TOWNHOME COTTAGE APARMTNETS
SCHERMERHORN REAL ESTATE HOLDINGS, LLC

TOWN OF KINGSBURY

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JANUARY
2021

STORMWATER POLLUTION PREVENTION PLAN
for
CONSTRUCTION ACTIVITIES
At

TOWNHOME COTTAGE APARTMENTS
1177 DIX AVE
TOWN OF KINGSBURY, NY

Prepared for:

Schermerhorn Real Estate Holdings, LLC
536 Bay Road, Suite 2
Queensbury, NY 12804

Prepared by
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Clifton Park, NY 12065
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SECTION 1

Written Stormwater Pollution Prevention Plan

Table of Contents

I. SCOPE

A. **PURPOSE:** SCHERMERHORN REAL ESTATE HOLDINGS, LLC intends to implement the appropriate Stormwater Pollution Prevention Plan measures in accordance with the SPDES general permit governing stormwater discharges during construction, and in accordance with erosion control practices. This section provides a descriptive explanation of the means by which SCHERMERHORN REAL ESTATE HOLDINGS, LLC will comply with the National Stormwater Pollution Prevention Program.

B. **NPDES GENERAL PERMITS FOR STORMWATER DISCHARGE FROM CONSTRUCTION SITES:** Regulations promulgated by the New York State Department of Environmental Conservation (NYSDEC) regulate the discharge of storm water from construction activities on sites where one (1) or more acres of soil are disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities (copy enclosed herewith). In order to be authorized to discharge under the General Permit, a Stormwater Pollution Prevention Plan (SWPPP) for the site must be prepared in accordance with all applicable requirements of this permit and followed during the construction activities. If the construction activity is **not** subject to the requirements of a regulated, traditional land use control MS4, a Notice of Intent (NOI) form must be completed and received by the New York State Department of Environmental Conservation at least 5-days prior to any earth-disturbing activities. If the construction activity is subject to the requirements of a regulated, traditional land use control MS4, then the owner/operator must have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the Department. The owner/operator shall have the "MS4 SWPPP Acceptance" form signed and then submit that form along with the NOI to the Department.

C. **RESPONSIBILITIES OF CONTRACTOR REGARDING THE GENERAL PERMIT:** The CONTRACTOR shall manage the discharge of stormwater from the site in accordance with the SPDES General Permit for Construction Activities conditions and the following provisions of this section of the specifications. The CONTRACTOR shall be responsible for conducting the stormwater management practices in accordance with the permit. The CONTRACTOR shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The CONTRACTOR shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the CONTRACTOR'S failure to comply with the permit provisions. It shall be the responsibility of the CONTRACTOR to make any changes to the SWPPP necessary when the CONTRACTOR or any of his subcontractors elect to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The CONTRACTOR should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The NOI Permittee petitions the New York State Department of Environmental Conservation for the stormwater discharges during construction at this site to be covered by the SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) (using the form required by the NYSDEC) to be covered under this permit is hereby filed. An Erosion and Sediment Control Plan has been prepared and is attached herewith.

E. **CONTRACTOR RESPONSIBILITIES**: The SWPPP and associated Erosion and Sediment Control Plans represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. SCHERMERHORN REAL ESTATE HOLDINGS, LLC and the CONTRACTOR understand that additional erosion and sediment control measures will be necessary during construction. It will be the responsibility of the CONTRACTOR to implement additional erosion and sediment control measures as

necessary to protect the site during construction. SCHERMERHORN REAL ESTATE HOLDINGS, LLC and the CONTRACTOR shall designate a Project Manager prior to commencing construction. The Project Manager will ensure that all construction managers and sub-contractors are appropriately assigned and understand the importance of the following topics:

- Erosion and Sedimentation Control for Water Quality Protection
- Implementation of the Erosion and Sedimentation Control Plan
- The Importance to Proper Installation of Erosion and Sedimentation Control Measures
- Regular Inspection by qualified personnel of Erosion and Sedimentation Control Measures
- Diligent Maintenance of Erosion and Sedimentation Control Measures
- Contemporaneous preparation of accurate and complete records regarding inspection and maintenance of Erosion and Sedimentation Control Measures
- Record Keeping for Inspections and Maintenance activities

F. **REQUIREMENTS FOR THE CONTRACTOR AND SUBCONTRACTOR(S):** The *SWPPP Ledger* shall provide a "Contractor's Certification Log" **(Form 2)**, identifying the Company Name, Business Address and Telephone Number along with the Responsible Person for the CONTRACTOR and all subcontractors' who will implement the measures identified in the SWPPP. Each of the entities identified on **Form 2** shall sign a "Contractor's Certification" **(Form 3)**, verifying they have been instructed and fully understand the requirements of the New York State Department of Environmental Conservation and SWPPP. **This certification must be signed, by a fully qualified individual on behalf of each entity, prior to the beginning of any construction activities and shall be filed in the project's *SWPPP* Ledger.**

Additionally, the "Trained Contractor" must be identified on Form 3 and his/her credentials should be kept on-site in the SWPPP ledger.

G. **STORMWATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The *SWPPP Ledger* is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the NOI Permittee's personnel or New York State Department of Environmental Conservation or any other agency with regulatory authority over stormwater issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. Refer to Part VII., F., Duty to Provide Information, of the General Permit for additional public viewing requirements.

H. **SWPPP LEDGER:** The SWPPP Ledger shall be a 3-ring Binder, tabbed and indexed for the following sections:

SECTION 1:
- **Written SWPPP**

SECTION 2:
- **Site Map and General Location Map**
- **Erosion and Sediment Control Plan(s)**

SECTION 3:
- **New York State Notice of Intent**
- **New York State NOI Acknowledgement Letter**
- **New York State MS4 SWPPP Acceptance Form**

SECTION 4:

- **New York State SPDES General Permit**

SECTION 5:

- **NOI Permittee's Certification (Form 1)**
- **Contractor's/Subcontractor's Certification Log (Form 2)**
- **Contractor's Certification for each contractor listed on Form 2 (Form 3)**
- **Inspection Report (Form 4)**
- **Modification Report (Form 5)**
- **Record of Stabilization and Construction Activities Report (Form 6)**
- **Record of Temporary Erosion and Sediment Control Practices (Form 6A)**
- **Project Rainfall Log (Form 7)**
- **Final Stabilization/Termination Checklist (Form 8)**

SECTION 6:

- **Supplemental Information**
  - **– Stormwater Management Design Narrative**
  - **– OPRHP Letter of "No Impact" on Archaeological and/or Historic Places**
  - **– NYSDEC Letter stating "No Records" (pending)**
  - **– USFW Letter of No Endangered Species**
  - **– FEMA Flood Mapping**

SECTION 7:

- **Completed Inspection Forms**

The Project Manager must review and evaluate for compliance the *SWPPP Ledger* at each Project Review meeting. All Inspection and Maintenance Forms (*Forms 4 - 7*) will be initialed by the Project Manager at each reporting interval.

I. **INSPECTIONS AND RECORD KEEPING:** Inspections are required at least weekly by a "Qualified Inspector". Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections. Inspections shall continue until the site complies with the "Final Stabilization" section of this document and a Notice of Termination (NOT) has been filed with the NYSDEC. Each inspection must be followed up by a report documenting the inspector's findings and request the required maintenance and/or repair for the erosion and sedimentation control measures. The inspector shall notify the Project Manager within one day of the inspection of any deficiencies. Within one day of this notification the Project Manager must commence with corrective measures. It is imperative that the Project Manager documents the Inspection and Maintenance of all erosion and sedimentation control measures as soon as possible after the inspection and/or maintenance is completed. These records are used to prove that the required inspection and maintenance were performed and shall be placed in the *SWPPP Ledger*. In addition to inspection and maintenance reports, records should be kept of the Construction Activities that occur on the site. The Project Sponsor shall retain copies of the SWPPP, all reports and data for a minimum of five (5) years after the project is complete. The following list identifies the **required** Inspection and Maintenance documentation that must be maintained by the Project Manager under this SWPPP.

- **Form 4 Inspection Report for SWPPP**
- **Form 5 Requested Changes to the SWPPP (Modification Report)**
- **Form 6 Record of Stabilization and Construction Activities**
- **Form 6A Record of Temporary Erosion and Sediment Control Practices**
- **Form 7 Project Rainfall Log**

J. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever the design, construction, operation, or maintenance of the site changes in a way which significantly affects the potential for the discharge of pollutants or when the plan proves to be ineffective

in eliminating or significantly minimizing pollutant discharges. Any such changes to the SWPPP must be made in writing on the Modification Report Form **(Form 5)** within 7 days of the date such modification or amendment is made. The CONTRACTOR'S failure to monitor or report deficiencies to the NOI Permittee will result in the CONTRACTOR being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

K. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** The site will be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the development area no longer discharges stormwater associated with construction activities and a Notice of Termination (NOT) form filed by the NOI Permittee with the New York State Department of Environmental Conservation. This filing terminates coverage under the General Permit and terminates the CONTRACTOR'S responsibility to implement the SWPPP. Requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed.

II. SITE DESCRIPTION

A. PROJECT NAME AND LOCATION

The TOWN HOME COTTAGES project site is geographically situated at Latitude N 43° 19' 12", Longitude W 73° 34' 52.1" in the Town of KINGSBURY, WASHINGTON COUNTY, NEW YORK.
The site (tax parcel 146.14-1-3) is located on the north side of Dix Ave, approximately 500 feet west from the intersection of Garrett and Ballston Avenue. The project site is comprised of 15.65± acres of land. The overall disturbance is 12.65± acres. The site is currently vacant and undeveloped, consisting mainly of woodlands and grass. The project is bounded on the north, east and west by PRIVATE PROPERTY and on the south by DIX AVE. Access to the project will be from DIX AVE. The entire parcel will remain privately owned and maintained. Approximately 5.3± acres of impervious surfaces, including travel surfaces and buildings will be constructed. Reclamation of disturbed areas will be conducted on an ongoing basis as construction progresses.

B. NOI PERMITTEE'S NAME AND ADDRESS

SCHERMERHORN REAL ESTATE HOLDINGS, LLC
535 BAY RD, #2
QUEENSBURY, NY 12804

C. PROJECT DESCRIPTION

This project will involve the construction of 2, 4-Unit, Townhome style apartment buildings, and 11, 8-Unit townhome style apartment buildings with approximately 2,000 linear feet of new private road and driveways, and an entrance from DIX AVE, as approved by the TOWN of KINGSBURY. Also included, as permanent elements of the development are connections to municipal water, on-site wastewater treatment (septic systems) and on-site stormwater management practices. The estimated time for completion of the construction project is approximately one (1) year. Soil disturbing activities will include:

1. Construction of stabilized construction access points
2. Clearing and grubbing
3. Construction of sediment basins and stormwater infiltration basins
4. Construction of utilities on site
5. Construction of curbs, roadways, and residential buildings and travel surfaces
6. Construction of landscaped areas
7. Final grading

D. RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The predevelopment Curve Number (CN) for the grass, wooded and impervious areas was determined to be 39, 30, and 98, respectively. The weighted predevelopment curve number was determined to be 36. Soils within the project area consist of deep, excessively drained coarse sand that fall in the hydrological soil group A, as described by the Soil Conservation Service. The post development CN for the disturbed grass areas is 39; the weighted post-development CN for the post-development contributing area is 57. A CN of 98 was used for all post-development impervious surface areas. A detailed description of the soil and groundwater conditions is presented in the Stormwater Management Report, included in Section 6: Supplemental Information of the SWPPP.

The site is in Washington County, which receives an average of 40 inches of rainfall annually with the highest amounts of rainfall received in the months of June and July.

E. NAME OF RECEIVING WATERS

Drainage will be directed via sheet flow and vegetated swales to one of eight infiltration basins, with emergency overflows directed to the existing drainage corridors, as described in the Stormwater Management Report in Section 6. The drainage corridor is tributary to the Hudson River. A detailed description of the overall drainage area is presented in the Stormwater Management Report, included in Section 6: Supplemental Information of the SWPPP.

F. INDIAN COUNTRY LANDS

The site is not located on any known current or previously designated Indian Country lands.

G. ENDANGERED OR THREATENED SPECIES

A review of the New York State Department of Environmental Conservation's (NYSDEC) Environmental Resource Mapper (http://www.dec.ny.gov/imsmaps/ERM/viewer.htm) indicated no known State regulated rare plants, rare animals or significant natural communities on-site.

An inquiry to the U.S. Fish and Wildlife Service's NY field office indicated the potential presence of Myotis Sodalis, the Indiana Bat, on the project site. Once confirmation has been received, additional information will be included in the SWPPP.

H. HISTORIC / ARCHEOLOGICAL RESOURCED

A review of the New York State Historic Preservation Office (OPRHP) Cultural Resource Information System (CRIS)) indicated that the site is not located in an archeological sensitive area. A letter has been received from the OPRHP Division for Historic Preservation stating the project will not result in any adverse effects on cultural resources.

III. CONTROLS

A. EROSION AND SEDIMENT CONTROLS

The following section describes the anticipated Erosion and Sediment Controls required for use during construction of the proposed site. These controls represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. **Additional erosion and sediment control measures will be necessary during construction.** It will be the responsibility of the NOI permittee to authorize the CONTRACTOR to implement all additional erosion and sediment control measures necessary to protect the site during construction.

1. Stabilization practices include (but not limited to):
   a) Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed
   b) Frequent watering of excavation and fill areas to minimize wind erosion during construction.
   c) Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
   d) Seeding and planting of all unpaved areas
      - Temporary seedings should be made within 24 hours of construction or disturbance. If not, the soil must be scarified prior to seeding.
      - Broadcasting or hydroseeding may be used as seeding methods.
      - Seeding mixtures should be as follows
        a) Ryegrass (annual or perennial) applied at 30 lbs. per acre (0.7 lbs./1000 sq. ft.)
        b) Certified "Aroostook" winter rye (cereal rye) applied at 100 lbs. per acre (2.5 lbs./1000 sq. ft.) *Winter rye shall be used if seeding in October/November.
   e) Topsoiling
      - Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent.
      - Remove refuse, woody plant parts, stones over 3 inches in diameter, and other liter.
      - Topsoil material shall have at least 2 percent by weight of fine textured stable organic material, and no greater than 6 percent.
      - Topsoil shall have no less than 20 percent fine textured material (passing the No. 200 sieve) and not more than 15 percent clay.
      - Topsoil shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water.
   f) Mulching
      - For grass / legume establishment apply straw mulch applied at 2 ton/acre (90 lbs./1000 sq. ft.) and anchor with wood fiber mulch (hydromulch) at 500-750 lbs./acre (11 – 17 lbs./1000 sq. ft.)
   g) Protecting Vegetation During Construction
      - Limit soil placement over existing tree and shrub roots to a maximum of 3 inches.
      - Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree.
      - Avoid trenching within the dripline of the tree.
      - Construction limits should be identified and clearly marked to exclude equipment.

2. Structural practices include (but not limited to):

   a) Perimeter protection using silt fences
   b) Sediment basin(s)
   c) Stabilized construction exit points
      - Aggregate size shall be 2 inch stone or reclaimed / recycled concrete equivalent
      - Thickness shall be not less than 6 inches
      - Width to be the full width of the access point, but not less than 12 ft
      - Length shall be as required, but not less than 50 ft.
      - Filter cloth shall be applied over the entire area to be covered with aggregate
      - The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way.
   d) Curbs and gutters
   e) Stormwater infiltration basins
   f) Temporary sediment basins
   g) Water Bar

- Used where runoff protection is needed to prevent erosion on access roads or other narrow slopping areas (generally less than 100 ft in width).
- Water bars shall cross at approximately 60 degrees with stable outlets.
- Constructed with a minimum height of 18 inches from the channel bottom to the ridge top.
- Horizontal spacing shall be 125 ft for slopes less than 5 percent, 100 ft for slopes between 5 and 10 percent, 75 ft for slopes between 10 and 20 percent, and 50 ft for slopes between 20 and 35 percent.

h) Straw Bale Dike
- Straw bale dikes have an estimated design life of three months.
- Shall only be used where no other practice is feasible

i) Stone Check Dam
- Use graded stone 2 to 15 inches in size
- Sediment accumulated behind the check dam shall be removed as needed to allow drainage through the check dam and prevent large flows from carrying sediment over the dam.

3. Sequence of Major Activities

The CONTRACTOR will be responsible for implementing erosion and sediment control measures outlined in the SWPPP and any additional erosion and sediment control measures required to stabilize the site. The CONTRACTOR may designate these tasks to certain subcontractors as appropriate, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the CONTRACTOR. The order of activities will be as follows (refer to Stormwater Pollution Prevention Plan Sheet contained in this SWPPP for additional details):

a) Preconstruction meeting with all required parties. The Town of Kingsbury shall participate in the preconstruction meeting as they are the regulated land-use MS4.

b) Construct temporary construction exits at locations shown on the SWPPP plan sheet.

c) After the installation of temporary erosion and sediment control devices, CONTRACTOR shall request an inspection of all temporary erosion and sediment control devices by the Town's Stormwater Program Coordinator. This inspection request should be made at least 48 hours in advance.

d) Install perimeter silt fences and stormwater infiltration basins.

e) Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 7 days after clearing and grubbing. Clearing and grubbing operations shall be limited so that no more than 5 acres of disturbed soil exists at any one time without prior written approval from the NYS DEC.

f) Frequent watering of the excavation and fill areas shall be done to minimize wind erosion.

g) Commence site grading and new building construction.

h) Disturbed areas of the site where construction activity has ceased for more than 7 days should be temporarily seeded and watered.

i) Install protective silt fences at all grate inlets, curb inlets, and at the ends of all exposed storm sewer pipes.

j) Finalize pavement subgrade preparation.

k) Construct all curb and gutter as shown on the plans. Place required riprap at locations shown on the plans.

l) Remove silt fences around manholes no more than 48 hours prior to placing stabilized base course.

m) Install base material as required for pavement.

n) Carry out final grading and seeding and planting, including stormwater management basins.

o) Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

p) Remove temporary construction exits only prior to pavement construction in these areas (These areas are to be paved last).

4. Stormwater Management

The proposed stormwater management system was designed by The Environmental Design Partnership, Clifton Park, NY. The following paragraphs summarize the stormwater management measures to be incorporated on the site to control pollutants in stormwater discharges after construction is completed. A copy of the Stormwater Management Report is enclosed under Section 6 – Supplemental Information.

Eight (8) stormwater management areas, constructed as infiltration basins and porous pavement, will be constructed to provide sufficient volume to hold all storm events up to the 100-year storm event and allow the water to recharge into the ground. The basins will have an emergency overflow spillway area to provide a safe overland flow path in the event that the basin capacities area exceeded. The stormwater basins contain fore bays with sufficient volume to store the "Water Quality Volume", specified by the NYS DEC Stormwater Design Manual.

5. Post-Construction Maintenance of the Stormwater Management System

Post construction maintenance and protection of the Stormwater Management System shall be performed in accordance with Section VI. LONG TERM OPERATION AND MAINTENANCE PROCEDURES of the SWPPP.

B. OTHER CONTROLS

1. Waste Disposal

All waste materials will be collected and stored in a securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York State. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as often as necessary, and the trash will be hauled to a landfill approved by New York State and the local government authority. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal. Notices stating these practices will be posted in the job site construction office trailer, and the job site superintendent will be responsible for seeing that these procedures are followed.

2. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of two times per week by a licensed portable facility provider in complete compliance with local and state regulations.

3. Off-Site Vehicle Tracking

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

4. Concrete Waste From Concrete Trucks

a) Emptying of excess concrete and/or washout from concrete delivery trucks will be allowed on the job site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or washout and stormwater which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

b) The hardened residue from the concrete washout diked areas will be disposed of in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations. The job site superintendent will be responsible for seeing that these procedures are followed.

5. Hazardous Substances and Hazardous Waste

a) All hazardous waste materials will be disposed of by the CONTRACTOR in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

b) The CONTRACTOR will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with stormwater discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated stormwater. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.

c) Any spills of hazardous materials which are in quantities in excess of Reportable Quantities as defined by EPA regulations shall be immediately reported to the EPA National Response Center 1-800-424-8802.

d) In order to minimize the potential for a spill of hazardous materials to come into contact with stormwater, the following steps will be implemented:

- All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.)

will be stored in a secure location, under cover, when not in use. All such materials shall have secondary containment to prevent contamination of soil and runoff.

- The minimum practical quantity of all such materials will be kept on the job site.
- A spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
- All of the product in a container will be used before the container is disposed of. All such containers will be triple-rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with stormwater discharges.
- All products will be stored in and used from the original container with the original product label.
- All products will be used in strict compliance with instructions on the product label.
- The disposal of excess or used products will be in strict compliance with instructions on the product label.

6. Contaminated Soils

a) Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

b) The job site superintendent will be responsible for seeing that these procedures are followed.

IV. COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

A. The CONTRACTOR will obtain copies of any and all local and state regulations that are applicable to stormwater management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The CONTRACTOR will submit written evidence of such compliance if requested by any agent of a regulatory body. The CONTRACTOR will comply with all conditions of the New York State Department of Environmental Conservation SPDES General Permit for Construction Activities, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

V. MAINTENANCE/INSPECTION PROCEDURES DURING CONSTRUCTION

A. Erosion and Sediment Control and Stabilization Measures Maintenance and Inspection Practices

1. The following is a list of erosion and sediment controls to be used on this site during construction practice.

a) Stabilization practices for this site include:
- Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed
- Frequent watering of excavation and fill areas to minimize wind erosion during construction.
- Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
- Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.

b) Structural practices for this site include:
   - Perimeter protection using silt fences
   - Inlet protection and outlet protection using silt fences
   - Curbs and gutters
   - Stabilized construction exit points
   - Stormwater infiltration basins

2. The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

   a) All control measures will be inspected once every seven (7) days at a minimum. Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections.
   b) All measures will be maintained in good working order; if repairs are found to be necessary, they will be initiated within 24 hours of report.
   c) Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
   d) Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.
   e) The sediment basins will be inspected for depth of sediment, and built up sediment will be removed when it reaches 50 percent of the capacity.
   f) Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.
   g) A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.
   h) The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.
   i) Personnel selected for the inspection and maintenance responsibilities will receive appropriate instruction from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.
   j) Disturbed areas and material storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
   k) Report to the NYS Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event.

B. Inspection and Maintenance Report Forms

Once installation of any required or optional erosion control device or measure has been implemented, weekly inspections of each measure shall be performed by the CONTRACTOR'S inspection personnel. The Inspection and Maintenance Reports found in this SWPPP shall be used by the inspectors to inventory and report the condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the NOI Permittee's Engineer, and the NOI Permittee for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the NOI Permittee for five years following the final stabilization of the site.

C. Other Record-Keeping Requirements

The CONTRACTOR shall keep the following records related to construction activities at the site:
- Dates when major grading activities occur and the areas that were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when areas are stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

D. Winter Operations

The following is a list of erosion and sediment controls and inspection and maintenance practices for winter operations for this site.

a) **Prior to November 1st of any given year all exposed soil areas must be covered with:**
   - Mulch
   - Seed and mulch
   - Geotextile
   - Erosion control matting
   - Rock or
   - Other approved mulch to prevent soil from eroding

b) Install sediment barriers (silt fence or drop inlet protection) at ALL necessary perimeter and sensitive locations BEFORE SOIL FREEZES.

c) Slopes and Stockpiles:
   - Protect slopes and stockpiles with anchored straw or mulch, rolled erosion control product or other durable covering.
   - Sediment barrier must be installed around piles and at slope toes to prevent soil transport from the pile or slope.
   - Stabilize exposed areas BEFORE snow covers them.

d) All entrance/exit locations must be properly stabilized and maintained to accommodate snow management.

e) Inspections:
   - If soil disturbance is COMPLETELY suspended AND site is PROPERLY STABILIZED, qualified inspection frequency may be reduced with written notification to NYSDEC or MS4.
   - Confirmation must be received from NYSDEC prior to reducing inspection frequency.
   - Monthly inspections must be performed at a minimum.
   - Sediment control measures should be checked after rain or snowmelt events.
   - Regular inspections must resume by March 15th.

VI. LONG TERM OPERATION AND MAINTENANCE PROCEDURES

The proposed TOWN HOME COTTAGES project will be PRIVATELY OWNED and the operation and maintenance requirements will be the responsibility of the private owner.

The entire Stormwater Management System shall be inspected on a yearly basis to ensure that the system operates in the manner originally intended. Specific components of the system shall require additional attention as described below.

1. Infiltration basins
    a. Basins shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended. The inspection should include, but not be limited to, the following components; embankment, emergency spillway, drain, accumulation of sediment, and general erosion control measures.
    b. Re-grading and re-vegetation shall be performed as necessary and rip-rap shall be replaced as necessary.
    c. Embankments shall be mowed a minimum of twice per year to discourage woody growth and control weeds.
    d. Debris and litter shall be removed from basins during regular mowing operations or more frequently as necessary.
    e. Accumulated sediment shall be removed from the infiltration area when 10 percent of the basin capacity has been lost due to sedimentation or at a minimum of every 10 to 20 years.

2. Drywells
    a. Drywells shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended.
    b. Drywell sumps should be cleaned at least once per year in addition to the annual sweeping and cleaning of the roadway surface.

3. Open Channels
    a. Open channels shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended.
    b. Removal of sediment build-up within the bottom of the channel or filter strip shall be required when 25% of the channel volume has been exceeded.

4. Porous Pavement
    a. Pavement shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended, including verify no water is ponding on pavement surface, pavement is not exhibiting structural damage, no grass is growing in pavement surface and underdrains aren't clogged.
    b. Debris and litter shall be removed from the pavement as necessary.
    c. Accumulated sand, grit and/or debris shall be removed from pavement if present.
    d. (Additional Maintenance and Inspection Guidelines are included in Section 6)

5. Shallow Grass Depression
    a. Inspect grass depression regularly for sediment build-up, structural damage, and standing water.
    b. Inspect soil and repair eroded areas monthly.
    c. Sediment shall be cleaned out of the depression when it accumulates to a depth of more than six inches.
    d. Vegetation within the depression shall be limited to a height of no more than 18 inches.
    e. Remove litter and debris as necessary, at a minimum, monthly.
    f. Treat diseased vegetation as needed.
    g. Remove and replace dead vegetation twice per year (spring and fall).

6. Soil Restoration

    a. Initial inspections for the first six (6) months (once after each storm greater than half-inch)
    b. Reseeding to repair bare or eroding areas to ensure grass stabilization.
    c. Water once every three (3) days for first month, then provide a half inch of water per week during first year. Irrigation plan to be adjusted according to rain events.
    d. Fertilization may be needed in the fall after the first growing season to increase plant vigor.
    e. Plant appropriate ground cover with deep roots to maintain soil structure

f. Keep decompacted areas free of vehicular and foot traffic or other weight loads.
g. Dethatch turf every few years or as necessary.

STORMWATER POLLUTION PREVENTION PLAN
SUMMARY OF EROSION AND SEDIMENT CONTROL AND STABILIZATION MEASURES
MAINTENANCE/INSPECTION PROCEDURES

☐ All control measures will be inspected at least once every seven (7) days. Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections.

☐ All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.

☐ Built-up sediment will be removed from silt fences when it has reached one-third the height of the fence.

☐ Silt fences will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.

☐ Sediment basins, if present, will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50% of the design capacity or at the end of the job.

☐ Diversion dikes, if present, will be inspected and any breaches promptly repaired.

☐ Temporary and permanent seeding and planting and other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

☐ A maintenance inspection report will be made after each inspection. Copies of the report forms to be used are included in this SWPPP.

☐ The site job superintendent will select the individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance reports.

☐ Personnel selected for inspection and maintenance responsibilities will receive training from the site job superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

☐ Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

☐ Report to The Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event.

STORMWATER POLLUTION PREVENTION PLAN

CONSTRUCTION/IMPLEMENTATION CHECKLIST

1. Maintain Records (Project Manager) of Construction Activities, including:

   ☐ Dates when major grading activities occur

   ☐ Dates when construction activities temporarily cease on a portion of the site

   ☐ Dates when construction activities permanently cease on a portion of the site

   ☐ Dates when stabilization measures are initiated on the site

   ☐ Dates of rainfall and the amount of rainfall

   ☐ Dates and descriptions of the character and amount of any spills of hazardous materials

   ☐ Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

2. Prepare Inspection Reports (Qualified Inspector) summarizing:

   ☐ Name of inspector

   ☐ Qualifications of inspector

   ☐ Measures/areas inspected

   ☐ Observed conditions

   ☐ Changes necessary to the SWPPP

3. Report Releases of Reportable Quantities of Oil or Hazardous Materials (Project Manager, if they occur):

   ☐ Notify National Response Center (1-800-424-8802) immediately

   ☐ Notify permitting authority in writing within 14 days

   ☐ Modify the pollution prevention plan to include:

   - the date of release
   - circumstances leading to the release
   - steps taken to prevent reoccurrence of the release

4. Modify Pollution Prevention Plan (per Qualified Inspector) as necessary to:

   ☐ Comply with the minimum permit requirements when notified by The Department of Environmental Conservation that the plan does not comply

   ☐ Address a change in design, construction operation, or maintenance that has an effect on the potential for discharge of pollutants

   ☐ Prevent reoccurrence of reportable quantity releases of a hazardous material or oil

VII. SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

A. MATERIALS COVERED

The following materials or substances with known hazardous properties are expected to be present onsite during construction:

Concrete	Cleaning solvents
Detergents	Petroleum based products
Paints	Pesticides
Paint solvents	Acids
Fertilizers	Concrete additives
Soil stabilization additives	

B. MATERIAL MANAGEMENT PRACTICES

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

1. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

a) An effort will be made to store only enough product required to do the job.

b) All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or other enclosure.

c) Products will be kept in their original containers with the original manufacturer's label in legible condition.

d) Substances will not be mixed with one another unless recommended by the manufacturer.

e) Whenever possible, all of a product will be used up before disposing of the container.

f) Manufacturer's recommendations for proper use and disposal will be followed.

g) The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

2. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials.

a) Products will be kept in original containers with the original labels in legible condition.

b) Original labels and material safety data sheets (MSDS's) will be procured and used for each material.

c) If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.

d) A spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

e) All of the product in a container will be used before the container is disposed of. All such containers will be triple-rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with stormwater discharges.

3. Product Specific Practices

The following product specific practices will be followed on the job site.

a) Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any petroleum storage tanks used onsite will have a dike or berm containment structure constructed around it to contain any spills that may occur. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

b) Fertilizers

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

c) Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

d) Concrete Trucks

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or washout and stormwater which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete washout diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the CONTRACTOR. The job site superintendent will be responsible for seeing that these procedures are followed.

4. Spill Prevention Practices

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

a) Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

b) Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite in spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.).

c) All spills will be cleaned up immediately after discovery.

d) The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

e) Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 302 list and oil) will be immediately reported to the EPA National Response Center, telephone 1-800-424-8802. Reportable Quantities of some substances which may be used at the job site are as follows:

oil - appearance of a film or sheen on water

pesticides - usually 1 lb.

acids - 5000 lb.

solvents, flammable - 100 lb.

f) The SPCC plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included. If the spill exceeds a Reportable Quantity, all federal regulations regarding reports of the incident will be complied with.

g) The job site superintendent will be the spill prevention and cleanup coordinator. He will designate the individuals who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

VIII. CONTROL OF ALLOWABLE NON-STORMWATER DISCHARGES

A. Certain types of discharges are allowable under the NYS Department of Environmental Conservation SPDES General Permit for Construction Activity, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures, which have been outlined previously in this SWPPP, will be strictly followed to ensure that no contamination of these non-stormwater discharges takes place. The following allowable non-stormwater discharges that may occur from the job site include:

a) Discharges from fire fighting activities

b) Fire hydrant flushings (see note below)

c) Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking

d) Potable water sources such as waterline flushings (see note below), irrigation drainage from watering vegetation, routine exterior building washdown (without detergents present) (See Note below)

e) Pavement washwaters where spills or leaks of hazardous materials have not occurred or detergents have not been used

f) Springs and other uncontaminated groundwater, including dewatering ground water infiltration

g) Foundation or footing drains where no contamination with process materials such as solvents is present

NOTE: CONTRACTOR shall neutralize any super-chlorinated water from water distribution pipes before releasing it into the environment. Neutralization techniques are available from the Operator's Engineer.

IX. CERTIFICATION AND NOTIFICATION

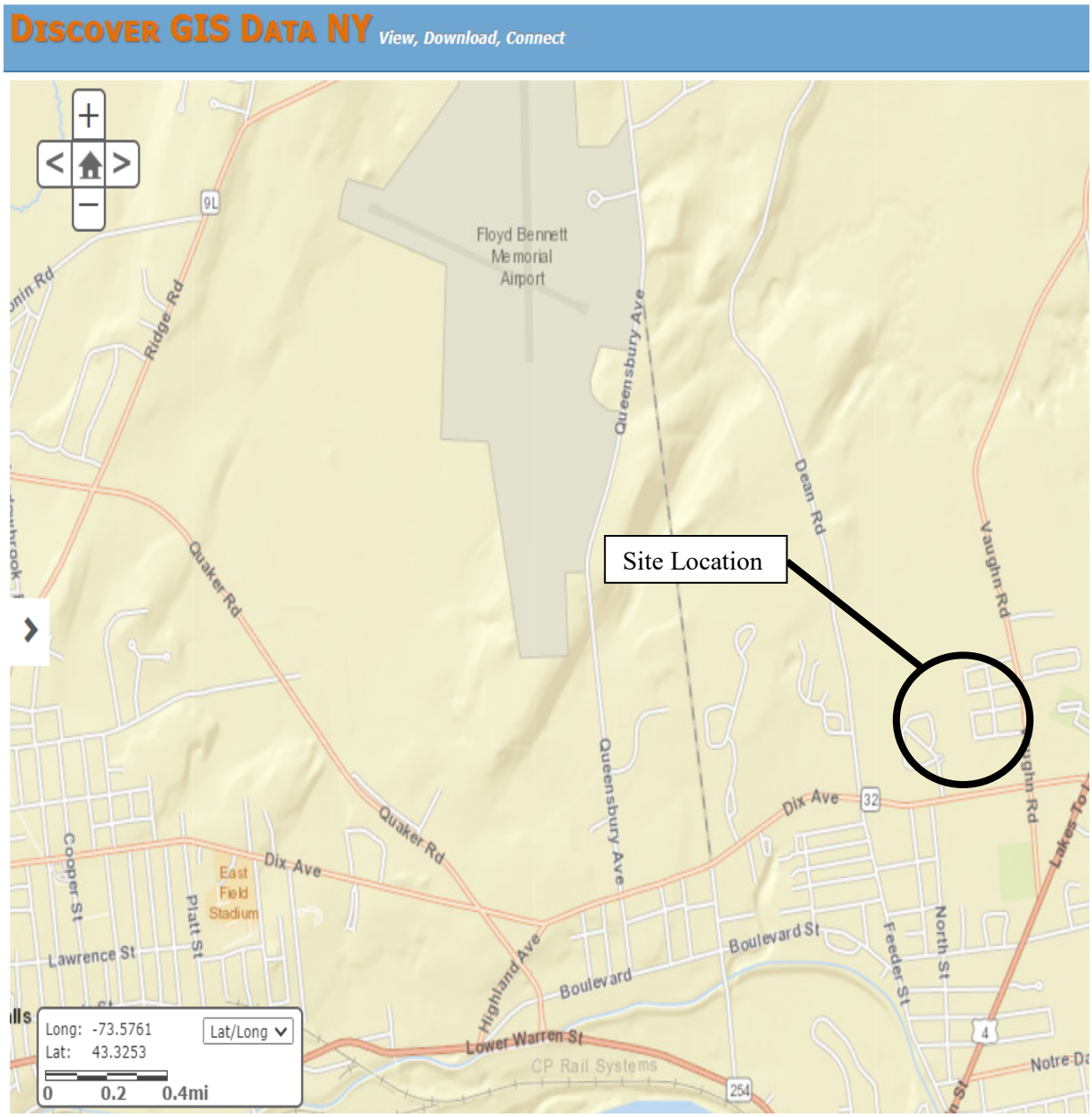
A. The NYS Department of Environmental Conservation requires that certifications of knowledge of the contents of this SWPPP and agreement to follow the SWPPP be made by the NOI Permittee and the CONTRACTOR. The terms of the General Permit also require that each CONTRACTOR sign the SWPPP plan, (Form 3) thereby making them co-permittees and acknowledging their responsibility for certain operational aspects of the plan. These certifications should be signed before the CONTRACTOR begins activities and should be filed with the site's SWPPP at the jobsite. These certifications are provided within this document, see Table of Contents for location.

SECTION 2

Erosion and Sedimentation Control Plan

Site Map and General Location Map

Figure 1: Site Location Map



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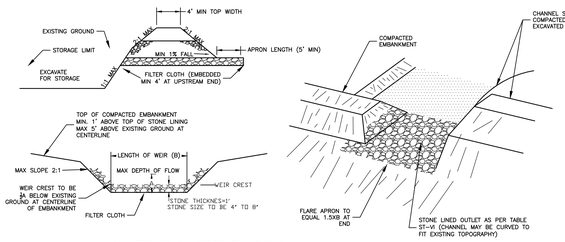
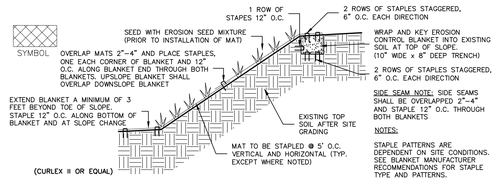
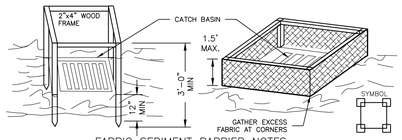
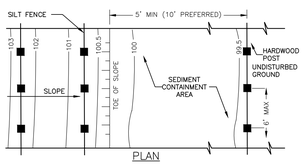
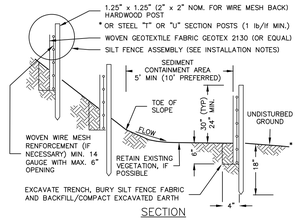
Phone (518) 371-7621 - fax (518) 371-9540
E-mail : info@edpllp.com

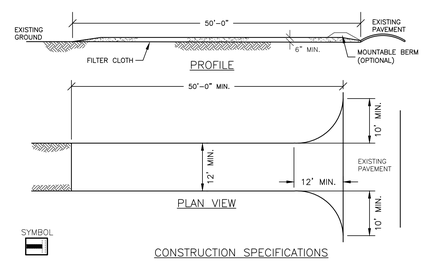


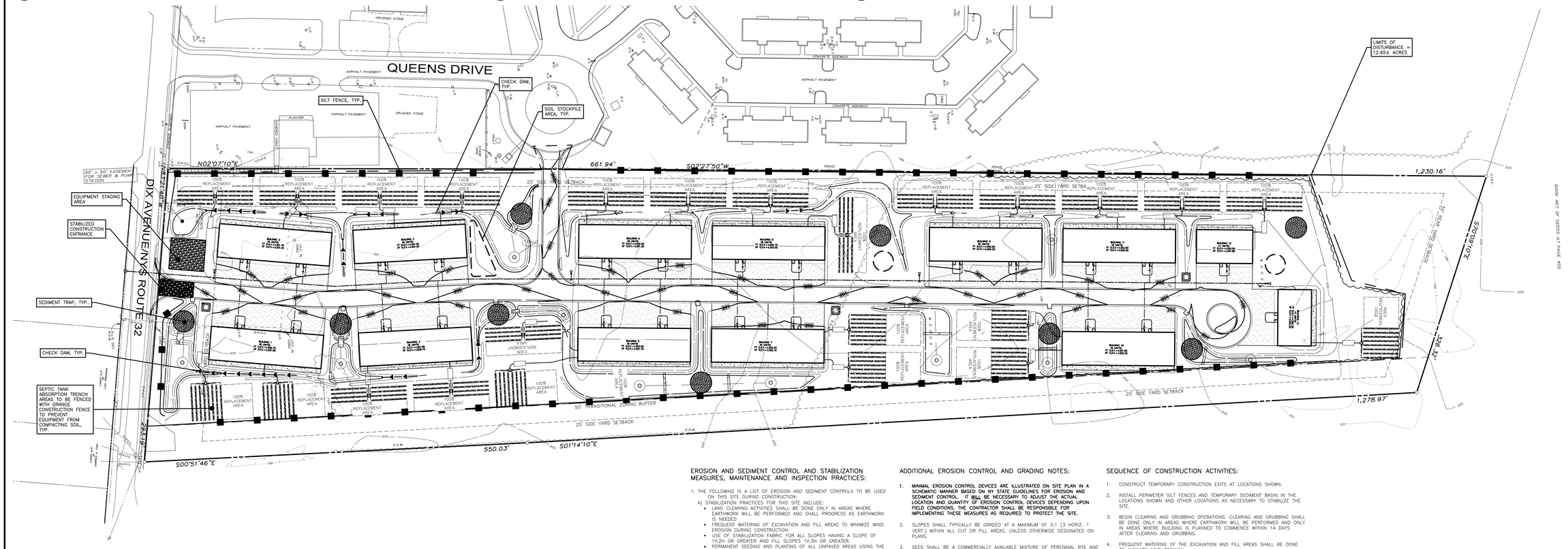












CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. MAXIMUM HEIGHT OF EMBANKMENT SHALL BE 5 FEET, MEASURED AT CENTERLINE OF EMBANKMENT.
3. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER, CUT SLOPES 1:1 OR FLATTER
4. EXCAVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF THE EMBANKMENT
5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME AVAILABLE BEHIND THE OUTLET CHANNEL UP TO AN ELEVATION OF ONE (1) FOOT BELOW THE LEVEL WEIR CREST
6. FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO TO PLACEMENT IN STONE. SECTIONS OF FABRIC MUST OVERLAP AT LEAST 1 FOOT WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OUTLET CHANNEL.S
7. STONE USED UN THE OUTLET CHANNEL SHALL BE 4 TO 8 INCH RIP-RAP. TO PROVIDE A FILTERING EFFECT, A LAYER OF FILTER CLOTH SHALL BE EMBEDDED 1-FOOT WITH SECTION NEAREST ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OUTLET CHANNEL.
8. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH AN MANNER IT WILL NOT ERODE.
9. THE STRUCTURE SHALL BE REPAIRED AFTER EACH RAIN AND AS NEEDED
10. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER EROSION AND WATER POLLUTION ARE MINIMIZED
11. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN DRAINAGE AREA HAS BEEN PROPERLY STABILIZED
12. DRAINAGE FOR THIS AREA IS LIMITED TO 15 ACRES OR LESS

DESIGN CALCULATIONS (SMA 1/SMA2)

CONTRIBUTING AREA = 8.7/5.5 ACRES
MIN SIZE = 3,600 CF/ACRE
MIN SIZE = **31,320 CF/19,800 CF**

CONTRIBUTING AREA (ACRES)	DEPTH OF CHANNEL (A) (FT)	LENGTH OF WEIR (B) (FT)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	10.0
5	1.5	12.0
6	1.5	14.0
7	1.5	16.0
8	2.0	10.0
9	2.0	10.0
10	2.0	12.0

1/11 STONE OUTLET SEDIMENT TRAP

NOT TO SCALE

SIDE SEAM NOTE: SIDE SEAMS SHALL BE OVERLAPPED 2"-4" AND STAPLE 12" O.C. THROUGH BOTH BLANKETS

NOTES:

STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS. SEE BLANKET MANUFACTURER RECOMMENDATIONS FOR STAPLE TYPE AND PATTERNS.

2/11 EROSION CONTROL BLANKET

NOT TO SCALE

FABRIC SEDIMENT BARRIER NOTES

1. FOR USE DURING SUBBASE INSTALLATION AND GRADING UP TO PAVING WORK.
2. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
3. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
4. STAKE MATERIALS WILL BE STANDARD 2" X 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
5. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
6. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
7. A 2" X 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
8. MAXIMUM DRAINAGE AREA 1 ACRE

3/11 CATCH BASIN SEDIMENT BARRIER

NOT TO SCALE

SILT FENCE GENERAL NOTES:

1. SILT FENCE SHALL BE PLACED A MINIMUM OF 5 FT. FROM TOE OF SLOPE, 10 FT. PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
2. POSTS MAY BE 1.25"x1.25" (MINIMUM) HARDWOOD, TYPICALLY. FOR WIRE MESH BACK USE 2"x2" NOM. HARDWOOD, OR STEEL "T" OR "U" POSTS (1lb per lf). SILT FENCE SHALL BE WOVEN GEOTEXTILE FABRIC(GEOTEX 2130 OR EQUAL).
3. SILT FENCE ASSEMBLIES MAY HAVE 4 FT. OR 6 FT. POST SPACING, AND MAY OR MAY NOT HAVE MESH REINFORCEMENT. SENSITIVE AREAS TO BE PROTECTED MAY NEED TO BE REINFORCED BY USING HEAVY WIRE FENCING FOR ADDED SUPPORT TO PREVENT COLLAPSE.
4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6" BELOW GROUND. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
5. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUNOFF TO A SILT FENCE PLACED ON A SLOPE ARE:

SLOPE STEEPNESS	MAXIMUM LENGTH (ft.)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

6. 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 EROSION WOULD OCCUR IN THE FORM OF SHEET EROSION; AND THERE IS NO CONCENTRATION OF WATER FLOWING TO THE BARRIER.
7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS, AFTER EACH RAINFALL OF .5" OR MORE WITHIN A 12 HOUR PERIOD, OR DAILY DURING PROLONGED RAINFALL. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
8. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-THIRD OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.

SILT FENCE INSTALLATION NOTES:

1. GEOTEXTILE FABRIC AND WOVEN WIREMESH TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACES EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED.
4. MAINTENANCE SHALL BE PERFFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

4/11 SILT FENCE

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" CRUSHED STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS EFFECTIVE BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX(6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER ENTIRE AREA PRIOR TO PLACING OF STONE.
6. 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.
5. WASHING – WHEN NECESSARY, 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 CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

5/11 STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

EROSION AND SEDIMENT CONTROL AND STABILIZATION MEASURES, MAINTENANCE AND INSPECTION PRACTICES:

1. THE FOLLOWING IS A LIST OF EROSION AND SEDIMENT CONTROLS TO BE USED ON THIS SITE DURING CONSTRUCTION:
   A) STABILIZATION PRACTICES FOR THIS SITE INCLUDE:
      - LAND CLEARING ACTIVITIES SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND SHALL PROGRESS AS EARTHWORK IS NEEDED
      - FREQUENT WATERING OF EXCAVATION AND FILL AREAS TO MINIMIZE WIND EROSION DURING CONSTRUCTION.
      - USE OF STABILIZATION FABRIC FOR ALL SLOPES HAVING A SLOPE OF 1V:2H OR GREATER AND FILL SLOPES 1V:3H OR GREATER.
      - PERMANENT SEEDING AND PLANTING OF ALL UNPAVED AREAS USING THE HYDROMULCHING GRASS SEEDING TECHNIQUE.
   B) STRUCTURAL PRACTICES FOR THIS SITE INCLUDE:
      - PERIMETER PROTECTION USING SILT FENCES
      - INLET PROTECTION AND OUTLET PROTECTION USING SILT FENCES
      - STORM SEWER, CURBS AND GUTTERS
      - STABILIZED CONSTRUCTION EXIT POINTS
      - STORMWATER DETENTION PONDS (WHICH MAY ALSO SERVE AS A TEMPORARY SEDIMENT BASIN)
2. THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS AND STABILIZATION MEASURES:
   A) ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY.
   B) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIRS ARE FOUND TO BE NECESSARY, THEY WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
   C) BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCES / STRAW BARRIERS WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
   D) SILT FENCES / STRAW BARRIERS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ETC., TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE SECURELY IN THE GROUND.
   E) THE SEDIMENT BASIN, IF PRESENT, WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 50 PERCENT OF THE DESIGN CAPACITY.
   F) TEMPORARY AND PERMANENT SEEDING AND ALL OTHER STABILIZATION MEASURES WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
   G) A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. COPIES OF THE REPORT FORMS TO BE COMPLETED BY THE INSPECTOR ARE INCLUDED IN THIS SWPPP.
   H) THE JOB SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR SELECTING AND TRAINING THE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR THESE INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT INSPECTION AND MAINTENANCE REPORTS.
   I) PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE APPROPRIATE INSTRUCTION FROM THE JOB SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS THAT ARE USED ONSITE IN GOOD WORKING ORDER. THEY WILL ALSO BE TRAINED IN THE COMPLETION OF, INITIATION OF ACTIONS REQUIRED BY, AND THE FILING OF THE INSPECTION FORMS. DOCUMENTATION OF THIS PERSONNEL TRAINING WILL BE KEPT ON SITE WITH THE SWPPP.
   J) DISTURBED AREAS AND MATERIALS STORAGE AREAS WILL BE INSPECTED FOR EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING STORMWATER SYSTEMS.
   K) REPORT TO THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION WITHIN 24 HOURS ANY NONCOMPLIANCE WITH THE SWPPP THAT WILL ENDANGER PUBLIC HEALTH OR THE ENVIRONMENT. FOLLOW UP WITH A WRITTEN REPORT WITHIN 5 DAYS OF THE NONCOMPLIANCE EVENT.

ADDITIONAL EROSION CONTROL AND GRADING NOTES:

1. **MINIMAL EROSION CONTROL DEVICES ARE ILLUSTRATED ON SITE PLAN IN A SCHEMATIC MANNER BASED ON NY STATE GUIDELINES FOR EROSION AND SEDIMENT CONTROL. IT WILL BE NECESSARY TO ADJUST THE ACTUAL LOCATION AND QUANTITY OF EROSION CONTROL DEVICES DEPENDING UPON FIELD CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE MEASURES AS REQUIRED TO PROTECT THE SITE.**
2. SLOPES SHALL TYPICALLY BE GRADED AT A MAXIMUM OF 3:1 (3 HORIZ. 1 VERT.) WITHIN ALL CUT OR FILL AREAS, UNLESS OTHERWISE DESIGNATED ON PLANS.
3. SEED SHALL BE A COMMERCIALLY AVAILABLE MIXTURE OF PERENNIAL RYE AND UTILITY GRADE FESCUE. PERCENTAGE OF PERENNIAL RYE SHALL NOT EXCEED 50%.
4. SEEDED AREAS SHALL BE FULLY COVERED WITH A LEAN STRAW OR MULCH MATERIAL. IF ORDERED BY THE ENGINEER OR MUNICIPALITY, A BIODEGRADABLE NETTING (E.G., EXCELSIOR BLANKET, COIR GEOTEXTILE) SHALL BE ANCHORED OVER SEEDED AREAS WHICH DEMONSTRATE "RILLING" OR OTHER EROSION PROCESSES.
5. TOPSOIL AND SEED SHALL BE REAPPLIED TO ANY AREAS WHICH FAIL TO ESTABLISH AS A RESULT OF INITIAL APPLICATION.
6. SILT FENCE BARRIERS SHALL BE PLACED WITHIN ALL AREAS OF EXPOSED SLOPES TO CONTROL SOIL EROSION DURING AND AFTER CONSTRUCTION.
7. ALL STORM OUTFALLS SHALL RECEIVE RIP RAP IMMEDIATELY UPON INSTALLATION (AS PER PLAN).
8. EROSION CONTROL (ERO-MAT) OR APPROVED EQUAL, SHALL BE INSTALLED ON ALL 2:1 SLOPES: AN ORGANIC FIBER PROTECTIVE MAT, HALF INCH LAYER OF CHOPPED STRAW, KNITTED INTO A RUGGED MAT WITH A THIN NETTING OF PHOTODEGRADABLE POLYPROPYLENE. SECURE MAT TO SLOPE WITH 6" STEEL U-SHAPED STABLES, 2 STAPLES PER SQUARE YARD, OR AS PER MANUFACTURER'S INSTRUCTIONS.
9. STREAM REACHES ON-SITE AND DOWNSTREAM OF CONSTRUCTION SHALL NOT HAVE SUBSTANTIAL VISIBLE CONTRAST RELATIVE TO COLOR, TASTE, ODOR, TURBIDITY AND SEDIMENT DEPOSITION FROM THE REACHES UPSTREAM OF THE CONSTRUCTION ACTIVITY.
10. VEHICULAR ACCESS POINTS SHALL BE MONITORED AND INSPECTED AT THE SAME FREQUENCY AS EROSION CONTROL FEATURES TO INSURE THAT DEPOSITS OF SAND, SILT OR OTHER MATERIAL IS NOT BEING DEPOSITED ON PUBLIC ROADWAYS. IN THE EVENT ANY SIGNIFICANT DEPOSITS OCCUR THEY SHALL BE CLEANED UP IMMEDIATELY.
11. KEEP ALL CONSTRUCTION EQUIPMENT, TOPSOIL STOCKPILES AND ANY TEMPORARY/PERMANENT GRAVEL AREAS OFF FUTURE SEPTIC AREAS.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

1. CONSTRUCT TEMPORARY CONSTRUCTION EXITS AT LOCATIONS SHOWN.
2. INSTALL PERIMETER SILT FENCES AND TEMPORARY SEDIMENT BASIN IN THE LOCATIONS SHOWN AND OTHER LOCATIONS AS NECESSARY TO STABILIZE THE SITE.
3. BEGIN CLEARING AND GRUBBING OPERATIONS. CLEARING AND GRUBBING SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND ONLY IN AREAS WHERE BUILDING IS PLANNED TO COMMENCE WITHIN 14 DAYS AFTER CLEARING AND GRUBBING.
4. FREQUENT WATERING OF THE EXCAVATION AND FILL AREAS SHALL BE DONE TO MINIMIZE WIND EROSION.
5. COMMENCE SITE GRADING AND CONSTRUCTION.
6. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.
7. INSTALL PROTECTIVE SILT FENCES / BARRIERS AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
8. FINALIZE PAVEMENT SUBGRADE PREPARATION.
9. CONSTRUCT ALL CURB AND GUTTER, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION BARRIERS MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED RIPRAP AT LOCATIONS SHOWN ON THE PLANS.
10. REMOVE DROP INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
11. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
12. CARRY OUT FINAL GRADING AND SEEDING AND PLANTING
13. REMOVE SILT FENCING / STRAW BARRIERS ONLY AFTER ALL PAVING IS COMPLETE AND EXPOSED SURFACES ARE STABILIZED.
14. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS (THESE AREAS ARE TO BE PAVED LAST).

SOIL RESTORATION:

AS PER CHAPTER 5 OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL, SOIL RESTORATION IS REQUIRED ON THIS SITE IN ALL NON-IMPERVIOUS AREAS ONCE FINAL SUBGRADE ELEVATION IS ACHIEVED. IN AREAS OF CUT OR FILL THE SOILS SHALL BE AERATED AND 6 INCHES OF TOPSOIL SHALL BE APPLIED. IN AREAS OF HEAVY CONSTRUCTION TRAFFIC (ESPECIALLY IN AREAS 5 TO 25 FEET FROM BUILDING, BUT NOT WITHIN 5 FEET OF FOUNDATION WALLS) THE FOLLOWING RESTORATION MUST BE APPLIED:

1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL.
2. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SOIL.
3. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF 4 INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4. APPLY TOPSOIL TO A DEPTH OF 6 INCHES
5. VEGETATE AS REQUIRED BY APPROVED PLAN.

CONSTRUCTION SPECIFICATIONS

1. CONCRETE WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF FIFTY FEET (50') FROM SENSITIVE AREAS.
2. THE BASIN DIMENSIONS DEPICTED ABOVE ARE REQUIRED MINIMUMS. CONCRETE WASHOUT FACILITY SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE ENERATED BY WASHOUT OPERATIONS. (APPROXIMATELY 60 GALLONS OF WASTE AND WATER PER TRUCK).
3. PLASTIC LINING MATERIAL SHALL BE A MINIMUM 10 MIN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
4. WASHOUT FACILITY MUST BE CLEANED, OR NEW FACILITES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.

MAINTENANCE AND CLEANING

1. DO NOT DISCHARGE LIQUID OR SLURRY TO WATERWAYS, STORM DRAINS OR DIRECTLY ONTO GROUND
2. DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL.
3. PLACE A SECURE NON COLLAPSING, NON-WATER COLLECTING COVER OVER THE FACILITY PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW.
4. REMOVE AND DISPOSE OF HARDEN CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL STATE.
5. INSPECT THE WASHOUT FACILITY FOR SIGNS OF WEAKENING OR DAMAGE AND REPAIR AS NESSESARY(RELINE THE STRUCTURE WITH NEW POLY SHEETING AFTER EACH CLEANING).

6/11 CONCRETE WASHOUT FACILITY

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOW OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LONER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
6. MAXIMUM DRAINAGE AREA 2 ACRES.

7/11 CHECK DAM

NOT TO SCALE

EROSION AND SEDIMENT CONTROL PLAN LEGEND:

- ▶ CHECK DAM
- ■ SILT FENCE
- ▨ STABILIZED CONSTRUCTION ENTRANCE
- ▭ SOIL STOCKPILE
- DISTURBANCE LIMIT
- STAGING AREA
- ▣ CONCRETE WASHOUT
- SEDIMENT TRAP

ENVIRONMENTAL DESIGN PARTNERSHIP, LLP.
900 Route 146 Clifton Park, New York 12065
(518) 371-7621
edpllp.com

TAX MAP No. 146.14-1-3
11/11/2020

PROPOSED TOWN HOMES FOR
DIX AVE TOWN HOME COTTAGES
SCHERMERHORN REAL ESTATE HOLDINGS, LLC

1177 DIX AVE
TOWN OF KINGSBURY
WASHINGTON COUNTY, NEW YORK

DRAWN BY	STA
CHECKED BY	JCD
EDP PROJECT NUMBER	12594

THE ALTERATION OF THESE DOCUMENTS IN ANY WAY, UNLESS DONE UNDER THE DIRECT SUPERVISION OF A COMPARABLE PROFESSIONAL, (I.E.) ENGINEER FOR AN ENGINEER, LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT OR SURVEYOR FOR A SURVEYOR, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.

REVISION	DATE	BY

LICENSE NAME OF PROFESSIONAL
######

LICENSE NAME OF PROFESSIONAL
######

SCALE:
1" = 60'

NOT FOR CONSTRUCTION

SHEET TITLE:
EROSION AND SEDIMENT CONTROL PLAN

SHEET:
11 of 14

Q:\WASHINGTON\KINGSBURY\Dix Ave\DIX AVE - SCHERMERHORN\05-dwg\Detailed Plans\SHEETS\09_EROS-DIX AVE-SCHERM.dwg Jan 04, 2021 08:17:02AM,

SECTION 3

Federal, State or Local Notice of Intent (NOI)

NYSDEC NOI Acknowledgement Letter

NYSDEC MS4 SWPPP Acceptance Form

NYSDEC NOI Notice of Termination (NOT)

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.28

(Submission #: HP5-GPE4-QFKW4, version 1)

Details

Submission Alias	Dix Ave Schermerhorn
Originally Started By	Brandon Ferguson
Submission ID	HP5-GPE4-QFKW4
Submission Reason	New
Status	Draft
Active Steps	Form Submitted

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)
Schermerhorn Real Estate Holdings, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Schermerhorn

Owner/Operator Contact Person First Name
Richard

Owner/Operator Mailing Address
536 Bay Road #2

City
Queensbury

State
NY

Zip
12065

Phone
9209152208

Email
salessandrini@edpllp.com

Federal Tax ID
NONE PROVIDED

Project Location

Project/Site Name
Town Home Cottages

Street Address (Not P.O. Box)
1177 Dix Ave

Side of Street
North

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Kingsbury

State
NY

Zip
12804

County
WASHINGTON

DEC Region
5

Name of Nearest Cross Street
Vaugh Road

Distance to Nearest Cross Street (Feet)
400

Project In Relation to Cross Street
West

Tax Map Numbers Section-Block-Parcel
146.14-1

Tax Map Numbers
146.14-1-3

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:
- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates
43.319994,-73.581073

1177 Dix Ave, Hudson Falls, NY 12839, USA

Project Details

2. What is the nature of this project?
New Construction

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse
Pasture/Open Land

Post-Development Future Land Use
Town Home Residential

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.
NONE PROVIDED

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres)
15.67

Total Area to be Disturbed (acres)
12.65

Existing Impervious Area to be Disturbed (acres)
0.05

Future Impervious Area Within Disturbed Area (acres)
5.3

5. Do you plan to disturb more than 5 acres of soil at any one time?
No

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
100

B (%)
0

C (%)
0

D (%)
0

7. Is this a phased project?
Yes

8. Enter the planned start and end dates of the disturbance activities.

Start Date
6/7/2021

End Date
6/7/2022

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
Hudson River

9a. Type of waterbody identified in question 9?
River Off Site

Other Waterbody Type Off Site Description
NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified?
NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?
No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?
No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?
No

If No, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?
No

If Yes, what is the acreage to be disturbed?
NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
No

16. What is the name of the municipality/entity that owns the separate storm sewer system?
NONE PROVIDED

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?
Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

19. Is this property owned by a state authority, state agency, federal government or local government?
No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)
No

Required SWPPP Components

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?
Yes

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?
Yes

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?
Yes

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

SWPPP Preparer
The Environmental Design Partnership

Contact Name (Last, Space, First)
Alessandrini, ,Stephanie

Mailing Address
900 Route 146

City
Clifton Park

State
New York

Zip
12065

Phone
5183717621

Email
salessandrini@edpllp.com

Download SWPPP Preparer Certification Form
Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form

3) Scan the signed form
4) Upload the scanned document
Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification
NONE PROVIDED
Comment
NONE PROVIDED

Erosion & Sediment Control Criteria

25. Has a construction sequence schedule for the planned management practices been prepared?
Yes

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural
Check Dams
Sediment Basin
Silt Fence
Stabilized Construction Entrance

Biotechnical
None

Vegetative Measures
Seeding

Permanent Structural
Land Grading

Other
NONE PROVIDED

Post-Construction Criteria

*** IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
Reduction of Clearing and Grading
Building Footprint Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).
All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)
0.539

29. Post-construction SMP Identification
Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)
0.539

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?
Yes

If Yes, go to question 36. If No, go to question 32.

32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)
NONE PROVIDED

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?
NONE PROVIDED

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs
Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)
NONE PROVIDED

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).
NONE PROVIDED

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?
NONE PROVIDED

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.

CPv Required (acre-feet)
0

CPv Provided (acre-feet)
NONE PROVIDED

36a. The need to provide channel protection has been waived because:
Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS)
0.00

Post-Development (CFS)
0.00

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)
0.00

Post-Development (CFS)
0.00

37a. The need to meet the Qp and Qf criteria has been waived because:
NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

If Yes, Identify the entity responsible for the long term Operation and Maintenance
Schermerhorn Real Estate Holdings, LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.
NONE PROVIDED

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs
Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1)
0.00

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)
0.00

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
0.00

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
0.00

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)
0.00

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)
0.00

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)
0.92

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)
0.92

Total Contributing Impervious Acres for Vegetated Swale (RR-5)
0.00

Total Contributing Impervious Acres for Rain Garden (RR-6)
0.00

Total Contributing Impervious Acres for Stormwater Planter (RR-7)
0.00

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)
0.00

Total Contributing Impervious Acres for Porous Pavement (RR-9)
2.78

Total Contributing Impervious Acres for Green Roof (RR-10)
0.00

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)
0.00

Total Contributing Impervious Acres for Infiltration Basin (I-2)
1.60

Total Contributing Impervious Acres for Dry Well (I-3)
0.00

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
0.00

Total Contributing Impervious Acres for Bioretention (F-5)
0.00

Total Contributing Impervious Acres for Dry Swale (O-1)
0.00

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
0.00

Total Contributing Impervious Acres for Wet Pond (P-2)
0.00

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
0.00

Total Contributing Impervious Acres for Multiple Pond System (P-4)
0.00

Total Contributing Impervious Acres for Pocket Pond (P-5)
0.00

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
0.00

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
0.00

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
0.00

Total Contributing Impervious Acres for Organic Filter (F-4)
0.00

Total Contributing Impervious Acres for Shallow Wetland (W-1)
0.00

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
0.00

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
0.00

Total Contributing Impervious Acres for Pocket Wetland (W-4)
0.00

Total Contributing Impervious Acres for Wet Swale (O-2)
0.00

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic
0.00

Total Contributing Impervious Area for Wet Vault
0.00

Total Contributing Impervious Area for Media Filter
0.00

"Other" Alternative SMP?
N/A

Total Contributing Impervious Area for "Other"
0.00

Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

Manufacturer of Alternative SMP
N/A

Name of Alternative SMP
N/A

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility.
None

If SPDES Multi-Sector GP, then give permit ID
NONE PROVIDED

If Other, then identify
NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit?
No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth
NONE PROVIDED

42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.
NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?
Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?
NONE PROVIDED

MS4 SWPPP Acceptance Form Download
Download form from the link below. Complete, sign, and upload.
MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload
> NONE PROVIDED
> **Comment**
> NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download
Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF, 45KB)

Upload Owner/Operator Certification Form
> NONE PROVIDED
> **Comment**
> NONE PROVIDED

Status History

	User	Processing Status
1/4/2021 8:20:44 AM	Brandon Ferguson	Draft

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted		
Under Review	DAVID GASPER	

SECTION 4

Federal, State or Local NPDES General Permit

NEW YORK STATE OF OPPORTUNITY | 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

1-23-20

Authorized Signature

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

Table of Contents

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

*Discharge*s 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 discharge*s;

   (ii) Control stormwater *discharge*s, 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 *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, 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**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. 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 *discharge*s 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 *discharge*s 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 *discharge*s 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 *discharge*s 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 *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *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 *discharge*s 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 *discharge*s 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 *discharge*s 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 *discharge*s; 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 *discharge*s 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. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s 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 *discharge*s 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 *discharge*s 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. *Discharge*s 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, 4th 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 <u>not</u> 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 <u>not</u> 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 *discharge*s 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

l. 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 source*s. 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 source*s, 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

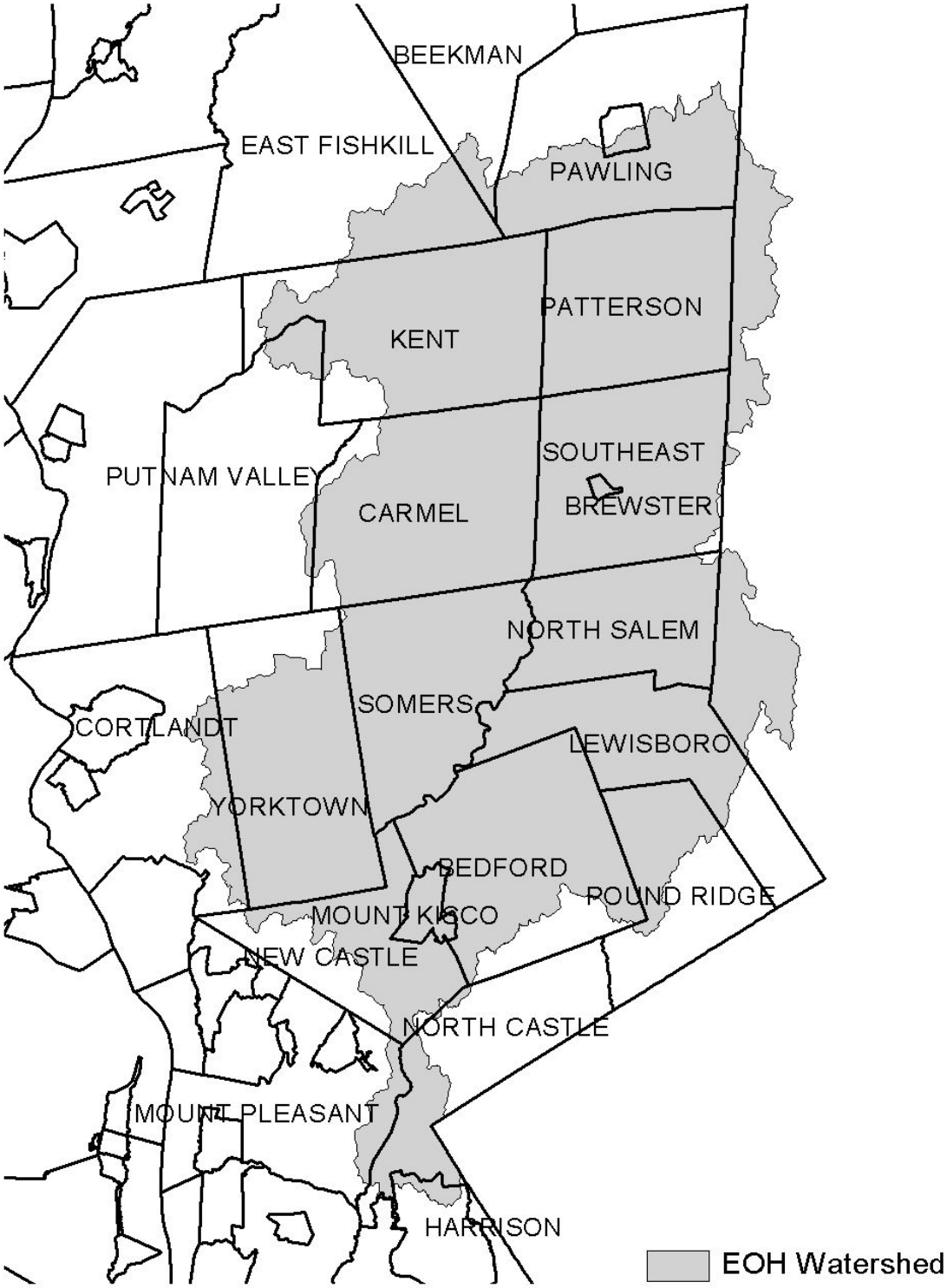


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

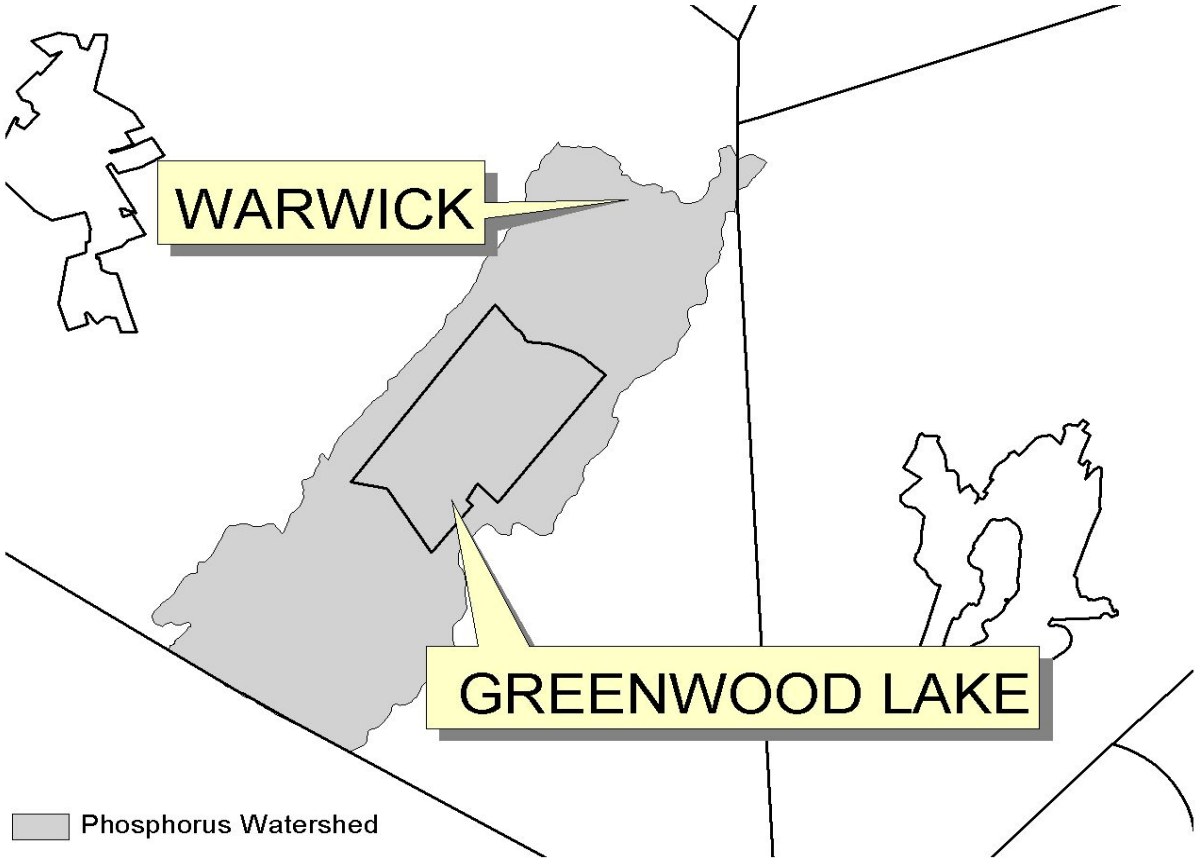


Figure 4 - Oscawana Lake Watershed

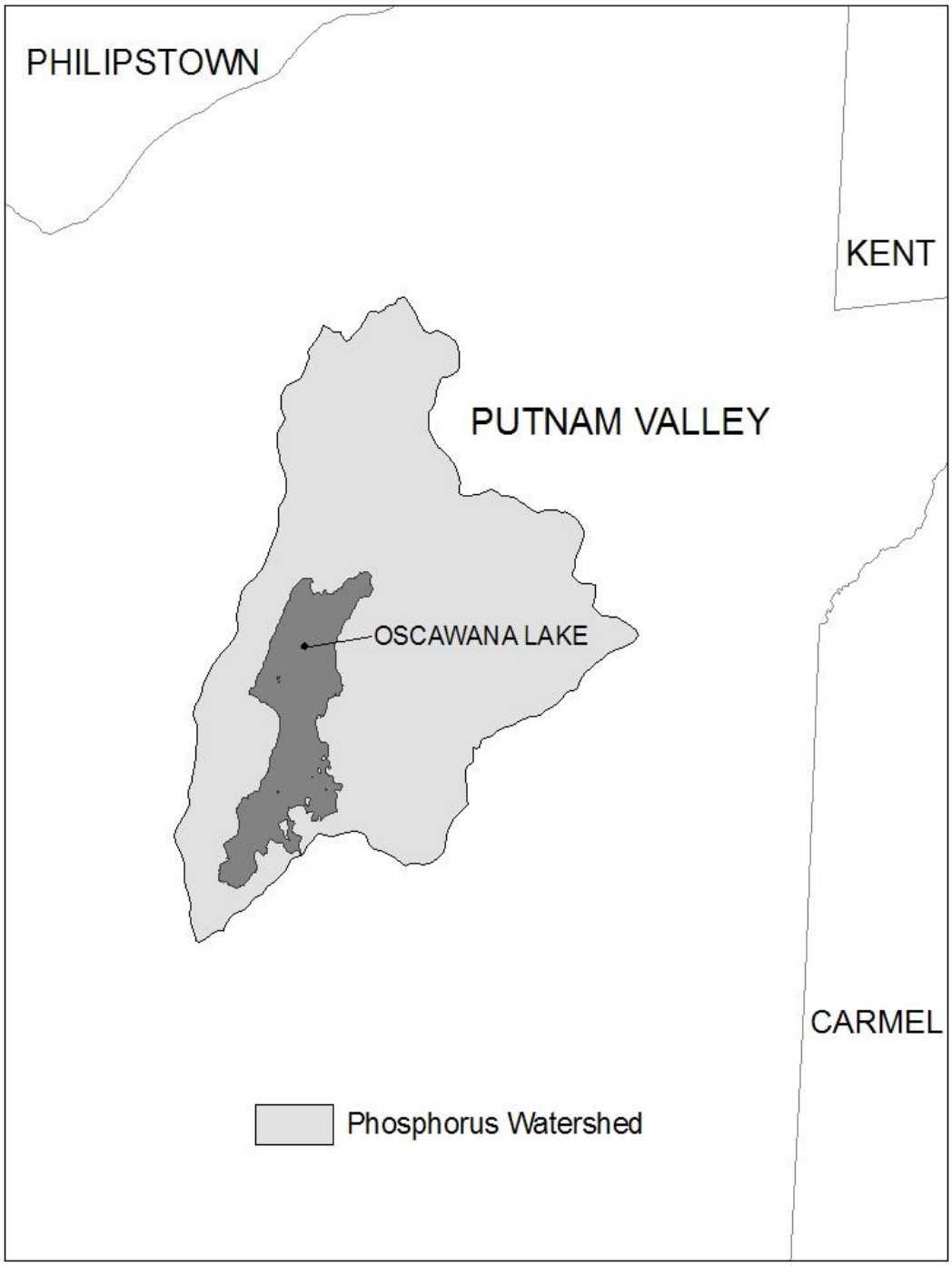
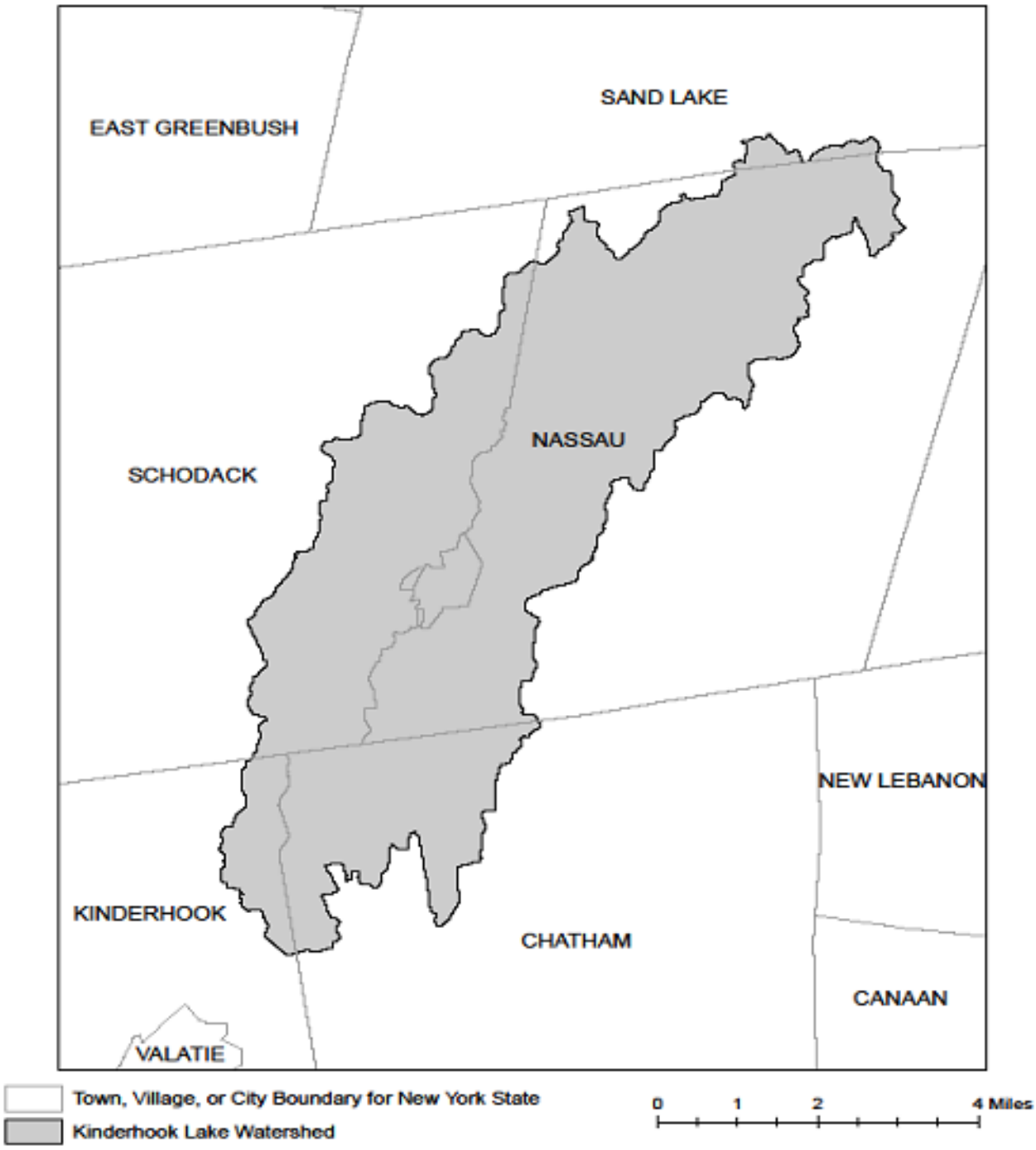


Figure 5 - Kinderhook Lake Watershed



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

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	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

SECTION 5

Certifications, Forms, Reports, and Daily Logs

STORMWATER POLLUTION PREVENTION PLAN
NOI PERMITTEE'S CERTIFICATION

FORM 1

Construction Site
TOWN HOME COTTAGES
Town of KINGSBURY, Washington County, New York

STORMWATER POLLUTION PREVENTION PLAN DATED January, 2021

NOI PERMITTEE'S CERTIFICATION:

"I certify under penalty of law that this document was 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. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

NOI Permittee's
Designated Project Manager: _____

Signed: _____

Printed Name: _____

Position: _____

Date: _____

STORMWATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION LOG

FORM 2

Construction Site
TOWN HOME COTTAGES
Town of KINGSBURY, Washington County, New York

Company Name	
Address	
Contact Name	
Telephone Number	
Cell Phone/Pager	
Scope of Services	
Certification Date	

Company Name	
Address	
Contact Name	
Telephone Number	
Cell Phone/Pager	
Scope of Services	
Certification Date	

Company Name	
Address	
Contact Name	
Telephone Number	
Cell Phone/Pager	
Scope of Services	
Certification Date	

Designated Project Manager____________________

STORMWATER POLLUTION PREVENTION PLAN
CONTRACTOR'S/SUBCONTRACTOR'S CERTIFICATION
FORM 3

This form to be completed for each contractor listed on Form 2. Reproduce as needed

Construction Site

TOWN HOME COTTAGES

Town of KINGSBURY, Washington County, New York

CONSTRUCTION POLLUTION PREVENTION PROGRAM

DATED January, 2021

CONTRACTOR'S CERTIFICATION:

"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."

The Contractor/Subcontractor further understands that the SWPPP and associated Erosion and Sediment Control Plans represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. Additional erosion and sediment control measures will be necessary during construction. It will be the responsibility of Contractor/Subcontractor to implement all additional erosion and sediment control measures necessary to protect the site during construction.

CONTRACTOR:	**SUB**CONTRACTOR:
Name (Print): _____	Name (Print): _____
Signature: _____	Signature: _____
Date: _____	Date: _____
Title: _____	Title: _____
Company Name: _____	Company Name: _____
Address: _____	Address: _____
_____	_____
Phone: _____	Phone: _____

Elements of SWPPP Contractor/Subcontractor responsible for: _____

Name of Trained Contractor Responsible for SWPPP Implementation: _____

Title of Trained Contractor Responsible for SWPPP Implementation: _____

FORM 4
SCHERMERHORN REAL ESTATE HOLDINGS, LLC – TOWN HOME COTTAGES – DIX AVE
SWPPP # _____
This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

SWPPP INSPECTION REPORTS

Date _____

Weather and Soil Conditions
Weather Conditions: _____
Soil Conditions: Dry [ ] Wet [ ] Saturated [ ] Snow Covered [ ] Frozen [ ]

Maintaining Water Quality

Yes	No	NA	
[ ]	[ ]	[ ]	Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ]	[ ]	[ ]	Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ]	[ ]	[ ]	All disturbance is within the limits of the approved plans.
[ ]	[ ]	[ ]	Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping
1. General Site Conditions

Yes	No	NA	
[ ]	[ ]	[ ]	Is construction site litter and debris appropriately managed?
[ ]	[ ]	[ ]	Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ]	[ ]	[ ]	Is construction impacting the adjacent property?
[ ]	[ ]	[ ]	Is dust adequately controlled?

2. Temporary Stream Crossing

Yes	No	NA	
[ ]	[ ]	[ ]	Maximum diameter pipes necessary to span creek without dredging are installed.
[ ]	[ ]	[ ]	Installed non-woven geotextile fabric beneath approaches.
[ ]	[ ]	[ ]	Is fill composed of aggregate (no earth or soil)?
[ ]	[ ]	[ ]	Rock on approaches is clean enough to remove mud from vehicles and prevent sediment from entering stream during high flow.

Runoff Control Practices
1. Excavation Dewatering

Yes	No	NA	
[ ]	[ ]	[ ]	Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ]	[ ]	[ ]	Clean water from upstream pool is being pumped to the downstream pool.
[ ]	[ ]	[ ]	Sediment-laden water from work area is being discharged to a silt-trapping device.
[ ]	[ ]	[ ]	Constructed upstream berm with one-foot minimum freeboard.

2. Water Bar

Yes	No	NA	
[ ]	[ ]	[ ]	Installed per plan with vehicle crossings stabilized with gravel.
[ ]	[ ]	[ ]	Outlet located on undisturbed soil or lined with riprap.
[ ]	[ ]	[ ]	Bar height is 12-inch minimum from bottom of channel with minimum base width of 6-foot.

3. Interceptor Dikes and Swales

Yes	No	NA	
[ ]	[ ]	[ ]	Installed per plan with minimum side slopes 1V:3H or flatter.
[ ]	[ ]	[ ]	Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ]	[ ]	[ ]	Sediment-laden runoff directed to sediment trapping structure.

SWPPP INSPECTION REPORT

4. Stone Check Dam
Yes No NA
[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?

5. Rock Outlet Protection
Yes No NA
[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization
1. Topsoil and Spoil Stockpiles
Yes No NA
[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation
Yes No NA
[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] Four inches minimum of topsoil has been applied under permanent seedings.

Sediment Control Practices
1. Stabilized Construction Entrance
Yes No NA
[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence
Yes No NA
[ ] [ ] [ ] Installed on Contour, ten feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried six inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is _____% of design capacity.

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)
Yes No NA
[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is one acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts three-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at maximum eight inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation _____% of design capacity.

SWPPP INSPECTION REPORT

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.
Sediment accumulation is _____% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
Sediment accumulation is _____% of design capacity.

Dust Control Practices

1. Haul Road and Current Work Areas

Yes No NA

[ ] [ ] [ ] Are all traffic surface areas sufficiently treated to prevent fugitive dust?
[ ] [ ] [ ] Are any areas of site's non-traffic and work area experiencing wind erosion?
[ ] [ ] [ ] Are there any disturbed areas in need of temporary seed and mulch to protect surface from wind erosion?
[ ] [ ] [ ] Is watering truck on-site?
[ ] [ ] [ ] Is dust visible in air at any location of the site?

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site-specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

Description of condition of runoff at all points of discharge from the construction site. (This shall include identification of discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow.) _____

_____

_____

_____

Description of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection (see Page 5 for Sketch). _____

_____

_____

_____

This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

SWPPP INSPECTION REPORT

Page 4 of _____
Date _____

ADDITIONAL COMMENTS*:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
Inspector (print name and title) Date and Time of Inspection

_____ _____
Qualified Professional (print name) Qualified Professional Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

***Attach photographs of practices identified as needing corrective actions.**

NOTE: IN ACCORDANCE WITH PART IV.C.4 OF THE SPDES GENERAL PERMIT (GP-0-20-001), THE QUALIFIED INSPECTOR MUST NOTIFY THE OWNER OR OPERATOR AND APPROPRIATE CONTRACTOR OF ANY CORRECTIVE ACTIONS THAT NEED TO BE TAKEN. THE CONTRACTOR SHALL BEGIN IMPLEMENTING THE CORRECTIVE ACTIONS WITHIN ONE (1) BUSINESS DAY OF THIS NOTIFICATION AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.

STORMWATER POLLUTION PREVENTION PLAN
MODIFICATION REPORT
FORM 5

This form to be used only when Contractor's designated inspector believes changes to the SWPPP and/or Erosion and Sediment control plans is warranted. For example, additional erosion control measures needed or removal of specific control measures can be done without adverse impact. This form must be approved by Designated Project Manager prior to implementation.

Construction Site
TOWN HOME COTTAGES
Town of KINGSBURY, Washington County, New York

CHANGES REQUIRED FOR STORMWATER POLLUTION PREVENTION PLAN

To:	**Designated Project Manager**	**Date:**	
Address:			
Telephone:			
Facsimile:			
Sent Via:	☐ **Facsimile**	☐ **E-mail**	☐ **US Mail**

INSPECTOR: DATE:_____
(Print)

_____
(Signature)

QUALIFICATIONS OF INSPECTOR:_____

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN: _____

_____

_____

REASONS FOR CHANGES: _____

_____

_____

TO BE PERFORMED BY: ON OR BEFORE: _____

APPROVED BY DESIGNATED PROJECT MANAGER_____ DATE: _____

STORMWATER POLLUTION PREVENTION PLAN
RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITIES
FORM 6

Construction Site

TOWNHOUSE APARTMENTS

Town of KINGSBURY, Washington County, New York

A record of dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be maintained until final site stabilization is achieved and the Notice of Termination is filed. *Reproduce copies of this form as needed.*

MAJOR GRADING, CONSTRUCTION, OR STABILIZATION ACTIVITIES

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Description of Activity: _____

Begin Date: Site Contractor: _____

Location: _____

End Date: _____

Designated Project Manager_____

STORMWATER POLLUTION PREVENTION PLAN
RECORD OF TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES
FORM 6A

Construction Site

TOWNHOUSE APARTMENTS

Town of KINGSBURY, Washington County, New York

A record of the timing of temporary erosion and sediment control practices to be implemented, including the timing of initial placement and the duration that each practice should remain in place. The record may reflect the actual date of planned installation or the specific construction activity with which it will be associated. The timing of removal may reflect an actual date or the length of time over which the practice will be implemented.

TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES

Description of Practice: ____________________

Date/Timing of Initial Placement: Site Contractor: ____________________

Location: ____________________

Projected Date/Timing of Removal: ____________________

Description of Practice: ____________________

Date/Timing of Initial Placement: Site Contractor: ____________________

Location: ____________________

Projected Date/Timing of Removal: ____________________

Description of Practice: ____________________

Date/Timing of Initial Placement: Site Contractor: ____________________

Location: ____________________

Projected Date/Timing of Removal: ____________________

Description of Practice: ____________________

Date/Timing of Initial Placement: Site Contractor: ____________________

Location: ____________________

Projected Date/Timing of Removal: ____________________

Description of Practice: ____________________

Date/Timing of Initial Placement: Site Contractor: ____________________

Location: ____________________

Projected Date/Timing of Removal: ____________________

Designated Project Manager____________________

PROJECT RAINFALL LOG (to be completed by Contractor)

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Day												
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
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26												
27												
28												
29												
30												
31												
PM Initials												

STORMWATER POLLUTION PREVENTION PLAN

FINAL STABILIZATION CERTIFICATION /NOTICE OF TERMINATION CHECKLIST

FORM 8

This form is to be completed by Contractor and submitted to Designated Project Manager for approval only after Contractor believes all work regulated by SWPPP is complete.

Construction Site
TOWNHOUSE APARTMENTS
Town of KINGSBURY, Washington County, New York

1. ☐ All soil disturbing activities are complete.

2. ☐ Temporary Erosion and Sediment Control Measures have been removed or will be removed at the appropriate time.

3. ☐ All areas of the Construction Site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 85% or equivalent measures have been employed.

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that all storm water discharges associated with industrial activity from the identified project that are authorized by NPDES general permit have been eliminated and that all disturbed areas and soils at the construction site have achieved Final Stabilization and all temporary erosion and sediment control measures have been removed or will be removed at the appropriate time."

Company Name _____

Name (Print) _____

Signature _____

Date _____

APPROVED BY DESIGNATED PROJECT MANAGER_____ DATE: _____

SECTION 6

Supplemental Information

1. **Stormwater Management Narrative – Appendices and Figures Available Upon Request**

2. **Letter from OPRHP stating "No Impact" on Archaeological and/or Historic Places**

3. **Letter from NYS DEC stating "No Records"**

4. **Draft Stormwater Maintenance Agreement**

5. **FEMA Flood Mapping**

Stormwater Management Narrative

TOWN HOME COTTAGE APARTMENTS

1177 Dix Avenue

Town of Kingsbury

Washington County, New York

Applicant:

Schermerhorn Real Estate Holdings, LLC

536 Bay Road #2

Queensbury, NY 12804

December 2020

Prepared By:

The Environmental Design Partnership, LLP

900 Route 146

Clifton Park, NY 12065

TABLE OF CONTENTS

Contents

Figures

Attachments

900 Route 146, Clifton Park, New York 12065
Phone (518) 371-7621 - fax (518) 371-9540
E-mail : info@edpllp.com

1.0 Introduction

Schermerhorn Real Estate Holdings, LLC is proposing to develop a 15.7±-acre parcel located on the northern side of Dix Avenue in the Town of Kingsbury, New York. The proposed project will consist of 96 town home cottage apartments, associated driveways and a private access road. The project will result in approximately 12.65± acres of disturbance and 5.3± acres of new impervious area.

The stormwater management system has been designed to provide pollutant removal, reduce channel erosion, prevent overbank flooding, and safely control extreme flood events in accordance with the NYS Stormwater Management Design Manual (Design Manual). The proposed stormwater management system for the project will include eight infiltration basins, porous pavement, and rooftop disconnection which will provide a total storage volume on the order of 2.37± acre-feet.

This narrative presents a review of the design concepts and parameters of the stormwater management system for the proposed town home cottage apartments. The purpose of the stormwater management narrative is to assure that changes in the surface runoff characteristics, as a result of the proposed construction, will not adversely impact adjacent or downstream properties. On-site stormwater management will be implemented in accordance with the Design Manual to accommodate both additional stormwater runoff and to provide water quality treatment according to the green infrastructure standards.

2.0 Existing Conditions

The existing project site consists of a vacant parcel with woods to the north and open grass to the south. The topography of the site is relatively flat with drainage predominantly flowing to low lying areas on site.

The topography of the site consists of gradual slopes, ranging from 1% to 5%, with elevations ranging from 294 to 298 feet above sea level.

The site is bounded by private property to the north, west and east, and by Dix Avenue to the south.

According to the Federal Emergency Management Area (FEMA), the project falls within an area of minimal flood hazards.

2.1 Soil and Groundwater Conditions

The USDA Natural Resources Conservation Service Soil Survey identifies the primary soil groups within the area of proposed development as Oakville Loamy Fine Sand and Cosad Fine Sandy Loam. The USDA Soil Survey identifies the Oakville series as excessively drained soils and classified as Hydrologic Soil Group (HSG) “A”. The USDA Soil Survey identifies the Cosad series as somewhat poorly drained soils and classified as Hydrologic Soil Group (HSG) “C/D”.

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Soil test pits were observed by the Environmental Design Partnership at the site in December, 2014 and in October, 2020. Results from the test pits found the soils to be consistent with the USDA Soil Survey findings. The typical soil profile consists of approximately one foot of topsoil, underlain by one to one and a half feet of light brown medium sand transitioning to gray coarse sand at greater depths. Seasonal high groundwater was observed towards the northern portions of the site approximately 3.5 to 5 feet below the ground surface.

Infiltration tests will be performed on site prior to beginning construction, in accordance with NYSDEC standards. In the interim, a conservative infiltration rate of 5 inches per hour was used for all stormwater calculations.

The results from the test pits and infiltration tests are consistent with the NRCS soil survey records.

3.0 Predevelopment Stormwater Analysis

The existing hydrologic conditions, in the area to be disturbed as a result of the proposed construction, were analyzed using Applied Microcomputer Systems' "HydroCAD" computer modeling program. The HydroCAD stormwater modeling program employs the United States Department of Agriculture's Soil Conservation Service (SCS) Technical Release 20 (TR-20) method for stormwater analysis. Using this modeling technique, the site is divided into "subcatchments" that represent specific areas contributing stormwater runoff to an existing, or proposed drainage feature. The subcatchments typically flow through "reaches" (i.e., swales, channels, or pipes) that convey the stormwater to storm basins or discharge areas.

A hydrologic model of the existing site was prepared using the Hydrocad program. Nine subcatchments were used to represent the existing drainage condition, see Figure 2. The total predevelopment stormwater discharge was modeled for several design storms. Stormwater model results are included in Appendix B.

The existing parameters of topography, vegetation, slope and soil type are all incorporated into the predevelopment model.

Table 1 presents a summary of the pre-development stormwater peak discharge for the 1-year, 10-year and 100-year design storm events at the respective Design Points. As will be discussed in subsequent sections, the post development stormwater discharge rate has been limited to the predevelopment discharge rate for the 1-year, 10-year, and 100-year storm events.

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Table 1: Pre-Development Runoff Rates

Storm Event	Design Point Discharge (cfs)		Total Discharge offsite (cfs)
	OFF1	OFF2	
1-Year (2.19")	0.00	0.00	0.00
10-Year (3.66")	0.00	0.00	0.00
100-Year (6.13")	0.00	0.00	0.00

The predevelopment stormwater discharge was evaluated for several design storms at the Design Points (OFF1 and OFF2). Design Point OFF1 and OFF2 consist of drainage to the east. Stormwater modelling indicates there is no offsite drainage for storm events up to and including the 100-year storm event.

The pre-development Curve Number (CN) for the existing impervious, wooded, and grassy areas was established as 98, 30, and 39, respectively. The total predevelopment curve number was established as 36. The HydroCAD model results for the pre-development conditions are included within Attachment B.

4.0 Stormwater Management Planning and Practice Selection

The site layout and stormwater design for this project was completed while taking into consideration the potential impacts on the existing site and downstream hydrology. The existing site predominately infiltrates stormwater runoff; therefore, the proposed system will rely on infiltration practices. Various measures were taken to help ensure that the post-development hydrology of the site will closely resemble the pre-development hydrology. These measures include building footprint reduction, reduction of clearing and grading, and soil restoration.

The proposed town home cottage apartments are two stories tall. The additional story will reduce the overall building footprints, which in turn will reduce the impervious area on site and the volume of stormwater runoff flowing to the proposed stormwater management areas.

Existing vegetation will be retained on site to the greatest extent possible. Multiple small stormwater management areas are proposed closer to the source of the impervious areas to avoid the need for additional clearing for a large infiltration basin.

Soil restoration has been called for throughout the site in accordance with Chapter 5 of the Design Manual. The soils on site are classified as HSG “A” and will need aeration and topsoil in areas of cut or fill. In high traffic areas that are to remain pervious, the soils shall be fully

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restored by tilling compost into the sub-soils prior to applying topsoil and vegetating. By applying these methods to the soils on the site, the original properties and porosity of the soils will be recovered, which will allow for an improvement in the soil infiltration as well as lawn and landscaping sustainability.

All offsite areas which impact onsite drainage and stormwater flows were also accounted for in the stormwater calculations.

Stormwater management on the site is designed to be infiltration. Infiltration practices are considered a standard SMP with RRv Capacity by the Design Manual. By using infiltration practices that are located relatively close to the source of runoff the post-development hydrology will more closely match the pre-development hydrology.

5.0 Post-Development Stormwater Analysis

The post-development conditions, in the area to be disturbed as a result of the proposed construction, were also analyzed using HydroCAD. A technical description of the HydroCAD program has been included in the previous section.

Eighteen (18) subcatchments were used to represent the post development drainage conditions of the site. Site improvements to the property will consist of constructing 96 town home cottage apartments, associated parking and travel surfaces. Also included, as permanent elements of the development, are connections to the municipal water, on-site septic systems, and on-site stormwater management. Stormwater management practices have been designed to provide storage, infiltration, and attenuation of stormwater runoff from the proposed impervious surfaces on the site.

Stormwater runoff from the site will be managed with eight infiltration basins, porous pavement and rooftop disconnection. A post-development Curve Number (CN) of 98 was assigned to all impervious surfaces within the proposed subdivision. A post-development CN of 39 was assigned to all new grassed areas directly contributing to the proposed stormwater devices. The weighted CN for the post-development conditions for the site is approximately 57. The HydroCAD model results for the post-development conditions are included within Attachment B.

5.1 Stormwater Management Area #1, #3, #5, #6, #7, #11, #13, #15 – Infiltration Basins

Stormwater Management Areas (SMA) #1, #3, #5, #6, #7, #11, #13 & #15 have been designed as infiltration basins. Chapter 3 of the Design Manual recognizes infiltration basins as an acceptable infiltration practice when all the required elements, design guidelines, soil testing and maintenance requirements are followed. Infiltration practices can meet detention and channel protection requirements when the soil infiltration rate is greater than 5 inches per hour. Pretreatment will be provided within sediment forebays which have been sized to treat

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100% of the contributing water quality volume from these areas. The infiltration basins will be three feet above seasonal high groundwater. Drywells will be placed in the infiltration basins to allow for infiltration in frozen ground conditions.

SMA#1 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 1). The stormwater runoff will either sheet flow directly to SMA#1, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#1, where it will attenuate and infiltrate. The contributing area to SMA#1 includes approximately 1.29 acres with approximately 0.34 acres of impervious area.

SMA#3 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 3). The stormwater runoff will either sheet flow directly to SMA#3, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#3, where it will attenuate and infiltrate. The contributing area to SMA#3 includes approximately 0.69 acres with approximately 0.07 acres of impervious area.

SMA#5 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 5). The stormwater runoff will either sheet flow directly to SMA#5, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#5, where it will attenuate and infiltrate. The contributing area to SMA#5 includes approximately 0.66 acres with approximately 0.13 acres of impervious area.

SMA#6 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 6). The stormwater runoff will either sheet flow directly to SMA#6, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#6, where it will attenuate and infiltrate. The contributing area to SMA#6 includes approximately 1.06 acres with approximately 0.26 acres of impervious area.

SMA#7 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 7). The stormwater runoff will either sheet flow directly to SMA#7, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#7, where it will attenuate and infiltrate. The contributing area to SMA#7 includes approximately 1.22 acres with approximately 0.30 acres of impervious area.

SMA#11 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 11). The stormwater runoff will either sheet flow directly to SMA#11, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#11, where it will attenuate and infiltrate. The contributing area to SMA#11 includes approximately 1.13 acres with approximately 0.18 acres of impervious area.

SMA#13 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 13). The stormwater runoff will either sheet flow directly to SMA#13, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#13, where it

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Phone (518) 371-7621 - fax (518) 371-9540
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will attenuate and infiltrate. The contributing area to SMA#13 includes approximately 0.78 acres with approximately 0.23 acres of impervious area.

SMA#15 will provide treatment of stormwater runoff from the pavement and lawn areas (Subcatchment 15). The stormwater runoff will either sheet flow directly to SMA#15, or sheet flow to a vegetated swale, which will convey the stormwater runoff to the SMA#15, where it will attenuate and infiltrate. The contributing area to SMA#15 includes approximately 0.46 acres with approximately 0.20 acres of impervious area.

The infiltration rate for the design modelling has been conservatively estimated at 5 inches/hour, which is anticipated to be well below the field measured infiltration rate. Field infiltration rates in the proposed infiltration areas will be measured prior to finalizing the design calculations. The stormwater management areas should be able to fully drain in less than 24 hours.

Drainage Calculations for SMA#1

100 Year Storm Runoff Volume contributing to SMA#1: 0.133 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#1 Surface Area (From CAD): ~1,250 Ft^2

Drainage Time =

0.133 Acre-Feet * 43,560 Ft^2/Acre = 5,796 Ft^3

5,976 Ft^3/1,250 Ft^2 = 4.63 Ft

4.63 Ft * 12 In./1 Ft = 56 In.

56 In./5 In./Hour = **~11.1 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#3

100 Year Storm Runoff Volume contributing to SMA#3: 0.034 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#3 Surface Area (From CAD): ~853 Ft^2

Drainage Time =

0.034 Acre-Feet * 43,560 Ft^2/Acre = 1,481 Ft^3

1,481 Ft^3/853 Ft^2 = 1.75 Ft

1.75 Ft * 12 In./1 Ft = 21 In.

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21 In./5 In./Hour = **~4.2 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#5

100 Year Storm Runoff Volume contributing to SMA#5: 0.052 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#5 Surface Area (From CAD): ~2,684 Ft^2

Drainage Time =

0.052 Acre-Feet * 43,560 Ft^2/Acre = 2,265 Ft^3

2,265 Ft^3/2,684 Ft^2 = 0.85 Ft

0.85 Ft * 12 In./1 Ft = 10.2 In.

10.2 In./5 In./Hour = **~2.05 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#6

100 Year Storm Runoff Volume contributing to SMA#6: 0.097 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#6 Surface Area (From CAD): ~650 Ft^2

Drainage Time =

0.097 Acre-Feet * 43,560 Ft^2/Acre = 4,225 Ft^3

4,225 Ft^3/650 Ft^2 = 6.5 Ft

6.5 Ft * 12 In./1 Ft = 78 In.

78 In./5 In./Hour = **~15.6 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#7

100 Year Storm Runoff Volume contributing to SMA#7: 0.105 Acre-Feet

Infiltration Rate: 5 In./Hour

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SMA#7 Surface Area (From CAD): ~8,322 Ft^2

Drainage Time =

0.105 Acre-Feet * 43,560 Ft^2/Acre = 4,574 Ft^3

4,574 Ft^3/8,322 Ft^2 = 0.55 Ft

0.55 Ft * 12 In./1 Ft = 6.60 In.

6.60 In./5 In./Hour = **~1.5 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#11

100 Year Storm Runoff Volume contributing to SMA#11: 0.069 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#11 Surface Area (From CAD): ~1,880 Ft^2

Drainage Time =

0.069 Acre-Feet * 43,560 Ft^2/Acre = 3,006 Ft^3

3,006 Ft^3/1,880 Ft^2 = 1.60 Ft

1.60 Ft * 12 In./1 Ft = 19.2 In.

19.2 In./5 In./Hour = **~3.85 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#13

100 Year Storm Runoff Volume contributing to SMA#13: 0.068 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#13 Surface Area (From CAD): ~710 Ft^2

Drainage Time =

0.068 Acre-Feet * 43,560 Ft^2/Acre = 2,962 Ft^3

2,962 Ft^3/710 Ft^2 = 4.17 Ft

4.17 Ft * 12 In./1 Ft = 50 In.

50 In./5 In./Hour = **~10 Hours to drain**

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As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

Drainage Calculations for SMA#15

100 Year Storm Runoff Volume contributing to SMA#15: 0.067 Acre-Feet

Infiltration Rate: 5 In./Hour

SMA#15 Surface Area (From CAD): ~1,000 Ft^2

Drainage Time =

0.067 Acre-Feet * 43,560 Ft^2/Acre = 2,920 Ft^3

2,920 Ft^3/1,000 Ft^2 = 2.92 Ft

2.92 Ft * 12 In./1 Ft = 35 In.

35 In./5 In./Hour = **~7.0 Hours to drain**

As indicated by stormwater modelling, the SMA has been designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

5.2 NYS Unified Stormwater Sizing Criteria

The post-development stormwater management system has been designed based on the Unified Stormwater Sizing Criteria as described in the following sections. The contributing area of each stormwater management area is identified on Figure 3.

5.2.1 Water Quality (WQ_v)

In general, small storm events and the initial runoff from larger storm events are an environmental concern as this stormwater runoff typically contains roadway pollutants and thermal energy stored by the asphalt. In accordance with the Design Manual, this initial runoff is designated as the Water Quality Volume (WQ_v) and special attention is given to this volume of runoff to meet water quality objectives.

The Design Manual identifies several standard practices, such as the proposed infiltration basins and bioretention area, that are acceptable for water quality treatment. These acceptable Stormwater Management Practices (SMPs) can capture and treat the full water quality volume (WQ_v), are capable of 80% TSS removal and 40% TP removal, have acceptable longevity in the field, and have pretreatment mechanism.

The water quality storage volume, WQ_v, is calculated as follows:

$$WQ_v = \frac{P \cdot R_v \cdot A}{12}$$

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Where: WQ_v = water quality volume (acre-feet)

P = 90% rainfall event number

R_v = 0.05+0.009(I), where I is the percent impervious cover

A = site area (acres), impervious area used with I = 100%

Table 2: Required Water Quality Volume

Drainage Area	P	R_v	A (SF)	Required WQ_v (cf)
SMA #1	1.2	0.29	56,035	1,623
SMA#3	1.2	0.13	30,061	406
SMA#5	1.2	0.23	28,617	666
SMA#6	1.2	0.27	46,267	1,231
SMA#7	1.2	0.27	52,949	1,449
SMA#11	1.2	0.19	49,400	949
SMA #13	1.2	0.32	33,899	1,086
SMA #15	1.2	0.43	20,148	872
Total				8,282

5.2.1.1 Pretreatment Practices

In accordance with the Design Manual, the required pre-treatment for infiltration practices is equivalent to 100% of the contributing WQv, when the infiltration rate is greater than 5 inches per hour. The proposed pre-treatment practices include storage in the sediment forebays.

The following tables summarizes the treatment of the WQv in the stormwater management areas.

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Table 3: Pretreatment Water Quality Volume: Infiltration Basin

SMA ID	P	R_v	A (SF)	Required WQ_v (cf)	Provided WQv (cf)
SMA #1	1.2	0.29	56,035	1,623	1,667
SMA #3	1.2	0.13	30,061	406	641
SMA#5	1.2	0.23	28,617	666	780
SMA#6	1.2	0.27	46,267	1,231	1,291
SMA#7	1.2	0.27	52,949	1,449	1,747
SMA#11	1.2	0.19	49,400	949	981
SMA#13	1.2	0.32	33,899	1,086	1,109
SMA#15	1.2	0.43	20,148	872	885

5.2.2 Runoff Reduction Volume (RRv)

The Design Manual specifies that runoff shall be reduced by 100% of the site WQv using standard SMPs with RRv capacity and green infrastructure techniques. The proposed project area on the site is approximately 12.65± acres, with a total post-development impervious area on the order of 5.3± acres. The resulting WQv for these site coverages is computed as 23,478 CF. Runoff reduction will be provided by a combination of standard SMP's with RRv capacity and green infrastructure.

5.2.2.1 Stormwater Management Practices (SMP's)

Stormwater infiltration basins have been proposed to collect, treat and infiltrate the stormwater runoff for a portion of the proposed development. The stormwater infiltration basins are considered standard SMP's with RRv capacity. These practices provide 100% Runoff Reduction of the contributing Water Quality Volume.

5.2.3 Green Infrastructure Practices

The project proposes rooftop disconnection and porous pavement to provide runoff reduction. The following table provides a summary of the Runoff Reduction provided for the proposed development, based on each management practice and technique. The site Runoff Reduction Volume is equivalent to the computed Water Quality volume.

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Table 4: Runoff Reduction Volume Summary

Runoff Reduction Technique	RRv (cf)
SMA#1, 3, 5, 6, 7, 11, 13, 15 (Infiltration Basins)	8,282
SMA#2, 4, 8, 9, 10, 12, 14 (Rooftop Disconnection)	3,677
SMA #16 (Porous Pavement)	11,520
Total Site Reduction	**23,479**
Required WQv	**23,478**
% WQv Reduction	**100%**

Many of the green infrastructure practices recommended in the Design Manual were not applied to the stormwater management design on this site due to either site restrictions or the use of more feasible green infrastructure of standard SMP techniques in place of more restrictive and/or maintenance intensive practices. The following table discusses why the unused green infrastructure practices were not feasible.

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Table 5: Non-Feasible Green Infrastructure Practices

Green Infrastructure Practice	Reason use is not feasible
Tree Planting/Tree Box	Trees will be planted on site but their contribution to RRv reduction is minimal
Conservation of Natural Areas	While natural areas will be conserved on site, their contribution to RRv reduction is minimal.
Vegetated Swale	Vegetated Swales will be used on site but their contribution to RRv reduction is minimal.
Sheetflow to Riparian Buffers or Filter Strips	No riparian areas exist on site
Stream Daylighting	No streams exist on site
Rain Gardens	Rain gardens are not recommended for treatment areas larger than 1,000 square feet. Additionally, rain gardens require more maintenance than the shallow, grass depressions/vegetated swales proposed instead.
Green Roofs	Infiltration areas are more financially feasible and require less maintenance than green roofs.
Stormwater Planters	Stormwater planters would require greater maintenance compared to the methods currently implemented for runoff reduction.
Rain Barrels/Cisterns	Rain Barrels/Cisterns would require greater maintenance compared to the methods currently implemented for runoff reduction.

5.2.4 Channel Protection (Cp_v)

In accordance with the Design Manual, stream channel protection, designed to protect stream channels from erosion, is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event. The Cp_v requirement is typically satisfied by providing additional storage above the water quality (WQ_v) volume.

According to Chapter 4 of the Design Manual, the stream channel protection requirement does not apply when the entire channel protection volume is reduced through green infrastructure or infiltration systems. All stormwater management practices on this site are designed as infiltration practices; additionally, stormwater modelling indicates the proposed stormwater management areas designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

5.2.5 Overbank Flood (Q_p)

Overbank Flood Control Criteria has been established to limit the frequency and magnitude of out-of-bank flooding generated through changes in runoff characteristics as a result of increased impervious surface area. In accordance with the Design Manual, providing sufficient

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storage volume to attenuate the post development 10-year, 24-hour peak discharge rate to the equivalent pre-development discharge rate controls overbank flooding.

The 10-year design storm event was analyzed using the HydroCAD stormwater modeling program (TR-20) under the post-development drainage conditions shown on Figure 3. Using a 10-year, 24-hour design storm of 3.66 inches, the stormwater management areas were designed with sufficient storage volume to limit the post-development 10-year, 24-hour peak discharge rate to the pre-development discharge rate. The following table presents the pre- and post-development discharge rates for the offsite discharge. As indicated, the post-development discharge rate is less than the pre-development rate as required.

Table 6: Overbank Flow Runoff Summary

Design Point	10-year (3.66") runoff rate (cfs)	
	Predevelopment	Post-Development
OFF1	0.00	0.00
OFF2	0.00	0.00
T (TOTAL)	0.00	0.00

5.2.6 Extreme Storm (Q_f)

In accordance with the Design Manual, the stormwater management system must attenuate the post development 100-year, 24-hour peak discharge rate to the predevelopment rate while providing safe passage of this storm event.

The 100-year storm event was analyzed using the HydroCAD stormwater modeling program (TR-20) under the post-development drainage conditions shown in Figure 3. Using a 100-year, 24-hour design storm of 6.13 inches, the stormwater management areas were designed with sufficient storage volume to limit the post-development 100-year, 24-hour peak discharge rate to the predevelopment discharge rate. The following table presents the pre- and post-development discharge rates for the offsite discharge. As indicated, the post-development discharge rate is less than the predevelopment rate as required.

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Phone (518) 371-7621 - fax (518) 371-9540
E-mail : info@edpllp.com

Table 7: Extreme Storm Runoff Summary

Design Point	100-year (6.13") runoff rate (cfs)	
	Predevelopment	Post-Development
OFF1	0.00	0.00
OFF2	0.00	0.00
T (TOTAL)	0.00	0.00

6.0 Summary

Development of the proposed property will change the stormwater drainage characteristics of the site; impervious area will be added and the site will be re-graded to support the proposed improvements. Changes to the stormwater drainage characteristics of the site have been evaluated in accordance with the Design Manual. The proposed stormwater management system has been designed to comply with the recommendations in the Design Manual related to water quality, runoff reduction, channel protection, overbank flood control and extreme flood control for new development projects.

The proposed stormwater management system has been designed to attenuate and treat the stormwater runoff generated from the contributing areas for storm events up to and including the 100-year design storm event. The proposed stormwater management design includes the use of infiltration basins, porous pavement and rooftop disconnection. Stormwater modeling results, based on the proposed site layout, indicate the ability to reduce the overall post-development discharge rate from the site as summarized in Table 8.

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Table 8: Post Development Stormwater Peak Discharge Rates

Peak Discharge Rates in cfs	1-Year Storm	10-Year Storm	100-Year Storm
Pre-Development	0.00	0.00	0.00
Post-Development	0.00	0.00	0.00
Overall Reduction (cfs)	0.00	0.00	0.00

Through the implementation of acceptable stormwater management practices, recommended by the NYS Stormwater Management Design Manual, the proposed project will not adversely affect adjacent or downstream properties.

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REFERENCES

HydroCAD version 10.00, Applied Microcomputer Systems, Chocura, New Hampshire.

NYSDEC, 1990. "Technical and Operational Guidance Series (5.1.8) Stormwater Management Guidelines for New Development", New York State Department of Environmental Conservation, Division of Water.

NYSDEC, 1992. "Reducing the Impacts of Stormwater Runoff from New Development", New York State Department of Environmental Conservation, Division of Water.

NYSDEC, 2015. "New York State Stormwater Management Design Manual", Center for Watershed Protection, Ellicott City, MD.

Rawls, W.J., Brakensiek, D.L., and Saxton, K. E., 1982. "Estimation of Soil Properties", Transactions of the American Society of Agricultural Engineers, Vol. 25, No. J, pp. 1316-1320.

S.C.S., 1982. "TR-20 Project Formulation-Hydrology, Technical Release No. 20", U.S. Department of Agriculture, Soil Conservation Service, Hydrology Unit Division of Engineering.

United States Department of Agriculture, Web Soil Survey. Retrieved from https://websoilsurvey.sc.egov.usda.gov

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Regular Inspection and Maintenance Guidance for Porous Pavements

Regular inspection and maintenance is critical to the effective operation of porous pavement. It is the responsibility of the owner to maintain the pavement in accordance with the minimum design standards. This page provides guidance on maintenance activities that are typically required for these systems, along with the suggested frequency for each activity. Individual systems may have more, or less, frequent maintenance needs, depending on a variety of factors including the occurrence of large storm events, seasonal changes, and traffic conditions.

Inspection Activities

Visual inspections are an integral part of system maintenance. This includes monitoring pavement to ensure water drainage, debris accumulation, and surface deterioration.

ACTIVITY	FREQUENCY
Check for standing water on the surface of the pavement after a precipitation event. If standing water remains within 30 minutes after rainfall had ended, cleaning of porous pavement is recommended.	2 to 4 times per year, more frequently for high use sites or sites with higher potential for run-on
Vacuum sweeper shall be used regularly to remove sediment and organic debris on the pavement surface. The sweeper may be fitted with water jets.	
Pavement vacuuming should occur during spring cleanup following the last snow event to remove accumulated debris, at minimum.	
Pavement vacuuming should occur during fall cleanup to remove dead leaves, at minimum.	
Power washing can be an effective tool for cleaning clogged areas. This should occur at mid pressure typically less than 500 psi and at an angle of 30 degrees or less.	
Check for debris accumulating on pavement, especially debris buildup in winter. For loose debris, a power/leaf blower or gutter broom can be used to remove leaves and trash.	
Check for damage to porous pavements from non-design loads. Damaged areas may be repaired by use of infrared heating and rerolling of pavement. Typical costs may be 2,000/ day for approximately 500 ft of trench.	

Maintenance Activities

Routine preventative cleaning is more effective than corrective cleaning.

Activity	Frequency
Controlling run-on and debris tracking is key to extending the life of porous surfaces. Erosion and sedimentation control of adjacent areas is crucial. Vacuuming adjacent non porous asphalt can be effective at minimizing run-on.	Whenever vacuuming adjacent porous pavements
Repairs may be needed from cuts of utilities. Repairs can be made using standard (non-porous) asphalt for most damages. Repairs using standard asphalt should not exceed 15% of total area.	As needed
Do not store materials such as sand/salt, mulch, soil, yard waste, and other stock piles on porous surfaces.	
Stockpiled snow areas on porous pavements will require additional maintenance and vacuuming. Stockpiling on snow on porous pavements is not recommended and will lead to premature clogging.	
Damage can occur to porous pavement from non-design loads. Precautions such as clearance bars, signage, tight turning radius, high curbs, and video surveillance may be required where there is a risk off non-design loads.	
Posting of signage is recommended indicating presence of porous pavement. Signage should display limitation of design load (i.e. passenger vehicles only, light truck traffic, etc. as per pavement durability rating.)	

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CHECKLIST FOR INSPECTION OF POROUS PAVEMENTS

Location: Inspector:

Date: Time: Site Conditions:

Date Since Last Rain Event:

Inspection Items	Satisfactory (S) or Unsatisfactory (U)		Comments/Corrective Action
1. Salt / Deicing *Note complete winter maintenance guidance is available at UNHSC			
Use salt only for ice management	**S**	**U**	
Piles of accumulated salt removed in spring	**S**	**U**	
2. Debris Cleanup (2-4 times a year minimum, Spring & Fall)			
Clean porous pavement to remove sediment and organic debris on the pavement surface via vacuum street sweeper.	**S**	**U**	
Adjacent non porous pavement vacuumed	**S**	**U**	
Clean catch basins (if available)	**S**	**U**	
3**. Controlling Run-On (2-4 times a year)**			
Adjacent vegetated areas show no signs of erosion and run-on to porous pavement	**S**	**U**	
4. Outlet / Catch Basin Inspection (if available) (2 times a year, After large storm events)			
No evidence of blockage	**S**	**U**	
Good condition, no need for cleaning/repair	**S**	**U**	
5. Poorly Drained Pavement (2-4 times a year)			
Pavement has been pressure washed and vacuumed	**S**	**U**	
6. Pavement Condition (2-4 times a year minimum, Spring & Fall)			
No evidence of deterioration	**S**	**U**	
No cuts from utilities visible	**S**	**U**	
No evidence of improper design load applied	**S**	**U**	
7. Signage / Stockpiling (As Needed)			
Proper signage posted indicating usage for traffic load	**S**	**U**	
No stockpiling of materials and no seal coating	**S**	**U**	

Corrective Action Needed	Due Date
1.	
2.	
3.	

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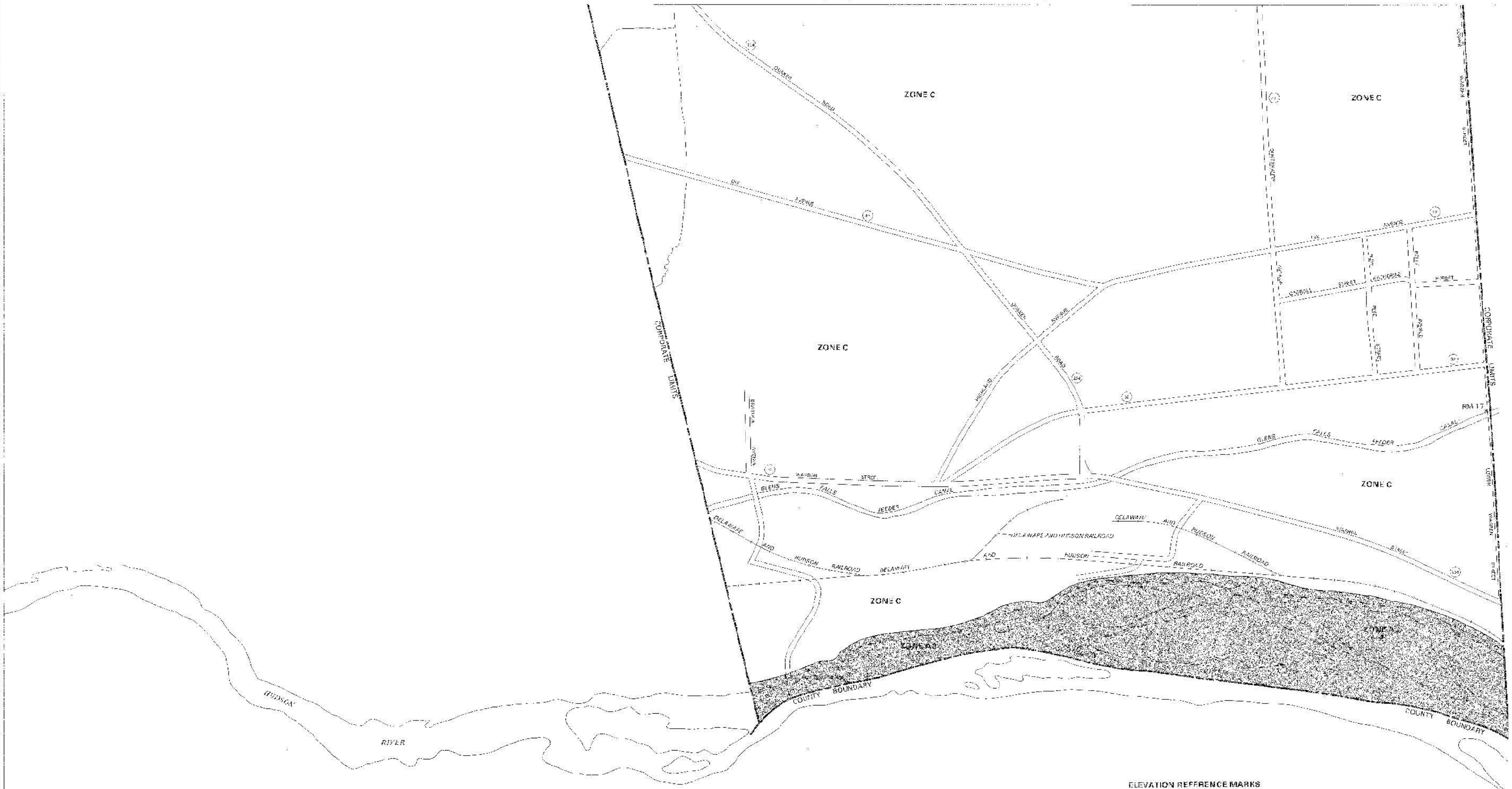
Winter Maintenance Guidelines for Porous Asphalt





General Maintenance	• Plow after every storm. Special plow blades may be used to prevent scarring but are not necessary. Raised blade is not recommended • Up to ~75% net salt reductions for porous asphalt have been documented. ***USE SALT REDUCTION NUMBERS WITH CAUTION!!!*** • Excess salt application maybe needed during challenging storm events. Salt reductions typically occur between storm events with no black ice formation. • Salt reduction amounts are site specific and are affected by degree of shading and hours of operation. • Apply anti-icing treatments prior to storms. Anti-icing has the potential to provide the benefit of increased traffic safety at the lowest cost and with less environmental impact. • Apply deicing treatments during, and after storms as necessary to control compact snow and ice not removed by plowing. • Sand application should be limited since its use will increase the need for vacuuming. • Mixed precipitation and compact snow or ice is problematic for all paved surfaces, but is particularly problematic for porous surfaces. This is corrected by application of excess deicing chemicals. • Recommended posting of signs indicating difference of performance after sunrise and sunset.
During Event	• Apply standard amounts of deicing agents during storm events. • Amounts will be adjusted based on site specific requirements, hours of operation, and degree of shading. • Additional Deicing may be required during challenging storm events.
Between Storms	• Deicing is NOT required for black ice development. Meltwater readily drains through porous surfaces thereby preventing black ice. • Night time deicing may require additional maintenance activities. • Daytime deicing may be minimal once pavement is exposed to sunlight.
Additional Resources	• The UNH Stormwater Center: http://www.unh.edu/erg/cstev/ • Pennsylvania Asphalt Pavement Association (PAPA) Porous Asphalt Pavements Guide: http://www.pahotmix.org/PDF/porous1.pdf • National Asphalt Pavement Association (NAPA) Porous Asphalt Pavements for Stormwater Management Revised 11/2008, Information Series 131



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 17	285.750	Standard USC&GS disk stamped E 07 1955 set in top of east end of north concrete abutment of 56 foot wooden deck steel bridge over Glens Falls Feeder Canal just west of Washington-Warren county line located approximately 12 feet west of centerline of Lower Warren Street and 72.5 yards south of intersection of State Route 32 and Lower Warren Street.

[1] National Geodetic Vertical Datum of 1929

KEY TO MAP

500-Year Flood Boundary	ZONE B
100-Year Flood Boundary	ZONE A3
Zone Designations*	ZONE B
100-Year Flood Boundary	
500-Year Flood Boundary	ZONE B
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:

SEPTEMBER 20, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:

OCTOBER 15, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE:

JULY 16, 1984

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
QUEENSBURY,
NEW YORK
WARREN COUNTY

PANEL 23 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
360879 0023 B

EFFECTIVE DATE:
JULY 16 1984

Federal Emergency Management Agency

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

February 05, 2015

Mr. Artie Tompkins
Environmental Design Partnership
900 Route 146
Clifton Park, NY 12065

Re: DEC
Proposed Senior Apartments
1189 Dix Avenue , Kingsbury, Washington County, NY
15PR00368

Dear Mr. Tompkins:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Deputy Commissioner for Historic Preservation

SECTION 7

Completed Inspection Reports