS licensed professional engineer.
- C. Inspection programs shall be established on any reasonable basis, including, but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher-than-typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher-than-usual discharges of contaminants or pollutants or with discharges of a type which is more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the SPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other stormwater management practices.
- D. The SMO may require monitoring and reporting from entities subject to the provisions of this chapter as are necessary to determine compliance with this chapter.
- E. When any new stormwater management facility is installed on private property or when any new connection is made between private property and the public stormwater system, the landowner shall grant to the Town, the SMO or his designee the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection as specified in this chapter.
- F. In order to ensure the full and faithful completion of all land development activities and compliance with the SWPPP, the Town may require the applicant or developer to provide, prior to construction, a performance bond, cash escrow, or irrevocable letter of credit from an appropriate financial or surety institution which guarantees satisfactory completion of the project and names the Town as the beneficiary. Said document shall be in a form and manner determined to be sufficient and acceptable to the Town or Planning Board Attorney, as applicable. The security shall be in an amount to be determined by the Town based on submission of final design plans, with reference to actual construction and landscaping costs. The performance guarantee shall remain in force until the surety is released from liability by the Town, provided that such period shall not be less than one year from the date of final acceptance or such other certification that the facilities have been constructed in accordance with the approved plans and specifications and that a one-year inspection has been conducted and the facilities have been found to be acceptable to the Town. Per-annum interest on cash escrow deposits shall be reinvested in the account until the surety is released from liability.
- G. Where stormwater management and erosion and sediment control facilities are to be operated and maintained by the applicant or developer or by a corporation that owns or manages a commercial or industrial facility, said applicant, developer or owner, prior to construction, may be required to provide the Town with an irrevocable letter of credit from an approved financial institution or surety to ensure proper operation and maintenance of all stormwater management and erosion control facilities both during and after construction and until the facilities are removed from operation. Said letter of credit or surety shall be in a form and manner determined to be sufficient and acceptable to the Town or Planning Board Attorney, as applicable. If the applicant, developer or landowner fails to properly operate and maintain the stormwater management and erosion and sediment control facilities, the Town may draw upon the account to cover the costs of proper operation and maintenance, including engineering and inspection costs.
- H. The Town may require entities subject to the provisions of this chapter to maintain records demonstrating compliance with the standards and requirements of this chapter.

## Article VIII. Enforcement and Penalties

## § 189-16. Notice of violation; stop-work orders and injunctions; penalties for offenses.

- A. When the Town determines that a land development activity is not being carried out in accordance with the requirements of this chapter, it may issue a written notice of violation to the landowner. The notice of violation shall contain:
- (1) The name and address of the landowner, developer or applicant;
  - (2) The property's tax identification (sheet, block and lot) and the address, when available, or a description of the building, structure or land upon which the violation is occurring;
  - (3) A statement specifying the nature of the violation;
  - (4) A description of the remedial measures necessary to bring the land development activity into compliance with this chapter and a time schedule for the completion of such remedial action;
  - (5) A statement of the penalty or penalties that shall or may be assessed against the person to whom the notice of violation is directed; and
  - (6) A statement that the determination of violation may be appealed to the Town by filing a written notice of appeal within 15 days of service of the notice of violation.
- B. The Town may issue a stop-work order for violations of this chapter. Persons receiving a stop-work order shall be required to halt all land development activities, except those activities that address the violations leading to the stop-work order. The stop-work order shall be in effect until the Town confirms that the land development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a stop-work order in a timely manner may result in civil, criminal, or monetary penalties in accordance with the enforcement measures authorized in this chapter.
- C. Any land development activity that is commenced or is conducted contrary to the provisions of this chapter may be restrained by injunction or otherwise abated in a manner provided by law.
- D. In addition to or as an alternative to any penalty provided in this chapter or by law, any person who violates the provisions of this chapter shall be guilty of a violation, punishable by a fine not exceeding \$350 or imprisonment for a period not to exceed six months, or both, for conviction of a first offense; for conviction of a second offense, both of which were committed within a period of five years, punishable by a fine not less than \$350 nor more than \$700 or imprisonment for a period not to exceed six months, or both; and upon conviction for a third or subsequent offense, all of which were committed within a period of five years, punishable by a fine not less than \$700 nor more than \$1,000 or imprisonment for a period not to exceed six months, or both. However, for the purposes of conferring jurisdiction upon courts and judicial officers generally, violations of this chapter shall be deemed misdemeanors, and for such purpose only, all provisions of law relating to misdemeanors shall apply to such violations. Each day's continued violation shall constitute a separate additional violation as may be cited.
- E. If any building or land development activity is installed or conducted in violation of the provisions of this chapter, the Stormwater Management Officer may prevent the occupancy of said building or land.
- F. Any violator may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time after notice, the Town may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

## Article IX. Fees and Escrow

## § 189-17. Fees required; escrow procedures.

- A. All Town stormwater permit application and SWPPP review fees shall be in an amount set forth in the fee schedule established, and which may be amended from time to time by resolution of the Town Board.
- B. Permit review escrow account procedures.
  - (1) At the time of submission of any Town stormwater permit application, the applicant may be required to establish an applicant-funded review escrow account from which withdrawals shall be made to reimburse the Town for the cost of professional review services.
  - (2) The applicant shall fund the escrow account as follows (the total amount of funds required shall be based upon the level of expertise and intensity of evaluation needed due to the nature and complexity of the application):
    - (a) To cover the costs of the initial review of the SWPPP, an initial escrow deposit in the amount of \$1,000 shall be provided, unless otherwise determined by the SMO or Planning Board in consultation with the Town Engineer. Should the balance in such escrow account become reduced to 1/2 of the originally deposited amount, the applicant shall deposit additional funds to bring its balance up to 100% of the originally deposited amount, or to some lesser amount as deemed acceptable by the SMO or Planning Board, to complete the review of the application and SWPPP. After all pertinent charges have been paid, the Town shall refund to the applicant any funds remaining on deposit.
  - (3) A building permit or certificate of occupancy or use or certificate of compliance shall not be issued and no approval of plats, subdivisions, site development plans, special use permits, variances or other permits or approvals, as issued by the administrative officials and municipal boards of the Town of Lewisboro, shall be granted unless all application fees and professional review fees charged in connection with the SWPPP review have been reimbursed to the Town.
- C. Monitoring and inspection fees.
  - (1) Monitoring and inspection fees or escrow, if required, shall be determined by the SMO or Planning Board upon approval of the application, based on the complexity and substance of the authorized land development activity and SWPPP controls.
  - (2) To perform specific monitoring duties as required by this chapter, the Town may contract with a professional consultant to provide independent environmental monitoring and inspection services. To offset the costs of hiring an independent environmental monitor or inspector for this purpose, the SMO or Planning Board may require an applicant to establish a monitoring escrow account with the Town.

## Chapter 18: Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources

### Subchapter A: General Provisions

#### § 18-11 Preface.

(a) The health, welfare and economic well-being of nearly nine million residents in the five counties of New York City ("the City"), and of an increasing number of upstate New York communities is inextricably tied to the quality of the source waters in the watersheds of the New York City Water Supply located in Westchester, Putnam, Dutchess, Delaware, Ulster, Greene, Sullivan and Schoharie Counties, and Fairfield County in Connecticut. The high quality of these waters faces a continuing threat from the cumulative and episodic impacts of pollution sources generated by certain land uses and activities in the watersheds. It is the duty of the Commissioner of the New York City Department of Environmental Protection (the "Department") to protect the high quality of waters from which the City's water supply is drawn and preserve it from degradation for the purpose of protecting the health and general welfare of its consumers.

(b) These rules and regulations repeal in their entirety and supersede the Rules and Regulations for the Department of Water Supply, Gas and Electricity of the City of New York enacted the 11th day of June, 1953.

(c) These rules and regulations are hereby enacted pursuant to the authority vested in the Commissioner of the Department of Environmental Protection, as set forth in 15 RCNY § 18-13.

#### § 18-12 Purpose and Findings.

(a) The quality of the drinking water supplied to the City and upstate communities which draw from the New York City water supply depends primarily on the quality of the source waters which feed the reservoirs. The source waters and reservoirs are vulnerable to degradation and contamination from various sources and activities, including, but not limited to:

- (1) Wastewater discharges to surface water and groundwater;
- (2) Urban, suburban, rural, mining, silvicultural and agricultural land use practices that result in nonpoint source runoff of pollution and/or in adverse changes in the natural rate at which water flows into and through a delineated drainage basin; and
- (3) Improper use, handling, storage, transport and/or disposal of substances, including but not limited to, hazardous substances, radioactive materials, pesticides, fertilizers, winter highway maintenance materials, solid wastes, and animal wastes.

(b) The Department finds that such sources and activities, either alone or in conjunction with any other related activities, may constitute a source of contamination to or degradation of the water supply, may cause a contravention of the State water quality standards set forth in 6 NYCRR Parts 701-705, and Subchapter D of these rules and regulations, and may result in the impairment of the use of the water supply for drinking, culinary or food processing purposes.

(c) In response to the Safe Drinking Water Act Amendments of 1986, the United States Environmental Protection Agency has begun implementing a significant expansion of regulatory requirements for public water systems. In order to protect the public health, and to satisfy the legislative mandates of the Safe Drinking Water Act Amendments and the rules and regulations in 40 C.F.R. Parts 141 and 142, the New York State Department of Health has amended the State Sanitary Code, 10 NYCRR Part 5, Subpart 5-1, Public Water Systems, which contains New York State's Surface Water Treatment Rule. Although both Federal and State law propose filtration as a method for water quality treatment for pathogen control, the effectiveness of the filtration process and complexity of plant operation is dependent upon the quality of the water entering the filtration plant. In addition, many contaminants are not removed by conventional filtration. Therefore, it is clear that enhancement of the City's existing watershed rules and regulations would be necessary even if the City were to build filtration plants to filter its entire water supply.

(d) It is the goal and intent of these rules and regulations to protect the public health by averting future contamination to and degradation of the water supply and by remediating existing sources of pollution or degradation of the New York City water supply. These rules and regulations implement the Department's intention to minimize the discharge of pollutants into the source waters from both point and nonpoint sources, minimize the adverse impacts of erosion, limit the discharge of phosphorus to source waters which may accelerate the eutrophication process, and provide notification to the City of ongoing or proposed activities, which either alone or in conjunction with other existing and proposed regulated activities, may cause contamination to or degradation of the water supply.

(e) It is the purpose of these rules and regulations to insure compliance with the Federal and State standards by providing a comprehensive watershed protection program. Furthermore, these rules and regulations articulate an antidegradation policy for the New York City water supply system. These rules and regulations are promulgated to govern those activities in the watershed that threaten the quality of the water supply of the numerous upstate communities and the City of New York. While bound by its responsibility to protect the public health, the City has also taken the needs of the communities and businesses in the New York City watershed into consideration in drafting and promulgating these rules and regulations.

(f) The City reserves the right to re-examine these rules and regulations periodically to insure that they continue to further the goal and intent referred to in paragraph (d) of this subdivision and the purposes referred to in paragraph (e) of this subdivision.

(Amended City Record 10/30/2019, eff. 11/29/2019)

#### § 18-13 Authority.

These rules and regulations are promulgated pursuant to Article 11 of the New York State Public Health Law and § 24-302 of the New York City Administrative Code, and have been duly promulgated by the Commissioner of the Department of Environmental Protection of the City of New York and approved by the Commissioner of the New York State Department of Health. These rules and regulations shall become effective upon completion of any conditions set forth in the approval issued by the New York State Department of Health pursuant to § 1100(1) of the Public Health Law; publication of these rules and regulations pursuant to § 1100(2) of the Public Health Law; and upon completion of the requirements of the New York City Administrative Procedure Act.

#### § 18-14 Applicability.

(a) These rules and regulations apply to all persons undertaking, or proposing to undertake, the activities in the categories listed below, where such activities are specifically regulated in these rules and regulations and occur in the New York City watershed:

- (1) Discharge or storage of pathogenic materials.
- (2) Discharge or storage of hazardous substances and hazardous wastes.
- (3) Discharge or storage of radioactive materials.
- (4) Discharge or storage of petroleum products.
- (5) Discharge or transport of human excreta and use of holding tanks.
- (6) Design, construction and operation of wastewater treatment plants.
- (7) Design, construction and operation of sewer systems and service connections.
- (8) Design, construction and operation of intermediate sized and individual sewage treatment systems.
- (9) Discharge of stormwater and sediment, and preparation and implementation of stormwater pollution prevention plans.
- (10) Construction of impervious surfaces.
- (11) Discharge from miscellaneous point sources.
- (12) Discharge of solid waste, including the siting of junkyards and solid waste management facilities.



- (13) Discharge from agricultural activities.
- (14) Discharge or storage of pesticides.
- (15) Application and storage of fertilizers.
- (16) Snow disposal and application and storage of winter highway maintenance materials.
- (b) These rules and regulations apply to substantial alterations or modifications of the activities described in subdivision (a) of this section.
- (c) These rules and regulations apply to a substantial alteration or modification of any noncomplying regulated activity, as set forth in these rules and regulations.
- (d) These rules and regulations apply to noncomplying regulated activities that are required to come into compliance with these rules and regulations as set forth in these rules and regulations.
- (e) The boundaries of the New York City watershed have been delineated on United States Geological Survey maps, which are available for inspection at the offices of the local representatives of the Department listed in 15 RCNY § 18-15. A map of the watershed is provided in Appendix 18-A of this Part for reference purposes only.

### § 18-15 Local Representatives.

(a) Information about these rules and regulations and application and other forms required by these rules and regulations may be obtained from the following offices of the Department or on the Department's website at [www.nyc.gov/dep](http://www.nyc.gov/dep). Applications for Department approval of a regulatory activity must be submitted to one of these offices or online in accordance with instructions that may be provided on the Department's website. Petitions appealing from a determination issued by the Department or requesting a hearing on a cease and desist order issued by the Department must be submitted to the offices listed in subdivision (b) or online in accordance with instructions that may be provided on the Department's website.

- (1) New York City Department of Environmental Protection Regulatory and Engineering Programs

465 Columbus Avenue  
Valhalla, New York 10595  
Telephone: (914) 742-2028

- (2) New York City Department of Environmental Protection Regulatory and Engineering Programs

71 Smith Avenue  
Kingston, New York 12401  
Telephone: (845) 340-7215

(b) Petitions for a hearing on a determination by the Department to revoke, suspend, or modify a determination or variance in accordance with 15 RCNY § 18-26, petitions for appeal of a determination issued by the Department in accordance with 15 RCNY § 18-28, and petitions for a hearing on a cease and desist order issued by the Department in accordance with 15 RCNY § 18-29 must be submitted to the address listed in paragraph (1), with a copy to the address listed in paragraph (2).

- (1) New York City Office of Administrative Trials and Hearings

100 Church Street, 12th floor  
New York, New York 10007  
Telephone: (844) 628-4692

- (2) New York City Department of Environmental Protection

General Counsel  
59-17 Junction Boulevard  
19th Floor  
Flushing, New York 11373-5107  
Telephone: (718) 595-6555

(c) For communications with the Department regarding any known or suspected violations of these rules and regulations or notification of potential contamination of the water supply occurring anywhere in the watershed:

- (1) New York City Water Supply Watershed Police Telephone:

1-888-H2O-SHED (1-888-426-7433)

(d) Addresses and phone numbers contained in this section are informational and persons subject to these rules and regulations must utilize addresses and phone numbers specified herein, or successor addresses and phone numbers where appropriate.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### § 18-16 Definitions.

(a) The following terms shall have the stated meanings when used in this Chapter, except where otherwise specifically provided:

- (1) **Absorption area** means the area to which wastewater is distributed for infiltration to the soil.
- (2) **Absorption field** means the area to which sewage is distributed for infiltration to the soil by means of a network of pipes. A gravelless absorption system is a type of absorption field.
- (3) **Access road** means an impervious private or public road, other than a driveway, which connects a parcel to an existing public or private road and which is necessary in order to enable the parcel to be developed.
- (4) **Affiliate** means any agency or person controlled by, controlling, or under common control with an applicant.
- (5) **Agency** means any local, state or federal department, agency, board, public benefit corporation, public authority, commission, district, or governing body, including any city, county, and other political entity of the State.
- (6) **Agricultural activity** means (i) an activity that occurs on "land used in agricultural production" as that term is defined in § 301(4) of the Agriculture and Markets Law, or (ii) an activity which is covered by a whole farm plan approved by the Watershed Agricultural Council, or by a New York State Agricultural Environmental Management Plan, or by another federal, state, or other conservation plan determined by the Department to provide water quality protection equivalent to whole farm plans approved by the Watershed Agricultural Council.
- (7) **Alteration or modification** means any change in physical configuration, intensity of use, location, plans, design, site, capacity, treatment standard or method, or other change in a regulated activity or in a noncomplying regulated activity. This term shall not include remediation, routine repairs or maintenance of structures and equipment.
- (8) **Approval** means any final decision by an agency to issue a permit, certificate, license, lease, renewal or other entitlement or to otherwise authorize a proposed project or activity.

(9) **Area zoned for commercial or industrial uses** means a commercial or industrial zoning district, hamlet zoning district, or highway business zoning district. Areas zoned for commercial or industrial uses shall not include agricultural zoning districts.

(10) **Base flow** means visible sustained or fair weather runoff of water, including groundwater.

(11) **Best management practices (BMPs)** means methods, measures or practices determined to be the most practical and effective in preventing or reducing the contamination to or degradation of the water supply. Best management practices include, but are not limited to, structural and nonstructural controls and operations and maintenance procedures, that can be applied before, during or after regulated activities to achieve the purposes stated herein.

(12) **Best treatment technology (BTT)** means methods, measures or practices determined to be the most practical and effective in reducing amounts of phosphorus in both surface and subsurface point source discharges which occur within the New York City watershed. BTT will vary with the size of the wastewater treatment plant, but is generally understood to consist of secondary treatment and chemical removal (usually accomplished by the addition of aluminum salts, iron salts, polymers, or pH adjustments with lime), with media filtration as a final step if necessary to achieve higher removal rates.

(13) **C.F.R.** means the Code of Federal Regulations.

(14) **City** means the City of New York.

(15) **Clear cutting** means cutting all of the trees, not just selected trees, within a specified boundary designated by the owner of the property.

(16) **Coliform restricted basin** means the drainage basin of a reservoir or controlled lake in which the coliform standards as set forth in 15 RCNY § 18-48(c) or (d) are exceeded as determined by the Department pursuant to its annual review conducted under 15 RCNY § 18-48(e).

(17) **Combined sewer system** means a structure used for conveying both sewage and stormwater.

(18) **Commissioner** means the Commissioner of the New York City Department of Environmental Protection or its successors or a deputy commissioner authorized to act for such Department pursuant to law.

(19) **Construction or construction activity** means any building, demolition, renovation, replacement, restoration, rehabilitation or alteration of any structure or road, or land clearing, land grading, excavation, filling or stockpiling activities that result in soil disturbance.

(20) **Construction and demolition debris** means uncontaminated solid waste resulting from the construction, remodeling, repair and demolition of structures and roads; and uncontaminated solid waste consisting of vegetation resulting from land clearing and grubbing, utility line maintenance and seasonal and storm related cleanup.

(21) **Contamination** means the introduction of any pollutant to the water supply.

(22) **Controlled lake** means a lake from which the City may withdraw water pursuant to rights acquired by the City or as a right of ownership. The controlled lakes are: Kirk Lake, Lake Gleneida and Lake Gilead.

(23) **Croton System** means Middle Branch, Bog Brook, East Branch, Croton Falls, Diverting, Titicus, Amawalk, Muscoot, New Croton, and Cross River Reservoirs, Kirk Lake, Lake Gleneida and Lake Gilead, and their respective drainage basins.

(24) **Degradation** means a process of reduction or deterioration of the water quality of the water supply, including the process of eutrophication.

(25) **Department** means the New York City Department of Environmental Protection or its successors.

(26) **Design capacity** means the approved flow limit of the physical apparatus of a wastewater treatment plant as specified in its SPDES permit.

(27) **Design point** means a point where stormwater runoff enters a watercourse or wetland or leaves the site of an activity for which a stormwater pollution prevention plan must be prepared pursuant to this Chapter.

(28) **Design professional** means a professional engineer or a registered architect who is licensed to practice in the State of New York, or a land surveyor with an exemption under § 7208(n) of the Education Law.

(29) **Designated Main Street Area** means a defined area of limited size located within the East of Hudson Watershed which is an existing center of commercial, industrial, residential, or mixed use. Designated Main Street Areas were proposed by local governments in the East of Hudson Watershed in 1997 and approved by the Department pursuant to these rules and regulations.

(30) **Designated Village Center** means an area in the Croton System described by the metes and bounds of a village center, whether or not located in an incorporated village, designated by a local government(s) in a Comprehensive Croton Water Quality Protection Plan prepared and agreed to in accordance with 15 RCNY § 18-82 by submitting to the Department a description of the metes and bounds of such proposed Designated Village Center, a map of the described area, and a statement of the features which qualify the area as a Designated Village Center. A Designated Village Center must be an existing center of commercial, residential or mixed uses.

(31) **Discharge** means the intentional or unintentional disposal, deposit, injection, emission, application, dumping, spilling, leaking, washing off, release, running off, draining or placing of any solid, semi-solid, liquid, or any other non-gaseous waste or other substance into or onto any land or water or into any sewer system so that such waste or other substance may directly or indirectly enter into any watercourse, wetland, reservoir, reservoir stem, controlled lake or groundwater.

(32) **Discontinuation** means an interruption in the use of a regulated activity including a noncomplying regulated activity. The period of discontinuation shall commence on the date when regular or seasonal use ceases. Incidental or illegal use of an unoccupied structure shall not be sufficient to interrupt a period of discontinuation.

(33) **Disturbed area** means the portion of a site for which the imperviousness of the ground has changed from pre-construction conditions as a result of any land clearing, land grading or construction activity. Disturbed areas may include lawns and landscaped areas.

(34) **Drainage Area** means all land and water area from which runoff may run to a common design point.

(35) **Drainage basin** means the land area which contributes surface water to a reservoir or controlled lake.

(36) **Driveway** means a route accessible by a motor vehicle between an individual residence and a public or private road to provide ingress and egress from the individual residence.

(37) **East of Hudson Watershed** means West Branch, Boyd's Corner, Bog Brook, East Branch, Croton Falls, Diverting, Titicus, Amawalk, Muscoot, New Croton, Cross River, Middle Branch and Kensico Reservoirs, Kirk Lake, Lake Gleneida and Lake Gilead, and their respective drainage basins.

(38) **Effective Date** means May 1, 1997.

(39) **Effluent** means water or wastewater that flows out from a wastewater treatment plant or other treatment process.

(40) **Enhanced subsurface sewage treatment system** means a subsurface sewage treatment system that provides enhanced treatment of wastewater to reduce the amount of biochemical oxygen demand (BOD) and total suspended solids (TSS) of wastewater effluent prior to distribution to an absorption field. Enhanced subsurface sewage treatment systems include, but are not limited to, aerobic treatment units, peat filters, and textile filters.

(41) **Epilimnion** means the uppermost, warmest, well-mixed layer of a lake during thermal stratification.

(42) **Erosion** means the wearing away or the movement of soil by such physical agents as wind or water, that is exacerbated by such practices as the disturbance of ground cover by stripping or removing vegetation, construction activity, or tilling.

(43) **Exfiltration** means wastewater that leaks out of a sewer system into the surrounding environment, through faulty joints, defective pipes, cracks in pipes, connections, or at manholes.

(44) **Existing**, where used to describe storage of hazardous substances, storage of petroleum products, or the siting of junkyards and solid waste management facilities, means physically constructed, functioning and operational prior to May 1, 1997.

(45) **Expansion** means an increase in the permitted flow limit for a wastewater treatment plant as specified in the SPDES permit and/or an increase in the design capacity of a wastewater treatment plant.

- (46) **Facility** means a structure, room or other physical feature designed to perform a particular function and that makes possible some activity.
- (47) **Fertilizer** means any commercially produced mixture, generally containing phosphorus, nitrogen and/or potassium, except compost, that is applied to the ground to increase the supply of nutrients to plants.
- (48) **Galley System** means any subsurface system for treating sewage that employs structural chambers in a horizontal or vertical arrangement for the storage of effluent until it can be absorbed into the soil, that is utilized following a septic tank as an alternative to a standard absorption field, and that did not have all discretionary approvals necessary for construction and operation before June 30, 2002.
- (49) **Gasoline station** means an establishment at which gasoline is sold or offered for sale to the public for use in motor vehicles.
- (50) **Gravelless absorption system** means an absorption field using a wastewater distribution system designed to be installed without gravel or stone aggregate. Gravelless absorption systems may involve the use of geotextile, sand, or other media.
- (51) **Groundwater** means any water beneath the land surface in the zone of saturation. The zone of saturation is where water fills all available pore spaces.
- (52) **Hamlet** means a population center designated as a hamlet by a Town Board in the West of Hudson watershed and described as a hamlet in a Water Supply Permit duly issued by the New York State Department of Environmental Conservation or in any written agreement among the affected parties to the 1997 New York City Watershed Memorandum of Agreement, including the New York State Department of Environmental Conservation.
- (53) **Hazardous substance** means any substance defined or listed in 6 NYCRR Part 597 except that hazardous substance does not mean any petroleum product, including those listed in 6 NYCRR § 597.2, Table 1, and also does not mean any hazardous waste.
- (54) **Hazardous waste** means any solid waste, defined or listed as a hazardous waste in 6 NYCRR Part 371.
- (55) **Holding tank** means a tank or vault, with no outlet, used for holding sewage before it is pumped out and transported elsewhere for treatment or disposal.
- (56) **Hot spot runoff** means runoff from an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater, such as vehicle service and maintenance facilities, fleet storage areas, industrial sites, marinas, and facilities that generate or store hazardous materials. Runoff from residential, institutional, and office development, non-industrial rooftops, roads, and pervious surfaces is not generally hot spot runoff.
- (57) **Hydrologic soil group** means the designation of soils based on the National Engineering Handbook, Part 630, Chapter 7, Hydrologic Soil Groups, U.S. Department of Agriculture, National Resources Conservation Service, 2009 in which soils are categorized into four runoff potential groups, ranging from A soils, with high permeability and little runoff production, to D soils, which have low permeability rates and produce much more runoff.
- (58) **Hypolimnion** means the lower, cooler layer of a lake during thermal stratification.
- (59) **Impervious surface** means an area which is either impervious to water or which substantially prevents the infiltration of water into the soil at that location. Impervious surfaces include, but are not limited to, paving, concrete, asphalt, rooftops, and other hard surfacing materials, and do not include dirt, crushed stone, gravel surfaces, or other surfacing materials determined by the Department to be pervious for their intended purpose.
- (60) **Individual residence** means a building consisting of one or two residential units.
- (61) **Individual sewage treatment system** means an on-site subsurface sewage treatment system serving one or two family residential properties and receiving sewage without the admixture of industrial wastes or other wastes, as defined in the Environmental Conservation Law § 17-0701.
- (62) **Industrial waste** means any liquid, gaseous, solid or waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources, which may cause or might reasonably be expected to cause contamination to or degradation of the water supply.
- (63) **Infiltration** means water, other than wastewater, that enters a sewer system, including sewer service connections, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow and from treatment of runoff by stormwater infiltration practices.
- (64) **Inflow** means water other than wastewater that enters a sewer system, including sewer service connections, from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.
- (65) **In situ soil** means naturally occurring glacial soil; it does not include fill or stabilized fill.
- (66) **Intake** means the points in the New York City water supply located prior to the point of disinfection where the water is no longer subject to surface runoff.
- (67) **Intermediate sized sewage treatment system** means an on-site subsurface sewage treatment system serving an industrial, institutional, municipal, commercial, or multi-family residential facility, and receiving sewage without the admixture of industrial wastes or other wastes, as defined in the Environmental Conservation Law § 17-0701.
- (68) **Intermittent stream** means a watercourse that during certain times of the year goes dry or whose lowest annual mean discharge during seven consecutive days with a recurrence interval of ten years (MA7CD/10) is less than 0.1 cubic foot per second and which periodically receives groundwater inflow. A drainage ditch, swale or surface feature that contains water only during and immediately after a rainstorm or a snow melt shall not be considered to be an intermittent stream.
- (69) **Junkyard** means any place of storage or deposit, whether in connection with another business or not, where four or more unregistered, old, or second hand motor vehicles, no longer intended or in condition for legal use on the public highways, are held, whether for the purpose of resale of used parts, for the purpose of reclaiming for use some or all of the materials such as metal, glass, or fabric for the purpose of disposing of the same, or for any other purpose.
- (70) **Land clearing** means the exposure of soil by revegetation or the exposure of soil to the forces of erosion.
- (71) **Land grading** means the removal, addition or alteration of surface or subsurface conditions of land by excavation or filling.
- (72) **Limiting distance** means the shortest horizontal distance from the nearest point of a structure or object to the edge, margin or steep bank forming the ordinary high water mark of a watercourse, wetland, reservoir, reservoir stem or controlled lake or to the contour line coinciding with the reservoir spillway elevation.
- (73) **Mapped stream** means a protected stream as defined in 6 NYCRR § 608.1.
- (74) **Metalimnion** means an intermediate zone between the epilimnion and hypolimnion where the water temperature drops rapidly with increasing depth.
- (75) **Microfiltration** means a process in which treated effluent passes through a membrane filter having a nominal pore diameter of 0.2 microns or less.
- (76) **Multi-family residence** means a building containing three (3) or more residential units.
- (77) **Municipal solid waste landfill** means a landfill, as defined in 6 NYCRR § 360.2, which is owned or operated by a municipality.
- (78) **New**, where used to describe storage of hazardous substances, storage of petroleum products, and the siting of junkyards and solid waste management facilities, means undertaken, constructed, installed, or implemented after May 1, 1997.
- (79) **Noncomplying regulated activity** means any regulated activity or existing activity which does not conform to the standards set forth in these rules and regulations, but has obtained all discretionary approvals necessary for construction and operation, prior to the effective date of these rules and regulations and/or prior to the effective date of an amendment to these rules and regulations that made the activity noncomplying.
- (80) **Nonpoint source pollution** means pollution sources which are diffuse and do not have a single point of origin or are not introduced into a receiving stream from a point source.
- (81) **NYCRR** means the Official Compilation of Codes, Rules and Regulations of the State of New York.
- (82) **Offset** means a reduction in the discharge of phosphorus into a drainage basin which is surplus, quantifiable, permanent, and enforceable, as defined herein:

(i) Surplus means that the reduction in phosphorus is not otherwise required by federal, state or local law, including these rules and regulations, or pursuant to the terms of any judgment, decree or order of any court, administrative tribunal or governmental agency, or pursuant to any watershed protection program funded by the Department, except as provided in 15 RCNY §§ 18-83(a)(3) and 18-84(a)(3).

(ii) **Quantifiable** means that a reasonable basis exists for calculating and verifying the amount of the reduction in phosphorus.

(iii) **Permanent** means that the reduction in phosphorus is ongoing and of unlimited duration, as opposed to a temporary reduction.

(iv) **Enforceable** means that the actions and performance standards proposed by the applicant leading to the reduction in phosphorus are incorporated into a legally valid and binding agreement which may be enforced by the City in a court of competent jurisdiction.

(83) **One hundred-year, twenty-four hour storm** means the storm, with a twenty-four hour duration, that statistically has a one percent chance of occurring in any given year, as set forth in the "New York State Stormwater Design Manual," New York State Department of Environmental Conservation (2015).

(84) **One-year, twenty-four hour storm** means the storm, with a twenty-four hour duration, that statistically has a 100 percent chance of occurring in any given year, as set forth in the "New York State Stormwater Design Manual," New York State Department of Environmental Conservation (2015).

(85) **Operator** means any person who leases, operates, controls or supervises a facility.

(86) **Owner** means any person who has legal or equitable title to a facility.

(87) **Pathogenic** means capable of causing disease from organisms, including but not limited to: bacteria, fungi, viruses, and protozoa (such as Giardia and Cryptosporidium).

(88) **Person** means any individual, public or private corporation, political entity, agency, municipality, industry, co-partnership, association, firm, trust, estate or any other legal entity whatsoever, except that person shall not mean the State of New York or any State department, agency, board, public benefit corporation, public authority or commission.

(89) **Perennial stream** means a watercourse that flows throughout the year from source to mouth.

(90) **Pesticide** means (i) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, fungi, weeds, or other forms of plant or animal life or viruses, except viruses on or in living humans, or other animals, which the Commissioner of the New York State Department of Environmental Conservation shall declare to be a pest or (ii) any substance or mixture of substances intended as a plant regulator, defoliant or desiccant.

(91) **Petroleum product** means oil or petroleum of any kind and in any form including, but not limited to, oil, petroleum, fuel oil, oil sludge, oil refuse, oil mixed with other wastes and crude oils, gasoline and kerosene.

(92) **Phosphorus restricted basin** means (i) the drainage basin of a source water reservoir in which the phosphorus load to the reservoir results in the phosphorus concentration in the reservoir exceeding 15 micrograms per liter, or (ii) the drainage basin of a reservoir other than a source water reservoir or of a controlled lake in which the phosphorus load to the reservoir or controlled lake results in the phosphorus concentration in the reservoir or controlled lake exceeding 20 micrograms per liter in both instances as determined by the Department pursuant to its annual review conducted under 15 RCNY § 18-48(e).

(93) **Photic zone** means the region of a lake that receives light, where photosynthesis takes place. The photic zone extends down to a depth where photosynthetic activity and respiration are balanced due to the available light, or to one percent surface illumination.

(94) **Point source** means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or vessel or other floating craft, or landfill leachate collection system, from which pollutants are or may be discharged.

(95) **Pollutant** means unpermitted dredged spoil, solid waste, incinerator residue, sewage, effluent, garbage, sewage sludge, munitions, chemical waste, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, and industrial and municipal waste discharged into water.

(96) **Portable toilet** means a non-waterborne sewage system with offsite residual disposal, as identified in 10 NYCRR Appendix 75-A.

(97) **Principal** means an agency or person that owns 10 percent or more of the voting stock or has the ability to control a corporation, partnership or other entity.

(98) **Qualifying municipal sewer use law** means a local law or ordinance that includes provisions substantially similar to Articles 1 - 3, 5 - 7, 11 - 14 and the Appendix of the New York State Department of Environmental Conservation Model Sewer Use Law, dated 1994, or which the New York State Department of Environmental Conservation has otherwise accepted pursuant to the SPDES permit for the wastewater treatment plant served by a municipal sewer system.

(99) **Radioactive material** means any material in any form that emits radiation spontaneously.

(100) **Redevelopment** means the reconstruction or modification of any previously developed land such as residential, commercial, industrial, or road/highway, which involves soil disturbance. Redevelopment is distinguished from new development in that new development refers to soil disturbance on land which has not been developed. The term "redevelopment" specifically applies to areas previously developed with impervious surfaces.

(101) **Regulated activity** means any activity to which these rules and regulations apply, as described in subdivisions (a) - (d) of 15 RCNY § 18-14.

(102) **Remediation** means the repair or replacement, other than routine repair or maintenance as described in 15 RCNY § 18-38(b)(5)(iii) of Subchapter C, of a subsurface sewage treatment system. Remediation does not include alteration or modification as defined in these rules and regulations.

(103) **Reserve absorption field** means an area identified in the design for a subsurface sewage treatment system as suitable for infiltration of sewage to the soil by means of a network of pipes.

(104) **Reservoir** means any natural or artificial impoundment of water owned or controlled by the City which is tributary to the City Water supply system.

(105) **Reservoir stem** means any watercourse segment which is tributary to a reservoir and lies within 500 feet or less of the reservoir.

(106) **Residential lot(s)** means any parcel of land of five acres or less, any point on the boundary line of which is less than one-half mile from any point on the boundary line of another such lot in the same tract, unless any such lot may not legally be used for residential purposes. Without limiting the generality of the foregoing, the term "residential" shall include temporary, seasonal and permanent residential use.

(107) **Sediment** means organic or mineral solids or colloids that are transported by the process of hydrologic, hydraulic, or atmospheric transport, including but not limited to erosion.

(108) **Sewage** means the water-carried human or animal wastes from residences, buildings, industrial establishments or other places, together with such groundwater infiltration and surface water as may be present. The admixture of sewage with industrial waste or any other waste as herein defined, shall also be considered "sewage" within the meaning of these rules and regulations.

(109) **Sewer connection** means the connection between a building, residence, or other structure and a sewer system except that any connection designed and intended to convey 2,500 gallons per day or more of sewage, industrial waste or other wastes shall be considered a sewer extension. Sewer connections designed to facilitate additional sewer connections, which are proposed on or after November 29, 2019, shall be considered sewer extensions.

(110) **Sewer extension** means newly constructed sewer pipe lines or conduits, and pumping stations and other constructions appurtenant thereto, designed to serve one or more sewer connections and to convey sewage, industrial waste or other wastes to a sewer system.

(111) **Sewer system** means pipe lines or conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, including sewer extensions, used for conducting sewage, industrial waste or other wastes to a treatment facility.

(112) **Silvicultural activity** means the removal of selected trees within a specified boundary designated by the owner of the property so that adequate numbers of trees are left to provide seed and partial shade for the development of new tree seedlings, and when such activity is in accordance with Federal, State and local laws.

(113) **Small quantity generator** has the meaning set forth in 6 NYCRR § 370.2(b)(154).

(114) **Solid waste** means all putrescible and non-putrescible materials or substances that are discarded, abandoned, or rejected as being spent, useless, worthless or in excess to the owners at the time of such discard or rejection, including but not limited to garbage, refuse, industrial and commercial waste, sludges from air or water treatment facilities, rubbish, tires, ashes, contained gaseous material, incinerator residue, construction and demolition debris, discarded automobiles and offal, except where exempt from compliance with 6 NYCRR Part 360 as described in 6 NYCRR § 360.2(a)(3).

(115) **Solid waste management facility** means any facility employed beyond the initial solid waste collection process and managing solid waste, as defined in 6 NYCRR § 360.2.

(116) **Source water reservoir** means Ashokan, Cross River, Croton Falls, Kensico, New Croton, Rondout, and West Branch Reservoirs.

(117) **SPDES flow parameter violation** means two or more violations of a permitted State Pollutant Discharge Elimination System (SPDES) flow parameter limit during a consecutive six month period. A facility that operates less than 6 months per year will be deemed to have a SPDES flow parameter violation if the permitted SPDES flow parameter limit is violated one or more times during any consecutive four month period.

(118) **State Pollutant Discharge Elimination System (SPDES) permit** means a permit issued pursuant to Titles 7 and 8 of Article 17 of the Environmental Conservation Law.

(119) **Stormwater** means that portion of precipitation that is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, that flows off the land by surface runoff or by subsurface interflow to watercourses, wetlands, reservoirs, reservoir stems and controlled lakes, i.e., that portion of the water supplied to surface drainage that is not groundwater or base flow.

(120) **Stormwater bioretention practice** means a stormwater management practice that uses landscaping and soils to treat stormwater runoff by collecting it in shallow depressions, before filtering through a fabricated planting soil media.

(121) **Stormwater conveyance measure** means a swale, drainage ditch, pipe, spillway, or other structure located outside a stormwater management practice that is used solely to transport water between stormwater management practices or to a watercourse or wetland. A stormwater conveyance measure constructed to convey stormwater, on a temporary basis, during active construction, which will not be used as a stormwater conveyance measure after construction is complete, is not considered a watercourse under this Chapter. A stormwater conveyance measure that contains water only during and immediately after a rainstorm or a snowmelt is not considered a watercourse.

(122) **Stormwater infiltration practice** means a stormwater management practice designed to collect and temporarily store runoff and to distribute that runoff to the underlying soil for treatment.

(123) **Stormwater management practice** means a stormwater pond, stormwater wetland (also known as a constructed wetland), infiltration system, filter practice, or open channel used primarily for managing and/or treating stormwater, including a Department approved alternative stormwater management practice.

(124) **Stormwater Project Review Committee ("Committee")** means a Committee formed in each Town or Village in the watershed to assist the Department in implementing 15 RCNY § 18-39(b) and (c), and consisting of the following four Committee members: a representative of the Department, who shall act as chairperson; a representative of the New York State Department of Environmental Conservation from the region in which the activity requiring a stormwater pollution prevention plan is proposed to be located; a representative of the Town or Village in which the activity requiring a stormwater pollution prevention plan is proposed to be located or if no one is designated by the Town, or if the activity is proposed for a village, the Village, a representative of the appropriate County Planning Department, provided, however, that a Town, or if the activity is proposed for a village, the Village, may at any time designate a representative to replace the one designated by the County Planning Department; and a representative of the County Department of Health from the County in which the activity requiring a stormwater pollution prevention plan is proposed to be located, or in a County without a County Department of Health, a representative of the County Soil and Water Conservation Service.

(125) **Stormwater retrofit** means any construction of a structural stormwater management practice in a previously developed area, the modification of a structural stormwater management practice, or the implementation of a nonstructural practice to improve stormwater management and/or stormwater treatment over current conditions.

(126) **Stratification** means the physical condition caused primarily by temperature-created differences in water density, which results in the formation of a warm, surface layer (epilimnion), a zone of transition (metalimnion), and a cooler, deep layer of water (hypolimnion).

(127) **Subdivision** means any tract of land which is divided into five or more parcels of five acres or less, along an existing or proposed street, highway, easement or right-of-way, for sale or for rent as residential lots. A tract of land shall constitute a subdivision upon the sale, rental or offer for sale or lease of the fifth residential lot therefrom within any consecutive three year period.

(128) **Subsurface discharge** means discharge to an absorption area, i.e., a process designed to allow filtered, treated sewage effluent to be discharged into the ground as a means of ultimate disposal.

(129) **Subsurface sewage treatment system** means any underground system used for collecting, treating, and disposing of sewage into the ground including, but not limited to, individual and intermediate sized sewage treatment systems, as defined in these rules and regulations.

(130) **Superintendent**, where used in connection with a municipality with a qualifying municipal sewer use law, means "superintendent" as defined in that law.

(131) **Ten-year, twenty-four hour storm** means the storm, with a twenty-four hour duration, that statistically has a ten percent chance of occurring in any given year, as set forth in the "New York State Stormwater Design Manual," New York State Department of Environmental Conservation (2015).

(132) **Terminal reservoir** means Kensico, West Branch, New Croton, Ashokan and Rondout Reservoirs.

(133) **Two-year, twenty-four hour storm** means the storm, with a twenty-four hour duration, that statistically has a fifty percent chance of occurring in any given year, as set forth in the "New York State Stormwater Design Manual," New York State Department of Environmental Conservation (2015).

(134) **Ulster County Fill System** means a subsurface sewage treatment system used in Ulster County which has been approved by the New York State Department of Health for use in Ulster County and which is built upon two (2) feet of in situ soil that has a percolation rate between 3 to 60 minutes/inch, and which uses at least four (4) feet of fill material, including at least three (3) feet between the bottom of the trench and the in situ soil, that has a percolation rate between 3 and 10 minutes/inch. Ulster County Fill Systems may be used on individual lots or in subdivisions in Ulster County and may also be used in a county other than Ulster if the New York State Department of Health has approved the system for use in such other county.

(135) **Village** means a territory which has been incorporated as a village pursuant to Article 2 of the New York State Village Law.

(136) **Village extension** means an area immediately adjoining a main road extending outside an existing village which has been designated as a village extension by a Town Board in the West of Hudson watershed and described in a Water Supply Permit duly issued by the New York State Department of Environmental Conservation or in any written agreement among the affected parties to the 1997 New York City Watershed Memorandum of Agreement, including the New York State Department of Environmental Conservation.

(137) **Wastewater treatment plant** means any facility which treats sewage or discharges treated effluent not intended to receive further treatment in the watershed, and which requires a permit under Titles 7 or 8 of Article 17 of the Environmental Conservation Law. A wastewater treatment plant is installed for the purpose of treating, neutralizing, stabilizing or disposing of sewage by removal of contaminants accomplished by unit operations or processes or by a combination of such operations and processes as may be applicable to a given design for a wastewater treatment plant. Wastewater treatment plants shall not include intermediate sized sewage treatment systems as defined in these rules and regulations.

(138) **Water Quality Volume (WQ<sub>v</sub>)** means the storage needed to capture and treat 90% of the average annual stormwater runoff volume. WQ<sub>v</sub> is calculated as follows:

$$WQ_v = (P)(R_v)(A)$$

12

where:

WQ<sub>v</sub> = water quality volume (in acre-feet)

P = 90% Rain Event Number as set forth in the "New York State Stormwater Design Manual," New York State Department of Environmental Conservation (2015).

R<sub>v</sub> = 0.05 + 0.009(I), where I is percent impervious cover

A = site area in acres

(139) **Water supply** means the New York City public water supply system, and includes all watercourses, wetlands, reservoirs, reservoir stems and controlled lakes tributary thereto.

(140) **Watercourse** means a visible path through which surface water travels on a regular basis, including an intermittent stream, which is tributary to the water supply. A drainage ditch, swale or surface feature that contains water only during and immediately after a rainstorm or a snowmelt shall not be considered to be a watercourse.

(141) **Watershed** means the land area contributing surface water to the New York City water supply.

(142) **Watershed Agricultural Council** means the Watershed Agricultural Council for the New York City Watershed, Inc., a not-for-profit organization with its principal place of business at 33195 State Highway 10, Walton, New York 13856.

(143) **West of Hudson watershed** means the Ashokan, Cannonsville, Pepacton, Neversink, Rondout, and Schoharie Reservoirs and their drainage basins.

(144) **Wetland** means any area mapped as a wetland by the New York State Department of Environmental Conservation pursuant to the Environmental Conservation Law, which is at least 12.4 acres in size or has been designated as a wetland of unusual local importance.

(145) **Winter highway maintenance materials** means the solid compounds or the solutions that are commonly used for traction on, or for the abatement of, winter road ice, including, but not limited to, chloride compounds, and mixtures of sand and chloride compounds.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### § 18-17 References.

The following laws, guidance documents, regulations or technical material have been incorporated by reference in this Chapter 18. These references are available for inspection and copying at the Department of Environmental Protection, Bureau of Water Supply, Division of Water Quality, 465 Columbus Avenue, Valhalla, New York 10595, or can be directly obtained from the sources listed for the given reference.

- (1) Federal Categorical Pretreatment Standards, 40 C.F.R. Part 403, 1992, Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.
- (2) USDA Soil Conservation Service Soil Type Boundaries, USDA SCS, Room 771, Federal Building, 100 South Clinton Street, P.O. Box 7248, Syracuse, New York 13261-7248.
- (3) National Engineering Handbook, Part 630, Chapter 7, Hydrologic Soil Groups, U.S. Department of Agriculture, National Resources Conservation Service, 2009, U.S. Department of Agriculture 1400 Independence Ave., Washington, D.C. 20250.
- (4) New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (October 22, 1993, Reissue Date June 1998, as modified and supplemented by the January 1999 Errata Sheet and the April 2000 and June 2004 Addenda), New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (5) New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.3.1, Total Maximum Daily Loads and Water Quality Based Effluent Limits (July 8, 1996, Revised February 1998), including Amendments A through E (July 8, 1996), New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (6) New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.3.1B, Total Maximum Daily Loads and Water Quality-Based Effluent Limits, Amendments-Low and Intermittent Stream Standards (July 8, 1996), New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (7) New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-15-002, Effective January 29, 2015, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (8) New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, 2014, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (9) New York State Stormwater Design Manual, 2015, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (10) Model Sewer Use Law, 1994, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233.
- (11) Recommended Standards for Wastewater Facilities, Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 2014, Health Education Services, Health Education Services Division, P.O. Box 7126, Albany, New York 12224.

(Amended City Record 10/30/2019, eff. 11/29/2019)

## Subchapter B: Standards and Procedures for Regulated Activities and Noncomplying Regulated Activities

### § 18-21 Standards for Regulated Activities.

(a) The following general standards apply to all regulated activities unless specifically noted otherwise, whether or not the regulated activity also requires the review and approval of the Department. In addition, certain regulated activities must meet additional standards or procedures where specifically set forth in this subchapter or in other subchapters:

- (1) All regulated activities shall be planned, designed, scheduled and conducted in such manner as to not constitute a source of contamination to or degradation of the water supply.
- (2) The Department shall base its review and approval of any regulated activity on compliance with these rules and regulations, including the water quality standards set forth in Subchapter D, and shall additionally take into consideration the system specific water quality characteristics set forth in Appendix 18-B.
- (3) The burden of demonstrating compliance with the requirements of these rules and regulations shall be on the person proposing to engage in a regulated activity. In the event that any person finds that compliance with any standard set forth in these rules and regulations is not possible, then she or he may apply for a variance in accordance with the provisions of Subchapter F of these rules and regulations. Variances may be granted provided that the Department makes the findings required by Subchapter F of these rules and regulations.
- (4) Failure to comply with the conditions of any approval issued by the Department under these rules and regulations shall be a violation of these rules and regulations.
- (5) The Department may order that a regulated activity cease, and/or a facility where such regulated activity is taking place be closed or removed, if such regulated activity is causing contamination to or degradation of the water supply, such that the activity is a threat to the life, health, or safety of water supply users that requires immediate corrective action. Any person who receives such an order may request a hearing on such order in the manner provided in 15 RCNY § 18-29.

### § 18-22 Procedures for Notification and/or Reporting.

Where any notification, application or reporting to the Department required by these rules and regulations is to be made in writing, it shall be sent by certified mail to both the local Department representative in the portion of the watershed in which the regulated activity takes place and to the Engineering Section. Addresses are listed in 15 RCNY § 18-15.

### § 18-23 Application Procedures and Requirements.

- (a) These procedures shall apply to the following:
  - (1) Applications for review and approval of regulated activities, including renewals of approvals of regulated activities. An application for renewal of an approval of a regulated activity shall be submitted to the Department no less than 180 days prior to the expiration of the approval. This deadline shall apply unless stated otherwise in a special condition of the approval.
  - (2) Applications for review and approval of a substantial alteration or modification of any regulated activity;
  - (3) Applications for review and approval of any substantial alteration or modification of a noncomplying regulated activity; and
  - (4) Applications for variances pursuant to Subchapter F of these rules and regulations.
- (b) The applicant shall meet the following requirements:
  - (1) No person shall undertake any activity listed in 15 RCNY § 18-14 which requires the review and approval of the Department without first obtaining written approval from the Department, except where a temporary emergency approval has been obtained from the Department pursuant to 15 RCNY § 18-24.
  - (2) Any person proposing to undertake any activity listed in 15 RCNY § 18-14 which requires the review and approval of the Department, shall submit to the Department, at the address of the Department representative for the area where the regulated activity is to be undertaken set forth in 15 RCNY § 18-15, an application for review and approval which includes a plan of the activity which meets the requirements of this subchapter and any additional requirements for the specific activity set forth in these rules and regulations. Failure by the applicant to submit information to the Department or to follow the Department procedures set forth in these rules and regulations is sufficient grounds to deny the approval.
  - (3) Any person seeking approval of an activity may be subject to such terms and conditions as the Department may require, including time limitations and limitations on transfer of the approval given by the Department.
  - (4) (i) An applicant shall affirmatively state in the application whether any enforcement action has been commenced during the five (5) years preceding the application against the applicant, or any principal or affiliate of the applicant, for alleged violations of law related to the specific regulated activity for which the approval is sought, or related to the facility or site at which the activity is located. The applicant shall supply the following information with respect to each enforcement action: the agency or entity commencing the action, the date of commencement, the facility location and address where the alleged violation occurred, and disposition of the action.

(ii) Failure to fully and accurately disclose any material information required to be disclosed pursuant to subparagraph 4(i) shall be a basis for the Department to deny a permit application.

(iii) Failure to cure any adjudicated violation of this Chapter or any law, rule or regulation enforced by the Department shall be a basis to deny a permit application.

(iv) If the Department or the City has commenced an enforcement action against the applicant for violations of law related to the facility or site at which the activity for which the approval is sought is located, the Department may suspend processing of the application until such alleged violations are cured.

(5) Any property owner may request that the Department perform a site visit and evaluation to determine and flag the presence of a watercourse, reservoir, reservoir stem or controlled lake on the owner's property. If the property owner supplies the Department with a surveyor's map of the property which includes a representation of the flagged watercourses, reservoirs, reservoir stems or controlled lakes identified by the Department, the Department shall confirm or annotate the findings upon the surveyor's map as soon as is practicable. A confirmed survey map shall be binding upon the Department for five years following the date of the confirmation.

(6) If an applicant for Department review and approval of a regulated activity requests that the Department conduct a site visit and evaluation to determine and flag the presence of a watercourse, reservoir, reservoir stem or controlled lake on the applicant's property the Department shall do so as soon as is practicable. If the applicant supplies the Department with a surveyor's map of the property which includes a representation of the flagged watercourses, reservoirs, reservoir stems or controlled lakes identified by the Department, the Department shall confirm or annotate the findings upon the surveyor's map within 20 business days of receipt thereof. A confirmed survey map shall be binding upon the Department for five years following the date of the confirmation. The absence of a Department confirmed surveyor's map will not cause an application to be considered incomplete.

(c) An application shall contain the following information:

(1) An application for the review and approval of any activity listed in 15 RCNY § 18-14 shall provide a description of the activity, the location and topography of the area of the activity, identification of any existing structures at the location, and any engineering, construction or other plans which detail the methods to be used in undertaking the activity such that it shall meet the requirements of this subchapter and any additional requirements for the specific activity set forth in these rules and regulations.

(2) An application for review and approval of any activity listed in 15 RCNY § 18-14 shall include a copy of any Environmental Assessment Form (EAF), and either a Draft Environmental Impact Statement (DEIS) or a determination of nonsignificance by the lead agency, where such documents are prepared pursuant to Article 8 of the Environmental Conservation Law and the rules and regulations promulgated thereunder.

(3) When a regulated activity requires a related approval from any other agency or more than one approval from the Department, the application for review and approval shall include a list of such approvals which the applicant knows to be required, and a statement of the status of any required approval at the time of filing of the application with the Department.

(4) An application for review and approval of any regulated activity shall include the name, address, telephone number, email address, and fax number of the applicant or the applicant's authorized representative, and of the design professional(s), if any, involved in preparing the application.

(d) *Review and Approval Procedures.*

(1) The applicant proposing to engage in any activity listed in 15 RCNY § 18-14 which requires the review and approval of the Department shall certify in writing that she or he believes that the application is complete and in compliance with the requirements of this subchapter and any additional requirements for the specific activity set forth in these rules and regulations.

(2) An application is complete when it is determined by the Department to contain sufficient information for the purpose of commencing review of the application. The Department retains the right to seek additional information in order to enable the Department to make a determination pursuant to these rules and regulations. Within ten (10) days of receiving an application for review and approval of a conventional individual sewage treatment system to be installed on an individual lot which is not within a subdivision, or within twenty (20) days of receiving any other type of application for review or approval, the Department shall either:

(i) Notify the applicant in writing that the application is complete and that the Department shall commence its review; or

(ii) Notify the applicant in writing that the application is incomplete and specifically request all additional information from the applicant as the Department deems necessary. If additional information is requested or comments are issued by the Department that need to be addressed by the applicant, the twenty (20) day period described in paragraph (d)(4) of this subdivision or the forty-five (45) day period described in paragraph (d)(5) of this subdivision shall not commence to run. The Department shall notify the applicant in writing within ten (10) days of receiving the additional information that has been requested either that the application is complete and that the Department has commenced its review or that further information is required.

(iii) Except in cases where the applicant has submitted false or misleading information or where a change in relevant law has occurred or changes have been proposed for the project, the Department may require further information based only upon the additional information submitted by the applicant or new issues raised by such information. In addition, the Department may also require further information based on a change in ownership of the property, the identity of the applicant, or the identity of the applicant's owners, principals, shareholders, directors, or officers.

(3) If the Department fails to notify an applicant in writing of its determination as to the completeness or incompleteness of the application within the time periods set forth in paragraph (d)(2) of this subdivision, the applicant may notify the Department of its failure by means of certified mail, return receipt requested, to the local Department representative identified in 15 RCNY § 18-15 who is responsible for processing the application and a copy to the Engineering Section. If the Department fails to notify the applicant of its determination as to the completeness or incompleteness of the application within ten (10) business days of receiving the notice, the application shall be deemed complete as of the eleventh day.

(4) The Department shall notify the applicant in writing of its determination within twenty (20) days of determining that an application for review and approval of a conventional individual sewage treatment system to be installed on an individual lot which is not within a subdivision is complete pursuant to the procedures set forth in paragraph (d)(2) of this subdivision unless the Department and the applicant mutually agree in writing upon an extension of the twenty (20) day review period. If, during the twenty (20) day review period, the Department requests revisions to the application, the review period shall be suspended from the date such request is made until the date on which the Department receives such revisions, provided that the Department shall have no fewer than ten (10) days from the date of receipt to issue a determination.

(5) For all applications for review and approval, other than for a conventional individual sewage treatment system to be installed on an individual lot which is not within a subdivision, the Department shall notify an applicant in writing of its determination within forty-five (45) days of notifying the applicant that the application is complete pursuant to the procedures set forth in paragraph (d)(2) of this subdivision unless the Department and the applicant mutually agree in writing upon an extension of the forty-five (45) day review period. If, during the forty-five (45) day review period, the Department requests revisions to the application, the review period shall be suspended from the date such request is made until the date on which the Department receives such revisions, provided that the Department shall have no fewer than ten (10) days from the date of receipt to issue a determination.

(6) If the Department fails to notify an applicant in writing of its determination within the twenty (20) day time period as set forth in paragraph (d)(4) of this subdivision or the forty-five (45) day time period as set forth in paragraph (d)(5) of this subdivision, the applicant may notify the Department of its failure by means of certified mail, return receipt requested to the local Department representative identified in 15 RCNY § 18-15 who is responsible for processing the application and a copy to Regulatory and Engineering Programs. The notice shall contain the applicant's name, location of the proposed project, the office in which the application was filed, and a statement that a decision is sought in accordance with this subdivision. Any notice failing to provide this information will not invoke this provision.

(i) If the Department fails to notify the applicant of its decision within ten (10) business days of the receipt of such notice, the application shall be deemed approved subject to the standard terms and conditions applicable to such an approval.

(7) Notwithstanding the time period for notifying an applicant of the Department's determination specified in paragraphs (d)(4), (d)(5) and (d)(6) of this section, if a lead agency has determined that a project may have a significant effect on the environment for purposes of the State Environmental Quality Review Act (SEQRA), such time periods shall be suspended pending receipt from the lead agency of either a Final Environmental Impact Statement (FEIS) or a determination of nonsignificance. Upon receipt of either document, the time periods shall resume, provided, however, that the Department shall have at least twenty (20) days to notify an applicant of its determination.

(8) Notwithstanding the time periods for decisions specified in this subdivision, the Department may condition an approval on the applicant providing satisfactory proof of any bonds required by the Department within thirty days of the applicant receiving the conditional approval from the Department.

(9) Any notice required or permitted to be given by the Department under this subchapter shall be given in such manner designed to reach the applicant, as the Department deems appropriate, and may include, but is not limited to, regular mail, certified mail return receipt requested, or telecopier.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-24 Emergency Procedures.**

(a) Notwithstanding any other provision of this subchapter, where an expedited review and approval of a regulated activity is necessary to respond to an imminent threat to the health and safety of humans or animals, or to respond to a substantial imminent threat to property, an applicant seeking such review and approval shall notify the Department by telephone at



the office of the local representative listed in 15 RCNY § 18-15, and shall meet with the Department within 24 hours. At the meeting the applicant shall present to the representative of the Department such available information regarding the regulated activity as would otherwise be required in a written application for review and approval of the regulated activity. Additionally, the applicant shall provide an explanation of the nature of the imminent threat that necessitates the expedited review. The Department shall review the information supplied by the applicant and shall issue a temporary determination to approve or disapprove the application within 24 hours of receipt of the information required by this subdivision.

(1) An applicant shall not be required to notify the Department before undertaking the routine repair and maintenance of a subsurface sewage treatment system, including, but not limited to, the pump-out of a septic tank, the repair of a broken lateral, the leveling of a distribution box, or the removal of a blockage.

(b) An approval granted by the Department pursuant to the emergency expedited review procedure shall be a temporary approval only, and shall not be considered to be a final approval of the Department. The temporary approval may contain conditions and time limitations and shall be limited to whatever actions are necessary to abate the imminent threat. A final approval shall be issued by the Department only after review and approval of a complete written application submitted in accordance with the procedures and standards set forth in subdivision (c) of this section, and any other applicable provisions of this subchapter and these rules and regulations.

(c) An applicant who has received a temporary approval for a regulated activity pursuant to the emergency expedited review procedure shall, within twenty days of such approval, submit a written application to the Department containing all of the information required to be provided by these rules and regulations for the particular regulated activity.

#### **§ 18-25 Optional Pre-application Conference.**

(a) If a proposed regulated activity requires one or more Department reviews or approvals, or the preparation of an Environmental Impact Statement pursuant to the State Environmental Quality Review Act, the prospective applicant may request an optional pre-application conference with the appropriate Department staff as a means of clarifying application procedures to be followed in order to comply with the requirements set forth in these rules and regulations.

(b) The request for a pre-application conference should be made at the earliest possible stage of the applicant's planning process. Such request shall be made in writing to the Department representative for the area where the regulated activity is to be undertaken, as set forth in 15 RCNY § 18-15. A mutually agreed upon time and place shall be scheduled for the pre-application conference.

(c) In order to assist the prospective applicant, prior to the preapplication conference, the prospective applicant shall submit to the Department representative the following information:

(1) A description of the proposed regulated activity, a site plan or sketch showing the location and topography of the area of the activity, identification of any existing structures at the location, and any engineering, construction or other plans which describe the methods to be used to meet the requirements of these rules and regulations;

(2) A statement of the prospective applicant's timetable and financial plans for carrying out the proposed regulated activity, if known;

(3) A statement of any governmental financial aid, facilities, or other assistance which the prospective applicant expects to be provided or plans to request for the regulated activity; and

(4) Such other information as the Department deems reasonably necessary.

(d) At the pre-application conference, the proposed project will be informally discussed. Based on information provided by the applicant, review and approval requirements will be identified and the applicant will be provided with guidance concerning the application and review process. Participation in the preapplication process shall not relieve an applicant from the requirements of obtaining all approvals otherwise necessary under these rules and regulations or any other law or rules and regulations, prior to commencing the regulated activity.

#### **§ 18-26 Modification, Suspension or Revocation of Approvals and Variances.**

(a) An approval or variance issued by the Department pursuant to these rules and regulations may be modified, suspended or revoked at any time upon the Department's initiative, on any of the grounds set forth in paragraphs (1) through (5) of this subdivision.

(1) Materially false or inaccurate statements in the approval or variance application or supporting documents;

(2) Failure by the person named in the approval or variance to comply with any terms or conditions of the approval or variance;

(3) The scope of the project, as described in the application, is exceeded;

(4) Newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or rules and regulations since the issuance of the existing approval or variance; or

(5) Noncompliance with previously issued approval or variance conditions, orders of the Commissioner, or with any provisions of the rules and regulations of the Department related to the activity.

(b) The Department shall send a notice of intent to modify, suspend or revoke an approval or variance to the person named in the approval or variance by certified mail, return receipt requested or by personal service. The notice shall specify the ground or grounds on which the modification, suspension, or revocation is sought, as well as the alleged facts on which the modification, suspension, or revocation is based.

(c) Within fifteen calendar days of receipt of a notice of intent, the person named in the approval or variance may submit a written statement to the Department, giving reasons why the approval or variance should not be modified, suspended or revoked. Failure by such person to timely submit a statement shall result in the Department's action becoming effective on the date specified in the notice of intent.

(d) Within fifteen calendar days of receipt of such person's statement, the Department shall either:

(1) Rescind the notice of intent based on a review of the information provided by such person;

(2) Confirm the Department's intent to modify, suspend, or revoke the approval or variance as stated in the notice of intent; or

(3) Amend the Department's notice of intent, specifying the Department's revised intent to modify, suspend, or revoke the approval or variance.

(e) If the Department confirms or amends its intent to modify, suspend, or revoke the approval or variance, the person named in the approval or variance may request a hearing on the Department's determination by submitting a petition in writing to the Office of Administrative Trials and Hearings ("OATH"), and sending a copy of the petition to the Commissioner, within thirty (30) days of receipt of confirmation of the Department's intent, in accordance with the following:

(1) *Form and content of petition.* The petition must state the name, address, and email address of the petitioner and must include a short and plain statement of the matters to be heard by OATH. The following documents must be included with the petition: the Department's notice of intent to modify, suspend, or revoke the approval or variance; the petitioner's statement giving reasons why the approval or variance should not be modified, suspended or revoked; the Department's confirmation or amendment of its intent; and a completed OATH intake sheet. Blank intake sheets are available from the Department.

(2) *Department response.* Within twenty (20) days of receipt of the petition, the Commissioner may respond to the petition. If the Commissioner responds, the Commissioner must include the record on which the determination was based. A copy of any response shall be sent to the petitioner.

(3) *Proceedings before the OATH Trials Division.* Upon receipt of the petition for a hearing, OATH shall promptly schedule a hearing at a time and date which shall not be less than thirty (30) days, nor exceed one hundred twenty (120) days, from the date of receipt by OATH of the petition for a hearing unless the parties and the ALJ agree to another date. The hearing may be held in the district of the Department where the activity that is the subject of the order is located, except that hearings may be held at the Department's offices in Kingston, New York for petitions relating to regulated activities in the East of Hudson watershed and at the Department's offices in Kingston, New York for petitions relating to regulated activities in the West of Hudson watershed. The hearing may also be held by video conferencing or other electronic means, or as otherwise agreed to by the parties and the ALJ. Notice of such hearing shall be provided in writing to the petitioner and to the Department.

(4) *Burden of proof.* The Department shall have the burden of proving, by a preponderance of the evidence, facts supporting the modification, suspension or revocation.

(5) The hearing shall be held before an OATH ALJ. The ALJ shall cause a record of the hearing to be made, and shall make a recommendation to the Commissioner within thirty (30) days of the close of the hearing record, setting forth the appearances, the relevant facts and arguments presented at the hearing, findings of fact and conclusions of law, and a recommendation as to whether approval or variance should be modified, suspended, or revoked and the reasons therefor. A transcript of the record of the hearing shall be made available at the petitioner's request and expense.

(f) Within thirty (30) days of receipt of the recommendation of the ALJ, the Commissioner shall issue a final decision approving, rejecting, or modifying the ALJ's recommendation and shall serve that decision on the parties to the proceeding. If the Commissioner does not act within that time, the ALJ's recommendation shall be deemed adopted by the Commissioner.



(g) Where the Department proposes to modify, suspend, or revoke an approval or variance, and the person named in the approval or variance requests a hearing on the proposed modification, suspension, or revocation, the original conditions of the approval or variance shall remain in effect until a decision has been issued by the Commissioner pursuant to subdivision (f) of this section. At such time the modified conditions shall take effect.

(h) Nothing in this section shall preclude or affect the Department's authority to use the remedy of summary abatement or to issue a cease and desist order under these rules and regulations, or any other law or regulation or to seek injunctive relief to enforce these rules and regulations, or any other law or regulation, in a court of competent jurisdiction.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-27 Noncomplying Regulated Activities.**

#### **(a) General requirements.**

(1) A noncomplying regulated activity may be continued except where specifically prohibited from continuing by these rules and regulations.

(2) A noncomplying regulated activity shall come into compliance with these rules and regulations where specifically required to do so by these rules and regulations.

(3) Should any noncomplying regulated activity cause contamination to or degradation of the water supply, such that the activity is a threat to the life, health, or safety of water supply users, the Commissioner may order that such noncomplying regulated activity conform either in whole or in part to the requirements of these rules and regulations, immediately or within a limited period of time at the Commissioner's discretion, or be discontinued immediately. Any person who receives such an order may request a hearing on such order in the manner provided in 15 RCNY § 18-29.

(4) Any owner or operator of a noncomplying regulated activity who was not required by these rules and regulations to notify the Department pursuant to paragraph (1) of subdivision (b) of this section, may request, in writing, a determination from the Department that such property or activity is a noncomplying regulated activity. The written request shall include a description of the property or activity and its location, and the name, telephone number, and email address of a contact person. The Department shall determine, based upon the submission, whether the property or activity is a noncomplying regulated activity, and shall notify the owner or operator of such determination in writing.

(b) *Subsurface Sewage Treatment Systems.* The regulations applicable to discontinuation, and the standards for alteration or modification, of noncomplying regulated activities that are subsurface sewage treatment systems are set forth in 15 RCNY § 18-38(b).

#### **(c) Storage of hazardous substances, storage of petroleum products, and the siting of junkyards and solid waste management facilities.**

(1) No noncomplying regulated activity involving storage of hazardous substances, storage of petroleum products, or the siting of junkyards and solid waste management facilities shall be substantially altered or modified without the prior review and approval of the Department. The Department shall review and approve such an alteration or modification in accordance with the standards and procedures set forth in Subchapter F (variances).

(i) Such a noncomplying regulated activity may be reduced in size or extent, or replaced with a regulated activity that complies with the provisions of these rules and regulations, without such review and approval provided that such reduction does not cause any increase in any existing discharge or any increase in the potential for contamination to or degradation of the water supply.

(2) In the case of storage of hazardous substances, storage of petroleum products, and the siting of junkyards and solid waste management facilities, a noncomplying regulated activity must come into compliance with these rules and regulations if, for any reason, there is discontinuation for a period of two consecutive years. If it cannot come into compliance, it must permanently desist. A period of discontinuation shall commence on the date when regular or seasonal use ceases. Incidental or illegal use of an unoccupied structure shall not be sufficient to interrupt a period of discontinuation, and intent to resume a noncomplying regulated activity shall not confer the right to do so. The burden of proof for showing that a noncomplying regulated activity has not been substantially discontinued shall be on the owner or operator.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-28 Appeals.**

(a) An applicant may appeal a final determination issued by the Department under these rules and regulations by filing a petition in writing with the Department and with the New York City Office of Administrative Trials and Hearings, Trials Division ("OATH") within thirty (30) days of the date the determination was mailed. The petition shall state the name, address, and email address of the petitioner and shall include a short and plain statement of the matters to be adjudicated, identifying the approval or variance sought by the petitioner with citation to the applicable provisions of these rules and regulations, the regulated activity for which the Department issued the determination, the proposed location of the activity, and the date of the Department's determination. The petition should also indicate whether the petitioner is requesting a hearing. A copy of the determination being appealed shall be attached to the petition. In addition, a completed OATH intake sheet shall be included with the petition. Blank intake sheets are available from the Department.

#### **(b) The following determinations of the Department are appealable:**

(1) A denial of an application for approval of a regulated activity.

(2) A denial of an application for a variance.

(3) The imposition of a substantial condition in an approval of a regulated activity.

(4) The imposition of a substantial condition in a grant of a variance.

#### **(c) Petitions for appeal shall be referred to a City administrative law judge (ALJ) for hearing, where allowed by this section, and determination as defined in subdivision (g).**

#### **(d) The following issues are reviewable on appeal:**

(1) Whether the regulated activity proposed by the petitioner will be in compliance with the requirements of these rules and regulations.

(2) Whether the imposition of a substantial condition in an approval of a regulated activity is appropriate to ensure that the regulated activity will comply with the requirements of these rules and regulations.

(3) Whether the Commissioner has abused his or her discretion in denying a request for a variance or in imposing a substantial condition in a grant of a variance.

(4) Except where the Department has acted as lead agency, the ALJ shall not review any issues relating to compliance with the State Environmental Quality Review Act (SEQRA).

(e) Except for appeals from determinations relating to variances, the petitioner shall have the burden of proving by a preponderance of the evidence that the proposed regulated activity is in compliance with the requirements of these rules and regulations. For appeals from determinations relating to variances, the petitioner shall have the burden of proving that the Commissioner has abused his or her discretion.

(f) (1) Appeals from determinations relating to individual sewage treatment systems or variances shall be decided on the record before the Department in its review of the application and any other written submissions allowed by the ALJ.

(2) A petitioner may request a hearing on appeals from all other determinations issued by the Department. If a petitioner does not request a hearing, the petition shall be decided on the record before the Department in its review of the application and any other written submissions allowed by the ALJ.

(i) The hearing may be held in the district of the Department in which the regulated activity was proposed to be located, except that hearings may be held at the Department's offices in Valhalla, New York for appeals relating to regulated activities in the East of Hudson watershed and at the Department's offices in Kingston, New York for appeals relating to regulated activities in the West of Hudson watershed. The hearing may also be held by video conferencing or other electronic means, or as otherwise agreed to by the parties and the ALJ.

(g) The ALJ shall submit a report to the Commissioner within 60 days after the record on appeal is closed with a recommendation as to whether the determination appealed from should be approved, modified or rejected. The Commissioner shall issue a final decision approving, rejecting, or modifying the ALJ's recommendation within 30 days of receipt of the ALJ's report. If the Commissioner does not act within that time, the ALJ's recommendation shall be deemed approved by the Commissioner.

(h) This section shall not apply to determinations made by local governments administering provisions of these rules and regulations pursuant to Subchapter G.

(i) An applicant shall have the option whether to file an appeal under this section and nothing in this section shall preclude an applicant from challenging the final determination issued by the Department in a court of competent jurisdiction, including instituting a proceeding under Article 78 of the Civil Practice Law and Rules, without first filing a petition for appeal pursuant to this section.

(Amended City Record 10/30/2019, eff. 11/29/2019)

**§ 18-29 Hearings on Cease and Desist Orders.**

(a) Any person who receives a cease and desist order may request a hearing on the order by submitting a petition in writing to the Commissioner and to the Office of Administrative Trials and Hearings, Trials Division ("OATH") within seven (7) days of receipt of the cease and desist order. The petition for a hearing shall state the name, address, and email address of the petitioner and shall include a short and plain statement of the matters to be adjudicated, identifying the activity that is the subject of the order, the location of the activity, and the date of the cease and desist order. A copy of the order shall be attached to the petition. In addition, a completed OATH intake sheet shall be included with the petition. Blank intake sheets are available from the Department.

(b) Upon receipt of the petition for a hearing, OATH shall schedule a hearing promptly in the district of the Department where the activity that is the subject of the order allegedly occurred, and at a time and date which shall not exceed fifteen (15) days from the date of receipt by OATH of the petition for a hearing unless the parties and the ALJ agree to another location and date, except that hearings may be held at the Department's offices in Valhalla, New York for petitions relating to regulated activities in the East of Hudson watershed and at the Department's offices in Kingston, New York for petitions relating to regulated activities in the West of Hudson watershed. The hearing may also be held by video conferencing or other electronic means. Notice of such hearing shall be provided in writing to the petitioner and to the Department.

(c) A petition for a hearing shall not stay compliance with the cease and desist order, and it shall continue to be the duty of the petitioner to discontinue the activity pursuant to the terms of the order. Failure to do so shall be a violation of the order and these rules and regulations.

(d) At the hearing, the Department shall have the burden of proving by a preponderance of the evidence, facts supporting the cease and desist order.

(e) The failure of the petitioner to appear at the time, date and place set forth in the notice of hearing shall constitute a waiver of the right to a hearing on the cease and desist order and the matter will be dismissed.

(f) The hearing shall be held before an OATH ALJ. The ALJ shall cause a record of the hearing to be made, and shall make a report to the Commissioner within ten (10) days of the close of the hearing record, setting forth the appearances, the relevant facts and arguments presented at the hearing, findings of fact and conclusions of law, and a recommendation as to whether the order should be continued, modified or vacated and the reasons therefor. A transcript of the record of the hearing shall be made available at the petitioner's request and expense.

(g) Within ten (10) days of receipt of the recommendation of the ALJ, the Commissioner may continue, vacate, or modify the order. If the Commissioner does not act within that time, the ALJ's recommendation shall be deemed adopted by the Commissioner.

(h) The results of the hearing on the cease and desist order do not affect the right of a person to apply for an approval or variance for a regulated activity under these regulations. In reviewing an application in connection with a regulated activity that has been the subject of a cease and desist order, however, the Department may take action on account of any violation of law, rule, regulation or order arising out of the events, situations or circumstances which led to the issuance of the order.

(Amended City Record 10/30/2019, eff. 11/29/2019)

**§ 18-30 State Environmental Quality Review Act (SEQRA).**

The following activities are deemed by the Department to be "Type II" actions under SEQRA and its implementing regulations, and the Department shall not require an environmental impact statement or any other determination or procedure under SEQRA for these activities:

(a) Installation of a new individual sewage treatment system on an individual lot which is not within a subdivision, or within a subdivision which has been approved as of the effective date of these rules and regulations.

(b) Any alteration or modification of an existing individual sewage treatment system.

**Subchapter C: Regulated Activities****§ 18-31 Pathogenic Materials.**

Unless otherwise permitted by these rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge, of pathogenic materials into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this section that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

**§ 18-32 Hazardous Substances and Hazardous Wastes.**

(a) Unless otherwise permitted by these rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge, of hazardous substances or hazardous wastes into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) New storage facilities or new tanks at an existing facility for the storage of hazardous substances regulated under 6 NYCRR Part 596, and new process tanks, as defined in 6 NYCRR § 596.1(c)(35), which would be regulated under 6 NYCRR Part 596 if not for the exemption of process tanks under 6 NYCRR § 596.1(b)(3)(i), are prohibited within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, except as provided in subdivision (d) of this section.

(c) The owner or operator of a new facility, or a new or substantially modified tank at an existing facility, for the storage of hazardous substances which is regulated under 6 NYCRR Part 596 and which is located between the limiting distance of 100 and 250 feet of a watercourse or wetland, must comply with the following conditions:

(1) The owner or operator shall submit to the Department a copy of any registration forms required by 6 NYCRR § 596.2(d) and (e) and any notification forms required by 6 NYCRR § 596.2(f) at the time such forms are submitted to the New York State Department of Environmental Conservation. When, on an emergency basis, new storage tanks are installed or existing storage tanks are substantially modified in order to protect public health, safety or the environment, the owner or operator shall notify the Department no later than two hours after the decision is made by the owner or operator to install or substantially modify the tank.

(2) The owner or operator shall submit to the Department a copy of any spill prevention report required to be prepared or updated by 6 NYCRR § 598.1(k), within thirty (30) days of preparing or updating such report.

(3) Failure to comply with the provisions of 6 NYCRR § 596.6 (spill response, investigation and corrective action) is a violation of these rules and regulations.

(4) Failure to comply with 6 NYCRR Part 599 (Standards for New or Modified Hazardous Substance Storage Facilities) is a violation of these rules and regulations.

(d) Subdivision (b) of this section shall not apply to:

(1) The storage of any hazardous substance that is a noncomplying regulated activity, including the replacement in kind of an existing storage tank provided that the replacement tank is designed and installed in compliance with Federal, State and local law. To the extent practicable, the new tank shall be located outside of the limiting distances of 100 feet of a watercourse or wetland, or outside of the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake;

(2) The storage of hazardous substances where such storage is necessary to operate a wastewater treatment plant approved by the Department; and

(3) The storage of hazardous substances where such storage is made necessary by construction of a new facility or the alteration or modification of an existing facility used in connection with the operation of a public water supply system.

(e) [Repealed.]

**§ 18-33 Radioactive Materials.**

Unless otherwise permitted by these rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge, of radioactive materials into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this section that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

**§ 18-34 Petroleum Products.**

(a) Unless otherwise permitted by these rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge, of petroleum products into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) New aboveground and underground petroleum storage facilities, which require registration under 6 NYCRR Part 613, are prohibited within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake. If, however, the owner or operator of such facility demonstrates to the Department that the application of the limiting distances would preclude the continuation of an existing business, the facility may be expanded within the limiting distances set forth in this paragraph.

(c) New home heating oil tanks not requiring registration under 6 NYCRR Part 613, within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, are prohibited from being installed underground and shall be located either aboveground or contained in a basement with a concrete or other impervious floor.

(d) New aboveground and underground petroleum storage tanks of 185 gallons or more, which are neither home heating oil tanks regulated under subdivision (c) of this section nor located at facilities requiring registration under 6 NYCRR Part 613, are prohibited within the limiting distance of 25 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake. If, however, the applicant demonstrates to the Department that application of the limiting distances would preclude the continuation of an existing business or the continued identical use of the existing facility, the facility may be expanded within the limiting distances set forth in this paragraph.

(e) Subdivisions (b), (c), and (d) shall not apply to:

- (1) The storage of any petroleum products that is a noncomplying regulated activity;
- (2) The storage of petroleum products for agricultural purposes;
- (3) The replacement in kind of existing petroleum storage facilities or tanks;
- (4) The storage of petroleum products where such storage is necessary to operate a wastewater treatment plant approved by the Department; and
- (5) The storage of petroleum products where such storage is made necessary by construction of a new facility or the alteration or modification of an existing facility used in connection with the operation of a public water supply system.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-35 Human Excreta, Holding Tanks, and Portable Toilets.**

(a) Unless otherwise permitted by these rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge, of human excreta, or a discharge, or storage which is reasonably likely to lead to a discharge, from a holding tank, into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) Emptying, discharging or transferring the contents of a holding tank or other sewage receptacle into any watercourse, wetland, reservoir, reservoir stem, or controlled lake is prohibited.

(c) All new holding tanks and non-waterborne systems designed for sewage in quantities of less than 1,000 gallons per day from residential properties that are either permitted or not prohibited under 10 NYCRR Appendix 75-A may be used in the watershed provided that they are constructed and operated in accordance with the following standards:

- (1) Such holding tanks must have a capacity equal to at least five (5) days' design flow, with a minimum capacity of 1,000 gallons.
- (2) Such holding tanks must be equipped with an alarm (audible and visible) located in a conspicuous place to indicate when pump-out is necessary.
- (3) Such holding tanks must be designed, installed and maintained in a manner to promote ease of access for pumping and cleanup.
- (4) If such holding tanks will be used in the winter, the tanks must be protected from freezing.
- (d) New holding tanks designed for sewage in quantities of 1,000 gallons per day or more, or from non-residential properties, that are either permitted or not prohibited under state law, may be used in the watershed provided that they are constructed and operated in accordance with the following standards:
  - (1) The owner of such a holding tank must have and maintain an agreement with a professional hauler for disposal of waste at a facility that is permitted to accept septage, as defined in 6 NYCRR Part 364.
  - (2) Such holding tanks must have a capacity equal to at least twice the volume of waste to be generated between anticipated removal dates, with a minimum capacity of 1,000 gallons.
  - (3) Such holding tanks must have a high-level alarm positioned to allow storage of at least three days' volume of waste after activation.
  - (4) If such holding tanks will be used in the winter, the tanks must be protected from freezing.
- (e) Portable toilets shall not be located within the limiting distance of 50 feet of a mapped stream, wetland, reservoir, reservoir stem, or controlled lake and, to the extent practicable, are not located within the limiting distance of 50 feet from a watercourse other than a mapped stream.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-36 Wastewater Treatment Plants.**

(a) *Minimum requirements.*

(1) Unless otherwise permitted by these rules and regulations, the design, construction, or operation of a wastewater treatment plant is prohibited where such design, construction, or operation causes a discharge, or storage which is reasonably likely to lead to a discharge, of sewage or sewage effluent into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(2) The design of new wastewater treatment plants, and the plans and specifications resulting from that design, require the review and approval of the Department. New wastewater treatment plants must be constructed in accordance with the plans and specifications approved by the Department.

(3) The design for an expansion or an alteration or modification of wastewater treatment plants, and the plans and specifications resulting from that design, require the review and approval of the Department. Any expansion or alteration or modification of a wastewater treatment plant must be constructed in accordance with the plans and specifications approved by the Department.

(4) The owner or operator of a wastewater treatment plant shall operate and maintain the wastewater treatment plant in accordance with the operations and maintenance manual for the plant. Such manual shall be prepared by the owner and approved by the Department. Such manual shall be prepared or revised, and submitted to the Department for approval, within ninety (90) days after construction, expansion, alteration or modification of a wastewater treatment plant is completed.

(5) No new wastewater treatment plants with a surface discharge, or expansion or alteration or modification of wastewater treatment plants, shall cause a contravention of the water quality standards set forth in Subchapter D of these rules and regulations or the phosphorus water quality values set forth in the New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (October 22, 1993, Reissue Date June 1998, as modified and supplemented by the January 1999 Errata Sheet and the April 2000 and June 2004 Addenda).

(6) No part of any seepage unit or absorption area for a subsurface discharge from a wastewater treatment plant shall be located within the limiting distance of 100 feet of a watercourse or wetland or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake.

(7) Wastewater treatment plants with surface discharges into the watershed shall be capable of achieving 99.9 percent removal and/or inactivation of *Giardia lamblia* cysts and 99.99 percent removal and/or inactivation of enteric viruses.

(8) Wastewater treatment plants with either surface or subsurface discharges within the watershed shall provide phosphorus removal using the best treatment technology so that the wastewater treatment plant is designed to be operated and maintained to meet the following requirements:

SPDES Permitted Total Flow	Total Phosphorus Limit
(Gallons/day)	(mg/l)
≤ 50,000	1.0
> 50,000 and < 500,000	0.5
≥ 500,000	0.2

(9) Wastewater treatment plants with surface discharges to intermittent streams in the watershed shall be operated and maintained to meet the intermittent stream effluent limits set forth in the New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.3.1, Total Maximum Daily Loads and Water Quality-Based Effluent Limits (July 8, 1996, Revised February 1998), including Amendments A through E (July 8, 1996), and New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.3.1B, Total Maximum Daily Loads and Water Quality-Based Effluent Limits, Amendments-Low and Intermittent Stream Standards (July 8, 1996), provided however, that the effluent limit for a discharge of a pollutant to an intermittent stream shall in no case be less stringent than the effluent limit which would apply to the same discharge of the pollutant to the first downstream perennial stream.

(10) Within one year of the effective date of these rules and regulations, the owners of all existing wastewater treatment plants shall submit to the Department for review and approval an operations and maintenance plan and a schedule setting forth a plan for bringing the wastewater treatment plant into compliance with all of the requirements of this section. Any such plan that is disapproved by the Department shall be revised and resubmitted to the Department for review and approval within ninety (90) days after the initial disapproval. Owners of existing wastewater treatment plants must secure final Department approval of such operation and maintenance plans and such a schedule setting forth a plan for bringing the plant into compliance by no later than eighteen (18) months from the effective date of these rules and regulations, and must complete all work in order for such plants to be brought into compliance with the requirements of this section by no later than five (5) years from the effective date of these rules and regulations or any extended period of time approved by the Department upon good cause shown.

(11) Existing wastewater treatment plants with surface discharges are prohibited from expanding if they are located in an area where new wastewater treatment plants with surface discharges are prohibited by these rules and regulations. This paragraph shall not apply to existing wastewater treatment plants which discharge subsurface or the expansion of existing wastewater treatment plants where the expanded portion discharges subsurface.

(12) Existing wastewater treatment plants with surface discharges may expand if they are located in an area where new wastewater treatment plants with surface discharges are allowed by these rules and regulations. The plans submitted to expand the wastewater treatment plant shall meet all of the requirements of this section.

(13) Existing wastewater treatment plants with subsurface discharges may expand. The expanded portion of such wastewater treatment plants shall meet all of the design standards and other requirements of this section.

(14) Any approval of a new or expanded wastewater treatment plant issued by the Department shall expire and thereafter be null and void unless construction is completed within five (5) years of the date of issuance of such approval or any extended period of time approved by the Department upon good cause shown. Following expiration of the approval, the plans for the wastewater treatment plants may be resubmitted to the Department for consideration for a new approval.

(b) *Requirements for wastewater treatment plants located within phosphorus restricted basins.* No new wastewater treatment plants with surface discharges, or expansions of existing wastewater treatment plants with surface discharges, shall be allowed in a phosphorus restricted basin. A variance from this provision may be sought in accordance with the requirements set forth in 15 RCNY § 18-61(d).

(c) *Requirements for wastewater treatment plants located in coliform restricted basins.* No new wastewater treatment plants with surface discharges, or expansions of existing wastewater treatment plants with surface discharges, shall be allowed in a coliform restricted basin. A variance from this provision may be sought in accordance with the requirements set forth in 15 RCNY § 18-61(d)(1).

(d) *Treatment requirements for wastewater treatment plants located within the 60 day travel time to intake.*

(1) The map indicating the demarcation line for the watershed areas that are located within the 60 day travel time to intake appears in Appendix 18-A. Large detailed maps of such areas are available to be reviewed by the public during business hours at the regional offices listed in 15 RCNY § 18-15.

(2) Within the 60 day travel time to the intake the following requirements are applicable:

(i) New wastewater treatment plants with surface discharges, or expansions of existing wastewater treatment plants with surface discharges, are prohibited except as provided in 15 RCNY § 18-82(e). A variance from this provision may be sought in accordance with the requirements set forth in 15 RCNY § 18-61(e);

(ii) Existing wastewater treatment plants with SPDES permitted surface discharges may continue to operate provided the wastewater treatment plant provides sand filtration or a Department-approved alternative technology to sand filtration, disinfection, phosphorus removal, and microfiltration or a Department-approved equivalent technology to microfiltration, as required by these rules and regulations;

(iii) Wastewater treatment plants with subsurface discharges may commence or continue to operate provided that the wastewater treatment plant provides sand filtration or a Department-approved alternative technology to sand filtration and phosphorus removal, and for SPDES permitted discharges greater than 30,000 gallons per day (gpd), disinfection, as required by these rules and regulations.

(e) *Treatment requirements for wastewater treatment plants located in the watershed and beyond the 60 day travel time to intake.*

(1) The map indicating the demarcation line for the watershed areas that are located beyond the 60 day travel time to intake appears in Appendix 18-A. Large detailed maps of such areas are available to be reviewed by the public during business hours at the regional offices listed in 15 RCNY § 18-15.

(2) Beyond the 60 day travel time to the intake the following requirements are applicable:

(i) New wastewater treatment plants with surface discharges into a reservoir, reservoir stem, controlled lake, or wetland are prohibited;

(ii) All new surface discharges into a watercourse, and any existing wastewater treatment plants with SPDES permitted surface discharges may commence or continue to operate, provided that the wastewater treatment plant provides sand filtration or a Department-approved alternative technology to sand filtration, disinfection, phosphorus removal, and microfiltration or a Department-approved equivalent technology to microfiltration, as required by these rules and regulations;

(iii) Wastewater treatment plants with subsurface discharges may commence or continue to operate, provided that the wastewater treatment plant provides sand filtration or a Department-approved alternative technology to sand filtration and phosphorus removal, and for SPDES permitted discharges greater than 30,000 gallons per day (gpd), disinfection, as required by these rules and regulations.

(f) *Design, operation and maintenance requirements.*

(1) This subdivision (f) shall apply to wastewater treatment plants.

(2) The criteria used by the Department to approve the design for any new wastewater treatment plant or the portion of any wastewater treatment plant which is being expanded or altered or modified shall be all applicable requirements of law, including the standards set forth in the following documents:

(i) "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems" New York State Department of Environmental Conservation (2014); and

(ii) "Recommended Standards for Wastewater Facilities," Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (2014).

(3) The Department shall not approve a wastewater treatment plant, or any proposed expansion of a wastewater treatment plant, which discharges within the watershed, if there is inflow or infiltration into a sewer system connected to such wastewater treatment plant which causes either:

(i) The State authorized flow limit of the wastewater treatment plant to be exceeded; or

(ii) The strength of the sewage influent to the wastewater treatment plant to be diluted to a level that adversely affects the efficacy of the State permitted and Department approved treatment process.

(4) The Department shall not approve a wastewater treatment plant, or any proposed expansion of a wastewater treatment plant, if there is an indication of exfiltration from a sewer system connected to such wastewater treatment plant.

(5) All wastewater treatment plants shall meet the following requirements to insure uninterrupted reliable operation:

(i) All wastewater treatment plants shall provide standby power units sufficient to run the entire plant in order to ensure uninterrupted reliable operation in the event of utility power failure and these units shall be equipped with an alarm and automatic start-up capability.

(ii) All vital plant structures, mechanical and electrical equipment of wastewater treatment plants located or designed within the 100-year flood plain shall be protected from damage from a 100-year flood that may affect or disrupt its function or general performance. Such structures and equipment shall remain fully operational in a 25-year flood.

(iii) The disinfection system shall be provided with backup units, an alarm and equipment that will insure processing of the plant flow without interruption and the backup electrical and/or mechanical equipment shall be equipped with automatic start-up capability.

(iv) Sand filtration or a Department-approved alternative technology to sand filtration shall be implemented in units of sufficient number and size to ensure that the flow they are designed to accommodate, consistent with the "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," New York State Department of Environmental Conservation (2014) and/or the "Recommended Standards for Wastewater Facilities," Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (2014), can be processed in the event that the largest such unit is off line;

(v) All wastewater treatment plants must be equipped with a flow meter that includes a recording device; and

(vi) All alarm systems shall require telemetering to a central location with around the clock operator presence or, in the alternative, to an operator's residence so that a response shall be initiated immediately.

(6) The following requirements shall apply to all wastewater treatment plants with subsurface discharges or absorption areas located in the watershed:

(i) The loading rate to the absorption trench may be 25 percent greater than that required under the design standards listed in subdivision (f)(2) of this section;

(ii) An additional area of at least 50 percent of the absorption area shall be set aside as a reserve area;

(iii) At a minimum, one percolation and one deep hole test shall be performed in both the primary absorption area and in the reserve absorption area. An applicant shall notify the Department in writing at least 7 business days prior to performance of such tests, and specify the location and the time of the tests. At the option of the Department, a Department representative may witness these tests; and

(iv) The use of pumping, mechanical dosing or other mechanical devices requires a pump chamber equipped with an alarm to indicate malfunction, a backup pump, and any other safety features required by the Department to prevent overflow.

(7) (i) All owners or operators of Department approved wastewater treatment plants in the watershed shall, prior to commencement of construction of such wastewater treatment plants, deposit with the Department a performance bond for the completion of the construction of the wastewater treatment plant and an additional bond or other guaranty for the payment of labor and material furnished in the course of such construction. Upon completion of construction and payment of labor and materials, such bonds or other guaranties shall be released. Additionally, prior to commencement of operation of the approved wastewater treatment plant, the owners or operators of the approved wastewater treatment plant shall provide a surety bond, or a reasonable guaranty, that they shall continue to maintain and operate the system for a period of five years. The surety bond or guaranty shall be in an amount sufficient to insure the full and faithful performance by the owners or operators of the wastewater treatment plants, and their successors and assigns, with regard to their obligation to properly maintain and operate the wastewater treatment plants in accordance with all requirements of law and according to the conditions set by the Department in its approval; provided, however, that such surety bond or guaranty shall not be required by the Department where the owners or operators of the wastewater treatment plant have provided a surety bond or guaranty for the maintenance and operation of the wastewater treatment plant to the local governing body, in an amount necessary to insure the full and faithful performance of the operation and maintenance of the wastewater treatment plant; provided further, that such surety bond or guaranty shall not be required where the owner or operator of the wastewater treatment plant is a village, town, county or city. The Commissioner may, at his or her discretion, increase the amount of such surety bond or guaranty, but not to exceed an amount necessary to insure the full and faithful performance of the operation of the wastewater treatment plant. All such bonds shall be prepared on the forms of bonds authorized by the City of New York and shall have as a surety such company or companies that shall be approved by the City of New York and are authorized to do business in the State of New York.

(ii) The Commissioner may authorize the provision of other security, including cash, if the Commissioner finds that compliance with the bond requirement is not reasonably possible and the public interest would be served by such authorization. The alternative security shall be deposited with the Comptroller of the City of New York.

(iii) Whenever an owner or operator of a wastewater treatment plant deposits securities or other obligations with the City of New York, in lieu of a performance bond, it shall be with the understanding that the Comptroller of the City of New York, or his or her successors, may sell and use the proceeds thereof for any purpose for which the principal or surety on such bond would be liable under the terms of the approval. If money is deposited with the Comptroller, the owner or operator of the wastewater treatment plant shall not be entitled to receive interest on such money from the City of New York.

(8) The transfer of any approval or permit issued by the Department for the construction and/or operation of any wastewater treatment plant shall require Department approval. The Department shall approve such transfer provided that the transferee demonstrates sufficient financial, technical, and professional capability to construct, operate and/or maintain the subject wastewater treatment plant in compliance with applicable laws, as cited in 15 RCNY § 18-36(a)(1), the provisions of these rules and regulations, and the terms and conditions of any approval or permit granted by the Department.

**(g) Application requirements.**

(1) An application for review and approval of a new wastewater treatment plant shall include the following information:

(i) A Department application form and an Environmental Assessment Form (EAF Long Form);

(ii) A facility plan which shall include: a description of the project, flow and waste load estimations, site characteristics, evaluation of existing system, if applicable, and existing local or related facilities, including any related water quality problems, examination of the project service area, estimation of growth, examination of alternative solutions and explanation of why the proposed option was chosen, analysis of potential impacts, analysis of hydraulic and organic capacities (including Waste Assimilation Capacity analysis), description of unit processes and explanation of sizing, operation under emergency conditions, and sludge processing, storage and disposal methods, estimation of costs, proposed financing methods and anticipated user fees, outline of operation and maintenance requirements (including cost projections), and regulatory review and permitting requirements;

(iii) An engineering plan which shall include: location plan, site plan, schematic of plant hydraulic profile, piping schematic, location, dimension and elevations of plant process units and appurtenances, mechanical system layout, electrical system layout, and erosion and sediment control and stormwater management plan.

(iv) Construction specifications, including material and equipment specifications;

(v) Construction schedule;

(vi) In cases where a draft environmental impact statement ("DEIS") is to be prepared for an activity and the DEIS complies with the requirements of Article 8 of the Environmental Conservation Law and the regulations promulgated thereunder, and includes the information required in this part, the DEIS may constitute all or part of the application for review and approval under this part. In such case the applicant will provide the Department with notice and a copy of the DEIS; however, no approval shall be issued by the Department prior to review of the FEIS and issuance of a finding to approve; and

(vii) A copy of the draft SPDES permit, if any, and, when issued, a copy of the final SPDES permit. Copies of any revisions to the draft SPDES permit shall also be provided to the Department as they become available to the applicant.

(2) An application for review and approval of an expansion or of an alteration or modification of a wastewater treatment plant shall include all of the information required in subdivision (g)(1) of this section where applicable, and shall either:

(i) Certify that the wastewater treatment plant is in compliance with all of the requirements of this section, and all requirements of its SPDES permit; or

(ii) Certify that a schedule for the wastewater treatment plant to come into compliance with the requirements of this section and with the requirements of its SPDES permit has been submitted to the Department for approval. A copy of such compliance schedule shall be attached to the application.

(3) All approvals for new or expansion of existing wastewater treatment plants are conditioned on the applicant's submission of record drawings once construction is complete.

(Amended City Record 10/30/2019, eff. 11/29/2019)

**§ 18-37 Sewer Systems, Sewer Connections and Discharges to Sewer Systems.**



- (a) Combined sewer systems are prohibited from discharging within the watershed.
- (b) A new sewer connection or sewer extension to a sewer system is prohibited where the wastewater treatment plant to which the sewer system has been connected and which discharges within the watershed has had a SPDES flow parameter violation in the prior twelve months, or where the additional flow from the new sewer connection or sewer extension will cause or can be expected to cause such wastewater treatment plant to have a SPDES flow parameter violation as defined herein.
- (c) *Sewer Connections.*
- (1) The owner of any individual residence that will be served by a new sewer connection, or by an alteration or modification of a sewer connection, shall notify the Department 48 hours prior to the installation of such sewer connection or of such alteration or modification, and provide an opportunity to the Department to observe the work. If specifically requested by the Department, the owner shall submit to the Department all plans or designs for such sewer connection or for such alteration or modification.
- (2) The owner of a structure other than an individual residence that will be served by a new sewer connection, or by an alteration or modification of a sewer connection, to a sewer system that is subject to a qualifying municipal sewer use law shall:
- provide to the Department, at least 48 hours prior to the installation of such sewer connection or of such alteration or modification, a written permit from the superintendent of the sewer system authorizing such connection; and
  - notify the Department 48 hours prior to the installation of such sewer connection or of such alteration or modification, and provide an opportunity to the Department to observe the work.
- (3) The plans for a new sewer connection, or for an alteration or modification of a sewer connection, to a sewer system for a treatment facility with a SPDES permit, which is not subject to a qualifying municipal sewer use law, from a structure other than an individual residence, require review and approval of the Department. As a condition of approval, the Department will require the applicant to notify the Department 48 hours prior to the installation of such sewer connection or of such alteration or modification, and provide an opportunity to the Department to observe the work. An application for review and approval of such a new sewer connection or alteration or modification of a sewer connection must include:
- A written statement from the owner or operator of the treatment facility certifying that the new sewer connection or alteration or modification of a sewer connection will not require a modification of the treatment facility's SPDES permit, and
  - Plans and specifications for the sewer connection.
- (4) New sewer connections, or alterations or modifications of sewer connections, to treatment facilities that do not have SPDES permits shall be reviewed in accordance with 15 RCNY § 18-37.
- (d) The design, construction and plans for a new sewer system or sewer extension shall require the review and approval of the Department. Any proposed alteration or modification of a sewer system shall require the review and approval of the Department.
- (e) Any approval of a new or an alteration or modification of an existing sewer system, sewer extension, or sewer connection subject to Department approval pursuant to 15 RCNY § 18-37(c)(3), issued by the Department expires and is null and void unless construction is completed within five (5) years of the date of issuance. Following expiration of the approval, the plans for the sewer system may be resubmitted to the Department for consideration for a new approval.
- (f) The criteria used by the Department to approve any new sewer system, sewer extension, or sewer connection subject to Department approval pursuant to 15 RCNY § 18-37(c)(3) or the portion of any sewer system or such sewer connection which is being altered or modified, shall be all applicable requirements of law, including the standards set forth in the following documents:
- "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," New York State Department of Environmental Conservation (2014);
  - "Recommended Standards for Wastewater Facilities," Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (2014);
  - 19 NYCRR Part 1222 (Plumbing Code of New York State).
- (g) All sewer systems and sewer extensions connected to a wastewater treatment plant which discharges within the watershed shall be designed, operated and maintained in such manner as to prevent inflow or infiltration which causes one or more of the following:
- The SPDES authorized flow limit of the wastewater treatment plans to be exceeded;
  - The strength of the sewage influent to the wastewater treatment plant to be diluted to a level that adversely affects the efficacy of the SPDES permitted and Department approved treatment process; or
  - A bypass of any portion of a treatment facility that would be prohibited pursuant to 6 NYCRR Subpart 750-2.
- (h) All sewer systems and sewer extensions shall be designed, operated and maintained to prevent exfiltration from such systems.
- (i) The owner or operator of a facility which disposes of wastes regulated pursuant to the Federal Categorical Pretreatment Standards, 40 C.F.R. Part 403, shall submit three copies of the engineering report, plans and specifications, prepared by a licensed design professional, in compliance with 40 C.F.R. Parts 403, 406-471 and any applicable local regulations, to the Department for its review and approval.
- (j) Application Requirements for Sewer Systems and Sewer Extensions. An application for review and approval of any sewer system or sewer extension shall include the following information:
- Tax map number and, where available, building permit number, for each property to be served by the proposed sewer system or sewer extension;
  - Letter of flow acceptance from the owner of the receiving wastewater treatment plant, when available;
  - An engineering report presenting the proposed flow and supporting design calculations; and
  - Four (4) sets of plans showing:
    - site location in relation to established sewer district;
    - distances to wells, watercourses, rock outcroppings, wetlands, controlled lakes and reservoirs;
    - system profile including all connections, manholes and required pump stations;
    - design details and specifications of system components including pipe sizes and pump capacities;
  - where applicable, a copy of the application for modification of the SPDES permit for the receiving wastewater treatment plant and, if available, any draft revisions to such SPDES permit; and
  - construction phasing.
- (5) An application for review and approval of a sewer system must include an operation and maintenance plan for the sewer system, which may be a component of the operation and maintenance plan for the treatment facility served by the sewer system; and
- (6) An Environmental Assessment form and State Environmental Quality Review Act determination, if applicable.
- (k) All approvals for sewer systems and extensions are conditioned on the applicant's submission of as-built drawings, prepared by a design professional, once construction is complete.
- (l) As a condition of approval the Department may require evidence of financial security prior to construction, from any owner or operator of a new sewer system or sewer extension or a substantial alteration or modification to an existing sewer system. Such financial security shall consist of a bond, or an equivalent guaranty, to be deposited with the Department, covering the full cost of the construction of such facility and an additional bond or an equivalent guaranty for the payment of labor and material furnished in the course of such construction. Upon completion of construction and payment of labor and materials, such bonds or other guaranties shall be released. Additionally, a bond or equivalent guaranty may be required for the maintenance and operation of the facility for a period of five years post-construction. No bond or guaranty is required where the owner or operator of such a facility is a village, town, county or city.

(Amended City Record 10/30/2019, eff. 11/29/2019)

**§ 18-38 Subsurface Sewage Treatment Systems.****(a) Minimum Requirements for new subsurface sewage treatment systems.**

(1) The design, treatment, construction, maintenance and operation of new subsurface sewage treatment systems, and the plans therefor, require the review and approval of the Department, provided that the requirements of this section shall not apply to subsurface sewage treatment systems necessary for an agricultural activity that are designed, provide treatment and are constructed, maintained and operated in compliance with State and Federal law.

(2) All new individual sewage treatment systems shall comply with the requirements of 10 NYCRR Part 75 and Appendix 75-A except where a local government or agency has enacted, or these rules and regulations specify, more stringent standards, in which case, the more stringent standards shall apply.

(3) All new intermediate sized sewage treatment systems shall comply with the requirements set forth in New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, New York State Department of Environmental Conservation (2014), except where a local government or agency has enacted, or these rules and regulations specify, more stringent standards, in which case, the more stringent standards shall apply.

(i) As a condition of approval the Department may require evidence of financial security prior to construction, from any owner or operator of a new intermediate sized sewage treatment system or a substantial alteration or modification to an existing intermediate sized sewage treatment system. Such financial security shall consist of a bond, or an equivalent guaranty, to be deposited with the Department, covering the full cost of the construction of such facility and an additional bond or an equivalent guaranty for the payment of labor and material furnished in the course of such construction. Upon completion of construction and payment of labor and materials, such bonds or other guaranties shall be released. Additionally, a bond or equivalent guaranty may be required for the maintenance and operation of the facility for a period of five years post-construction. No bond or guaranty is required where the owner or operator of such a facility is a village, town, county or city.

(4) No part of any absorption field for any new subsurface sewage treatment system shall be located within the limiting distance of 100 feet of a watercourse or wetland or 300 feet of a reservoir, reservoir stem or controlled lake. For a new conventional individual subsurface sewage treatment system or for a new Ulster County Fill System the Department may recommend a greater limiting distance from an absorption field to a watercourse, wetland, reservoir, reservoir stem or controlled lake.

(5) Raised systems, as described in 10 NYCRR Part 75 and Appendix 75-A, are allowed on undeveloped lots not located in a subdivision or on undeveloped residential lots located in a subdivision which was approved prior to the effective date of these rules and regulations, where site conditions are not suitable for a conventional system provided that:

(i) The system shall be located at least 250 feet from any watercourse or wetland and 500 feet from any reservoir, reservoir stem or controlled lake provided that the greater limiting distance for raised systems does not preclude construction on the subject lot or lots of the use proposed by the applicant, and further provided that the site conditions and the subsurface sewage treatment system comply with the other provisions of these rules and regulations and other applicable Federal, State and local laws, as cited in 15 RCNY § 18-38(a) (1); or

(ii) Raised systems which cannot meet the limiting distances set forth in subparagraph (i) due to size or location of the lot shall be located at the greatest limiting distance possible within the property lines and at least 100 feet from any watercourse or wetland and 300 feet from any reservoir, reservoir stem or controlled lake.

(6) Where a watershed county has adopted a subdivision code that allows a raised system, as described in 10 NYCRR Part 75 and Appendix 75-A, or where the New York State Department of Health approved such raised systems for use in subdivisions located in the watershed, such raised systems are allowed in subdivisions that are approved subsequent to the effective date of these rules and regulations, provided that no part of such systems shall be located within 250 feet of a watercourse or wetland or 500 feet of a reservoir, reservoir stem or controlled lake.

(7) Any approval of a subsurface sewage treatment system issued by the Department expires and is null and void unless construction is substantially completed such that the system is functioning as designed within five (5) years of the date of issuance for systems located within approved subdivisions, or within two (2) years of the date of issuance for all other subsurface sewage treatment systems. Following expiration of the approval, the plans for the subsurface sewage treatment system may be resubmitted to the Department for consideration for a new approval.

**(b) Minimum requirements for alteration and modification, repair and remediation, and discontinuation of subsurface sewage treatment systems.**

(1) All subsurface sewage treatment systems, which are operating in accordance with their Federal, State, and local approvals, but which do not comply with the requirements for new subsurface sewage treatment systems set forth in this section, shall be allowed to continue to operate.

(2) If the use of a subsurface sewage treatment system is, for any reason, subject to discontinuation for a period of five consecutive years or more, operation may resume if it comes into compliance with the standards for alterations or modifications of subsurface sewage treatment systems in accordance with 15 RCNY § 18-38(b)(4) below. If, however, the system cannot come into compliance with these standards, the use must permanently desist. The owner or operator bears the burden of proof for showing that there has been no discontinuation in the use of a subsurface sewage treatment system.

(3) Any proposed alteration or modification of any subsurface sewage treatment system requires the review and approval of the Department, except as provided in subparagraphs (i) through (iii) below.

(i) The volume, character, or strength of the flow to a subsurface sewage treatment system may be reduced without review and approval provided that such reduction does not cause any increase in the existing discharge or any increase in the potential for contamination to or degradation of the water supply from that discharge. If the reduction in the volume, character, or strength results from an alteration or modification of a system component, or the addition of a new system component (such as installation of a peat filter or aerobic treatment unit), then such alteration, modification, or addition requires review and approval of the Department, except that:

a. Any such review and approval shall be limited to the affected system component; and

b. No such review and approval is required where the alteration, modification, or addition of the system component is otherwise exempt from review under this section (such as the replacement of a septic tank with a larger tank of an appropriate size for the subsurface sewage treatment system).

(ii) Except as set forth in this subdivision, for an intermediate sized subsurface sewage treatment system that has a State Pollutant Discharge Elimination System (SPDES) permit, review and approval is not required for any proposed alteration or modification that does not deviate from the engineering design and site plan approved by the New York State Department of Environmental Conservation.

a. Review and approval by the Department is required if the alteration or modification requires a modification of the SPDES permit for the SSTS for any reason including, but not limited to:

i. the alteration or modification involves physical alteration or modification of the SSTS, or

ii. the alteration or modification results in the system receiving sewage that either exceeds the treatment system design flow, or has a strength or characteristic beyond the design capability of the treatment system.

b. If the Department has previously issued an approval for an intermediate sized subsurface sewage treatment system, review and approval by the Department is required for any alteration or modification that results in the system receiving sewage that either exceeds the design flow of the system as approved by the Department, or has a strength or characteristic beyond the design capability of the system as approved by the Department.

(iii) In the following circumstances, where an ancillary, non-residential use of a residence served by an individual subsurface sewage treatment system does not result in an increase in or change in the nature of the flow of sewage, the subsurface sewage treatment system shall not be considered an intermediate-sized sewage treatment system, nor shall such use require review and approval by the Department:

a. Where the residence is used to provide accommodations for transient lodgers and no food service is provided other than to overnight guests, unless such use requires a temporary residence permit pursuant to 10 NYCRR Subpart 7-1.

b. Where the individual residence is used for a home office or home business, provided that:

i. The individual who operates the home office or home business occupies the home as his or her primary or secondary residence;

ii. The home office or home business is of a type that is estimated to generate 50 gallons per day of water or less based on Table B-3 of the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, New York State Department of Environmental Conservation (2014); and

iii. The conversion does not involve an increase in the individual residence's number of bedrooms.

(4) *Standards for Alterations or Modifications of Subsurface Sewage Treatment Systems.*

- (i) Any proposed alteration or modification of any subsurface sewage treatment system must be performed in accordance with the requirements applicable to new subsurface sewage treatment systems under this section.
- (ii) Alterations or modifications of subsurface sewage treatment systems that cannot meet these requirements, due to site constraints, must be performed in accordance with the requirements applicable to new subsurface sewage treatment systems to the extent possible. Applications for proposed alterations or modifications of such subsurface sewage treatment systems must include the information described in 15 RCNY § 18-38(d)(4).
- (iii) *Standard of review.* The department will authorize use of a subsurface sewage treatment system that has been subject to a period of discontinuation for five consecutive years or more, or a proposed alteration or modification of a subsurface sewage treatment system, if the applicant demonstrates that such use, alteration, or modification does not present a threat to public health or water quality as determined by the Department.

## (5) If a subsurface sewage treatment system fails or needs remediation, the owner or operator of the subsurface sewage treatment system must comply with the following:

- (i) Any proposed remediation of any part of a subsurface sewage treatment system shall require the prior review and approval of the Department, and if approved, shall be completed as soon as possible in accordance with a schedule approved by the Department;
- (ii) Any proposed remediation of any part of a subsurface sewage treatment system shall be implemented, to the extent possible, in accordance with the design standards set forth in this section, and shall require the prior review and approval of the Department. However, if the Department determines, based upon the application submitted by the owner or operator of the subsurface sewage treatment system, that such system cannot comply with this section, the owner or operator of the subsurface sewage treatment system shall cooperate with the Department to determine the most suitable location and design for the system on the specific site. The Department may require the owner to agree to a regular schedule for the pump out of the septic tank or other remedial action, including the use of holding tanks, before the proposed remediation is approved by the Department and implemented; and
- (iii) The provisions of this paragraph shall not apply to the routine repair and maintenance of a subsurface sewage treatment system, including, but not limited to, the pump out of a septic tank, the replacement of a septic tank, whether in kind or with a larger tank of an appropriate size for the subsurface sewage treatment system, the repair of a broken lateral, the leveling of a distribution box, or the removal of a blockage.

(6) Any approval issued by the Department to use a subsurface sewage treatment system following a discontinuation expires and is null and void unless any required enhancements are implemented and such use is commenced within one (1) year of the date of issuance or such longer period as the Department may authorize in writing. Following expiration of the approval, the plans for the subsurface sewage treatment system may be resubmitted to the Department for consideration for a new approval.

(7) Any approval of an alteration or modification of a subsurface sewage treatment system issued by the Department expires and is null and void unless any required enhancements are implemented within two (2) years of the date of issuance. Following expiration of the approval, the plans for the subsurface sewage treatment system may be resubmitted to the Department for consideration for a new approval.

(8) Any property owner may request that the Department review and approve a proposed use of a subsurface sewage treatment system by demonstrating that it is capable of treating a specified volume and type of wastewater flow. The proposal may include proposed enhancements to the system. A determination by the Department that the subsurface sewage treatment system complies with the standards applicable to new subsurface sewage treatment systems or, if it cannot come into compliance the standards applicable to alterations or modifications of subsurface sewage treatment systems to the extent possible pursuant to 15 RCNY § 18-38(b)(4), for the proposed use and volume, shall be binding upon the Department for five years following the date of the determination.

(c) *Design, operation, treatment, and maintenance requirements.*

(1) All subsurface sewage treatment systems shall be designed, operated and maintained to prevent the exposure of sewage to the surface of the ground or the discharge of sewage to ground- water.

(2) *Limitations on certain systems in the watershed.*

(i) Mound systems, galley systems, seepage pits, evaporation-transpiration (ET) and evaporation-transpiration absorption (ETA) systems are prohibited from use for subsurface sewage treatment systems installed in the watershed on or after June 30, 2002.

(ii) Drip and low profile dispersal systems, as described in New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, New York State Department of Environmental Conservation (2014) are prohibited from use for subsurface sewage treatment systems installed in the watershed on or after September 25, 2019.

(iii) Sand filters are prohibited from use for individual sewage treatment systems in the watershed.

(iv) For new subsurface sewage treatment systems within the 60-day travel time, and for new subsurface sewage treatment systems that require State Pollutant Discharge Elimination System (SPDES) permits, trench length reductions will not be offered for use of any enhanced subsurface sewage treatment systems.

(v) No trench length reductions shall be granted for use of any open-bottom gravelless absorption system, as described in 10 NYCRR Appendix 75-A.8(c)(3)(i). One linear foot of a gravelless absorption system is equivalent to one linear foot of conventional (24" wide) absorption trench.

(3) An additional area of at least 100 percent of the primary absorption field shall be set aside as a reserve absorption field for any subsurface sewage treatment system.

(4) No part of any primary or reserve absorption field shall be built under pavement or other impervious surfaces, and pavement and other impervious surfaces shall not be built over such absorption fields after installation.

(5) At least one percolation test and at least one deep hole test must be performed in the primary absorption field. At least one percolation test and at least one deep hole test must be performed in the reserve absorption field. An applicant must notify the Department in writing at least seven (7) days prior to performance of such tests, and specify the location and the time of the tests. Such soils testing must be performed during normal business hours on weekdays other than legal holidays. At the option of the Department, a Department representative may witness such tests.

(6) Proposed sites with soil percolation rates faster than 3 minutes per inch or slower than 60 minutes per inch shall not be approved by the Department for locating a subsurface sewage treatment system.

(7) Whenever possible, gravity flow systems shall be used for subsurface sewage treatment systems. The use of electrically operated pumps shall require a chamber equipped with an alarm to indicate malfunction and any other safety features required by the Department to prevent sewage overflow. An intermediate sized sewage treatment system that uses electrically operated pumps is required to have either a backup pump or a backup storage tank capable of holding two days' flow. An individual sewage treatment system that uses electrically operated pumps shall have a backup storage tank capable of holding one day's flow.

(8) A reserve absorption field is intended to be left undisturbed to be used in the event that the primary absorption field fails in the future. If the reserve absorption field is used because the primary absorption field has failed, the owner should, but is not required to, identify a new reserve absorption field. If the reserve absorption field is used for purposes of expanding the subsurface sewage treatment system, a new reserve absorption field or Department-approved alternative must be identified.

(d) *Application Requirements.*

(1) An application for review and approval of any subsurface sewage treatment system shall include the following information:

- (i) Soil investigation report including:
  - (a) percolation test results;
  - (b) deep hole test pit results or boring analysis indicating the depth of useable soil;
  - (c) indication of surface water or ledge rock observed;
  - (d) design rate of flow; and
  - (e) delineation of United States Department of Agriculture Soil Conservation Service soil type boundaries.
- (ii) Building permit number and tax map number where available.
- (iii) Four (4) sets of plans prepared by a design professional showing:



(a) site location, including distances to wells, watercourses, rock outcroppings, wetlands, controlled lakes and reservoirs, and any property boundaries within 10 feet of any subsurface sewage treatment system component;

(b) site/system plans, drawn to scale, with topography showing two-foot contour intervals;

(c) system profile;

(d) details of system components; and

(e) a report containing:

(1) a description of the project characteristics; and

(2) a detailing of the design process.

(2) An application for review and approval of an intermediate sized sewage treatment system shall include all of the information in paragraph (1) of subdivision (c) of this section, and additionally shall contain:

(i) An Environmental Assessment form and State Environmental Quality Review Act determination, if applicable; and

(ii) A SPDES permit, if applicable.

(3) All approvals for new subsurface sewage treatment systems are conditioned on the applicant's submission of as-built drawings, prepared by a design professional, once construction is complete.

(4) An application for review and approval of an alteration or modification of a subsurface sewage treatment system, or of the resumption of use of a subsurface sewage treatment following discontinuation, that cannot satisfy the requirements applicable to new subsurface sewage treatment system must include all of the information in paragraph (1) of subdivision (d) of this section, except that the Department may, at its option, waive the requirement to submit a soil investigation report. For an intermediate sized sewage treatment system, the application must include the information in paragraph (2) of subdivision (d) of this section. An application must also contain:

(i) Plans or other design information, consisting of:

(a) If available, design plans for the subsurface sewage treatment plans, indicating all known regulatory approvals for such plans;

(b) If design plans are not available, a description of the components of the system prepared by a licensed professional engineer;

(ii) A proposal for enhancements to the system to meet the standards in 15 RCNY § 18-38 applicable to a new subsurface sewage treatment system to the extent possible, including the information required under 15 RCNY § 18-38(c); and

(iii) Any additional information demonstrating any or all of the following:

(a) A reduction in the potential for contamination to or degradation of the water supply from the subsurface sewage treatment system,

(b) A reduction in flow to the subsurface sewage treatment system, or

(c) Mitigation measures to avoid contamination to, or degradation of, the water supply.

(e) *Construction Requirements.*

(1) The applicant must notify the Department at least two business days before the start of construction of a subsurface sewage treatment system. The locations of the absorption field corners, septic tanks, pump or dosing chambers, and other treatment components must be staked out before the start of construction, so that the Department can, at its option, verify compliance with separation distance to wells, watercourses, and property lines. The ends of absorption trenches and the corners of absorption beds must be staked out before the start of construction. Stakes must be marked with applicable line and grade information and may not be disturbed during construction.

(2) If construction of a subsurface sewage treatment system ceases for more than seven days, the applicant must make best efforts to notify the Department at least two business days before restarting construction.

(3) The applicant must notify the Department at least one day before burying any component of a subsurface sewage treatment system.

(4) All notifications to the Department pursuant to this subsection (d) must be made via the email address and/or telephone number listed on the approval.

(Amended City Record 10/30/2019, eff. 11/29/2019)

### **§ 18-39 Stormwater Pollution Prevention Plans and Impervious Surfaces.**

(a) *Impervious surfaces.*

(1) The construction of an impervious surface within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake, is prohibited.

(2) Paragraph (1) shall not apply to the following activities:

(i) Construction of a new individual residence, which shall comply with paragraph (5) of this subdivision;

(ii) Non-commercial ancillary improvements or additions to an individual residence;

(iii) Construction of an impervious surface for a driveway serving an individual residence constructed or having obtained all discretionary approvals necessary for construction prior to March 1, 2010;

(iv) Construction of an impervious surface for a driveway serving an individual residence that obtains all discretionary approvals necessary for construction on or after March 1, 2010, which shall comply with paragraph (5) of this subdivision;

(v) Agricultural activities;

(vi) Construction of bridges or crossings of watercourses or wetlands constructed pursuant to a valid permit from the appropriate regulatory agencies. If a permit from a regulatory agency other than the Department is not required, the applicant shall comply with paragraph (9) of this subdivision;

(vii) Creation of an impervious surface made necessary by the construction of a wastewater treatment plant or alteration or modification of a wastewater treatment plant approved by the Department;

(viii) Creation of an impervious surface that is made necessary by the construction of a new facility or alteration or modification of an existing facility used in connection with the operation of a public water supply system; or

(ix) Creation of an impervious surface, such as a culvert, needed as an integral component of diversion or piping of a watercourse, but only with the review and approval of the Department and only if the Department determines that such impervious surface will not have an adverse impact on water quality.

(3) Paragraph (1) shall not apply to creation of an impervious surface in the West of Hudson watershed within a village, hamlet, village extension, or area zoned for commercial or industrial uses, which complies with paragraph (8) of this subdivision or to the creation of an impervious surface in the East of Hudson watershed within a Designated Main Street Area, which complies with paragraph (11) of this subdivision.

(4) Paragraph (1) shall not apply to the creation of an impervious surface in connection with the following activities occurring in the East of Hudson watershed outside a Designated Main Street Area or in the West of Hudson watershed outside a village, hamlet, village extension, or an area zoned for commercial or industrial uses:

(i) Construction of a new road or widening of an existing road, which shall comply with paragraph (6) of this subdivision;

(ii) Creation of an impervious surface within a designated village center, which shall comply with paragraph (7) of this subdivision; or

(iii) Expansion of an existing impervious surface within the limiting distance of 100 feet of a watercourse or wetland, at an existing commercial, institutional, municipal, industrial, or multi-family residential facility, provided that the total area of all expanded impervious surfaces, including all impervious surfaces allowed under this provision after May 1, 1997, does not exceed 25 percent of the area of the existing impervious surface at that commercial, institutional, municipal, industrial, or multi-family residential facility, which shall comply with subdivisions (b), (c) and (d) of this section.

(5) The following requirements are applicable to construction of a new individual residence and of impervious surfaces for driveways serving individual residences that obtain all discretionary approvals necessary for construction on or after March 1, 2010:

(i) Whether or not a new individual residence will be located in a subdivision, construction of a new individual residence within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake is prohibited;

(ii) Construction of a new individual residence in a subdivision within the limiting distance of 100 feet of a watercourse or wetland is prohibited where:

(a) The subdivision plat received preliminary approval on or after October 16, 1995; or

(b) The subdivision plat received preliminary approval before October 16, 1995, the person who owned the subdivision on October 16, 1995 was the same person, or a principal or affiliate of the person, who owned the subdivision at the time the subdivision plat received preliminary approval, and construction activity related to infrastructure improvements for the subdivision had not begun as of October 16, 1995;

(iii) Construction of a new individual residence not in a subdivision, or in a subdivision approved before October 16, 1995 and not prohibited by paragraph (a)(5)(ii)(b) of this subdivision, within the limiting distance of 100 feet of a perennial stream or wetland requires an individual residential stormwater permit from the Department, pursuant to subdivision (e) of this section;

(iv) Construction of an impervious surface for a driveway serving an individual residence that obtains all discretionary approvals necessary for construction on or after March 1, 2010 within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake is prohibited;

(v) Construction of an impervious surface for a driveway to serve an individual residence that obtains all discretionary approvals necessary for construction on or after March 1, 2010, within the limiting distance of 100 feet of a perennial stream or within the limiting distance of 50 feet of an intermittent stream or wetland, requires an individual residential stormwater permit from the Department, pursuant to subdivision (e) of this section.

(6) The following requirements are applicable to construction of an impervious surface for a new road or the widening of an existing road:

(i) Construction of an impervious surface for a new road within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake is prohibited, except paving an existing dirt or gravel road is permitted. Construction of a new impervious surface by paving an existing dirt or gravel road requires a stormwater pollution prevention plan which complies with subdivisions (b), (c) and (d) of this section.

(ii) Construction of an impervious surface for a new road within the limiting distance of 50 feet of an intermittent stream or wetland, or within the limiting distance of 100 feet of a perennial stream, is prohibited, except for paving an existing dirt or gravel road or where necessary to provide an access road. Construction of an impervious surface for paving such existing dirt or gravel road or for such a new access road requires a stormwater pollution prevention plan which complies with the requirements of subdivisions (b), (c) and (d) of this section for the entire impervious surface. An access road constructed pursuant to this paragraph shall be constructed as far as practicable from all watercourses and wetlands, as determined by the Department.

(iii) Construction of an impervious surface for a new road between the limiting distances of 50 feet and 100 feet of an intermittent stream or wetland requires a stormwater pollution prevention plan which complies with the requirements of subdivisions (b), (c) and (d) of this section.

(iv) Widening of an existing road located within the limiting distance of 50 feet of an intermittent stream or wetland, within the limiting distance of 100 feet of a perennial stream, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake shall be performed on the side of such existing road furthest from the watercourse, wetland, reservoir, reservoir stem or controlled lake, to the extent practical.

(7) The following requirements are applicable to creation of an impervious surface within a designated village center:

(i) A local government in the Croton System may delineate an area within the local government's boundaries to be a "designated village center" in a Comprehensive Croton Water Quality Protection Plan prepared and agreed to in accordance with 15 RCNY § 18-82. Such designated village center shall comply with the requirements of this paragraph with regard to the construction of impervious surfaces.

(ii) Within a designated village center the construction of a new impervious surface within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake requires the review and approval of the Department. An approval issued by the Department pursuant to this subparagraph shall contain a determination by the Department that there is no reasonable alternative to the creation of the proposed new impervious surface within the applicable limiting distance and that the best available measures have been taken to prevent adverse impacts on the quality of the drinking water supply.

(8) The following requirements are applicable to creation of an impervious surface in the West of Hudson watershed within a village, hamlet, village extension or area zoned for commercial or industrial uses:

(i) Creation of any new impervious surface within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake, within a village, hamlet, village extension or area zoned for commercial or industrial uses as of the effective date of these rules and regulations, requires a stormwater pollution prevention plan which complies with the requirements of subdivisions (b), (c) and (d) of this section, except that the foregoing requirements of this subparagraph shall not apply to the creation of a new impervious surface for an activity set forth in paragraph (2) of this subdivision which complies with the provisions of paragraph (2).

(ii) If a local government in the West of Hudson watershed adopts a zoning ordinance designating additional areas for commercial or industrial use after the effective date of these rules and regulations, it may apply to the Department to allow construction of new impervious surfaces in the newly zoned commercial or industrial areas located within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake. The Department shall approve such application if the Department determines that allowing new impervious surfaces in such newly zoned commercial or industrial area is consistent with the objectives of these rules and regulations and with previously approved zoning ordinances. If approved by the Department, creation of new impervious surfaces within such newly zoned commercial or industrial areas within the aforesaid limiting distances shall be allowed subject to the requirements of subparagraph (8)(i) above.

(9) Construction of a bridge or crossing of a watercourse or wetland which does not require a permit from a regulatory agency other than the Department shall require the review and approval of the Department. Such bridge or crossing shall be constructed to prevent adverse impacts on the quality of the water supply.

(10) Maintenance of an existing impervious surface shall not require the review and approval of the Department.

(11) The following requirements are applicable to creation of an impervious surface in the East of Hudson watershed within a Designated Main Street Area:

(i) Creation of any new impervious surface within a Designated Main Street Area requires a stormwater pollution prevention plan which complies with the requirements of subdivisions (b), (c), and (d) of this section, except that the foregoing requirements of this subparagraph shall not apply to the creation of a new impervious surface for an activity set forth in paragraph (2) of this subdivision which complies with the provisions of paragraph (2).

(ii) The approved boundary descriptions of all Designated Main Street Areas shall be made available by the Department for public inspection at its field offices in the East of Hudson watershed.

(b) *Stormwater pollution prevention plans.*

(1) Stormwater pollution prevention plans shall not be required to be prepared pursuant to this section for agricultural and silvicultural activities.

(2) Stormwater pollution prevention plans shall not be required to be prepared pursuant to this section for clear cutting and mining activities, provided, however, that such activities shall be subject to the requirements set forth in the applicable New York State Department of Environmental Conservation SPDES Permit which may be required pursuant to Environmental Conservation Law § 17-0808.

(3) Stormwater pollution prevention plans shall be prepared for the activities listed in subparagraph (4) of this subdivision. Such plans shall also be subject to the prior review and approval of the Department. Such plans shall be prepared and implemented in accordance with the requirements of Part III of the New York State Department of Environmental Conservation SPDES General Permit No. GP-0-15-002 that are applicable to construction activities identified in Table 2 of Appendix B, and in accordance with the requirements of subdivision (c) of this section, except that:

(i) plans for redevelopment shall be prepared and implemented in accordance with subdivision (b)(8),

(ii) plans for construction activities identified in Table 1 of Appendix B must be prepared and implemented in accordance with the requirements of Part III of the New York State Department of Environmental Conservation SPDES General Permit No. GP-0-15-002 that are applicable to construction activities identified in Table 1 of Appendix B. A construction activity will be deemed to "alter hydrology from pre to post development conditions," for purposes of Table 1 of Appendix B, if the post-development peak rate of flow for the activity has increased by more than 5% of the pre-developed condition for the one-year, twenty-four hour storm, the ten-year, twenty-four hour storm, or the one hundred-year, twenty-four hour storm as defined herein. A construction activity that is excluded from coverage under Table 1 of Appendix B because it alters hydrology from pre to post development conditions must comply with the requirements of subdivision (b)(3) above,

(iii) plans for construction activities requiring Department review and approval of a stormwater pollution prevention plan under this section that involve disturbance of less than one (1) acre of total land area, other than construction of gasoline stations and construction, alteration, or modification of solid waste management facilities, and which will not result in hot spot runoff, must be prepared and implemented in accordance with subdivision (b)(9), and

(iv) no activity shall be exempt from any such requirements as a result of the size or nature of the watercourse(s) to which stormwater from such activity discharges, except with prior written approval from the Department. Such plans shall also be subject to the prior review and approval of the Department.

(4) The activities for which a stormwater pollution prevention plan must be prepared under subparagraph (3) of this subdivision are:

(i) Plans for development or sale of land that will result in the disturbance of five (5) or more acres of total land area as described in the definition of larger common plan of development or sale in Appendix A of SPDES General Permit No. GP-0-15-002;

(ii) Construction of a subdivision;

(iii) Construction of a new industrial, institutional, municipal, commercial or multi-family residential project that will result in creation of an impervious surface totaling over 40,000 square feet in size;

(iv) A land clearing or land grading project, involving two or more acres, located at least in part within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake or on a slope exceeding 15 percent;

(v) Construction of a new solid waste management facility or alteration or modification of an existing solid waste management facility within 300 feet of a watercourse or wetland or 500 feet of a reservoir, reservoir stem or controlled lake;

(vi) Construction of a gasoline station;

(vii) Construction of an impervious surface for a new road, for an access road, or for an existing dirt or gravel road, as required by paragraph (a)(6) of this section;

(viii) Construction of an impervious surface in the West of Hudson watershed within a village, hamlet, village extension or area zoned for commercial or industrial uses, as required by paragraph (a)(8) of this section;

(ix) Up to a 25 percent expansion of an existing impervious surface at an existing commercial, institutional, municipal, industrial, or multi-family residential facility which is within the limiting distance of 100 feet of a watercourse or wetland, as required in subdivision (a)(4)(iii) of this section; or

(x) Construction of an impervious surface in the East of Hudson Watershed in a Designated Main Street Area.

(5) If there is a significant change in design, construction, operation, or maintenance of an activity which is subject to a Stormwater Pollution Prevention Plan pursuant to subdivision (b)(3) which may have a significant effect on the potential for the discharge of pollutants to surface waters and which has not otherwise been addressed in the Stormwater Pollution Prevention Plan, or if the Stormwater Pollution Plan proves to be ineffective in eliminating or significantly minimizing erosion and sedimentation or the discharge of pollutants associated with construction activity, the Stormwater Pollution Prevention Plan must be amended. Such amended stormwater pollution prevention plan shall be submitted to the Department for prior review and approval and shall comply with the requirements of this section.

(6) Any approval of a stormwater pollution prevention plan issued by the Department expires and is null and void unless construction is completed within five (5) years of the date of issuance or within any extended period of time approved by the Department upon good cause shown. Following expiration of the approval, the application for the stormwater pollution prevention plan may be resubmitted to the Department for consideration for a new approval.

(7) As a condition of approval the Department may require evidence of financial security prior to construction from any owner or operator of a stormwater management system pursuant to a stormwater pollution prevention plan. Such financial security shall consist of a bond, or an equivalent guaranty, to be deposited with the Department, covering the full cost of the construction of such facility and an additional bond or an equivalent guaranty for the payment of labor and material furnished in the course of such construction. Upon completion of construction and payment of labor and materials, such bonds or other guaranties shall be released. Additionally, a bond or equivalent guaranty may be required for the maintenance and operation of the facility for a period of five years post-construction. No bond or guaranty is required where the owner or operator of such a facility is a village, town, county or city.

(8) Where portions of an activity that require a stormwater pollution prevention plan pursuant to subdivision (b)(3) constitute redevelopment as defined herein, those portions of such plan shall:

(i) be prepared and implemented, to the extent possible, in accordance with the requirements of Part III of the New York State Department of Environmental Conservation SPDES General Permit No. GP-0-15-002 that are applicable to the construction activities identified in Table 2 of Appendix B;

(9) Where an activity requiring Department review and approval of a stormwater pollution prevention plan under this section that involves disturbance of less than one (1) acre of total land area, other than construction of a gasoline station or construction, alteration, or modification of a solid waste management facility, and which will not result in hot spot runoff, requires a stormwater pollution prevention plan pursuant to subdivision (b)(3) above, the application must consist of:

(i) A plan of the proposed activity, identifying the area of disturbance, the location of any existing or proposed impervious surfaces, and the location of any watercourses, wetlands, reservoirs, reservoir stems or controlled lakes on or adjacent to the property;

(ii) A description and depiction of proposed erosion controls sufficient to prevent sedimentation of the receiving watercourse, wetland, reservoir, reservoir stem or controlled lake on or adjacent to the property during construction. Erosion controls typically consist of sediment barriers, such as hay bales and silt fencing, temporary sediment traps and temporary stormwater flow diversions;

(iii) A schedule for construction, including grading and site stabilization; and

(iv) A description and depiction of proposed permanent stormwater management practices designed to filter, detain, or infiltrate runoff from impervious surfaces, thereby minimizing the post-construction increase in pollutant loading to the receiving watercourse, wetland, reservoir, reservoir stem or controlled lake.

(c) *Additional Requirements for Stormwater Pollution Prevention Plans.*

(1) When any activity listed in paragraph (3) of subdivision (b) of this section is proposed to be undertaken in the drainage basin of a terminal reservoir, as identified in the watershed maps in Appendix 18-A, the stormwater pollution prevention plan shall include analysis of coliform runoff, before and after the land disturbance activity.

(i) If such proposed activity causes or contributes to the contravention of the coliform standard set forth in 15 RCNY § 18-48(b)(1), the stormwater pollution prevention plan shall not be approved by the Department, unless the measures required by the stormwater pollution prevention plan in conjunction with any other controls to be imposed that limit future land disturbance at the site, including but not limited to property easements, restrictive covenants, zoning laws and development by-laws, will prevent the contribution of additional coliform.

(2) *Stormwater Conveyance Measures.* Stormwater pollution prevention plans prepared pursuant to this section shall provide for the maintenance of natural drainage systems, including perennial and intermittent streams, and the use of swales and drainage ditches in an open condition to the maximum extent practicable. A stormwater pollution prevention plan shall ensure that any closed stormwater conveyance measures are sized appropriately to convey, at a minimum, the 10-year, 24-hour storm flow.

(3) *Stormwater Treatment Volume.* All stormwater pollution prevention plans prepared pursuant to this section shall include measures to capture and treat the greater of the volume of runoff generated by the 1-year, 24-hour storm or the Water Quality Volume (WQv), except that a stormwater management practice may be designed to capture and treat the lesser of those volumes if it is a stormwater infiltration practice or it is a bioretention practice in hydrologic soil group A or B. Stormwater management practices which provide treatment shall be designed to accommodate the quantity of runoff flowing to the stormwater management practice, including runoff from off-site areas.

(4) Where a stormwater pollution prevention plan prepared pursuant to this section includes a stormwater infiltration practice, to the maximum extent practicable, no portion of such stormwater infiltration practice shall be located within 100 feet of any portion of the absorption field of a subsurface sewage treatment system.

(5) To the maximum extent practicable, an activity requiring a stormwater pollution prevention plan, and the stormwater pollution prevention plan prepared for such activity, shall be designed:

(i) To minimize the alteration of the existing drainage areas and to maintain the volumes of flow at design points at pre-construction levels, except as necessary to alleviate downstream flooding problems or other adverse conditions in existence prior to construction, or to divert runoff from off-site and/or undisturbed areas away from areas proposed to be disturbed.

(ii) To minimize loss of annual recharge to groundwater by maximizing the use of stormwater infiltration practices where suitable soil conditions exist.

(6) If an activity requiring a stormwater pollution prevention plan will result in impervious surfaces covering twenty percent (20%) or more of the drainage area for which a stormwater management practice is designed, the stormwater pollution prevention plan shall provide for stormwater runoff from that drainage area to be treated by two different types of stormwater management practices in series, except that only one stormwater management practice is required if either:

(i) the stormwater management practice provided is a stormwater infiltration practice; or

(ii) the activity requiring a stormwater pollution prevention plan is in the West of Hudson watershed within a village, hamlet, village extension, or area zoned for commercial or industrial uses or in the East of Hudson watershed within a Designated Main Street Area.

(7) For purposes of the design criteria incorporated by reference in New York State Department of Environmental Conservation SPDES General Permit No. GP-0-15-002, "detention time" shall mean the time runoff is detained in a stormwater management practice. It can be computed using either the center of mass method or the plug flow method.

(d) *Application requirements and procedures.*

(1) An application for approval of a stormwater pollution prevention plan shall include:

(i) The pollution prevention plan; and

(ii) The information required in a Notice of Intent under New York State Department of Environmental Conservation SPDES General Permit No. GP-0-15-002.

(2) When the Department notifies an applicant that an application for approval of a stormwater pollution prevention plan is complete pursuant to 15 RCNY § 18-23(d)(2) and (3), the Department shall also issue a written notification to the Stormwater Project Review Committee ("Committee") for the Town(s) or Village in which the activity requiring preparation of the stormwater pollution prevention plan is proposed to be located, of the Department's receipt of a complete application.

(i) If requested by one or more members of the Committee, the Department shall submit a copy of the complete application to the Committee for its review and shall convene a meeting, in person or by telephone, of the Committee.

(ii) The Department shall not be required to meet with or otherwise further consult with a member of the Committee concerning an application where the Committee member declines to review the application or fails to attend a meeting of the Committee convened to consider the application.

(3) Upon completion of their review of the application, and upon a majority vote of the Committee members, including the Department's Committee member, who reviewed the application, the Committee may recommend to the Department that an application for approval of a stormwater pollution prevention plan be approved, approved with conditions or disapproved.

(i) If the Department's Committee member agrees with the majority recommendation of the Committee, the Department may proceed to issue its determination to the applicant.

(ii) If the Department's Committee member disagrees with the majority recommendation of the Committee, the application, together with the written recommendation of the Committee, shall be submitted to the Commissioner of the Department for review and a determination. The Commissioner shall issue a written record of decision setting forth the basis for the determination and responding to any contrary written recommendations submitted by any member of the Committee.

(iii) If the Committee fails to make a recommendation to the Department at least fifteen (15) days prior to the date the Department is required to notify an applicant in writing of its determination pursuant to 15 RCNY § 18-23(d)(5), the Department may proceed to issue its determination and the Department shall not be required by these rules and regulations to further consult with or consider the comments of the Committee or any member of the Committee.

(4) Failure of any Committee member, other than the Department Committee member, to act in accordance with the procedures or within the time frames set forth in these rules and regulations, shall relieve the Department of any obligation to consult with or consider the comments of the Committee member. Failure of any Committee member, other than the Department Committee member, to act in accordance with the procedures or within the time frames set forth in these rules and regulations, shall not invalidate any determination issued by the Department.

(5) A Committee may only make recommendations to the Department and shall have no authority to make decisions on behalf of the Department. For purposes of SEQRA, the Department's determination on an application, not the Committee's recommendation to the Department, shall be considered a final decision.

(e) *Individual residential stormwater permits.*

(1) An individual residential stormwater permit is required for:

(i) Construction of a new individual residence, not located within a subdivision, and located within the limiting distance of 100 feet of a perennial stream or wetland;

(ii) Construction of a new individual residence located within a subdivision approved before October 16, 1995, and not prohibited by paragraph (a)(5)(ii)(b) of this section, and located within the limiting distance of 100 feet of a perennial stream or wetland; and

(iii) Construction of an impervious surface for a driveway to serve an individual residence that obtains all discretionary approvals necessary for construction on or after March 1, 2010, located within the limiting distances of 50 feet of an intermittent stream or wetland or within 100 feet of a perennial stream, except that no individual residential stormwater permit is required if the driveway is included in an activity requiring Department approval of a stormwater pollution prevention plan.

(2) Application requirements. An application for issuance of an individual residential stormwater permit shall include:

(i) A plan of the proposed individual residence and/or driveway;

(ii) A plan or map identifying the location of any watercourses, wetlands, reservoirs, reservoir stems or controlled lakes on or adjacent to the property;

(iii) A plan showing the approximate area of site disturbance;

(iv) A description and depiction of proposed erosion controls sufficient to prevent sedimentation of the receiving watercourse or wetland during construction. Erosion controls typically consist of sediment barriers, such as hay bales and silt fencing, and temporary stormwater diversions;

(v) A schedule for construction, including grading and site stabilization; and

(vi) A description and depiction of proposed stormwater best management practices designed to filter, detain, or filtrate runoff from the individual residence or driveway, thereby minimizing the post-construction increase in pollutant loading to the receiving perennial stream or wetland.

(3) An individual residential stormwater permit issued by the Department shall expire and thereafter be null and void unless construction is completed within two (2) years of the date of issuance of the permit, or within any extended period of time approved by the Department upon good cause shown. Following expiration of the permit, the application for the individual residential stormwater permit may be resubmitted to the Department for consideration for a new permit.

(Amended City Record 10/30/2019, eff. 11/29/2019)

**§ 18-40 Miscellaneous Point Sources.**

(a) Unless otherwise permitted by the rules and regulations, a discharge, or storage which is reasonably likely to lead to a discharge into the environment (including into groundwater), from industrial facilities, including vehicle washing facilities, and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

(b) Any new point source, excluding point sources otherwise regulated pursuant to these rules and regulations, is prohibited from discharging into a reservoir or controlled lake, reservoir stem, or wetland.

**§ 18-41 Solid Waste.**

(a) Siting or horizontal expansion of a junkyard or a municipal solid waste landfill, within the limiting distance of 250 feet of a watercourse or wetland, or the siting or horizontal expansion of a junkyard or a solid waste management facility within the limiting distance of 1,000 feet of a reservoir, reservoir stem or controlled lake is prohibited except for:

- (1) Recyclable handling and recovery facilities that handle non-putrescible solid waste, such as newspapers, magazines, corrugated boxes, glass, cans and plastic, but not non-putrescible solid waste such as batteries, car batteries, and waste oil;
- (2) Composting facilities for individual households for personal use; or
- (3) Expansion of the existing permitted municipal solid waste landfill located within Delaware County.

(b) Discharge of solid waste directly into any watercourse, wetland, reservoir, reservoir stem or controlled lake is prohibited. For purposes of this subdivision, solid waste includes materials that are otherwise exempt from compliance with 6 NYCRR Part 360, as described in 6 NYCRR § 360.2(a)(3), unless those materials are irrigation return flows, materials that are used for artificial reefs in compliance with applicable State requirements, or authorized to be discharged to waters of the state pursuant to a valid permit issued by the New York State Department of Environmental Conservation pursuant to Environmental Conservation Law article 15, 17, 24, 25, or 34 or a water quality certification issued under Section 401 of the Federal Water Pollution Control Act. This subdivision shall not apply to discharge of treated leachate in accordance with the requirements of these rules and regulations and a valid SPDES permit.

(c) Only construction and demolition debris that is recognizable uncontaminated concrete, asphalt pavement, brick, soil, stone, trees or stumps, wood chips, or yard waste may be used as fill in the watershed.

(d) All new solid waste management facilities, or altered or modified existing solid waste management facilities within the limiting distance of 300 feet of a watercourse or wetland, or within the limiting distance of 500 feet of a reservoir, reservoir stem, or controlled lake, are required to submit stormwater pollution prevention plans to the Department for review and approval, in accordance with 15 RCNY § 18-39(b)(3)(v).

(Amended City Record 10/30/2019, eff. 11/29/2019)

#### **§ 18-42 Agricultural Activities.**

Any intentional, knowing or reckless act or omission that in the course of an agricultural activity significantly increases pollutants in the water supply is prohibited.

#### **§ 18-43 Pesticides.**

Unless otherwise permitted by these rules and regulations, the discharge or use, or storage of pesticides which is reasonably likely to lead to a discharge, of pesticides into the environment (including into groundwater), and which is reasonably likely to cause degradation of surface water quality or of the water supply, is prohibited. It shall be an affirmative defense under this subsection that such discharge, or storage likely to lead to a discharge, is either permitted or not prohibited under federal law, and is either permitted or not prohibited under state law.

#### **§ 18-44 Fertilizers.**

- (a) The requirements of this section shall not apply to the application or storage of fertilizers for:
  - (1) An agricultural activity performed in compliance with State or Federal law; and
  - (2) Non-commercial application by an individual on residential premises.
- (b) No fertilizer activity shall be considered to be a noncomplying regulated activity.
- (c) Discharge from the washing of fertilizer application equipment into any watercourse, wetland, reservoir, reservoir stem or controlled lake is prohibited.
- (d) Use of water directly from a reservoir, reservoir stem or controlled lake for fertilizer make-up is prohibited.
- (e) Use of water directly from a watercourse for fertilizer make-up without the use of an anti-siphon device is prohibited.
- (f) Open storage of fertilizer is prohibited.

#### **§ 18-45 Snow Disposal and Storage and Use of Winter Highway Maintenance Materials.**

(a) Whenever feasible removed snow shall not be disposed of directly into a watercourse, wetland, reservoir, reservoir stem or controlled lake. However, this subdivision shall not be construed to require an owner or operator to transport the removed snow in a vehicle for offsite disposal.

(b) No snow disposal activity shall be considered to be a noncomplying regulated activity.

(c) Commercial, industrial, governmental, or institutional entities shall be restricted to the use of the substances defined in these rules and regulations as winter highway maintenance materials and to the use of the minimum amount needed of such substances in order to protect the public safety. In determining the minimum amount needed for public safety, such entities should consider best management practices developed by the New York State Department of Transportation.

(d) (1) Commercial, industrial, governmental, or institutional entities that store winter highway maintenance materials in quantities of 1,000 pounds or more that contain greater than eight percent chloride compounds shall store such materials in structures constructed on low permeability storage pads.

(2) Any outdoor areas used for loading, handling or mixing of winter highway maintenance materials shall be constructed and maintained to prevent seepage and runoff from entering any watercourse, wetland, reservoir, reservoir stem or controlled lake.

(e) All commercial, industrial, governmental, or institutional entities that store winter highway maintenance materials in quantities and composition not otherwise subject to paragraph (1) of subdivision (d) of this section, shall store such materials in a manner that minimizes runoff into any watercourse, wetland, reservoir, reservoir stem, or controlled lake. Runoff may be controlled by use of control measures such as berms and covers.

(f) A winter highway maintenance material storage facility may be enlarged provided that the enlarged facility is in compliance with the storage requirements set forth in this section, and any other applicable requirements of these rules and regulations.

(g) Winter highway maintenance material storage facilities that are noncomplying regulated activities shall come into compliance with this section no later than two years from the effective date of these rules and regulations.

### **Subchapter D: Water Quality Standards for Reservoirs and Controlled Lakes**

#### **§ 18-48 Water Quality Standards.**

(a) The water in all reservoirs, Lake Gilead, and Lake Gleneida, shall meet the following standards of quality:

- (1) 6 NYCRR Parts 701 and 703 (standards applicable to Class AA waters), and
- (2) The New York State Department of Environmental Conservation Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values (October 22, 1993, Reissue Date June 1998, as modified and supplemented by the January 1999 Errata Sheet and the April 2000 and June 2004 Addenda) which lists the ambient water quality standards and guidance values for principal organic chemicals and synthetic organic chemicals.

(b) In addition, the water in source water reservoirs shall meet the following phosphorus standard:

- (1) Total phosphorus concentrations shall be equal to or less than 15 micrograms per liter.

(c) In addition, the water within 500 feet of the aqueduct effluent chamber located at a terminal reservoir (Kensico, West Branch, New Croton, Ashokan and Rondout) shall meet the following coliform standard:

- (1) Raw water fecal coliform concentrations shall be equal to or less than 20 colonies per 100 milliliters or total coliform concentration shall be equal to or less than 100 colonies per 100 milliliters in at least 90 percent of the measurements made over any consecutive six month period. For purposes of determining compliance with this paragraph, a minimum of five samples per week will be taken from each terminal reservoir. If both fecal and total coliform analyses are performed, the fecal coliform results shall take precedence over the total coliform analysis.

(d) For purposes of determining compliance with this subchapter, the Department shall take water samples from the controlled lakes and reservoirs and shall evaluate them in accordance with subdivisions (a), (b), and (c) of this section.

(1) Where total coliform concentrations exceed the standards set forth in 6 NYCRR Parts 701 and 703, and are determined by the Department to be due to non-perennial, non-anthropogenic sources, such exceedances shall not be included in calculating whether a violation of these rules and regulations has occurred.

(2) Where fecal coliform concentrations exceed the standards set forth in subparagraph (c) above, and are determined by the Department to be due to non-perennial, non-anthropogenic sources, such exceedances shall not be included in calculating whether a violation of these rules and regulations has occurred.

(e) The Department shall, on an annual basis, conduct a review of water quality data for the purpose of determining whether each reservoir and controlled lake meets or fails to meet the water quality standards set forth in subdivisions (a), (b), and (c) of this section, as applicable. The results of the Department's review, together with the calculations used in arriving at the results for each reservoir, shall be published in a report which shall be made available to the public upon request.

## Subchapter E: Enforcement

### § 18-51 Enforcement.

(a) The City shall enforce the rules and regulations set forth herein, in a manner consistent with applicable Federal, State and local laws.

(b) The City may, in enforcing the rules and regulations set forth herein, exercise all of its rights and remedies under applicable Federal, State and local laws, including, but not limited to: inspecting facilities engaging in regulated activities and sources of the water supply in accordance with applicable federal and State constitutional requirements; issuing notices of violation or of intention to sue; instituting civil or criminal actions; seeking injunctive relief and legal damages; imposing penalties in accordance with Public Health Law § 1103; and entering into consent orders and agreements.

(c) Nothing contained in these rules and regulations shall be construed as limiting the City's ability to exercise any of its rights and remedies under any other law, statute, rule, regulation, or order, including, but not limited to, the Federal Water Pollution Control Act (aka the Clean Water Act), 33 U.S.C. § 1251 et seq.; the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq.; the Oil Pollution Act, 33 U.S.C. §§ 2701 et seq.; Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 136 et seq.; Toxic Substances Control Act, 15 U.S.C. §§ 2601 et seq.; New York State Public Health Law; New York State Environmental Conservation Law; New York State Navigation Law; New York State Department of Health septic system requirements (10 NYCRR Appendix 75-A); New York State Real Property Actions and Proceedings Law; and New York State Penal Law.

(d) Upon completion of the requirements of the State Administrative Procedure Act (SAPA) and the promulgation of these rules and regulations by the New York State Department of Health as State rules and regulations, the requirements of these rules and regulations may also be enforced by the Commissioner of the New York State Department of Health.

## Subchapter F: Variances

### § 18-61 Variances.

(a) The Commissioner may, in his or her discretion, upon written application from the applicant, grant a variance from the requirements of these rules and regulations for a regulated activity and for the alteration or modification of a noncomplying regulated activity.

(1) An application for a variance for a regulated activity or for an alteration or modification of a noncomplying regulated activity shall:

(i) Identify the specific provision of the rules and regulations from which the variance is sought or identify the nature and extent of the alteration or modification of the noncomplying regulated activity;

(ii) Demonstrate that the variance requested is the minimum necessary to afford relief; and

(iii) Demonstrate that the activity as proposed includes adequate mitigation measures to avoid contamination to or degradation of the water supply which are at least as protective of the water supply as the standards for regulated activities set forth in these rules and regulations.

(2) In granting variances the Commissioner may impose specific conditions, including evidence of financial security, time limitations and limitations on any transfer of the variance granted. In addition, the Commissioner may grant a lesser variance than that applied for.

(3) Any proposed substantial alteration or modification of an activity that has been granted a variance under this subchapter shall require the review and approval of the Department and shall comply with the provisions of this subchapter.

(4) The burden of proof for a variance shall be on the applicant.

(5) Except for a variance granted for an alteration or modification of a noncomplying regulated activity, a grant of a variance for a regulated activity shall not be deemed to make such activity a noncomplying regulated activity under these rules and regulations.

(b) An appeal of a denial of a variance for a regulated activity or a denial of a variance for an alteration or modification of a noncomplying regulated activity may be made in the manner specified in 15 RCNY § 18-28.

(c) Failure to comply with any condition of a variance for a regulated activity, or for a variance for an alteration or modification of a noncomplying regulated activity shall be a violation of these rules and regulations. The Department shall review the terms and conditions of each variance granted at least once every five years to determine whether the terms and conditions of the variance have been complied with.

(d) *Variances within coliform and phosphorus restricted basins.*

(1) The Department may grant a variance from the prohibition of locating a new wastewater treatment plant or expanding an existing wastewater treatment plant in a coliform restricted basin, or in a phosphorus restricted basin, where the Department determines that conditions in the area to be served by the new or expanded wastewater treatment plant are resulting in the release or discharge of inadequately treated sewage into the water supply, and that there is no other feasible method of correcting such release or discharge of inadequately treated sewage except to provide a variance from such prohibition. Provided, however, that in such cases, the additional treatment capacity of the new or expanded wastewater treatment plant may only be of a size sufficient to service the area identified as the source of contamination and any immediate area of concern as limited or delineated by the Department.

(2) A request for a variance from the prohibition of expanding an existing wastewater treatment plant located in a phosphorus restricted basin which does not meet the criteria set forth in subdivision (d)(1) may be granted only if the applicant demonstrates that subsurface discharge is impossible and that every one (1) kilogram of projected increase in the phosphorus load resulting from the expansion of the existing wastewater treatment plant and accompanying non-point source runoff, is offset by two (2) kilograms of reductions in phosphorus loading within such basin provided by enhanced treatment, basin-wide phosphorus trading, and/or a watershed protection plan developed pursuant to Subchapter H.

(e) *Variances Within the 60 Day Travel Time to Intake in the Croton System.*

(1) The Department may grant a variance from the prohibition set forth in 15 RCNY § 18-36(d)(2)(i) against locating a new wastewater treatment plant or expanding an existing wastewater treatment plant in the Croton System, within the 60 day travel time to intake, where the Department has made the following determinations:

(i) One of the following situations is present:

(a) conditions in the area to be served by the new or expanded wastewater treatment plant, including failed subsurface sewage treatment systems, are resulting in the release or discharge of inadequately treated sewage into the water supply; or

(b) influent flow rates to an existing wastewater treatment plant exceed the permitted flow limit for the wastewater treatment plant as specified in its SPDES permit and/or the design capacity of the wastewater treatment plant and have caused, or can reasonably be expected to cause, the release of inadequately treated sewage.

(ii) There is no other feasible method of correcting such release or discharge of inadequately treated sewage except by locating a new or expanding an existing surface-discharging wastewater treatment plant within the 60 day travel time to intake; and

(iii) The applicant has demonstrated that there are no sources of inflow or infiltration to the sewer system of the new or expanded wastewater treatment plant, other than sources that are to be eliminated pursuant to a consent order or other commitment binding on the applicant, that can practicably be eliminated.



(2) The applicant must demonstrate to the Department, that the total flow to the new or expanded wastewater treatment plant authorized pursuant to this subdivision will be limited as follows:

- (i) if the applicant seeks to expand a wastewater treatment plant serving a sewer district, the flow to the expanded wastewater treatment plant may include only:
    - (a) flow from facilities within the sewer district that are connected to the wastewater treatment plant as of the date of the application for a variance (based on the flows reported by the wastewater treatment plant pursuant to its SPDES permit in the year preceding the application for the variance); and
    - (b) flow from facilities within the sewer district that are served by subsurface sewage treatment systems as of the date of the application for a variance; and
    - (c) additional flow of no more than ten percent (10%) of the average of the flows reported by the wastewater treatment plant pursuant to its SPDES permit in the year preceding the application for the variance to be allocated within the sewer district; and
    - (d) reasonably anticipated flows from any area(s) outside the sewer district identified as source(s) of contamination pursuant to clause (a) of subparagraph (i) of paragraph (1) of subdivision (e) of this section.
  - (ii) if the applicant seeks to expand a wastewater treatment plant without a sewer district, the flow to the expanded wastewater treatment plant may include only:
    - (a) flows to the wastewater treatment plant as of the date of the application for a variance;
    - (b) reasonably anticipated flows from any area(s) identified as source(s) of contamination pursuant to clause (a) of subparagraph (i) of paragraph (1) of subdivision (e) of this section.
  - (iii) if the applicant seeks to construct a new wastewater treatment plant, the flow to the new wastewater treatment plant may include only reasonably anticipated flows from the area(s) identified as source(s) of contamination pursuant to clause (a) of subparagraph (i) of paragraph (1) of subdivision (e) of this section.
- (3) A new or expanded wastewater treatment plant authorized pursuant to a variance under this subdivision, and its sewer system, shall meet the following conditions:
- (i) The wastewater treatment plant shall provide sand filtration or a Department-approved alternative technology to sand filtration, disinfection, phosphorus removal, and microfiltration or a Department-approved equivalent technology to microfiltration, as required by these rules and regulations; and
  - (ii) The wastewater treatment plant shall be designed, operated, and maintained to meet a total phosphorus limit of 0.1 mg/l, and the applicant shall seek to have such limit included in the wastewater treatment plant's SPDES permit; and
  - (iii) The applicant shall develop and implement a Department-approved Capacity, Management, Operation and Maintenance (CMOM) plan for the entire sewer system serving the wastewater treatment plant, and shall seek to have such plan incorporated into the wastewater treatment plant's SPDES permit. At a minimum, such CMOM plan shall include:
    - (a) a map of the entire collection system;
    - (b) an assessment of the current capacity of the collection system;
    - (c) a program and schedule for routine inspections and testing, and preventive operation and maintenance activities;
    - (d) a list of any structural deficiencies identified in the system and a schedule for short- and long-term rehabilitation measures to address each identified deficiency;
    - (e) an inflow study, and a plan and implementation schedule, to control and eliminate, to the maximum extent practicable, stormwater contributions from sources such as catch basins, downspouts, and sump pumps; and
    - (f) a program for training appropriate personnel on collection system operation and maintenance; and
  - (iv) All wastewater pumping stations in the sewer system serving the new or expanded wastewater treatment plant shall meet the alarm systems and emergency operation requirements applicable to new wastewater pumping stations as set forth in "Recommended Standards for Wastewater Facilities," Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (2014); and
  - (v) The applicant shall seek to have included in the wastewater treatment plant's SPDES permit a condition providing that in the event that the SPDES permitted flow limit is violated, the owner will investigate the violation and prepare a corrective action plan.

(Amended City Record 10/30/2019, eff. 11/29/2019)

## **Subchapter G: Administration and Enforcement by Local Governments**

### **§ 18-71 Certification of Administrative Programs.**

- (a) The local government of a town, city, village or county may apply to the Department, care of the Engineering Section (see 15 RCNY § 18-15), for certification of a program to administer specific provisions of these rules and regulations.
- (b) A local government's proposed program for administration of specific provisions of these rules and regulations may include processing and review of, and determinations on, applications for approval of specific regulated activities.
- (c) An application for certification of a local government's administrative program shall include the following information:
  - (1) Identification of the specific substantive and procedural provisions of the rules and regulations that the local government is requesting to administer;
  - (2) Number, technical expertise and experience of personnel and identification of other resources that will be dedicated to administration of the program;
  - (3) Identification of funding or revenue sources for implementation of the program, including a commitment of such funding for the next fiscal year;
  - (4) Identification of the specific department, unit or officials who will be designated to administer these rules and regulations;
  - (5) Identification of information management capability to insure efficient administration and adequate record keeping;
  - (6) Identification of applicable existing local laws and rules and regulations and plans for coordination of such laws and rules and regulations with the requirements of these rules and regulations; and
  - (7) Any other information requested by the Department.
- (d) (1) The Department shall review an application for certification of an administrative program and make a preliminary determination to certify or deny certification of a program within 60 business days of receipt of such application. A determination to certify shall be based upon a finding by the Department that the resources, funding and administrative program proposed by the applicant will provide a level of efficiency and effective protection of the water supply equal to that which would otherwise be provided by the Department under these rules and regulations. Notice of the preliminary determination shall be provided in writing by the Department to the designated representative of the local government submitting the application for certification.
- (2) Within 60 business days of the Department's preliminary certification of the administrative program, the Department and the local government shall commence negotiating and writing a draft memorandum of understanding setting forth the requirements and conditions of the program.
- (3) A governmental agency or unit of a town, city, village or county that has a program for administration and/or enforcement that has been certified by the Department pursuant to this subchapter shall be referred to as a "certified local government."

### **§ 18-72 Administrative Determinations.**

- (a) Each administrative program submitted by a local government under this subchapter shall contain provisions governing the extent and frequency of Department review and approval of administrative determinations made by the local government, as the Department shall agree upon.
- (b) Pursuant to each administrative program submitted by a local government under this subchapter, the local government shall provide the Department (Attention: Chief, Sources Division) with a copy of each administrative determination made by such local government, at the same time that the determination is made available to the applicant.

### **§ 18-73 Annual Review of Administrative Programs.**

(a) The administrative program of a certified local government shall be reviewed annually by the Department. Such review shall be based upon records that demonstrate the effectiveness of the program which include objective criteria such as:

- (1) A review of determinations on applications for approval of regulated activities;
- (2) A review of the adequacy of financial, personnel and other resources for the previous year, and evidence of future commitment of adequate financial, personnel, and other resources to continue the administrative program; and
- (3) A review of such other records as the certified local government may be required to keep.

### **§ 18-74 Decertification or Modification of Administrative Programs.**

(a) The administrative program of a certified local government shall be continued unless decertified or modified by the Commissioner. A preliminary determination to decertify or modify shall be made at any time if the Commissioner determines that the local government's administration of any element of the program is inadequate to protect the water supply.

(b) Where the Commissioner has made a preliminary determination to decertify or modify a local government's administrative program pursuant to subdivision (a) of this section, a notice of proposed decertification or modification, and the reasons therefor, shall be sent by certified mail, to the designated representative of the certified local government. The certified local government may, within ten business days of the sending of such notice, submit information addressing the reasons for decertification or modification stated in the notice. The Commissioner, after receipt and consideration of any information submitted by the certified local government, shall make a final determination to continue, modify, or decertify the program within thirty business days of sending of the notice of proposed decertification or modification. Upon decertification of an administrative program the administration of the rules and regulations set forth herein shall revert to the Department.

(c) A local government which has received a determination of decertification may reapply for certification after one year.

### **§ 18-75 Certification of Enforcement Programs.**

(a) The local government of a town, city, village or county may apply to the Department, care of the Engineering Section (see 15 RCNY § 18-15) for certification of a program to enforce specific provisions of these rules and regulations.

(b) A local government's proposed program for enforcement of specific provisions of these rules and regulations may include the following:

- (1) Inspection of premises for potential violations of these rules and regulations and the preparation of written reports detailing the results of each such inspection; and
- (2) Issuance of notices of violation of specific provisions of these rules and regulations.

(c) An application for certification of a local government's enforcement program shall include the following information:

- (1) Identification of the specific provisions of the rules and regulations that the local government intends to enforce;
- (2) Number, technical expertise and experience of personnel and identification of other resources that will be dedicated to the enforcement program;
- (3) Identification of funding or revenue sources for implementation of the program, including a commitment of such funding for the next fiscal year;
- (4) Identification of the specific department, unit or officials who will be designated to enforce the rules and regulations;
- (5) Identification of information management capability to insure efficient administration and adequate record keeping; and
- (6) Any other information requested by the Department.

(d) The Department shall review an application for certification in accordance with the procedures set forth in subdivision (d) of 15 RCNY § 18-71. A determination to certify shall be based upon a finding by the Department that the resources, funding and enforcement program proposed by the applicant will provide a level of efficiency and effective protection of the water supply equal to that which would otherwise be provided by the Department under these rules and regulations. Any memorandum of understanding for an enforcement program shall provide that the designated enforcement personnel of the local government shall be agents of the Department for purposes of enforcement of specific provisions of these rules and regulations, and provided further, that such memorandum of understanding shall state that the Department shall retain the authority to enforce these rules and regulations in addition to any enforcement by the local government.

### **§ 18-76 Annual Review of Enforcement Programs.**

(a) The enforcement program of a certified local government shall be reviewed annually by the Department. Such review shall be based upon records that demonstrate the effectiveness of the program which include objective criteria, such as:

- (1) A review of notices of violation issued by the certified local government;
- (2) A review of inspection reports prepared by the certified local government;
- (3) A review of the determinations made by courts or administrative tribunals on notices of violation issued by the certified local government;
- (4) A review of compliance with notices of violation issued by the certified local government;
- (5) A review of the adequacy of financial, personnel and other resources for the previous year, and evidence of future commitment of adequate financial, personnel and other resources to continue the enforcement program in accordance with any requirements of a memorandum of understanding; and
- (6) A review of such other records as the certified local government may be required to keep in accordance with a memorandum of understanding.

### **§ 18-77 Decertification or Modification of Enforcement Programs.**

(a) The enforcement program of a certified local government shall be continued unless decertified or modified by the Commissioner. A preliminary determination to decertify or modify shall be made at any time if the Commissioner determines that the local government's administration of any element of the program is inadequate to protect the water supply.

(b) Where the Commissioner has made a preliminary decision to decertify or modify a local government's enforcement program pursuant to subdivision (a) of this Section, a notice of proposed decertification or modification, and the reasons therefor, shall be sent by certified mail to the designated representative of the certified local government. The certified local government may, within ten business days of the sending of such notice, submit information addressing the reasons for decertification or modification stated in the notice. After receipt and consideration of any information submitted by the certified local government, the Commissioner shall make a final determination to continue, modify, or decertify the program within thirty business days of sending of the notice of proposed decertification or modification. Upon decertification of an enforcement program, the enforcement of the rules and regulations set forth herein shall be the sole responsibility of the Department.

(c) A local government which has received a determination of decertification may reapply for certification after one year.

### **§ 18-78 Consent of the City.**

Nothing in this subchapter shall be construed to allow the designated administrative or enforcement personnel of a certified local government, or any representative or attorney of a certified local government, to appear in any court proceeding or before any administrative tribunal on behalf of the City or the Department, for the purpose of enforcing violations of these rules and regulations or defending against any claim or action arising from these rules and regulations without the written consent of the City.

## **Subchapter H: Watershed Protection Plans**

### **§ 18-81 Local Government Stormwater Protection Plans.**

(a) A local government of a town, village, or county in the watershed may submit to the Department for review and approval a proposed local government stormwater protection plan ("Stormwater Plan") to undertake all or some aspects of watershed protection as set forth in 15 RCNY § 18-39. The Stormwater Plan may be submitted individually by a local government or jointly with one or more adjoining local government(s) in accordance with the requirements of this subchapter.



- (1) Within 90 days of receipt by the Department of a proposed Stormwater Plan, the Department shall review the proposed Stormwater Plan to determine whether it meets the requirements of this Section and notify the local government, in writing, whether the proposed Stormwater Plan is approved;
- (2) If the Department fails to notify the local government(s) in writing of its determination within the 90 day period set forth in paragraph (a)(i) of this subdivision, the local government(s) may notify the Department of its failure by means of certified mail, return receipt requested to the local Department representative who is responsible for processing the Stormwater Plan;
- (3) If the Department fails to notify the local government(s) within ten (10) business days of the receipt of such notice the Stormwater Plan shall be deemed approved subject to the terms and conditions set forth in the most recent submission by the local government(s).
- (b) Pursuant to the terms and conditions of an approved Stormwater Plan, the Department may issue a waiver from specific provisions of 15 RCNY § 18-39, including the prohibition of construction of an impervious surface within the limiting distance of 100 feet of a watercourse or wetland or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake, for all applicants of projects located within some or all of the geographical area of the local government(s). The Department may issue such waivers after a local government(s) has an approved Stormwater Plan.
- (c) An approvable Stormwater Plan shall include:
  - (1) The specific provision(s) of 15 RCNY § 18-39 from which the waiver is sought;
  - (2) A description of the metes and bounds of the geographical area (town, village, county, or part thereof) for which the waiver is sought, including a map of the described area;
  - (3) Mechanisms to be established by the local government that are at least as protective of the watershed reservoir drainage basin in which the waiver will be effective as the specific provisions of 15 RCNY § 18-39 from which the waiver is sought;
  - (4) A commitment by the local government(s) to implement each element of the Stormwater Plan in accordance with the terms of the Stormwater Plan and a schedule for implementation of all elements of the Stormwater Plan;
  - (5) An agreement by the local government(s) to coordinate with the Department any review by the local government(s) required under the State Environmental Quality Review Act for regulated activities, as defined in these rules and regulations;
  - (6) The rights, obligations and roles of the local government(s) and the Department under the Stormwater Plan; and
  - (7) Identification of the approximate number, technical expertise and experience of personnel and all other resources that will be dedicated to carrying out such plan.
- (d) The mechanisms to be established pursuant to paragraph (c)(3) of this subdivision may include:
  - (1) Stormwater control structures, or best management practices, that capture and treat stormwater from existing non-point pollution sources such as areas of concentrated impervious surfaces;
  - (2) Mechanisms or programs that address the capture and treatment of stormwater from future non-point pollution sources on a community-wide basis such as the creation of a stormwater district;
  - (3) Land use controls, zoning, and other local laws, ordinances and rules and regulations that will protect the quality of the water supply, including but not limited to laws and rules and regulations concerning wetland protection, protection of hydrologically sensitive areas, and control of runoff from non-point pollution sources; or
  - (4) Educational programs providing information to residents of the town, village, or county whose local government is involved in the watershed protection plan process concerning:
    - (i) The challenges of protecting water quality and the Federal, State and local requirements for watershed protection;
    - (ii) The water supply system as a natural resource and source of drinking water; and
    - (iii) Actions that can be taken by residents and the local government to enhance water quality protection.
- (e) An annual report shall be submitted by the local government to the Department on each anniversary of the date of the signing of the approved Stormwater Plan. The annual report shall include, but need not be limited to the following information:
  - (1) A statement by the local government of its compliance with the terms and conditions of the approved Stormwater Plan; and
  - (2) A statement of future commitment of adequate financial, personnel and other resources to continue compliance with the terms and conditions of the approved Stormwater Plan.
- (f) Once the Stormwater Plan is approved by the Department, the Stormwater Plan shall be considered valid and effective.
  - (1) The local governments proposing the Stormwater Plan may, upon written notice to the City, modify the plan at any time after it has been agreed upon. If the Stormwater Plan is proposed to be modified, the Department shall make a determination within 60 days of notice of the proposed modification, whether the Stormwater Plan as modified shall continue to be valid and effective. In making such a determination, the Department shall consider whether the Stormwater Plan as modified, taken as a whole, continues to be at least as protective of the watershed as the specific provisions of 15 RCNY § 18-39 from which the waiver applies. The Stormwater Plan shall continue to be valid and effective during the period the Department's review of any proposed modification. If the Department determines that the proposed modification would cause the Stormwater Plan to be not as protective as the provisions of 15 RCNY § 18-39 which are being waived, the Department shall so notify the local government(s). The existing and approved Stormwater Plan will then remain valid and effective until and unless the local government(s) implemented the proposed changes to the Stormwater Plan.
  - (2) If at any time the Department determines that the local government's administration of all or part of the Stormwater Plan is not as protective as the provisions of 15 RCNY § 18-39 which are being waived, the Department may revoke or modify the Stormwater Plan after notice has been given to the local government and an opportunity to meet and discuss the problem has been provided.
  - (3) Upon a final determination to revoke the Stormwater Plan the waivers issued thereunder shall be void and the watershed rules and regulations contained herein shall be applicable in the area of the watershed that was previously exempt pursuant to the waivers issued under the Stormwater Plan.
  - (4) Any Stormwater Plan agreed to shall be reviewed by the parties agreeing to such plan fifteen (15) years after such plan becomes effective in order to determine whether such plan has met and will continue to meet its goals.

### **§ 18-82 Watershed Planning in the Croton System.**

- (a) Notwithstanding the prohibitions set forth in 15 RCNY § 18-36 on new or expanded wastewater treatment plants with surface discharges within the sixty day travel time to intake or within phosphorus restricted basins, the Department shall allow for the preparation and implementation of a Comprehensive Croton System Water Quality Protection Plan ("Croton Plan") and an accompanying phosphorus offset program and diversion credit program in accordance with this 15 RCNY § 18-82. 15 RCNY § 18-82 is independent of, does not govern, and is not governed by, 15 RCNY § 18-81.
- (b) (1) At the request of Dutchess, Putnam or Westchester County, and in partnership with Dutchess, Putnam or Westchester County, and the municipalities located in the Croton system watershed, the Department shall prepare or assist in the preparation of a Croton Plan only in a participating County or Counties which:
  - (i) Identifies significant sources of pollution to the Croton system;
  - (ii) Recommends measures to be taken by the Department, the Counties, and the municipalities which, in conjunction with other federal, State, local and Department water quality protection programs, will prevent degradation to, and improve, water quality, with the long term goal of attaining water quality standards in the Croton system; and
  - (iii) Recommends measures to be taken to protect the character and special needs of communities located within the watershed.
- (2) A County wishing to do so may, when joined by a majority of municipalities located within the County's watershed, choose to prepare the Croton Plan for the portion of the watershed located within the County. Such Croton Plan shall be prepared in partnership with the Department.
- (3) The Croton Plan shall be developed in the manner set forth in subdivisions (c), (d) and (e) below and may allow for new wastewater treatment plants with a surface discharge or for the expansion of existing wastewater treatment plants with a surface discharge, provided the additional flow is either offset by a diversion of wastewater off of the watershed pursuant to subparagraph (e)(4)(i), or the additional phosphorus load is offset pursuant to subparagraph (e)(4)(ii).

(4) Any data that would benefit the Croton Planning process that is in the possession of the Department or one of the Counties or municipalities participating in the development of a Croton Plan shall be shared among the participants and appropriately considered in developing a Croton Plan.

(c) The Croton Plan shall consist of the following three elements:

(1) Identification of water quality problems and community character needs. Such identification shall include the following elements:

(i) An identification of growth or development projected to occur under existing municipal zoning and master plans and allowed under existing land use controls, other than these rules and regulations, and including development necessary to maintain community character, public facilities and institutions and to serve local, regional or special needs;

(ii) An identification of specific existing water quality problem areas and specific sources of pollution to the Croton system, including areas of existing or imminent subsurface sewage treatment system failures, areas of concentrated point source discharges and substantial non-point source pollution, and areas in need of streambank stabilization.

(iii) An assessment of future water quality impacts related to growth or development identified in paragraph (i) above.

(iv) An identification of areas identified in paragraph (i) above where site constraints may prevent the siting of new subsurface sewage treatment systems in accordance with the requirements set forth in these rules and regulations.

(v) An identification of areas identified in paragraph (i) above where these rules and regulations prohibit new surface discharges from wastewater treatment plants and site constraints prevent the siting of a new wastewater treatment plant with a subsurface discharge.

(2) Identification of investments to correct existing water quality problems in accordance with developed priorities. Such identification shall include the following elements:

(i) The identified investments may include investments (i.e., capital projects and best management practices) implemented during the development of the Croton Plan, investments that the participating Counties and municipalities commit to implement, and an identification of priorities for future investments, without any commitment on the part of the Counties and municipalities to implement such investments.

(ii) Proposed measures to address water quality problems identified in paragraph (c)(1)(ii) above. Such measures may include subsurface sewage treatment system maintenance, rehabilitation and replacement programs, installation of community septic systems, the construction of sewer extensions or new sewer systems, stormwater controls, and the permanent diversion of wastewater to a discharge point outside of the watershed.

(3) Strategies for prevention of future water quality problems and the consideration of future community character needs in conjunction with the water quality goals of the Croton Plan. Such strategies shall include the following:

(i) An assessment of the economic, water quality, community character, and special needs impacts of directing growth away from areas identified in paragraphs (c)(1)(iv) and (v) above;

(ii) An identification of the economic, water quality and community character impacts of allowing growth within those areas identified in paragraphs (c)(1)(i), (iv) and (v) above, if directing growth in accordance with paragraph (c)(3)(i) above is not feasible or practical;

(iii) An identification of potential areas for the construction of new or expanded wastewater treatment plants, as provided for in (e) below, either under a future permanent phosphorus offset program or utilizing the 10 percent credit provision for an implemented diversion project and a statement of the reasoning for the selection of such potential areas;

(iv) An identification of land use and local laws and regulations that the participating Counties and municipalities have already implemented and/or agree to implement in the future which are intended, in combination with other measures in the Croton Plan, to mitigate the water quality impacts identified in subsection (c)(1)(iii) above;

(v) With respect to future land use issues, identification of mechanisms to ensure the improvement and protection of water quality is taken into consideration by the local government and that the local government agrees to use best efforts to implement such mechanisms; and

(vi) At the option of the local government, designation of "village centers" as provided for in 15 RCNY § 18-39(a)(7)(i).

(d) (1) If a County requests, pursuant to 15 RCNY § 18-82(b), that a Croton Plan be developed within five (5) years of the effective date of these rules and regulations, the Department, in partnership with the participating Counties and municipalities, and in consultation with the New York State Department of Health, shall complete a draft Croton Plan and release such draft Croton Plan for public review and comment. If a Croton Plan has been prepared by a County and its municipalities, the County and municipalities, in partnership with the Department and in consultation with the New York State Department of Health, shall complete a draft Croton Plan within five (5) years of the effective date of these rules and regulations and release such draft Croton Plan for public review and comment. The Department, the participating Counties and municipalities shall consider and respond to comments received from the public in preparing the final Croton Plan.

(2) Within six (6) months after the release of the draft Croton Plan, the final Croton Plan shall be agreed to by the Department and the Counties and municipalities which participated in the preparation of the Croton Plan, and in consultation with the New York State Department of Health. In determining whether to agree to the Croton Plan, the Department will consider the Croton Plan, including the level of commitments therein, taken as a whole and consistent with subsection (d) of this section, meets the overall goals of the Croton Plan, set forth in subsection (b) of this section. The Department will not approve or disapprove individual components of the Croton Plan. The Department and the participating Counties and municipalities shall make a reasonable effort to resolve any and all issues which preclude their agreement to the Croton Plan. The five (5) year period referred to in paragraph (1) above, and/or the six (6) month period referred to in this paragraph (2) may be extended by agreement of the Department and the participating Counties and municipalities. In addition, the participating Counties and municipalities may, at any time, agree to discontinue the development of the Croton Plan.

(3) A failure of any participating County or municipality to agree to the Croton Plan shall not affect the ability of another participating County or municipality to agree to the Croton Plan and to site new wastewater treatment plants or to expand existing wastewater treatment plants with a surface discharge in accordance with subdivision (e).

(4) Once the Croton Plan is agreed to by the Department and the participating Counties and municipalities, the Croton Plan shall be considered valid and effective. The participating Counties and municipalities agreeing to the Croton Plan may, upon 60 days written notice to the City, modify the Plan at any time after it has been agreed upon. If the Croton Plan is proposed to be modified, the Department shall make a determination within sixty (60) days of notice of the proposed modification, whether the Croton Plan, as modified, shall continue to be valid and effective. In making such a determination, the Department shall consider whether the Croton Plan, as modified and taken as a whole, is consistent with subsection (d) of this section and meets the overall goals of the Croton Plan set forth in subsection (b) of this section. Any approved Croton Plan remains in effect pending any determination on a proposed modification and shall remain in effect until and unless either the Department agrees to a modification or a local government modifies it without the Department's approval or ceases to implement it.

(5) Any Croton Plan agreed to shall be reviewed by the participants to the plan fifteen (15) years after the Croton Plan becomes effective in order to determine whether the Croton Plan has met and will continue to meet its goals, and to determine whether new goals are appropriate.

(6) The Counties and the municipalities agreeing to the Croton Plan shall submit to the Department an annual report each year the Croton Plan is in effect. The annual report shall be submitted on the anniversary of the date the Croton Plan became effective and shall include:

(i) A statement of the status of the development or implementation of measures proposed in the Croton Plan;

(ii) A statement of expenditures incurred by the Counties and municipalities in implementing, and administering measures proposed in the Croton Plan; and

(iii) An identification of the financial, personnel and other resources needed to continue implementation and administration of the measures proposed in the Croton Plan.

(e) The Croton Plan may allow for the siting of a new wastewater treatment plant with a surface discharge or the expansion of an existing wastewater treatment plant with a surface discharge in the Croton system within a phosphorus restricted basin or a basin located within the 60 day travel time, but not within a coliform restricted basin, pursuant to the following conditions:

(1) Site constraints prevent the proposed new wastewater treatment plant or the expanded existing wastewater treatment plant from discharging subsurface;

(2) The municipal government and the County in which the wastewater treatment plant would be sited, confirms in writing that the proposed new wastewater treatment plant or the expansion of an existing wastewater treatment plant is consistent with the Croton Plan;

(3) The Department, in consultation with the New York State Department of Health, determines that the proposed new wastewater treatment plant or expansion of an existing wastewater treatment plant is consistent with the water quality objectives of the Croton Plan; and

(4) The discharge from the new wastewater treatment plant or the expansion of an existing wastewater treatment plant complies with one of the following conditions:

(i) The total volume (or flow) of surface discharge from such new wastewater treatment plant or expansion of an existing wastewater treatment plant, together with the total volume of surface discharges from all other new wastewater treatment plants and expansions of wastewater treatment plants which have been permitted in the subject County pursuant to this subparagraph (i), shall not, in the aggregate, exceed 10 percent of the total volume (or flow) of surface discharge from wastewater treatment plants located in the Croton system, within the subject County, which previously discharged into the Croton system but have been permanently diverted, since the effective date of these rules and regulations, to a discharge point outside of the Watershed. The Department may approve applications to construct new wastewater treatment plants with surface discharges pursuant to this subdivision prior to the permanent diversion of wastewater, and allow construction to begin on such new wastewater treatment plants, provided that the wastewater treatment plant may not commence operation until the diversion for which the credit is received has actually occurred.

(5) With respect to any new or expanded wastewater treatment plant allowed pursuant to this subdivision (e), the Department will not impose additional requirements on the siting of such new or expanded wastewater treatment plant other than the requirements specifically set forth in these rules and regulations applicable to all wastewater treatment plants, the requirements of this subdivision (e), and, with respect to new or expanded wastewater treatment plants in phosphorus restricted basins relying on phosphorus offsets, the requirements of any phosphorus offset program pursuant to 15 RCNY §§ 18-82(g), 18-83(a) and 18-84.

(f) (1) A County or municipality wishing to participate in the preparation of the Croton Plan shall indicate its intention to participate by written notice to the Department given within one year of the effective date of these rules and regulations. Such notice shall include a commitment by the subject County or municipality to cooperate with the Department in generating and analyzing the data and information reasonably necessary to address the Croton Plan elements identified in subdivision (c) above, and an agreement to minimize the use of offsets as a basis for new wastewater treatment plants or expansions of existing wastewater treatment plants pursuant to subdivision (e), to the extent that the economic and social needs of such County or municipality can be reasonably addressed without the use of such offsets.

(2) Within thirty (30) days after receipt of a notice as described in subdivision (f)(1) above, the Department shall notify a County or municipality of its inclusion in the preparation of a Croton Plan.

(3) If a County and its municipalities wish to prepare a Croton Plan, in accordance with subdivision (b)(2) above, the Department shall, within thirty (30) days of receipt of a notice as described in subdivision (f)(1) above, authorize the County and municipalities to begin preparation of such a Croton Plan. Such authorization shall include a commitment by the Department to cooperate with the County and municipalities in generating the data and information reasonably necessary to address the Croton Plan elements identified in subdivision (c) above.

(4) The provisions of subdivision (e) above shall not apply in any County or municipality which fails to participate in the preparation of the Croton Plan, fails to cooperate with the Department in the manner described in paragraph (f)(1) above in preparing the Croton Plan; fails or ceases to implement any water quality protection measures which such County or municipality has committed to implement as part of the final Croton Plan agreed upon by the County, municipality and the Department; or where a previously agreed upon Croton Plan is no longer valid and effective.

(g) Nothing in this Subpart is intended to constrain, limit or preclude an applicant from seeking, or the Department from issuing, approval of or a variance for a proposed regulated activity under any other applicable provision of these rules and regulations.

(h) Nothing in this section or in the Croton Plan is intended to constrain or limit the authority of local governments under State law to make local land use and zoning decisions, and nothing in this section or the Croton Plan should be construed to have the effect of transferring such local land use and zoning authority from the participating local governments to the Department or any other entity.

(Amended City Record 10/30/2019, eff. 11/29/2019)

#### **§ 18-83 Watershed Planning in the West of Hudson Watershed. [Repealed]**

(Repealed City Record 10/30/2019, eff. 11/29/2019)

#### **§ 18-84 Permanent Phosphorus Offset Program. [Repealed]**

(Repealed City Record 10/30/2019, eff. 11/29/2019)

### **Subchapter I: Severability**

#### **§ 18-91 Severability.**

The provisions of these rules and regulations shall be severable, and if any item, subclause, clause, sentence, subparagraph, paragraph, subdivision, section or subchapter of these rules and regulations, or the applicability thereof to any person or circumstance, shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder thereof, and the application thereof, but shall be confined in its operation to the item, subclause, clause, sentence, subparagraph, paragraph, subdivision, section or subchapter thereof, or to the person or circumstance directly involved in the controversy in which such judgment shall have been rendered.

### **Appendix 18-A:**

#### **Watershed Maps**

(a) The watershed area for the New York City water supply lies in the parts of the following counties and towns that are delineated on Map 18-A.1:

(1) Delaware County: In the towns of Andes, Bovina, Colchester, Delhi, Deposit, Franklin, Hamden, Harpersfield, Kortright, Masonville, Meredith, Middletown, Roxbury, Sidney, Stamford, Tompkins, Walton.

(2) Dutchess County: In the towns of Beekman, East Fishkill, Pawling.

(3) Fairfield County (Connecticut): In the towns of Danbury, Greenwich, New Fairfield, Ridgefield, Sherman.

(4) Greene County: In the towns of Ashland, Halcott, Hunter, Jewett, Lexington, Prattsville, Windham.

(5) Putnam County: In the towns of Carmel, Kent, Patterson, Putnam Valley, Southeast.

(6) Schoharie County: In the towns of Broome, Conesville, Gilboa, Jefferson.

(7) Sullivan County: In the towns of Fallsburg, Liberty, Neversink.

(8) Ulster County: In the towns of Denning, Hardenburgh, Hurley, Kingston, Marbletown, Olive, Rochester, Shandaken, Wawarsing, Woodstock.

(9) Westchester County: In the towns of Bedford, Cortlandt, Harrison, Lewisboro, Mount Kisco, Mount Pleasant, New Castle, North Castle, North Salem, Pound Ridge, Somers, Yorktown.

(b) The watershed areas for the New York City water supply that lie within the 60 day travel time to intake are delineated on Map 18-A.2.

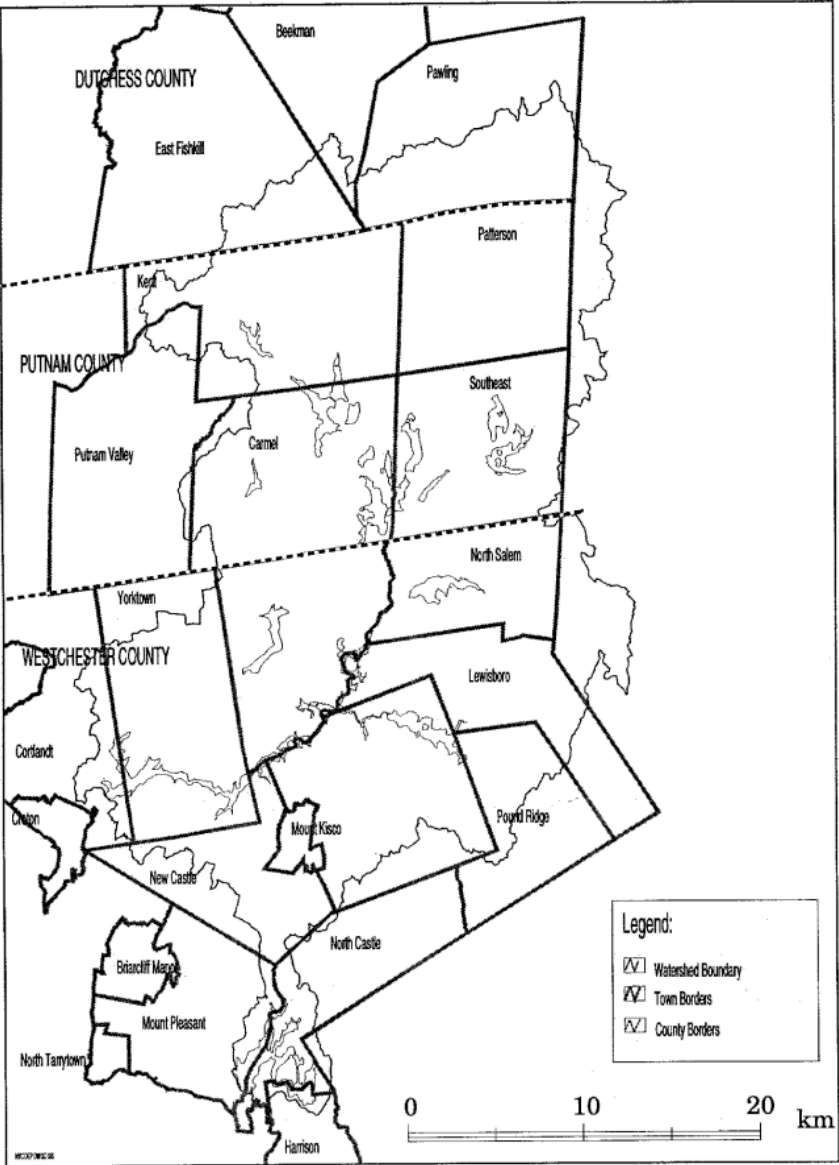
(1) In the East-of-Hudson System, the entire reservoir and controlled lake drainage basins of Boyds Corner, Croton, Kensico, Lake Gleneida, Muscoot, West Branch, and parts of the reservoir drainage basins of Amawalk, Cross River, Croton Falls, and Titicus are within the 60 day travel time to intake.

(2) In the West-of-Hudson System, the entire reservoir drainage basin of Rondout, and parts of the reservoir drainage basins of Ashokan, Cannonsville, Neversink and Pepacton are within the 60 day travel time to intake.

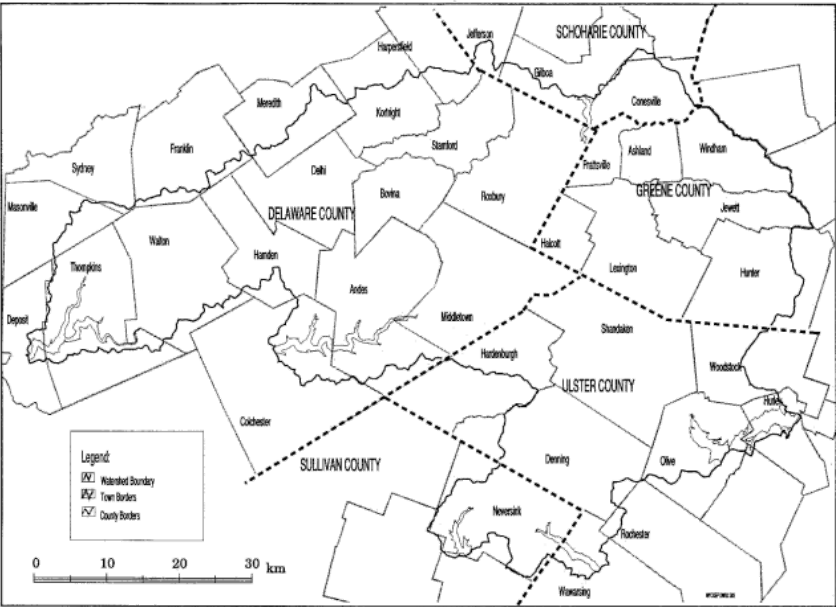
(c) The reservoir drainage basins for each reservoir are delineated on Map 18-A.3.

(d) Detailed maps of each area within the 60 day travel time to intake are available at the regional offices listed in 15 RCNY § 18-15.

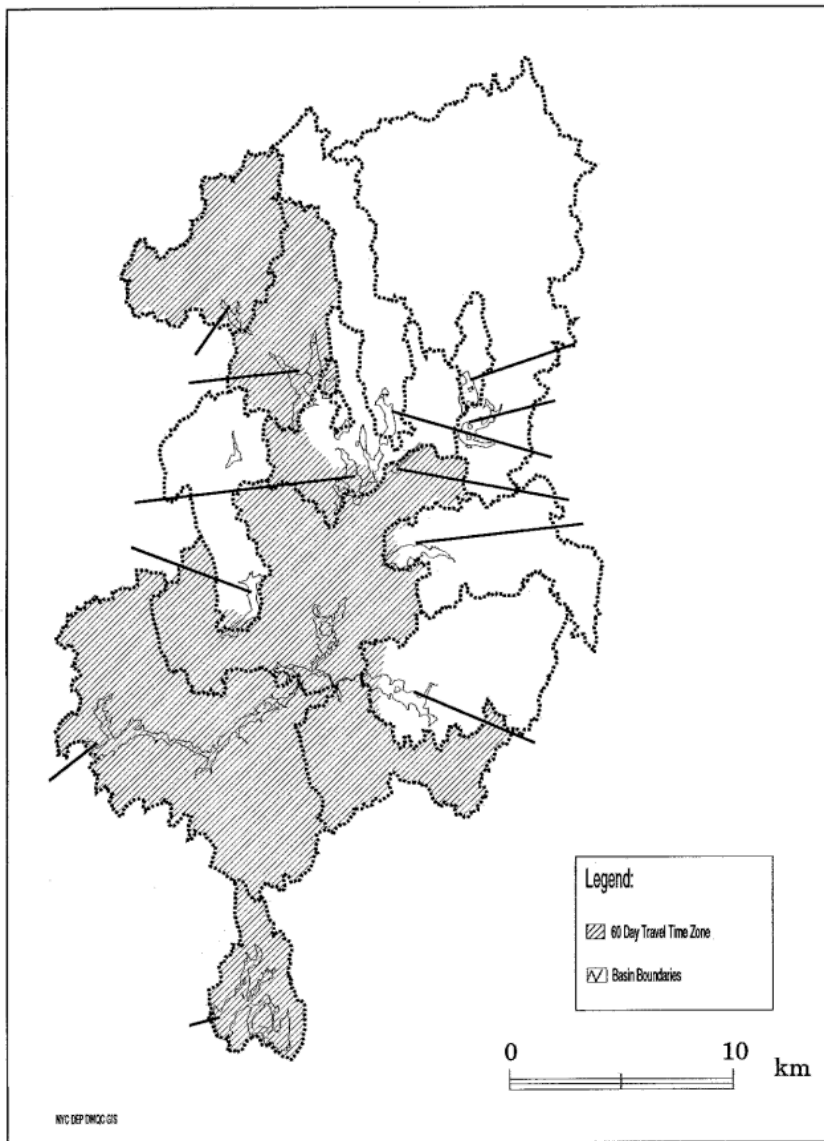
#### **Map 18-A.1(a) East of Hudson Watershed: Counties and Towns**



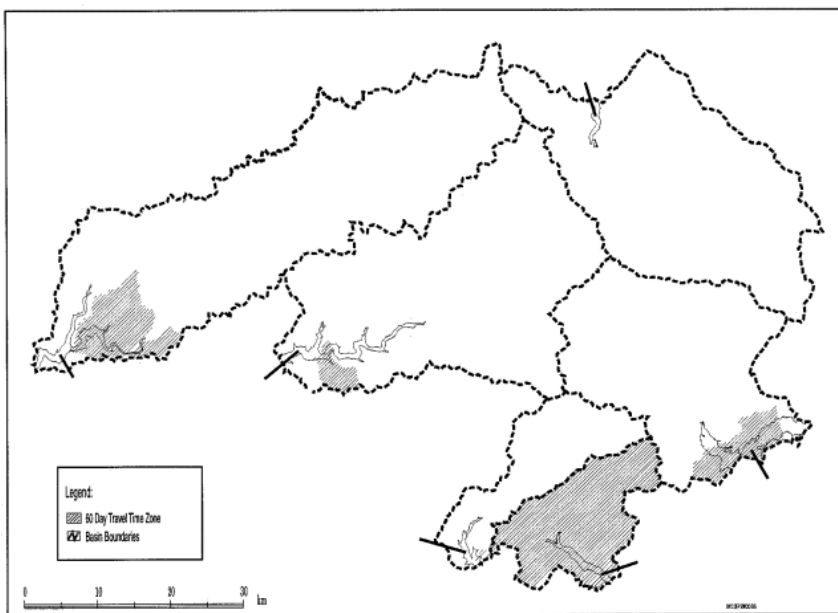
Map 18-A.1(b) West of Hudson Watershed: Counties and Towns



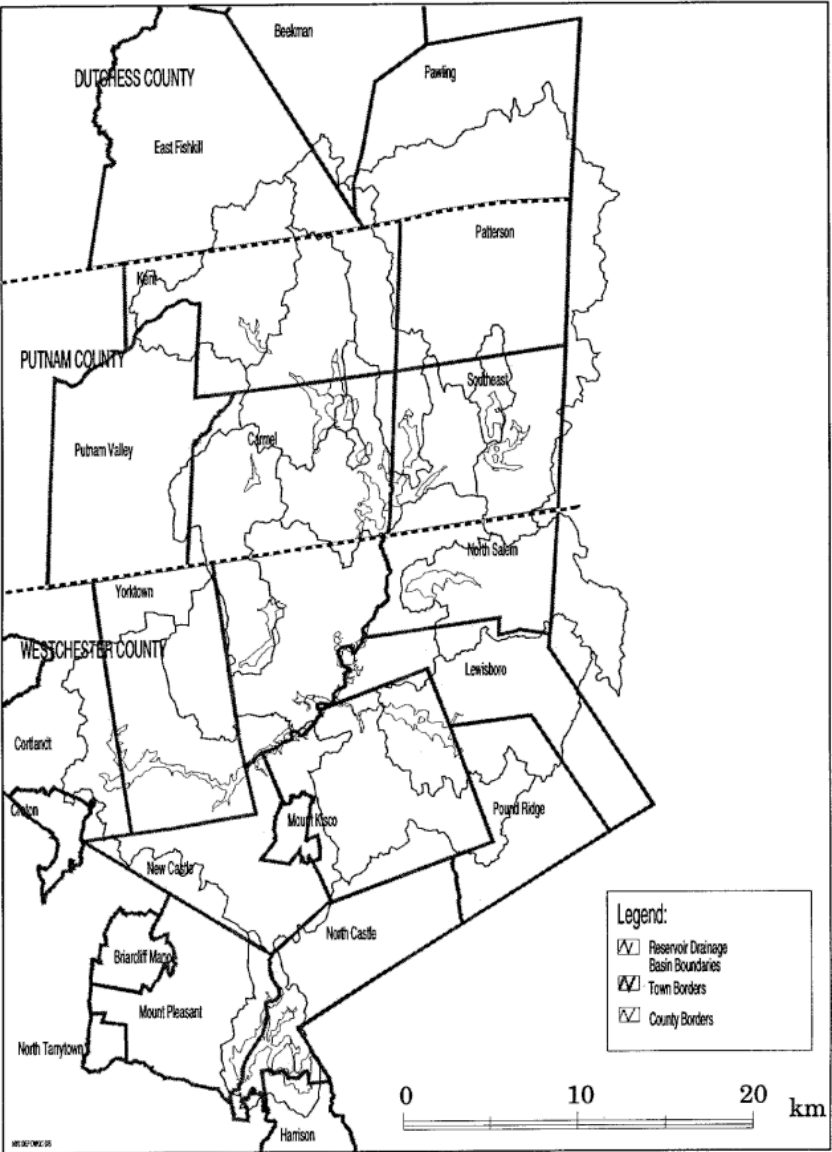
Map 18-A.2(a) East of Hudson Watershed: 60 Day Travel Time



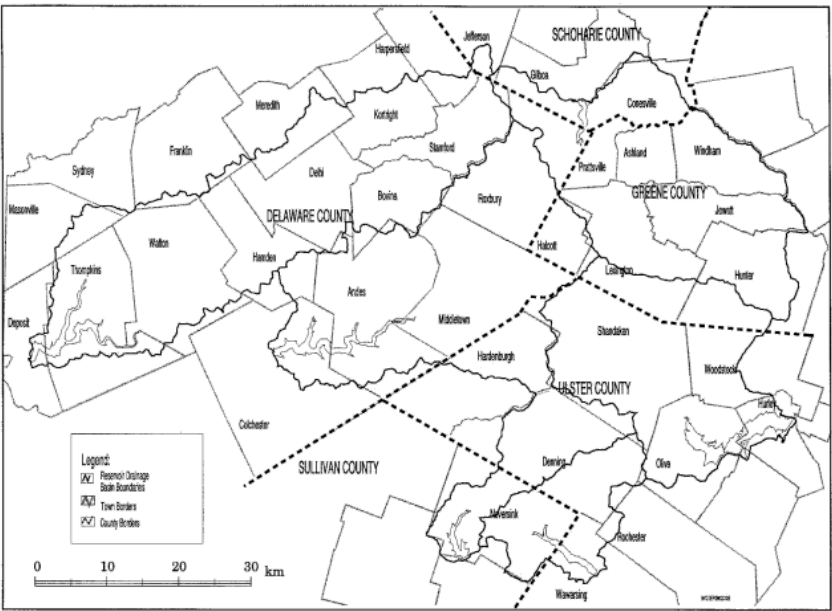
Map 18-A.2(b) West of Hudson Watershed: 60 Day Travel Time



Map 18-A.3(a) East of Hudson Watershed: Reservoir Drainage Basins



Map 18-A.3(b) West of Hudson Watershed: Reservoir Drainage Basins



(Amended City Record 10/30/2019, eff. 11/29/2019)

Appendix 18-B:

## System Specific Water Quality Characteristics and Applicable Monitoring Criteria

(a) The system specific water quality characteristics of the reservoirs and reservoir stems, as of September 1990, are set forth in Tables 1 and 2 of this Appendix. It is the intention of the Department that the System specific characteristics be maintained at the stated levels by implementation and enforcement of these rules and regulations.

**TABLE 1****System Specific Characteristics: Reservoir Standards (mg/L)**

	Croton System		Catskill/Delaware System (including Kensico)	
	Annual Mean	S/S/M*	Annual Mean	S/S/M*
Alkalinity	≥40.00		≥10.00	
(mg CaCO <sub>3</sub> /L)				
Ammonia Nitrogen	0.05	0.10	0.05	0.10
Chloride 30.00	40.00	8.00	12.00	
Nitrite +	0.30	0.50	0.30	0.50
Nitrate -N				
Organic Nitrogen	0.50	0.70	0.50	0.70
Sodium	15.00	20.00	3.00	16.00
Sulfate	15.00	25.00	10.00	15.00
Total Diss. Solids	150.00	175.00	40.00	50.00
Total Organic Carbon	6.00	7.00	3.00	4.00
Total Susp. Solids	5.00	8.00	5.00	8.00
Chlorophyll-a	0.01	0.015	0.007	0.012

\* S/S/M means Single Sample Maximum

**TABLE 2****System Specific Characteristics: Reservoir Stem Standards (mg/L)**

	Croton System		Catskill/Delaware System (including Kensico)	
	Annual Mean	S/S/M*	Annual Mean	S/S/M*
Alkalinity		≥40.00		≥10.00
(mg CaCO <sub>3</sub> /L)				
Ammonia Nitrogen	0.10	0.2	0.05	0.25
Chloride 30.00	35.00	100.00	10.00	50.00
Nitrite +	0.35	1.50	0.40	1.50
Nitrate -N				
Organic Nitrogen	0.50	1.50	0.50	1.50
Sodium	15.00	20.00	5.00	10.00
Sulfate	15.00	25.00	10.00	15.00
Total Diss. Solids	150.00	175.00	40.00	50.00
Total Organic Carbon	9.00	25.00	9.00	25.00
Total Susp. Solids	5.00	8.0	5.00	8.00

\* S/S/M means Single Sample Maximum

(b) The following monitoring methods are used by the Department in assessing the impacts of a regulated activity on a reservoir, reservoir stem or controlled lake. An applicant may conduct sampling in waters owned by the City as set forth herein with prior authorization by the Department.

(c) *Collection of Samples and Assessment of Impacts.*

(1) In conducting tests or making analytical determinations to ascertain conformity or nonconformity with the standards set forth in Subchapter D, samples should be collected from locations which are representative of the general quality of water in the watercourse, reservoir, reservoir stem or controlled lake.

(2) In assessing the impact of a proposed regulated activity on a watercourse, reservoir, reservoir stem, or controlled lake, or in determining compliance with the standards set forth in Subchapter D, the Department will examine the impacts of the proposed activity throughout the year and the impacts on the photic, metalimnion and hypolimnion zones of the reservoir, reservoir stem or controlled lake.

(3) Impacts on reservoirs will be determined on the basis of samples taken on a schedule which is sufficient to reflect temporal variability and to meet regulatory requirements.

(4) Sampling locations in reservoirs will include: dams, intakes, mid-pool stations, and main tributary arms into each reservoir. At every station, a sample of the photic zone shall be taken. At deeper stations, samples will be collected from the metalimnion and hypolimnion.

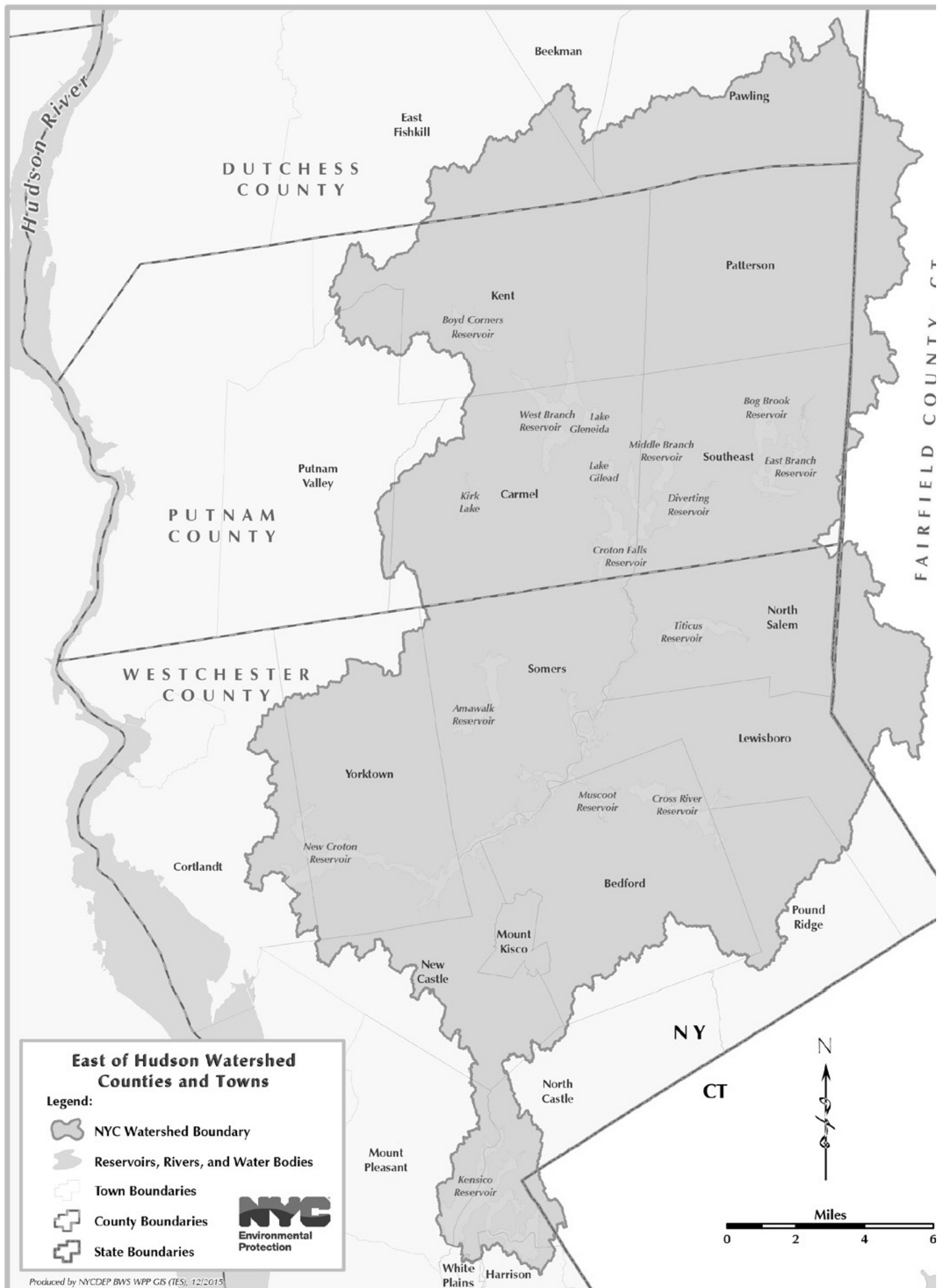
(5) Reservoir stem samples should be collected in the section of the reservoir stem that is free-flowing and unimpeded by the reservoir when the impoundment is at full pool elevation.

(d) *Tests and Analytical Determinations.* In determining compliance or noncompliance with the water quality standards in Subchapter D, the Department will only consider tests or analytical determinations made by laboratories certified by the New York State Department of Health.









(Amended City Record 10/30/2019, eff. 11/29/2019)

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**Appendix C**

Soil Testing Data

# SITE DESIGN CONSULTANTS - STORMWATER INFILTRATION TESTS

Job# #22-60 19 Mark Mead Road (Il Bacio)  
 Date 7-25-2023 Day 10:00 X AM PM  
 Owner 19 Mark Mead Road, LLC Location \_\_\_\_\_

General Observations \_\_\_\_\_

Who was Present: \_\_\_\_\_

Weather clear 75 degrees Weather Previous clear

Lot # 42.18 - 1 - 6 Approx. Temp. 75 degrees

HOLE #	1	CLOCK TIME			PERCOLATION			
Test Number	Run No.			Elapse Time Hour	Depth to Water From Ground Surface		Water Level in Inches	Soil Rate in/hr. drop
		Start	Stop		Start Inches	Stop Inches	Drop in Inches	
INF. #1 D=	1	10:40	10:47	.12	97"	121"	24"	200
	2	10:49	10:58	.15	97"	121"	24"	160
	3	11:02	11:15	.22	97"	121"	24"	109
	4	11:16	11:29	.22	97"	121"	24"	109
	5							
INF #2	1	10:51	11:51	1	83"	87"	4"	4" / hour
D =	2	11:57	12:57	1	83"	87.5"	4.5"	4.5" / hour
	3	12:58	1:58	1	83"	86.5"	3.5"	3.5" / hour
	4	2:00	3:00	1	83"	86"	3"	3" / hour
	5							

TEST PIT DATA REQUIRED TO BE SUBMITTED WITH APPLICATION

DESCRIPTION OF SOILS ENCOUNTERED IN TEST HOLES

DEPTH	HOLE NO. <u>DT#1</u>	HOLE NO. <u>DT#2</u>	HOLE NO. _____	HOLE NO. _____
G.L.	<u>TOPSOIL</u>	<u>TOPSOIL</u>	_____	_____
6"	<u>DK. BR.</u>	<u>DK. BR.</u>	_____	_____
12"	<u>M-F SANDS</u>	<u>M-F SANDS</u>	_____	_____
18"	<u>"</u>	<u>"</u>	_____	_____
24"	<u>"</u>	<u>"</u>	_____	_____
32"	<u>GR C-M SAND</u>	<u>"</u>	_____	_____
36"	<u>"</u>	<u>"</u>	_____	_____
42"	<u>"</u>	<u>"</u>	_____	_____
48"	<u>"</u>	<u>"</u>	_____	_____
55"	<u>"</u>	<u>GR C-M SAND</u>	_____	_____
60"	<u>"</u>	<u>AND GRAVEL</u>	_____	_____
66"	<u>"</u>	<u>"</u>	_____	_____
72"	<u>"</u>	<u>"</u>	_____	_____
78"	<u>"</u>	<u>"</u>	_____	_____
96"	<u>"</u>	<u>102" "</u>	_____	_____

INDICATE LEVEL AT WHICH GROUND WATER IS ENCOUNTERED \_\_\_\_\_

INDICATE LEVEL FOR WHICH WATER LEVEL RISES AFTER BEING ENCOUNTERED \_\_\_\_\_

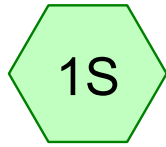
TESTS MADE BY Site Design Consultants

DATE \*7-25-23

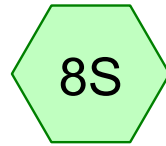
## **Appendix D**

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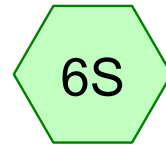
### Hydrologic Analysis



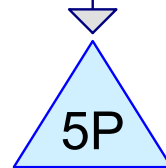
PRE DEV DA-1



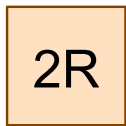
POST DEV DA-1



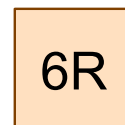
POST DEV DA-2



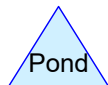
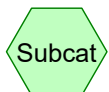
DETENTION



DEISGN POINT



DESIGN POINT





**Bacio Parking Plan 3-10-23**

Prepared by Site Design Consultants

Printed 8/27/2023

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**Project Notes**

Rainfall events imported from "21-18 Grishaj.hcp"

**Bacio Parking Plan 3-10-23**

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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-Year	Type III 24-hr		Default	24.00	1	2.80	2
2	2-Year	Type III 24-hr		Default	24.00	1	3.41	2
3	10-Year	Type III 24-hr		Default	24.00	1	5.25	2
4	25-Year	Type III 24-hr		Default	24.00	1	6.49	2
5	100-Year	Type III 24-hr		Default	24.00	1	9.00	2

**Bacio Parking Plan 3-10-23**

Prepared by Site Design Consultants

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**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
1.420	74	>75% Grass cover, Good, HSG C (1S, 6S, 8S)
0.080	98	DRIVE & SIDEWALK (8S)
0.195	98	PROP DRIVEWAY (6S)
0.148	98	Paved parking, HSG B (1S)
<b>1.843</b>	<b>80</b>	<b>TOTAL AREA</b>

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**Soil Listing (all nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.148	HSG B	1S
1.420	HSG C	1S, 6S, 8S
0.000	HSG D	
0.275	Other	6S, 8S
<b>1.843</b>		<b>TOTAL AREA</b>

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**Ground Covers (all nodes)**

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	1.420	0.000	0.000	1.420	>75% Grass cover, Good	1S, 6S, 8S
0.000	0.000	0.000	0.000	0.080	0.080	DRIVE & SIDEWALK	8S
0.000	0.000	0.000	0.000	0.195	0.195	PROP DRIVEWAY	6S
0.000	0.148	0.000	0.000	0.000	0.148	Paved parking	1S
<b>0.000</b>	<b>0.148</b>	<b>1.420</b>	<b>0.000</b>	<b>0.275</b>	<b>1.843</b>	<b>TOTAL AREA</b>	

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**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	5P	82.67	82.00	10.0	0.0670	0.010	0.0	6.0	0.0	

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Type III 24-hr 1-Year Rainfall=2.80"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

### Subcatchment1S: PRE DEV DA-1

Runoff Area=0.921 ac 16.07% Impervious Runoff Depth>0.90"  
Flow Length=451' Tc=12.6 min CN=78 Runoff=0.82 cfs 0.069 af

### Subcatchment6S: POST DEV DA-2

Runoff Area=0.237 ac 82.28% Impervious Runoff Depth>2.04"  
Flow Length=315' Tc=3.4 min CN=94 Runoff=0.62 cfs 0.040 af

### Subcatchment8S: POST DEV DA-1

Runoff Area=0.685 ac 11.68% Impervious Runoff Depth>0.85"  
Flow Length=451' Tc=12.6 min CN=77 Runoff=0.57 cfs 0.049 af

### Reach 2R: DEISGN POINT

Inflow=0.82 cfs 0.069 af  
Outflow=0.82 cfs 0.069 af

### Reach 6R: DESIGN POINT

Inflow=0.57 cfs 0.049 af  
Outflow=0.57 cfs 0.049 af

### Pond 5P: DETENTION

Peak Elev=81.48' Storage=0.014 af Inflow=0.62 cfs 0.040 af  
Discarded=0.07 cfs 0.040 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.040 af

**Total Runoff Area = 1.843 ac Runoff Volume = 0.158 af Average Runoff Depth = 1.03"**  
**77.05% Pervious = 1.420 ac 22.95% Impervious = 0.423 ac**



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### Summary for Subcatchment 1S: PRE DEV DA-1

Runoff = 0.82 cfs @ 12.19 hrs, Volume= 0.069 af, Depth> 0.90"  
Routed to Reach 2R : DEISGN POINT

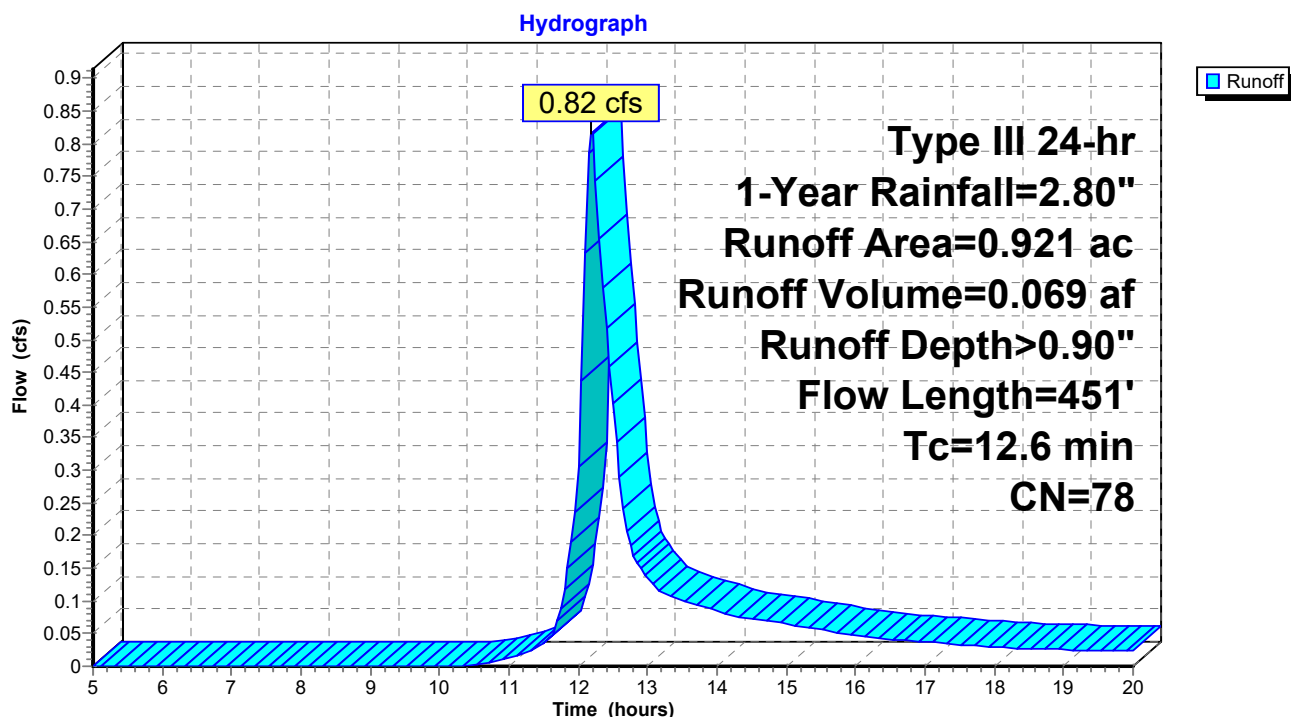
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1-Year Rainfall=2.80"

Area (ac)	CN	Description
0.148	98	Paved parking, HSG B
0.773	74	>75% Grass cover, Good, HSG C
0.921	78	Weighted Average
0.773		83.93% Pervious Area
0.148		16.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

### Subcatchment 1S: PRE DEV DA-1



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**Summary for Subcatchment 6S: POST DEV DA-2**

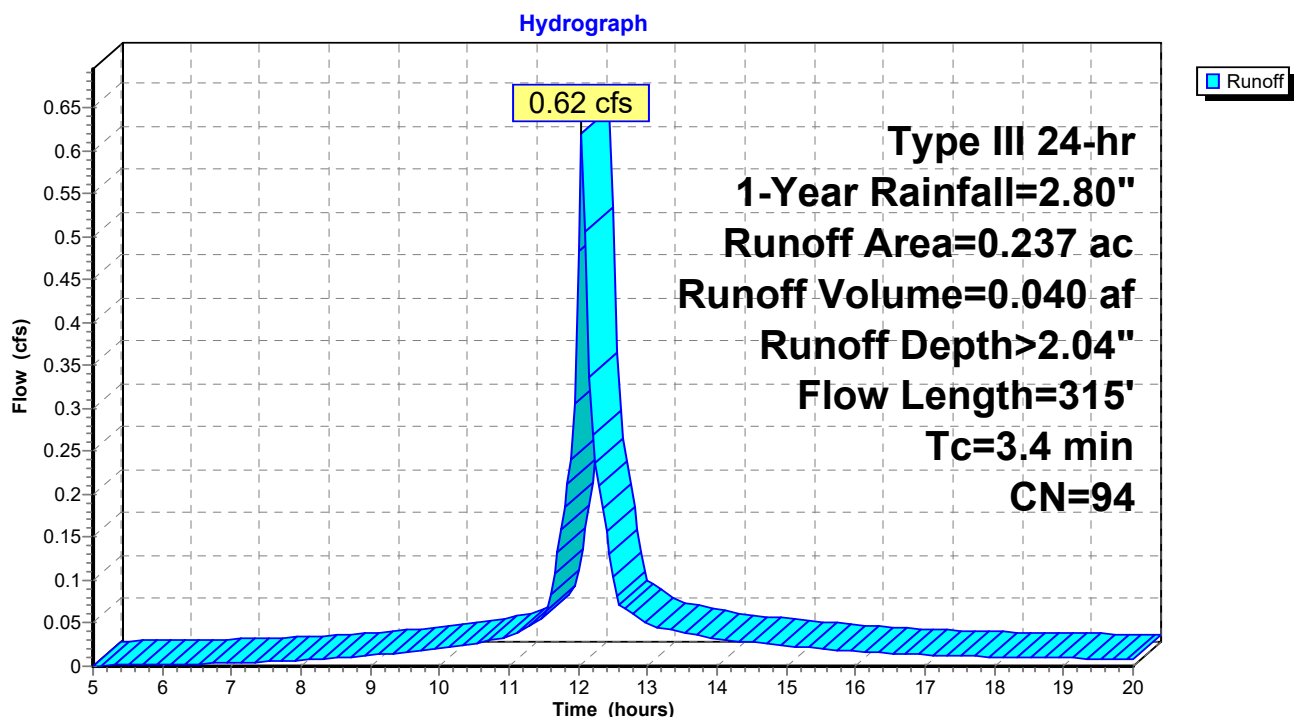
Runoff = 0.62 cfs @ 12.05 hrs, Volume= 0.040 af, Depth> 2.04"  
Routed to Pond 5P : DETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1-Year Rainfall=2.80"

Area (ac)	CN	Description
0.042	74	>75% Grass cover, Good, HSG C
* 0.195	98	PROP DRIVEWAY
0.237	94	Weighted Average
0.042		17.72% Pervious Area
0.195		82.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	32	0.1880	0.23		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.8	176	0.0490	3.56		<b>Shallow Concentrated Flow, DRIVEWAY</b> Unpaved Kv= 16.1 fps
0.3	107	0.0120	6.34	5.70	<b>Channel Flow,</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
3.4	315	Total			

**Subcatchment 6S: POST DEV DA-2**

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**Summary for Subcatchment 8S: POST DEV DA-1**

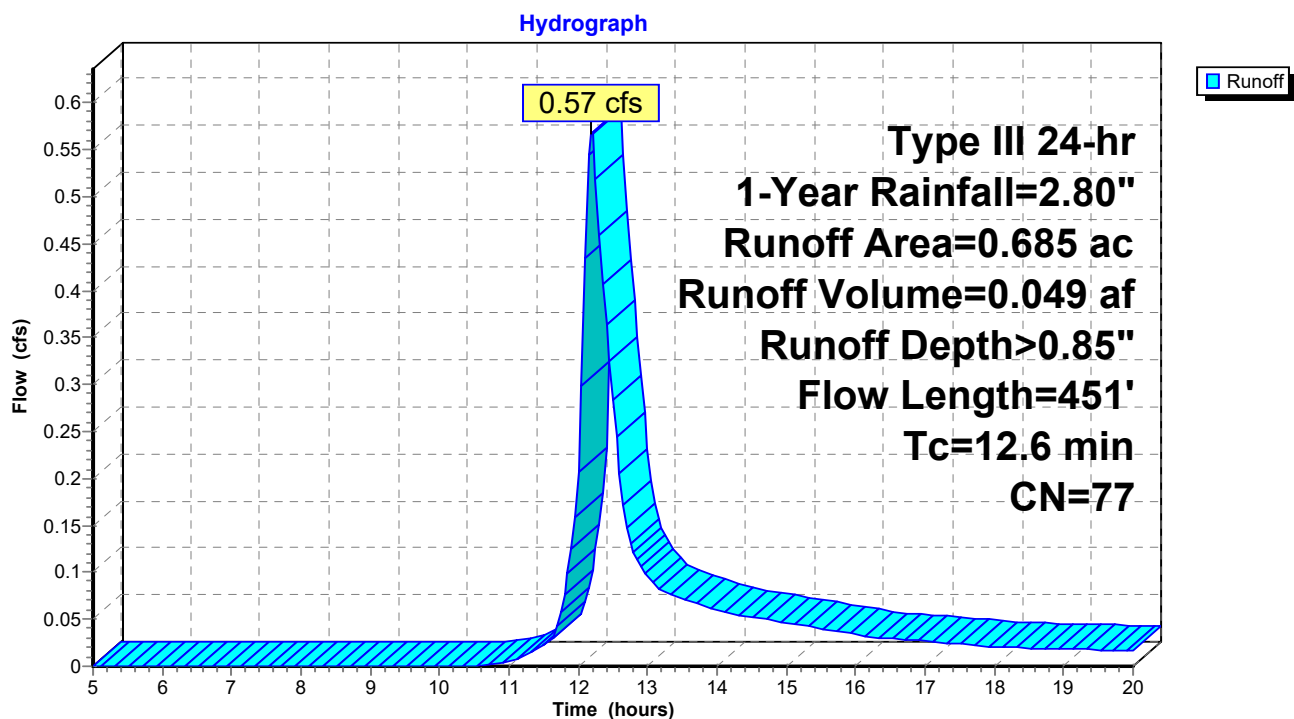
Runoff = 0.57 cfs @ 12.19 hrs, Volume= 0.049 af, Depth> 0.85"  
Routed to Reach 6R : DESIGN POINT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1-Year Rainfall=2.80"

Area (ac)	CN	Description
* 0.080	98	DRIVE & SIDEWALK
0.605	74	>75% Grass cover, Good, HSG C
0.685	77	Weighted Average
0.605		88.32% Pervious Area
0.080		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

**Subcatchment 8S: POST DEV DA-1**

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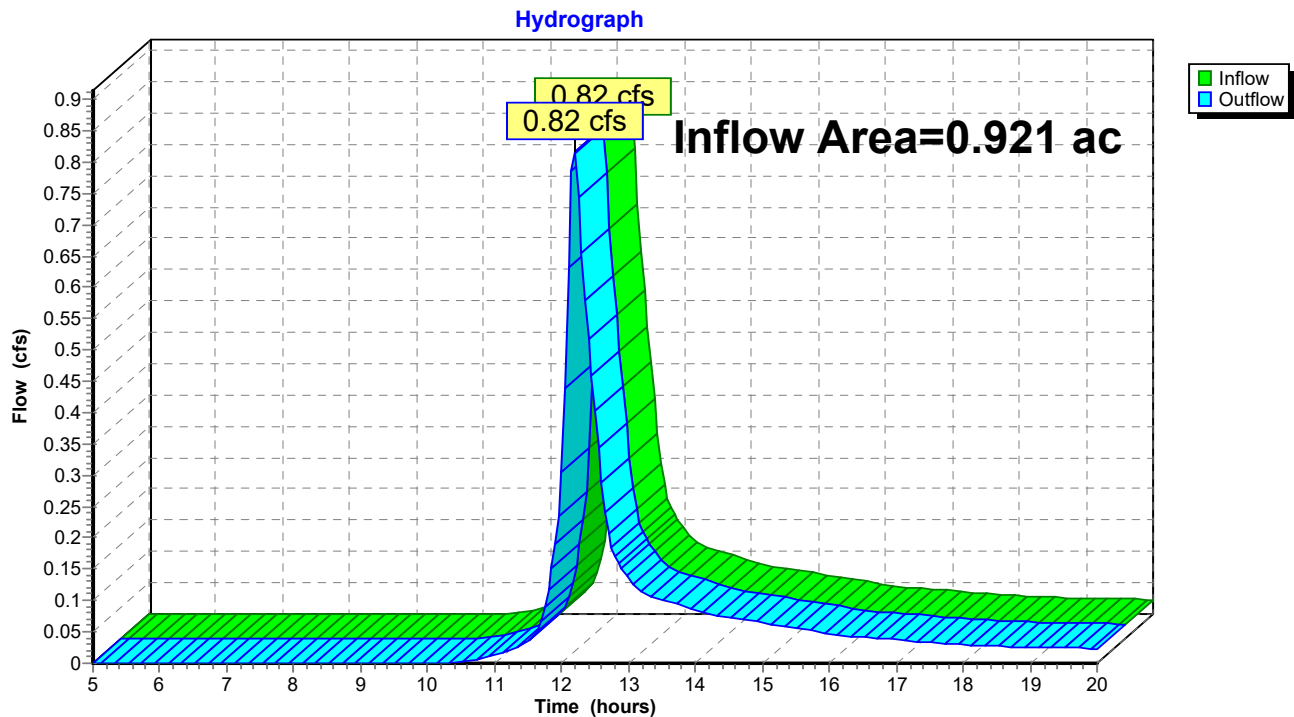
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### Summary for Reach 2R: DEISGN POINT

Inflow Area = 0.921 ac, 16.07% Impervious, Inflow Depth > 0.90" for 1-Year event  
Inflow = 0.82 cfs @ 12.19 hrs, Volume= 0.069 af  
Outflow = 0.82 cfs @ 12.19 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min

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

### Reach 2R: DEISGN POINT



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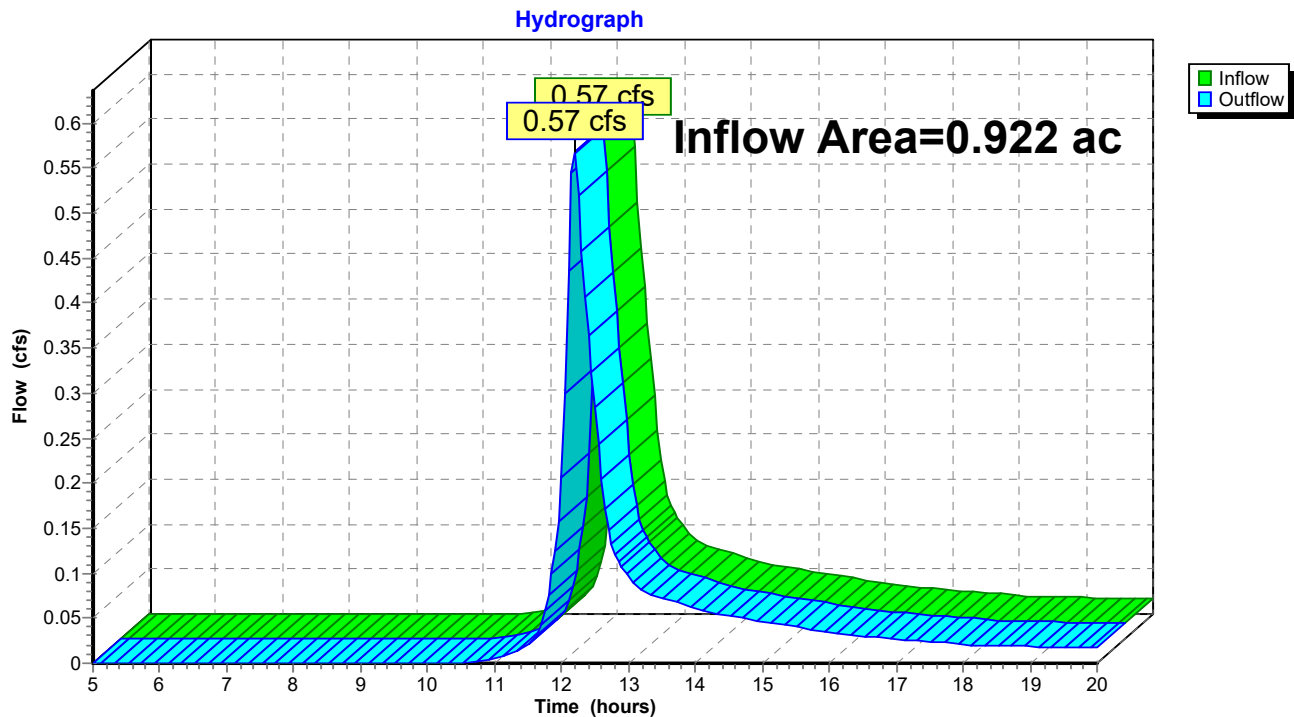
Page 13

### Summary for Reach 6R: DESIGN POINT

Inflow Area = 0.922 ac, 29.83% Impervious, Inflow Depth > 0.63" for 1-Year event  
Inflow = 0.57 cfs @ 12.19 hrs, Volume= 0.049 af  
Outflow = 0.57 cfs @ 12.19 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

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

### Reach 6R: DESIGN POINT



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### Summary for Pond 5P: DETENTION

Inflow Area = 0.237 ac, 82.28% Impervious, Inflow Depth > 2.04" for 1-Year event  
Inflow = 0.62 cfs @ 12.05 hrs, Volume= 0.040 af  
Outflow = 0.07 cfs @ 11.65 hrs, Volume= 0.040 af, Atten= 88%, Lag= 0.0 min  
Discarded = 0.07 cfs @ 11.65 hrs, Volume= 0.040 af  
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
Routed to Reach 6R : DESIGN POINT

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 81.48' @ 12.60 hrs Surf.Area= 0.024 ac Storage= 0.014 af

Plug-Flow detention time= 59.7 min calculated for 0.040 af (100% of inflow)  
Center-of-Mass det. time= 59.1 min ( 818.5 - 759.4 )

Volume	Invert	Avail.Storage	Storage Description
#1A	80.50'	0.023 af	<b>26.25'W x 40.22'L x 3.50'H Field A</b> 0.085 af Overall - 0.026 af Embedded = 0.058 af x 40.0% Voids
#2A	81.00'	0.026 af	<b>ADS_StormTech SC-740 +Cap x 25 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 25 Chambers in 5 Rows
		0.050 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.50'	<b>3.000 in/hr Exfiltration over Horizontal area</b>
#2	Primary	82.67'	<b>6.0" Round Culvert</b> L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 82.67' / 82.00' S= 0.0670 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf

**Discarded OutFlow** Max=0.07 cfs @ 11.65 hrs HW=80.54' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=80.50' (Free Discharge)  
↑**2=Culvert** ( Controls 0.00 cfs)

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### Pond 5P: DETENTION - Chamber Wizard Field A

**Chamber Model = ADS\_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

5 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 37.22' Row Length +18.0" End Stone x 2 = 40.22' Base Length

5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 18.0" Side Stone x 2 = 26.25' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

25 Chambers x 45.9 cf = 1,148.5 cf Chamber Storage

3,694.9 cf Field - 1,148.5 cf Chambers = 2,546.4 cf Stone x 40.0% Voids = 1,018.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,167.1 cf = 0.050 af

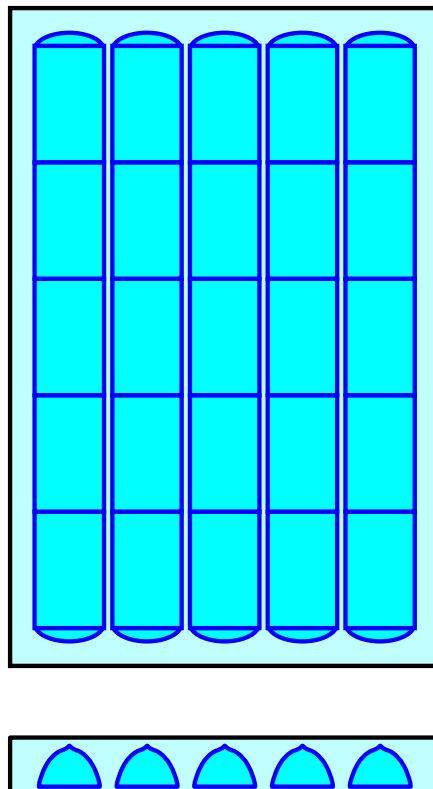
Overall Storage Efficiency = 58.7%

Overall System Size = 40.22' x 26.25' x 3.50'

25 Chambers

136.8 cy Field

94.3 cy Stone



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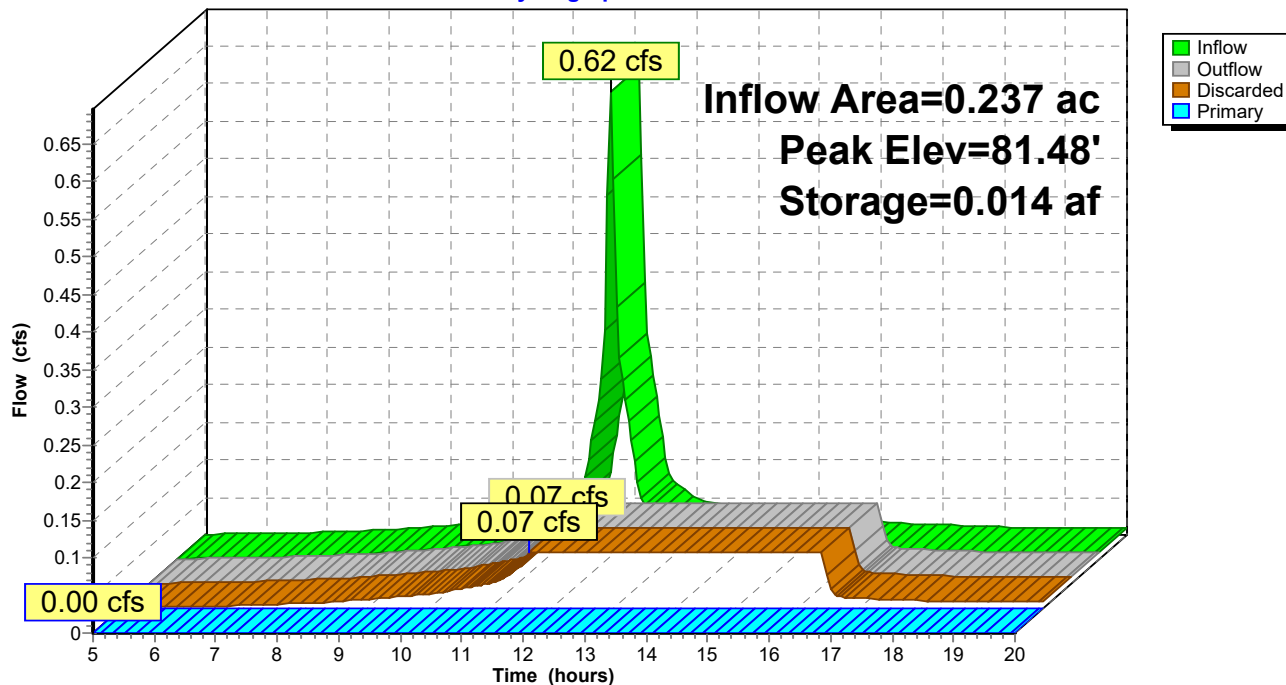
Type III 24-hr 1-Year Rainfall=2.80"

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## Pond 5P: DETENTION

Hydrograph





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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

### Subcatchment1S: PRE DEV DA-1

Runoff Area=0.921 ac 16.07% Impervious Runoff Depth>1.31"  
Flow Length=451' Tc=12.6 min CN=78 Runoff=1.21 cfs 0.101 af

### Subcatchment6S: POST DEV DA-2

Runoff Area=0.237 ac 82.28% Impervious Runoff Depth>2.60"  
Flow Length=315' Tc=3.4 min CN=94 Runoff=0.78 cfs 0.051 af

### Subcatchment8S: POST DEV DA-1

Runoff Area=0.685 ac 11.68% Impervious Runoff Depth>1.25"  
Flow Length=451' Tc=12.6 min CN=77 Runoff=0.85 cfs 0.071 af

### Reach 2R: DEISGN POINT

Inflow=1.21 cfs 0.101 af  
Outflow=1.21 cfs 0.101 af

### Reach 6R: DESIGN POINT

Inflow=0.85 cfs 0.071 af  
Outflow=0.85 cfs 0.071 af

### Pond 5P: DETENTION

Peak Elev=81.78' Storage=0.019 af Inflow=0.78 cfs 0.051 af  
Discarded=0.07 cfs 0.051 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.051 af

**Total Runoff Area = 1.843 ac Runoff Volume = 0.224 af Average Runoff Depth = 1.46"**  
**77.05% Pervious = 1.420 ac 22.95% Impervious = 0.423 ac**

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### Summary for Subcatchment 1S: PRE DEV DA-1

Runoff = 1.21 cfs @ 12.18 hrs, Volume= 0.101 af, Depth> 1.31"  
Routed to Reach 2R : DEISGN POINT

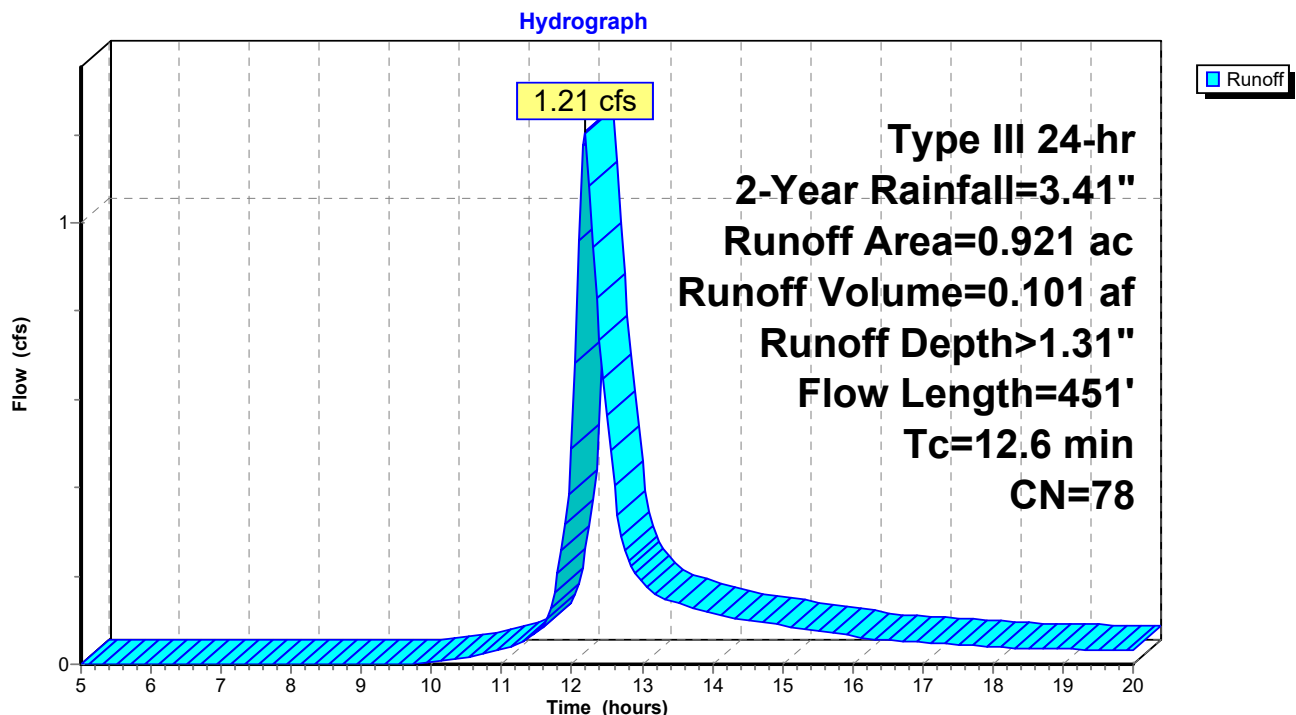
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.41"

Area (ac)	CN	Description
0.148	98	Paved parking, HSG B
0.773	74	>75% Grass cover, Good, HSG C
0.921	78	Weighted Average
0.773		83.93% Pervious Area
0.148		16.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

### Subcatchment 1S: PRE DEV DA-1



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**Summary for Subcatchment 6S: POST DEV DA-2**

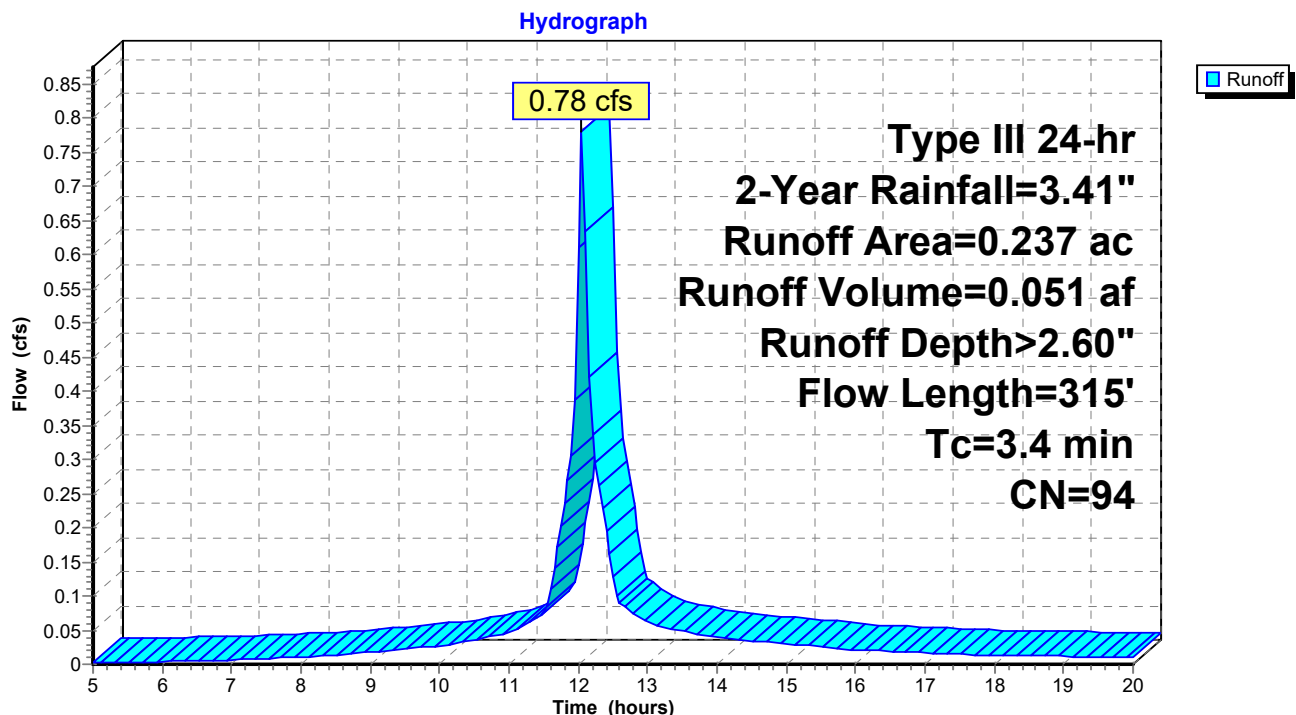
Runoff = 0.78 cfs @ 12.05 hrs, Volume= 0.051 af, Depth> 2.60"  
Routed to Pond 5P : DETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.41"

Area (ac)	CN	Description
0.042	74	>75% Grass cover, Good, HSG C
* 0.195	98	PROP DRIVEWAY
0.237	94	Weighted Average
0.042		17.72% Pervious Area
0.195		82.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	32	0.1880	0.23		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.8	176	0.0490	3.56		<b>Shallow Concentrated Flow, DRIVEWAY</b> Unpaved Kv= 16.1 fps
0.3	107	0.0120	6.34	5.70	<b>Channel Flow,</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
3.4	315	Total			

**Subcatchment 6S: POST DEV DA-2**

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### Summary for Subcatchment 8S: POST DEV DA-1

Runoff = 0.85 cfs @ 12.19 hrs, Volume= 0.071 af, Depth> 1.25"  
Routed to Reach 6R : DESIGN POINT

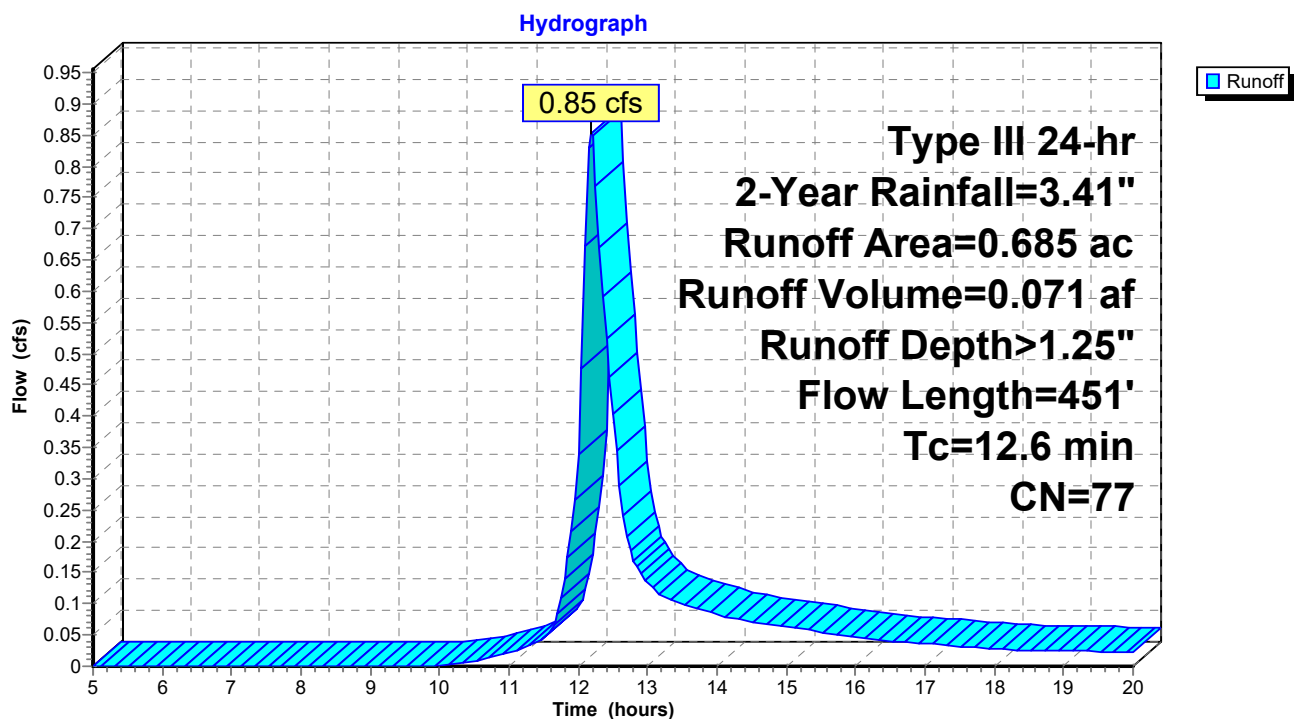
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-Year Rainfall=3.41"

Area (ac)	CN	Description
* 0.080	98	DRIVE & SIDEWALK
0.605	74	>75% Grass cover, Good, HSG C
0.685	77	Weighted Average
0.605		88.32% Pervious Area
0.080		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

### Subcatchment 8S: POST DEV DA-1



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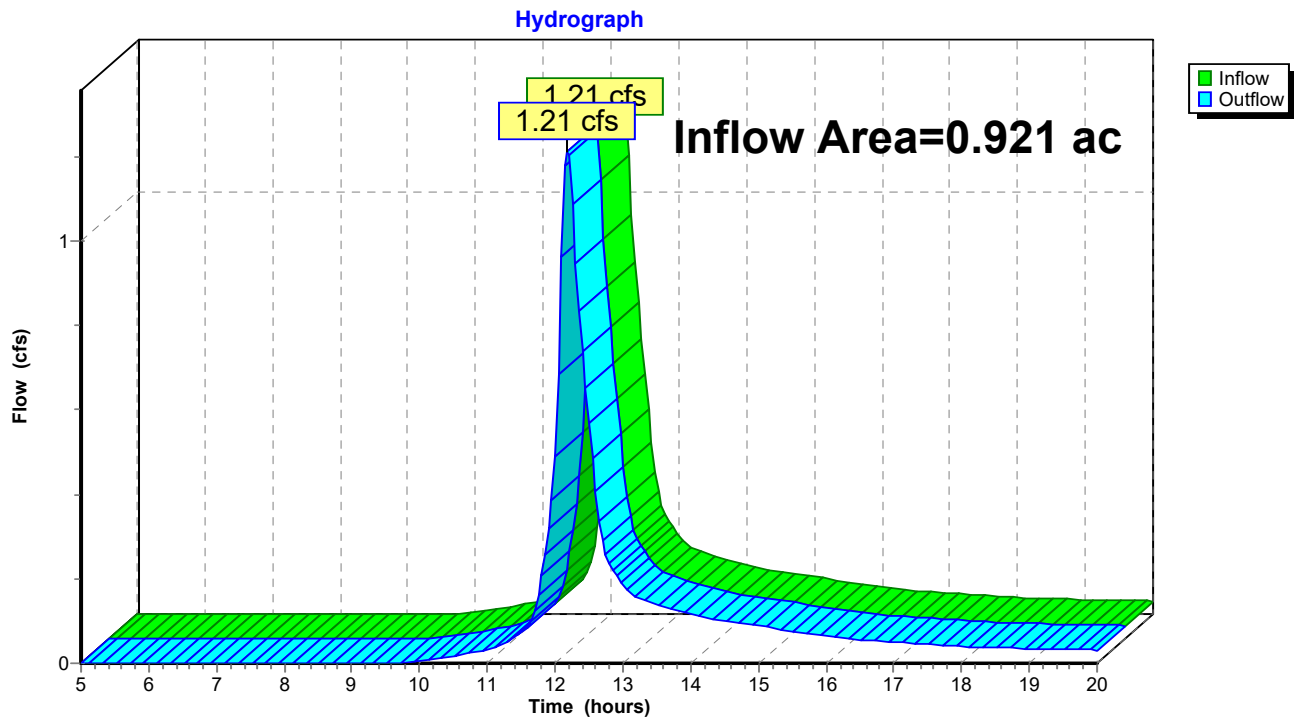
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### Summary for Reach 2R: DEISGN POINT

Inflow Area = 0.921 ac, 16.07% Impervious, Inflow Depth > 1.31" for 2-Year event  
Inflow = 1.21 cfs @ 12.18 hrs, Volume= 0.101 af  
Outflow = 1.21 cfs @ 12.18 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min

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

### Reach 2R: DEISGN POINT



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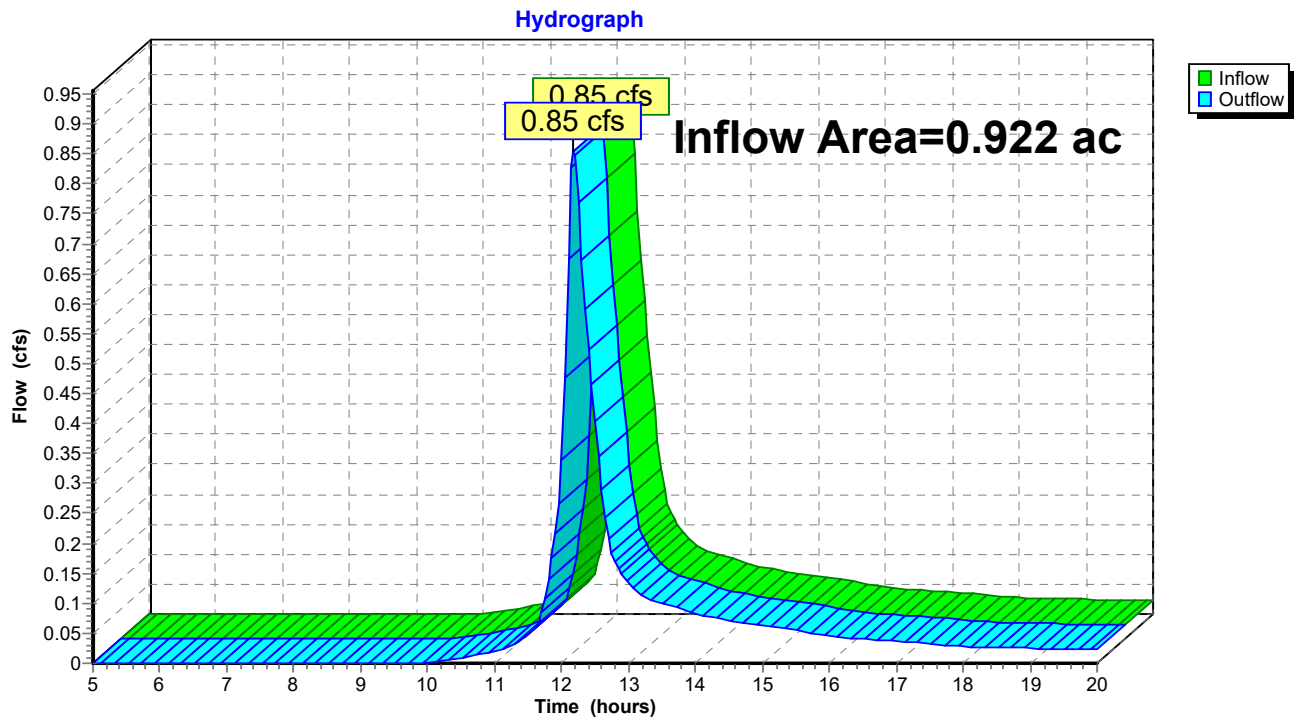
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### Summary for Reach 6R: DESIGN POINT

Inflow Area = 0.922 ac, 29.83% Impervious, Inflow Depth > 0.93" for 2-Year event  
Inflow = 0.85 cfs @ 12.19 hrs, Volume= 0.071 af  
Outflow = 0.85 cfs @ 12.19 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

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

### Reach 6R: DESIGN POINT



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Type III 24-hr 2-Year Rainfall=3.41"

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### Summary for Pond 5P: DETENTION

Inflow Area = 0.237 ac, 82.28% Impervious, Inflow Depth > 2.60" for 2-Year event  
Inflow = 0.78 cfs @ 12.05 hrs, Volume= 0.051 af  
Outflow = 0.07 cfs @ 11.55 hrs, Volume= 0.051 af, Atten= 91%, Lag= 0.0 min  
Discarded = 0.07 cfs @ 11.55 hrs, Volume= 0.051 af  
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af  
Routed to Reach 6R : DESIGN POINT

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 81.78' @ 12.82 hrs Surf.Area= 0.024 ac Storage= 0.019 af

Plug-Flow detention time= 88.1 min calculated for 0.051 af (100% of inflow)  
Center-of-Mass det. time= 87.6 min ( 841.9 - 754.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	80.50'	0.023 af	<b>26.25'W x 40.22'L x 3.50'H Field A</b> 0.085 af Overall - 0.026 af Embedded = 0.058 af x 40.0% Voids
#2A	81.00'	0.026 af	<b>ADS_StormTech SC-740 +Cap x 25 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 25 Chambers in 5 Rows
0.050 af			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.50'	<b>3.000 in/hr Exfiltration over Horizontal area</b>
#2	Primary	82.67'	<b>6.0" Round Culvert</b> L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 82.67' / 82.00' S= 0.0670 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf

**Discarded OutFlow** Max=0.07 cfs @ 11.55 hrs HW=80.54' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=80.50' (Free Discharge)  
↑**2=Culvert** ( Controls 0.00 cfs)

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### Pond 5P: DETENTION - Chamber Wizard Field A

**Chamber Model = ADS\_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

5 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 37.22' Row Length +18.0" End Stone x 2 = 40.22' Base Length

5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 18.0" Side Stone x 2 = 26.25' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

25 Chambers x 45.9 cf = 1,148.5 cf Chamber Storage

3,694.9 cf Field - 1,148.5 cf Chambers = 2,546.4 cf Stone x 40.0% Voids = 1,018.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,167.1 cf = 0.050 af

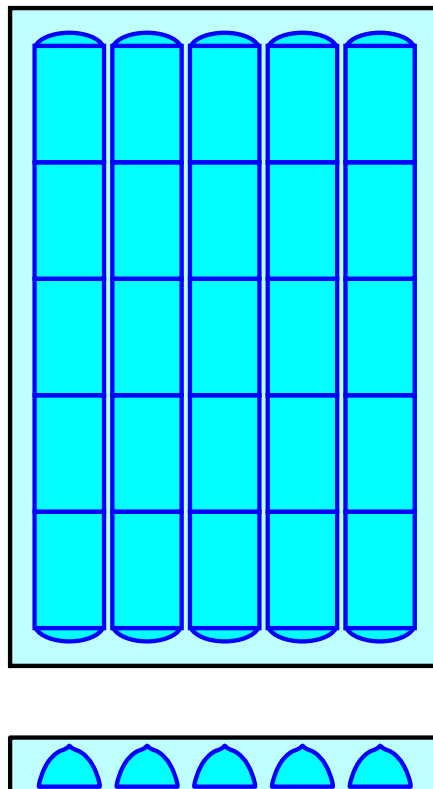
Overall Storage Efficiency = 58.7%

Overall System Size = 40.22' x 26.25' x 3.50'

25 Chambers

136.8 cy Field

94.3 cy Stone





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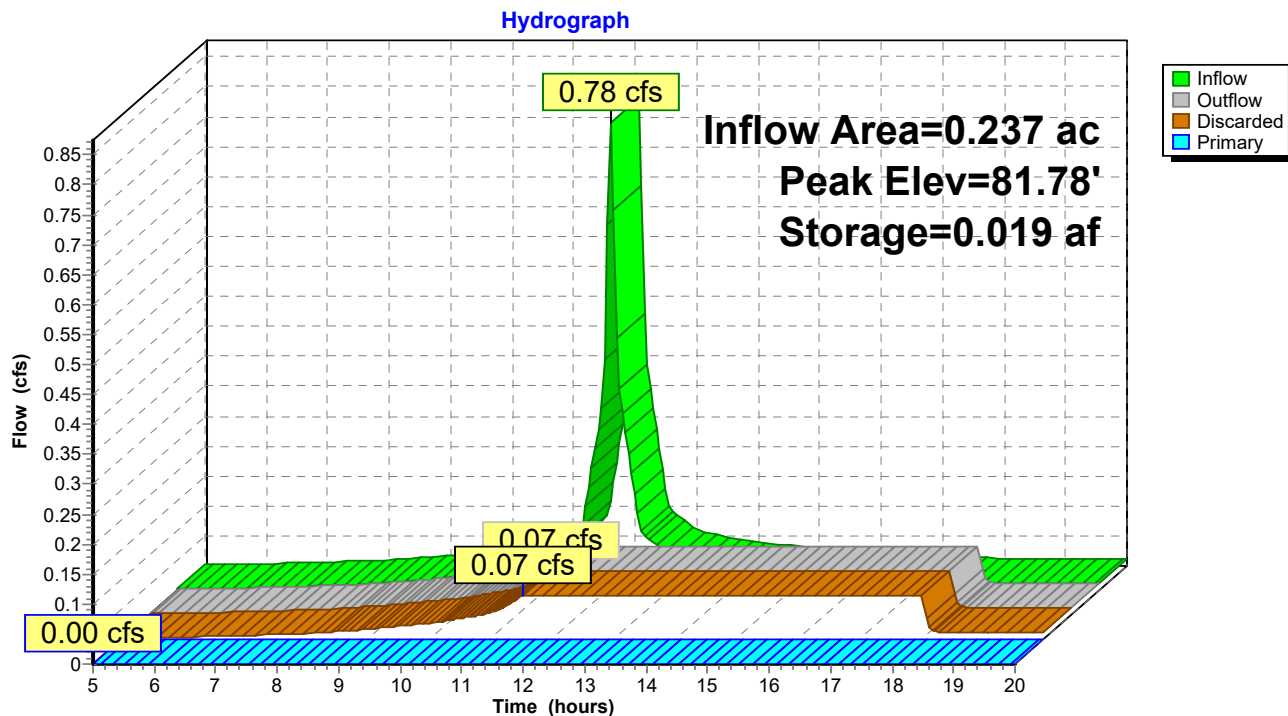
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### Pond 5P: DETENTION



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Type III 24-hr 10-Year Rainfall=5.25"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

### Subcatchment1S: PRE DEV DA-1

Runoff Area=0.921 ac 16.07% Impervious Runoff Depth>2.72"  
Flow Length=451' Tc=12.6 min CN=78 Runoff=2.52 cfs 0.209 af

### Subcatchment6S: POST DEV DA-2

Runoff Area=0.237 ac 82.28% Impervious Runoff Depth>4.30"  
Flow Length=315' Tc=3.4 min CN=94 Runoff=1.26 cfs 0.085 af

### Subcatchment8S: POST DEV DA-1

Runoff Area=0.685 ac 11.68% Impervious Runoff Depth>2.63"  
Flow Length=451' Tc=12.6 min CN=77 Runoff=1.81 cfs 0.150 af

### Reach 2R: DEISGN POINT

Inflow=2.52 cfs 0.209 af  
Outflow=2.52 cfs 0.209 af

### Reach 6R: DESIGN POINT

Inflow=1.81 cfs 0.153 af  
Outflow=1.81 cfs 0.153 af

### Pond 5P: DETENTION

Peak Elev=82.79' Storage=0.036 af Inflow=1.26 cfs 0.085 af  
Discarded=0.07 cfs 0.069 af Primary=0.04 cfs 0.003 af Outflow=0.12 cfs 0.072 af

**Total Runoff Area = 1.843 ac Runoff Volume = 0.444 af Average Runoff Depth = 2.89"**  
**77.05% Pervious = 1.420 ac 22.95% Impervious = 0.423 ac**

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**Summary for Subcatchment 1S: PRE DEV DA-1**

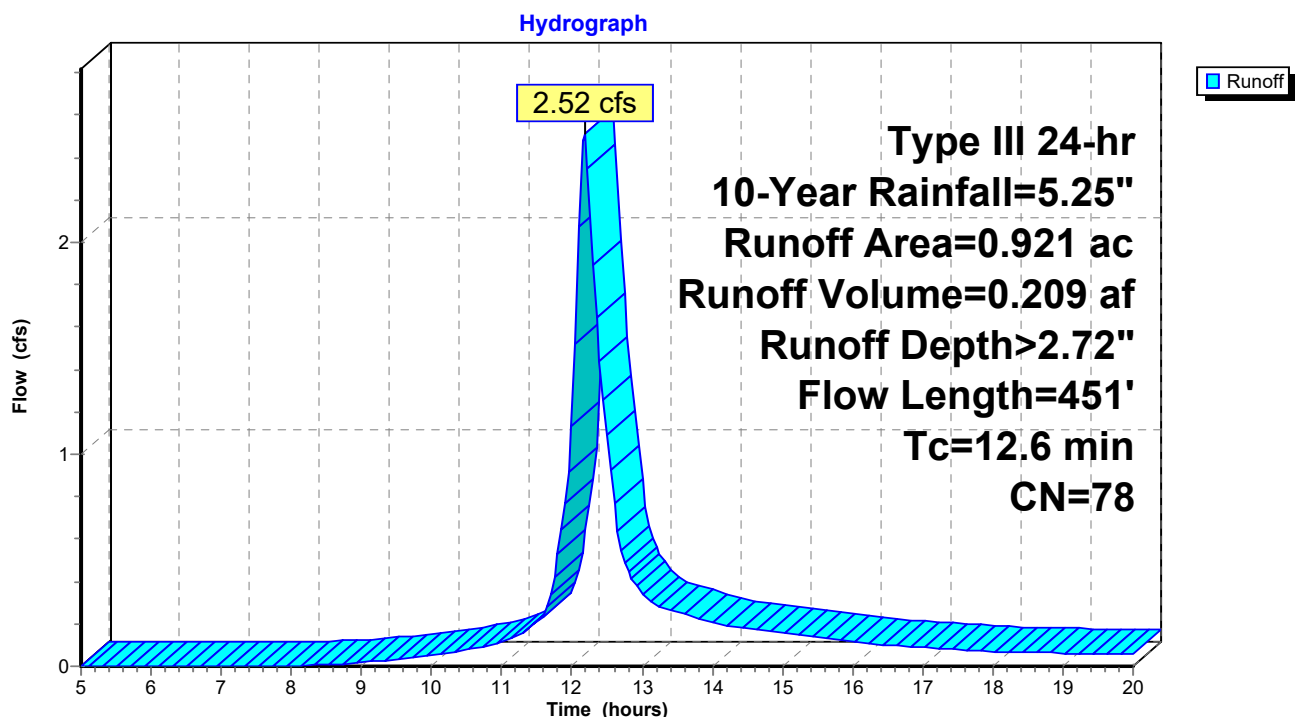
Runoff = 2.52 cfs @ 12.18 hrs, Volume= 0.209 af, Depth> 2.72"  
Routed to Reach 2R : DEISGN POINT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=5.25"

Area (ac)	CN	Description
0.148	98	Paved parking, HSG B
0.773	74	>75% Grass cover, Good, HSG C
0.921	78	Weighted Average
0.773		83.93% Pervious Area
0.148		16.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

**Subcatchment 1S: PRE DEV DA-1**

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**Summary for Subcatchment 6S: POST DEV DA-2**

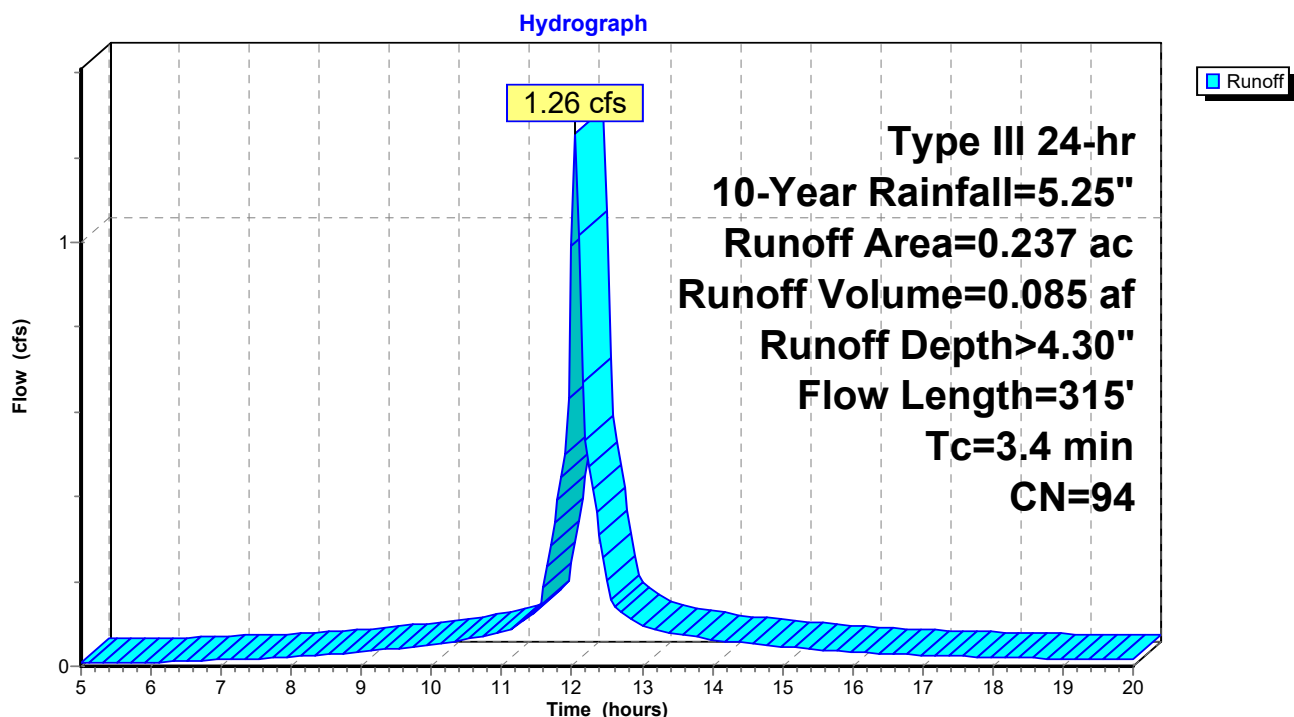
Runoff = 1.26 cfs @ 12.05 hrs, Volume= 0.085 af, Depth> 4.30"  
Routed to Pond 5P : DETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=5.25"

Area (ac)	CN	Description
0.042	74	>75% Grass cover, Good, HSG C
* 0.195	98	PROP DRIVEWAY
0.237	94	Weighted Average
0.042		17.72% Pervious Area
0.195		82.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	32	0.1880	0.23		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.8	176	0.0490	3.56		<b>Shallow Concentrated Flow, DRIVEWAY</b> Unpaved Kv= 16.1 fps
0.3	107	0.0120	6.34	5.70	<b>Channel Flow,</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
3.4	315	Total			

**Subcatchment 6S: POST DEV DA-2**

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**Summary for Subcatchment 8S: POST DEV DA-1**

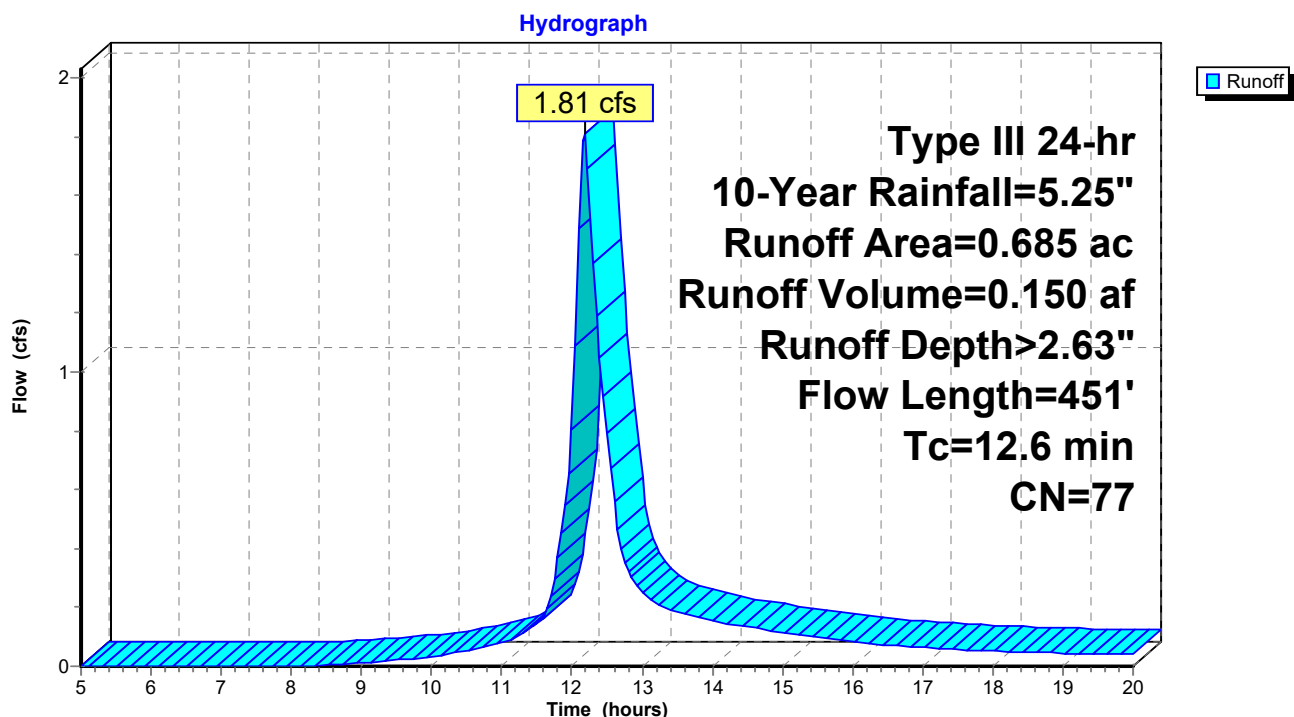
Runoff = 1.81 cfs @ 12.18 hrs, Volume= 0.150 af, Depth> 2.63"  
Routed to Reach 6R : DESIGN POINT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-Year Rainfall=5.25"

Area (ac)	CN	Description
* 0.080	98	DRIVE & SIDEWALK
0.605	74	>75% Grass cover, Good, HSG C
0.685	77	Weighted Average
0.605		88.32% Pervious Area
0.080		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

**Subcatchment 8S: POST DEV DA-1**

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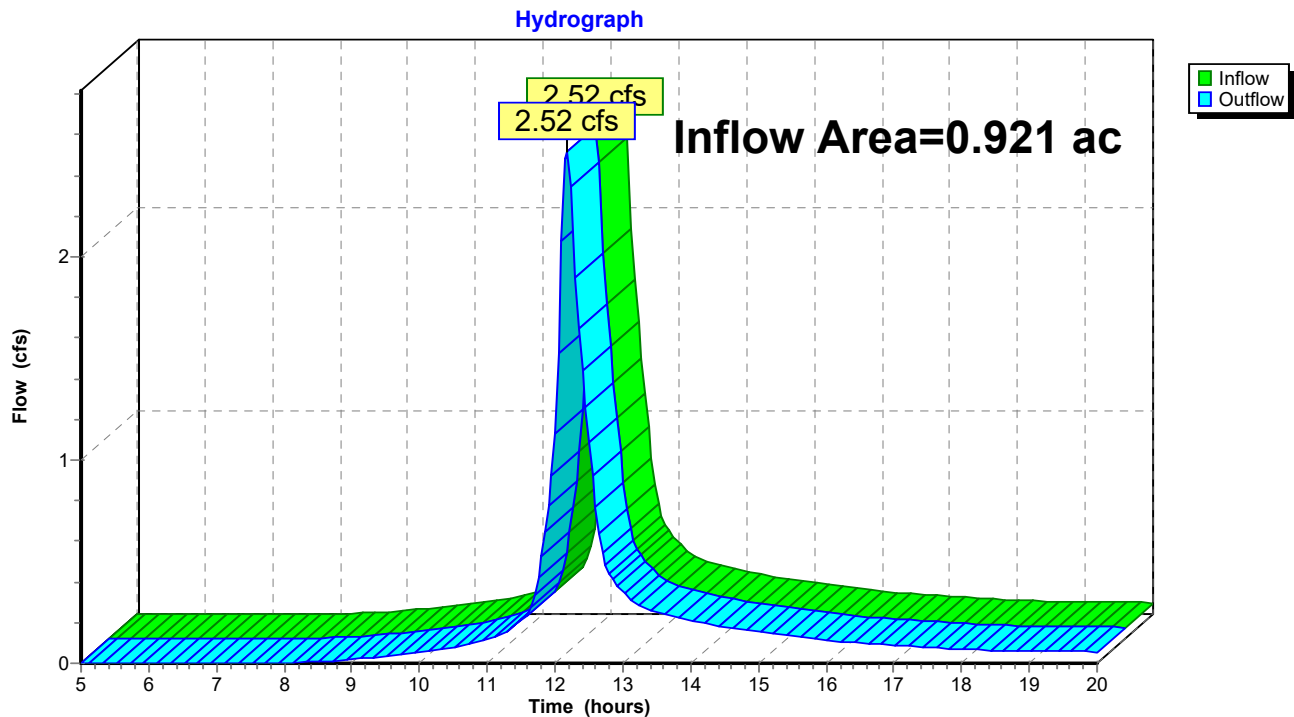
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### Summary for Reach 2R: DEISGN POINT

Inflow Area = 0.921 ac, 16.07% Impervious, Inflow Depth > 2.72" for 10-Year event  
Inflow = 2.52 cfs @ 12.18 hrs, Volume= 0.209 af  
Outflow = 2.52 cfs @ 12.18 hrs, Volume= 0.209 af, Atten= 0%, Lag= 0.0 min

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

### Reach 2R: DEISGN POINT



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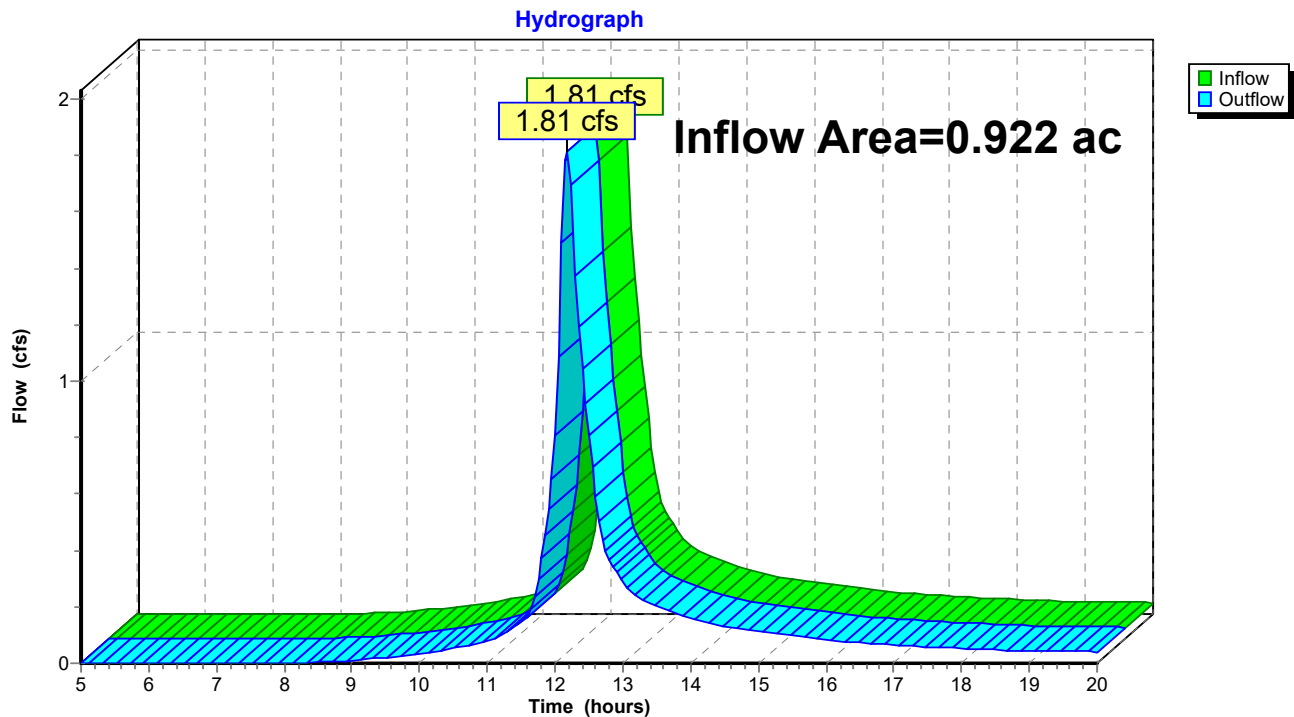
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### Summary for Reach 6R: DESIGN POINT

Inflow Area = 0.922 ac, 29.83% Impervious, Inflow Depth > 2.00" for 10-Year event  
Inflow = 1.81 cfs @ 12.18 hrs, Volume= 0.153 af  
Outflow = 1.81 cfs @ 12.18 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min

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

### Reach 6R: DESIGN POINT



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Type III 24-hr 10-Year Rainfall=5.25"

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### Summary for Pond 5P: DETENTION

Inflow Area = 0.237 ac, 82.28% Impervious, Inflow Depth > 4.30" for 10-Year event  
Inflow = 1.26 cfs @ 12.05 hrs, Volume= 0.085 af  
Outflow = 0.12 cfs @ 12.82 hrs, Volume= 0.072 af, Atten= 91%, Lag= 45.9 min  
Discarded = 0.07 cfs @ 10.90 hrs, Volume= 0.069 af  
Primary = 0.04 cfs @ 12.82 hrs, Volume= 0.003 af  
Routed to Reach 6R : DESIGN POINT

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 82.79' @ 12.82 hrs Surf.Area= 0.024 ac Storage= 0.036 af

Plug-Flow detention time= 151.8 min calculated for 0.072 af (84% of inflow)  
Center-of-Mass det. time= 105.2 min ( 850.6 - 745.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	80.50'	0.023 af	<b>26.25'W x 40.22'L x 3.50'H Field A</b> 0.085 af Overall - 0.026 af Embedded = 0.058 af x 40.0% Voids
#2A	81.00'	0.026 af	<b>ADS_StormTech SC-740 +Cap x 25 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 25 Chambers in 5 Rows
0.050 af			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.50'	<b>3.000 in/hr Exfiltration over Horizontal area</b>
#2	Primary	82.67'	<b>6.0" Round Culvert</b> L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 82.67' / 82.00' S= 0.0670 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf

**Discarded OutFlow** Max=0.07 cfs @ 10.90 hrs HW=80.54' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.04 cfs @ 12.82 hrs HW=82.79' (Free Discharge)  
↑**2=Culvert** (Inlet Controls 0.04 cfs @ 1.18 fps)



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### Pond 5P: DETENTION - Chamber Wizard Field A

**Chamber Model = ADS\_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

5 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 37.22' Row Length +18.0" End Stone x 2 = 40.22' Base Length

5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 18.0" Side Stone x 2 = 26.25' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

25 Chambers x 45.9 cf = 1,148.5 cf Chamber Storage

3,694.9 cf Field - 1,148.5 cf Chambers = 2,546.4 cf Stone x 40.0% Voids = 1,018.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,167.1 cf = 0.050 af

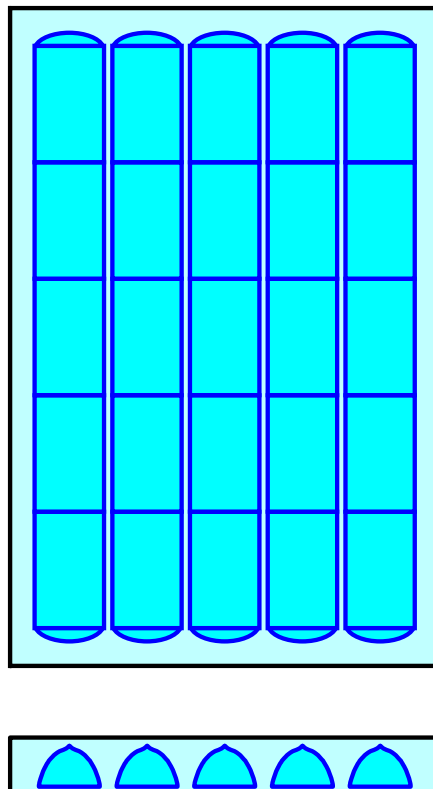
Overall Storage Efficiency = 58.7%

Overall System Size = 40.22' x 26.25' x 3.50'

25 Chambers

136.8 cy Field

94.3 cy Stone



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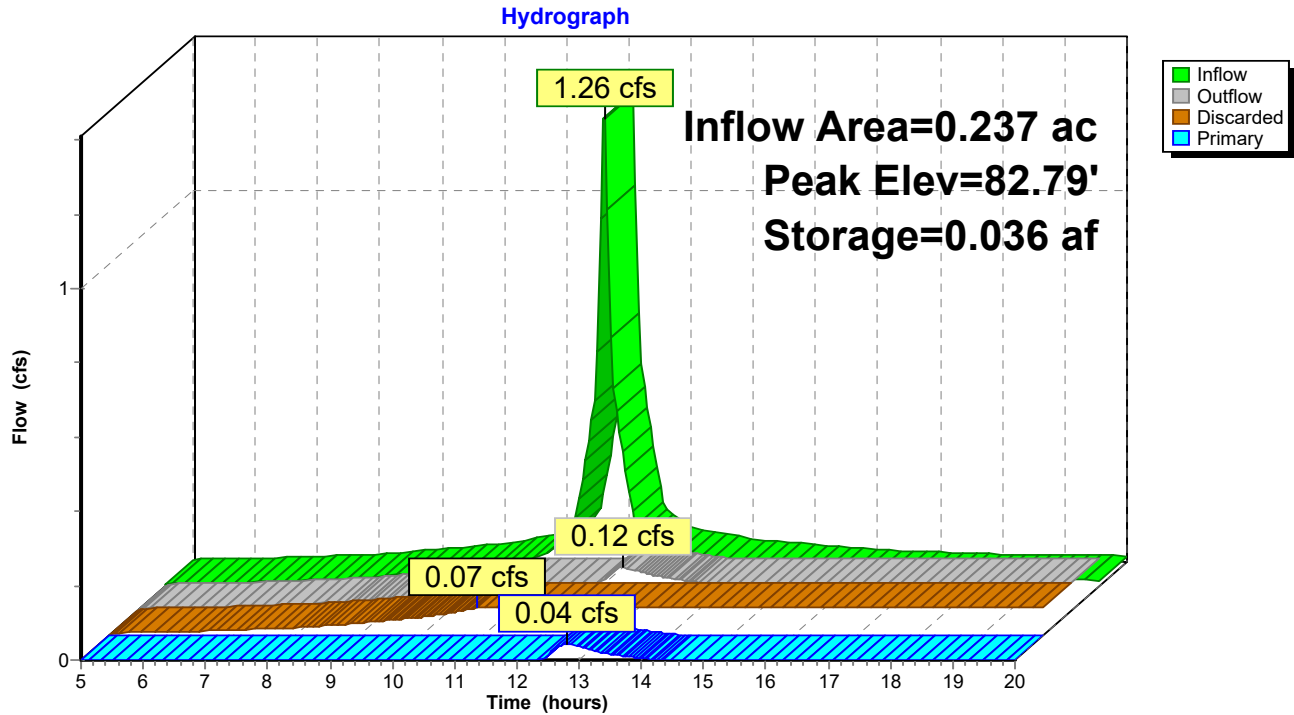
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### Pond 5P: DETENTION



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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

### Subcatchment1S: PRE DEV DA-1

Runoff Area=0.921 ac 16.07% Impervious Runoff Depth>3.75"  
Flow Length=451' Tc=12.6 min CN=78 Runoff=3.47 cfs 0.288 af

### Subcatchment6S: POST DEV DA-2

Runoff Area=0.237 ac 82.28% Impervious Runoff Depth>5.44"  
Flow Length=315' Tc=3.4 min CN=94 Runoff=1.57 cfs 0.107 af

### Subcatchment8S: POST DEV DA-1

Runoff Area=0.685 ac 11.68% Impervious Runoff Depth>3.65"  
Flow Length=451' Tc=12.6 min CN=77 Runoff=2.52 cfs 0.208 af

### Reach 2R: DEISGN POINT

Inflow=3.47 cfs 0.288 af  
Outflow=3.47 cfs 0.288 af

### Reach 6R: DESIGN POINT

Inflow=2.60 cfs 0.226 af  
Outflow=2.60 cfs 0.226 af

### Pond 5P: DETENTION

Peak Elev=83.07' Storage=0.040 af Inflow=1.57 cfs 0.107 af  
Discarded=0.07 cfs 0.073 af Primary=0.36 cfs 0.018 af Outflow=0.44 cfs 0.090 af

**Total Runoff Area = 1.843 ac Runoff Volume = 0.604 af Average Runoff Depth = 3.93"**  
**77.05% Pervious = 1.420 ac 22.95% Impervious = 0.423 ac**

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### Summary for Subcatchment 1S: PRE DEV DA-1

Runoff = 3.47 cfs @ 12.17 hrs, Volume= 0.288 af, Depth> 3.75"  
Routed to Reach 2R : DEISGN POINT

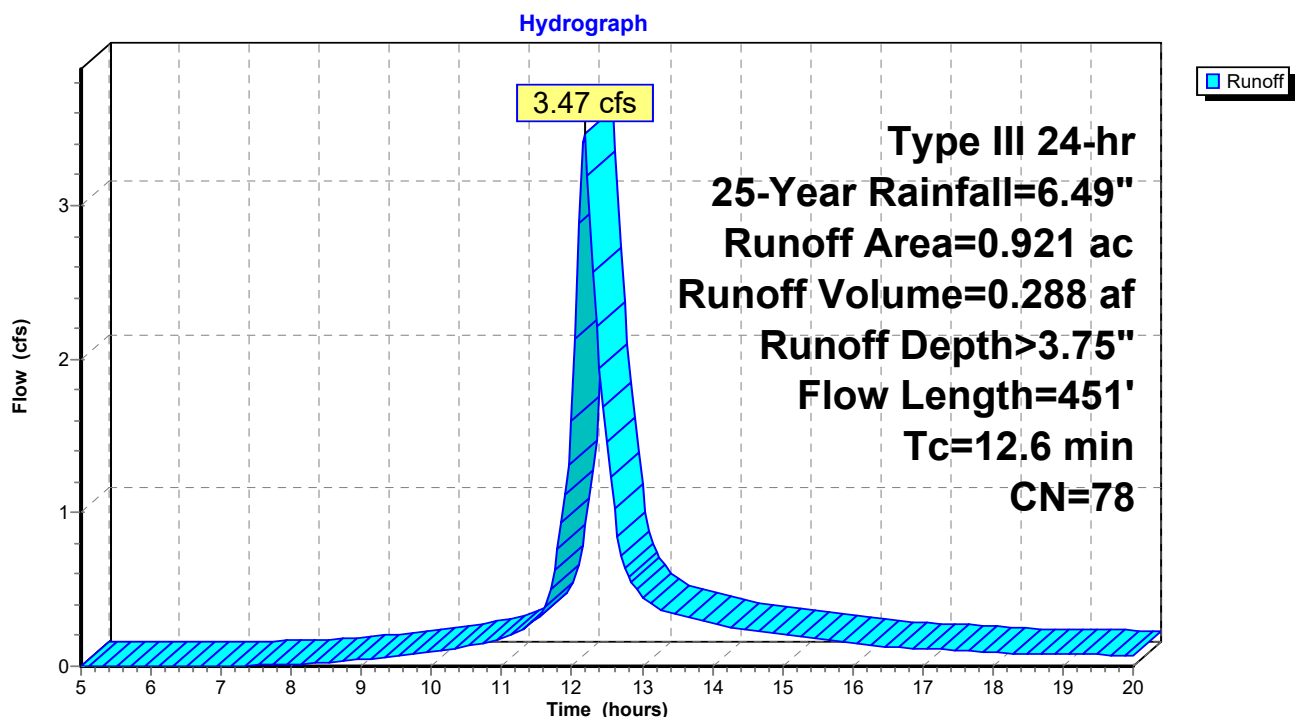
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=6.49"

Area (ac)	CN	Description
0.148	98	Paved parking, HSG B
0.773	74	>75% Grass cover, Good, HSG C
0.921	78	Weighted Average
0.773		83.93% Pervious Area
0.148		16.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

### Subcatchment 1S: PRE DEV DA-1



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**Summary for Subcatchment 6S: POST DEV DA-2**

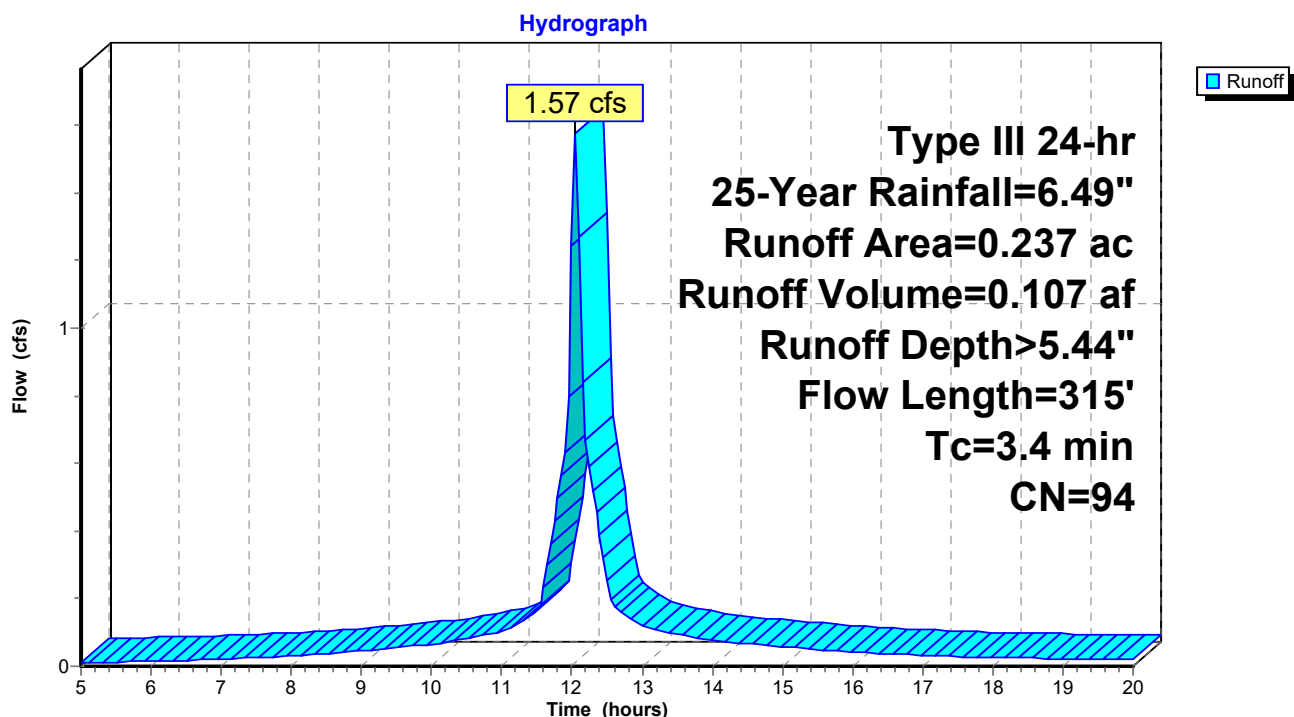
Runoff = 1.57 cfs @ 12.05 hrs, Volume= 0.107 af, Depth> 5.44"  
Routed to Pond 5P : DETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=6.49"

Area (ac)	CN	Description
0.042	74	>75% Grass cover, Good, HSG C
* 0.195	98	PROP DRIVEWAY
0.237	94	Weighted Average
0.042		17.72% Pervious Area
0.195		82.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	32	0.1880	0.23		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.8	176	0.0490	3.56		<b>Shallow Concentrated Flow, DRIVEWAY</b> Unpaved Kv= 16.1 fps
0.3	107	0.0120	6.34	5.70	<b>Channel Flow,</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
3.4	315	Total			

**Subcatchment 6S: POST DEV DA-2**

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**Summary for Subcatchment 8S: POST DEV DA-1**

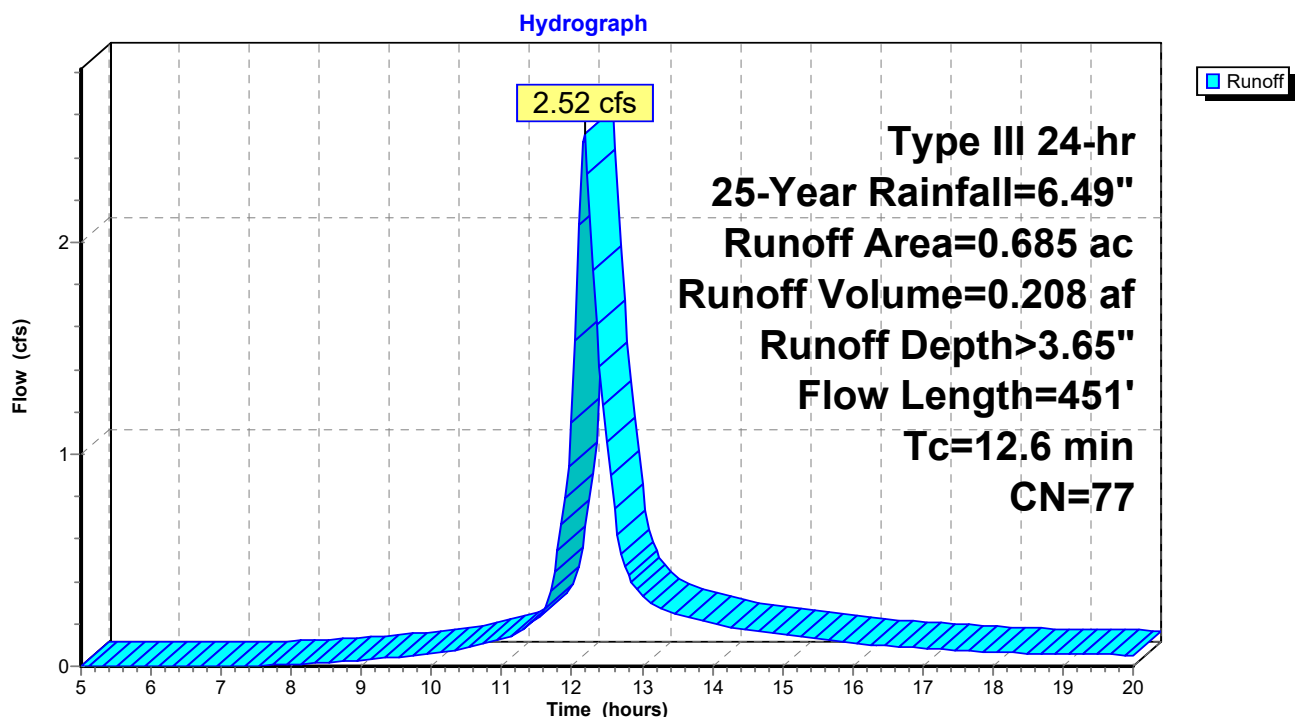
Runoff = 2.52 cfs @ 12.17 hrs, Volume= 0.208 af, Depth> 3.65"  
Routed to Reach 6R : DESIGN POINT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-Year Rainfall=6.49"

Area (ac)	CN	Description
* 0.080	98	DRIVE & SIDEWALK
0.605	74	>75% Grass cover, Good, HSG C
0.685	77	Weighted Average
0.605		88.32% Pervious Area
0.080		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

**Subcatchment 8S: POST DEV DA-1**

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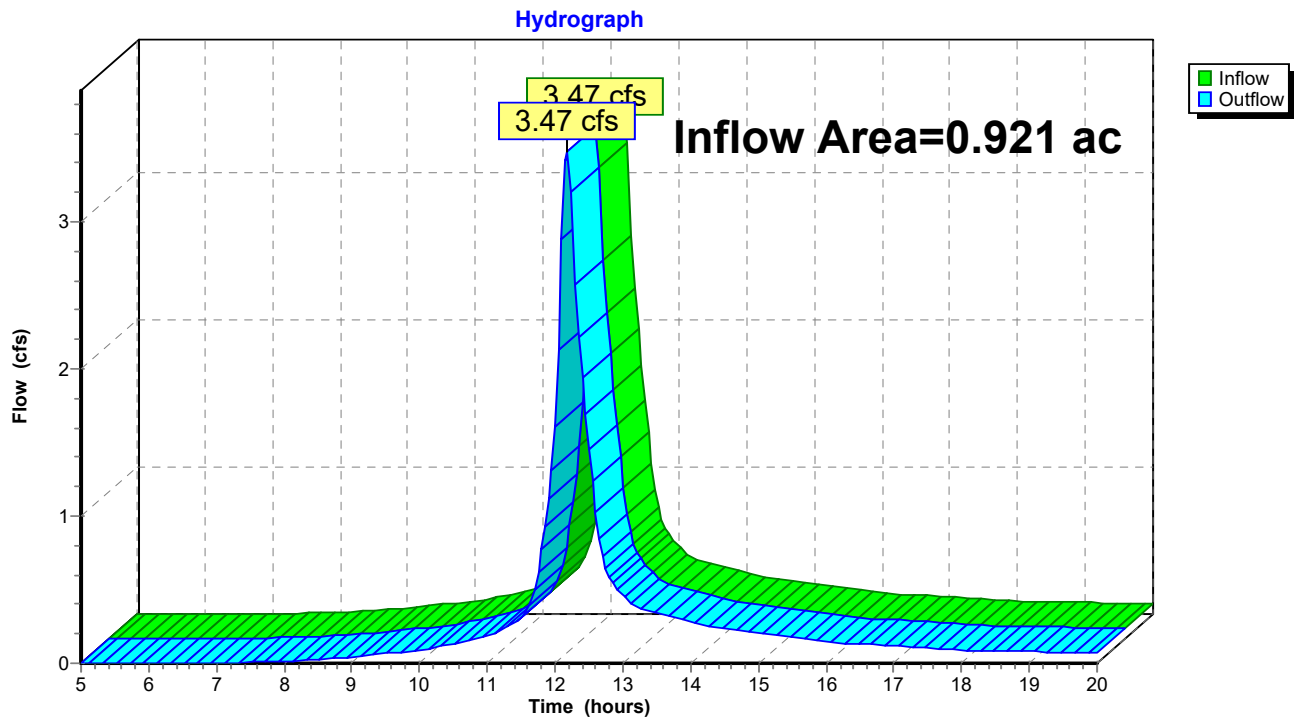
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### Summary for Reach 2R: DEISGN POINT

Inflow Area = 0.921 ac, 16.07% Impervious, Inflow Depth > 3.75" for 25-Year event  
Inflow = 3.47 cfs @ 12.17 hrs, Volume= 0.288 af  
Outflow = 3.47 cfs @ 12.17 hrs, Volume= 0.288 af, Atten= 0%, Lag= 0.0 min

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

### Reach 2R: DEISGN POINT



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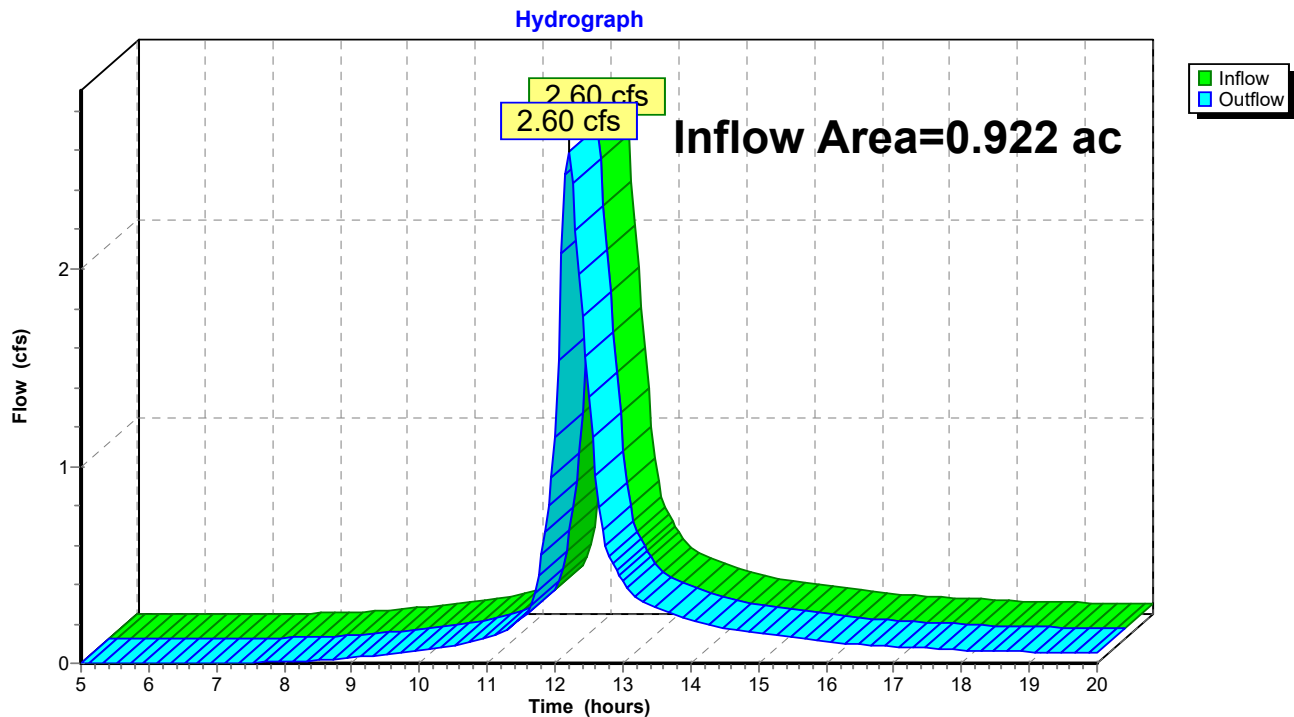
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### Summary for Reach 6R: DESIGN POINT

Inflow Area = 0.922 ac, 29.83% Impervious, Inflow Depth > 2.95" for 25-Year event  
Inflow = 2.60 cfs @ 12.20 hrs, Volume= 0.226 af  
Outflow = 2.60 cfs @ 12.20 hrs, Volume= 0.226 af, Atten= 0%, Lag= 0.0 min

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

### Reach 6R: DESIGN POINT





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### Summary for Pond 5P: DETENTION

Inflow Area = 0.237 ac, 82.28% Impervious, Inflow Depth > 5.44" for 25-Year event  
Inflow = 1.57 cfs @ 12.05 hrs, Volume= 0.107 af  
Outflow = 0.44 cfs @ 12.37 hrs, Volume= 0.090 af, Atten= 72%, Lag= 19.0 min  
Discarded = 0.07 cfs @ 10.35 hrs, Volume= 0.073 af  
Primary = 0.36 cfs @ 12.37 hrs, Volume= 0.018 af  
Routed to Reach 6R : DESIGN POINT

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 83.07' @ 12.37 hrs Surf.Area= 0.024 ac Storage= 0.040 af

Plug-Flow detention time= 125.0 min calculated for 0.090 af (84% of inflow)  
Center-of-Mass det. time= 78.6 min ( 820.5 - 741.9 )

Volume	Invert	Avail.Storage	Storage Description
#1A	80.50'	0.023 af	<b>26.25'W x 40.22'L x 3.50'H Field A</b> 0.085 af Overall - 0.026 af Embedded = 0.058 af x 40.0% Voids
#2A	81.00'	0.026 af	<b>ADS_StormTech SC-740 +Cap x 25 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 25 Chambers in 5 Rows
0.050 af			Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.50'	<b>3.000 in/hr Exfiltration over Horizontal area</b>
#2	Primary	82.67'	<b>6.0" Round Culvert</b> L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 82.67' / 82.00' S= 0.0670 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf

**Discarded OutFlow** Max=0.07 cfs @ 10.35 hrs HW=80.54' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.36 cfs @ 12.37 hrs HW=83.07' (Free Discharge)  
↑**2=Culvert** (Inlet Controls 0.36 cfs @ 2.15 fps)

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### Pond 5P: DETENTION - Chamber Wizard Field A

**Chamber Model = ADS\_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

5 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 37.22' Row Length +18.0" End Stone x 2 = 40.22' Base Length

5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 18.0" Side Stone x 2 = 26.25' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

25 Chambers x 45.9 cf = 1,148.5 cf Chamber Storage

3,694.9 cf Field - 1,148.5 cf Chambers = 2,546.4 cf Stone x 40.0% Voids = 1,018.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,167.1 cf = 0.050 af

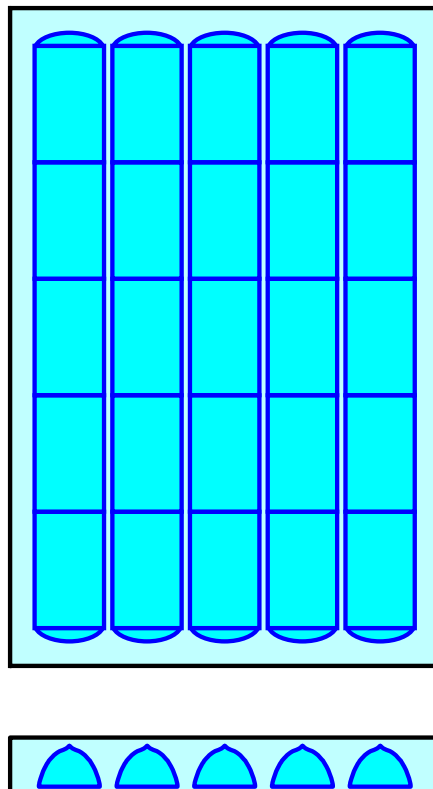
Overall Storage Efficiency = 58.7%

Overall System Size = 40.22' x 26.25' x 3.50'

25 Chambers

136.8 cy Field

94.3 cy Stone



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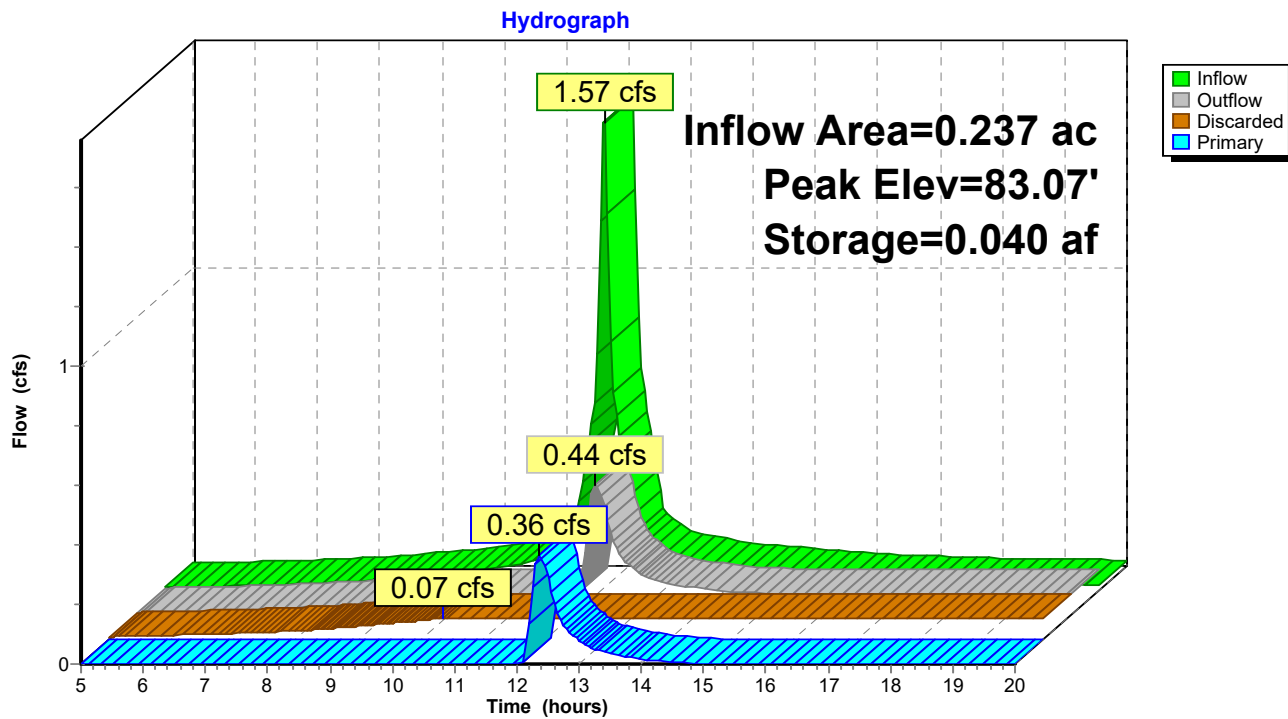
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### Pond 5P: DETENTION



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Type III 24-hr 100-Year Rainfall=9.00"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

### Subcatchment1S: PRE DEV DA-1

Runoff Area=0.921 ac 16.07% Impervious Runoff Depth>5.94"  
Flow Length=451' Tc=12.6 min CN=78 Runoff=5.41 cfs 0.456 af

### Subcatchment6S: POST DEV DA-2

Runoff Area=0.237 ac 82.28% Impervious Runoff Depth>7.75"  
Flow Length=315' Tc=3.4 min CN=94 Runoff=2.21 cfs 0.153 af

### Subcatchment8S: POST DEV DA-1

Runoff Area=0.685 ac 11.68% Impervious Runoff Depth>5.82"  
Flow Length=451' Tc=12.6 min CN=77 Runoff=3.95 cfs 0.332 af

### Reach 2R: DEISGN POINT

Inflow=5.41 cfs 0.456 af  
Outflow=5.41 cfs 0.456 af

### Reach 6R: DESIGN POINT

Inflow=4.90 cfs 0.384 af  
Outflow=4.90 cfs 0.384 af

### Pond 5P: DETENTION

Peak Elev=83.90' Storage=0.049 af Inflow=2.21 cfs 0.153 af  
Discarded=0.07 cfs 0.079 af Primary=0.94 cfs 0.052 af Outflow=1.01 cfs 0.130 af

**Total Runoff Area = 1.843 ac Runoff Volume = 0.941 af Average Runoff Depth = 6.13"**  
**77.05% Pervious = 1.420 ac 22.95% Impervious = 0.423 ac**

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### Summary for Subcatchment 1S: PRE DEV DA-1

Runoff = 5.41 cfs @ 12.17 hrs, Volume= 0.456 af, Depth> 5.94"  
Routed to Reach 2R : DEISGN POINT

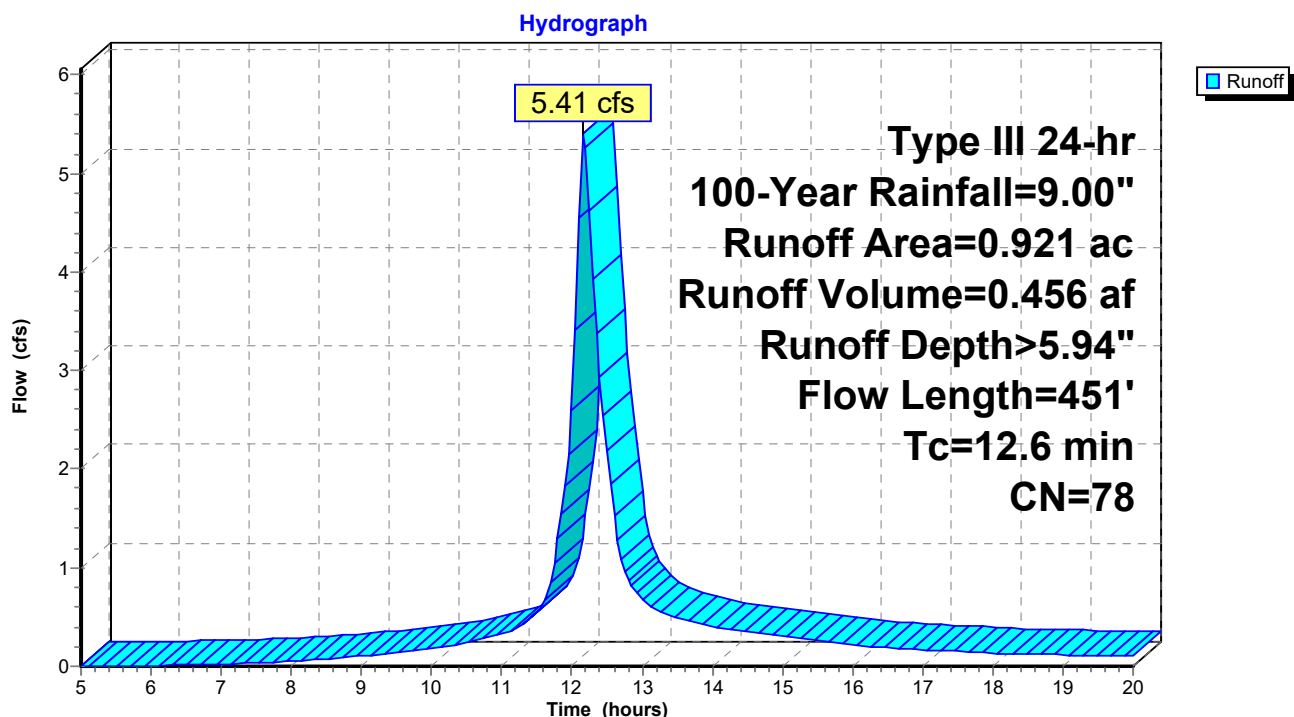
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=9.00"

Area (ac)	CN	Description
0.148	98	Paved parking, HSG B
0.773	74	>75% Grass cover, Good, HSG C
0.921	78	Weighted Average
0.773		83.93% Pervious Area
0.148		16.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

### Subcatchment 1S: PRE DEV DA-1



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**Summary for Subcatchment 6S: POST DEV DA-2**

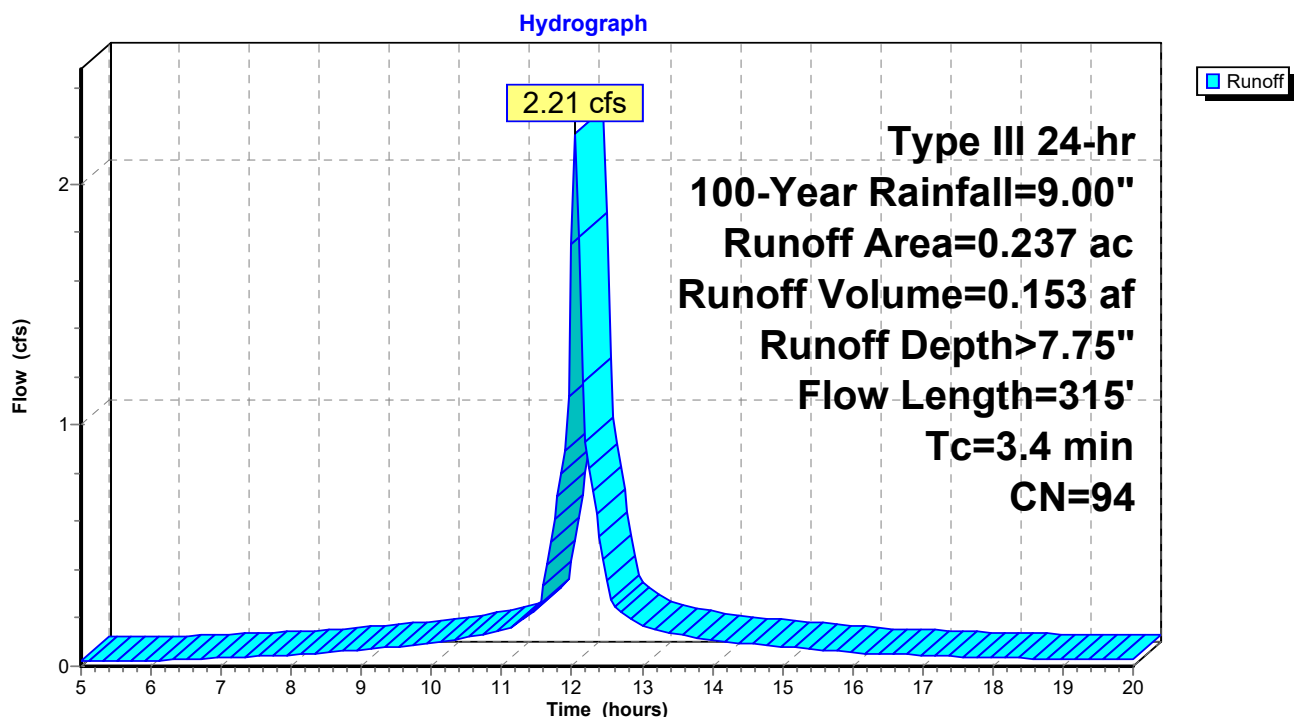
Runoff = 2.21 cfs @ 12.05 hrs, Volume= 0.153 af, Depth> 7.75"  
Routed to Pond 5P : DETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=9.00"

Area (ac)	CN	Description
0.042	74	>75% Grass cover, Good, HSG C
* 0.195	98	PROP DRIVEWAY
0.237	94	Weighted Average
0.042		17.72% Pervious Area
0.195		82.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	32	0.1880	0.23		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.8	176	0.0490	3.56		<b>Shallow Concentrated Flow, DRIVEWAY</b> Unpaved Kv= 16.1 fps
0.3	107	0.0120	6.34	5.70	<b>Channel Flow,</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
3.4	315	Total			

**Subcatchment 6S: POST DEV DA-2**

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**Summary for Subcatchment 8S: POST DEV DA-1**

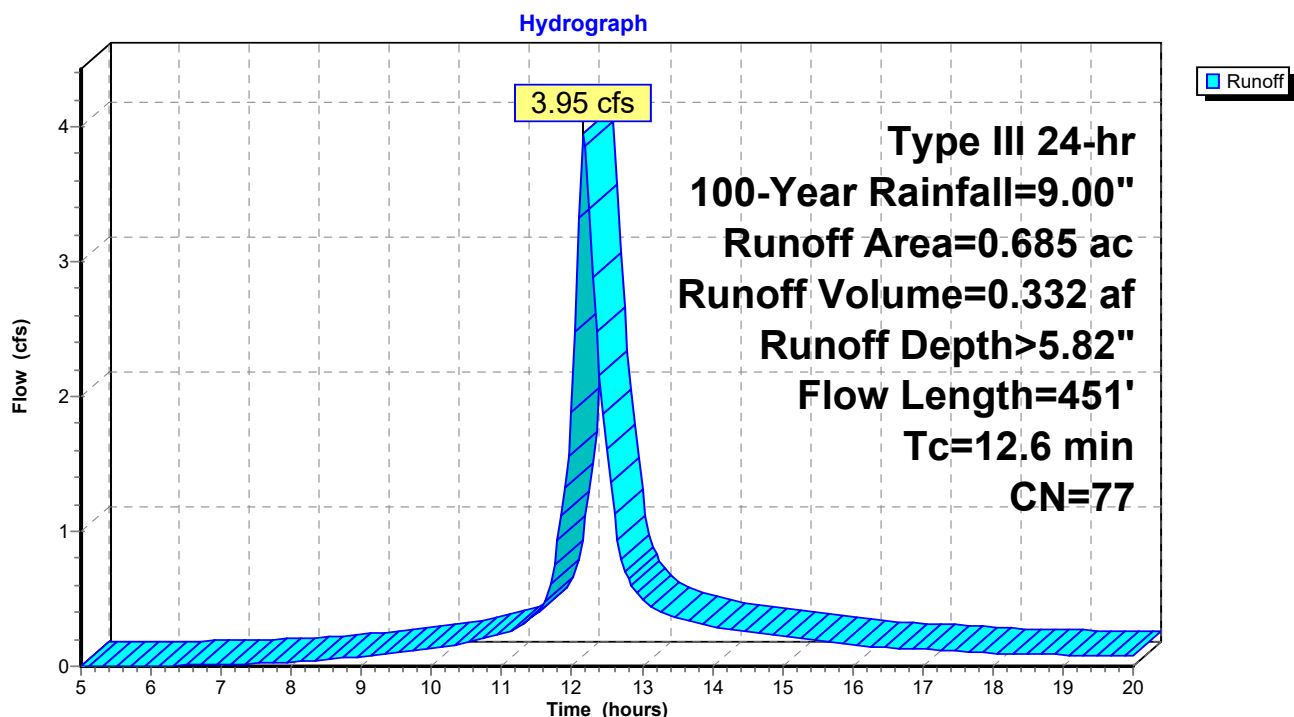
Runoff = 3.95 cfs @ 12.17 hrs, Volume= 0.332 af, Depth> 5.82"  
Routed to Reach 6R : DESIGN POINT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Rainfall=9.00"

Area (ac)	CN	Description
* 0.080	98	DRIVE & SIDEWALK
0.605	74	>75% Grass cover, Good, HSG C
0.685	77	Weighted Average
0.605		88.32% Pervious Area
0.080		11.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	166	0.0860	0.24		<b>Sheet Flow, LAWN</b> Grass: Dense n= 0.240 P2= 3.30"
0.4	126	0.0790	5.71		<b>Shallow Concentrated Flow, DRIVEWAY</b> Paved Kv= 20.3 fps
0.4	159	0.0120	6.34	5.70	<b>Channel Flow, GUTTER</b> Area= 0.9 sf Perim= 2.5' r= 0.36' n= 0.013 Asphalt, smooth
12.6	451	Total			

**Subcatchment 8S: POST DEV DA-1**

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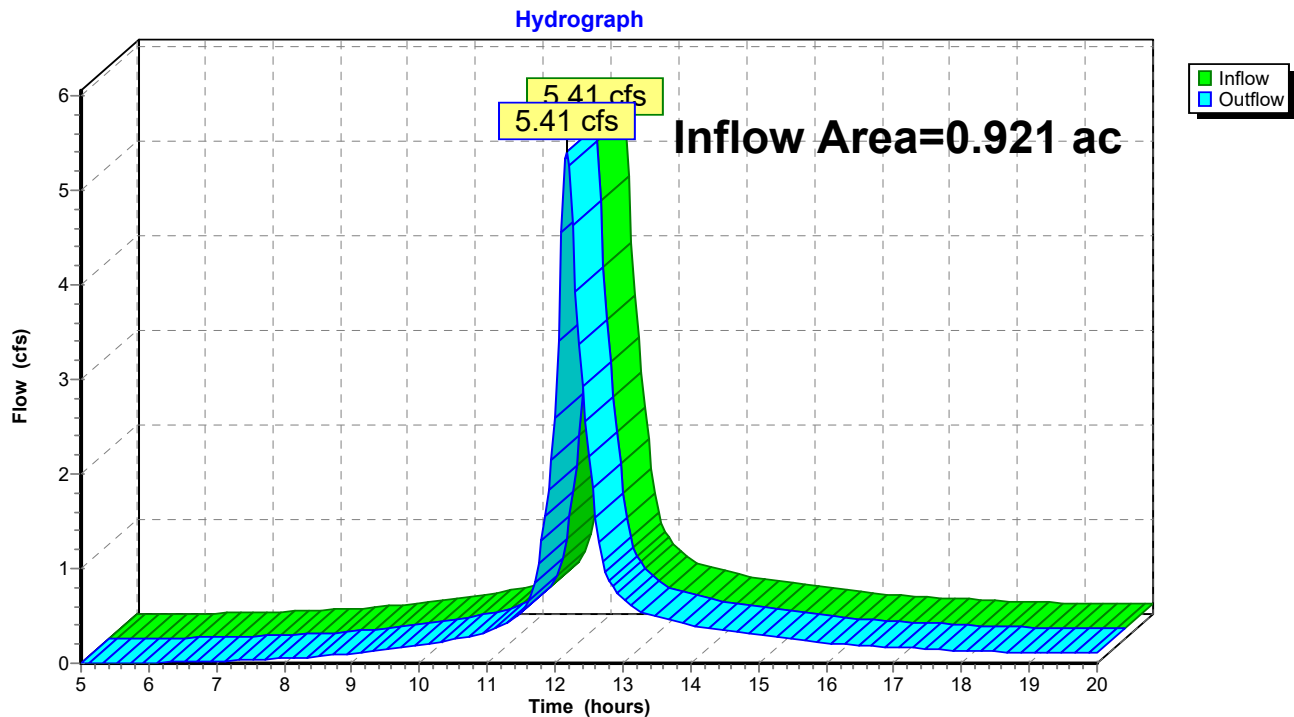
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### Summary for Reach 2R: DEISGN POINT

Inflow Area = 0.921 ac, 16.07% Impervious, Inflow Depth > 5.94" for 100-Year event  
Inflow = 5.41 cfs @ 12.17 hrs, Volume= 0.456 af  
Outflow = 5.41 cfs @ 12.17 hrs, Volume= 0.456 af, Atten= 0%, Lag= 0.0 min

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

### Reach 2R: DEISGN POINT





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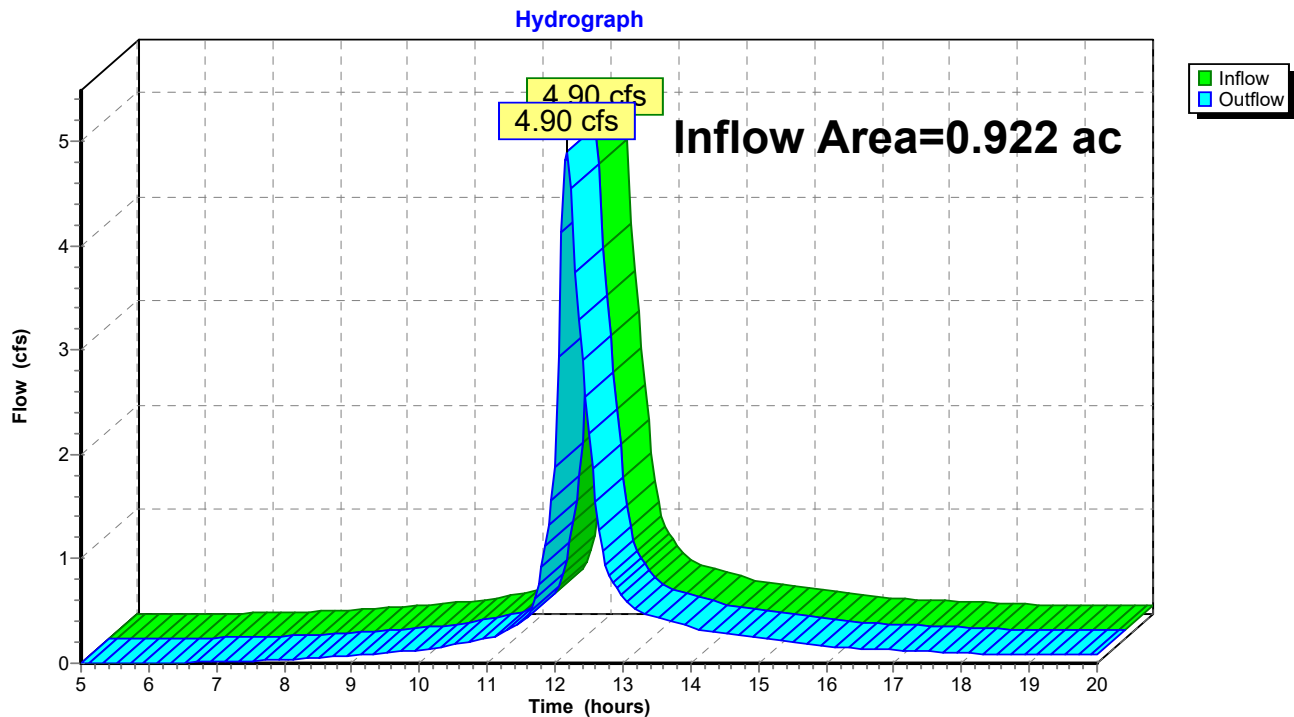
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### Summary for Reach 6R: DESIGN POINT

Inflow Area = 0.922 ac, 29.83% Impervious, Inflow Depth > 5.00" for 100-Year event  
Inflow = 4.90 cfs @ 12.17 hrs, Volume= 0.384 af  
Outflow = 4.90 cfs @ 12.17 hrs, Volume= 0.384 af, Atten= 0%, Lag= 0.0 min

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

### Reach 6R: DESIGN POINT



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### Summary for Pond 5P: DETENTION

Inflow Area = 0.237 ac, 82.28% Impervious, Inflow Depth > 7.75" for 100-Year event  
Inflow = 2.21 cfs @ 12.05 hrs, Volume= 0.153 af  
Outflow = 1.01 cfs @ 12.19 hrs, Volume= 0.130 af, Atten= 54%, Lag= 8.3 min  
Discarded = 0.07 cfs @ 9.25 hrs, Volume= 0.079 af  
Primary = 0.94 cfs @ 12.19 hrs, Volume= 0.052 af  
Routed to Reach 6R : DESIGN POINT

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 83.90' @ 12.19 hrs Surf.Area= 0.024 ac Storage= 0.049 af

Plug-Flow detention time= 94.4 min calculated for 0.130 af (85% of inflow)  
Center-of-Mass det. time= 49.9 min ( 787.6 - 737.7 )

Volume	Invert	Avail.Storage	Storage Description
#1A	80.50'	0.023 af	<b>26.25'W x 40.22'L x 3.50'H Field A</b> 0.085 af Overall - 0.026 af Embedded = 0.058 af x 40.0% Voids
#2A	81.00'	0.026 af	<b>ADS_StormTech SC-740 +Cap x 25 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 25 Chambers in 5 Rows
		0.050 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.50'	<b>3.000 in/hr Exfiltration over Horizontal area</b>
#2	Primary	82.67'	<b>6.0" Round Culvert</b> L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 82.67' / 82.00' S= 0.0670 '/' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf

**Discarded OutFlow** Max=0.07 cfs @ 9.25 hrs HW=80.54' (Free Discharge)  
↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

**Primary OutFlow** Max=0.93 cfs @ 12.19 hrs HW=83.90' (Free Discharge)  
↑**2=Culvert** (Inlet Controls 0.93 cfs @ 4.76 fps)

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### Pond 5P: DETENTION - Chamber Wizard Field A

**Chamber Model = ADS\_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

5 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 37.22' Row Length +18.0" End Stone x 2 = 40.22' Base Length

5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 18.0" Side Stone x 2 = 26.25' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

25 Chambers x 45.9 cf = 1,148.5 cf Chamber Storage

3,694.9 cf Field - 1,148.5 cf Chambers = 2,546.4 cf Stone x 40.0% Voids = 1,018.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,167.1 cf = 0.050 af

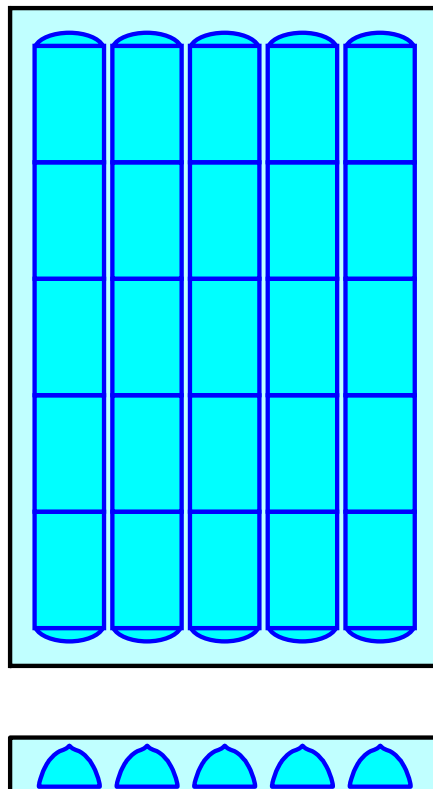
Overall Storage Efficiency = 58.7%

Overall System Size = 40.22' x 26.25' x 3.50'

25 Chambers

136.8 cy Field

94.3 cy Stone



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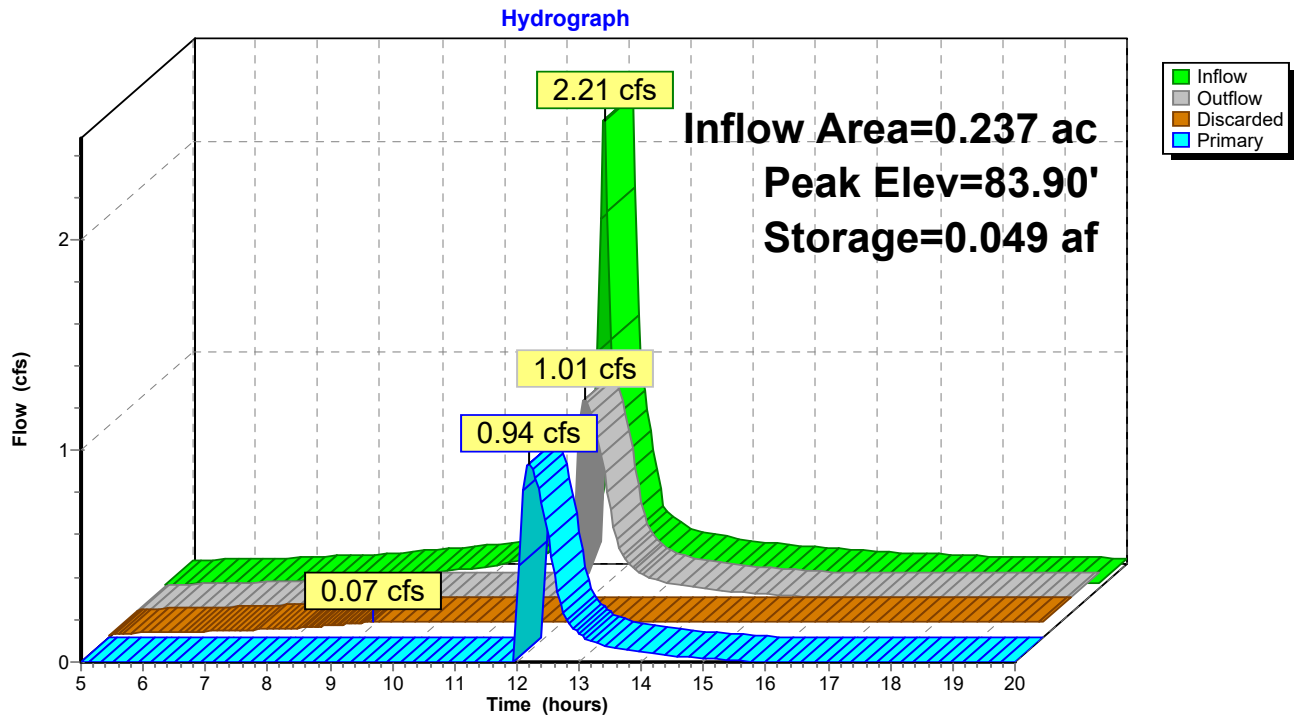
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### Pond 5P: DETENTION



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**Appendix E**

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Construction Sequence

### Construction Sequence

Refer to the plan set for all plans and details which relate to construction sequence.

1. Prior to the beginning of any sitework the major features of the construction must be field staked by a licensed surveyor. These include the building, limits of disturbance, utility lines, and stormwater practices.
2. Prior to the start of the project, an on-site pre-construction meeting will be held. This will be attended by the project owner, the operator responsible for complying with the approved construction drawings including the erosion and sediment control (E&SC) plan and details, the design engineer, the engineer responsible for E&SC monitoring during construction, town representatives from the engineering department and code enforcement, and representatives from the NYC DEP. The NYC DEP shall be notified 48 hrs prior to the preconstruction meeting.
3. A licensed surveyor must define infrastructure locations, limits of disturbance, stormwater basin limits, and grades in the field prior to start of any construction. Limits of disturbance shall be marked with the installation of construction fence or approved equal. The extents of the stormwater management system shall be cordoned off to minimize the disturbance on this area.
4. Install all perimeter erosion control measures, construction entrance as shown on the erosion and sediment control plan and the associated details. install silt fencing at the bottom of slopes. The standards established in part 1.b of the GP-020-001 included in appendix b of this SWPPP must be adhered to.
5. Strip site, clear vegetation, and place topsoil in stockpile locations shown on the plan.
6. Begin demolition of existing building and improvements to be removed. All demolition material shall be removed from the site and properly disposed of.
7. Rough grade building, driveway, and parking area.
8. Begin the excavation and installation of the stormwater management system. Protect trenches and open excavations from erosion. Entry into the system shall be blocked off until site has reached final stabilization. Once system has been installed, backfill, seed where necessary, and reinstall measures to cordon off the system from disturbance.
9. During site construction maintain and re-establish as required erosion control and stabilization measures as required by the site plan and details.
10. Install gravel surface. Once installed, inlet to infiltrator system may be unblocked.
11. Install and backfill curbs, grade, place final soil topping and put in place permanent vegetative cover over all disturbed areas, landscape beds, slopes, etc.

### Winter Stabilization Notes:

If construction activities are expected to extend into or occur during the winter season the contractor shall anticipate proper stabilization and sequencing. construction shall be sequenced such that wherever possible areas of disturbance that can be completed and permanently stabilized shall be done by applying and establishing permanent vegetative cover before the first frost. areas subject to temporary disturbance that will not be worked for an extended period of time shall be treated with temporary seed, mulch, and/or erosion blankets.



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**Appendix F**

Owner/Operator Certification

Contractor Certification

**OWNER/OPERATOR 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 \_\_\_\_\_

E-mail \_\_\_\_\_

Signature \_\_\_\_\_

Name of Trained Individual \_\_\_\_\_

**CONTRACTOR CERTIFICATION**

**Contractor Certification Statement** – All contractors and subcontractors identified in a SWPPP in accordance with Part III.E.1 (SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-20-001, January 2020) of this permit shall sign a copy of the following certification statement before undertaking any construction activity at the site identified in the SWPPP:

**“I hereby certify that I understand and agree to comply with the terms and conditions 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 terms and conditions of the New York State Pollutant Discharge Elimination System (“SPDES”) general permit 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 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.”**

**Individual Contractor:**

Name and Title (please print) \_\_\_\_\_

Signature of Contractor \_\_\_\_\_

Name of Trained Individual \_\_\_\_\_

**Company / Contracting Firm:**

Name of Company \_\_\_\_\_

Address of Company \_\_\_\_\_

Telephone Number / Cell Number \_\_\_\_\_

**Site Information:**

Address of Site \_\_\_\_\_

\_\_\_\_\_

**Today's Date:** \_\_\_\_\_

## **Appendix G**

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### Standard and Specifications for Erosion and Sediment Control Measures

# STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE



## **Definition**

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.

## **Purpose**

The purpose of stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

## **Conditions Where Practice Applies**

A stabilized construction entrance shall be used at all points of construction ingress and egress.

## **Design Criteria**

See Figure 5A.35 on page 5A.76 for details.

**Aggregate Size:** Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

**Thickness:** Not less than six (6) inches.

**Width:** 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

**Length:** As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

**Geotextile:** To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

## **Criteria for Geotextile**

The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties <sup>3</sup>	Light Duty <sup>1</sup> Roads Grade Subgrade	Heavy Duty <sup>2</sup> Haul Roads Rough Graded	Test Method
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Brust Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 modified
Equivalent Opening Size	40-80	40-80	US Std Sieve CW-02215
Aggregate Depth	6	10	--

<sup>1</sup>Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

<sup>2</sup>Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

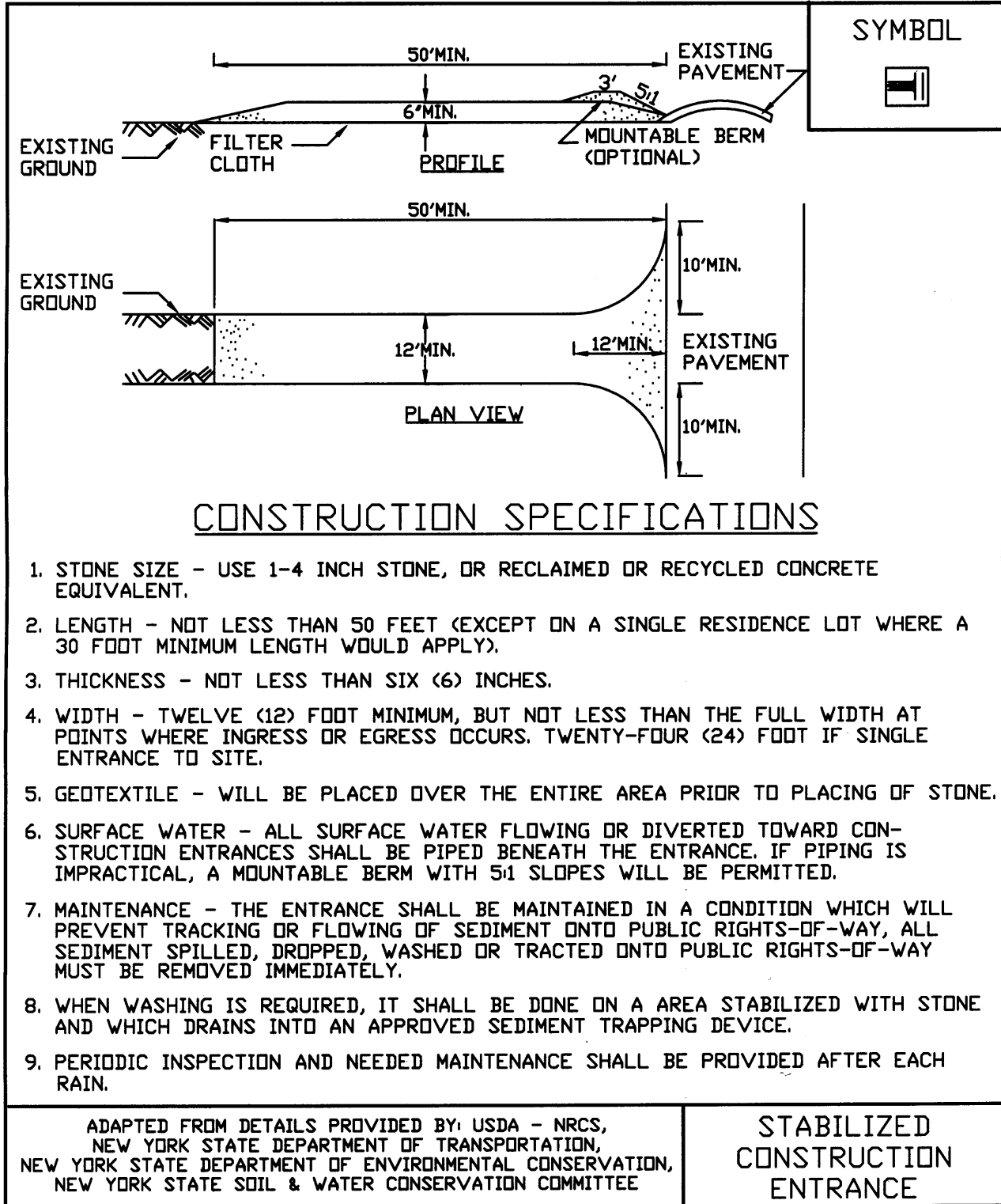
<sup>3</sup>Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

## **Maintenance**

The entrance 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 onto 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.

**Figure 5A.35**  
**Stabilized Construction Entrance**



# STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION



## **Definition & Scope**

A **temporary** barrier with low permeability, installed around inlets in the form of a fence, berm or excavation around an opening, detaining water and thereby reducing the sediment content of sediment laden water by settling thus preventing heavily sediment laden water from entering a storm drain system.

## **Conditions Where Practice Applies**

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a trapping device, and watertight blocking of inlets is not advisable. **It is not to be used in place of sediment trapping devices.** This practice shall be used with an upstream buffer strip if placed at a storm drain inlet on a paved surface. It may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with low slope angle.

## **Types of Storm Drain Inlet Practices**

There are five (5) specific types of storm drain inlet protection practices that vary according to their function, location, drainage area, and availability of materials:

- I. Excavated Drop Inlet Protection
- II. Fabric Drop Inlet Protection
- III. Stone & Block Drop Inlet Protection
- IV. Paved Surface Inlet Protection
- V. Manufactured Insert Inlet Protection

## **Design Criteria**

**Drainage Area** – The drainage area for storm drain inlets shall not exceed one acre. Erosion control/temporary stabilization measures must be implemented on the disturbed

drainage area tributary to the inlet. The crest elevations of these practices shall provide storage and minimize bypass flow.

### **Type I – Excavated Drop Inlet Protection**

This practice is generally used during initial overlot grading after the storm drain trunk line is installed.

Limit the drainage area to the inlet device to 1 acre. Excavated side slopes shall be no steeper than 2:1. The minimum depth shall be 1 foot and the maximum depth 2 feet as measured from the crest of the inlet structure. Shape the excavated basin to fit conditions with the longest dimension oriented toward the longest inflow area to provide maximum trap efficiency. The capacity of the excavated basin should be established to contain 900 cubic feet per acre of disturbed area. Weep holes, protected by fabric and stone, should be provided for draining the temporary pool.

Inspect and clean the excavated basin after every storm. Sediment should be removed when 50 percent of the storage volume is achieved. This material should be incorporated into the site in a stabilized manner.

### **Type II – Fabric Drop Inlet Protection**



This practice is generally used during final elevation grading phases after the storm drain system is completed.

Limit the drainage area to 1 acre per inlet device. Land area slope immediately surrounding this device should not exceed 1 percent. The maximum height of the fabric above the inlet crest shall not exceed 1.5 feet unless reinforced.

The top of the barrier should be maintained to allow overflow to drop into the drop inlet and not bypass the inlet to



unprotected lower areas. Support stakes for fabric shall be a minimum of 3 feet long, spaced a maximum 3 feet apart. They should be driven close to the inlet so any overflow drops into the inlet and not on the unprotected soil. Improved performance and sediment storage volume can be obtained by excavating the area.

Inspect the fabric barrier after each rain event and make repairs as needed. Remove sediment from the pool area as necessary with care not to undercut or damage the filter fabric. Upon stabilization of the drainage area, remove all materials and unstable sediment and dispose of properly. Bring the adjacent area of the drop inlet to grade, smooth and compact and stabilize in the appropriate manner to the site.

### **Type III – Stone and Block Drop Inlet Protection**

This practice is generally used during the initial and intermediate overlot grading of a construction site.

Limit the drainage area to 1 acre at the drop inlet. The stone barrier should have a minimum height of 1 foot and a maximum height of 2 feet. Do not use mortar. The height should be limited to prevent excess ponding and bypass flow.

Recess the first course of blocks at least 2 inches below the crest opening of the storm drain for lateral support. Subsequent courses can be supported laterally if needed by placing a 2x4 inch wood stud through the block openings perpendicular to the course. The bottom row should have a few blocks oriented so flow can drain through the block to dewater the basin area.

The stone should be placed just below the top of the blocks on slopes of 2:1 or flatter. Place hardware cloth of wire mesh with ½ inch openings over all block openings to hold stone in place.

As an optional design, the concrete blocks may be omitted and the entire structure constructed of stone, ringing the outlet (“doughnut”). The stone should be kept at a 3:1 slope toward the inlet to keep it from being washed into the inlet. A level area 1 foot wide and four inches below the crest will further prevent wash. Stone on the slope toward the inlet should be at least 3 inches in size for stability and 1 inch or smaller away from the inlet to control flow rate. The elevation of the top of the stone crest must be maintained 6 inches lower than the ground elevation down slope from the inlet to ensure that all storm flows pass over the stone into the storm drain and not past the structure. Temporary diking should be used as necessary to prevent bypass flow.

The barrier should be inspected after each rain event and repairs made where needed. Remove sediment as necessary to provide for accurate storage volume for subsequent rains. Upon stabilization of contributing drainage area, remove all

materials and any unstable soil and dispose of properly.

Bring the disturbed area to proper grade, smooth, compact and stabilize in a manner appropriate to the site.

### **Type IV – Paved Surface Inlet Protection**



This practice is generally used after pavement construction has been done while final grading and soil stabilization is occurring. These practices should be used with upstream buffer strips in linear construction applications, and with temporary surface stabilization for overlot areas, to reduce the sediment load at the practice. This practice includes sand bags, compost filter socks, geo-tubes filled with ballast, and manufactured surface barriers. Pea gravel can also be used in conjunction with these practices to improve performance. When the inlet is not at a low point, and is offset from the pavement or gutter line, protection should be selected and installed so that flows are not diverted around the inlet.





The drainage area should be limited to 1 acre at the drain inlet. All practices will be placed at the inlet perimeter or beyond to maximize the flow capacity of the inlet. Practices shall be weighted, braced, tied, or otherwise anchored to prevent movement or shifting of location on paved surfaces. Traffic safety shall be integrated with the use of this practice. All practices should be marked with traffic safety cones as appropriate. Structure height shall not cause flooding or by-pass flow that would cause additional erosion.

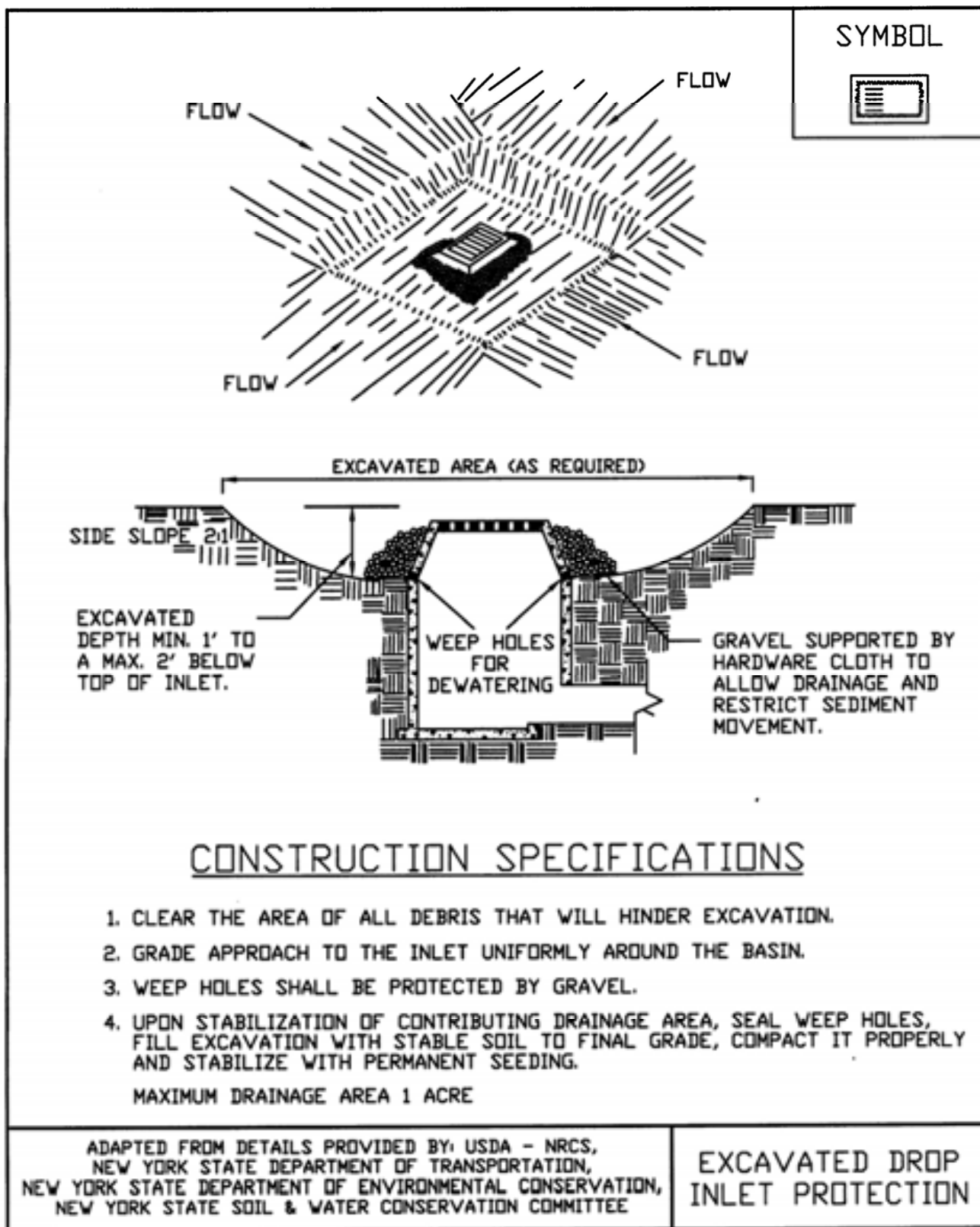
The structure should be inspected after every storm event. Any sediment should be removed and disposed of on the site. Any broken or damaged components should be replaced. Check all materials for proper anchorage and secure as necessary.

### **Type V - Manufactured Insert Inlet Protection**

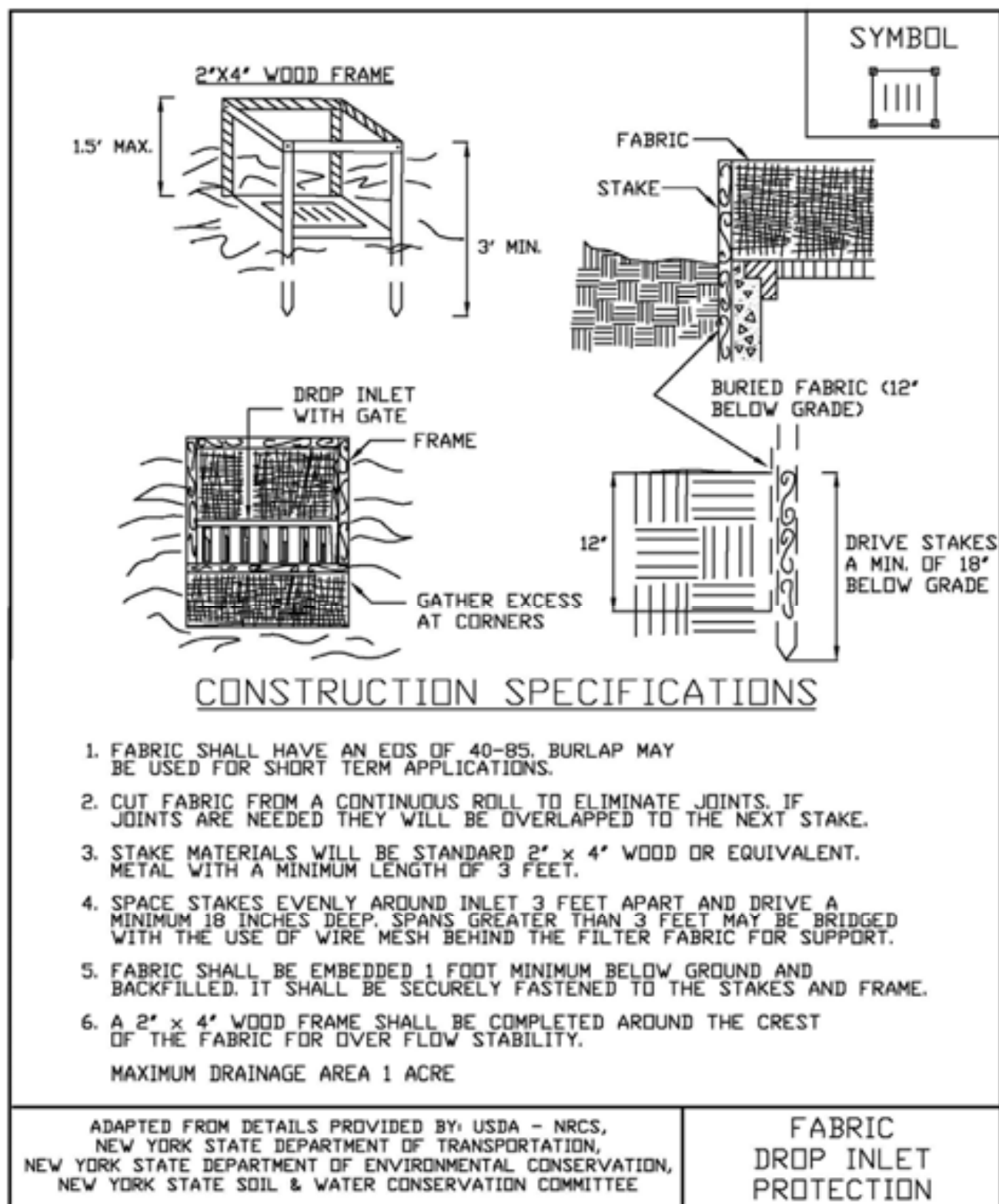


The drainage area shall be limited to 1 acre at the drain inlet. All inserts will be installed and anchored in accordance with the manufacturers recommendations and design details. The fabric portion of the structure will equal or exceed the performance standard for the silt fence fabric. The inserts will be installed to preserve a minimum of 50 percent of the open, unobstructed design flow area of the storm drain inlet opening to maintain capacity for storm events.

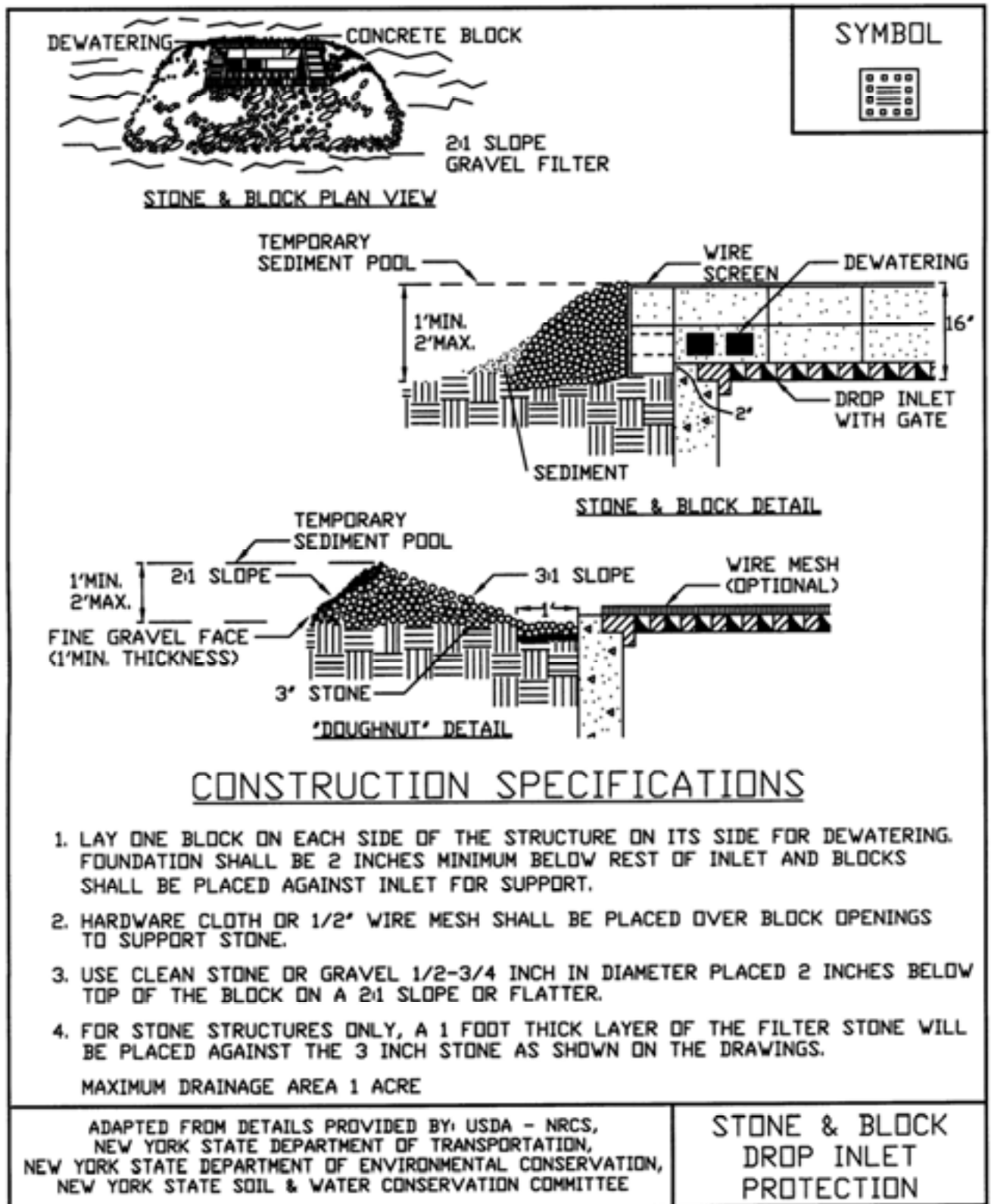
**Figure 5.31**  
**Excavated Drop Inlet Protection**



**Figure 5.32**  
**Fabric Drop Inlet Protection**



**Figure 5.33**  
**Stone & Block Drop Inlet Protection**



# STANDARD AND SPECIFICATIONS FOR SILT FENCE



## **Definition**

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## **Purpose**

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used (approximately one year).

## **Conditions Where Practice Applies**

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence placed on a slope are:

<u>Slope Steepness</u>	<u>Maximum Length (ft.)</u>
2:1	25
3:1	50
4:1	75
5:1 or flatter	100

2. Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, with maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier.

## **Design Criteria**

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

## **Criteria for Silt Fence Materials**

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

<u>Fabric Properties</u>	<u>Minimum Acceptable Value</u>	<u>Test Method</u>
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682

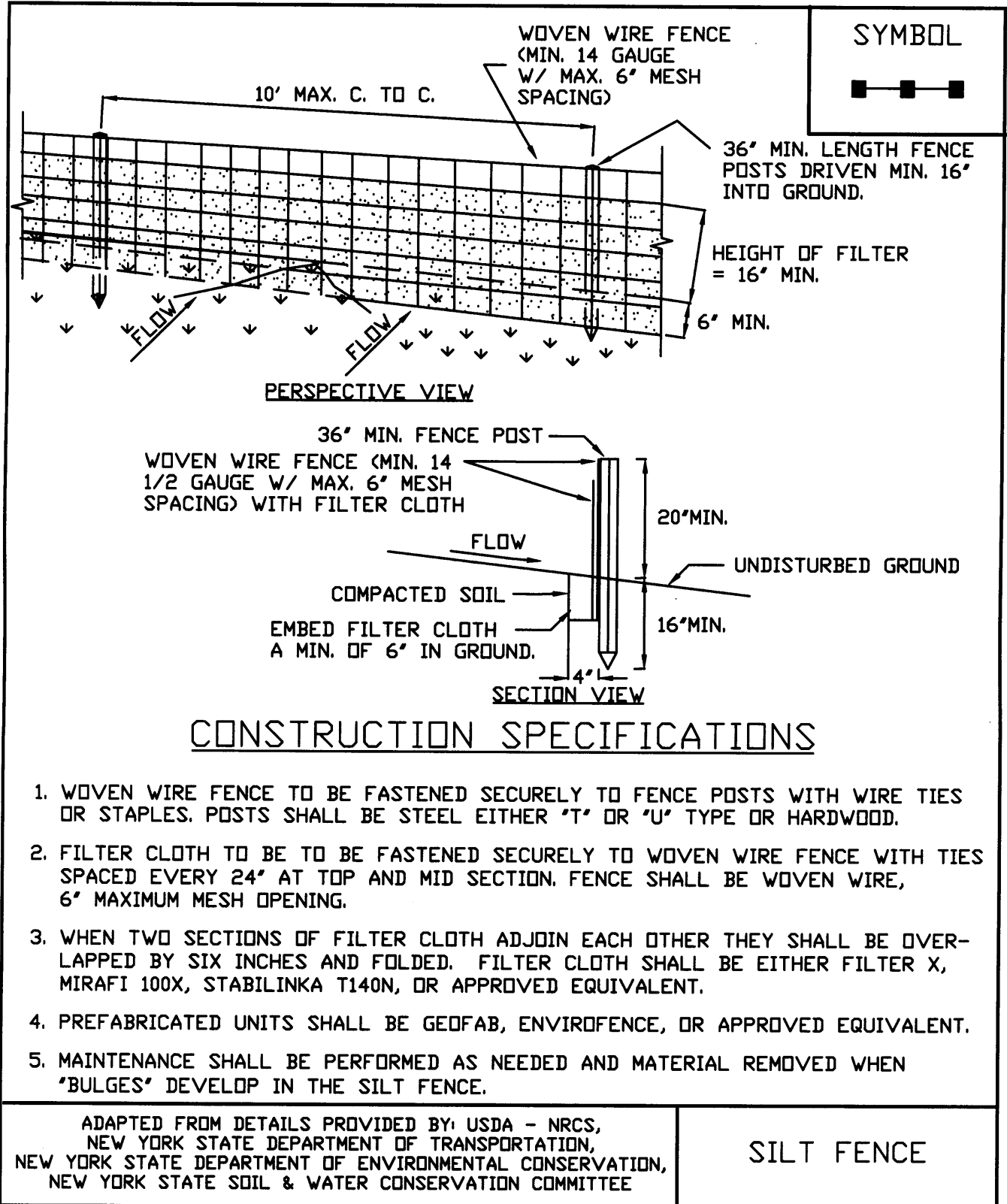
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

**Figure 5A.8**  
**Silt Fence**







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**APPENDIX H**

Schedule “B”

**STORMWATER CONTROL FACILITY  
MAINTENANCE AGREEMENT WITH  
THE TOWN OF LEWISBORO**

**THIS AGREEMENT**, entered into this \_\_\_\_ day of \_\_\_\_\_, 2023 , by and between the Town of Lewisboro, New York (“Town”), a municipal corporation organized and existing under the laws of the State of New York with offices at 11 Main Street, South Salem, NY 10590. and 19 Mark Mead, LLC (“Facility Owner”), having an address of 12 North Salem Road, Cross River, NY 10518.

**WHEREAS**, that the Town and the Facility Owner (collectively “Parties”), for the consideration hereinafter named, agree as follows:

**WHEREAS**, the Town and the Facility Owner wish to enter into an agreement to provide for the long term maintenance and continuation of stormwater control measures shown on Lots \_\_\_\_\_ of Filed map No. \_\_\_\_\_ filed in the Westchester County Clerk’s Office on \_\_\_\_\_ to be built in accordance with the approved project plans and thereafter be maintained, cleaned, repaired, replaced and continued in perpetuity in order to ensure optimum performance of the components; and

**THEREFORE**, the Town and the Facility Owner agree as follows:

1. This Agreement binds the Town and the Facility Owner, its successors and assigns, to the maintenance provisions depicted in the approved project plans which are attached as Schedule A of this Agreement.
2. The Facility Owner shall maintain, clean, repair, replace and continue the stormwater control measures depicted in Schedule A as necessary to ensure optimum performance of the measures to design specifications. The stormwater control measures shall include, but shall not be limited to, the following: drainage ditches, swales, rain gardens, dry wells, infiltrators, drop inlets, pipes, culverts, soil absorption devices and storm water basins.
3. The Facility Owner shall be responsible for all expenses related to the maintenance of the stormwater control measures, which maintenance shall be according to Exhibit B, and shall establish a means for the collection and distribution of expenses among parties for any commonly owned facilities.
4. The Facility Owner shall provide for the periodic inspection of the stormwater control measures, not less than once in every five year period, to determine the condition and integrity of the measures. Such inspection shall be performed by a Professional Engineer licensed by the State of New York. The Professional Engineer shall prepare and submit to the Town Engineer within thirty (30) days of the inspection, a written report of the findings including recommendations for those actions necessary for the continuation of the stormwater control measures.
5. The Facility Owner shall not authorize, undertake or permit alteration, abandonment, modification or discontinuation of the stormwater control measures except in accordance with written approval of the Town.
6. The Facility Owner shall undertake necessary repairs and replacement of the stormwater control measures at the direction of the Town or in accordance with the recommendations of the Town Engineer.

7. This Agreement shall be recorded in the Office of the County Clerk, County of Westchester and shall be binding and in full force on the heirs, distributes, successors and assigns of the Facility Owner. The Facility Owner shall be responsible for payment of any fees in connection with the recording with the Office of the County Clerk.

8. If ever the Town determines that the Facility Owner has failed to construct or maintain the stormwater control measures in accordance with the project plan or has failed to undertake corrective action specified by the Town or by the Town Engineer, the Town shall serve on the Company the notice to cure on thirty (30) days' notice. If the Company fails to comply with the notice to cure to the discretion of the Town Engineer, the Company hereby consents to the Town undertaking such measures and steps as reasonably necessary for the preservation, continuation or maintenance of the stormwater control measures and to affix the expenses thereof as a lien against the property. In the event that the Town is required to undertake such measures as a result of the Company failing to comply with the notice to cure, the Company shall be required to deposit with the Town an escrow amount determined by the Town Engineer. Nothing in this Agreement prevents the Town from immediately undertaking such measures and steps as reasonably necessary for the preservation, continuation or maintenance of the stormwater control measures in the event of an emergency in the discretion of the Town Engineer and to affix the expenses thereof as a lien against the property.

9. Any and all notices required hereunder shall be addressed as follows, or to such other address as may hereafter be designated in writing by either party hereto:

To Town of Lewisboro:

Town Clerk

With a copy to:

Town Engineer

Town Attorney

Facility Owner:

At the address first above written

10. The Facility Owner hereby agrees to indemnify and save harmless the Town, its officers, employees, elected officials, and agents from and against all liability, loss or damage the Town may suffer, arising directly or indirectly out of the contract between the Facility Owner and the Town. The Facility Owner further agrees to provide defense for and defend any claims or causes of action of any kind or character directly or indirectly arising out of this Agreement at its sole expense and agrees to bear all other costs and expenses relating thereto.

11. This Agreement constitutes the entire Agreement between the Parties in connection with the long-term maintenance and continuation of stormwater control measures approved by the Town for the Project and supersedes any and all prior agreements, whether oral or written. If one or more of the provisions in this Agreement are deemed by a Court of competent jurisdiction to be void by law, then the remaining provisions will continue in full force and effect. This Agreement may not be amended or modified except by an instrument in writing signed by all Parties. There will be no presumption against any Party (or its counsel) on the

ground that such Party (or its counsel) was responsible for preparing this Agreement or any part of it.

12. Each and every provision of law and clause required by law to be inserted in this Agreement shall be deemed to have been inserted herein. If any required contractual provision is not inserted, through mistake or otherwise, then upon the application of either party, this Contract shall be physically amended forthwith to make such insertion.

13. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without giving effect to that State's choice of law rules. The Parties hereby submit to the exclusive jurisdiction of the Supreme Court of the State of New York, County of Westchester, in any action or proceeding arising out of or relating to this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement:

TOWN OF YORKTOWN

PROPERTY OWNER

By: \_\_\_\_\_  
XXXXXX, Town Supervisor

By: \_\_\_\_\_

By: \_\_\_\_\_

STATE OF NEW YORK )

) ss.:

COUNTY OF WESTCHESTER )

On the \_\_\_\_ day of \_\_\_\_\_ in the year 2023, before me, the undersigned, personally appeared Matthew Slater personally known to me or proved to me on the same basis of satisfactory evidence to be the individual(s) whose names(s) is (are) subscribed to the within instrument and acknowledge to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

\_\_\_\_\_  
Notary Public

Commission Expires: \_\_\_\_\_

STATE OF NEW YORK )

) ss.:

COUNTY OF WESTCHESTER )

On the \_\_\_\_ day of \_\_\_\_\_ in the year 2023 before me, the undersigned, personally appeared \_\_\_\_\_ (facility owner) personally known to me or proved to me on the same basis of satisfactory evidence to be the individual(s) whose names(s) is (are) subscribed to the within instrument and acknowledge to me that he/she/they executed the same in his/her/their capacity(ies), and that by is/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

---

Notary Public

Commission Expires: \_\_\_\_\_

## Exhibit 1

Control to be Inspected	Inspection Frequency	Maintenance Threshold Criteria	Maintenance Procedure
Drain Inlets	Quarterly	3"+ accumulated sediment	Remove debris and sediment.
Stormwater Infiltrators	Annually	3"+ accumulated sediment	Remove Accumulated sediment and debris; weed and replace plants and mulch as needed.

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**APPENDIX I**

Project Plans

**MEMORANDUM**

TO: Chairperson Janet Andersen and  
Members of Lewisboro Planning Board

CC: Ciorsdan Conran  
Judson Siebert, Esq.  
Kevin Kelly, Building Inspector

FROM: Jan K. Johannessen, AICP   
Joseph M. Cermele, P.E., CFM   
Town Consulting Professionals

DATE: September 15, 2023

RE: Wetland Permit & Stormwater Permit  
Alexander Kranz, Successor Trustee  
Elmwood Road  
Sheet 43, Block 10302, Lot 23

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**PROJECT DESCRIPTION**

The application involves the construction of a proposed 3-bedroom residence on ±3.47 acres of land located on Elmwood Road and within the R-2A Zoning District. The residence is proposed to be served by an asphalt driveway, septic system, private water well, and drainage improvements. The property contains a wetland that is jurisdictional to the Town of Lewisboro and the New York State Department of Environmental Conservation (NYSDEC) and nearly the entire property consists of either wetland or wetland buffer. While no disturbance is proposed within the wetland proper, the majority of the proposed improvements and disturbance is located within the wetland buffer.

**SEQRA**

The proposed action is a Type II Action and is categorically exempt from the State Environmental Quality Review Act (SEQRA).



**REQUIRED APPROVALS/REFERRALS**

1. A Wetland Permit and Town Stormwater Permit is required from the Planning Board; a public hearing is required to be held on the Wetland Permit.
2. A Driveway Opening Permit is required from the Town of Lewisboro Highway Superintendent.
3. The proposed septic system and potable water well require approval from the Westchester County Department of Health (WCDH).
4. An Article 24 Freshwater Wetland Permit has been obtained from the New York State Department of Environmental Conservation (NYSDEC); the permit expires on December 31, 2026.
5. If proposed land disturbance exceeds one (1) acre, coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001) will be required.
6. The subject property is located within the Special Character Overlay Zone, the proposed residence would require approval by the Architecture and Community Appearance Review Council (ACARC).

**COMMENTS**

1. The invasive species notes provided on the landscaping plan differ from those on the site plan, the notes on the site plan should govern.
2. The plant schedule on the planting plan provides no quantities for the QB and QP trees.
3. Notes regarding invasives removal indicate that one (1) gallon shrub will be planted for every two (2) invasives shrubs removed; please provide an estimated quantity of invasive shrubs to be removed and a list of native replacement shrubs from which to choose from. When estimating the number of shrubs to be removed, consider one (1) shrub per 36 s.f. In addition to the replacement shrubs, consider installing no less than five (5) native deciduous trees within the invasive species removal area.
4. The disturbance table on Sheet 1 is confusing. Please simplify to identify the total amount of disturbance within the 150-foot wetland buffer and the total area of wetland mitigation.
5. There appears to be different tree symbols used on the same sheet which is confusing. Please clarify all sheets to use the same tree symbol for all trees and clarify trees to remain, trees to be removed, and trees to be protected during construction with fencing.

6. Remove the mitigation area from the existing conditions plan.
7. The applicant acknowledges that the driveway location shall be reviewed in consultation with the Highway Superintendent; the applicant shall coordinate with the Highway Superintendent and arrange for an inspection.
8. Provide driveway station on the site plan. The driveway profile should be revised to include the edge of pavement, property line and garage. Ensure that the proposed driveway grades will comply with Town requirements.
9. Illustrate the proposed grading associated with the diversion swale and eastern side of the proposed detention basin. It appears that fill is being proposed over the existing grade in this area. For example, there is a 743.5-foot spot elevation showing over the existing 741.0-foot grade.
10. The riser pipe shown within the detention basin is below the bottom grade of the pond. The riser is proposed at 737.0 feet and the bottom of basin spot shown is 738.0 feet. Furthermore, these elevations along with the berm elevation do not match those shown on the Detention Basin Detail. Once the adjustments have been made, be sure to coordinate the elevations with the stormwater design calculations located within the SWPPP.
11. The 75' Vegetated Filter Area dimension should be taken between the level spreader and the swale.
12. Please confirm that the planting specifications located on Sheet 5 of 7 are for the Stormwater Basin. We suggest removing the suggested plantings box on this same sheet since there is a site-specific basin planting plan provided.
13. The title of Sheet 7 of 7 should be revised; the title does not appear relevant.
14. The stormwater calculations should be updated to include the sizing for the level spreader and 75' Vegetated Filter Area.
15. Upon receipt, please submit the WCDH Approval documents (signed plans and permit).
16. Please provide an updated SWPPP and NOI conforming to the current New York State Requirements. The SWPPP and NOI we have on file appears to be outdated.
17. Question #12 of the NOI should be answered "yes".

Chairperson Janet Andersen  
Kranz – Elmwood Road  
September 15, 2023  
Page 4 of 4

In order to expedite the review of subsequent submissions, the applicant should provide annotated responses to each of the comments outlined herein.

**PLANS REVIEWED, PREPARED BY SITE DESIGN CONSULTANTS, DATED AUGUST 29, 2023:**

- Proposed Site Plan (1 of 7)
- Existing Conditions (2 of 7)
- Septic Plan and General Notes (3 of 7)
- Erosion & Sediment Control Plan (4 of 7)
- Stormwater Details (5 of 7)
- Septic System Profile and Details (6 of 7)
- Septic System Profile and Details (7 of 7)
- Planting Plan (1 of 1)

**DOCUMENT REVIEWED:**

- Letter, prepared by Site Design Consultants, dated August 29, 2023

JKJ/dc

[https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Shared/Jan/PENDING/01 Lewisboro/2023-09-15\\_LWPB\\_Kranz - Elmwood Road\\_Review Memo.docx](https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Shared/Jan/PENDING/01 Lewisboro/2023-09-15_LWPB_Kranz - Elmwood Road_Review Memo.docx)

**TO:** Town of Lewisboro Planning Board

**FROM:** Lewisboro Conservation Advisory Council

**SUBJECT:** Kranz Residence  
Elmwood Road

**DATE:** September 11, 2023

---

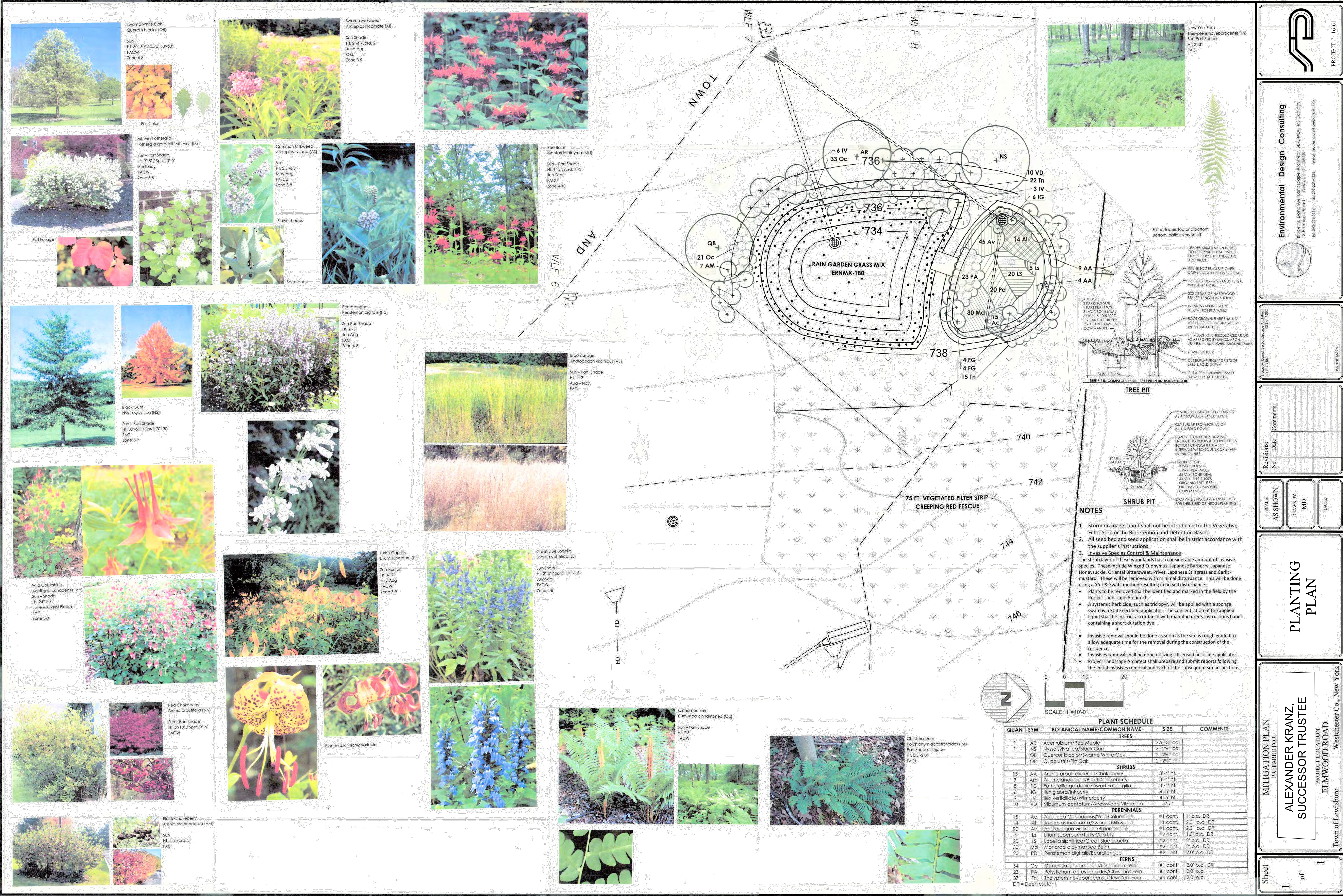
The Conservation Advisory Council (CAC) reviewed the applicant's submission of a site development plan for a single-family home with an asphalt driveway on Elmwood Road.

The proposed house is to be built on a sloping property with a wetland at the bottom and South side of the property. Almost the entire lot is in the wetland or wetland buffer.

The submitted plan showed a rain garden for stormwater. A list of primarily perennial flower plantings was provided. The plan showed a list of trees indicating the ones to be removed. Over 30 trees are being removed to accommodate the driveway and house.

A 1 to 1 wetland mitigation plan was not provided and it appears that meeting the 1 to 1 requirement may not be met. The CAC would like to see a mitigation plan that might include off-site mitigation but should also include the planting of trees to replace some part of the 30 trees being removed.





NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW

Environmental Design Consulting  
100 West 4th Street, Suite 200, New York, NY 10014  
Tel: 212-260-0000 Fax: 212-260-0001 email: info@edcny.com

PROJECT # 16-61

Revisions:

No.	Date	Comments

SCALE: AS SHOWN

DRAWN BY: MD

DATE:

MITIGATION PLAN  
PREPARED FOR:  
**ALEXANDER KRANZ,  
SUCCESSOR TRUSTEE**  
PROJECT LOCATION:  
ELMWOOD ROAD  
Town of Lewisboro  
Westchester Co., New York

PLANTING PLAN

Sheet 1 of 1





SITE DATA:

OWNER / DEVELOPER:

STREET ADDRESS

PROJECT LOCATION:

TOWN TAX MAP DATA:

REALTY SUBD.

SITE AREA :

SEWAGE FACILITIES:

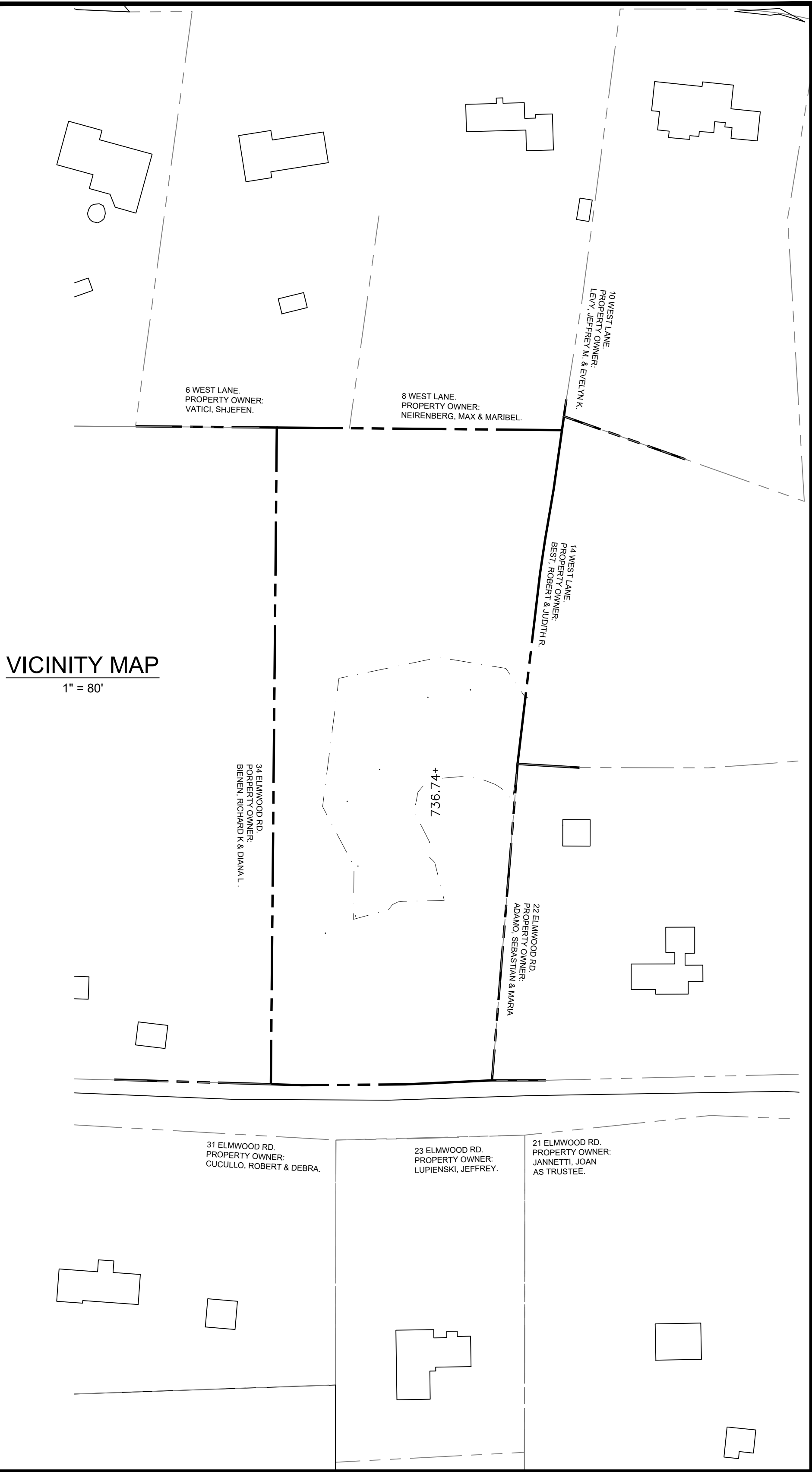
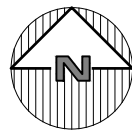
WATER FACILITIES:

WATERSHED:

TRUST BETWEEN ABRAHAM KRANTZ, AND NORA KRANTZ,  
AND ARTHUR KRANTZ  
189 BENT TREE DRIVE  
PALM BEACH GARDENS, FL 33418  
ELMWOOD ROAD  
TOWN OF LEWISBORO  
SECTION 10302, BLOCK 43, LOT 23  
C. LINDSAY SUTHERLAND LOT # D FILED MAP 7270  
3.474 ACRES (151,327 SF)  
SUBSURFACE SEWAGE TREATMENT SYSTEM  
DRILLED WELL  
INLAND LONG ISLAND SOUND

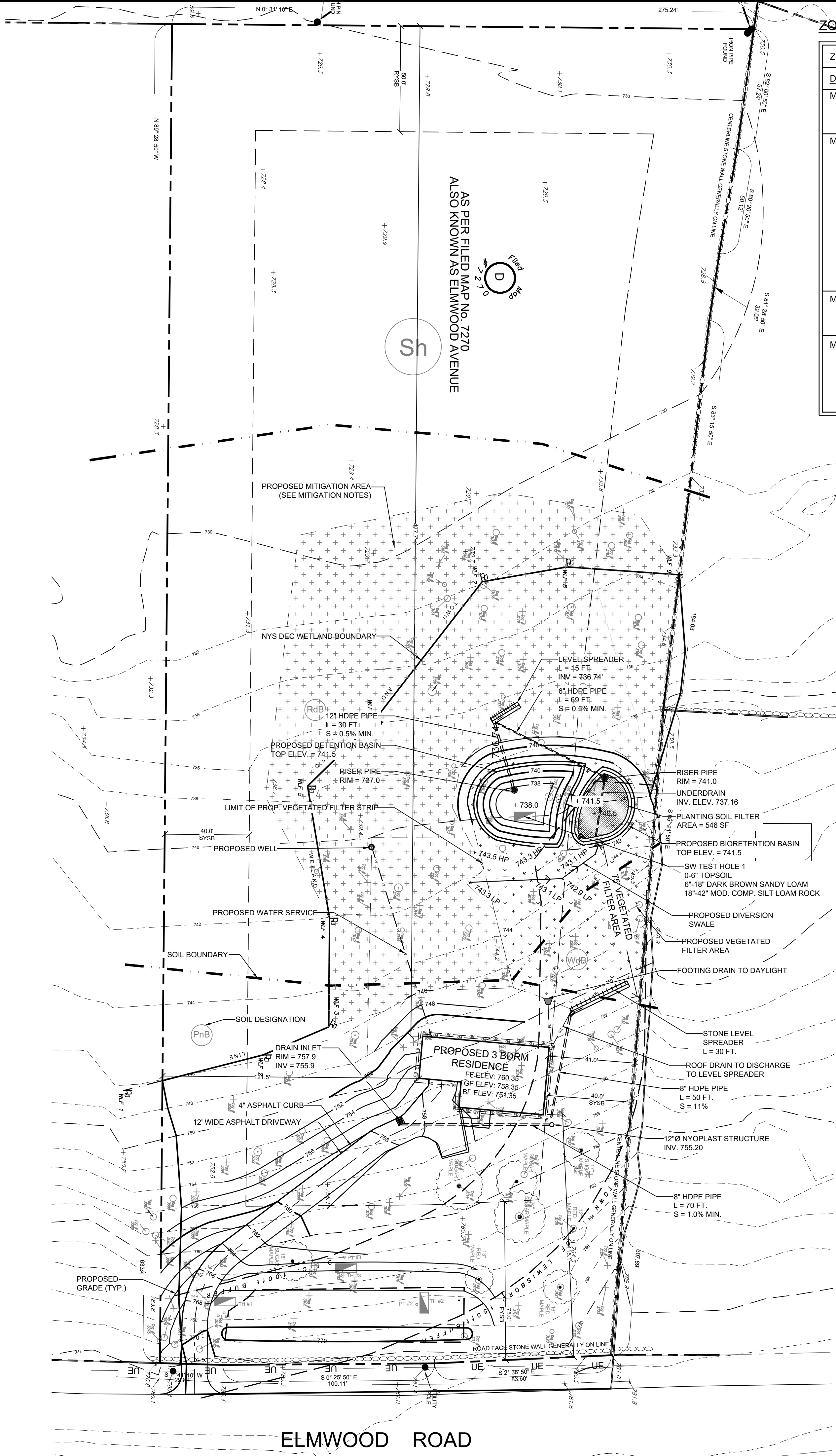
LOCATION MAP

NOT TO SCALE



VICINITY MAP

1" = 80'



ZONING SCHEDULE:

R-2A, SINGLE FAMILY RESIDENTIAL			
DIMENSIONAL REGULATIONS:	REQUIRED	PROVIDED	VARIANCE REQUIRED
MINIMUM SIZE OF LOT:			
MINIMUM LOT AREA:	2 AC.	3.47 AC.	NONE
MINIMUM LOT WIDTH:	200 FT.	213 FT.	NONE
MINIMUM YARD DIMENSIONS:			
PRINCIPAL BUILDING:			
FRONT YARD SETBACK:	75 FT.	115.1 FT.	NONE
REAR YARD SETBACK:	50 FT.	477.7 FT.	NONE
ONE SIDE YARD SETBACK:	40 FT.	41 FT.	NONE
COMBINED SIDE YARD SETBACK:	-- FT.	-- FT.	NONE
ACCESSORY BUILDINGS:			
FRONT YARD SETBACK:	75 FT.	-- FT.	NONE
REAR YARD SETBACK:	50 FT.	-- FT.	NONE
ONE SIDE YARD SETBACK:	-- FT.	-- FT.	NONE
COMBINED SIDE YARD SETBACK:	40 FT.	-- FT.	NONE
MAXIMUM % OF LOT TO BE OCCUPIED:			
TOTAL BUILDING COVERAGE:	9% OF LOT AREA	1.1 % OF LOT AREA	NONE
MAXIMUM HEIGHT:			
PRINCIPAL BUILDING - FEET:	35 FEET	35 FT MAX	NONE
PRINCIPAL BUILDING - STORIES:	2 1/2	2 1/2 MAX	NONE
ACCESSORY BUILDING - FEET:	35 FEET	35 FT MAX	NONE
ACCESSORY BUILDING - STORIES:	2 1/2	2 1/2 MAX	NONE

DISTURBANCE

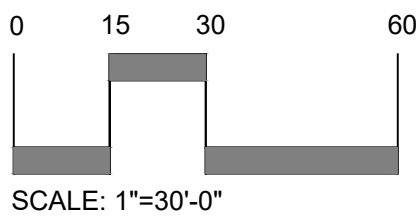
DESIGNATED AREA:	PROVIDED
100' BUFFER AREA:	40,445 SF
TOTAL DISTURBANCE IN 100' BUFFER:	19,357 SF.
ADD'L 150' BUFFER DISTURBANCE	10,767 SF.
LOT AREA:	151,331 SF.
TOTAL LOT DISTURBANCE:	33,587 SF.

MITIGATION NOTES:

- Invasive species removal shall consist of removing Japanese barberry (Berberis thunbergia). Smaller shrubs can be mechanically removed with hand tools ensuring that the entire root ball is removed. Holes left by mechanical removal shall be filled in with native on-site soil and seeded. Larger shrubs shall be treated with herbicide (glyphosate). The shrub shall be cut flush to the ground exposing the cut stems or stumps. All removed plants shall be transported off-site to an approved facility. The cut stems/stump shall be immediately treated with the herbicide (same day). Treatment shall be applied with a brush or wand and shall be performed by a licensed applicator. Treatment shall occur in the early spring or fall and shall occur when there is no rain forecasted. The owner is responsible for adhering to all State and federal regulations and shall obtain any necessary permits from the NYSDEC, as applicable. For every two (2) shrubs removed, the owner shall be responsible for installing one (1) 2 gallon (min) native deciduous shrub. The specie type shall be approved by the Town Wetland Inspector prior to installation.
- Populations of Japanese stiltgrass shall be removed via hand pulling in the fall season, when no seeds are present. Stilt grass shall be placed in bags and transported off-site to an approved facility. The removal area shall be restored by installing 4-inches of topsoil and seeding with a Conservation Shade Mix (ERNMX-129) by Ernst seeds or approved equal. Seeding areas shall be mulched with sterile straw.

LEGEND

---	222	EXISTING GRADING
-X-222.8		EXISTING SPOT GRADE
---	200	PROPOSED GRADING
---		PROPERTY LINE / RIGHT OF WAY
---		EDGE OF WETLAND
---		100' WETLAND BUFFER
---		PROPOSED DRAINAGE LINE
---		PROPOSED FOOTING DRAIN
---		PROPOSED ROOF DRAIN
---		PROPOSED HOUSE AND DRIVE
---		PROPOSED GRASS LEVEL LIP SPREADER



Site Design Consultants  
Civil Engineers • Land Planners  
251-F Underhill Avenue, Yorktown Heights, NY 10598  
(914) 962-4488 - Fax: (914) 962-7386  
www.sitedesignconsultants.com

Engineer:  
Joseph C. Rinna, P.E.  
NYS Lic. No. 64431

Revisions:	No.	Date	Comments
	1	7/5/18	H.D. Comp.
	2	12/18/18	Revised basins
	3	2/1/19	Minor revisions
	4	2/1/19	Minor revisions
	5	3/23/19	Minor revisions
	6	5/30/23	Minor revisions
	7	8/29/23	Town Comments

SCALE:  
1" = 20'

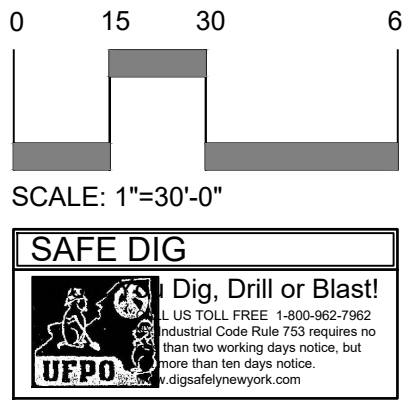
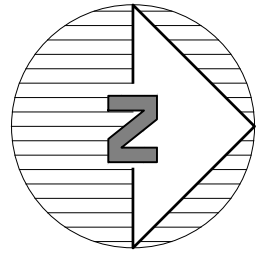
DRAWN BY:  
OMJR

DATE:  
6/19/18

PROPOSED SEPTIC PLAN  
PREPARED FOR  
ALEXANDER KRANTZ,  
SUCCESSOR TRUSTEE  
PROJECT LOCATION  
ELMWOOD ROAD  
Town of Lewisboro  
Westchester Co., New York

Sheet  
1  
of  
7





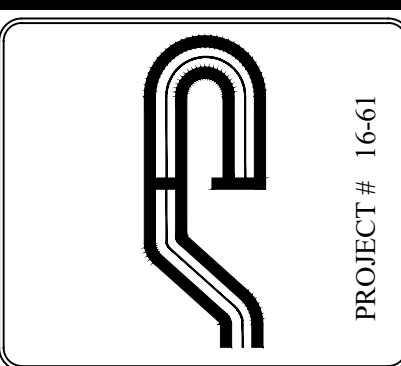
PROPOSED SEPTIC PLAN  
PREPARED FOR  
**ALEXANDER KRANZ,  
SUCCESSOR TRUSTEE**  
PROJECT LOCATION  
ELMWOOD ROAD  
Town of Lewisboro Westchester Co., New York

**EXISTING  
CONDITIONS**

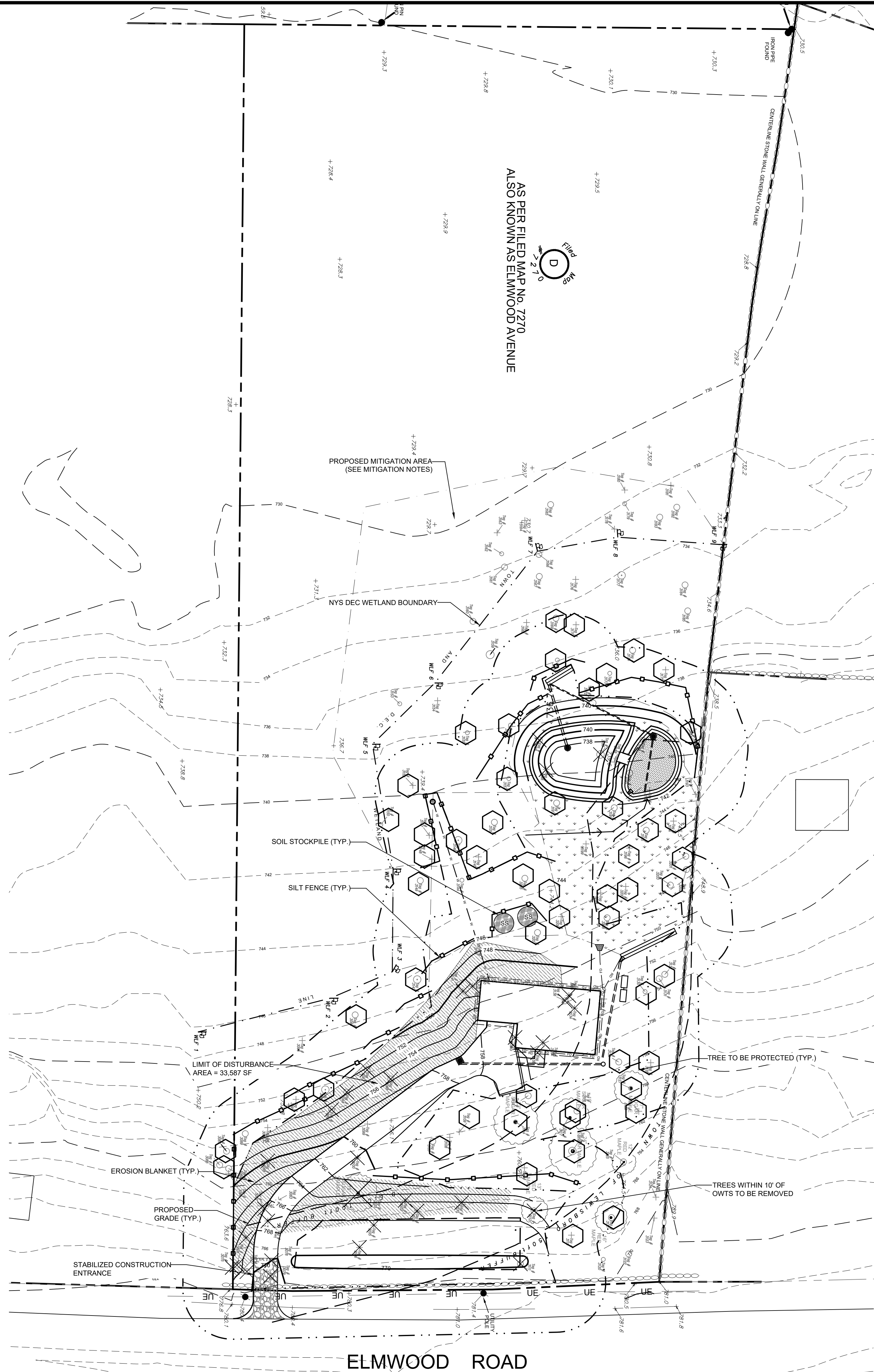
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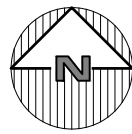
Sheet  
2  
of  
7







LOCATION MAP  
NOT TO SCALE



#### SITE DATA:

OWNER / DEVELOPER:  
STREET ADDRESS:

PROJECT LOCATION:

TOWN TAX MAP DATA:  
REALTY SUBD.

SITE AREA:

SEWAGE FACILITIES:

WATER FACILITIES:

WATERSHED:

ALEXANDER KRANZ, SUCCESSOR TRUSTEE  
189 BENT TREE DRIVE  
PALM BEACH GARDENS, FL, 33418  
ELMWOOD ROAD  
TOWN OF LEWISBORO  
SECTION 10302, BLOCK 43, LOT 23  
C. LINDSAY SUTHERLAND LOT # D FILED MAP 7270  
3.474 ACRES (151,327 SF)  
SUBSURFACE SEWAGE TREATMENT SYSTEM  
DRILLED WELL  
INLAND LONG ISLAND SOUND

SEPARATION DISTANCES FROM WASTEWATER SOURCES						
WASTEWATER SOURCES	DRILLED WELL OR SECTION LINE (S) (FT)	TO STREAM LAKE WATERCOURSE (B) OR WETLAND (FT)	DWELLING (FT)	PROPERTY LINES (FT)	DRAINAGE DITCH/RAIN GARDEN (H) (FT)	INGROUND POOL (FT)
HOUSE SEWER	25' CIP 50' OTHER	25'	3'	10'	10'	10'
SEPTIC TANK	50'	50'	10' (H)	10'	10'	20'
EFFLUENT LINE / FORCE MAIN	50'	50'	10'	10'	10'	10'
DISTRIBUTION BOX / JUNCTION BOX	100'	100'	20' (D)	10'	20'	20'
ABSORPTION FIELD (F)	100' (A)	100'	20' (D)	10'	20'	35'
SEEPAGE PIT	150' (A)	100'	20' (D)	10'	20'	50'
DRY WELL (D) ROOF & FOOTINGS ROADS & DRIVEWAY	50' 100'	25' 25'	20' 20'	10'	10' 10'	20' 20'

**NOTES:**

A. Wells located in the general path of drainage of a SSTS must be located 200 feet or more away. All public water supply wells must be 200 feet from absorption fields or seepage pits.

B. Mean high water mark of defined stream or lake.

C. Drywells are not allowed above OWTS (drywells, Stormwater infiltrator or other subsurface stormwater infiltrator units).

D. For slab on grade foundations with no drains, distance can be reduced in half.

E. For all systems involving placement of fill, separation distances are measured from the toe of slope of the fill.

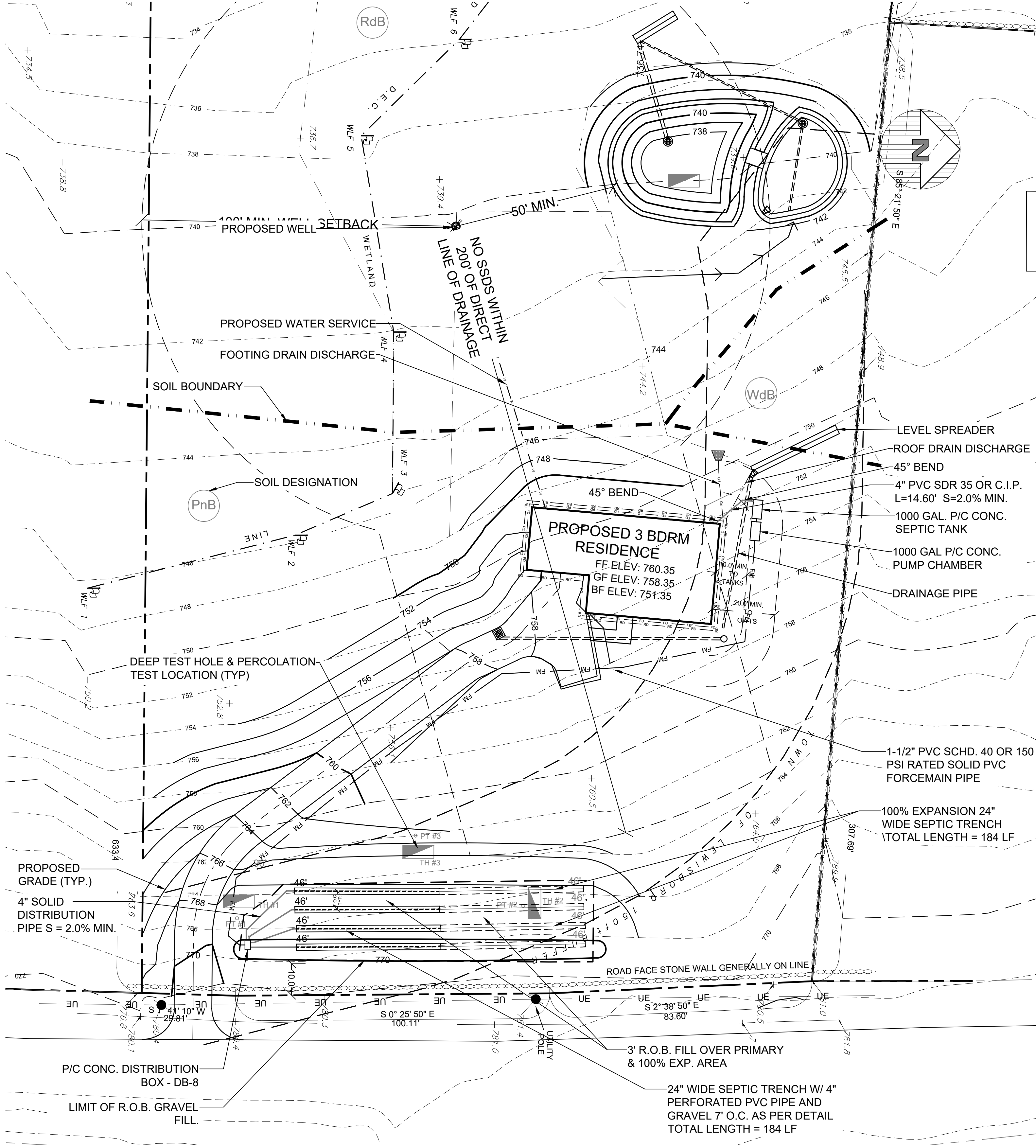
F. Closest part of OWTS shall be located at least ten (10) feet from any water service line (i.e. - PWS main, water service connection, well).

G. Recommended

H. Septic tanks are not permitted beneath raised decks and require a minimum of five (5) feet separation from deck piers (sonotubes).

**ADDITIONAL SEPERATION DISTANCES FROM SSTA TO:**

1. Piped Drainage	25 feet
2. Open Channel Drainage	50 feet
3. Curtain Drain (upgrade from SSTS)	15 feet
4. Curtain Drain (downgrade from SSTS)	50 feet
5. Catch Basin	50 feet
6. Driveway	5 feet
7. Stormwater Basin	100 feet (high water elevation)
8. Above Ground Well	10 feet
9. Deck with Pilings / sonotube	10 feet
10. Slab on Grade Foundation	10 feet
11. Roof & Footing Drain Discharge Pipe	10 feet



HEALTH DEPARTMENT SEPTIC SCHEDULE																					
LOT NO.	S.S.T.A. AREA (S.F.)	LOT AREA (S.F.)	TEST HOLE NO.	DEEP TEST PIT DESCRIPTION	TOTAL DEPTH	DEPTH TO WATER	DEPTH TO ROCK	PERCENT SLOPE AREA	PERC NO.	PERC RATE (MIN/IN)	MIN. DESIGN RATE	APPLICATION RATE (GPD/SF)	NO. OF BEDROOMS	DESIGN DATA						REMARKS	
														DESIGN FLOW RATE	TANK SIZE	REQD. TRENCH LENGTH	BANK RUN FILL DEPTH	VOLUME	CURTAIN DRAIN DEPTH		LENGTH
43	6,100 S.F.	151,327 S.F.	TP-#1	6" T.SOIL, 6"-54" MOD COMP C-M SANDS W/ STONES	4'-6"	————	————	15.00 %	PT-1	4 MIN.	10 MIN.	0.80	3 BRM	330 GPD	1000 GAL	184 LF	3 FT	1000 CY	————	————	DOSING RECD.
			TP-#2	6" T.SOIL, 6"-48" MOD COMP C-M SANDS W/ STONES	4'-0"	————	————		PT-2	6.3 MIN.											
			TP-#3	6" T.SOIL, 6"-48" MOD COMP MED SANDS W/ STONES	4'-0"	————	————		PT-4	9 MIN.											

NOTE: Required trench length taken from table in WCHD Rules and Regulations. (Based on Perc Test)

#### GENERAL NOTES:

- A written permit and/or approval issued by the WCHD to construct an individual sewerage system shall terminate and therefore be null and void unless construction is undertaken within one (1) year of the date of issuance.
- If for any reason the approved construction plan cannot be followed, a revised plan must be prepared, submitted and approved by the WCHD.
- All construction to be in accordance with these plans and last revised set of WCHD Rules and Regulations.
- All SSTS and wells shall be located in the exact location as shown on this plan unless otherwise authorized by the WCHD.
- Existing wells and SDS shown on this map were installed prior to approval date and are not part of this approval.
- All laundry and kitchen wastes shall be discharged into the SSTS.
- No cellar, roof or footing drains shall be discharged into the SSTS or within 25' of any well.
- Within 24-hours of the completion of the OWTS, the design professional must notify the Westchester County Department of Health (WCDH) that the OWTS is ready for inspection by submitting a completed request for an open works inspection on the appropriate form to WCDH.
- Prior to commencement of operation, a Certificate of Compliance must be applied for and received from WCHD.
- The proposed SSDS shall be isolated and protected against damage by erosion, storage of earth or materials, displacement, compaction or other adverse physical change in the characteristics of the soil or in the drainage of area.
- Proposed septic area to be kept free of traffic and debris during house construction and install adequate drainage to prevent erosion after septic is installed.
- Any modifications or deviations from this plan must be approved by the Design Engineer and WCHD prior to construction.
- The Engineer shall not be held responsible or held accountable for the integrity of any structures constructed or under construction prior to the approval of the plans.
- All conditions, locations, and dimensions shall be field verified and the Engineer shall be immediately notified of any discrepancies.
- All written dimensions on the drawings shall take precedence over any scaled dimensions.
- The Design Engineer shall supervise the construction of the SSTS and make an open works inspection.
- The Design Engineer disclaims any liability for damage or loss incurred during or after construction.
- The proposed OWTS shall be installed by a Westchester County licensed septic contractor.
- Contractor to verify all substructures encountered during construction.
- The Contractor shall supervise and direct the work using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the contract.
- The Contractor shall be responsible to the owner for the acts and omissions of his employees, subcontractors, and their agents and employees, and any other persons performing any of the work under a contract with the Contractor.
- Unauthorized alterations or additions to this drawing is a violation of Section 7209 (2) of the New York State Education Law.
- Survey and topographical information shown hereon prepared by surveyor: Erik J. Link, L.S.

#### SEPTIC CONSTRUCTION REQUIREMENTS:

- General
- The installation of the OWTS shall be in accordance with the most recently enacted Rules and Regulations for the Design and Construction of Residential Subsurface Sewage Treatment Systems and Drilled Wells in Westchester County, NY.
  - The Westchester County Health Department approval expires one year from the date on the approval stamp and is required to be renewed on or before the expiration date. The approval is revocable for cause or may be amended or modified when considered necessary by the department.
  - All work performed including new installations, repairs, relocations, etc. shall have all current required permits or approvals.
  - No grading in SSTS area except as shown on this plan.
  - Boulders, if any on surface of ground shall be cleared away prior to construction of the SSTS.
  - Prior to any excavation all underground utilities must be located. Call 1-800-962-7962.
- House Connection & Tanks
- The house sewer to tank connection shall be a minimum 4" diameter at a minimum slope of 2.0%. The pipe shall be cast iron, ductile iron, or sewer grade PVC. All materials shall comply to the NYS Uniform Fire Prevention and Building Code (NYCRR). The house trap shall have a cleanout and fresh air intake having a minimum diameter of one-half.
  - If cover exceeds 2 ft over any installed tank or chamber, a manhole and collar to grade is required for access. Minimum requirement of 6'-12" of cover over all tanks and chambers.
- Absorption Fields
- Absorption Fields to be constructed of 4" perforated PVC pipe or equal, encased in crushed stone over pipe with standard precast junction boxes at influent connection and 4" solid PVC pipe running from septic tank outlet to and between junction boxes.
  - Minimum Trench Depth = 18", Trench Width = 24".
  - Total depth of stone in trench = 12" (washed gravel 3/4" to 1 1/2").
  - Maximum backfill over trench = 14".
  - All septic field laterals shall be of equal length (60' max. w/o dosing and 100' max. if dosed) and parallel to contours at a slope rate of 1/16" per foot.
  - All pipes connecting to tank and boxes shall be cut flush with the inside wall of box.
  - PVC pipe to meet minimum standards of ASTM D-2729.
  - Absorption trenches shall not be installed or backfilled in wet, frozen, frost or snow covered soils.
  - Backfill material for the trenches shall contain no particles with any dimension greater than 4". Backfill septic material must be inspected and approved by the WCHD before installation.
  - No laterals shall be placed beneath a driveway or paved areas.
  - There shall be no trees within 10 feet of the absorption fields.
  - End caps to be placed at end of all 4" perforated P.V.C. pipe in absorption fields.

#### Fill Section

- R.O.B. gravel and impervious material to be inspected and approved by the Design Engineer prior to installation of the proposed system. Fill shall contain no particles greater than 4" in diameter. Fill shall be placed over expansion area where shown as required by WCHD.
- Fill stabilization may not be achieved by mechanical compaction Only by a natural settling, for a period required by W.C.H.D. which may include a freeze-thaw cycle. Percolation tests must be done in stabilized fill and must meet the design rate.
- Prior to submission of Certificate of Compliance to WCHD, fill section must be stabilized with grass seed and hay cover.

#### WCHD NOTES:

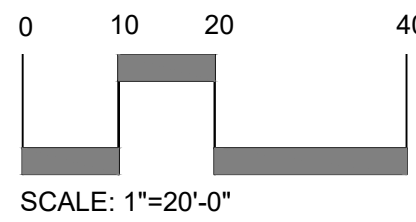
- The design professional shall supervise the construction of the SSTS and make an open works inspection.
- Within 24-hours of the completion of the SSTS, the design professional must notify the Westchester County Department of Health that the SSTS is ready for inspection by submitting a completed request for an open works inspection on the appropriate form to the Department.
- The proposed Well shall be installed by a New York State Department of Environmental Conservation Registered well driller.
- Drilled well to be sampled and tested in accordance with the WCDH Private well testing law.
- There are no sources of contamination within 200 feet of the proposed well.
- There shall be no trees within 10 feet of the OWTS.
- The no backfilling of a completed OWTS can occur until after it has been inspected and accepted by the Westchester County Department of Health.
- After backfilling the OWTS, the area shall be covered with a minimum of 4 inches of clean top soil seeded and mulched.
- There are DEC wetlands, streams, ponds etc. with in 200' of SSTS. There are no reservoir/reservoir stems or controlled lake with in 500' of SSTS.
- There is 0.75 AC of proposed disturbance.
- There are no existing or proposed wells within 200 feet of the proposed OWTS.
- There are no existing SSTS within 200 ft of well unless otherwise shown on this plan.
- Estimated construction and completion date: March 2023 to March 2024.

#### PRIVATE DRILLED WELL CONSTRUCTION REQUIREMENTS:

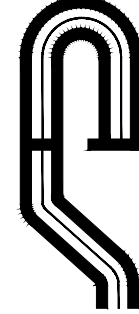
- All water supply drilled wells may not be constructed without a valid permit issued by the WCHD. Wells shall be constructed in accordance with NYSDOH and WCHD standards.
- Wells must be sited to meet all minimum restrictive distances. Wells must be sited as per plan. Any deviation must be approved by the Engineer and, if required, by the WCHD.
- There are no sources of contamination within 200' of the proposed well (where new wells are proposed).
- The top of the well must be 18" above finished grade which shall slope away in all directions to provide positive drainage.
- Minimum well yield shall be 5 gpm based on a 6 hour pump test and have a minimum 42 gallon pressure tank. Yield tests below 5 gpm will require a special design (see WCHD standards). Well yields below 2 gpm are not acceptable. If a well yield of less than 5 gpm is encountered, contact the WCHD immediately.
- Well locations shown on plan are based on setback requirements and does not guarantee adequate water supply. A hydrogeologist should be consulted for conformation of water supply, if desired.
- Well shall be installed by a New York State Department of Environmental Conservation Registered well driller.
- Drilled well to be sampled and tested in accordance with WCDH Private Well Testing Law.

#### MINIMUM RESTRICTIVE DISTANCES TO WELL:

- Property Line 10 feet
- Sewage System Tankage 50 feet
- Foundation 10 feet
- Swimming Pools 10 feet
- Watercourse or Waterbody 50 feet
- Absorption Trench 100 feet; 200 feet general path of drainage
- Seepage Pit 150 feet; 200 feet general path of drainage
- Tri-gallery, 4x4 150 feet; 200 feet general path of drainage
- Flow Diffuser 100 feet; 200 feet general path of drainage



NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.



PROJECT # 16-61

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SCALE:

1" = 20'

DRAWN BY:

OMJR

DATE:

6/18/18

SEPTIC PLAN

AND

GENERAL NOTES

PROPOSED SEPTIC PLAN  
PREPARED FOR

ALEXANDER KRANZ,  
SUCCESSOR TRUSTEE

PROJECT LOCATION  
ELMWOOD ROAD

Town of Lewisboro

Westchester Co., New York

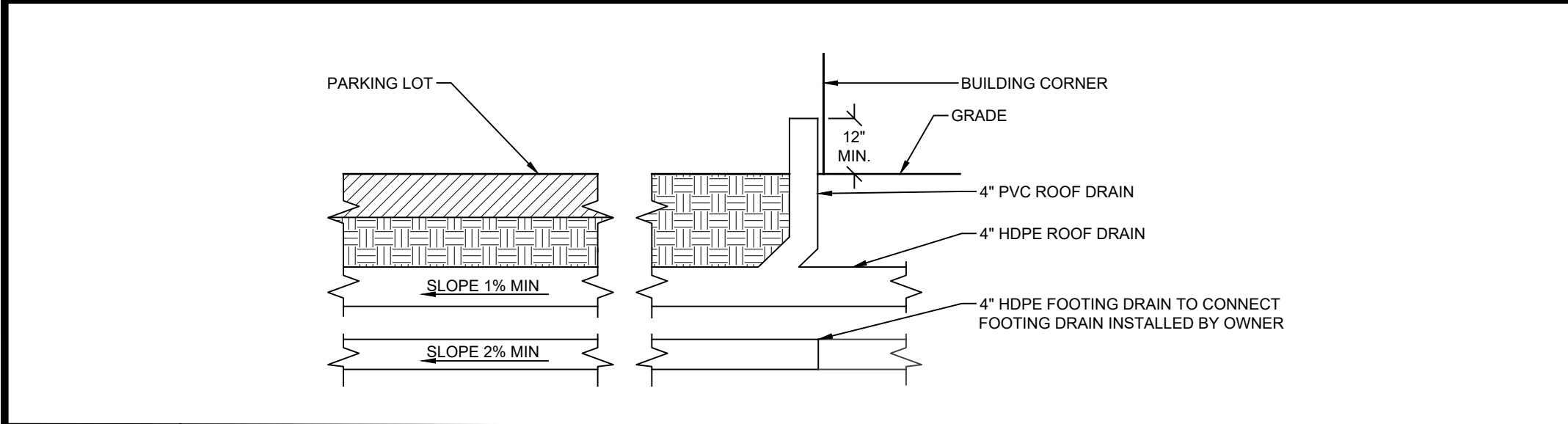
Sheet

3

of

7

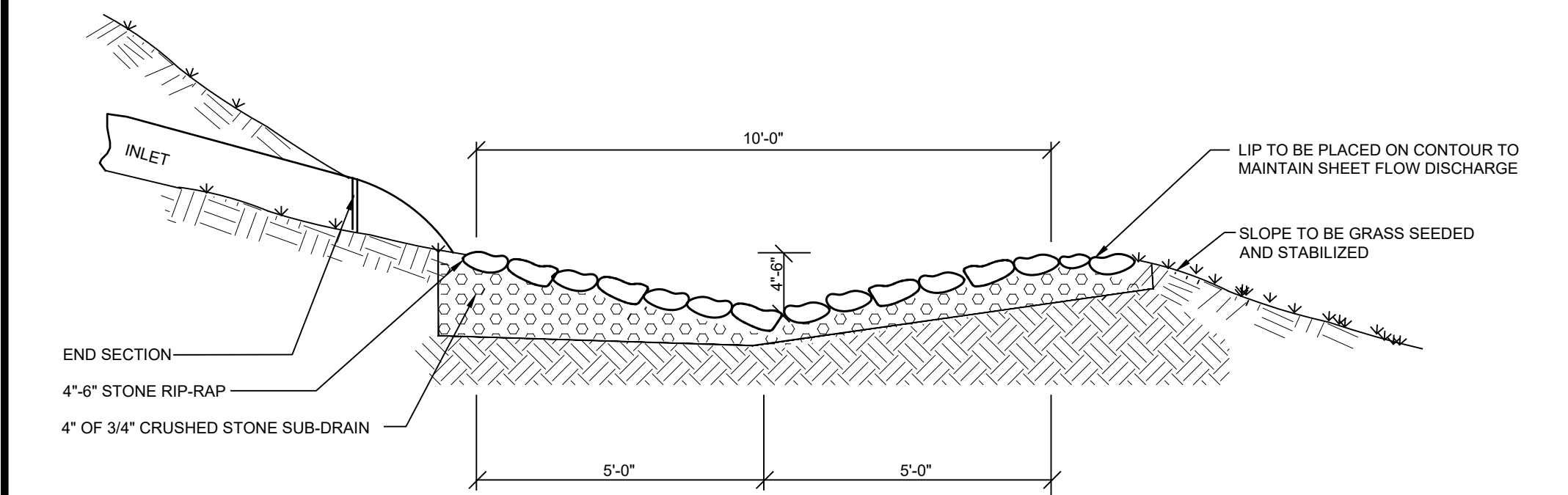




D-1

ROOF & FOOTING DRAIN CONNECTION DETAIL

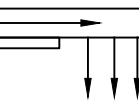
NOT TO SCALE



NOTES:

- The foundation area shall be cleared of trees, stumps, sod, loose soil, or other objectionable materials.
- The cross section shall be excavated to the rest lines and grades shown on the plans. Over excavated areas shall be backfilled with moist soil compacted to the density of the surrounding material.
- Filter bedding, and rock riprap shall be placed to line and grade in the manner specified.
- No abrupt deviations from design grade or horizontal alignment shall be permitted.
- Construction operations shall be done in such a manner that erosion, air and water pollution will be minimized and held within legal limits. All disturbed areas shall be vegetated or otherwise protected against soil erosion.

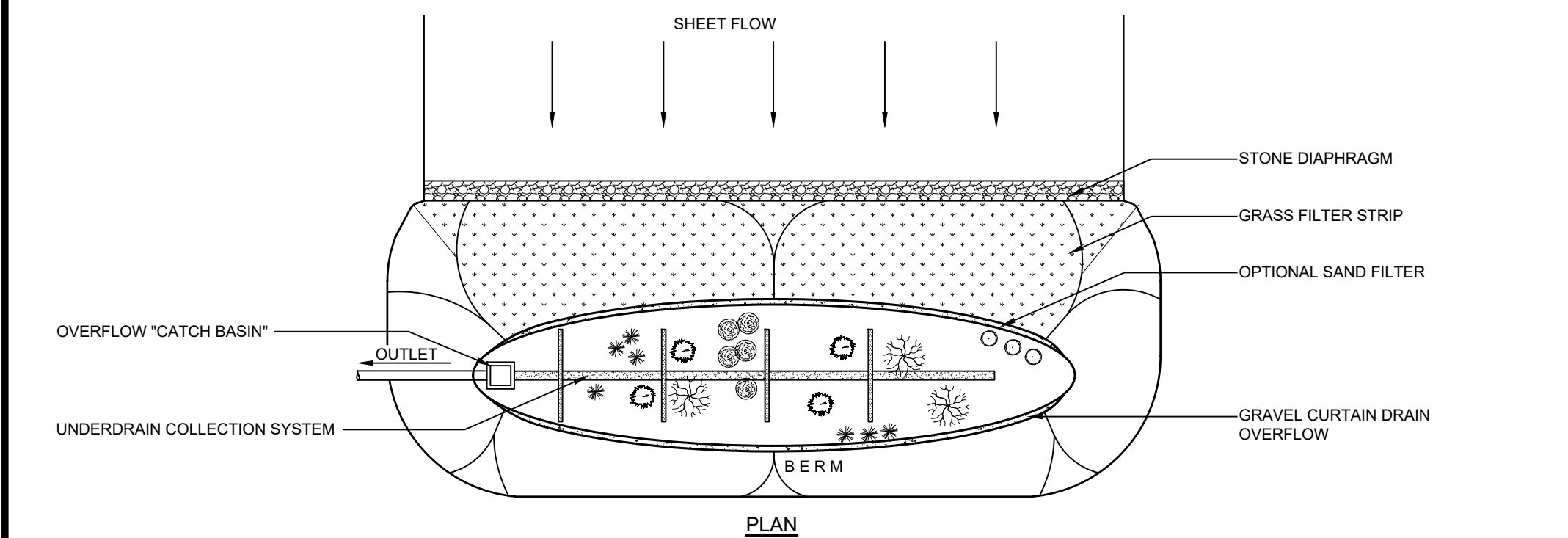
SYMBOL



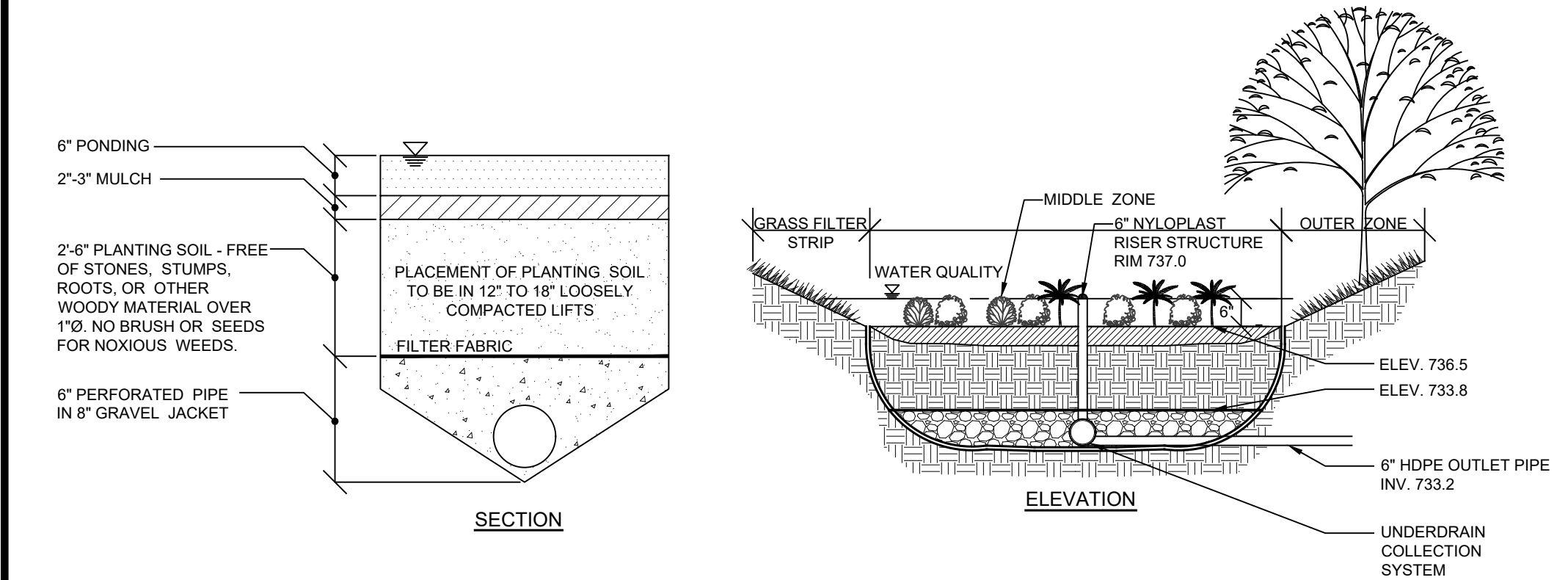
SW-1

STONE RIP-RAP LEVEL-LIP SPREADER DETAIL

NOT TO SCALE



PLAN



SECTION

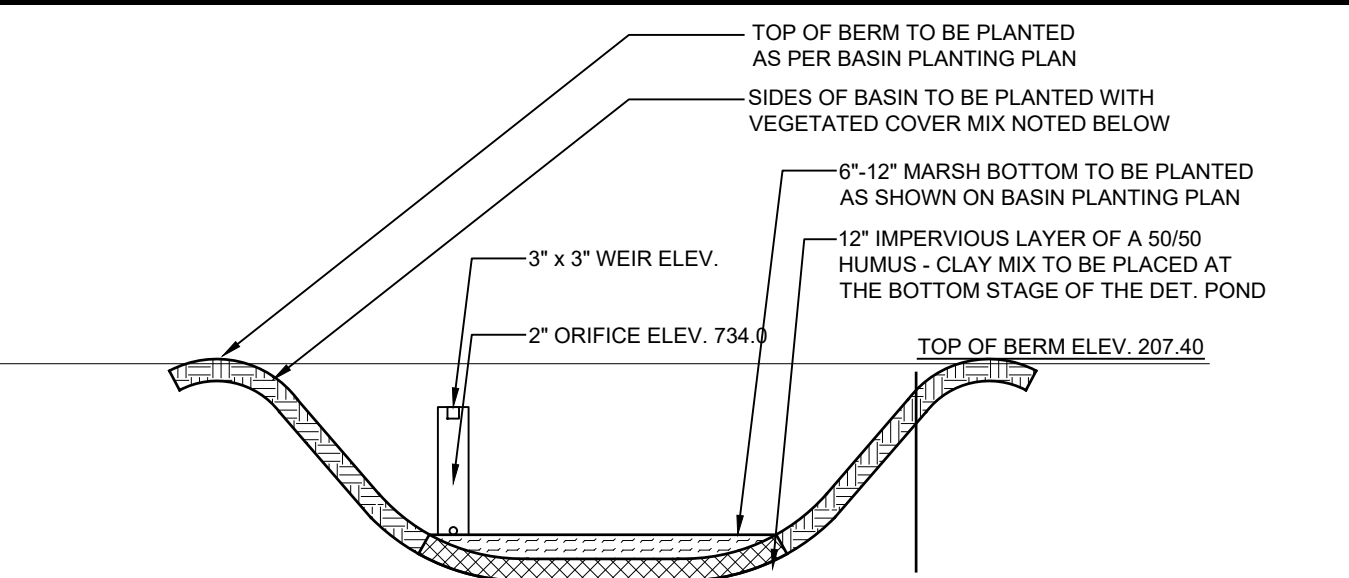
ELEVATION

PLANTING SPECIFICATIONS:

CLASSIFICATION	SM OR ML-UNIFIED SOIL CLASSIFICATION SYSTEM
PERMEABILITY	1.0 FEET PER DAY OR 0.5% INCHES PER HOUR
PH RANGE	5.2 TO 7.0%
ORGANIC MATTER	1.5 TO 4.0%
MAGNESIUM	35 LBS / ACRE PER MIN.
PHOSPHORUS	75 LBS / ACRE PER MIN.
POTASSIUM	85 LBS / ACRE PER MIN.
SOLUBLE SALTS	≤ 500 PPM
CLAY	10 TO 25%
SILT	30 TO 55%
SAND	35 TO 60%

SUGGESTED PLANTINGS:

GROUP A - SHALLOW WATER
Hayscented Fern (Dennstaedtia punctilobula)
GROUP B - FRINGE
Pussy Willow (Salix discolor)
Doublefile Viburnum (Viburnum Plc. Tormentosum)
Highbush Blueberry (Vaccinium corymbosum)
Pink Weigela (Weigela "Bristol Ruby")
GROUP C - TERRACE
Meadowweet (Spiraea latifolia)
Sweet Pepperbush (Clethra alnifolia)
Rose-Rugosa (Rosa Rugosa)
Flowering Dogwood (Cornus Florida)
Bayberry (Myrica pensylvanica)
GROUP D - UPLAND/BUFFER
White Pine (Pinus strobus)
Cornelian Cherry (Cornus Mas)
Shadblow (Amelanchia canadensis)



TEMPORARY VEGETATIVE COVER SPECIFICATIONS FOR DETENTION BASIN SIDE SLOPES

NORTHEAST WETLAND GRASS SEED MIX  
AS SUPPLIED BY SOUTHERN TIER CONSULTING, INC. WEST CLARKSVILLE NY (716) 968-8120

AGROSTIS STOLONIFERA  
POA TRIVIALIS  
ALOPECURUS ARUNDINACEUS  
PANICUM CLANDESTINUM

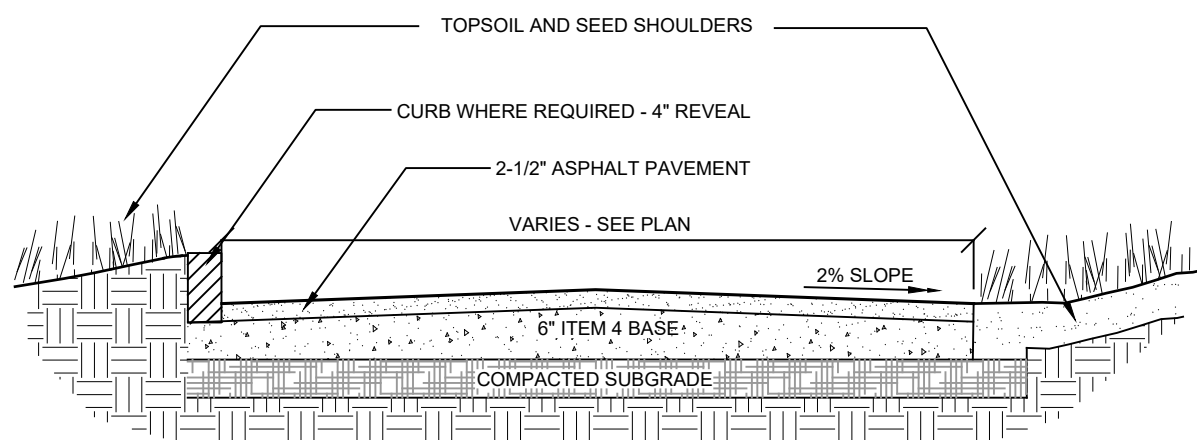
NOTES:

- Planting of the detention basin should be done immediately after completion of the basin except for the marsh bottom. The marsh bottom should be planted after the basin is stabilized, and at the start of the spring or fall wet season. This will be to ensure the survival of the plantings. The plantings shall be monitored for the first year and replaced as necessary.
- For planting details and specifications, refer to basin planting plans and details.

SW-3

DETENTION BASIN DETAIL

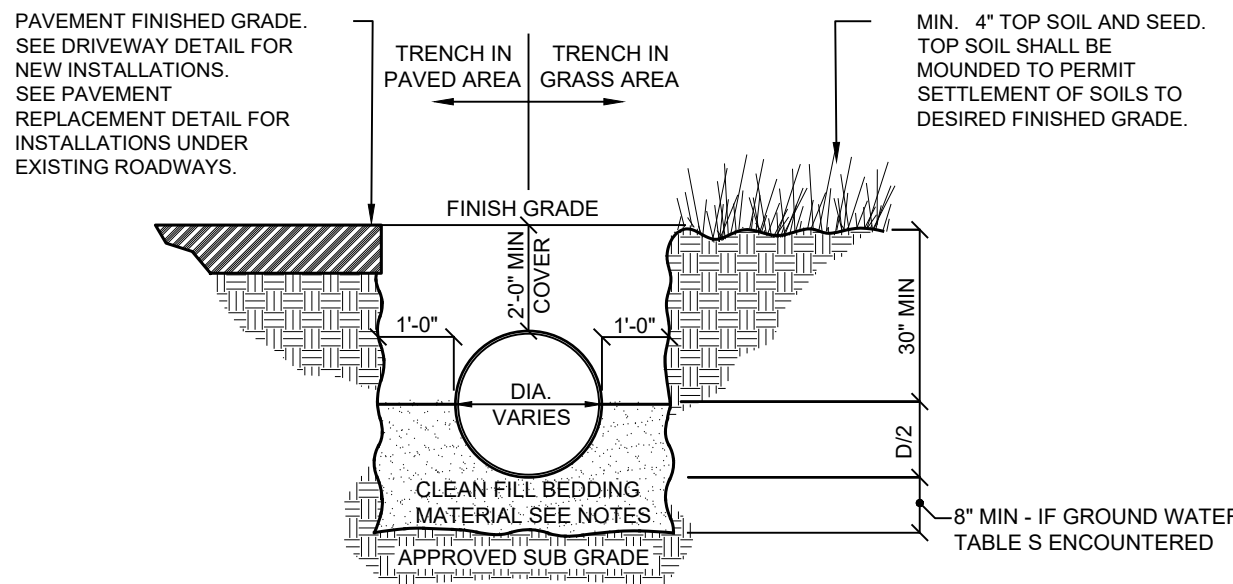
NOT TO SCALE



R-1

TYPICAL RESIDENTIAL DRIVEWAY DETAIL

NOT TO SCALE



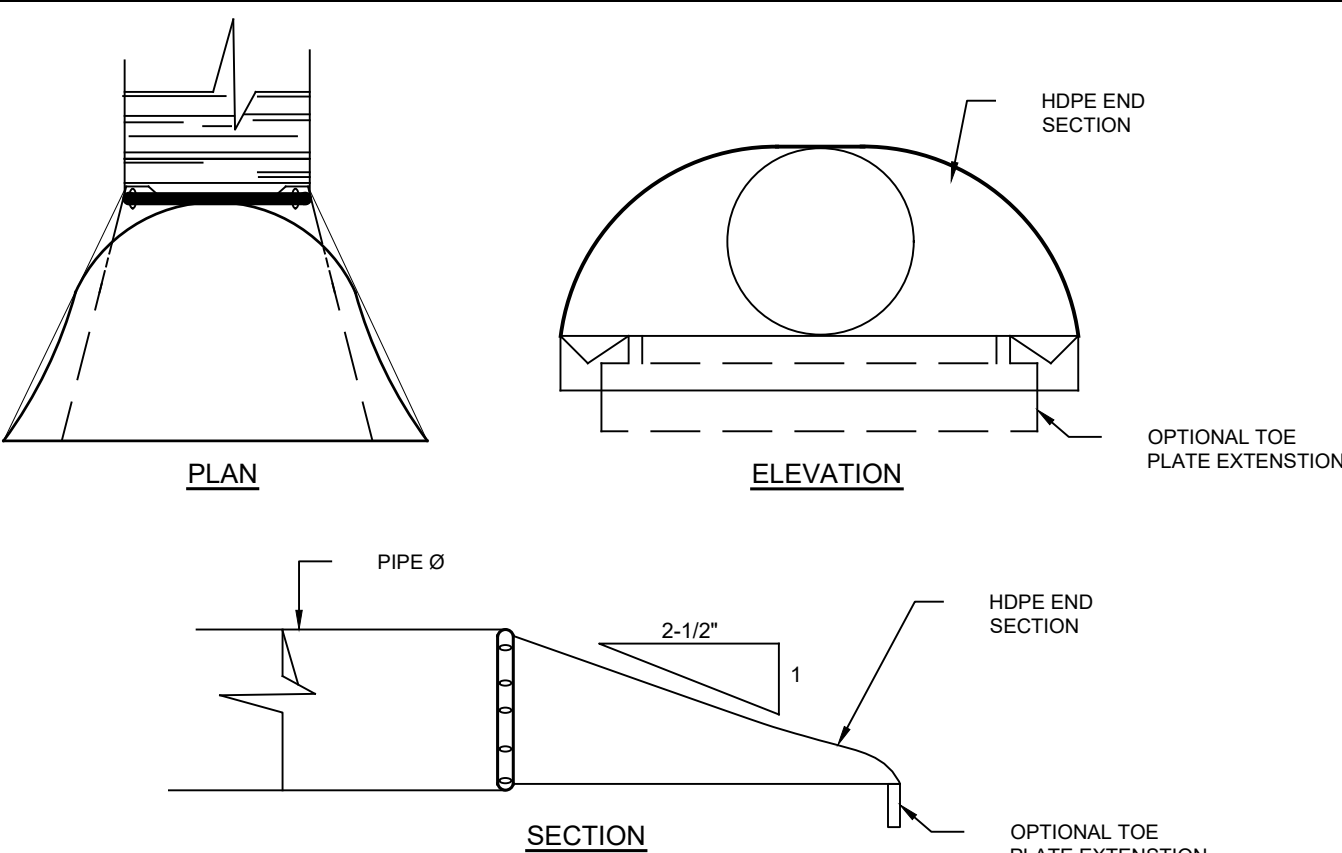
NOTES:

- Pipe shall be laid and connected in the bedding which shall consist of:  
A. Compacted existing subsoil when laid above ground water or;  
B. 3/4" crushed stone when laid below ground water.
- If subsoil is determined to be unsuitable by the Engineer, all unsuitable material shall be removed for at least 2'-6" below the pipe invert or twice the pipe diameter, whichever is greater, and replaced with compacted bedding material.

D-2

STORM PIPE BEDDING DETAIL

NOT TO SCALE



PLAN

ELEVATION

SECTION

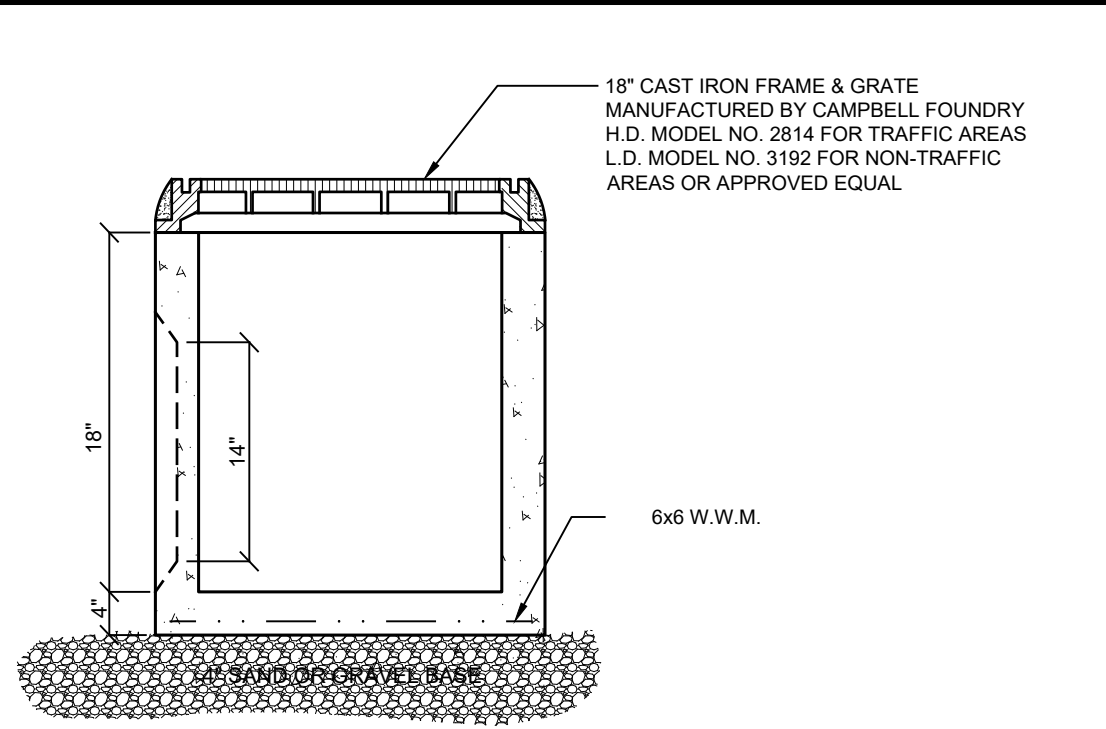
NOTE:

- HDPE END SECTION SHALL BE FITTED AND FASTENED TO PROPOSED PIPE AS PER MANUFACTURER RECOMMENDATIONS.

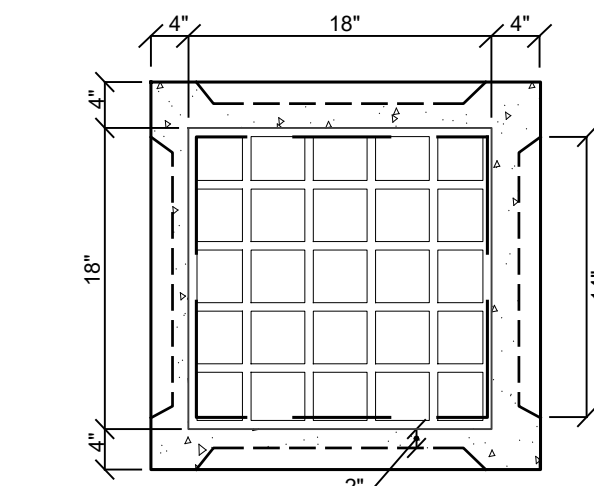
D-3

HDPE PIPE END SECTION DETAIL

NOT TO SCALE



SECTION

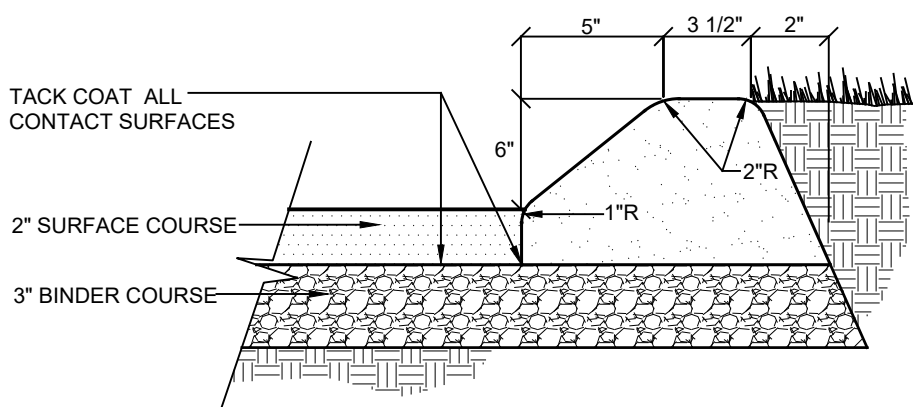


PLAN

D-4

PRECAST DRAIN INLET DETAIL

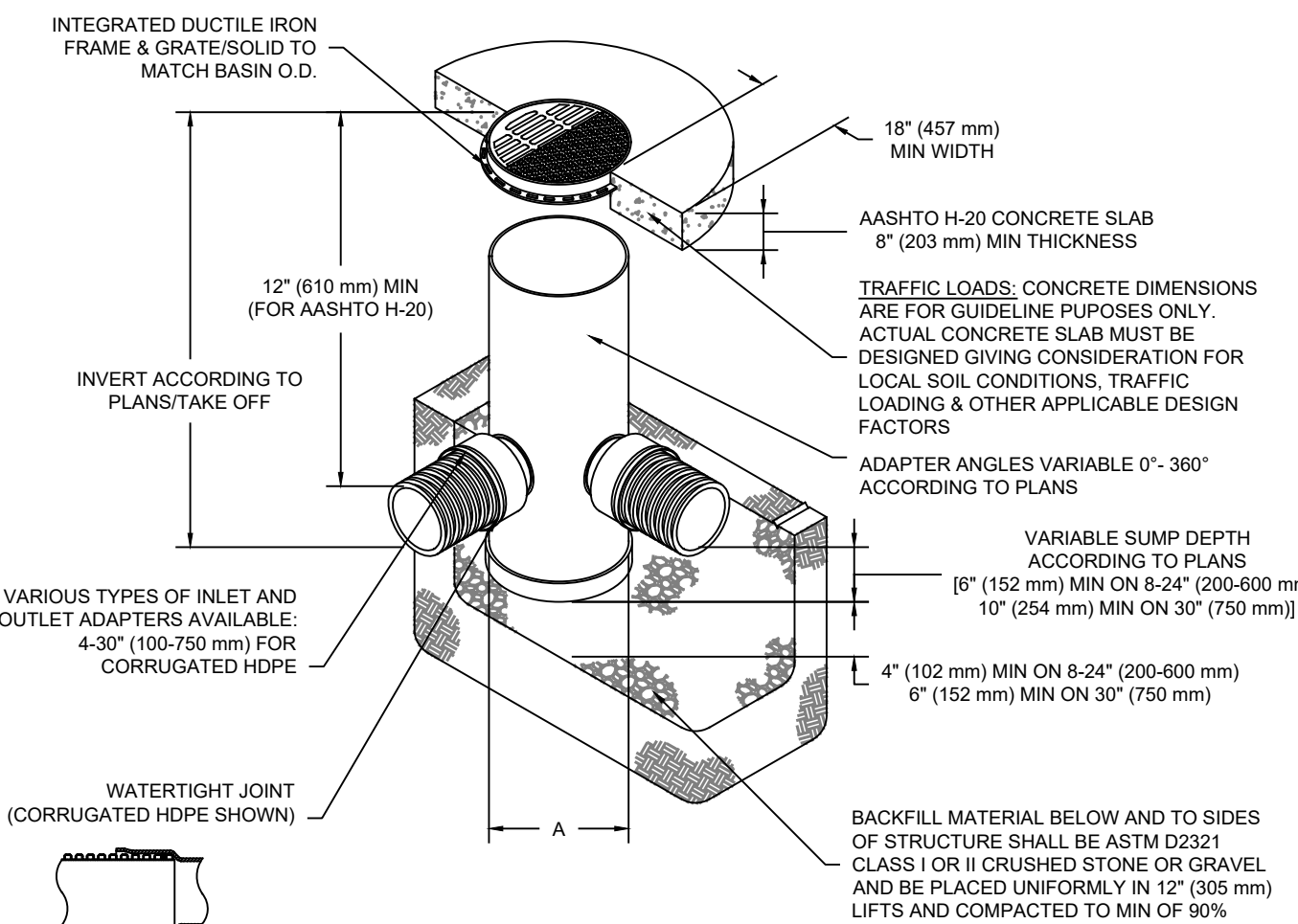
NOT TO SCALE



R-2

ASPHALT CURB DETAIL

NOT TO SCALE

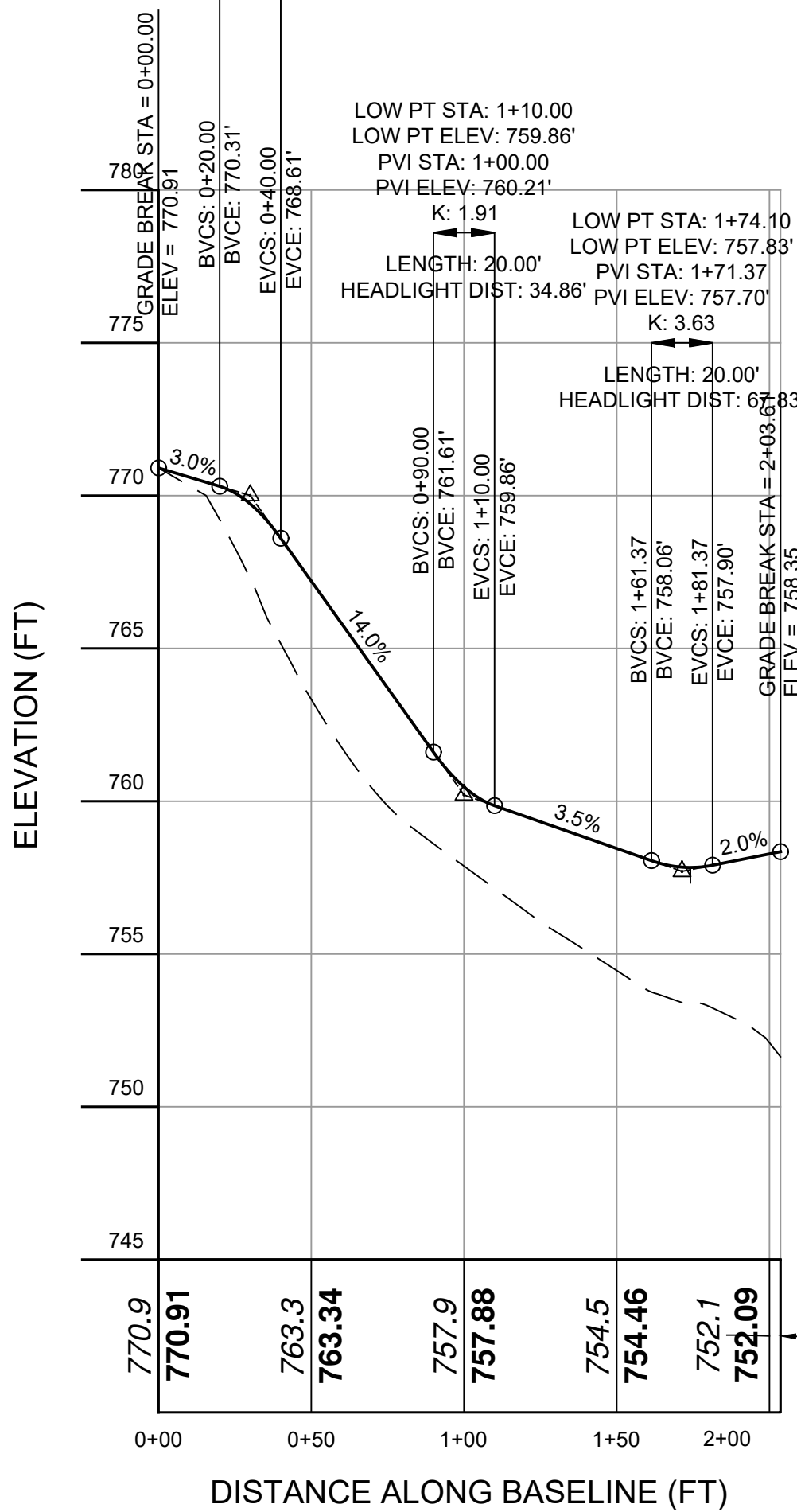


NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUD JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)
- TO ORDER CALL: 800-821-6710

A	PART #	GRATE/SOLID COVER OPTIONS
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20
		STANDARD LIGHT DUTY
		SOLID LIGHT DUTY
		SOLID AASHTO H-20
		SOLID AASHTO H-20
		SOLID AASHTO H-20
		SOLID AASHTO H-20
		SOLID AASHTO H-20
		SOLID AASHTO H-20

HIGH PT STA: 0+20.00  
HIGH PT ELEV: 770.31'  
PVI STA: 0+30.00  
PVI ELEV: 770.01'  
K: 1.82  
LENGTH: 20.00'  
PASSING SIGHT DIST: 150.58'  
STOPPING SIGHT DIST: 70.42'



PROPOSED DRIVEWAY PROFILE  
VERT. SCALE: 1" = 5'  
HORIZ. SCALE: 1" = 50'

SW-2

BIORETENTION DETAIL

NOT TO SCALE

D-5

NYOPLAST CLEANOUT DETAIL

NOT TO SCALE

NOTE: I HAVE AUTHORIZED ALL ALTERATIONS OR ADDITIONS TO THIS DRAWING IN A MODIFICATION OF SECTION 7700 (2) OF THE NEW YORK STATE EDITION 1.00



PROJECT # 16-61

Site Design Consultants

Civil Engineers • Land Planners  
251-F Underhill Avenue, Yorktown Heights, NY 10598  
(914) 962-4488 - Fax: (914) 962-7386  
[www.sitedesignconsultants.com](http://www.sitedesignconsultants.com)

Engineer:

Joseph C. Rina, P.E.  
NYS Lic. No. 64431

Revisions:

No.	Date	Comments
1.	7/5/18	H.D. Comp.
2.	12/18/18	Revised basins
3.	2/17/19	Minor revisions
4.	3/27/19	Minor revisions
5.	3/27/19	Minor revisions
6.	5/30/23	Minor revisions
7.	8/29/23	Town Comments

SCALE:

AS SHOWN

DRAWN BY:

OMJR

DATE:

6/18/18

STORMWATER  
DETAILS

PROPOSED SEPTIC PLAN  
PREPARED FOR

ALEXANDER KRANZ,  
SUCCESSOR TRUSTEE

PROJECT LOCATION  
ELMWOOD ROAD  
Town of Lewisboro

Westchester Co., New York

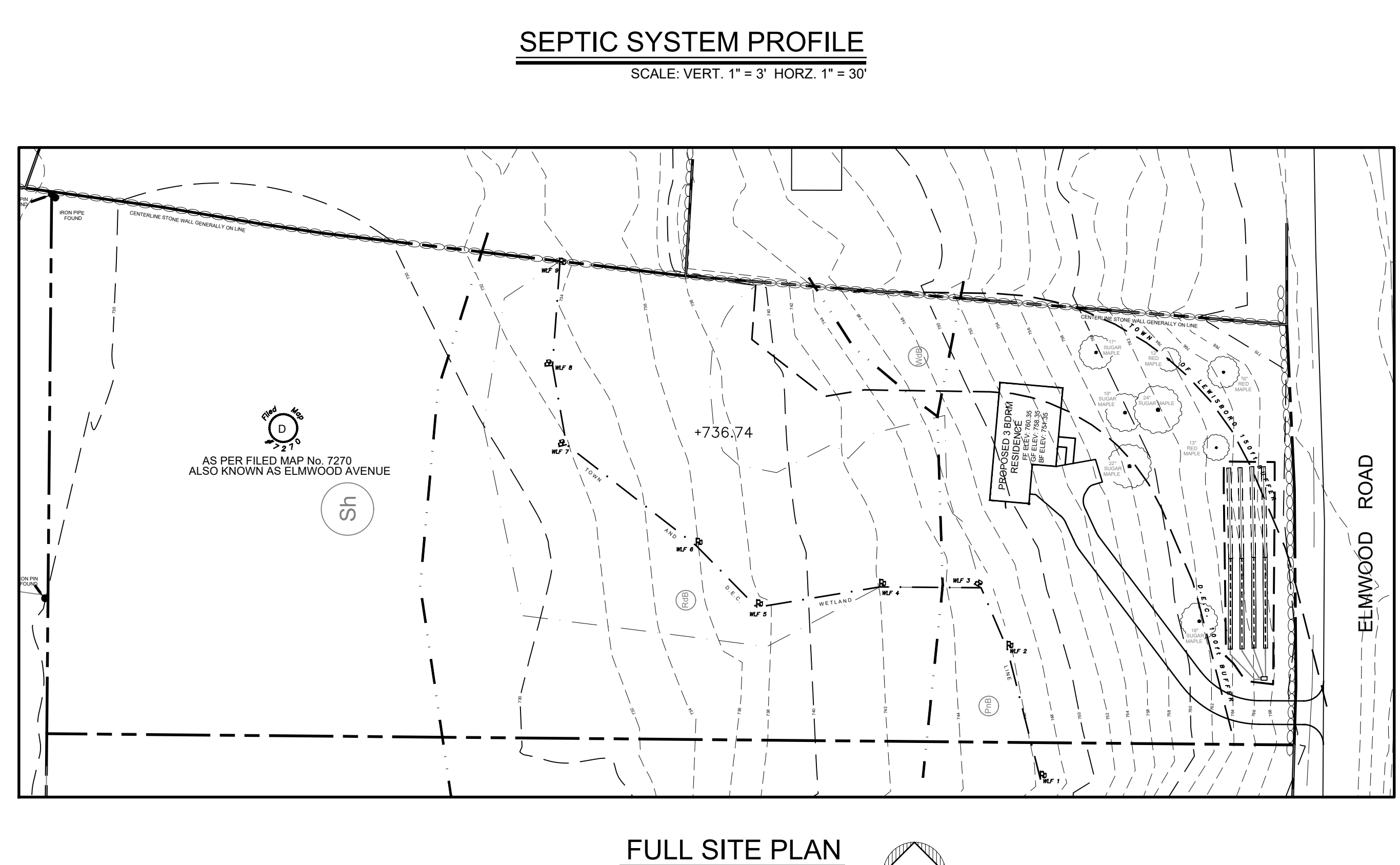
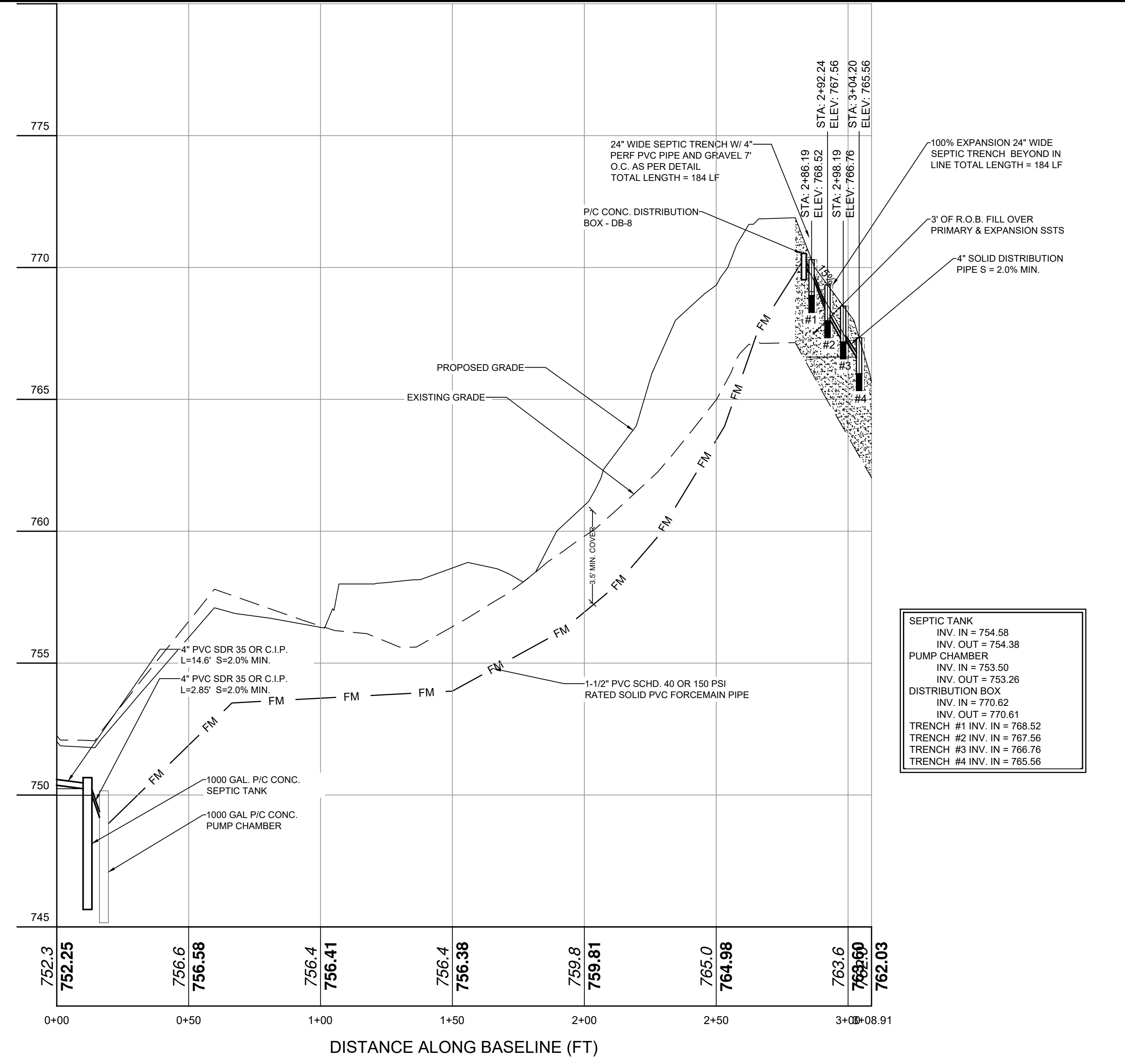
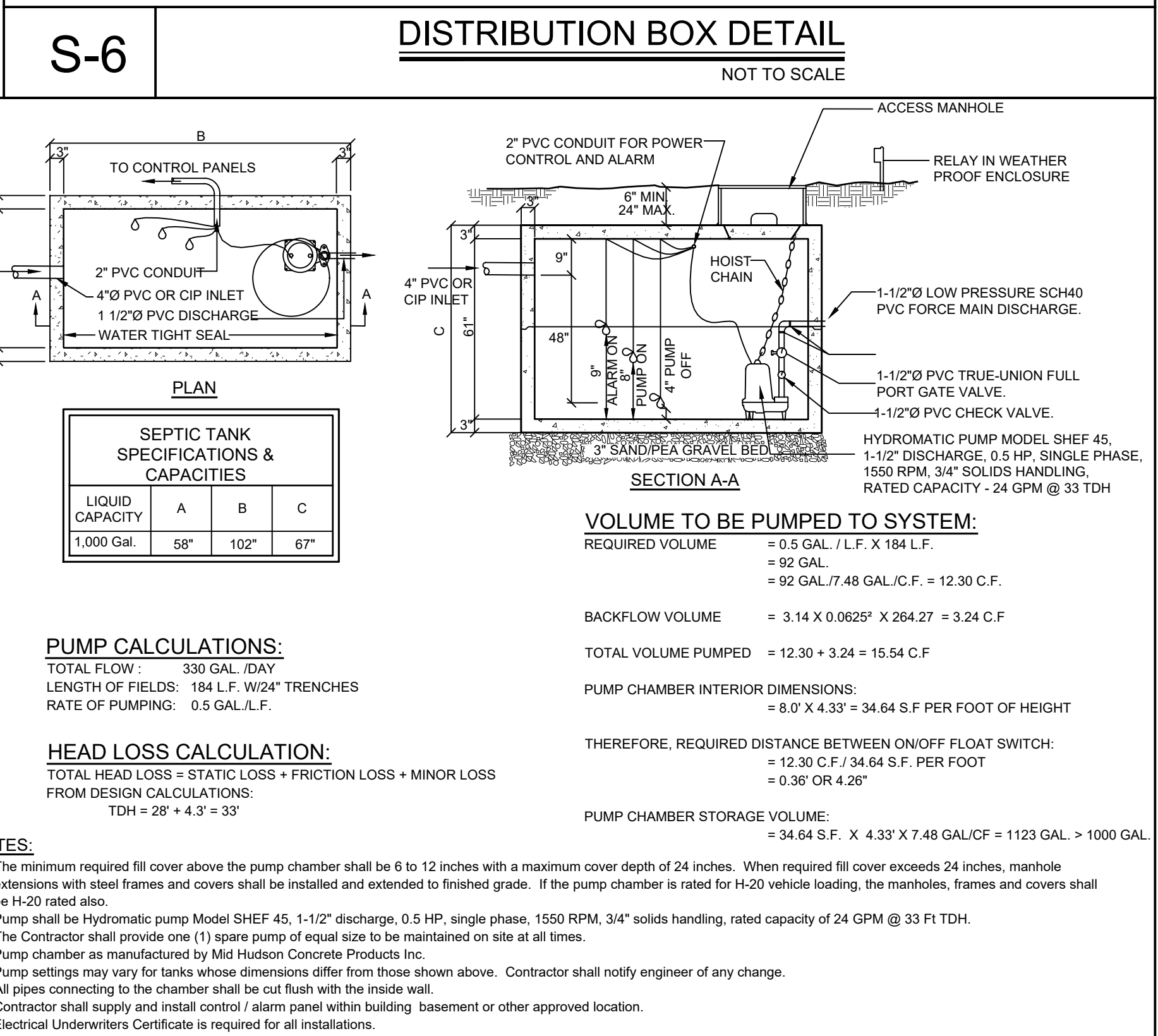
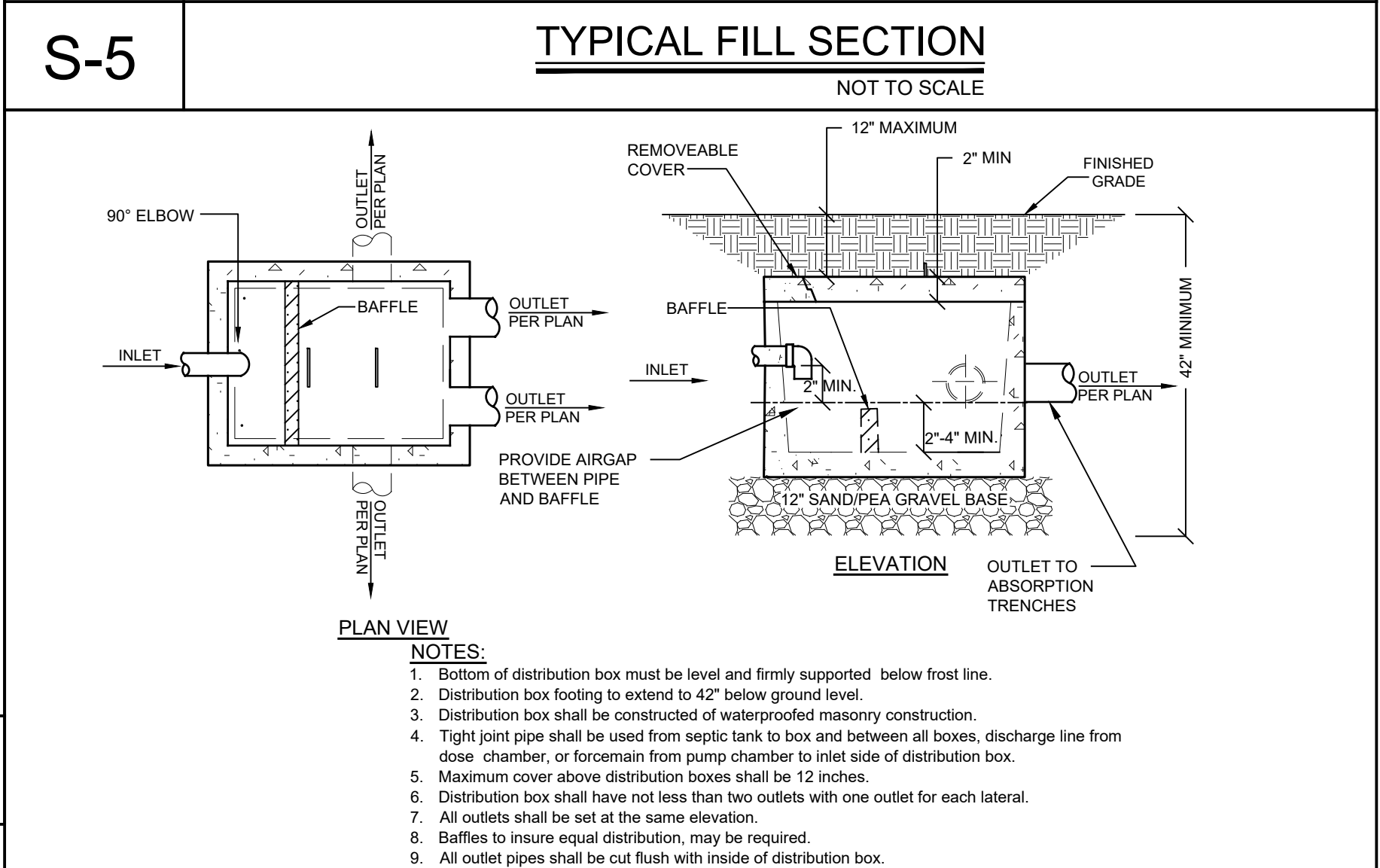
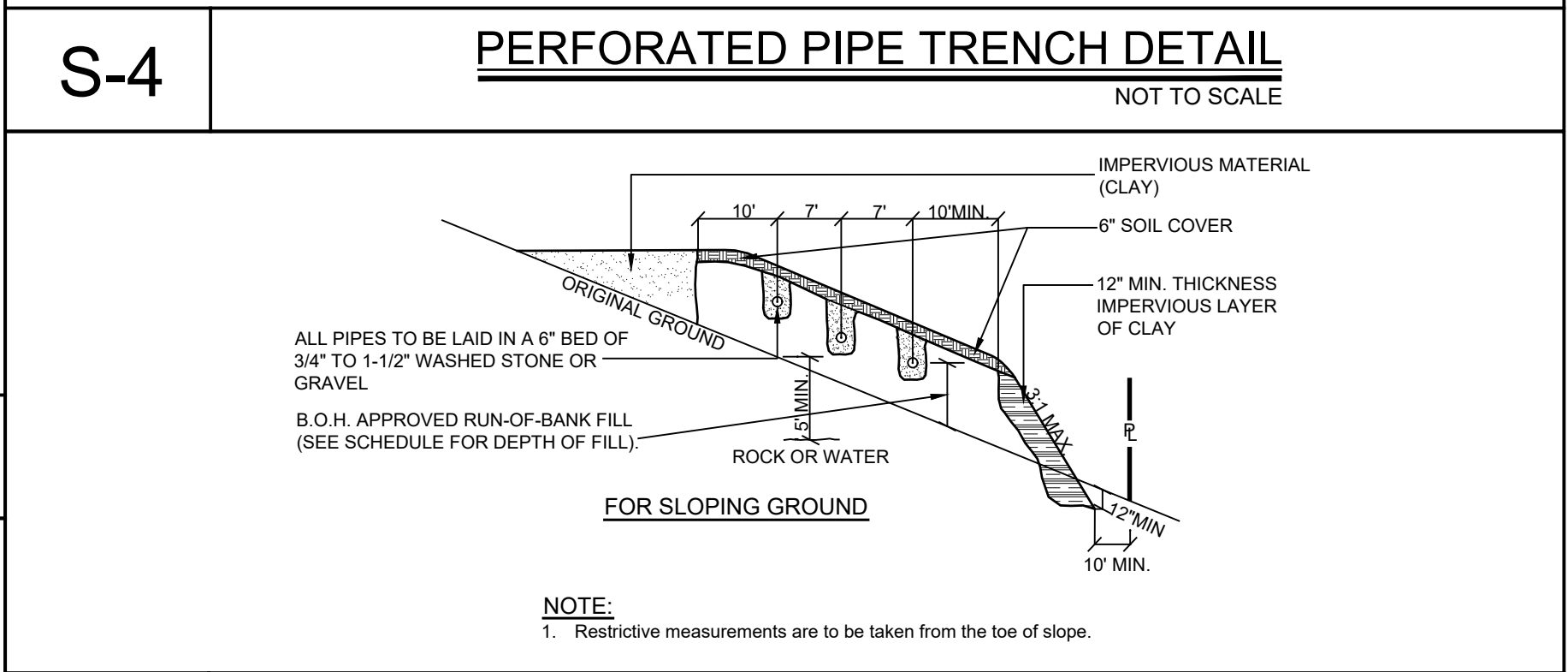
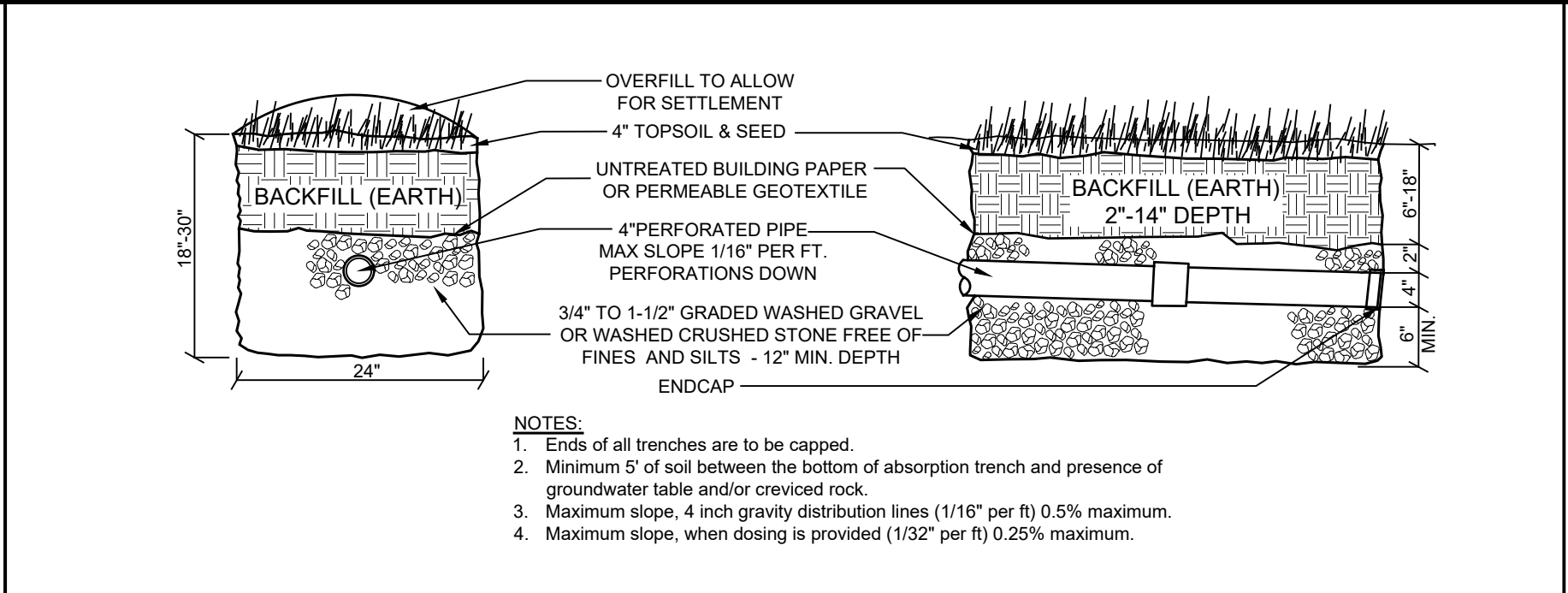
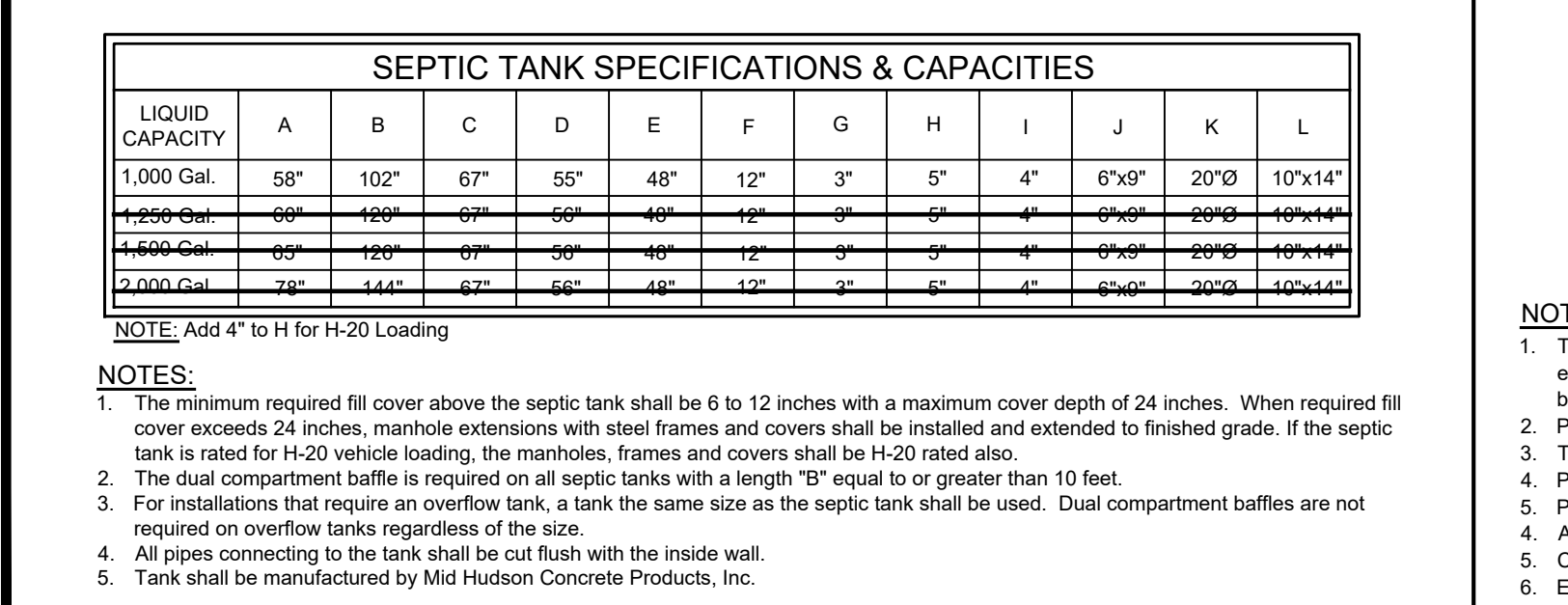
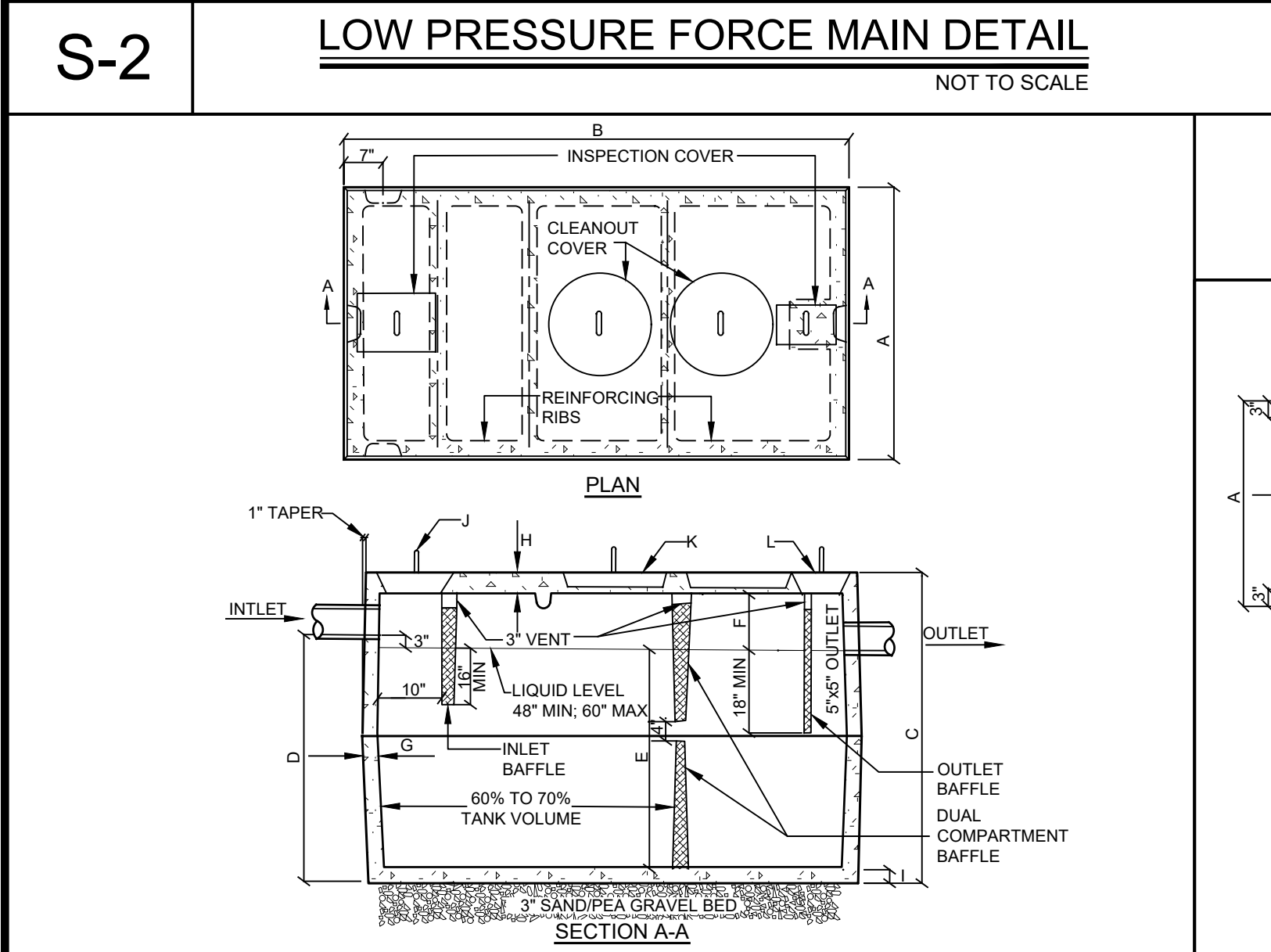
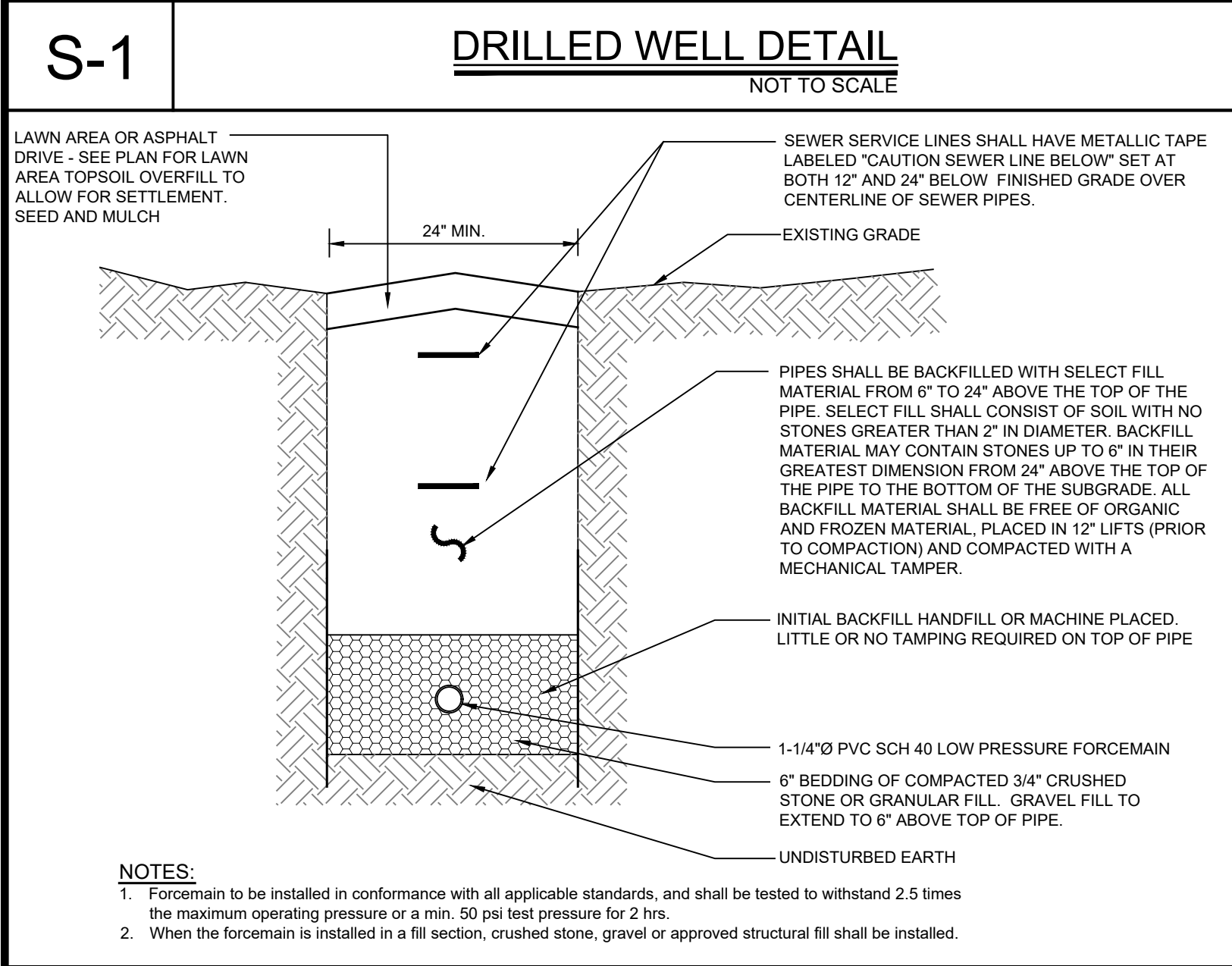
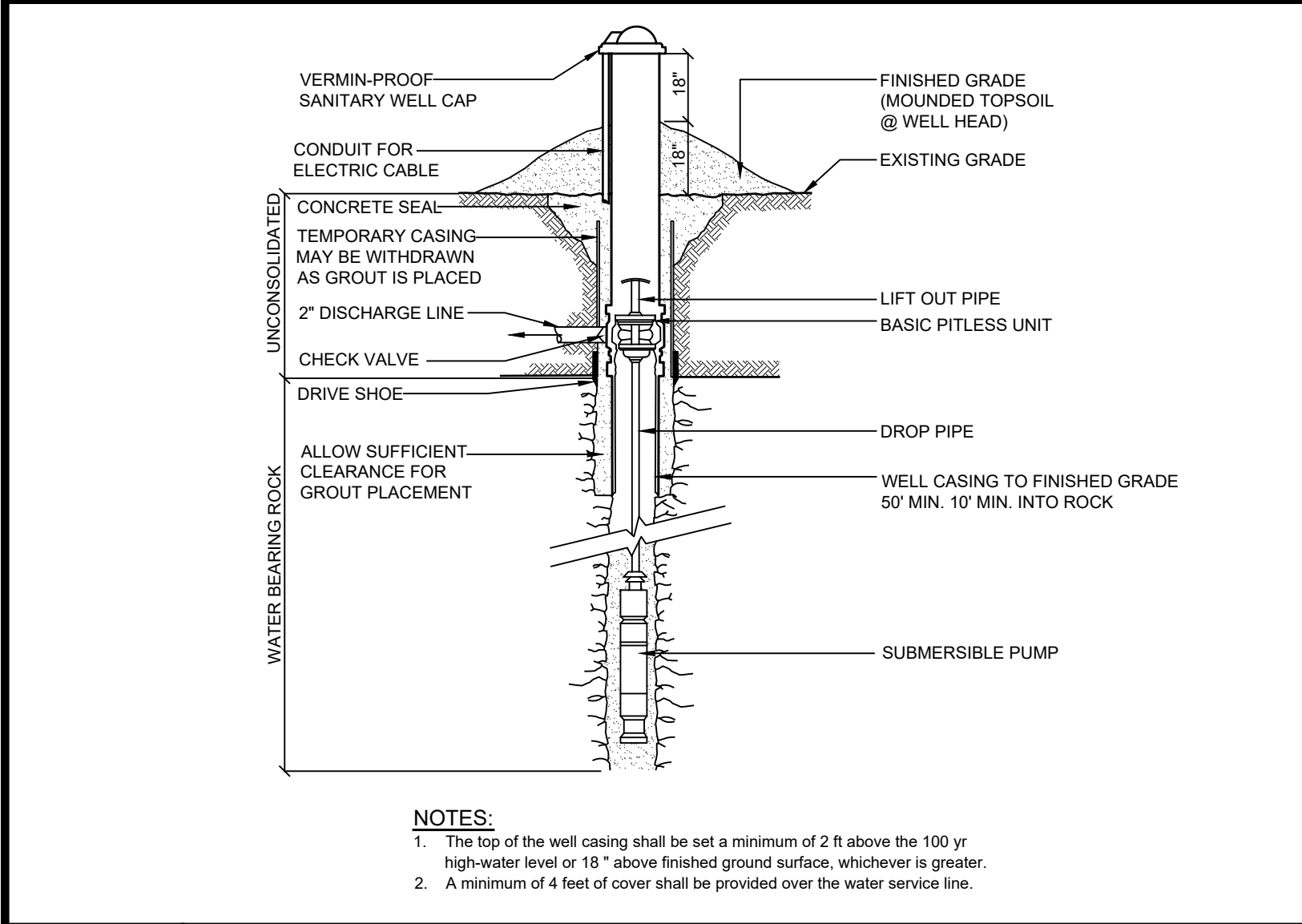
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of

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251-F Underhill Avenue, Yorktown Heights, NY 10598  
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Project # 16-61

Engineer: Joseph C. Rina, P.E.  
NYS Lic. No. 64431

Revisions:	No.	Date	Comments
1	7/5/18	H.D. Comp.	
2	12/18/18	Released basins	
3	2/1/19	Minor revisions	
4	3/23/19	Minor revisions	
5	3/23/19	Minor revisions	
6	5/30/23	Minor revisions	
7	8/29/23	Town Comments	

SCALE: AS SHOWN

DRAWN BY: OM/R

DATE: 6/18/18

SEPTIC SYSTEM PROFILE AND DETAILS

PROPOSED SEPTIC PLAN PREPARED FOR ALEXANDER KRANZ, SUCCESSOR TRUSTEE PROJECT LOCATION ELMWOOD ROAD Westchester Co., New York

Sheet 6 of 7



GENERAL EROSION CONTROL NOTES:

- Contractor shall be responsible for compliance with all sediment and erosion control practices. The sediment and erosion control practices are to be installed prior to any major soil disturbances, and maintained until permanent protection is established. Road surface flows from the site should be dissipated with tracking pad or appropriate measures during adjacent road shoulder regrading. Contractor is responsible for the installation and maintenance of all soil erosion and sedimentation control devices throughout the course of construction.
- Catch basin inlet protection must be installed and operating at all times until tributary areas have been stabilized. When possible flows should be stabilized before reaching inlet protection structure. Timely maintenance of sediment control structures is the responsibility of the Contractor.
- All structures shall be maintained in good working order at all times. The sediment level in all sediment traps shall be closely monitored and sediment removed promptly when maximum levels are reached or as ordered by the engineer. All sediment control structures shall be inspected on a regular basis, and after each heavy rain to insure proper operation as designed. An inspection schedule shall be set forth prior to the start of construction.
- The locations and the installation times of the sediment capturing standards shall be as specified in these plans, as ordered by the Engineer, and in accordance with the latest edition of the "New York Standards and Specifications for Erosion and Sediment Control" (NYSSESC).
- All topsoil shall be placed in a stabilized stockpile for reuse on the site. All stockpile material required for final grading and stored on site shall be temporarily seeded and mulched within 7 days. Refer to soil stockpile details.
- Any disturbed areas that will be left exposed more than 7 days and not subject to construction traffic, shall immediately receive temporary seeding. Mulch shall be used if the season prevents the establishment of a temporary cover. Disturbed areas shall not be limed and fertilized prior to temporary seeding.
- All disturbed areas within 500 feet of an inhabited dwelling shall be wetted as necessary to provide dust control.
- The contractor shall keep the roadways within the project clear of soil and debris and is responsible for any street cleaning necessary during the course of the project.
- Sediment and erosion control structures shall be removed and the area stabilized when the drainage area has been properly stabilized by permanent measures.
- All sediment and erosion control measures shall be installed in accordance with current edition of NYSSESC.
- All regraded areas must be stabilized appropriately prior to any rock blasting, cutting, and/or filling of soils. Special care should be taken during construction to insure stability during maintenance and integrity of control structures.
- Any slopes graded at 3:1 or greater shall be stabilized with erosion blankets to be staked into place in accordance with the manufactures requirements. Erosion blankets may also be required at the discretion of Town officials or Project Engineer. When stabilized blanket is utilized for channel stabilization, place all of the volume of seed mix prior to laying net, or as recommended by the manufacturer.
- To prevent heavy construction equipment and trucks from tracking soil off-site, construct a pervious crushed stone pad. Locate and construct pads as detailed in these plans.
- Contractor is responsible for controlling dust by sprinkling exposed soil areas periodically with water as required. Contractor to supply all equipment and water.
- Contractor shall be responsible for construction inspections as per NYSDEC GP-0-20-001 and Town of Lewisboro Code.

MAINTENANCE OF TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES:

- N.Y.S.D.E.C. GP-0-20-001 EXPOSURE RESTRICTIONS - States that any exposed earthwork shall be stabilized in accordance with the guidelines of this plan.
- Trees and vegetation shall be protected at all times as shown on the detail drawing and as directed by the Engineer.
  - Care should be taken so as not to channel concentrated runoff through the areas of construction activity on the site.
  - Fill and soil disturbances should not be created which causes water to pond off site or on adjacent properties.
  - Runoff from land disturbances shall not be discharged or have the potential to discharge off site without first being intercepted by a control structure, such as a sediment trap or silt fence. Sediment shall be removed before exceeding 50% of the retention structure's capacity.
  - For finished grading, adequate grade shall be provided so that water will not pond on lawns for more than 24 hours after rainfall, except in swale flow areas which may drain for as long as 48 hours after rainfall.
  - All swales and other areas of concentrated flow shall be properly stabilized with temporary control measures to prevent erosion and sediment travel. Surface flows over cut and fill areas shall be stabilized at all times.
  - All sites shall be stabilized with erosion control materials within 7 days of final grading.
  - Temporary sediment trapping devices shall be removed from the site within 30 days of final stabilization.

MAINTENANCE SCHEDULE:

	DAILY	WEEKLY	MONTHLY	AFTER RAINFALL	NECESSARY TO MAINTAIN FUNCTION	AFTER APPROVAL OF INSPECTOR
SILT FENCE	---	INSP.	INSP.	INSP.	CLEAN/ REPLACE	REMOVE
WHEEL CLEANER	CLEAN	---	---	---	REPLACE	REMOVE

MAINTENANCE OF PERMANENT CONTROL STRUCTURES DURING CONSTRUCTION:

The stormwater management system and outlet structure shall be inspected on a regular basis and after every rainfall event. Sediment build up shall be removed from the inlet protection regularly to insure detention capacity and proper drainage. Outlet structure shall be free of obstructions. All piping and drain inlets shall be free of obstruction. Any sediment build up shall be removed.

MAINTENANCE OF CONTROLS AFTER CONSTRUCTION:

Controls (including respective outlet structures) should be inspected periodically for the first few months after construction and on an annual basis thereafter. They should also be inspected after major storm events.

DEBRIS AND LITTER REMOVAL:

Twice a year, inspect outlet structure and drain inlets for accumulated debris. Also, remove any accumulations during each mowing operation.

STRUCTURAL REPAIR/REPLACEMENT:

Outlet structure must be inspected twice a year for evidence of structural damage and repaired immediately.

EROSION CONTROL:

Unstable areas tributary to the basin shall immediately be stabilized with vegetation or other appropriate erosion control measures.

SEDIMENT REMOVAL:

Sediment should be removed after it has reached a maximum depth of five inches above the stormwater management system floor.

CONSTRUCTION SEQUENCE:

Refer to the Plan Set for all plans and details which relate to Construction Sequence.

- A licensed surveyor must define infrastructure locations, limits of disturbance, stormwater basin limits, and grades in the field prior to start of any construction. Limits of disturbance shall be marked with the installation of construction fence or approved equal. The extents of all of the stormwater management systems shall be cordoned off to minimize the disturbance on this area.
- Install all perimeter erosion control measures, construction access as shown on the Erosion and Sediment Control Plan and the associated Details. Install silt fencing at the bottom of slopes.
- Strip site and place topsoil in stockpile locations shown on the plan.
- Begin rough grading the site. Contractor to limit exposure of denuded soils by providing temporary stabilization for work areas that will remain undisturbed for over seven (7) days. Excess material shall be stockpiled in the location shown on the plan as grades allow. Material unable to be stockpiled shall be removed from the site.
- Rough grade building and driveway.
- Begin construction of building
- Begin the excavation and installation of stormwater management system. Protect trenches and open excavations from erosion. Entry into the system shall be blocked off until site has reached final stabilization. Once system has been installed, backfill, seed where necessary, and reinstall measures to cordon off the system from disturbance.
- During site construction maintain and re-establish as required erosion control and stabilization measures as required by the site plan and details.
- Excavate to the sub-grade level. Scarify the existing soil to a depth of 12-inches by rototilling or other means acceptable to the Engineer. Install all courses of stone as per the specifications given on the Plan.
- Install base course of item 4 in all pavement areas. Stabilize all open areas with seed and mulch.
- Construct remainder of building, driveway and parking areas. Install asphalt binder. Once binder course is installed, drainage outlet may be unblocked.
- Grade, place final soil topping and put in place permanent vegetative cover over all disturbed areas, landscape beds, slopes, etc.
- Once site stabilization has taken place (An area shall be considered to have achieved final stabilization when it has a minimum uniform 80% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements), remove all temporary erosion and sediment controls, unplug the drainage system to allow runoff to enter the stormwater management system.

Winter Stabilization Notes:

If construction activities are expected to extend into or occur during the winter season the contractor shall anticipate proper stabilization and sequencing. Construction shall be sequenced such that wherever possible areas of disturbance that can be completed and permanently stabilized shall be done by applying and establishing permanent vegetative cover before the first frost. Areas subject to temporary disturbance that will not be worked for an extended

TOPSOIL:

Existing topsoil will be removed and stored in piles sufficiently as to avoid mixing with other excavation. Stockpiles shall be surrounded by erosion control as outlined on these plans. The furnishing of new topsoil shall be of a better or equal to the following criteria (SS713.01 NYSDOT):

- The pH of the material shall be 5.5 to 7.6.
- The organic content shall not be less than 2% or more than 70%.
- Gradation:

SIEVE SIZE	% PASSING BY WGT.
2 INCH	100
1 INCH	85 TO 100
1/4 INCH	65 TO 100
NO. 200 MESH	20 TO 80

PERMANENT VEGETATIVE COVER:

- Site preparation:
  - Install erosion control measures.
  - Scarify compacted soil areas.
  - Lime as required to ph 6.5.
  - Fertilize with 10-6-4 4 lbs/1,000 S.F.
  - Incorporate amendments into soil with disc harrow.
- Seed mixtures for use on swales and cut and fill areas.

MIXTURE	LBS./ACRE
ALT. A	KENTUCKY BLUE GRASS 20
	CREEPING RED FESCUE 28
	RYE GRASS OR REDTOP 5
ALT. B	CREEPING RED FESCUE 20
	REDDTOP 2
	TALL FESCUE/SMOOTH BLOOMGRASS 20
- SEEDING
  - Prepare seed bed by raking to remove stones, twigs, roots and other foreign material.
  - Apply soil amendments and integrate into soil.
  - Apply seed uniformly by cyclone seeder culti-packer or hydro-seeder at rate indicated.
  - Stabilize seeded areas in drainage swales.
  - Irrigate to fully saturate soil layer, but not to dislodge planting soil.
  - Seed between April 1st and May 15th or August 15th and October 15th.
  - Seeding may occur May 15th and August 15th if adequate irrigation is provided.

TEMPORARY VEGETATIVE COVER:

- SITE PREPARATION:
- Install erosion control measures.
  - Scarify areas of compacted soil.
  - Fertilize with 10-10-10 at 400/acre.
  - Lime as required to ph 6.5.

SEED SPECIES:	LBS./ACRE
MIXTURE	
Rapidly germinating annual ryegrass (or approved equal)	20
Perennial ryegrass	20
Cereal oats	36

SEEDING:  
Same as permanent vegetative cover

CONTRACTOR CERTIFICATION STATEMENT

Certification Statement - All contractors and subcontractors as identified in a SWPPP, by the Owner or Operator, in accordance with Part III.A.5 of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-20-001, dated January 29, 2015, Page 10 of 40, shall sign a copy of the following Certification Statement before undertaking any construction activity at the Site identified in the SWPPP:

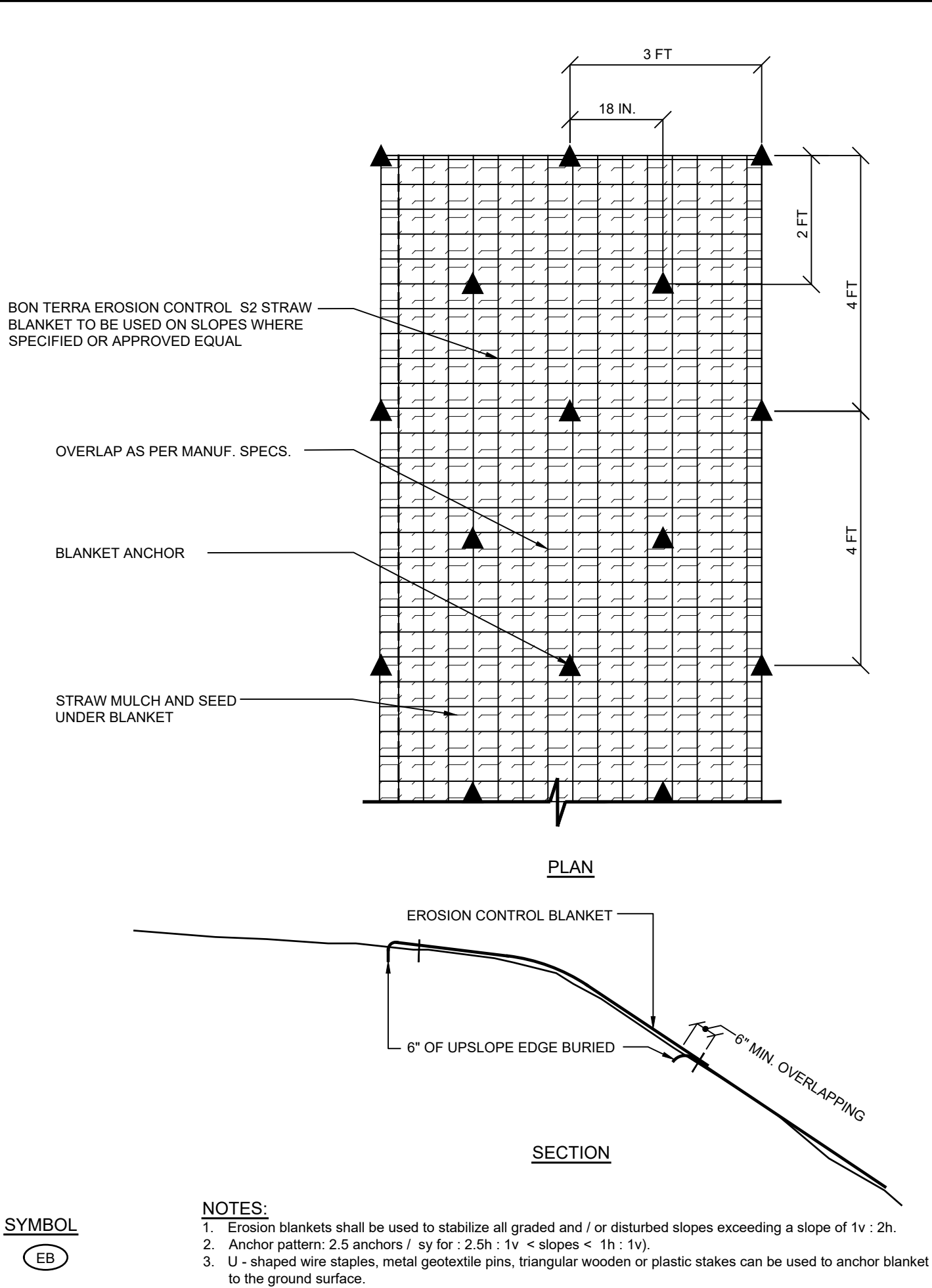
"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the Qualified Inspector during a site inspection. I also understand that the Owner or Operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. 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."

Individual Contractor: \_\_\_\_\_  
Name and Title (please print): \_\_\_\_\_  
Signature of Contractor: \_\_\_\_\_  
Company / Contracting Firm: \_\_\_\_\_  
Name of Company: \_\_\_\_\_  
Address of Company: \_\_\_\_\_  
Telephone Number / Cell Number: \_\_\_\_\_  
Site Information: \_\_\_\_\_  
Address of Site: \_\_\_\_\_  
  
Today's Date: \_\_\_\_\_

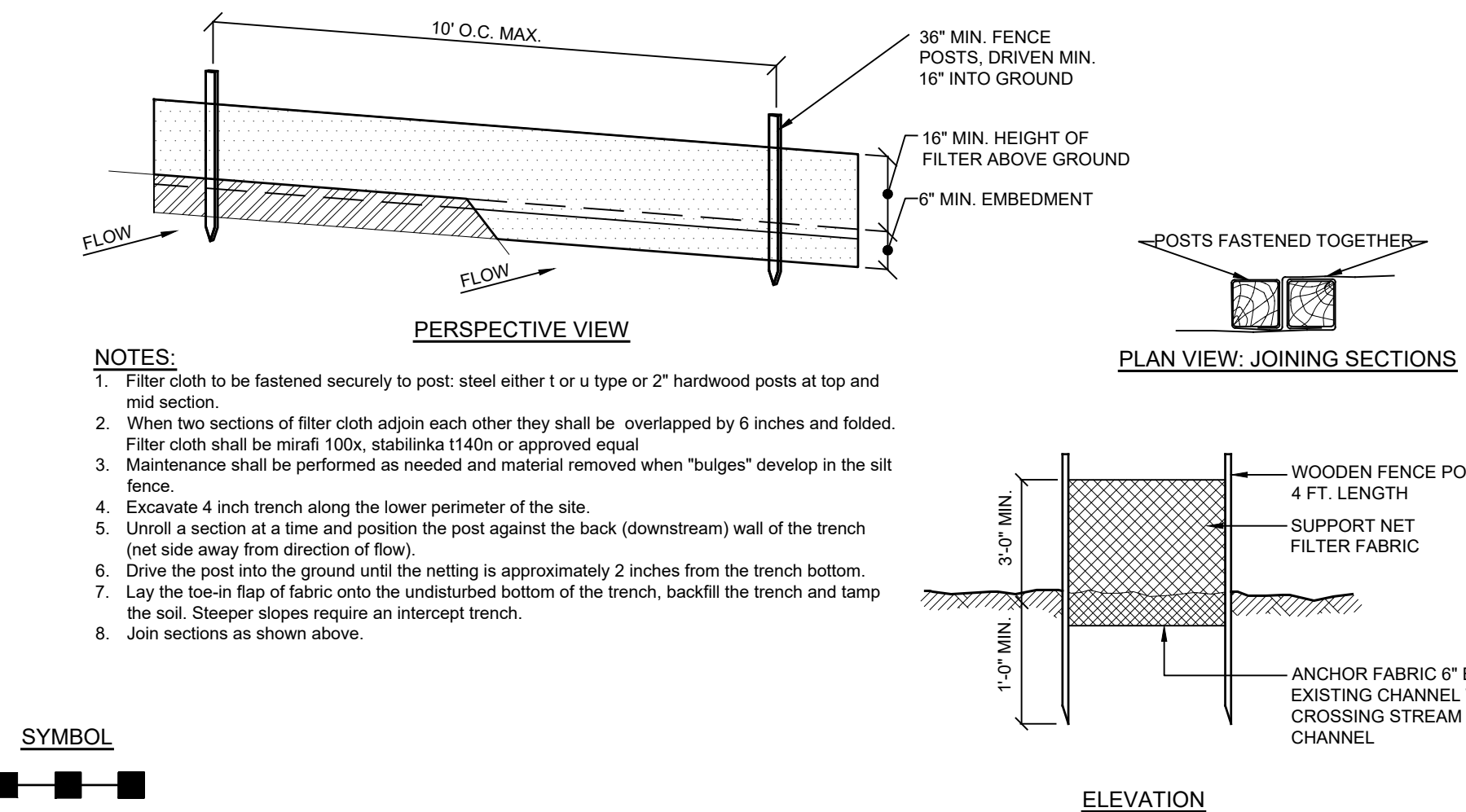
OWNER / OPERATOR CERTIFICATION

"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."

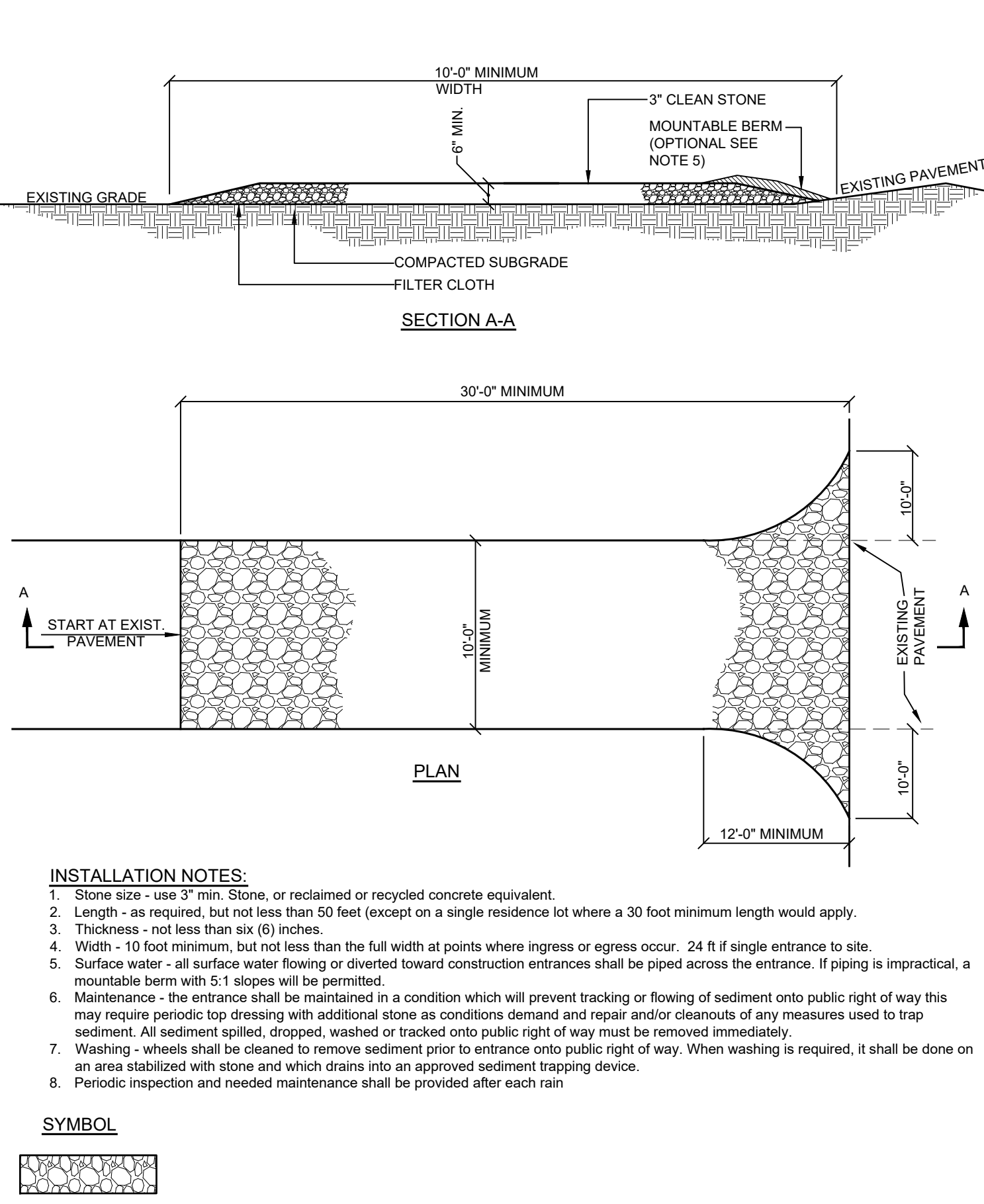
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Title: \_\_\_\_\_  
  
Date: \_\_\_\_\_  
  
Address: \_\_\_\_\_  
  
Phone: \_\_\_\_\_  
  
E-mail: \_\_\_\_\_  
  
Signature: \_\_\_\_\_



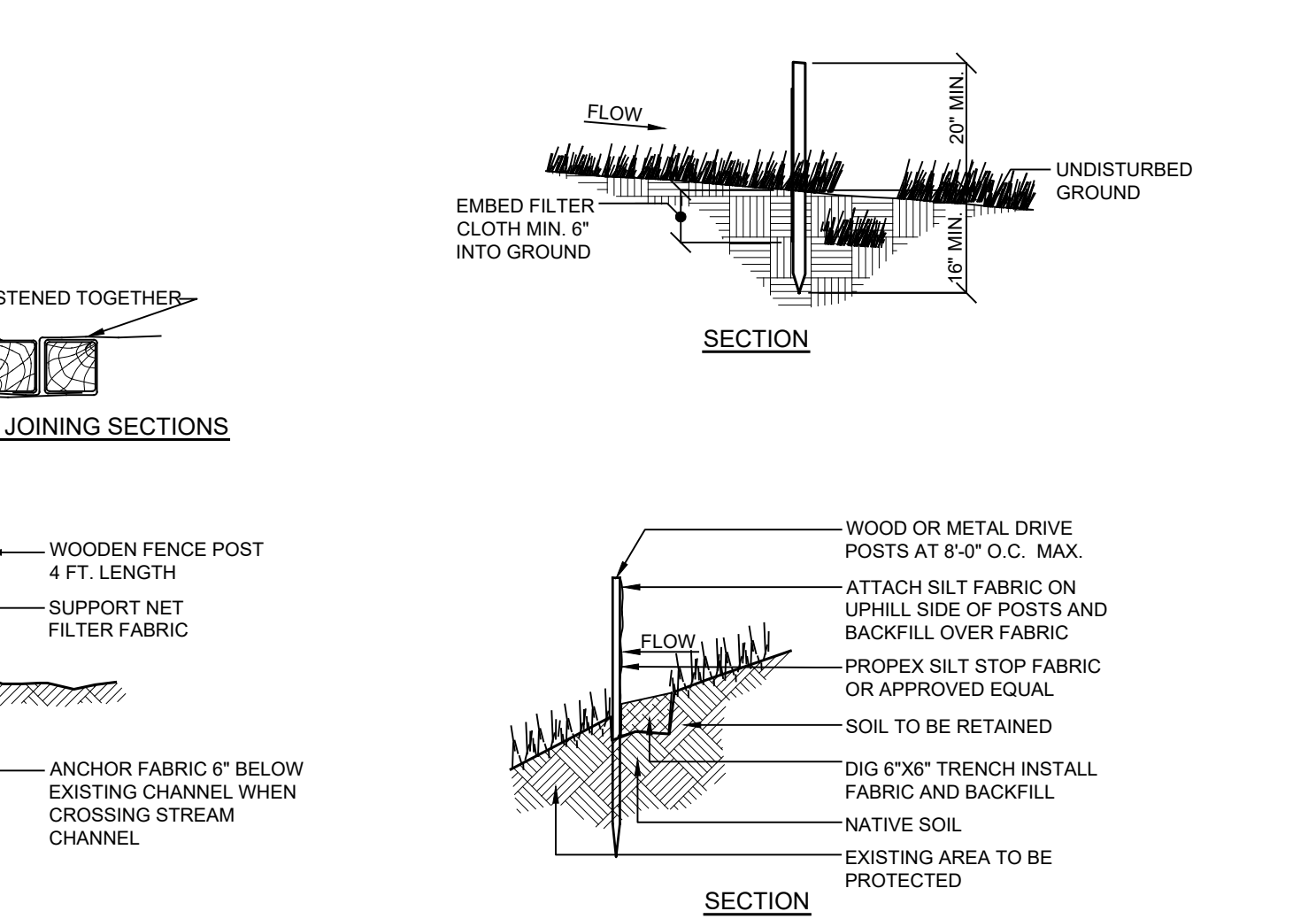
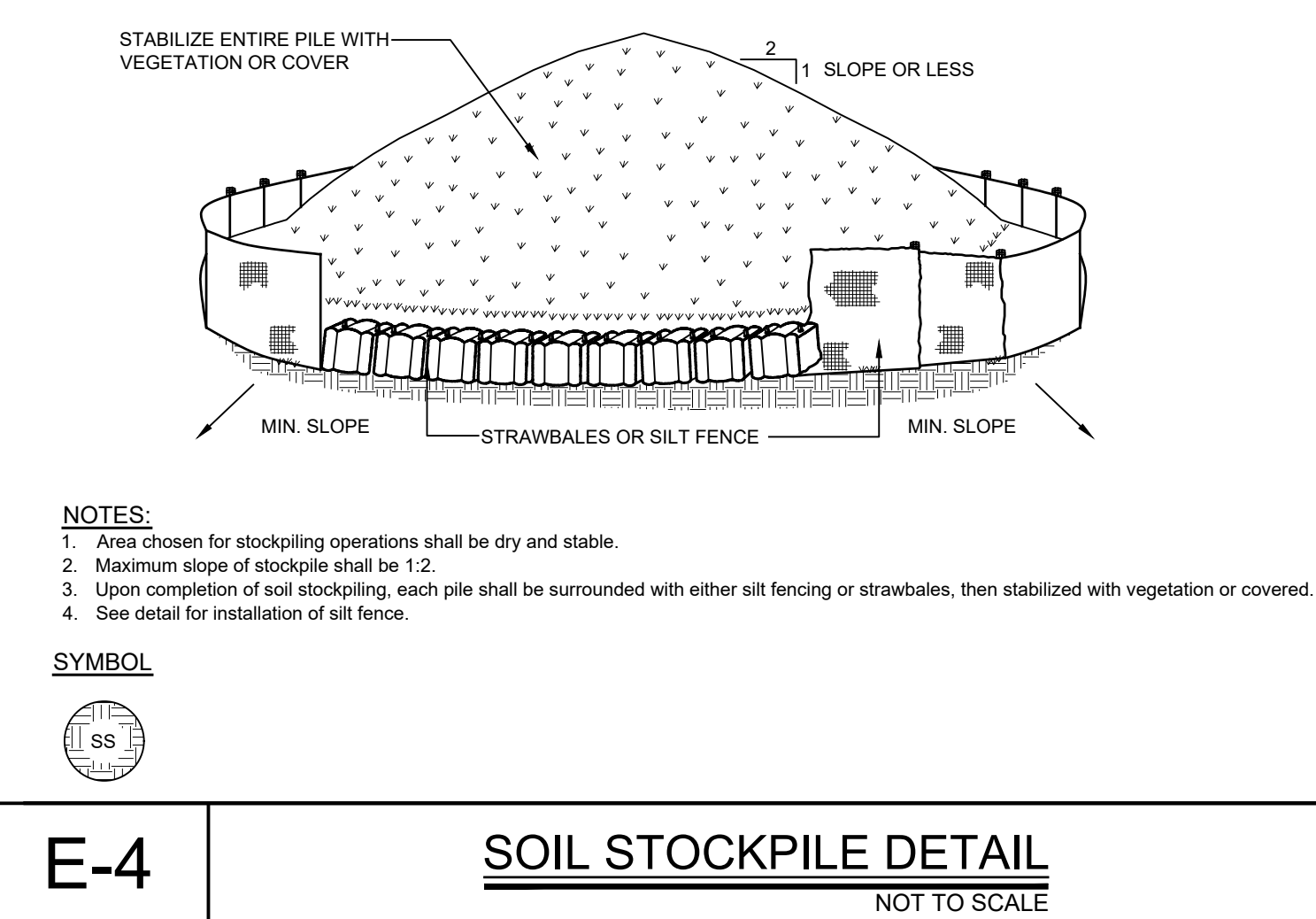
E-1 EROSION BLANKET AND ANCHOR DETAIL NOT TO SCALE

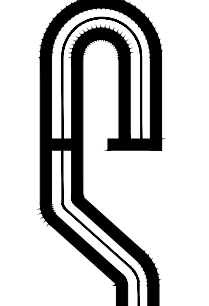


E-2 SILT FENCE DETAIL NOT TO SCALE



E-3 STABILIZED CONSTRUCTION ACCESS DETAIL NOT TO SCALE





PROJECT # 16-61

**Site Design Consultants**

Civil Engineers • Land Planners

251-F Underhill Avenue, Yorktown Heights, NY 10598

(914) 962-4488 - Fax: (914) 962-7386

www.sitedesignconsultants.com

Engineer:

Joseph C. Riina, P.E.

NYS Lic. No. 64431

Revisions:	No.	Date	Comments
1	7/5/18	H.D. Comp.	
2	12/18/18	Released basins	
3	2/17/19	Minor revisions	
4	3/27/19	Minor revisions	
5	3/27/19	Minor revisions	
6	5/30/23	Minor revisions	
7	8/29/23	Town Comments	

SCALE: AS SHOWN

DRAWN BY: MD

DATE: 6/18/18

SEPTIC SYSTEM PROFILE AND DETAILS

PROPOSED SEPTIC PLAN PREPARED FOR

ALEXANDER KRANZ, SUCCESSOR TRUSTEE

PROJECT LOCATION

ELMWOOD ROAD

Town of Lewisboro

Westchester Co., New York

Sheet 7 of 7

**TOWN OF LEWISBORO PLANNING BOARD**79 Bouton Road, South Salem, NY 10590 Tel: (914) 763-5592 Email: [planning@lewisborogov.com](mailto:planning@lewisborogov.com)

#04-19 PB

#17-19 WP

#06-19 SW

**Site Development Plan/Subdivision Plat Application - Check all that apply:**Waiver of Site Development Plan Procedures ☐

Site Development Plan Approval

Special Use Permit Approval

Subdivision Plat Approval

☐

Step I

☐

Step I

☐

Step I

☐

Step II

☒

Step II

☒

Step II

☐

Step III

☐app fees  
pd 8/30/23**Project Information**Project Name: Pound Ridge Stoneexisting escrowProject Address: 2 West Road, South Salem, NY 10590Gross Parcel Area: 0.71 ac Zoning District: GB Sheet(s): 49B Block (s): 983 Lot(s): 1Project Description: Complete Plan as drawn - Improvement to  
Parking + layout - General Cleanup -

Is the site located within 500 feet of any Town boundary?

YES

☐

NO

☒

Is the site located within the New York City Watershed?

YES

☐

NO

☒

Is the site located on a State or County Highway?

YES

☐

NO

☒

Does the proposed action require any other permits/approvals from other agencies/departments?

Town Board

☐

ZBA

☐

Building Dept.

☒

Town Highway

☒

ACARC

☒

NYSDEC

☐

NYCDEP

☐

WCDH

☐

NYSDOT

☒

Town Wetland

☒

Town Stormwater

☒Other Westchester County Planning Board**Owner's Information**Name: David MoormanEmail: prstone1@optonline.netAddress: 99 Hackgreen Road, Pound Ridge, NYPhone: 914-533-0277**Applicant's Information (if different)**

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

**Authorized Agent's Information**

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

THE APPLICANT understands that any application is considered complete only when all information and documents required have been submitted and received by the Planning Board. The applicant further understands that the applicant is responsible for the payment of all application and review fees incurred by the Planning Board.

THE UNDERSIGNED WARRANTS the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge and belief, and authorizes visitation and inspection of the subject property by the Town of Lewisboro and its agents.

APPLICANT'S SIGNATURE

David Moorman

DATE

9/13/2023

OWNER'S SIGNATURE

DATE



## TOWN OF LEWISBORO PLANNING BOARD

79 Bouton Road, South Salem, NY 10590  
Email: [planning@lewisborogov.com](mailto:planning@lewisborogov.com)  
Tel: (914) 763-5592 Fax: (914) 875-9148

### Tax Payment Affidavit Requirement

*This form must accompany all applications to the Planning Board.*

*Under regulations adopted by the Town of Lewisboro, the Planning Board may not accept any application unless an affidavit from the Town of Lewisboro Receiver of Taxes is on file in the Planning Board office. The affidavit must show that all amounts due to the Town of Lewisboro as real estate taxes and special assessments on the total area encompassed by the application, together with all penalties and interest thereon, have been paid.*

*Under New York State law, the Westchester County Clerk may not accept any subdivision map for filing unless the same type of affidavit from the Town of Lewisboro Receiver of Taxes is submitted by the applicant at the time of filing.*

This form must be completed by the applicant and must accompany all applications to the Planning Board. Upon receipt, the Planning Board Secretary will send the form to the Receiver of Taxes for signature and notarization. If preferred, the applicant may directly obtain the signature of the Receiver of Taxes and notarization prior to submission.

#### To Be Completed by Applicant (Please type or print)

David Moorman

Name of Applicant

Pound Ridge Stone reapproval Cal #04-19PB

Project Name

#### Property Description

Tax Block(s): ~~09831~~ 09831

Tax Lot(s): 1

Tax Sheet(s): ~~49 B~~ 49 B

#### Property Assessed to:

TWO WEST ROAD LLC

Name 2 West Road = Legal address Mailing: 99 Hook Rd.

Address South Salem, NY 10590

City

State

Zip

Pound Ridge  
NY 10576

The undersigned, being duly sworn deposes and says that a search of the tax records in the office of the Receiver of Taxes, Town of Lewisboro, reveals that all amounts due to the Town of Lewisboro as real estate taxes and special assessments, together with all penalties and interest thereon, affecting the premises described below, have been paid.

Signature - Receiver of Taxes:

*[Signature]*

Date

8/30/23

Sworn to before me this

30 day of August, 2023

*[Signature]*  
Signature - Notary Public (affix stamp)

JANET L. DONOHUE  
NOTARY PUBLIC, STATE OF NEW YORK  
No. 01D05259627  
Qualified in Westchester County  
Commission Expires April 16, 2026

Lewisboro Planning Board  
79 Bouton Rd  
South Salem, NY 10590

September 13, 2023

Janet Andersen, Chair

Planning Board

RE: Planning Board Application Extension - 2 West Road South Salem NY 10590

Hello,

This letter is being written to provide an update on my proposed project at my property located at 2 West Road in South Salem NY 10590. I have recently missed the deadline for an extension on my planning board application. Unfortunately, I did not receive the email notifications from the town updating me on the status of my current application.

I have been working diligently over the last few months to secure the bond needed to move forward with the process. I have dealt with several different companies in my attempt to secure the bond and when I finally found a company that would process it for me – the cost ended up being astronomical.

Based on my latest correspondence with the Planning Board attorney – I will be providing a letter of credit in place of the bond.

I am requesting that an extension be granted, so I can continue forward momentum. This has been a lengthy and difficult process and I would hate to have to begin over again since I am so close to sign off and moving forward.

Best,

David Moorman  
99 Hack Green Road  
Pound Ridge, NY 10576  
914-533-0277