STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

For

MARMEN WELCON DEVELOPMENT: 700 SMITH BOULEVARD

PREPARED FOR:

PORT OF ALBANY

ALBANY PORT DISTRICT COMMISSION
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PRELIMINARY SITE PLAN SUBMISSION

OCTOBER 2021

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APPENDIX LIST

1. INTRODUCTION

A stormwater management assessment has been conducted for the proposed project to protect the waters of the State of New York from the adverse impacts of stormwater runoff. This report presents an analysis of the project in accordance with the *New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001.* A separate Drainage Design Report (Appendix C) has been developed to address the *New York State Stormwater Management Design Manual* ("The Manual"). As required, the Stormwater Pollution Prevention Plan is designed, where appropriate, to incorporate green infrastructure techniques that preserve natural resources and utilize the existing hydrology of the site, provide runoff reduction practices, water quality treatment practices, apply volume and peak control practices for channel protection, overbank flood control, and extreme flood control as appropriate.

In accordance with Appendix B, Table 2 of the SPDES General Permit for Construction Activity, GP-0-20-001, industrial facilities that involve a soil disturbance of one or more acres require the preparation of a full SWPPP that includes post-construction stormwater management practices. In total, approximately 12.89 acres of soil disturbance are expected during the construction of this project. Therefore, this project includes the development of erosion and sediment controls, green infrastructure site planning techniques, runoff reduction volume practices and post-construction stormwater management practices.

The general contractor and subcontractors performing any activity that involves soil disturbance will be required to comply with the terms and conditions of the SWPPP for the project identified as a condition of authorization to discharge stormwater. The Contractor shall provide signed certifications (Form CONR 5) for itself and all applicable subcontractors at the pre-construction meeting. These signed certifications shall be included as part of the SWPPP. The SPDES General Permit and SWPPP must be kept on file at the Project Field Office. As required by the conditions described in the SPDES general permit, the SWPPP shall be kept current, and updates will be made to reflect changes in the design, construction and operation, or maintenance of the project.

The complete set of construction drawings and specifications are provided as separate documents; however, they should be considered an integral component of the SWPPP and are referenced throughout this document. The applicant must retain all documentation for 5 years after NYSDEC accepts the Notice of Termination (NOT).

1.1 Scope of the Project

The proposed development is a part of an offshore wind (OSW) manufacturing operation that will produce wind turbine tower components. The site development includes a 19,600 +/- square feet material receiving building located at 700 Smith Boulevard. The site will include ancillary impervious areas of parking for automobiles and trucks and a rail line. The remainder of the site will be used for storage and be made up of dense graded aggregate. This project also includes re-paving +/-3,000 LF of Normanskill Street from the City of Albany/Town of Bethlehem border to the 700 Smith Boulevard site entrance.

1.2 Location of Project

The Project is situated on a 14.98-acre site (tax ID 87.10-4-1 and 87.10-4-2) at 700 Smith Boulevard in the City of Albany and is owned by the Albany Port District Commission (APDC). These currently vacant parcels are in the City's General Industrial zone. This SWPPP also covers the re-paving of Normanskill Street from the City limits to Raft Street as well as re-paving of Raft Street. The overall project also includes

development to the south within the Town of Bethlehem which will be covered under a separate SWPPP and SPDES permit. This portion includes development of the APDC's Beacon Island property, 4.4 acres of the adjoining parcel owned by National Grid as well as the extension and improvement of Normanskill Street. Refer to the Location Map in Appendix A.

The project is not located within a TMDL and does not discharge into a 303(d) listed waterbody.

Table 1 - Location Table

Approximate Coordinate Position @ Center of Project	
Latitude	42° 37' 25.5" N
Longitude	73° 45' 43.6" W

1.3 Project Type and Size

The portion of the project at 700 Smith Boulevard is a re-development construction project that has a disturbance area of approximately 12.89 acres. There is no new impervious as the proposed disturbance area is all impervious areas that have been previously developed and earlier this year was remediated resulting in a compacted asphalt millings cap. The re-paving of Normanskill Street does not create any new impervious area, nor does it create soil disturbance as the existing subbase will remain during the rehabilitation of the roadway.

1.4 Project Description

The overall proposed project will include development of an OSW tower manufacturing (Marmen-Welcon) facility consisting of five (5) separate buildings totaling up to 589,000+/- square feet of floor space. The following is a breakdown of the function and size of each building:

- Building A Plate Preparation & Welding (289,931 SF)
- Building B Welding Finishing (99,936 SF)
- Building C Blast Metallization Plant (121,593 SF)
- Building D Internal Assembly Finishing (57,898 SF)
- Building E Material Receiving (19,600 SF)

Tower production will occur within four (4) buildings (Buildings A-D) at the main facility on the Port Expansion property located in the Town of Bethlehem. The 5th building (Building E) will be located at 700 Smith Boulevard within the existing Port District in the City of Albany. A proposed gated bridge over the Normans Kill will provide a truck transportation route in and out of the main facility, by connecting Beacon Island and the 14.7-acre off-site parcel at 700 Smith Boulevard. In conjunction with the proposed bridge, Normanskill Street is to be extended from its existing end point to the bridge. The existing pavement will be improved to accommodate the proposed trucking route. A separate drainage report and SWPPP have been prepared for the Expansion Site located on Beacon Island and the portion of Normanskill Street located in the Town of Bethlehem, as the sites are separated by approximately 1-mile and are under separate MS4 jurisdictions.

The purpose of this report is to summarize the drainage analysis to assess the stormwater quality, quantity, and erosion and sediment control for the development of the site. This report has been developed in accordance with the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001 (Permit) and the NYSDEC Stormwater Management Design Manual

(The Manual). The project site is located within the City of Albany, Albany County, New York, which is an MS4 community, requiring this report and project to receive approval from the City.

The total disturbance area is 12.89 +/- acres of existing impervious and is considered a Re-development Project per Chapter 9 of the Manual.

1.5 Cultural Resources

As part of the DGEIS for the Beacon Island Site, a SHPO review was conducted. The SHPO review letter, dated September 13, 2019, concluded that there was "No Adverse Impact". As the scope of the project expanded to include the subject property, an additional SHPO review was required. A letter was sent to SHPO on July 27, 2021, to begin the review process and follow up meetings have occurred to date. Additional information has been submitted and the conclusion of this review has not yet been received by the project engineer.

1.6 On-site Wetlands

As part of the SEIS, impact to aquatic resources, including wetlands, were evaluated. According to NYSDEC wetland and stream information available through GIS and the Environmental Resource Mapper, there are no mapped NYSDEC or NWI wetlands or significant natural communities on or adjacent to the 700 Smith Boulevard site.

2. PROJECT MAPS AND PLANS

2.1 Location Map

See Appendix A

2.2 Soil Maps

See NRCS Soils Report, Appendix B.

2.3 Erosion and Sediment Control Plans

See Appendix C

2.4 Existing and Proposed Subcatchment Maps

See Appendix D

3. PROJECT SOILS

3.1 NRCS Soil Map

See Appendix B

3.2 Soil Types

The following soil type(s) and hydrologic group(s) are present within the project area of disturbance:

Table 2 – Soil Types

Symbol	Soil Name	Hydrologic Soil Group
Ug	Udorthents, loamy	A
Ur	Urban land	

3.3 Discussion of Soil Characteristics and Soil Erosion Hazard Potential

According to the Natural Resources Conservation Service (NRCS) web soil survey, there are two (2) mapped soil units identified within the project boundary (see Appendix B). The Project site is anticipated to feature Urban Land soil types. This soil series varies and is made up of mostly gravel, sand, silt and clay, pieces of wood, brick, and cinders. The site has been consistently developed over the past hundred years, making up the variable soil type found in the area. This soil type has high runoff potential due to its unfavorable drainage and infiltration characteristics. Slopes range from 0 to 8 percent. Most of the soil adjacent to Normanskill Street is within soil group A. Group A soils have a high infiltration rate.

A Site Management Plan (SMP) was developed for the 700 Smith Boulevard site, dated March 2020. The purpose of the SMP was to address the contamination leftover after completion of the remedial action. All soil disturbance within the site must comply with the SMP (Appendix F).

Based on the geotechnical investigations performed in conjunction with the SMP, the first several feet of soil consist of brown sand mixed with variable amounts of organics and fill debris, followed by brown to gray fine to coarse sand to silt to a depth of 13 feet or greater. Bedrock geologic maps compiled by the New York State Geological Survey indicate that the unconsolidated deposits are underlain by bedrock of the Snake Hill Shale, which consists of silty micaceous shale with occasional interbeds of siltstones, mudstones, and fine-grained sandstones.

Groundwater is estimated to exist between six (6) to 16 feet below ground surface (bgs), and the apparent direction of shallow groundwater flow is generally to the southeast towards the Hudson River. As inferred from regional topography, surface water likely flows in an east/southeasterly direction toward the Hudson River, with storm water runoff directed in a southeasterly direction to storm drains along bordering streets and a trunkline located along the northern property boundary.

The Site has been owned by the ADPC since approximately 1925, with no prior industrial usage. Prior to ownership by ADPC, the area surrounding the subject Site was mostly agricultural with commercial development to the north and south of the subject Site. Sometime after 1937 the Site was used by Atlantic Steel Corporation and as a rail yard until 1951. Subsequently, the Site was used for metal recycling operations since at least 1964. Two existing one-story structures located on the east side of the Site were built in the early 1950s. During this time, the Port of Albany to the north and south of the Site continued to transition from agricultural land to industrial/commercial properties.

On or about 2013, metal recycling operations ceased and the most recent tenant of the property, Sims Metal Management, screened the surficial soils to remove metal, plastic, wood, and other debris. The Site is currently vacant except for a few remaining buildings and structures, including the scale house/office building, maintenance/storage building, which are located on the eastern portion of the Site, rail siding in the central area of the Site and exiting through the eastern property boundary, and an emergency generator located in the south area of the Site. The SMP is included as Appendix F.

4. CONSTRUCTION PHASING

4.1 Sequence of Construction Activities

The Contractor's work schedule and methods shall be consistent with the SWPPP or amended SWPPP. Once approved, the progress schedule shall become a part of the SWPPP. It should be noted that there is a NYSDEC approved SMP for this site, which is included as Appendix F. Any disturbance of the site must comply with the SMP.

The following list is a suggested sequence of major construction activities for the project to meet the NYSDEC Phase II erosion control requirements:

1. Conduct a pre-construction meeting with all required parties to review the SWPPP.
2. Notify the NYSDEC within 14 days, and no less than 3 days, prior to commencing work activities that may affects areas of the subject site that are impacted with ash, as required by Section 3.2 of the SMP.
3. Clearly identify project work limits, identifying all areas where construction disturbance shall be permitted.
4. Install erosion control measures prior to commencing earthwork operations. Construct temporary earthen berms, diversion swales, sediment control dams and associated erosion control measures necessary to divert runoff from entering planned areas of disturbance and to protect the adjacent waterway.
5. Establish temporary/permanent storm water management ponds/erosion control basins.
    a. Consult the SMP for any necessary contaminated soil measures
6. Remove and dispose of all removed vegetation off-site.
7. Strip and stockpile topsoil from proposed pavement, structural fill and cut areas (stockpile material in locations as directed by owner's representative).
    a. Consult the SMP for appropriate measures to handle or dispose of any encountered contaminated soils.
8. Establish mass grade elevations.
    a. Consult the SMP for appropriate measures to handle or dispose of any encountered contaminated soils.
9. All temporary erosion and sediment control measures as well as stockpiles are to be mulched and seeded for temporary vegetative cover immediately following grading.
10. Construct utility lines (water/electric/gas/communications/sanitary sewers/storm sewers), construct building and install infrastructure improvements.
11. Mill existing pavement and repave the top course.
12. Box out new pavement areas.
13. Construct asphalt pavement section, up to binder course.
14. Fine grade and spread topsoil, install landscaping plantings and hardscapes, site amenities and permanent seeding.
15. Remove temporary erosion and sediment control features upon establishment of permanent ground cover and inspection/approval from a Town official or representative.
16. Notify owner's representative of completion of final site stabilization.
17. File Notice of Termination.

5. EROSION AND SEDIMENT CONSTROL MEASURES

5.1 Erosion Control Plan

An erosion control plan has been developed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control". The erosion control plan employs permanent and temporary erosion and sediment control methods including silt fence, erosion control matting, construction entrances, and other appropriate measures. It should be noted that there is a NYSDEC approved SMP for this site, which is included as Appendix F. Any disturbance of the site must comply with the SMP. As stated in Section 6.1 of the SMP, at least 60 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the EPA and NYSDEC.

5.1.1 Temporary Surface Stabilization

All work and prior NYSDEC notification shall be in accordance with the SMP. Areas within the project limits that may be disturbed more than once during the construction activities will be stabilized using temporary seed and mulch item or as directed by the Engineer. Areas remaining unpaved and undisturbed for more than seven (7) days during construction operations shall be stabilized temporarily. Other areas that might need to be stabilized temporarily will be at the discretion of the Engineer.

5.1.2 Storm Drain Inlet Protection

A temporary barrier with low permeability is to be installed around drainage inlets in the form of a fence, berm, or excavation around the opening. Barrier shall detain water and thereby reduce the sediment content of sediment laden water by settling, thus preventing heavily sediment laden water from entering the storm drain system.

5.1.3 De-watering

Any groundwater that is suspected of being contaminated shall be handled in accordance with Section 6.8 of the SMP. Liquids to be removed from the Site, including excavation dewatering and truck wash water, will be handled, transported, and disposed in a lawful manner and in accordance with applicable local, State, and Federal regulations. Dewatering, purge, and development fluids will not be recharged back to the land surface or subsurface of the Site but will be managed off-Site. Pre-treatment may be used in lieu of off-Site disposal if appropriate permits from the local sewer authority are obtained and is accepted by the Owner. The concentrations of PCBs in the liquid to be disposed of at the local sewer authority will be no more than 3 parts per billion (ppb) in accordance with CFR 761.79(b)(1)(ii). Liquids which are pending off-site disposal and have not yet been treated prior to discharging to the local sewer authority will be temporarily held in appropriate containers (e.g., 55-gallon drums) in accordance with local, State, and Federal regulations.

5.1.4 Construction Entrance

As required, at least one (1) stabilized construction entrance will be constructed to access the Contractors Staging/Storage Area. This entrance/area shall conform to the details. See plans for location of construction entrance(s).

5.1.5 Concrete Truck Washout / Concrete Batch Plant Protection

As required, a temporary excavated or above ground lined pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering

storm drainage systems or leaching into soil shall be constructed. See plans for location of concrete washout. If a concrete batch plant is installed at the site, temporary containment to prevent discharge of runoff from entering storm drainage systems or leaching into soil shall be constructed.

5.1.6 Permanent Stabilization

Stabilizing of the graded surfaces will be accomplished by using dense graded aggregate and pavement.

5.1.7 Dust Control

Dust shall be controlled and monitored in accordance with Section 6.16 of the SMP. The contractor will be required to minimize dust generation during the construction activities. Provisions such as applying water on haul roads, wetting equipment, and excavation faces, spraying water on buckets during excavation and dumping, hauling materials in properly tarped or watertight containers, restricting vehicle speeds to 10 mph, covering excavated areas and material after excavation activity ceases, and reducing the excavation size and/or number of excavations have proven effective in dust control.=

5.1.8 Silt Fence

Silt fence will be placed per the Erosion and Sediment Control Plans, down slope of all disturbed areas, soil stockpiles, and spoil areas. The purpose of the silt fence is to remove sediment from sheet flow in these areas. Silt fence shall remain in place and functional until the contributing area has been permanently stabilized. Sediment socks or mulch dikes may be used in lieu of silt fence, where approved by the Engineer of Record. Erosion Control shall be in accordance with the SMP.

5.1.9 Weekly Inspections

A qualified inspector shall conduct site inspections at least twice every seven (7) calendar days. 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. The qualified construction inspector shall also prepare an inspection report after every inspection. Complete inspection and maintenance requirements can be found in Part IV of the SPDES General Permit GP-0-20-001 (Appendix H).

5.1.10 Final Inspection

Prior to the project being finally accepted, it shall be inspected for any evidence of erosion or slope failure. If any such condition becomes apparent upon final inspection, temporary soil erosion and sediment controls shall be installed immediately as directed by the Engineer. The situation shall be corrected per a schedule agreed to by the NYSDEC, Owner, and the Contractor.

The Erosion Control Plans are included in Appendix C.

5.2 Permanent Erosion and Sediment Control Measures

Table 3 – List of Permanent Erosion & Sediment Control Measures

Permanent Feature	Converted Temporary Practice?	Location: ESC Plan	Receiving Waterbody Protected (where applicable)
Soil Stabilization	Yes	See Plans	Hudson River

5.3 Installation Sequence

See the intended sequence of construction activities noted in Section 4 above.

5.4 Maintenance Schedule

The Contractor is required to inspect all E&SC devices in their active work area daily and repair any deficiencies in accordance with the SPDES permit.

5.5 SWPPP Implementation Responsibilities

Implementation of all E&SC devices will be by the Contractor as indicated in the contract documents.

6. POLLUTION PREVENTION MEASURES

6.1 Material Management Practices

All waste materials, including construction debris and trash that occur onsite shall be handled and disposed of in a lawful manner that is in accordance with state and local regulations. No waste material shall be buried on site.

- An effort will be made to store only enough products required for the project.
- All materials stored within the site will be stored in a neat orderly manner in their appropriate containers and if possible, an enclosed area.
- Products shall be kept in their original containers with the original manufacturer's labels. Manufacturer's recommendations for proper use and disposal shall be followed.
- Hazardous materials shall be disposed of in a lawful manner and in accordance with State and Local regulations.
- Sanitary waste will be collected from portable units as required and shall be disposed of in a lawful manner.

The following materials are expected to be on-site during construction:

- Concrete
- Asphalt
- Paints (Enamel and Latex)
- Petroleum based products
- Fertilizers
- Metal building Components
- Detergents
- Cleaning Solvents
- Roofing Materials
- Tar

These materials and other materials used during construction with the potential to impact stormwater will be stored, managed, used, and disposed of in a lawful manner that minimizes the potential for releases to the environment and especially into stormwater.

Emergency contacts for the project will be posted at the project office and are included at the end of this section.

6.2 Spill Control Practices

The contractor will be responsible for preparing a project area specific spill control plan in accordance with Local and NYSDEC regulations. At a minimum, this plan shall:

1. Stop the source of the spill.
2. Contain the spill.
3. Reduce stormwater contact if there is a spill..
4. Dispose of contaminated material in a lawful manner and in accordance with manufacturer's procedures and NYSDEC regulations.
5. Identify responsible trained personnel.
6. Ensure spill area is well ventilated.

6.3 General Material Handling Practices

The following general practices will be used throughout the project to reduce the potential for spills:

1. Potential pollutants will be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practicable, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as needed to prevent stormwater from contacting stored materials. Potential pollutants should not be stored within 100 feet of a water course or wetland. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
2. Materials disposal will be in accordance with manufacturer's instructions and applicable local state and federal regulations.
3. Materials no longer required for construction will be removed from the site as soon as practicable.
4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities will be provided/utilized to the extent necessary to keep the site clear of obstruction and BMPs clear and functional.

6.4 Product Specific Practices

The following product specific practices will be followed within the project area.

6.4.1 Petroleum Products

All project related vehicles shall be monitored for leaks and receive regular preventative maintenance to reduce chance of leakage. Petroleum products shall be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used during construction shall be applied according to manufacturer's recommendations.

6.4.2 Fertilizers

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to stormwater. Fertilizers shall be stored in covered or other contained areas.

6.4.3 Paints

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged into the storm sewer system but shall be disposed of according to manufacturer's instructions or State regulations.

6.4.4 Concrete Trucks

Concrete Trucks shall be allowed to wash out within project areas provided that the contractor provides an area which collects and contains any concrete / slurry material washed from trucks for recovery and disposal at a later time. No concrete or slurry shall be discharged from the property at any time of construction. The concrete washout area shall conform to the detail found on sheet ESC-02 (Appendix C).

6.5 Spill Response

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into stormwater runoff or conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released material on-site and prevent their release into receiving waters.

If a spill of pollutants threatens stormwater on-site, the spill response procedures outline below must be implemented in a timely manner to prevent release of the pollutant:

1. The site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
2. If spills represent an imminent threat of escaping ESC facilities and entering the receiving waters, facility personnel will respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
3. Spill kits containing materials and equipment for spill response and clean-up will be maintained onsite. Each spill kit may contain:
    - Oil absorbent pads (one bale)
    - Oil absorbent booms (40 feet)
    - 55-gallon drums (2)
    - 9-mil plastic bags (10)
    - Personal protective equipment including gloves and goggles
4. If an oil sheen is observed on surface water, absorbent pads and/or booms will be applied to contain and remove the oil. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
5. The site superintendent, or their designee, will be responsible for completing a spill reporting form to the appropriate state or local agency.
6. Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

6.6 Notification

In the event of a spill, make the appropriate notification(s) consistent with the following procedures:

1. Any spill of oil which a) violates water quality standards, b) produces a sheen on a surface water, c) causes a sludge or emulsion must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
2. Any oil, hazardous substance, or hazardous waste release which exceeds the reportable quantity must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
3. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the NYSDEC.
4. Any release of hazardous substance that may be a threat to human health or the environment must be reported to the NYSDEC immediately upon discovery.

7. EXISTING SITE CONDITIONS

The existing site is 700 Smith Boulevard, located in the City of Albany, Albany County, New York. The site is currently vacant and is capped with asphalt millings from recent remediation work earlier this year.

7.1 Existing Watershed Information

The project area is approximately 800 feet from the Hudson River, which is the receiving waterbody for runoff from the current site.

The existing drainage condition is split up into two (2) drainage areas. Both drainage areas, DR-A and DR-B, drain to the same analysis point located in the Hudson River.

Runoff from DR-A site travels via sheet and shallow concentrated flow directly to an existing 42" Reinforced Concrete Pipe (RCP). The pipe extends east and outlets directly into the Hudson River. Runoff from the drainage area is currently not treated.

Runoff from DR-B site travels via sheet and shallow concentrated flow directly to an existing concrete gutter on the north side of Raft Street. It then enters an existing closed drainage system with 18" RCP pipe along the gutter. The pipe extends east and outlets directly into the Hudson River. Runoff from the drainage area is currently not treated.

See the Appendix D for the Existing Conditions Drainage Map.

The existing site falls within the Normans Kill watershed of the Middle Hudson Sub-Basin for the Lower Hudson River Basin (HUC10: 0202000602, Water Index No H-221-4) which is listed as a Class C water. The Hudson River is not listed in the Manual's Appendix C as a watershed where enhanced phosphorus removal standards are required. Additionally, it is not listed in the Manual's Appendix E as a watershed impaired by pollutants related to construction activity.

7.2 Table of Receiving Waterbodies

Table 4: Receiving Waterbodies

Stormwater Structure	*Receiving Waterbody*	*NYSDEC Regulated*
42" Outlet Pipe	Hudson River	Yes – Class C
18" Outlet Pipe	Hudson River	Yes – Class C

8. STORMWATER MANAGEMENT ASSESSMENT

This project falls under Chapter 9 of the Manual, "Re-development Activity". Chapter 9 provides the provision of stormwater practices during a re-development. This approach balances maximizing improvements in site design that can reduce the impacts to stormwater runoff and providing a maximum level of on-site treatment that is feasible given the site constraints present where the re-development activities are occurring.

8.1 Methodology

To analyze the hydrologic impacts of the proposed development, a storm water management model was developed in accordance with the Manual. HydroCAD™, by HydroCAD Software Solutions LLC was used to model both the existing and proposed conditions: soil data from the NRCS Web Soil Survey was entered into the software; land coverage areas were estimated using aerial photography and site visits; watershed areas were developed using the surveyed topography; time of concentrations were estimated using USDA, Urban Hydrology for Small Watersheds, TR-55 (TR-55) methodology; and finally runoff and routing calculations were performed using the SCS Unit Hydrograph method.

Green Infrastructure practices were evaluated in accordance with the Manual using the NYSDEC Runoff Reduction Worksheets available through the NYSDEC's Construction Stormwater Toolbox, available on their website.

The following general steps are followed when conducting a stormwater design:

1. **Site Planning:** The existing natural resource areas and drainage patterns including wetlands, waterways, floodplains, and soils are identified. Conservation of natural resources are maximized given the proposed site.
2. **Pre- and Post-Development Conditions Analysis:** The pre- and post-development stormwater runoff conditions for the 1, 10, and 100-year storm events are determined using HydroCAD (detailed HydroCAD reports for this project can be found in Appendix D).
3. **Water Quality:** The Water Quality Volume and Runoff Reduction Volume are calculated using Chapter 4 of the Manual and Green Infrastructure Worksheets (provided in Appendix E).
4. **Water Quantity:** Peak runoff and stormwater retention/detention are evaluated using the Manual.

8.1.1 Water Quality Volume (WQv) / Runoff Reduction Volume (RRv)

Section 4.2 of the Manual states that Water Quality Volume (WQv) is intended to improve the water quality by capturing and treating runoff from small, frequent storm events that contain higher pollutant levels created through the increase of impervious surfaces. Impervious surfaces accumulate pollutants that quickly wash off and rapidly enter downstream waters as well as prevent natural groundwater recharge.

The WQv required for a Re-development Project is based upon the 90% rainfall event number, percent of impervious cover, and the total site area. WQv treatment by an alternative practice requires the alternative SMP to treat a percentage of the WQv from the disturbed and impervious areas. The calculations for determining the required WQv are found in Appendix E. The total WQv required to be treated is 40,118 cubic feet.

Runoff Reduction Volume (RRv) is the reduction of the total WQv by application of green infrastructure techniques and stormwater management practices to replicate pre-development hydrology more closely.

The intent of RRv is to recognize the water quality benefits of certain site design practices to address flow as a pollutant of concern. Although encouraged, meeting the RRv sizing criteria is not required due to the reduced impervious area of the re-development project.

8.1.2 Channel Protection Volume (CPv)

Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. The Manual was used to determine the water quantity requirements of CPv; specifically, providing 24-hour extended detention for the 1-year storm event or discharging directly to tidal waters.

According to Section 4.4 of the Manual, the Stream Channel Protection Volume (CPV) requirement does not apply when the site discharges to a tidal waterbody.

The CPv requirement does not apply in certain conditions, including the following:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.

In the post-development condition, all stormwater runoff is directed into the existing 42" outlet pipe, which discharges into the Hudson River. The Hudson River is classified as a tidal water at the project site. Therefore, the project site discharges directly to tidal waters in both the existing and proposed conditions and 24-hour extended detention of the 1-year storm event is not required for this project. The existing 42" outlet to the Hudson River has adequate capacity to convey the CPv runoff from the site to the Hudson River as the project is maintaining the existing impervious area.

8.1.3 Overbank Flood Control (Qp)

The primary purpose of the overbank flood control sizing criterion is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. The Manual was used to determine the water quantity requirements of Qp; specifically, providing sufficient retention volume to discharge all runoff from the proposed 10-year storm event at a rate equal to or less than the existing peak 10-year runoff rate or discharging directly to tidal waters.

According to Section 4.5 of the Manual, the Overbank Flood Control Criteria (Qp) requirement does not apply when the site discharges to a tidal waterbody.

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

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams. Refer to Section 4.3 for instructions.

In the post-development condition, all stormwater runoff is directed into the existing 42" outlet pipe, which discharges into the Hudson River. The Hudson River is classified as a tidal water at the project site. Therefore, the project site discharges directly to tidal waters in both the existing and proposed conditions and 24-hour extended detention of the 1-year storm event is not required for this project. The existing 42" outlet to the Hudson River has adequate capacity to convey the CPv runoff from the site to the Hudson River as the project is maintaining the existing impervious area.

8.1.4 Extreme Flood Control (Qf)

The intent of the extreme flood criteria is to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year floodplain, and protect the physical integrity of stormwater management practices. The Manual was used to determine the water quantity

requirements of Qf; specifically, providing sufficient retention volume to discharge all runoff from the proposed 100-year storm event at a rate equal to or less than the existing peak 100-year runoff rate or discharging directly to tidal waters.

According to Section 4.6 of the Manual, the Extreme Flood Control Criteria (Qf) requirement does not apply when the site discharges to a tidal waterbody.
The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams. Refer to Section 4.3 for instructions.

In the post-development condition, all stormwater runoff is directed into the existing 42" outlet pipe, which discharges into the Hudson River. The Hudson River is classified as a tidal water at the project site. Therefore, the project site discharges directly to tidal waters in both the existing and proposed conditions and 24-hour extended detention of the 1-year storm event is not required for this project. The existing 42" outlet to the Hudson River has adequate capacity to convey the CPv runoff from the site to the Hudson River as the project is maintaining the existing impervious area.

8.2 Evaluation of Green Infrastructure

According to Section 9.2 of the Manual, meeting the RRv (through green infrastructure) is not required for a re-development project. The 700 Smith Boulevard site does not allow for the infiltration of any stormwater runoff due to the contamination present across the site. However, green infrastructure practices were evaluated for the potential use on the project site.

8.2.1 Conservation of Natural Areas

The existing site is located in an industrial area. The added development maintains the existing hydrologic and water quality characteristics.

8.2.2 Sheetflow to Riparian Buffers and Filter Strips

Riparian Buffers and Filter Strips are not available for the proposed project.

8.2.3 Vegetated Swales

The developed site does not have sufficient room for vegetated swales.

8.2.4 Tree Planting / Tree Pits

New landscaping will complement the existing environment and provide aesthetics for the buildings and parking areas. No credit has been applied for proposed tree plantings.

8.2.5 Disconnection of Rooftop Runoff

Rooftop disconnection was not considered for this project, as the building is surrounded only by impervious areas.

8.2.6 Stream Daylighting

Stream daylighting is not available for the proposed project.

8.2.7 Rain Gardens / Bioretention

The developed site does not have sufficient room for Rain Gardens or Bioretention. These practices also

promote infiltration potentially into the contaminated sub-surface layer, which is not allowed.

8.2.8 Green Roofs

Green roofs were not considered to be feasible for this project due to the nature of the proposed pre-engineered metal building.

8.2.9 Stormwater Planter

Stormwater Planters were not considered due to the poor soils and rooftop runoff volume.

8.2.10 Rain Barrels and Cisterns

The developed site does not have sufficient room for Rain Barrels or Cisterns to accommodate the amount of roof runoff. There is also no need to store any stormwater as there is minimal landscaping and lawn areas proposed.

8.2.11 Porous Pavement

Porous pavement was not considered due to the large loads associated with the steel plates being moved and stored on site that would cause the porous pavement surface to crumble. The site is proposed to utilize dense graded aggregate as a substitute to a solid pavement. This practice also promotes infiltration, which is not allowed.

8.2.12 Infiltration System

An infiltration system was not considered due to the presence of contamination.

9. POST CONSTRUCTION STORMWATER CONTROL PRACTICES

9.1 Table of Post Construction Practices

See Table 5 below.

9.2 Post Construction Practices Plan

Locations of Post Construction Practices are found in the Erosion & Sediment Control Plans and Details (Appendix C).

To best mitigate the water quality requirements of the project site, a system of two (2) hydrodynamic separators is proposed. Stormwater runoff from the entire site sheet flows to the closed drainage system and is treated through one of the two filtering manhole units. After treatment, stormwater is discharged into the existing 42" pipe with outfall to the Hudson River. The proposed system meets the minimum criteria as defined in Chapter 9 of the Manual.

A full description of the designed stormwater treatment practices is provided in Appendix E. The WQv is summarized in Table 5 below:

Table 5 – Water Quality Volume Practice Summary

Drainage Area	Stormwater Practice	WQv Provided (cf)
DR-1	CS-8 (2 units)	40,306

The Normanskill Street re-paving portion of this project will not disturb the subbase layer, and therefore does not require water quality treatment. Installation and replacement of the existing storm sewer system's rip rap outlet protection within the project boundary is proposed.

9.3 Hydraulic Analysis of Pre- and Post-Development Conditions

In analyzing pre- and post-construction stormwater conditions, the Hudson River was used as a comparison point. Both the pre- and post-construction stormwater is discharged into the receiving water bodies. Using Chapter 9 of the Manual for Re-development, the project meets the total water quality volume required. Table 7 below summarizes the impervious cover of the pre- and post-development conditions.

Table 7 – Impervious Cover

	Pre-Development	Post-Development
Impervious Area	12.89 ac	12.89 ac
% Impervious Cover	100%	100%

The existing site has no water quality treatment measures, and all stormwater runoff is directly discharged into the Hudson River. Per Chapter 9 of the Manual, re-development projects are required to provide water quality treatment and ensure the project runoff flow does not exceed the current condition. The table below summarizes the stormwater management plan. The peak discharge for the 1-year, 10-year and 100-year storm events exceed the existing value; however, as described in Section 8.1 above, this requirement is waived due to the site discharging directly to tidal waters and does not apply to this project, these values are shown for reference only.

Table 8 - Stormwater Management Plan Summary

Storm Event	Pre-Development	Post-Development
Analysis Point #1		
1-yr Discharge	24.69 cfs	31.62 cfs
10-yr Discharge	37.18 cfs	54.97 cfs
100-yr Discharge	57.47 cfs	57.56 cfs
Total Area of Soil Disturbance	12.89 acres	
WQv Target (75%)	40,118 cf	
Total WQv Provided	**40,306 cf**	

9.4 Maintenance Schedule of Post-Construction Stormwater Control Practices

Table 9 – Maintenance Schedule of Post-Construction Stormwater Management Facilities

Maintained By	Name of Entity
Name, Address, Phone of Responsible Party	Albany Port District Commission 106 Smith Boulevard Albany, NY 12202 (518) 463-8763
Facilities to be Maintained	Cascade Separator (2 units)
Description of Maintenance Activity for each Facility and Frequency	See Appendix G for maintenance guidelines, as recommended by the manufacturer and NYSDEC.
Description of Applicable Easements	N/A
Access and Safety Issues	Maintenance forces have access to all drainage facilities within the site.
Local and Non-Local Permits	N/A
Legal Agreements	N/A

9.5 Drainage Structure Catchment Areas

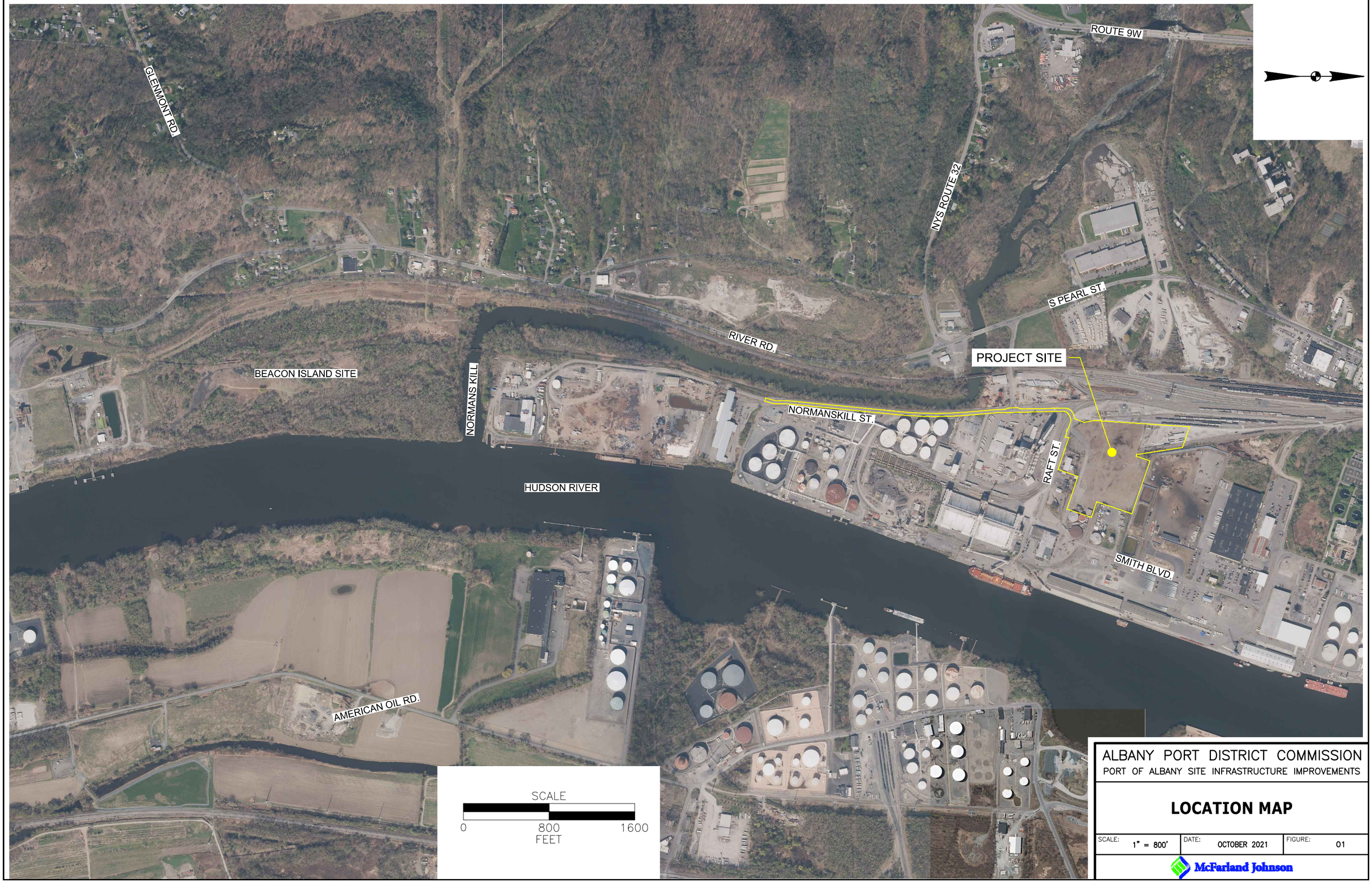
See Appendix D.

9.6 Hydraulic Analysis of Stormwater Sewer System

All elements of the closed drainage system will be designed to be non-erosive during a 2-year storm event and capable of conveying a 10-year storm event. The profiles will be created in AutoCAD Civil 3D which incorporates the rational method and Manning's Equation to iteratively calculate the hydraulic capacity, grade lines, and inlet spreads. Printouts of the closed drainage system analysis are in Appendix D.

APPENDIX A

LOCATION MAP



ALBANY PORT DISTRICT COMMISSION

PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS

LOCATION MAP

SCALE:	DATE:	FIGURE:
1" = 800'	OCTOBER 2021	01

McFarland Johnson

APPENDIX B

NRCS SOILS MAP

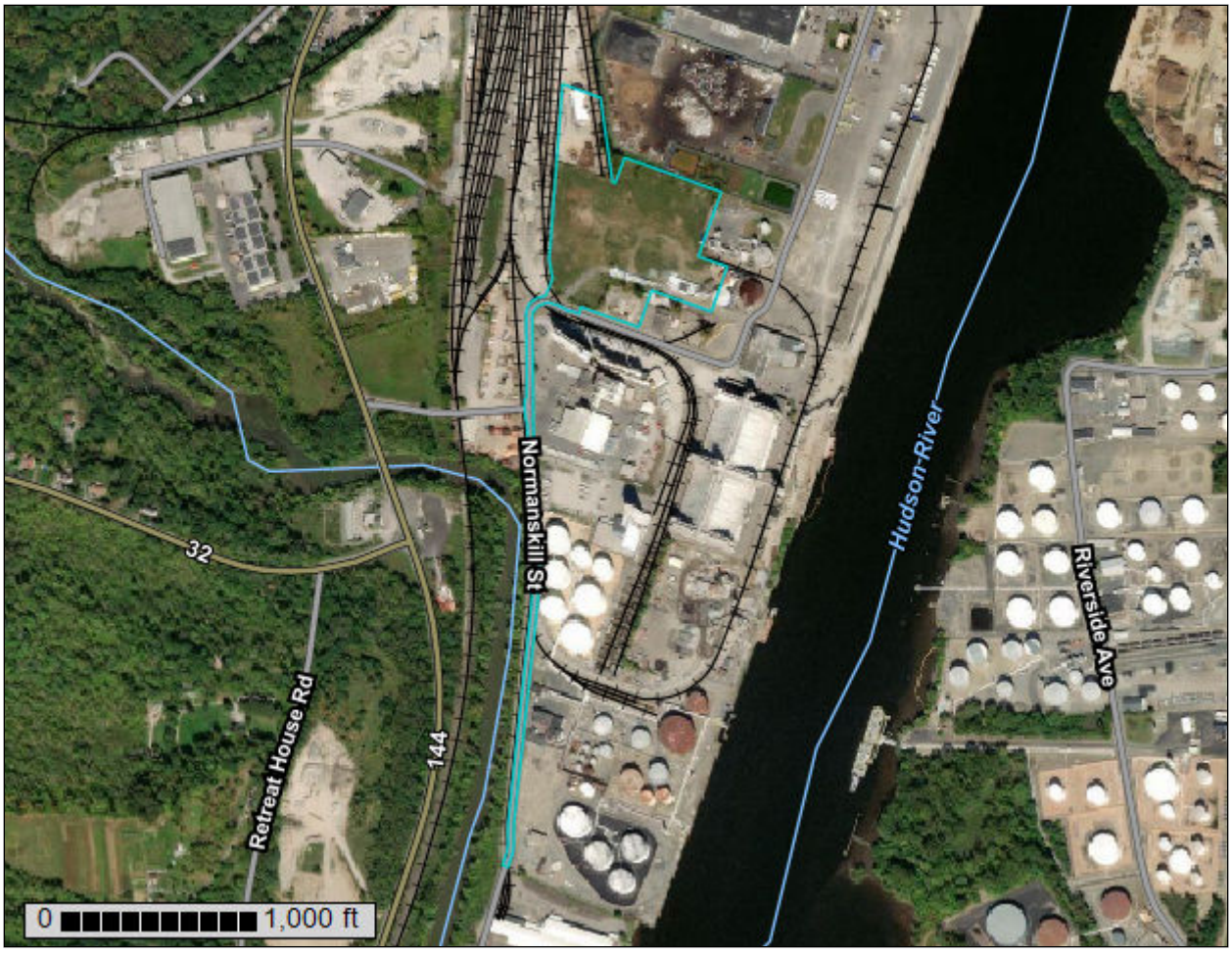
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Albany County, New York



October 25, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:7,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York
Survey Area Data: Version 19, Aug 29, 2021

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

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ug	Udorthents, loamy	0.0	0.2%
Ur	Urban land	17.3	99.8%
Totals for Area of Interest		**17.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Albany County, New York

Ug—Udorthents, loamy

Map Unit Setting

National map unit symbol: 9pj1
Elevation: 0 to 1,640 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, loamy, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Loamy

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 70 inches: channery loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Minor Components

Unnamed soils

Percent of map unit: 10 percent

Ur—Urban land

Map Unit Setting

National map unit symbol: 9pj8
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Minor Components

Unnamed soils

Percent of map unit: 10 percent

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

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

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

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

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

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

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

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

Map Scale: 1:7,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York
Survey Area Data: Version 19, Aug 29, 2021

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

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ug	Udorthents, loamy	A	0.0	0.2%
Ur	Urban land		17.3	99.8%
Totals for Area of Interest			**17.4**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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APPENDIX C

EROSION & SEDIMENT CONTROL PLANS, DETAILS & NOTES

EXIST. BURIED INLET STRUCTURES. IF UNCOVERED PROVIDE INLET PROTECTION PRIOR TO ABANDONMENT

SITE CAPPED WITH MILLED ASPHALT

SILT FENCE (TYP.)

UNSUITABLE MATERIAL STOCKPILE AREA

CONCRETE WASHOUT AREA

STABILIZED CONSTRUCTION ENTRANCE

INLET PROTECTION (TYP.)

EXIST. PAVED CONSTRUCTION ENTRANCE

LEASE PARCEL
700 SMITH BOULEVARD
LANDS N/F
ALBANY PORT DISTRICT COMMISSION
TAX ID # 87.10-4-1
AREA= 624,963± SQ.FT.
AND/OR 14.347± ACRES

LEASE PARCEL
201 RAFT STREET
LANDS N/F
ALBANY PORT DISTRICT COMMISSION
TAX ID # 87.10-4-2
AREA= 22,500± SQ.FT.
AND/OR 0.517± ACRE

RAFT STREET

SMITH BOULEVARD

LEGEND

PROPERTY LINE

EXISTING CHAIN LINK FENCING

EXISTING RAIL LINE

DRAINAGE INLET PROTECTION (IP)

STABILIZED CONSTRUCTION ENTRANCE

0 40 80 120 FT
SCALE

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\SHEET FILES - 700 SMITH BLVD\18641.00-EROS-BLDG-E.DWG

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS: 700 SMITH BLVD

DRAWN	OMH
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN

DRAWING NUMBER

ESC-01

EROSION AND SEDIMENT CONTROL PLAN NOTES:

1. THE EROSION AND SEDIMENT CONTROL PLAN IS INTENDED TO REPRESENT A CONCEPTUAL APPROACH TO EROSION AND SEDIMENT CONTROL. IT IS FURTHER INTENDED THAT THE OWNER AND CONTRACTOR SHALL IMPLEMENT PRACTICES, AS REQUIRED, TO CONTROL EROSION AND SEDIMENT IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL AND SWPPP.

2. INSTALL SILT FENCE, AND ALL OTHER EROSION CONTROL MEASURES AS INDICATED ON THE PLAN PRIOR TO THE START OF ANY EXCAVATION WORK. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND THE GOVERNING MUNICIPALITY REQUIREMENTS.

3. REMOVE AND STOCKPILE TOPSOIL IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN. REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS ARE TO BE HYDROSEEDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLANS (NOT ANTICIPATED).

4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING INLET PROTECTION AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE AREAS HAVE BEEN PROPERLY STABILIZED.

5. CONTRACTOR SHALL MAINTAIN A STOCK PILE OF EROSION AND SEDIMENT CONTROL MEASURES ON SITE AS INDICATED ON THE PLAN.

6. NO PETROLEUM PRODUCTS ARE TO BE STORED ON SITE WITHOUT PRIOR APPROVAL OF THE LOCAL STORMWATER INSPECTOR. ANY PETROLEUM ON SITE WILL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL GOVERNMENT REGULATIONS.

7. WRAP YARD INLET GRATES IN FILTER FABRIC PROGRESSIVELY AS STORM SEWER AND YARD INLETS ARE INSTALLED.

8. ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.

9. JUTE MESH WILL BE USED ON SLOPES STEEPER THAN 3:1 AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER (NOT ANTICIPATED).

10. ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.

11. ALL RIP-RAP OUTLET PROTECTION TO BE CONSTRUCTED PER NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

12. CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING, TO PROVIDE DUST CONTROL DURING CONSTRUCTION.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL FEATURES THROUGHOUT THE DURATION OF CONSTRUCTION.
    A. ALL SEDIMENT TRAPPING DEVICES AND INLET PROTECTION DEVICES SHALL BE CLEANED OF ACCUMULATED SILT WHEN STORAGE CAPACITY HAS BEEN REDUCED BY 50% OF THEIR DESIGN CAPACITY.
    B. ALL SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE AND STRAW BALES WHEN IT ACCUMULATES TO A MAXIMUM HEIGHT OF 6".
    C. AFTER VEGETATION HAS BEEN SUBSTANTIALLY ESTABLISHED, EXCAVATE SWALES OF ACCUMULATED SILT. RE-ESTABLISHED VEGETATION ON DISTURBED AREAS.
    D. SEDIMENT COLLECTED BY EROSION CONTROL MEASURES SHALL BE DISPOSED OF BY SPREADING ON-SITE OR HAULED AWAY IF DETERMINED TO BE UNSUITABLE FOR FILL.

14. ALL DISTURBED AREAS SHALL BE STABILIZED, SEEDED AND MULCHED WITHIN 7 DAYS OF CEASED CONSTRUCTION ACTIVITY.

15. TOTAL PROJECT DISTURBANCE AREA PER THE NYSDEC SPDES STANDARDS IS 12.89 ACRES.

16. ALL AREAS TO REMAIN AS PERVIOUS VEGETATED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE NYS STORMWATER MANAGEMENT DESIGN MANUAL TABLE 5.3 SOIL RESTORATION REQUIREMENTS.

PERMANENT SEEDING NON-SLOPED AREAS (NOT ANTICIPATED):

1. IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING.
2. PLACE TOPSOIL TO A MINIMUM DEPTH OF 4 INCHES.
3. SEED PER SCHEDULE SPECIFIED ON LANDSCAPE PLANS.
4. FERTILIZE WITH 600 POUNDS PER ACRE OF 10-10-10. LIME TO ACHIEVE A PH OF NOT LESS THAN 5.5 OR GREATER THAN 7.6. IF HYDROSEEDER IS NOT USED, SEED AND FERTILIZER SHOULD BE LIGHTLY RAKED INTO SOIL.
5. MULCH WITH CLEAN (WEED FREE) STRAW IF SPECIFIED ON PLANS.

EROSION AND SEDIMENT CONTROL SEQUENCE:

THE CITY OF ALBANY SHOULD BE NOTIFIED PRIOR TO CONSTRUCTION ACTIVITIES STARTING AND CEASING DISTURBANCE OF OVER 5 ACRES AT ONE TIME.

PHASE I:

- INSTALL CONSTRUCTION ENTRANCE
- ESTABLISH THE PROJECT CONSTRUCTION STAGING/OFFICE AREA
- INSTALLATION OF SILT FENCE
- ESTABLISHMENT OF THE STOCKPILE AND CONCRETE WASHOUT LOCATIONS
- EXCAVATION AND REMOVAL OF ALL EXISTING FOUDNATIONS/CONCRETE AREAS

PHASE II:

- CONSTRUCT THE PROPOSED BUILDING
- CONSTRUCT THE PROPOSED PARKING LOT, LOADING DOCKS AND ENTRANCE ROADS
- INSTALL THE PROPOSED RAIL SIDING
- INSTALL THE PROPOSED CLOSED DRAINAGE SYSTEM
- PLACE/COMPACT THE PROPOSED DENSE GRADED AGGREGATE STORAGE YARD

TEMPORARY SEEDING (NOT ANTICIPATED):

1. IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING. FERTILIZE WITH 300 POUNDS PER ACRE OF 10-10-10.
2. NOTE: NO FERTILIZER SHOULD BE USED AFTER OCTOBER 1ST IF THERE IS DANGER OF LEACHING INTO WATER RESOURCE.
3. IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED ON LANDSCAPE PLAN.
4. APPLY STRAW MULCH AS NECESSARY TO HOLD IN MOISTURE, PROTECT SOIL FROM EROSION, HOLD SEED IN PLACE, AND KEEP SOIL TEMPERATURES MORE CONSTANT; 2 TONS PER ACRE.

SOIL RESTORATION PROCEDURE (NOT ANTICIPATED):

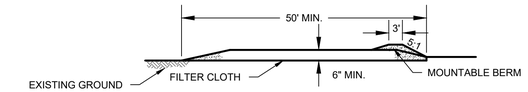
DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:

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

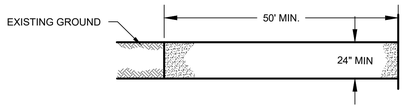
AT THE END OF THE PROJECT AN INSPECTOR SHOULD BE ABLE TO PUSH A 3/8'' METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT. TILLING (STEP 2 ABOVE) SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.

COMPOST SPECIFICATIONS:

COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.



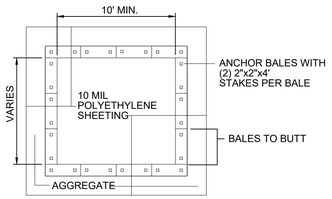
PROFILE



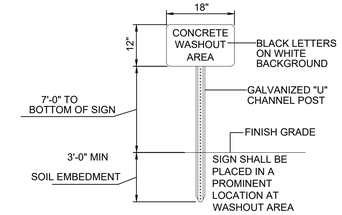
PLAN VIEW

NOTES:
1. STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYSDOT SECTION 209).
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE 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.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

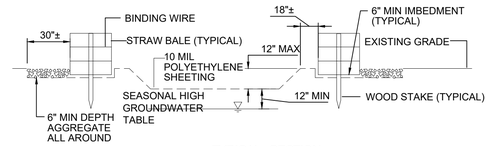


PLAN



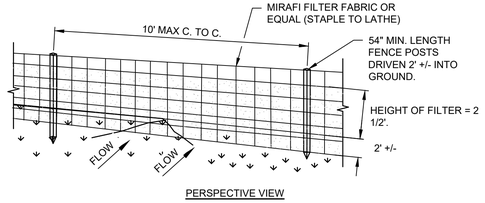
WASHOUT SIGN

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

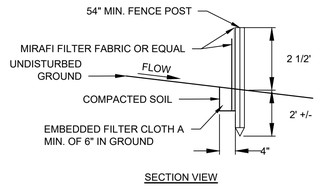


TYPICAL SECTION

CONCRETE WASHOUT



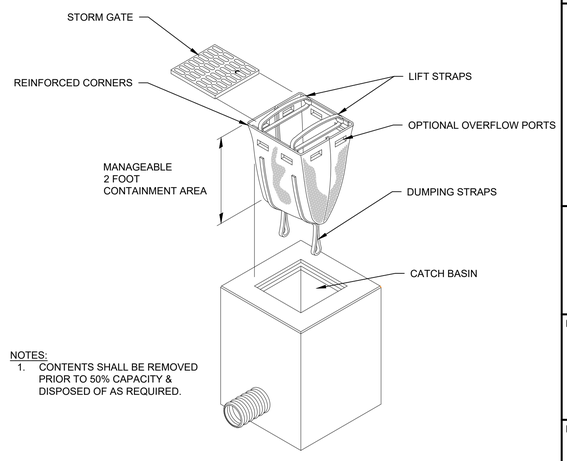
PERSPECTIVE VIEW



SECTION VIEW

NOTES:
1. MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE



NOTES:
1. CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

INLET PROTECTION

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

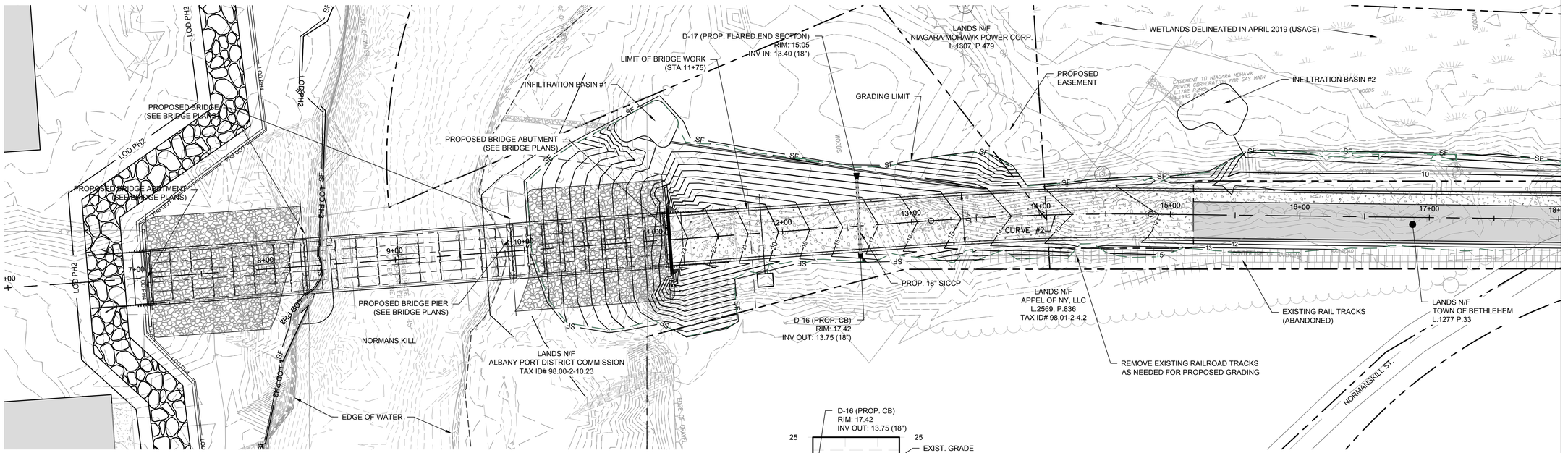
CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS: 700 SMITH BLVD

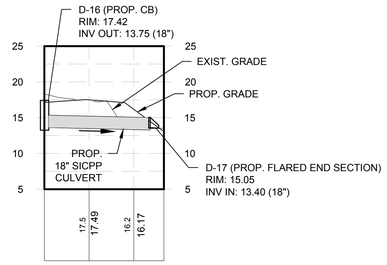
DRAWN	OMH
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ESC NOTES & DETAILS

DRAWING NUMBER
ESC-02

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - 700 SMITH BLVD\18641.00-SETS-BLDG-E.DWG



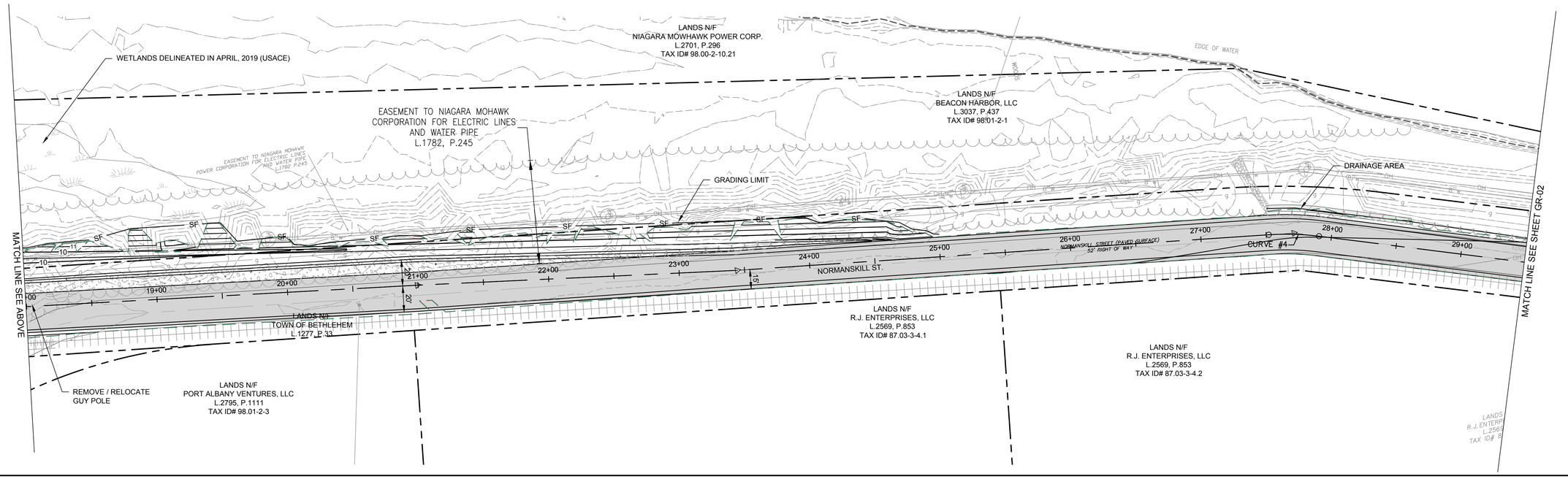


D-16 TO D-17
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'

0 40 80 120 FT
SCALE

LEGEND

- PROPERTY LINE
- PROPOSED BOX BEAM GUIDE RAIL
- DITCH CENTERLINE
- WETLAND AREA
- SECURITY FENCE
- SILT FENCE — SF
- CATCH BASIN
- EXISTING OVERHEAD ELECTRIC — OH
- EXISTING GAS LINE — G
- EXISTING WATERLINE — W
- PROPOSED PAVEMENT
- PROPOSED CONCRETE
- RIP-RAP WATER EMBANKMENT STABILIZATION



McFarland Johnson
60 RAILROAD PLACE
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SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

PROJECT:
NORMANSKILL ST. REHAB

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
GRADING, DRAINAGE, EROSION AND SEDIMENT CONTROL

DRAWING NUMBER
GR-01

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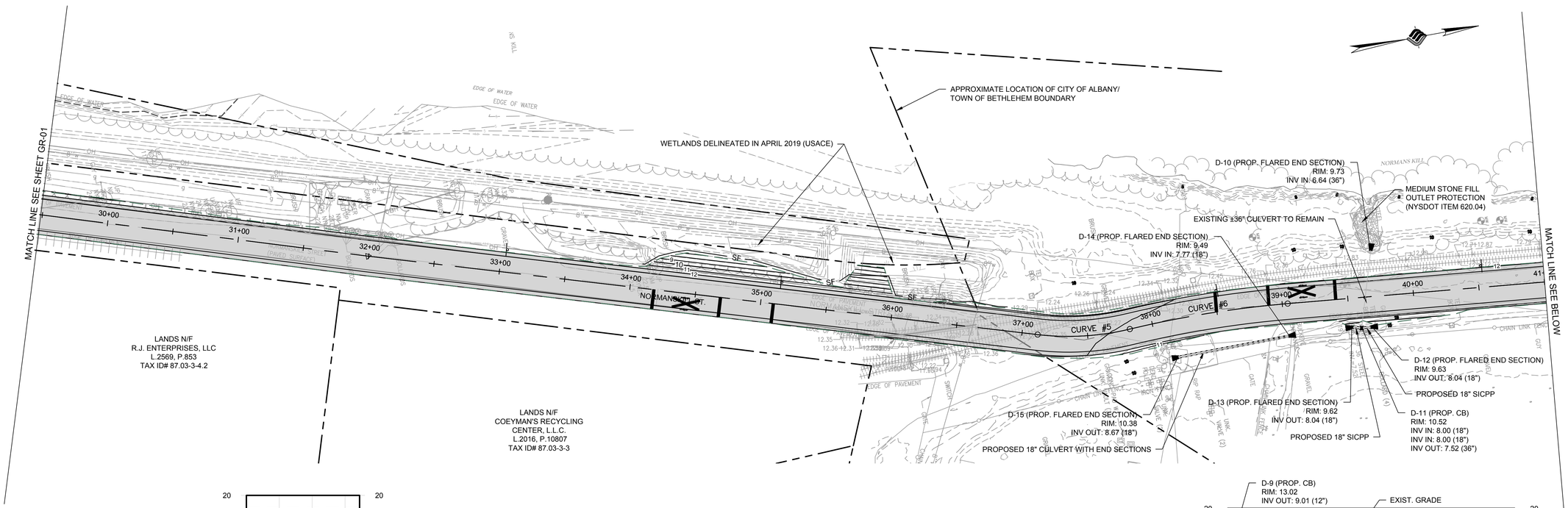

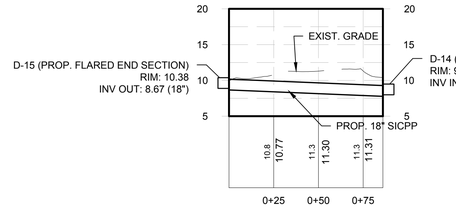

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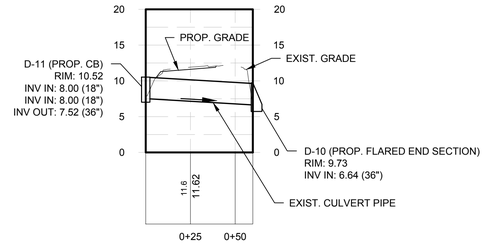
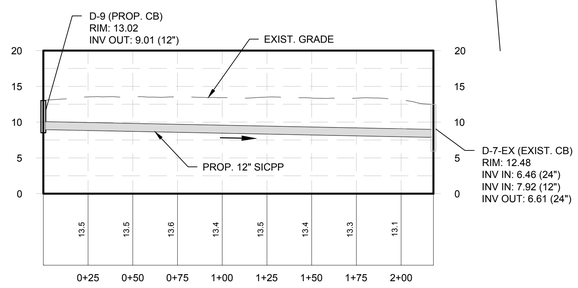
Vertical Scale: 1" = 10'



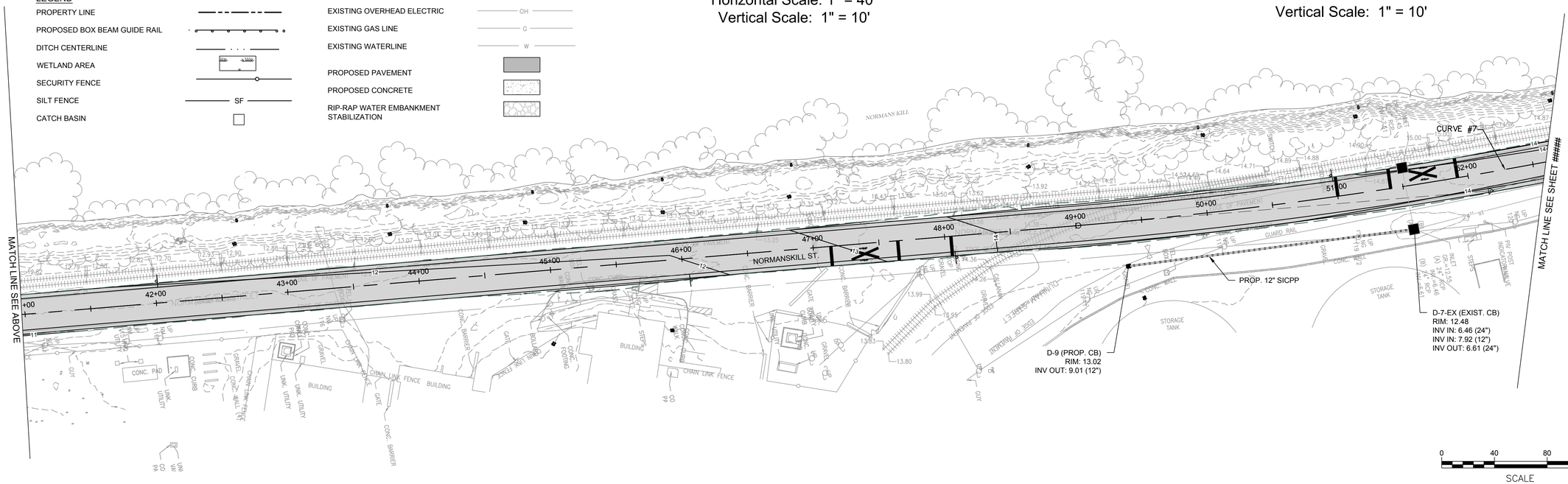
D-11 TO D-10
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'



D-9 TO D-7-EX
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'

LEGEND

PROPERTY LINE		EXISTING OVERHEAD ELECTRIC	OH
PROPOSED BOX BEAM GUIDE RAIL		EXISTING GAS LINE	G
DITCH CENTERLINE		EXISTING WATERLINE	W
WETLAND AREA	WA	PROPOSED PAVEMENT	
SECURITY FENCE		PROPOSED CONCRETE	
SILT FENCE	SF	RIP-RAP WATER EMBANKMENT STABILIZATION	
CATCH BASIN			



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P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

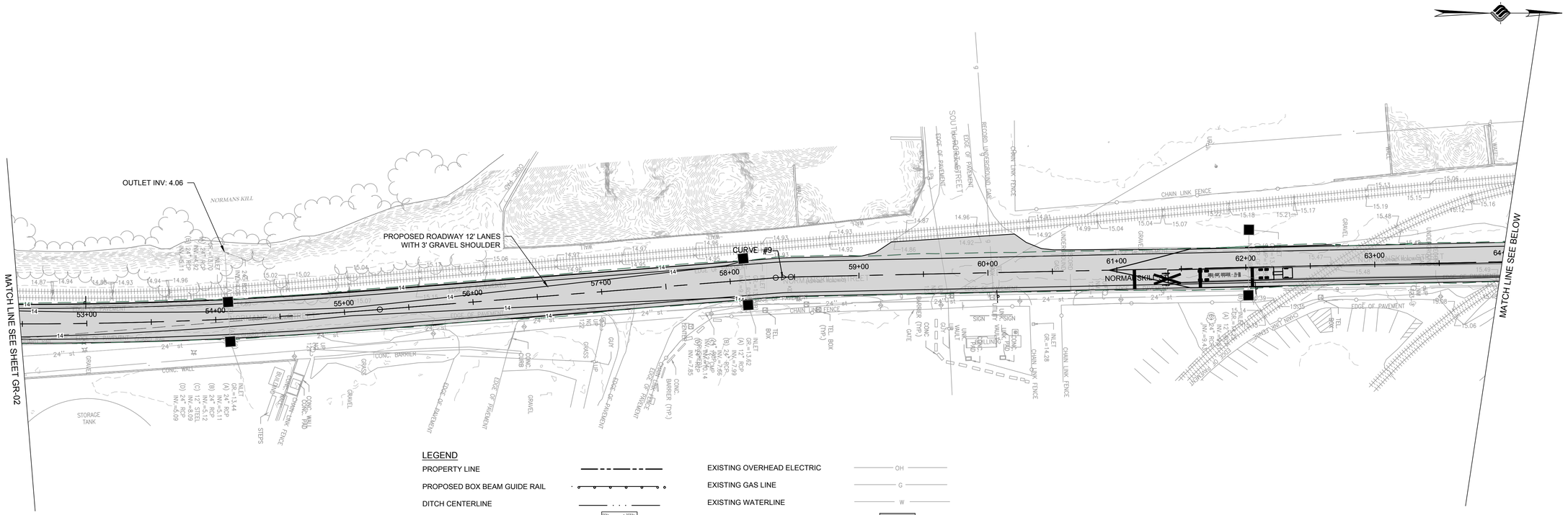
NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: NORMANSKILL ST. REHAB

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

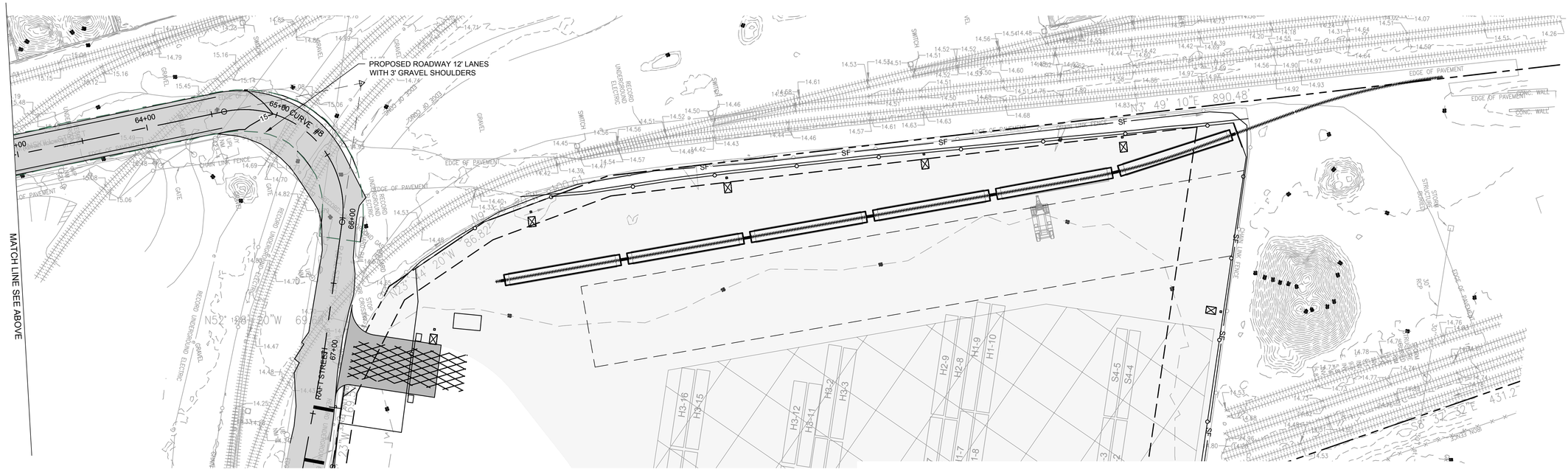
DRAWING TITLE
GRADING, DRAINAGE, EROSION AND SEDIMENT CONTROL

DRAWING NUMBER
GR-02



LEGEND

- PROPERTY LINE
- PROPOSED BOX BEAM GUIDE RAIL
- DITCH CENTERLINE
- WETLAND AREA
- SECURITY FENCE
- SILT FENCE (SF)
- CATCH BASIN
- EXISTING OVERHEAD ELECTRIC (OH)
- EXISTING GAS LINE (G)
- EXISTING WATERLINE (W)
- PROPOSED PAVEMENT
- PROPOSED CONCRETE
- RIP-RAP WATER EMBANKMENT STABILIZATION



0 40 80 120 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: NORMANSKILL ST. REHAB

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
GRADING, DRAINAGE, EROSION AND SEDIMENT CONTROL

DRAWING NUMBER
GR-03

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\SHEET FILES - NORMANSKILL ST\18641.00-GRAD.DWG

Pipe Table			
Pipe Name	Size	Length	Slope
P-10-EX	36.000	59.9	1.47%
P-8-EX	24.000	47.5	2.21%
P-7-EX	24.000	259.7	0.59%
P-5-EX	24.000	30.8	0.00%
P-6-EX	24.000	38.7	2.22%
P-4-EX	24.000	402.5	-0.68%
P-2-EX	24.000	388.0	-0.46%
P-1-EX	12.000	50.9	-2.73%
P-3-EX	12.000	36.2	-2.92%
P-9-PROP	12.000	218.1	0.50%
P-11-PROP	18.000	7.6	0.50%
P-12-PROP	18.000	7.4	0.50%

Pipe Table			
Pipe Name	Size	Length	Slope
P-13-PROP	18.000	86.0	1.04%

Pipe Table			
Pipe Name	Size	Length	Slope
P-14-PROP	18.000	59.1	0.59%

Structure Table		
Structure Name	Structure Details	STATION AND OFFSET
D-2-EX (EXIST. CB)	RIM = 14.103 SUMP = 9.430 P-2-EX INV IN = 9.430 P-1-EX INV OUT = 9.610	STA. 62+01.6 21.8'R
D-1-EX (EXIST. CB)	RIM = 14.004 SUMP = 11.000 P-1-EX INV IN = 11.000	STA. 62+03.1 -29.0'L
D-8-EX (EXIST. CB)	RIM = 13.968 SUMP = 7.510 P-8-EX INV OUT = 7.510	STA. 51+51.5 -14.2'L
D-6-EX (EXIST. CB)	RIM = 13.867 SUMP = 4.920 P-5-EX INV IN = 5.110 P-6-EX INV OUT = 4.920	STA. 54+10.2 -13.3'L
D-4-EX (EXIST. CB)	RIM = 13.837 SUMP = 9.050 P-3-EX INV IN = 9.050	STA. 58+11.4 -16.9'L
D-3-EX (EXIST. CB)	RIM = 13.603 SUMP = 7.660 P-4-EX INV IN = 7.850 P-2-EX INV OUT = 7.660 P-3-EX INV OUT = 7.990	STA. 58+12.4 19.3'R
D-5-EX (EXIST. CB)	RIM = 13.387 SUMP = 5.090 P-7-EX INV IN = 5.090 P-5-EX INV OUT = 5.110 P-4-EX INV OUT = 5.120	STA. 54+10.5 17.5'R
D-9 (PROP. CB)	RIM = 13.018 SUMP = 9.014 P-9-PROP INV OUT = 9.014	STA. 49+37.1 34.1'R
D-7-EX (EXIST. CB)	RIM = 12.481 SUMP = 6.460 P-8-EX INV IN = 6.460 P-9-PROP INV IN = 7.923 P-7-EX INV OUT = 6.610	STA. 51+53.1 33.3'R
D-11 (PROP. CB)	RIM = 10.524 SUMP = 7.520 P-11-PROP INV IN = 8.000 P-12-PROP INV IN = 8.000 P-10-EX INV OUT = 7.520	STA. 39+58.6 23.2'R
D-10 (PROP. FLARED END SECTION)	RIM = 9.728 SUMP = ??? P-10-EX INV IN = 6.640	STA. 39+70.5 -35.5'L
D-12 (PROP. FLARED END SECTION)	RIM = 9.626 SUMP = ??? P-11-PROP INV OUT = 8.038	STA. 39+66.3 23.1'R
D-13 (PROP. FLARED END SECTION)	RIM = 9.625 SUMP = ??? P-12-PROP INV OUT = 8.037	STA. 39+51.3 22.0'R

Structure Table		
Structure Name	Structure Details	STATION AND OFFSET
D-15 (PROP. FLARED END SECTION)	RIM = 10.382 SUMP = ??? P-13-PROP INV OUT = 8.666	STA. 38+14.4 28.8'R
D-14 (PROP. FLARED END SECTION)	RIM = 9.490 SUMP = ??? P-13-PROP INV IN = 7.774	STA. 39+03.4 24.6'R

Structure Table		
Structure Name	Structure Details	STATION AND OFFSET
D-16 (PROP. CB)	RIM = 17.418 SUMP = 13.750 P-14-PROP INV OUT = 13.750	STA. 12+58.7 22.8'R
D-17 (PROP. FLARED END SECTION)	RIM = 15.046 SUMP = ??? P-14-PROP INV IN = 13.400	STA. 12+60.0 -36.3'L

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PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

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ALBANY, NEW YORK

PROJECT: NORMANSKILL ST. REHAB

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

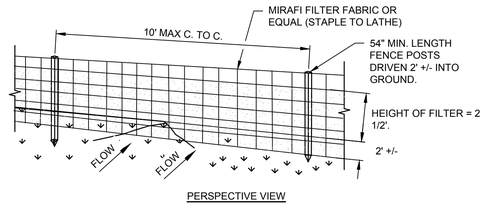
DRAWING TITLE

DRAINAGE TABLES

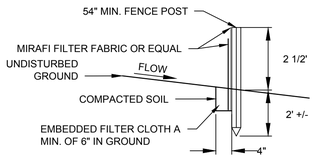
DRAWING NUMBER

GR-04

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\DRAWINGS\SHEET FILES - NORMANSKILL ST\18641.00-GRAD.DWG



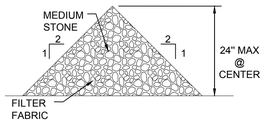
PERSPECTIVE VIEW



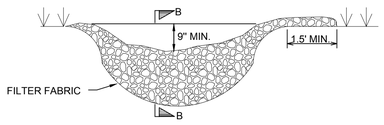
SECTION VIEW

NOTES:
1. MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

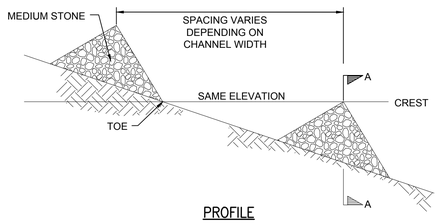
SILT FENCE



SECTION B–B



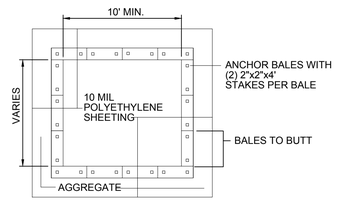
SECTION A–A



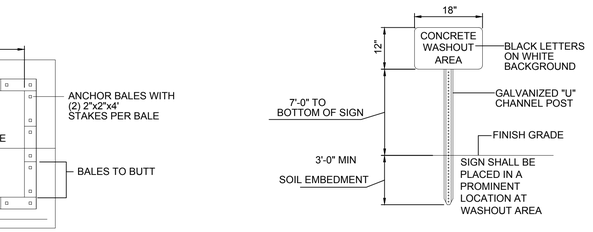
PROFILE

CONSTRUCTION SPECIFICATIONS
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES GRADES AND LOCATIONS SHOWN ON 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 TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWESTCHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

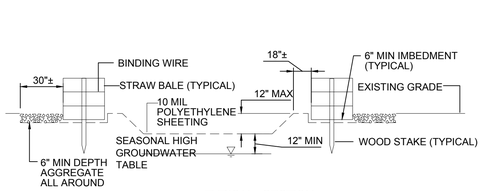
LIGHT STONE CHECK DAM



PLAN



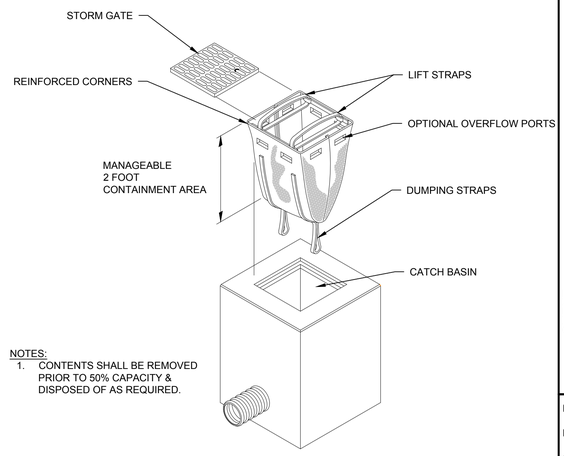
WASHOUT SIGN



TYPICAL SECTION

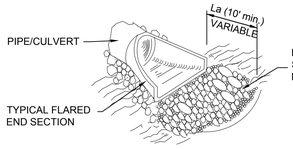
NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT

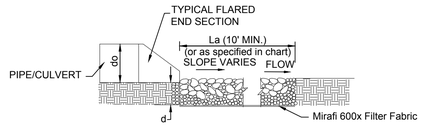


NOTES:
1. CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

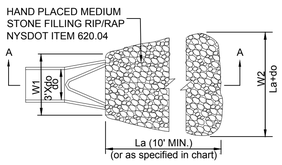
INLET PROTECTION



ISOMETRIC VIEW



SECTION A–A

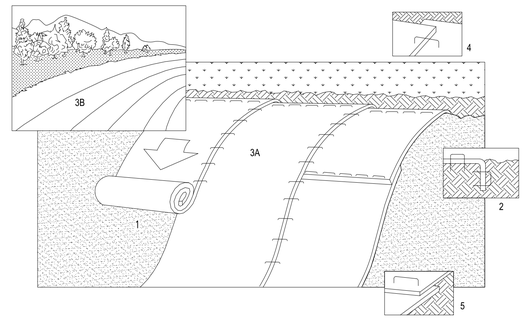


PLAN

do = Pipe Dia. (see plans)
La = Apron Length
W = Apron Width (centered on pipe)
d = Apron Depth

NOTES:
1. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NO LESS THAN 6".
2. INSTALL FILTER MIRAFI 500X OR APPROVED EQUAL FILTER FABRIC BETWEEN RIP-RAP AND SUBGRADE.

OUTLET PROTECTION - RIP RAP



INSTALLATION OF GEOSYNTHETICS EROSION CONTROL MATS:
1. EROSION CONTROL MATS SHALL BE UTILIZED ON ALL SLOPES OF 3:1 OR GREATER REQUIRING PERMANENT STABILIZATION.
2. SLOPES SHALL BE PREPARED AND EROSION CONTROL MATS SHALL BE INSTALLED, ANCHORED AND SOIL FILLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION PROCEDURES.
3. SEEDING SHALL BE COMPLETED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS ABOVE PRIOR TO PLACEMENT OF THE EROSION CONTROL MAT. A SECOND APPLICATION OF PERMANENT SEEDING SHALL BE APPLIED AFTER THE MAT IS IN PLACE, PRIOR TO SOIL FILLING THE MAT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, RESEEDING AND REPAIR OF MATS AND SLOPES UNTIL PERMANENT STABILIZATION IS ACHIEVED.

NOTES:
REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL SUPERCEDE THIS DETAIL.

EROSION CONTROL MAT INSTALLATION

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SARATOGA SPRINGS, NEW YORK 12866
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SaratogaROM@mjinc.com

PROJECT MILESTONE
PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

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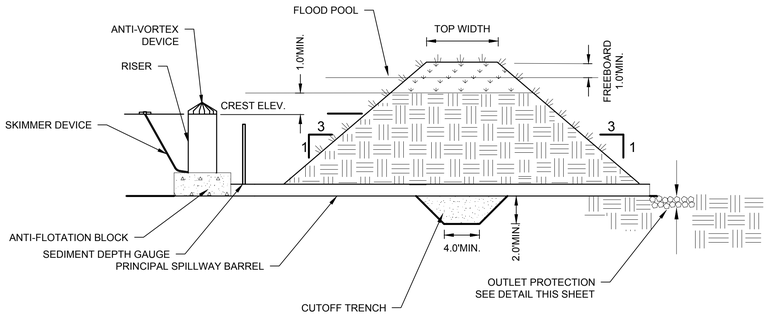
ALBANY, NEW YORK
PROJECT: NORMANSKILL ST. REHAB

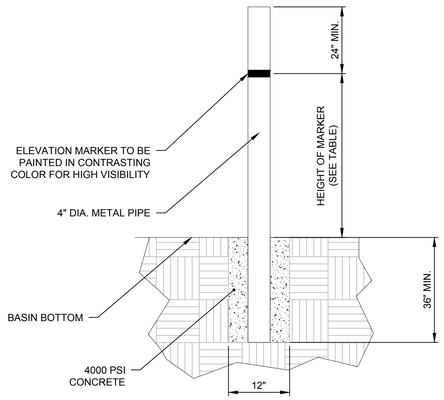
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL DETAILS

DRAWING NUMBER
DT-01

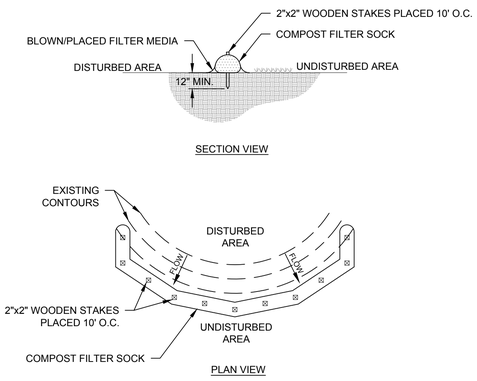


SEDIMENT BASIN



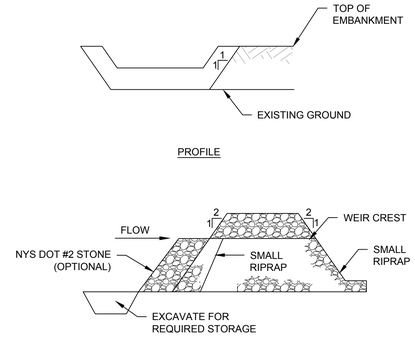
NOTES:
1. CONTRACTOR SHALL PLACE A 4" DIA. METAL PIPE AT A MINIMUM OF 36" BELOW THE BASIN BOTTOM ELEVATION ENCASED IN 12" OF 4000 PSI CONCRETE.
2. CONTRACTOR SHALL MARK THE CORRESPONDING ELEVATION FOR SEDIMENT STORAGE CLEANOUT ON THE PVC PIPE TO INDICATE WHEN MAINTENANCE IS REQUIRED.
3. SEDIMENT DEPTH GAUGE REQUIRED FOR SEDIMENT BASINS, FOREBAYS, AND INFILTRATION BASINS.

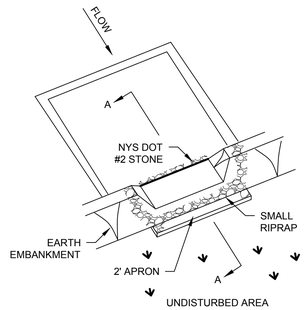
SEDIMENT DEPTH GAUGE



NOTES:
1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 5.1 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. COMPOST SHALL MEET THE STANDARDS LISTED ON TABLE 5.2 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE X.X OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS. STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK





OPTION: A ONE FOOT LAYER OF NYS DOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP INPLACE OF THE EMBEDDED FILTER CLOTH.

NOTES:
1. 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 AND 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.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
9. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.

STONE OUTLET SEDIMENT TRAP

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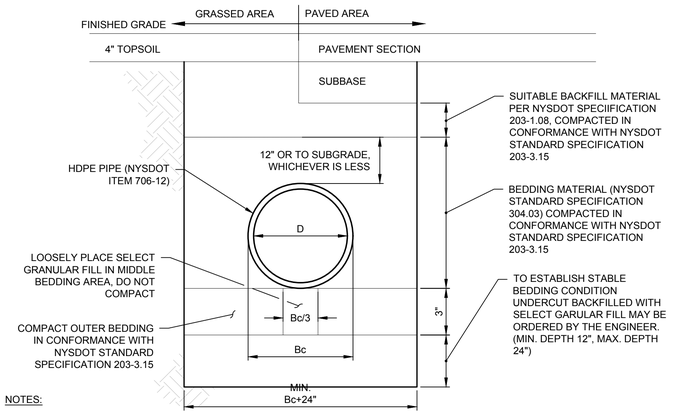
DRAWING TITLE
EROSION AND SEDIMENT CONTROL DETAILS

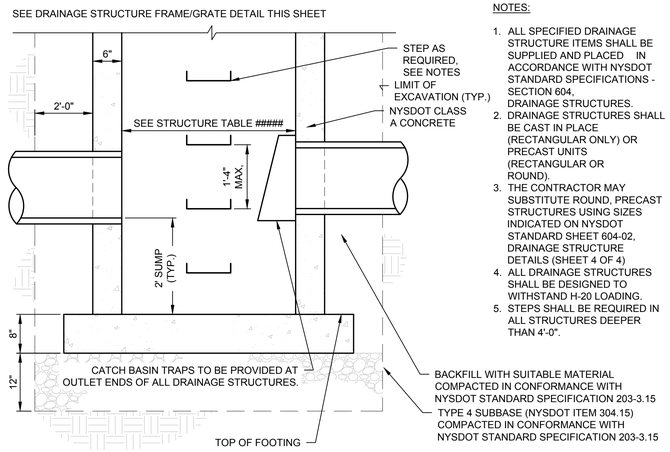
DRAWING NUMBER
DT-02



NOTES:

1. BRACING, SHEETING OR SHORING AS REQUIRED BY THE LATEST VERSION OF THE NEW YORK STATE DEPARTMENT OF LABOR AND U.S. DEPARTMENT OF LABOR O.S.H.A. REGULATIONS SHALL BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER.
2. ALL SPECIFIED STORM PIPE ITEMS SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS - SECTION 603, CULVERT AND STORM DRAINS.

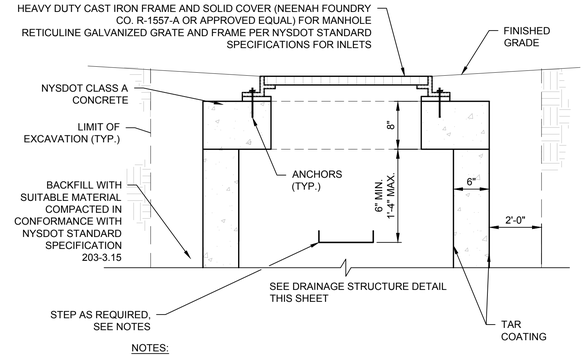
STORM PIPE BEDDING



NOTES:

1. ALL SPECIFIED DRAINAGE STRUCTURE ITEMS SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS - SECTION 604, DRAINAGE STRUCTURES.
2. DRAINAGE STRUCTURES SHALL BE CAST IN PLACE (RECTANGULAR ONLY) OR PRECAST UNITS (RECTANGULAR OR ROUND).
3. THE CONTRACTOR MAY SUBSTITUTE ROUND, PRECAST STRUCTURES USING SIZES INDICATED ON NYSDOT STANDARD SHEET 604-02, DRAINAGE STRUCTURE DETAILS (SHEET 4 OF 4)
4. ALL DRAINAGE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING.
5. STEPS SHALL BE REQUIRED IN ALL STRUCTURES DEEPER THAN 4'-0".

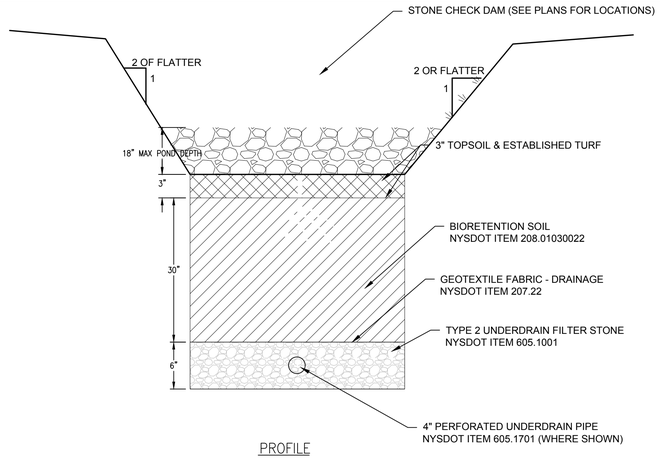
DRAINAGE STRUCTURE



NOTES:

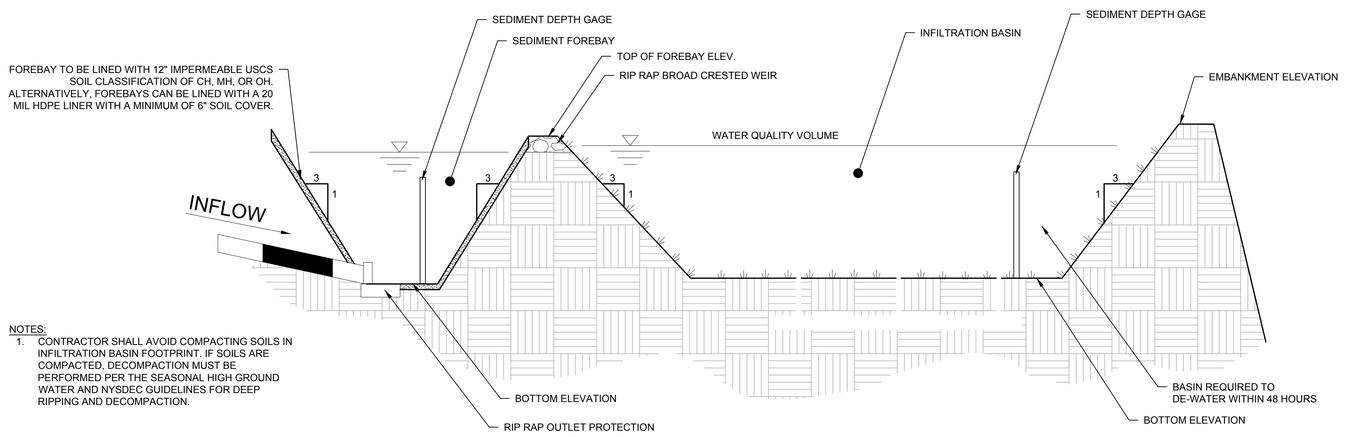
1. ALL SPECIFIED STORM STRUCTURE ITEMS SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS - SECTION 604, DRAINAGE STRUCTURES.
2. ALL DRAINAGE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING.
3. STEPS SHALL BE REQUIRED IN ALL STRUCTURES DEEPER THAN 4'-0".

DRAINAGE STRUCTURE FRAME AND GRATE



PROFILE

DRY SWALE DETAIL



NOTES:

1. CONTRACTOR SHALL AVOID COMPACTING SOILS IN INFILTRATION BASIN FOOTPRINT. IF SOILS ARE COMPACTED, DECOMPACTION MUST BE PERFORMED PER THE SEASONAL HIGH GROUND WATER AND NYSDEC GUIDELINES FOR DEEP RIPPING AND DECOMPACTION.

INFILTRATION BASIN DETAIL

FOREBAY ELEV. (FT)	
IDENTIFIER NUMBER	1
TOP ELEV.	
BOTTOM ELEV.	
EXTREME FLOOD CONTROL ELEV.	
OVERBANK FLOOD CONTROL ELEV.	
CHANNEL PROTECTION ELEV.	
WATER QUALITY ELEV.	
SEDIMENT CLEANOUT ELEV.	

INFILTRATION BASIN ELEV. (FT)	
IDENTIFIER NUMBER	1
EMBANKMENT ELEV.	
BOTTOM ELEV.	
EXTREME FLOOD CONTROL ELEV.	
OVERBANK FLOOD CONTROL ELEV.	
CHANNEL PROTECTION ELEV.	
WATER QUALITY ELEV.	
SEDIMENT CLEANOUT ELEV.	

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT: NORMANSKILL ST. REHAB

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE

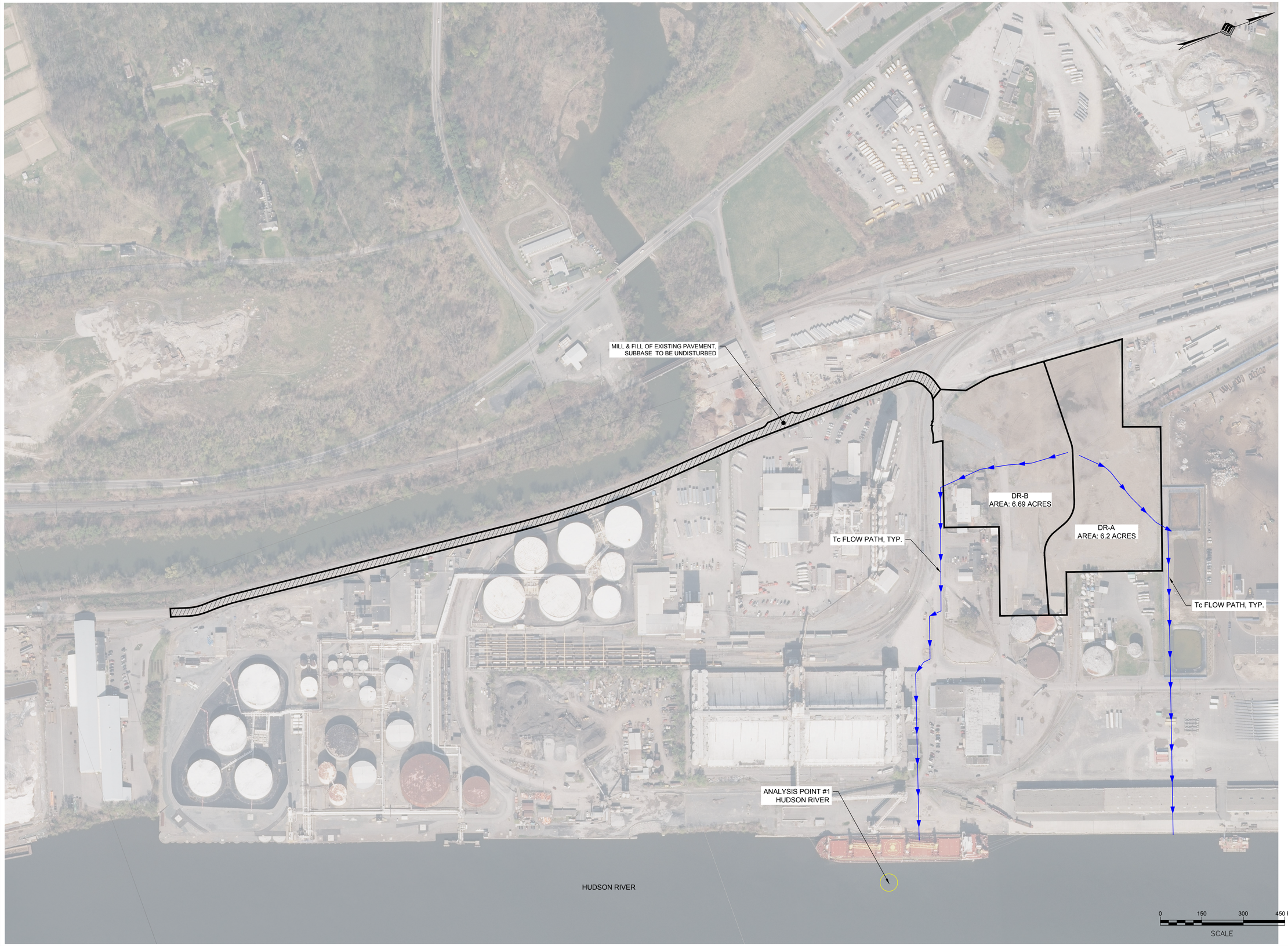
DRAINAGE DETAILS

DRAWING NUMBER

DT-03

APPENDIX D

HYDROLOGIC ANALYSIS & SUBCATCHMENT MAPS



McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS: 700 SMITH BLVD.

DRAWN	NSO
DESIGNED	NSO
CHECKED	AJF
SCALE	1" = 150'
DATE	OCTOBER 2021
PROJECT	18641.00

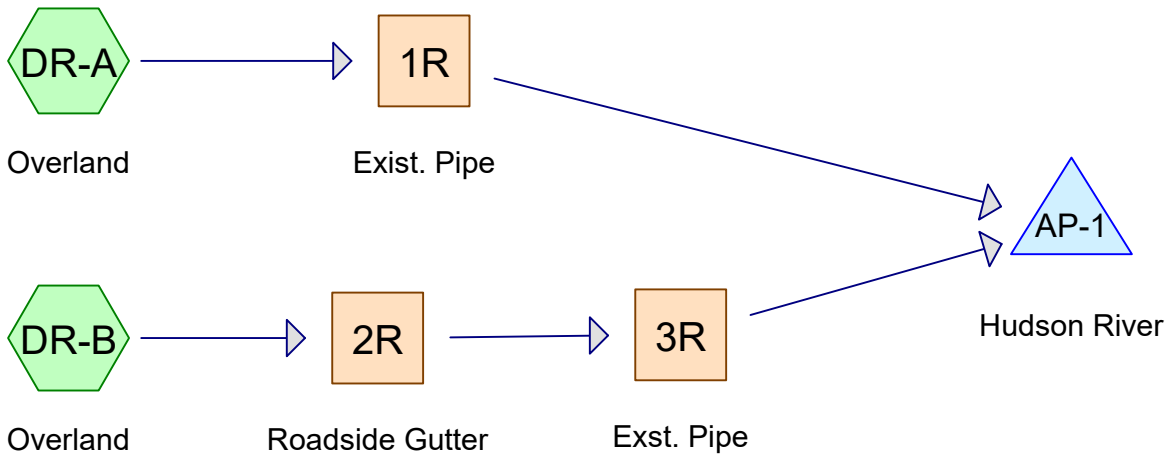
DRAWING TITLE

PRE-DEVELOPMENT SITE DRAINAGE

DRAWING NUMBER

EX-01

N:\18641.00 ALBANY PORT EXPANSION\REPORTS\SWPPP\CAD\ SWPPP\ART\2700 SMITH EXST.DWG



Subcat Reach Pond Link

Routing Diagram for 18641.00- 700 Smith Exist.
Prepared by McFarland Johnson, Printed 10/27/2021

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.25	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.88	2
3	100-Year	Type II 24-hr		Default	24.00	1	6.68	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.890	98	Asphalt Millings (DR-A, DR-B)
12.890	**98**	**TOTAL AREA**

Summary for Subcatchment DR-A: Overland

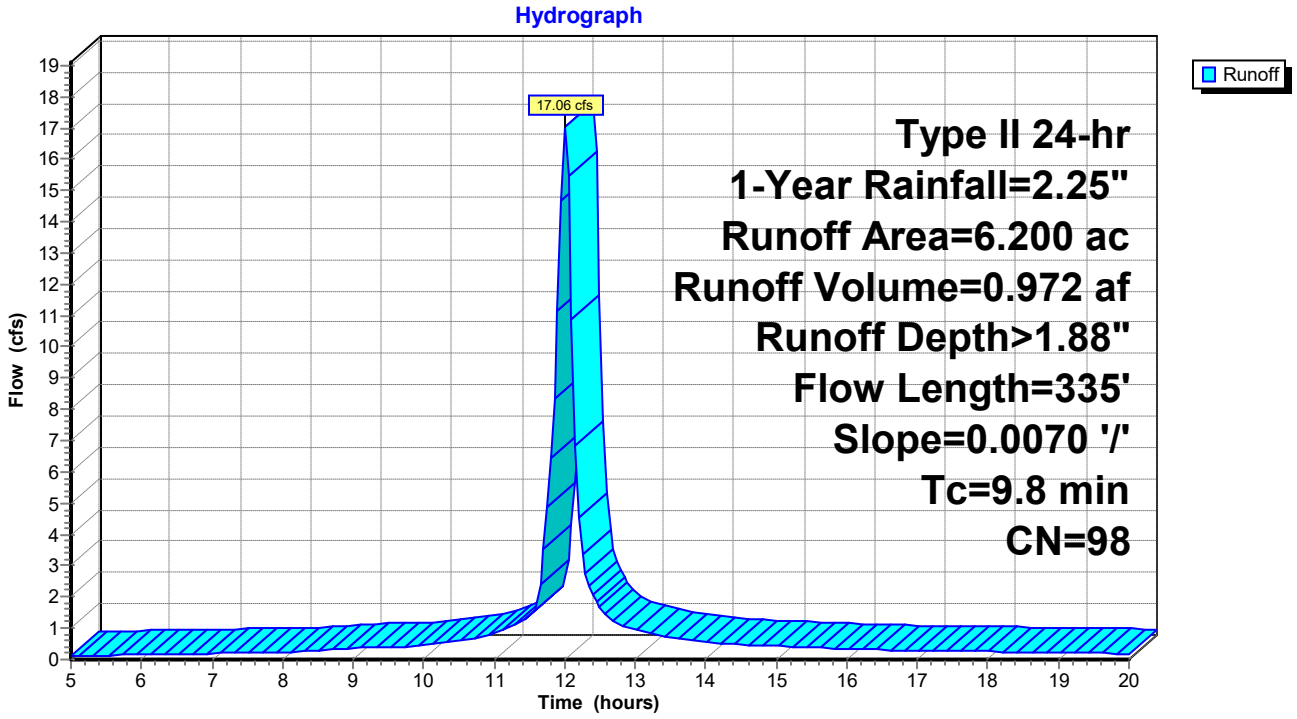
Runoff = 17.06 cfs @ 12.00 hrs, Volume= 0.972 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	6.200	98	Asphalt Millings
	6.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-A: Overland



Summary for Subcatchment DR-B: Overland

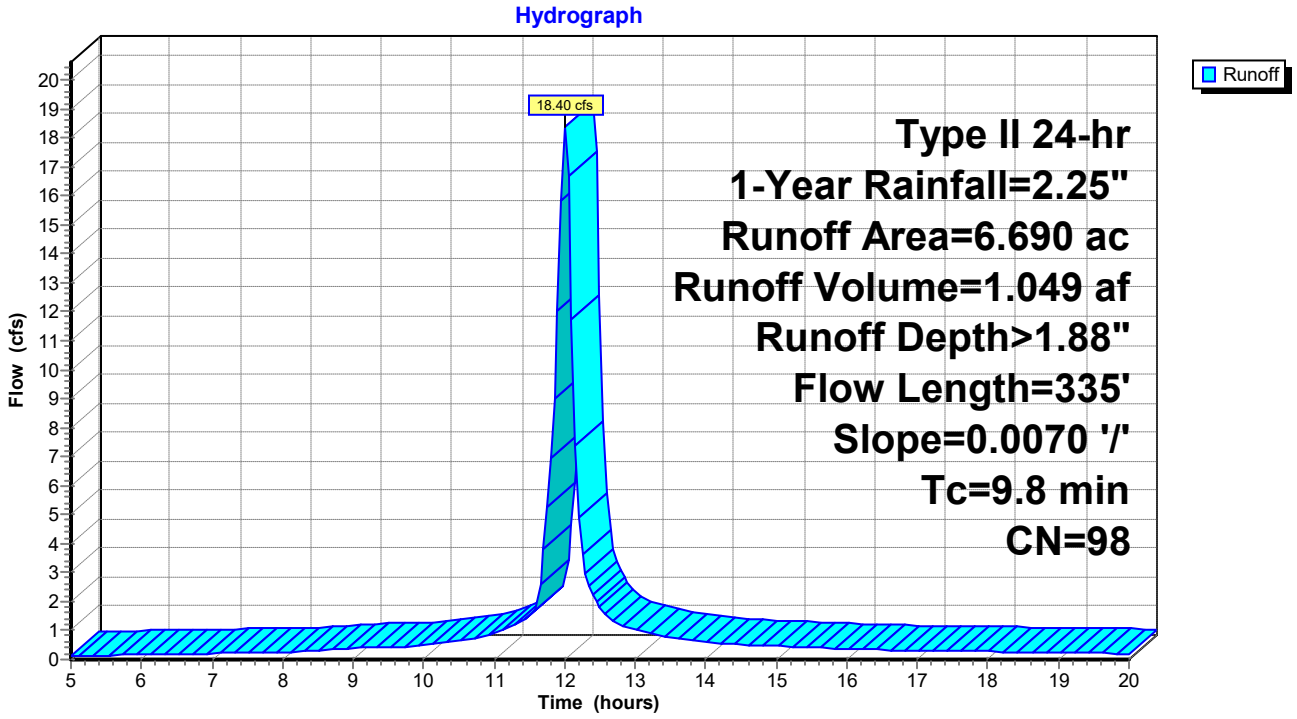
Runoff = 18.40 cfs @ 12.00 hrs, Volume= 1.049 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	6.690	98	Asphalt Millings
	6.690		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-B: Overland



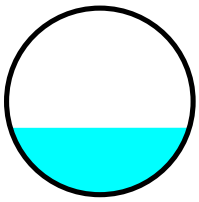
Summary for Reach 1R: Exist. Pipe

Inflow Area = 6.200 ac,100.00% Impervious, Inflow Depth > 1.88" for 1-Year event
Inflow = 17.06 cfs @ 12.00 hrs, Volume= 0.972 af
Outflow = 15.64 cfs @ 12.10 hrs, Volume= 0.967 af, Atten= 8%, Lag= 5.7 min

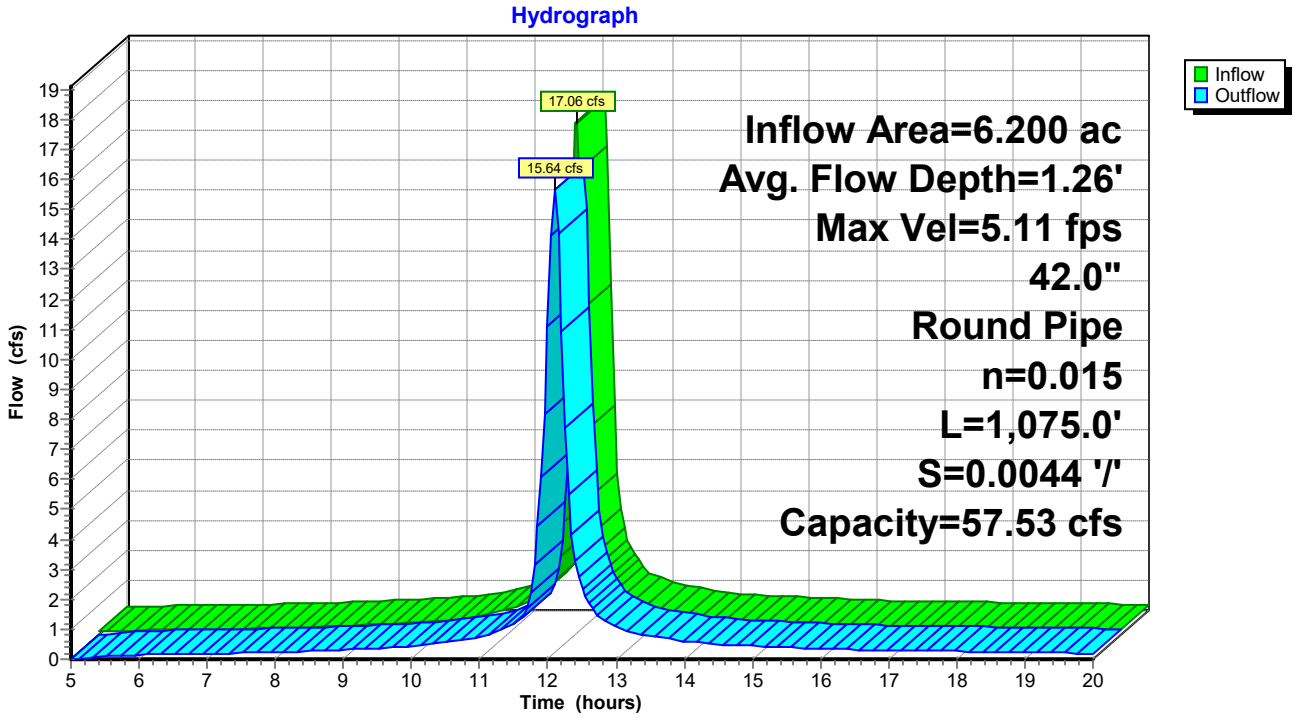
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.11 fps, Min. Travel Time= 3.5 min
Avg. Velocity = 1.78 fps, Avg. Travel Time= 10.0 min

Peak Storage= 3,339 cf @ 12.04 hrs
Average Depth at Peak Storage= 1.26' , Surface Width= 3.36'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



Reach 1R: Exist. Pipe



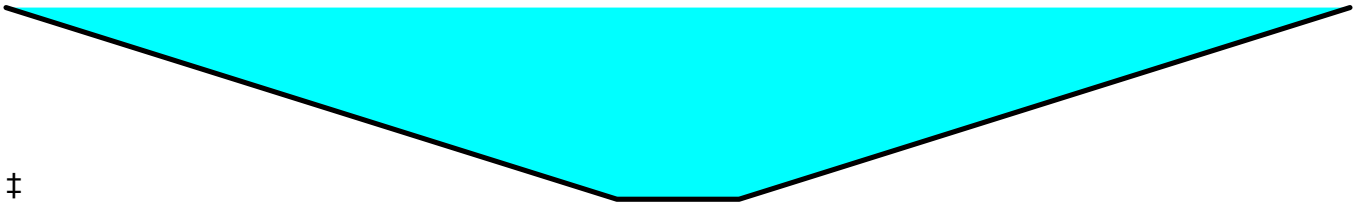
Summary for Reach 2R: Roadside Gutter

Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 1.88" for 1-Year event
Inflow = 18.40 cfs @ 12.00 hrs, Volume= 1.049 af
Outflow = 17.08 cfs @ 12.08 hrs, Volume= 1.046 af, Atten= 7%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.96 fps, Min. Travel Time= 2.3 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 4.7 min

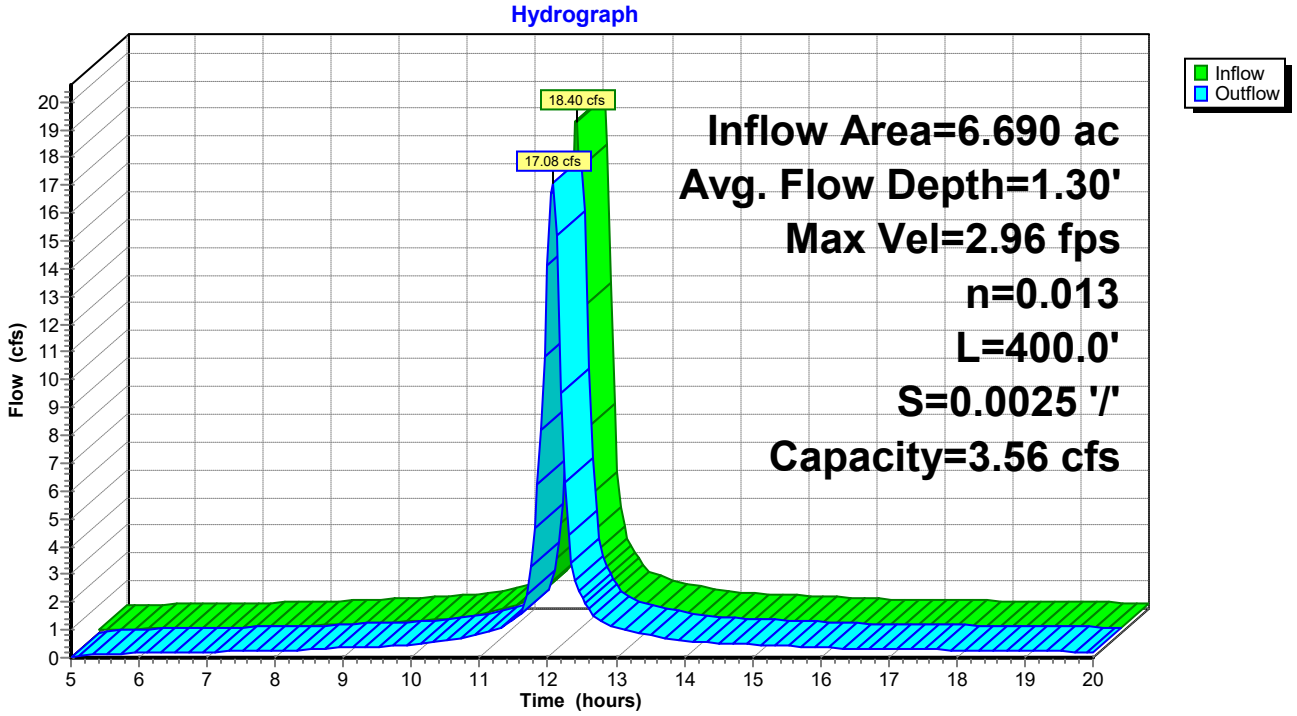
Peak Storage= 2,359 cf @ 12.04 hrs
Average Depth at Peak Storage= 1.30' , Surface Width= 13.53'
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 3.56 cfs

0.50' x 0.50' deep channel, n= 0.013 Concrete, trowel finish
Side Slope Z-value= 5.0 '/' Top Width= 5.50'
Length= 400.0' Slope= 0.0025 '/'
Inlet Invert= 15.00', Outlet Invert= 14.00'



‡

Reach 2R: Roadside Gutter



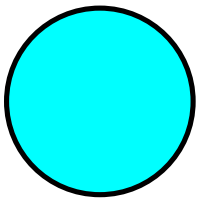
Summary for Reach 3R: Exst. Pipe

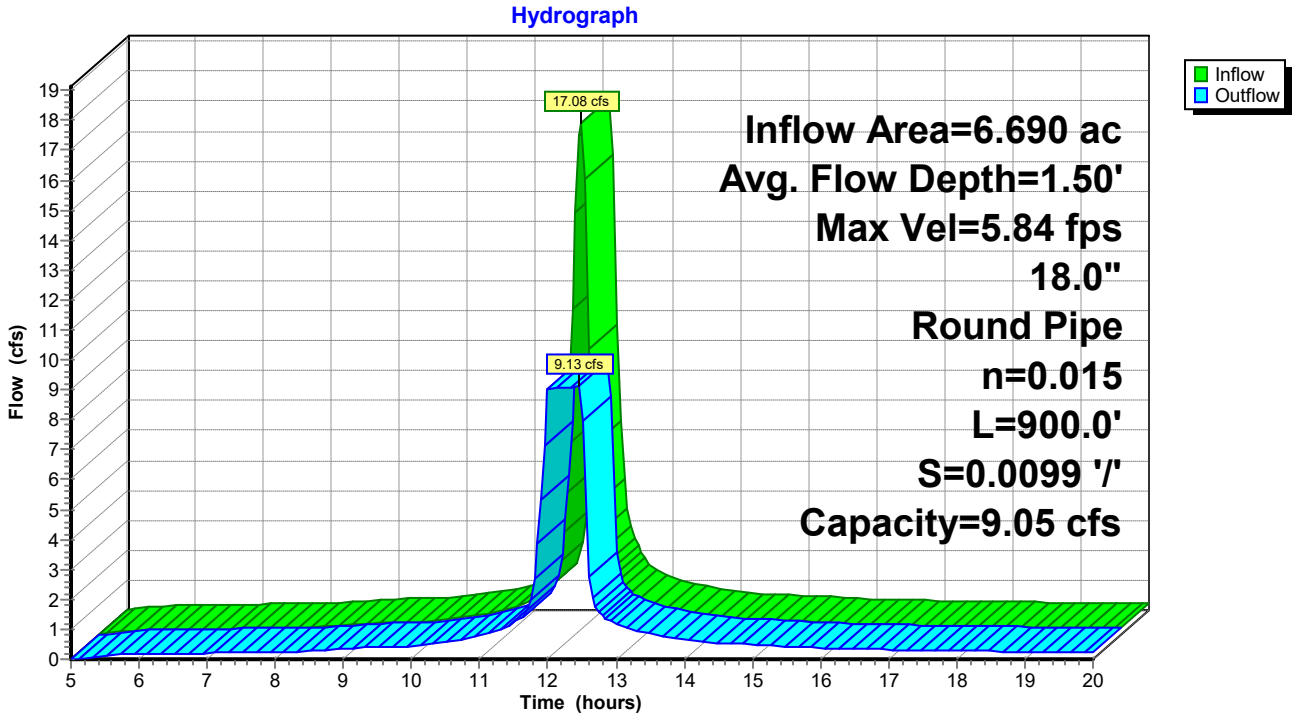
Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 1.88" for 1-Year event
Inflow = 17.08 cfs @ 12.08 hrs, Volume= 1.046 af
Outflow = 9.13 cfs @ 12.45 hrs, Volume= 1.044 af, Atten= 47%, Lag= 22.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.84 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 2.68 fps, Avg. Travel Time= 5.6 min

Peak Storage= 1,590 cf @ 12.00 hrs
Average Depth at Peak Storage= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.05 cfs

18.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 900.0' Slope= 0.0099 '/'
Inlet Invert= 9.90', Outlet Invert= 1.00'



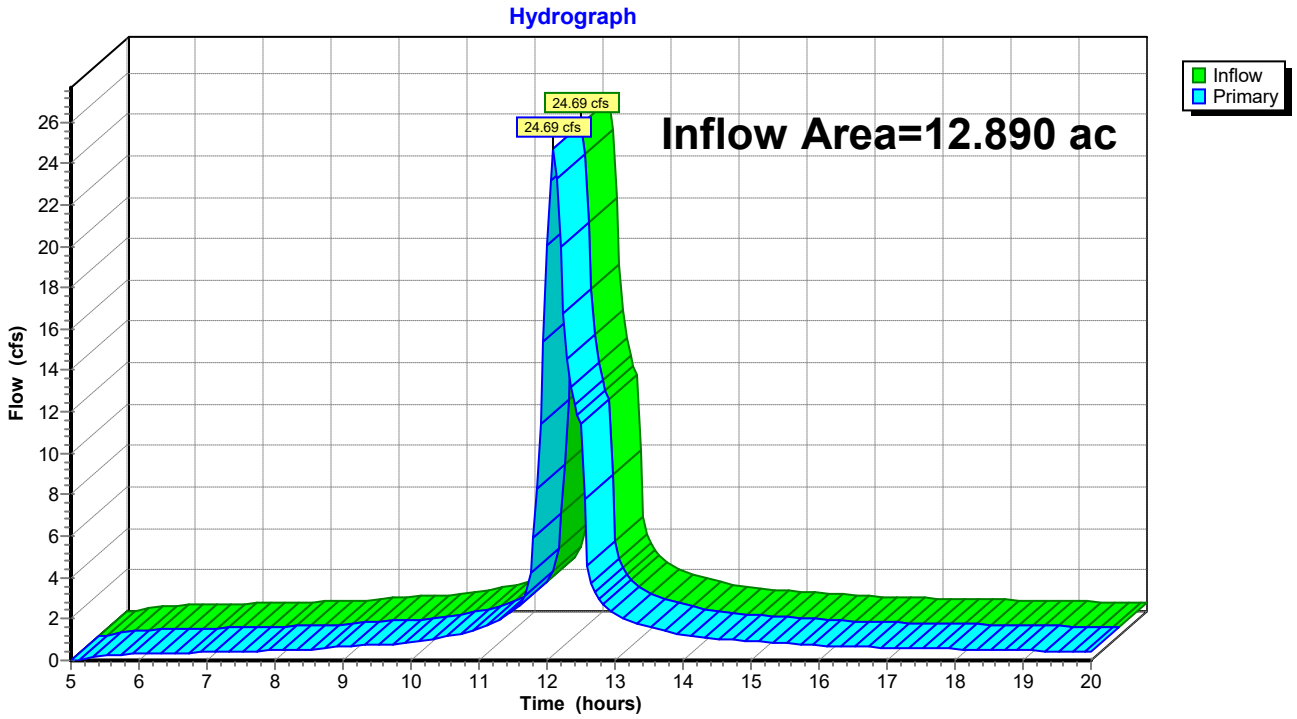


Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 1.87" for 1-Year event
Inflow = 24.69 cfs @ 12.10 hrs, Volume= 2.011 af
Primary = 24.69 cfs @ 12.10 hrs, Volume= 2.011 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River



Summary for Subcatchment DR-A: Overland

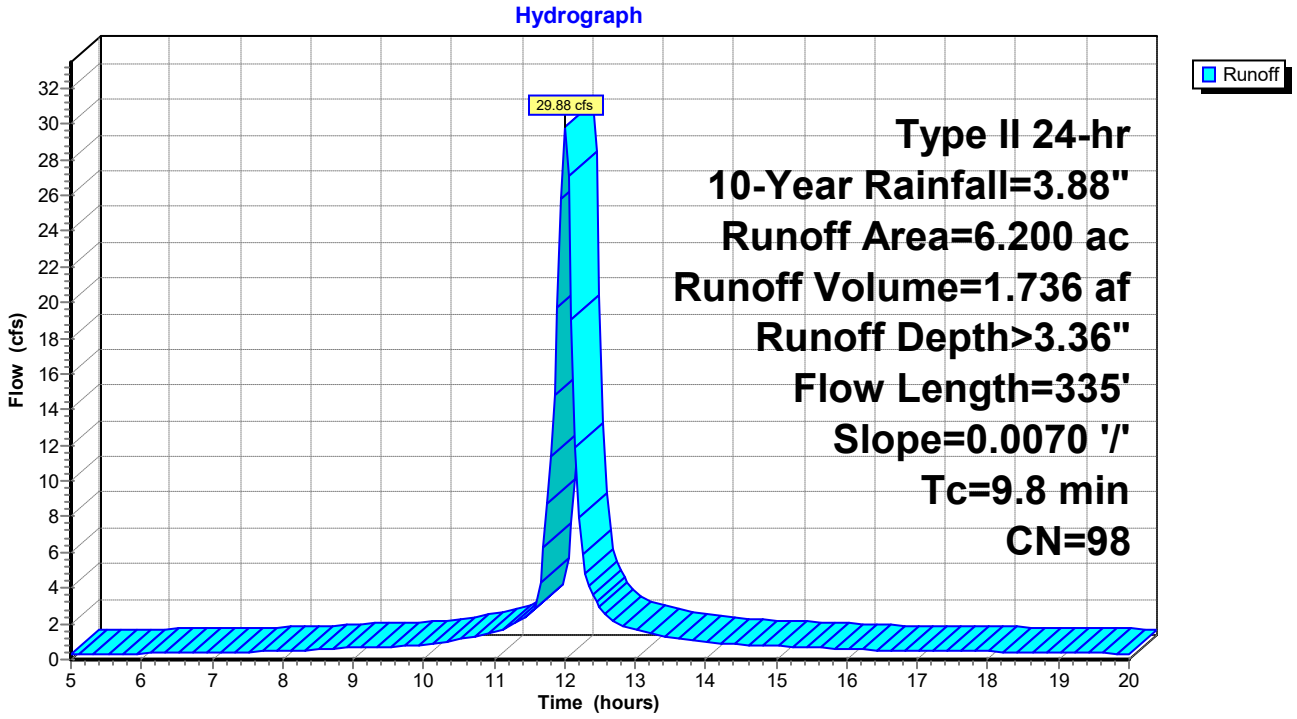
Runoff = 29.88 cfs @ 12.00 hrs, Volume= 1.736 af, Depth> 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	6.200	98	Asphalt Millings
	6.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-A: Overland



Summary for Subcatchment DR-B: Overland

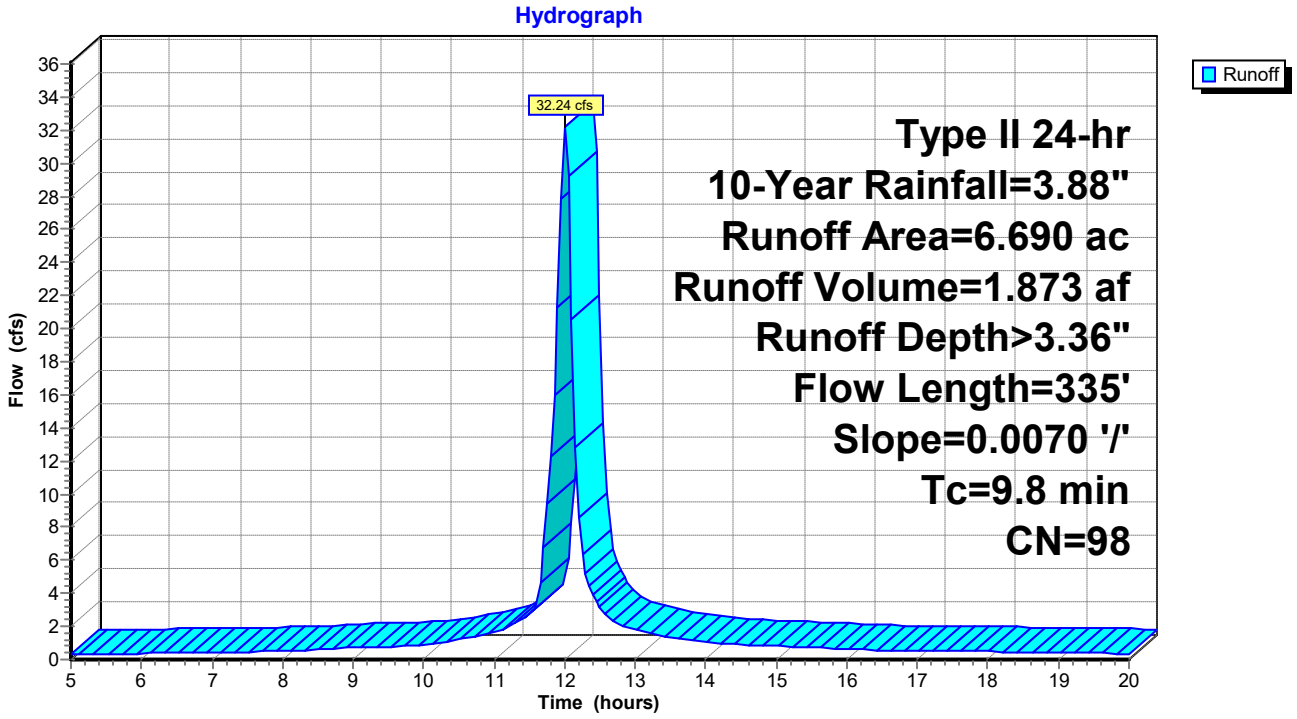
Runoff = 32.24 cfs @ 12.00 hrs, Volume= 1.873 af, Depth> 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	6.690	98	Asphalt Millings
	6.690		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-B: Overland



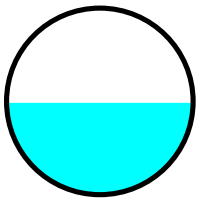
Summary for Reach 1R: Exist. Pipe

Inflow Area = 6.200 ac,100.00% Impervious, Inflow Depth > 3.36" for 10-Year event
Inflow = 29.88 cfs @ 12.00 hrs, Volume= 1.736 af
Outflow = 28.13 cfs @ 12.09 hrs, Volume= 1.729 af, Atten= 6%, Lag= 5.1 min

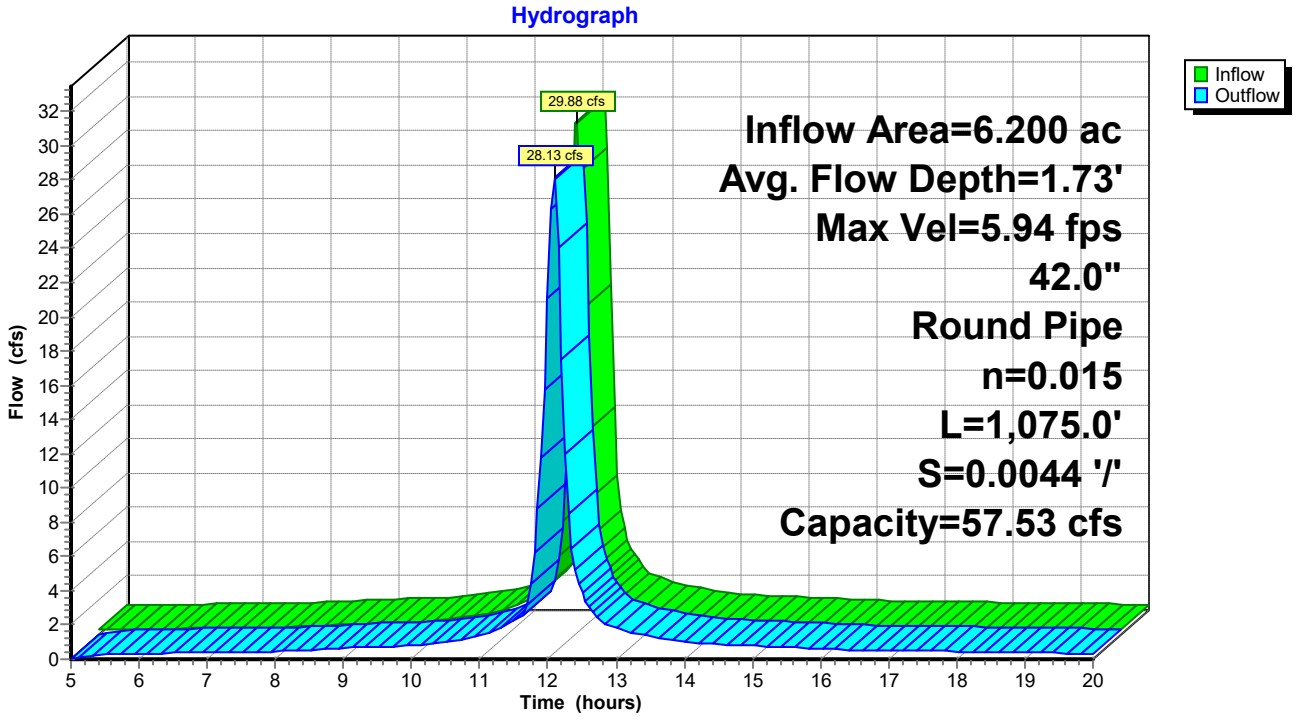
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.94 fps, Min. Travel Time= 3.0 min
Avg. Velocity = 2.14 fps, Avg. Travel Time= 8.4 min

Peak Storage= 5,088 cf @ 12.04 hrs
Average Depth at Peak Storage= 1.73' , Surface Width= 3.50'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



Reach 1R: Exist. Pipe



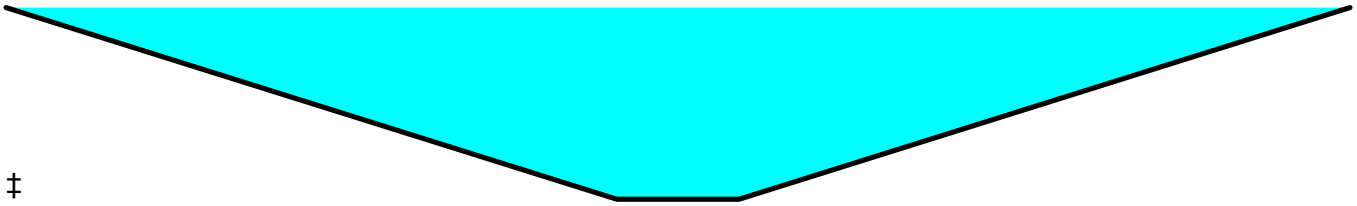
Summary for Reach 2R: Roadside Gutter

Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 3.36" for 10-Year event
Inflow = 32.24 cfs @ 12.00 hrs, Volume= 1.873 af
Outflow = 29.81 cfs @ 12.07 hrs, Volume= 1.869 af, Atten= 8%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.04 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.64 fps, Avg. Travel Time= 4.1 min

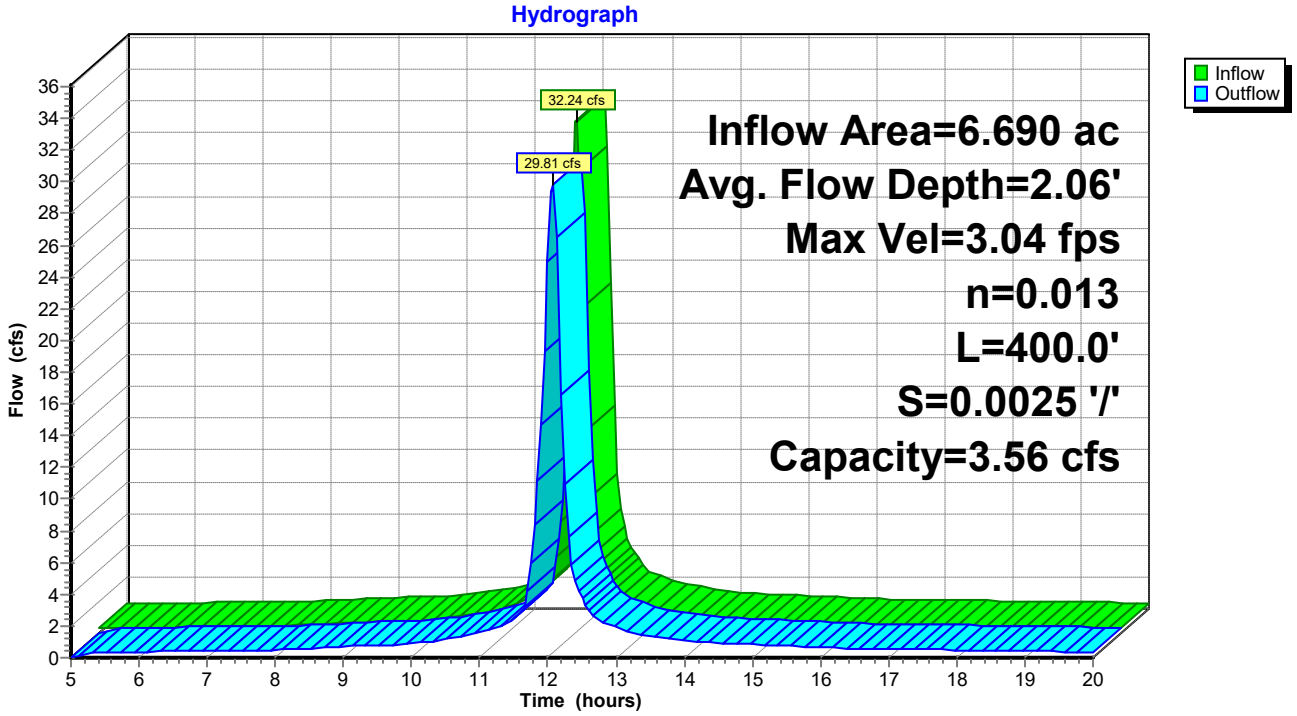
Peak Storage= 4,020 cf @ 12.04 hrs
Average Depth at Peak Storage= 2.06' , Surface Width= 21.11'
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 3.56 cfs

0.50' x 0.50' deep channel, n= 0.013 Concrete, trowel finish
Side Slope Z-value= 5.0 '/' Top Width= 5.50'
Length= 400.0' Slope= 0.0025 '/'
Inlet Invert= 15.00', Outlet Invert= 14.00'



‡

Reach 2R: Roadside Gutter



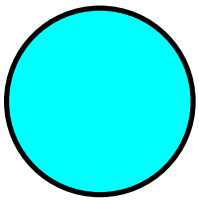
Summary for Reach 3R: Exst. Pipe

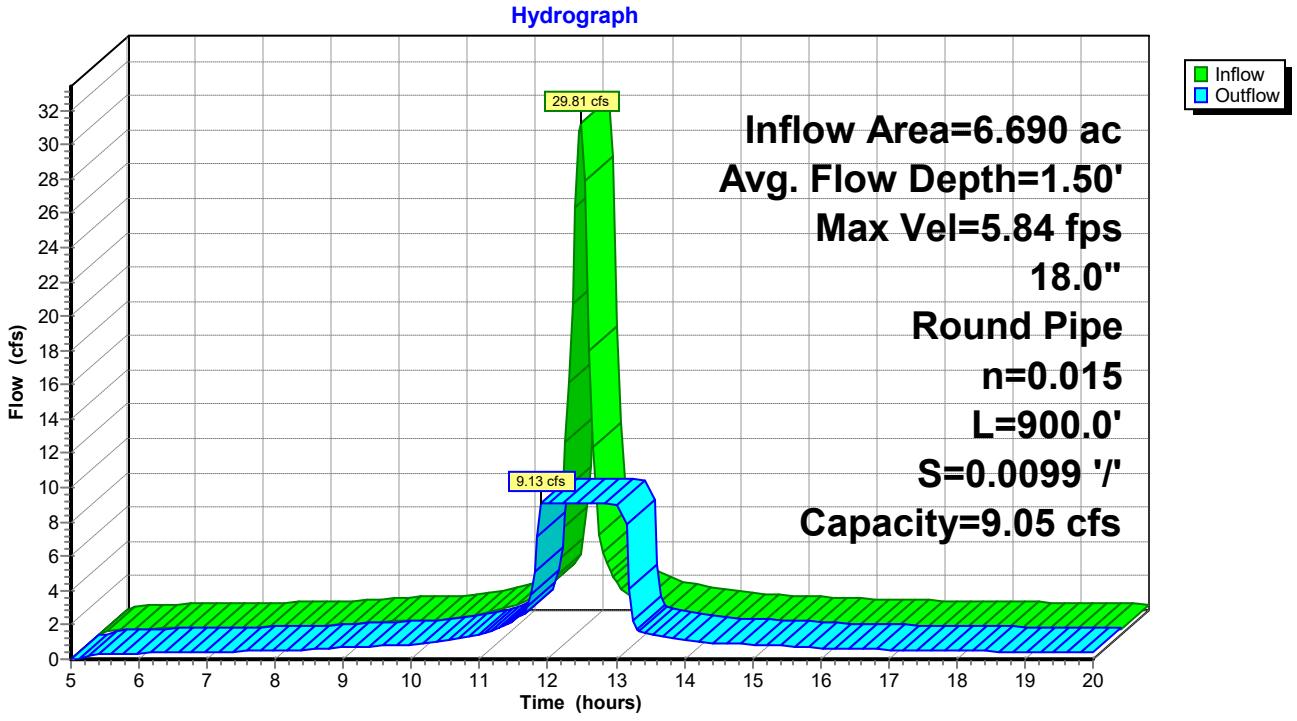
Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 3.35" for 10-Year event
Inflow = 29.81 cfs @ 12.07 hrs, Volume= 1.869 af
Outflow = 9.13 cfs @ 11.90 hrs, Volume= 1.865 af, Atten= 69%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.84 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 3.19 fps, Avg. Travel Time= 4.7 min

Peak Storage= 1,590 cf @ 11.90 hrs
Average Depth at Peak Storage= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.05 cfs

18.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 900.0' Slope= 0.0099 '/'
Inlet Invert= 9.90', Outlet Invert= 1.00'



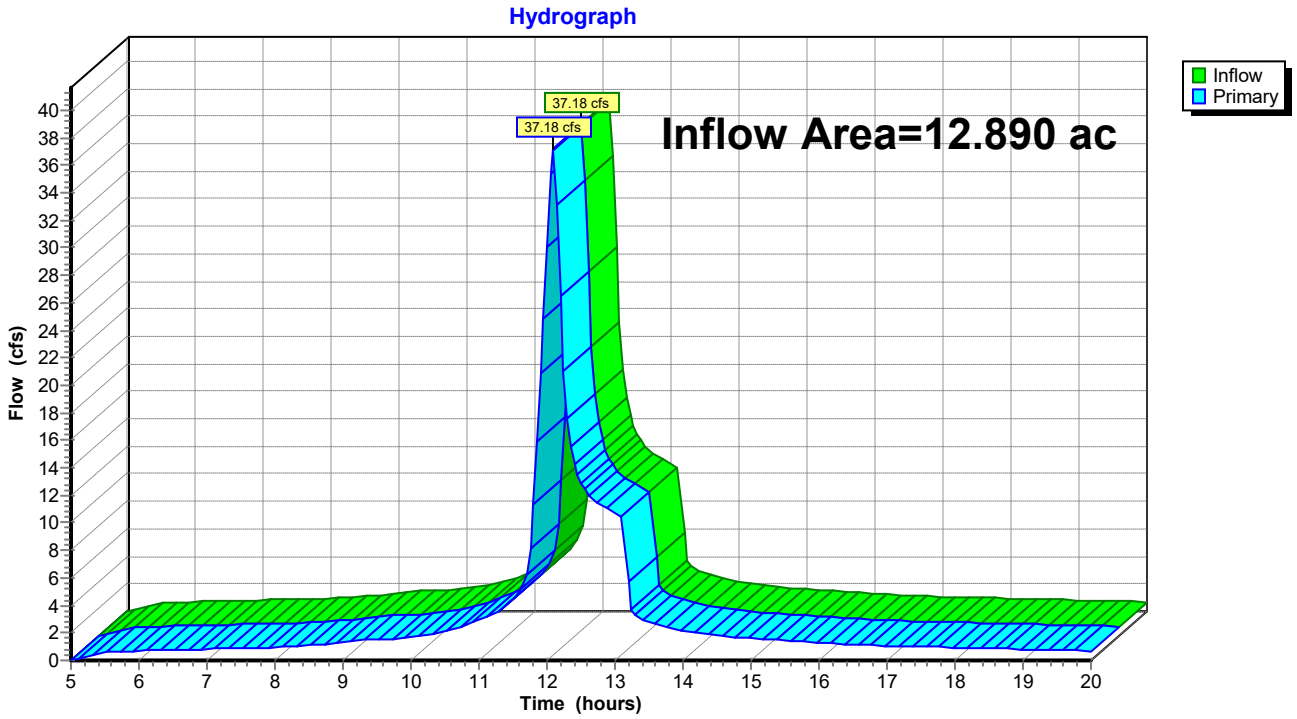


Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 3.35" for 10-Year event
Inflow = 37.18 cfs @ 12.09 hrs, Volume= 3.593 af
Primary = 37.18 cfs @ 12.09 hrs, Volume= 3.593 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River



Summary for Subcatchment DR-A: Overland

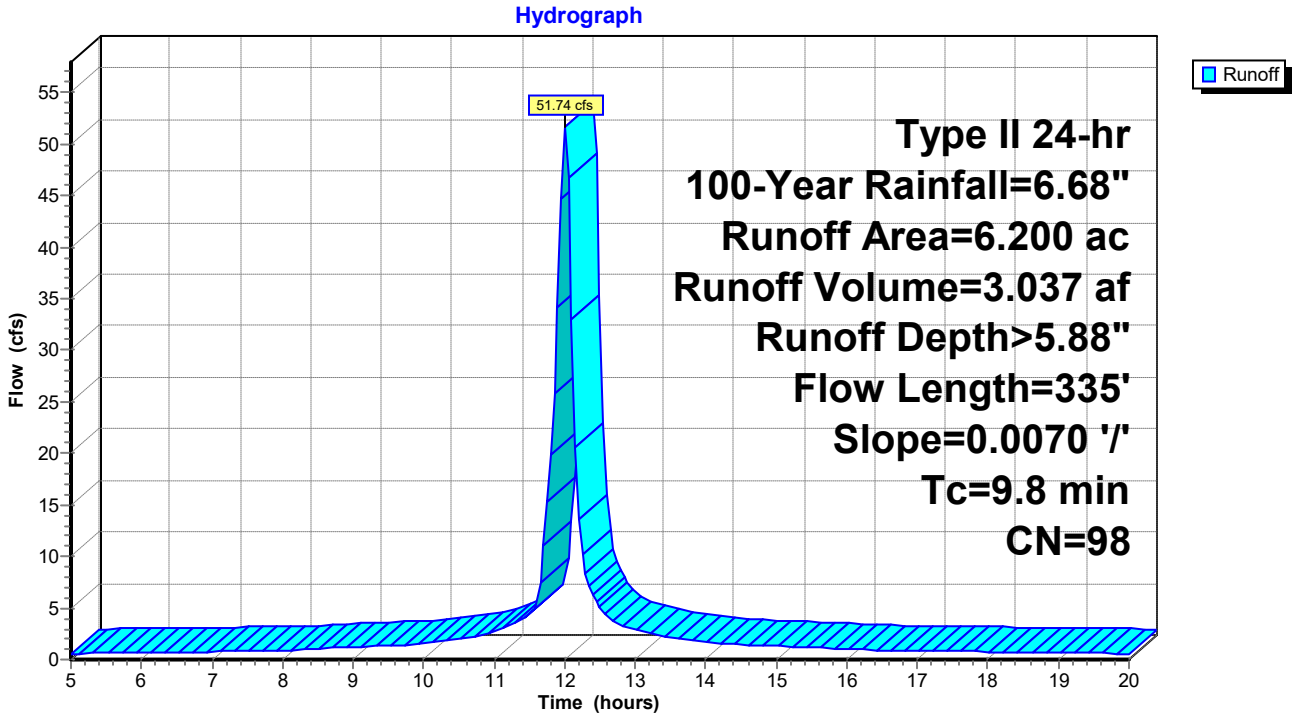
Runoff = 51.74 cfs @ 12.00 hrs, Volume= 3.037 af, Depth> 5.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

	Area (ac)	CN	Description
*	6.200	98	Asphalt Millings
	6.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-A: Overland



Summary for Subcatchment DR-B: Overland

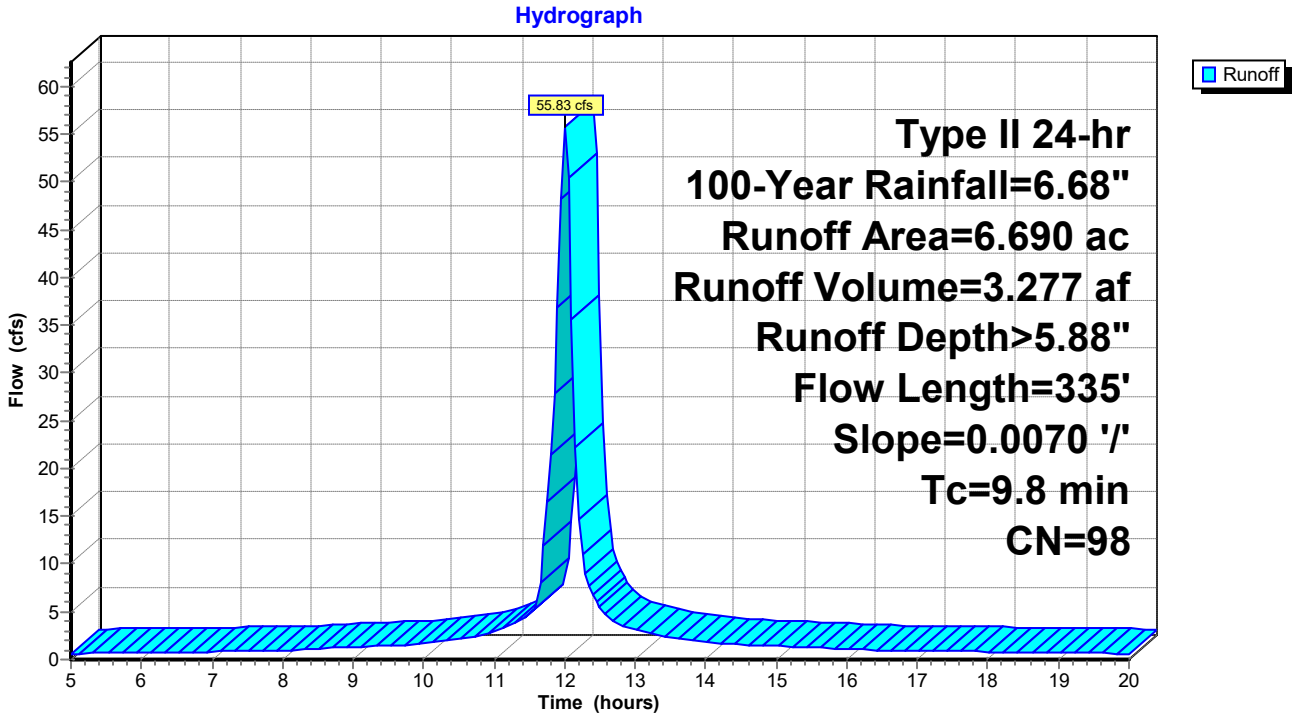
Runoff = 55.83 cfs @ 12.00 hrs, Volume= 3.277 af, Depth> 5.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

	Area (ac)	CN	Description
*	6.690	98	Asphalt Millings
	6.690		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	300	0.0070	0.53		**Sheet Flow, Asphalt Milling Surface** n= 0.025 P2= 2.67"
0.4	35	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.8	335	Total			

Subcatchment DR-B: Overland



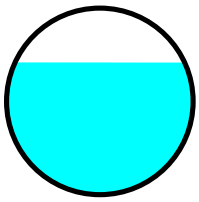
Summary for Reach 1R: Exist. Pipe

Inflow Area = 6.200 ac,100.00% Impervious, Inflow Depth > 5.88" for 100-Year event
Inflow = 51.74 cfs @ 12.00 hrs, Volume= 3.037 af
Outflow = 48.42 cfs @ 12.08 hrs, Volume= 3.027 af, Atten= 6%, Lag= 4.7 min

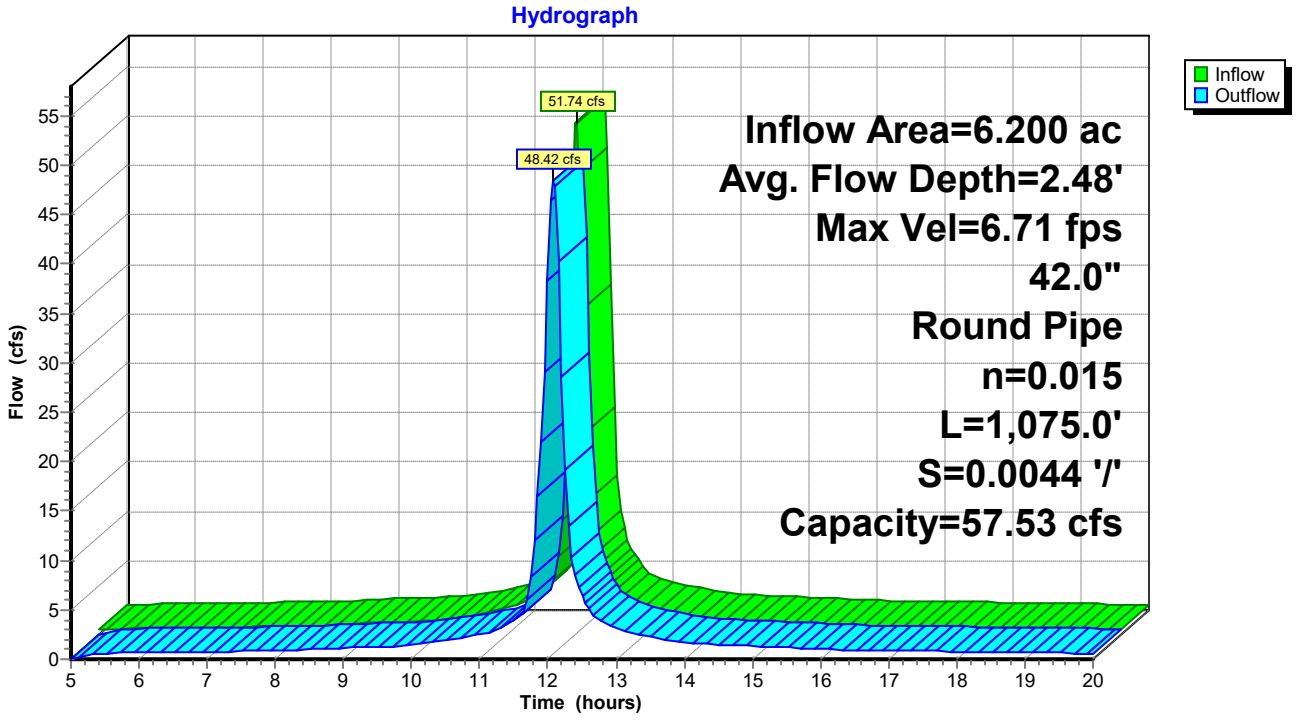
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.71 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 7.1 min

Peak Storage= 7,836 cf @ 12.04 hrs
Average Depth at Peak Storage= 2.48' , Surface Width= 3.18'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



Reach 1R: Exist. Pipe



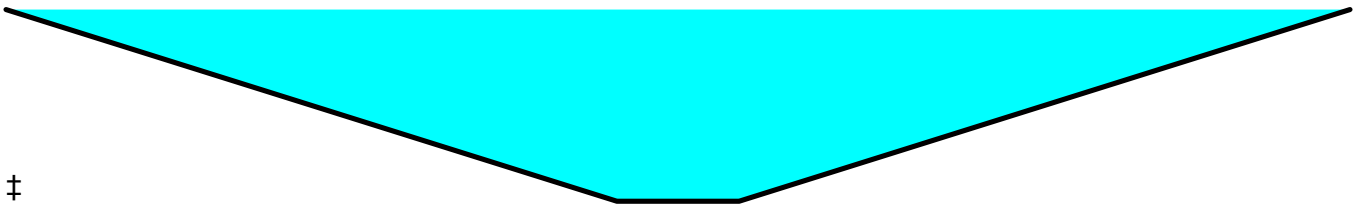
Summary for Reach 2R: Roadside Gutter

Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 5.88" for 100-Year event
Inflow = 55.83 cfs @ 12.00 hrs, Volume= 3.277 af
Outflow = 51.62 cfs @ 12.07 hrs, Volume= 3.271 af, Atten= 8%, Lag= 4.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.09 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.89 fps, Avg. Travel Time= 3.5 min

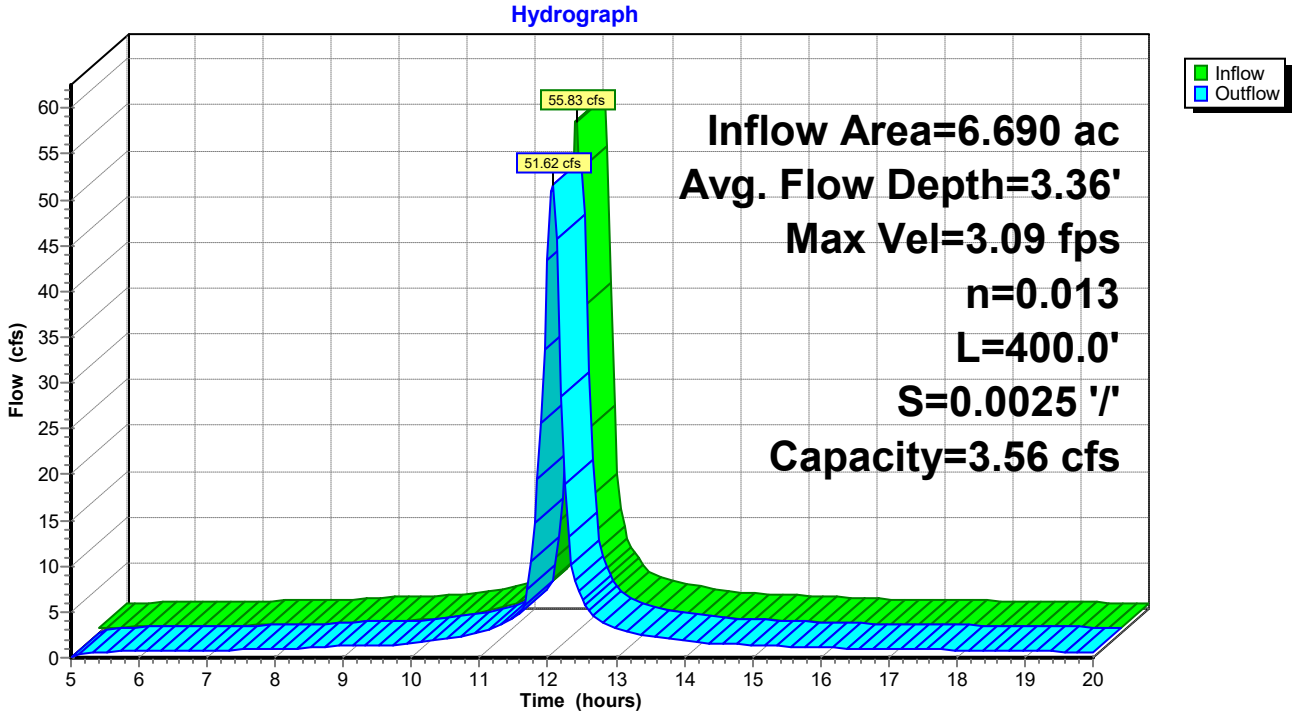
Peak Storage= 6,853 cf @ 12.04 hrs
Average Depth at Peak Storage= 3.36' , Surface Width= 34.05'
Bank-Full Depth= 0.50' Flow Area= 1.5 sf, Capacity= 3.56 cfs

0.50' x 0.50' deep channel, n= 0.013 Concrete, trowel finish
Side Slope Z-value= 5.0 '/' Top Width= 5.50'
Length= 400.0' Slope= 0.0025 '/'
Inlet Invert= 15.00', Outlet Invert= 14.00'



‡

Reach 2R: Roadside Gutter



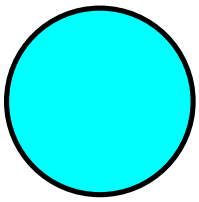
Summary for Reach 3R: Exst. Pipe

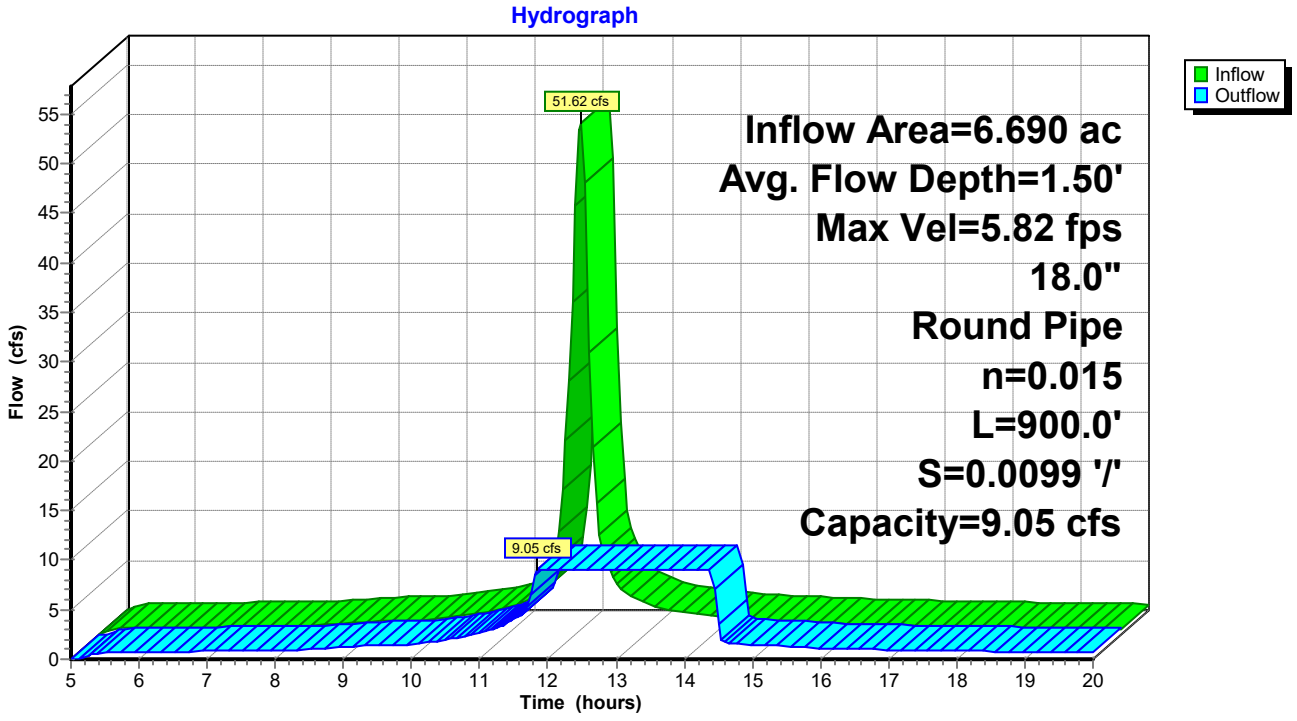
Inflow Area = 6.690 ac,100.00% Impervious, Inflow Depth > 5.87" for 100-Year event
Inflow = 51.62 cfs @ 12.07 hrs, Volume= 3.271 af
Outflow = 9.05 cfs @ 11.85 hrs, Volume= 3.264 af, Atten= 82%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.82 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 3.77 fps, Avg. Travel Time= 4.0 min

Peak Storage= 1,590 cf @ 11.80 hrs
Average Depth at Peak Storage= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.05 cfs

18.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 900.0' Slope= 0.0099 '/'
Inlet Invert= 9.90', Outlet Invert= 1.00'



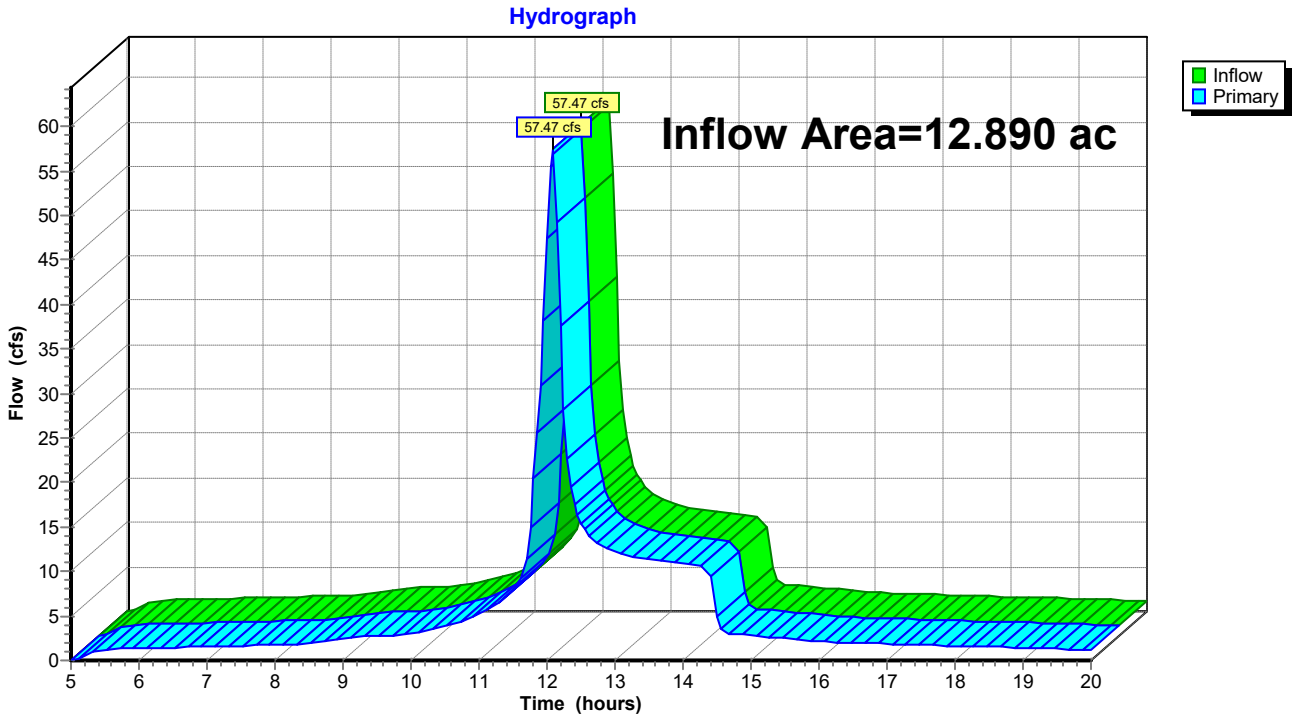


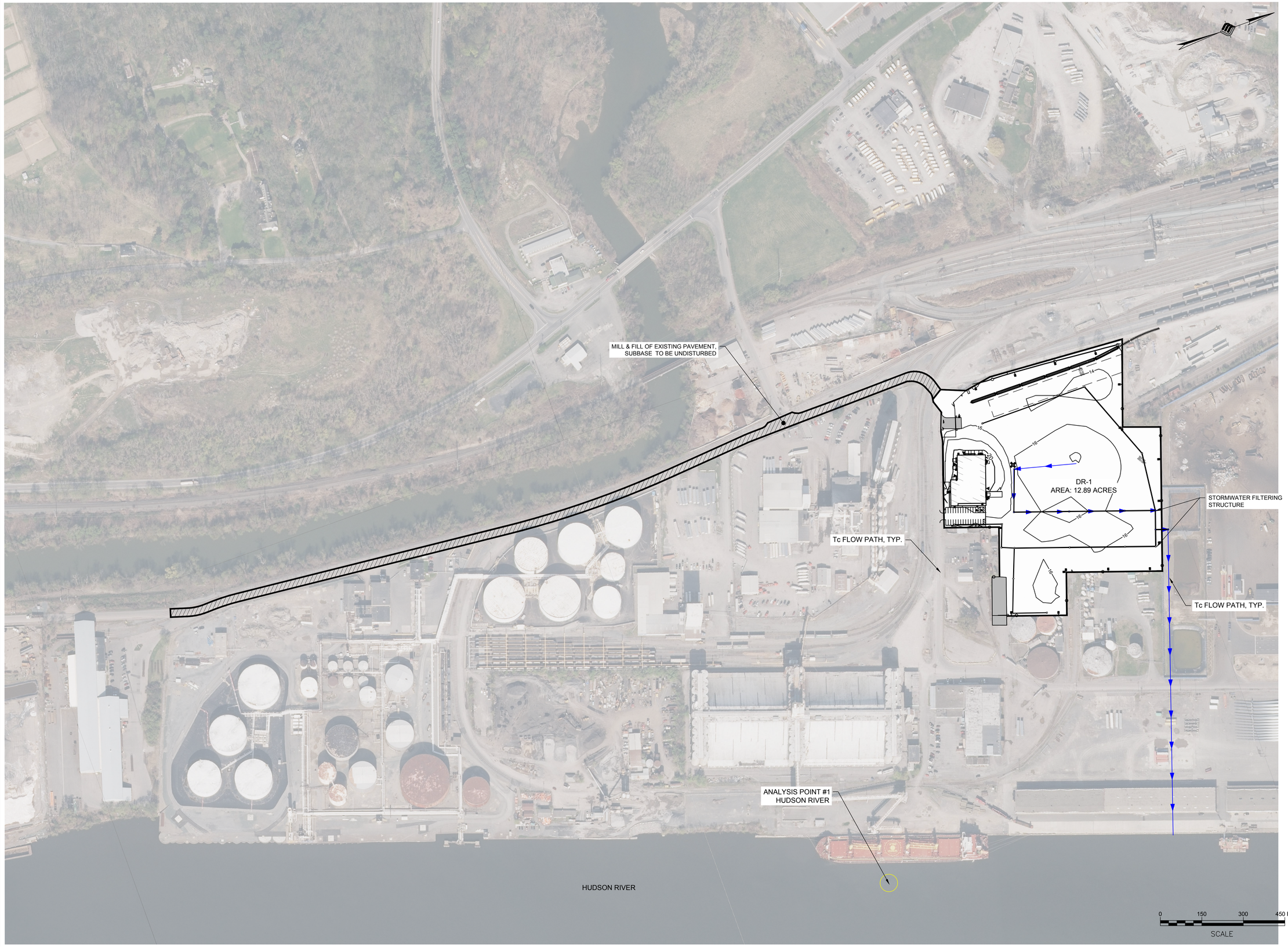
Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 5.86" for 100-Year event
Inflow = 57.47 cfs @ 12.08 hrs, Volume= 6.291 af
Primary = 57.47 cfs @ 12.08 hrs, Volume= 6.291 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River





McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PRELIMINARY PLANS

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS: 700 SMITH BLVD.

DRAWN	NSO
DESIGNED	NSO
CHECKED	AJF
SCALE	1" = 150'
DATE	OCTOBER 2021
PROJECT	18641.00

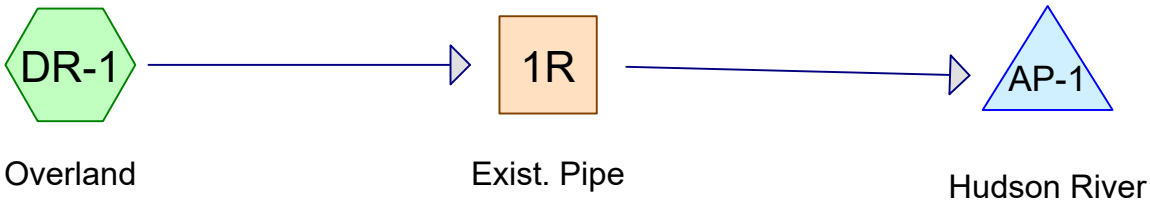
DRAWING TITLE

POST-DEVELOPMENT SITE DRAINAGE

DRAWING NUMBER

PR-01

N:\18641.00 ALBANY PORT EXPANSION\REPORTS\SWPPP\ACAD_SWPPP\ARTS\700 SMITH-PROP.DWG



Subcat Reach Pond Link

Routing Diagram for 18641.00- 700 Smith Prop.
Prepared by McFarland Johnson, Printed 10/27/2021

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	2.25	2
2	10-Year	Type II 24-hr		Default	24.00	1	3.88	2
3	100-Year	Type II 24-hr		Default	24.00	1	6.68	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.890	98	Asphalt Millings (DR-1)
12.890	**98**	**TOTAL AREA**

Summary for Subcatchment DR-1: Overland

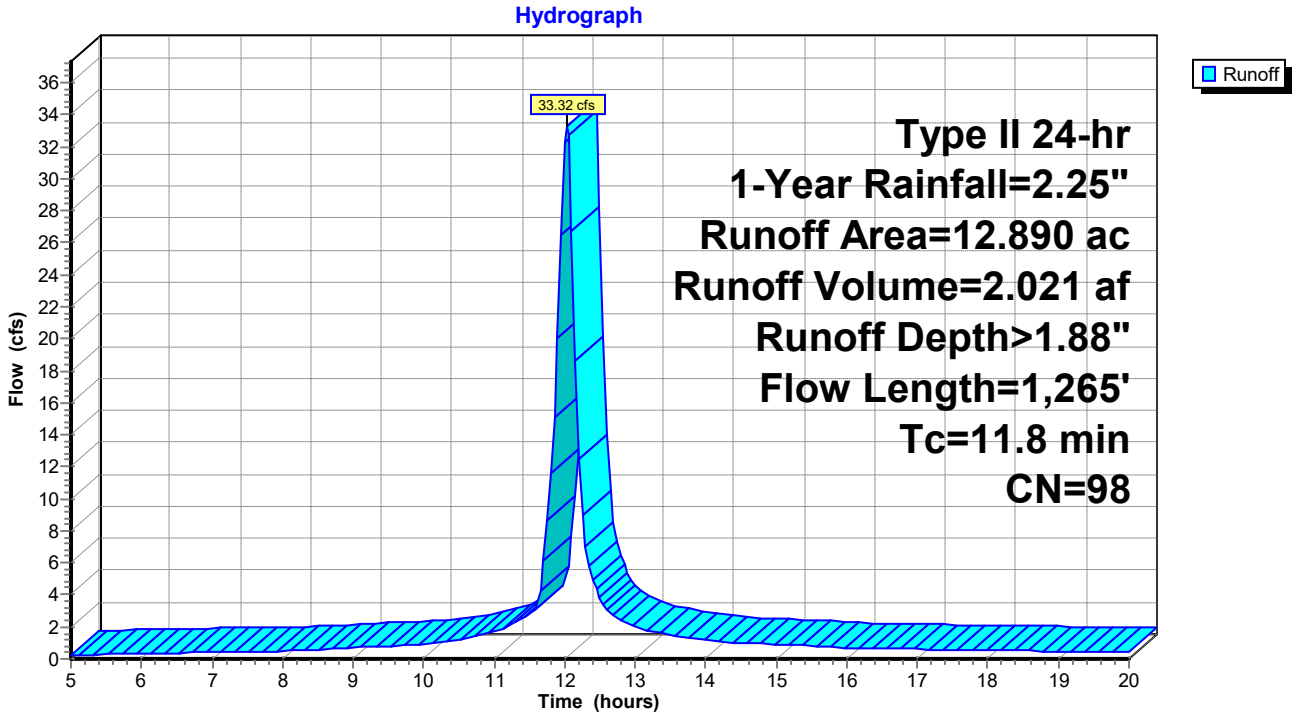
Runoff = 33.32 cfs @ 12.03 hrs, Volume= 2.021 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	12.890	98	Asphalt Millings
	12.890		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	300	0.0120	0.66		**Sheet Flow, Dense Graded Aggregate** n= 0.025 P2= 2.67"
0.5	40	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
3.7	925	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
11.8	1,265	Total			

Subcatchment DR-1: Overland



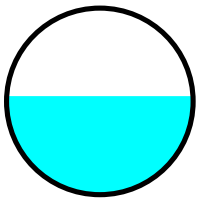
Summary for Reach 1R: Exist. Pipe

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 1.88" for 1-Year event
Inflow = 33.32 cfs @ 12.03 hrs, Volume= 2.021 af
Outflow = 31.62 cfs @ 12.11 hrs, Volume= 2.013 af, Atten= 5%, Lag= 4.9 min

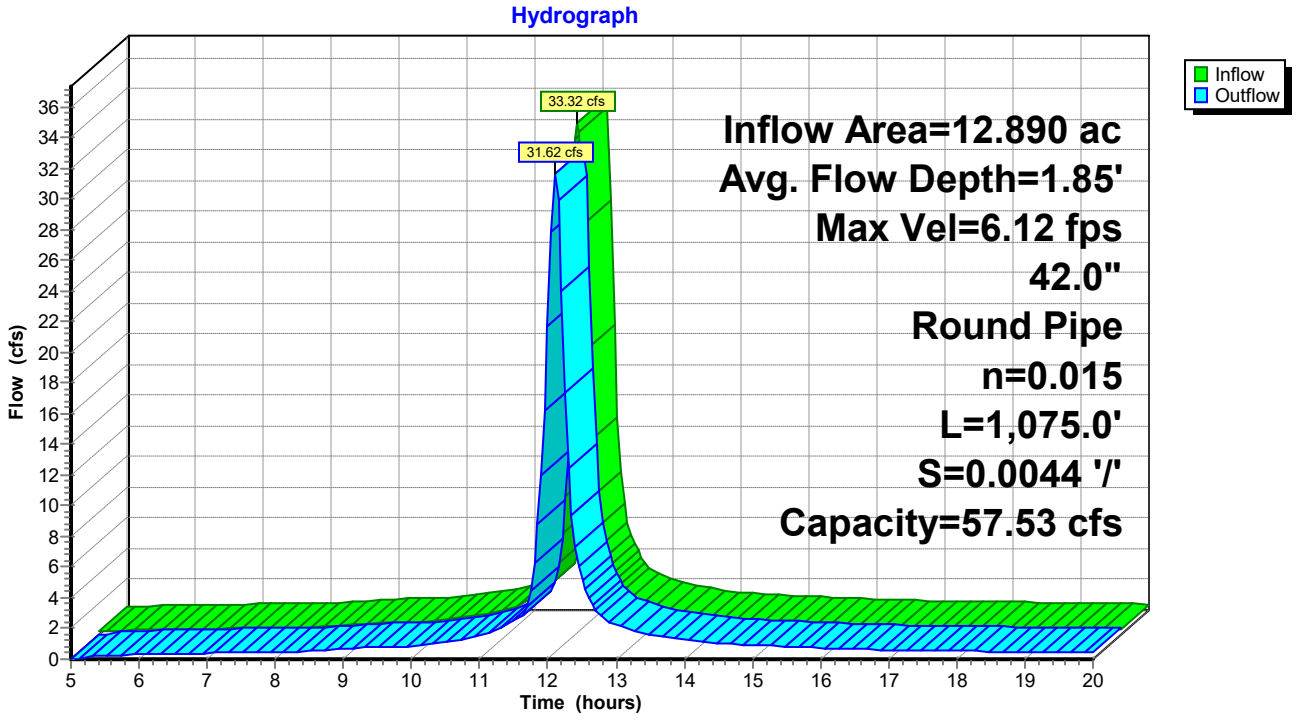
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.12 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 2.22 fps, Avg. Travel Time= 8.1 min

Peak Storage= 5,562 cf @ 12.06 hrs
Average Depth at Peak Storage= 1.85' , Surface Width= 3.49'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



Reach 1R: Exist. Pipe

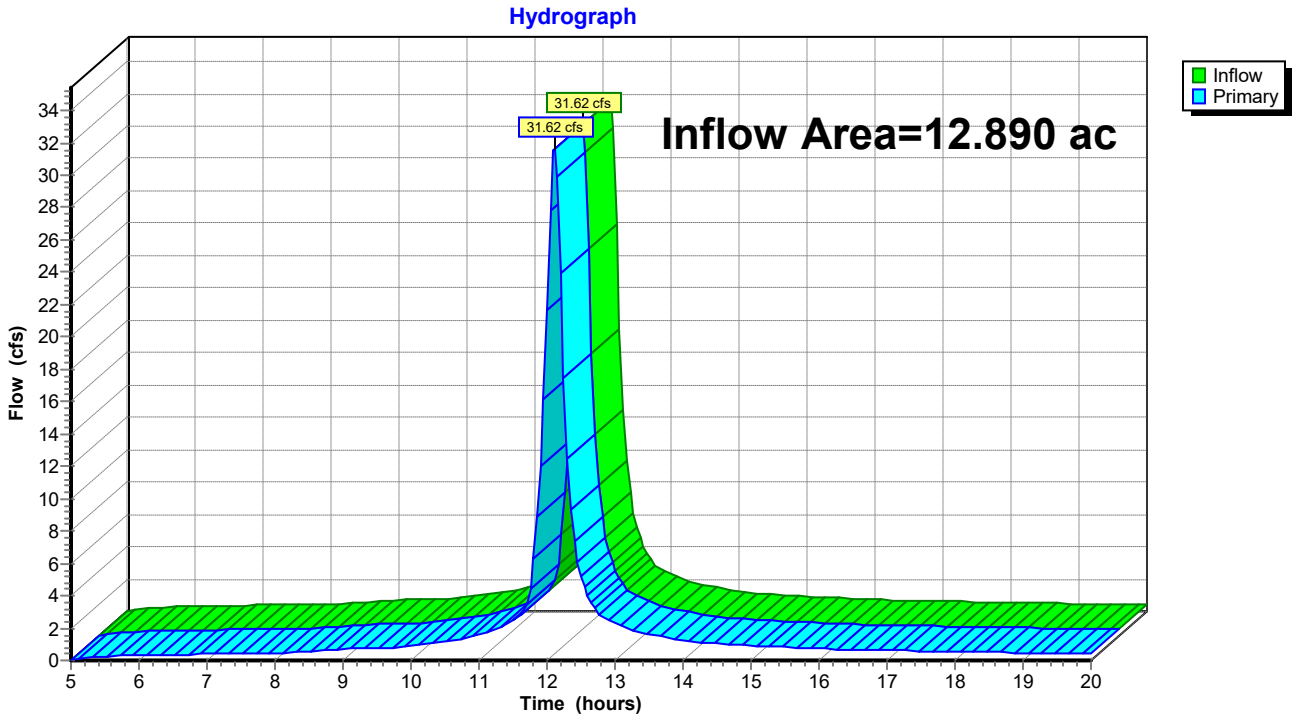


Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 1.87" for 1-Year event
Inflow = 31.62 cfs @ 12.11 hrs, Volume= 2.013 af
Primary = 31.62 cfs @ 12.11 hrs, Volume= 2.013 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River



Summary for Subcatchment DR-1: Overland

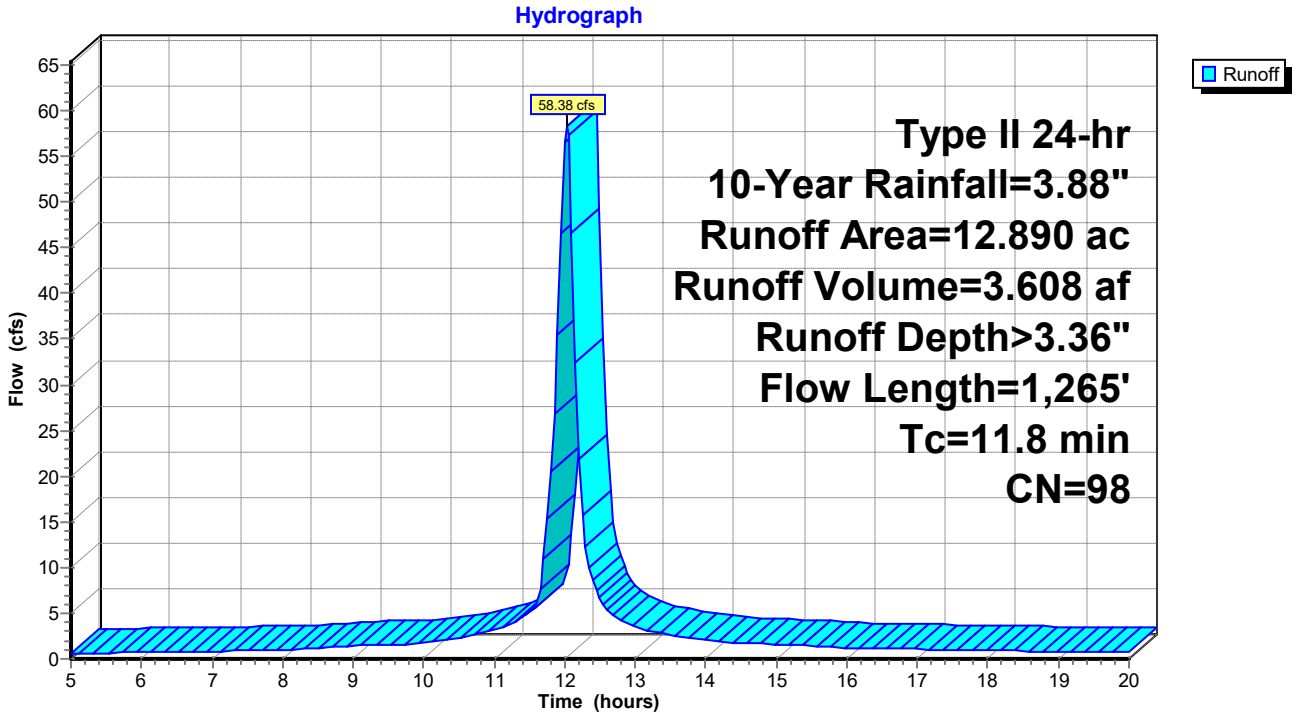
Runoff = 58.38 cfs @ 12.03 hrs, Volume= 3.608 af, Depth> 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	12.890	98	Asphalt Millings
	12.890		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	300	0.0120	0.66		**Sheet Flow, Dense Graded Aggregate** n= 0.025 P2= 2.67"
0.5	40	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
3.7	925	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
11.8	1,265	Total			

Subcatchment DR-1: Overland



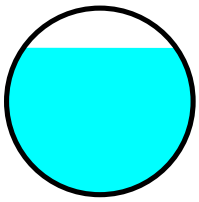
Summary for Reach 1R: Exist. Pipe

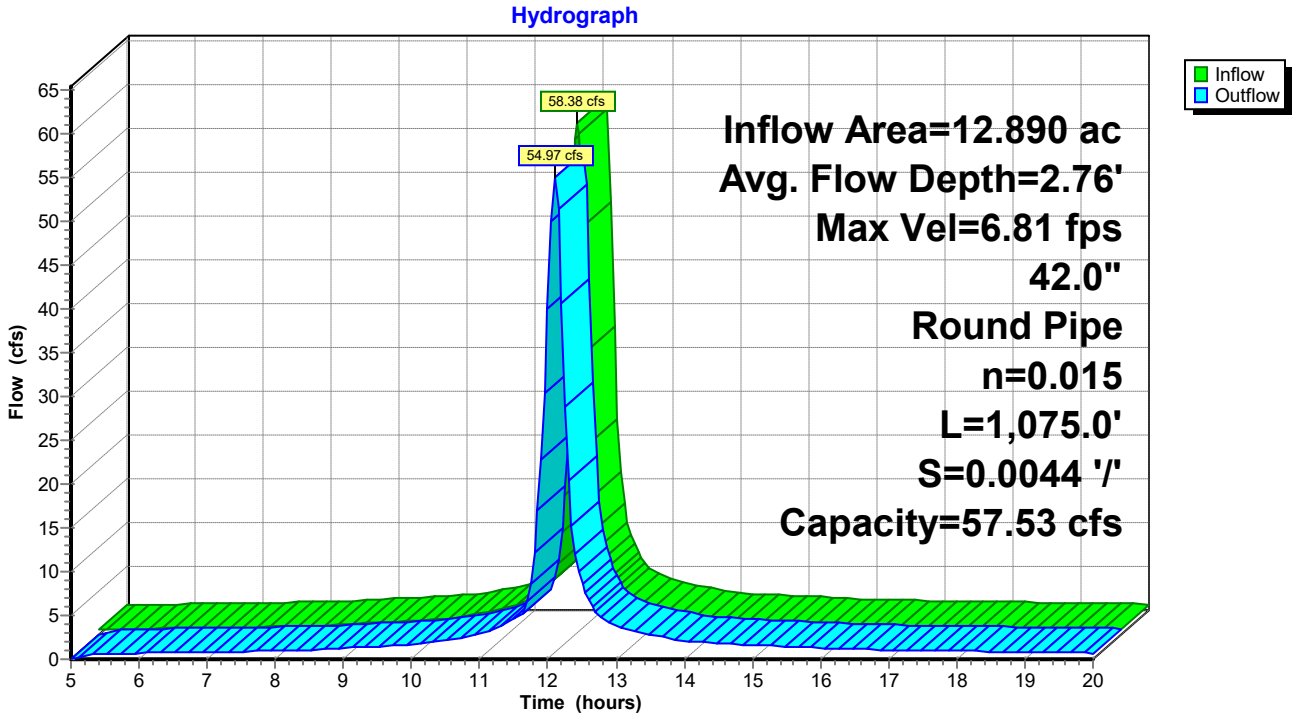
Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 3.36" for 10-Year event
Inflow = 58.38 cfs @ 12.03 hrs, Volume= 3.608 af
Outflow = 54.97 cfs @ 12.10 hrs, Volume= 3.596 af, Atten= 6%, Lag= 4.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.81 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 2.66 fps, Avg. Travel Time= 6.7 min

Peak Storage= 8,747 cf @ 12.06 hrs
Average Depth at Peak Storage= 2.76' , Surface Width= 2.86'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



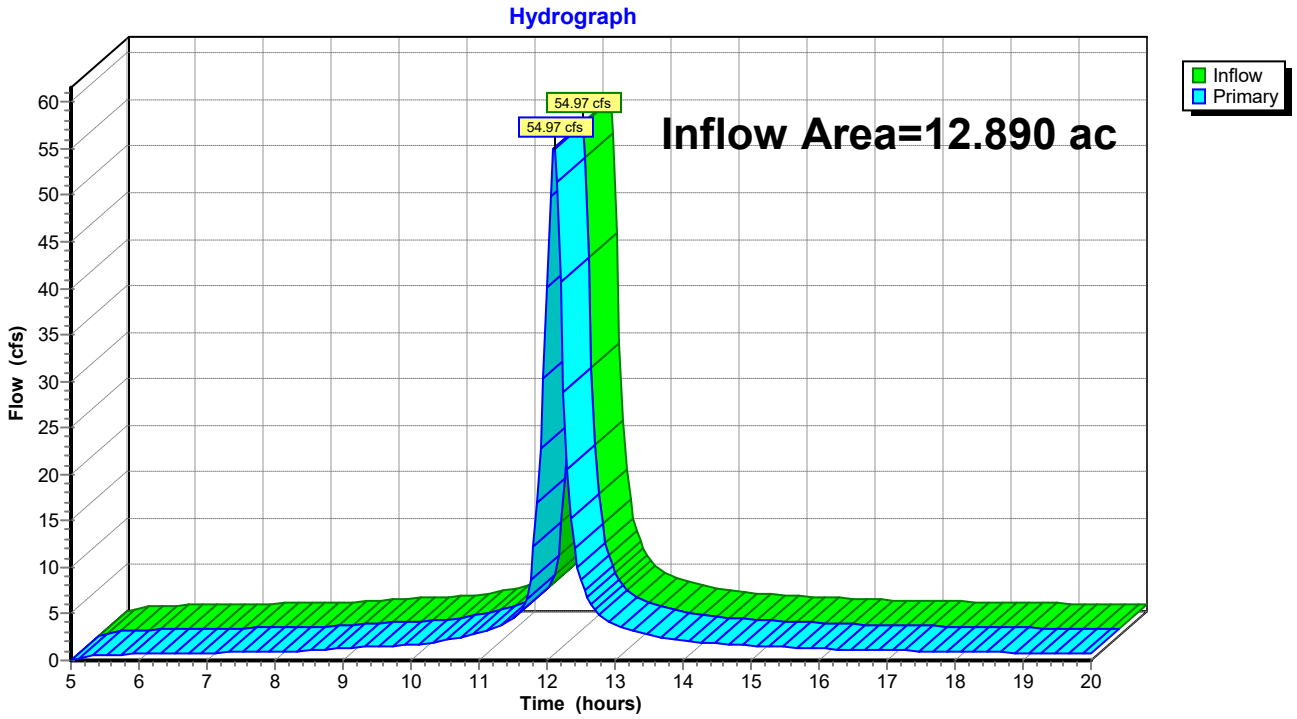


Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 3.35" for 10-Year event
Inflow = 54.97 cfs @ 12.10 hrs, Volume= 3.596 af
Primary = 54.97 cfs @ 12.10 hrs, Volume= 3.596 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River



Summary for Subcatchment DR-1: Overland

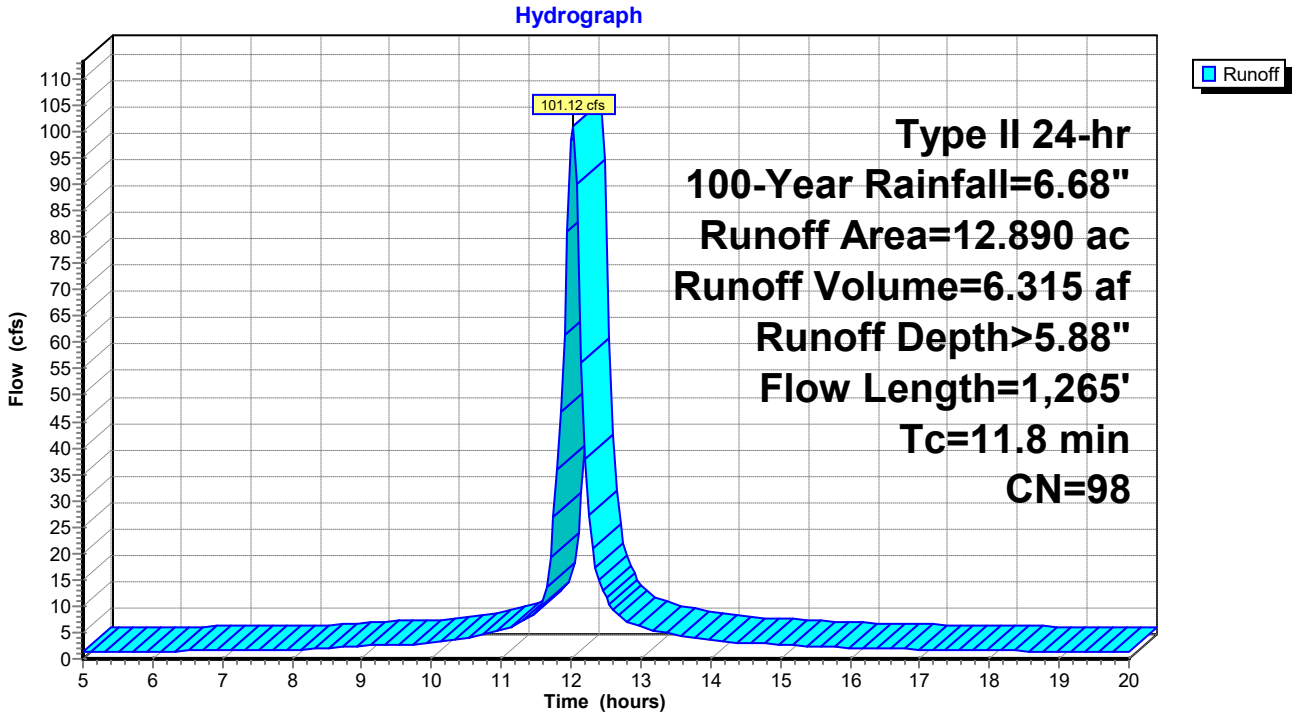
Runoff = 101.12 cfs @ 12.03 hrs, Volume= 6.315 af, Depth> 5.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

	Area (ac)	CN	Description
*	12.890	98	Asphalt Millings
	12.890		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	300	0.0120	0.66		**Sheet Flow, Dense Graded Aggregate** n= 0.025 P2= 2.67"
0.5	40	0.0070	1.35		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
3.7	925	0.0050	4.20	7.43	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
11.8	1,265	Total			

Subcatchment DR-1: Overland



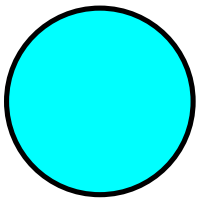
Summary for Reach 1R: Exist. Pipe

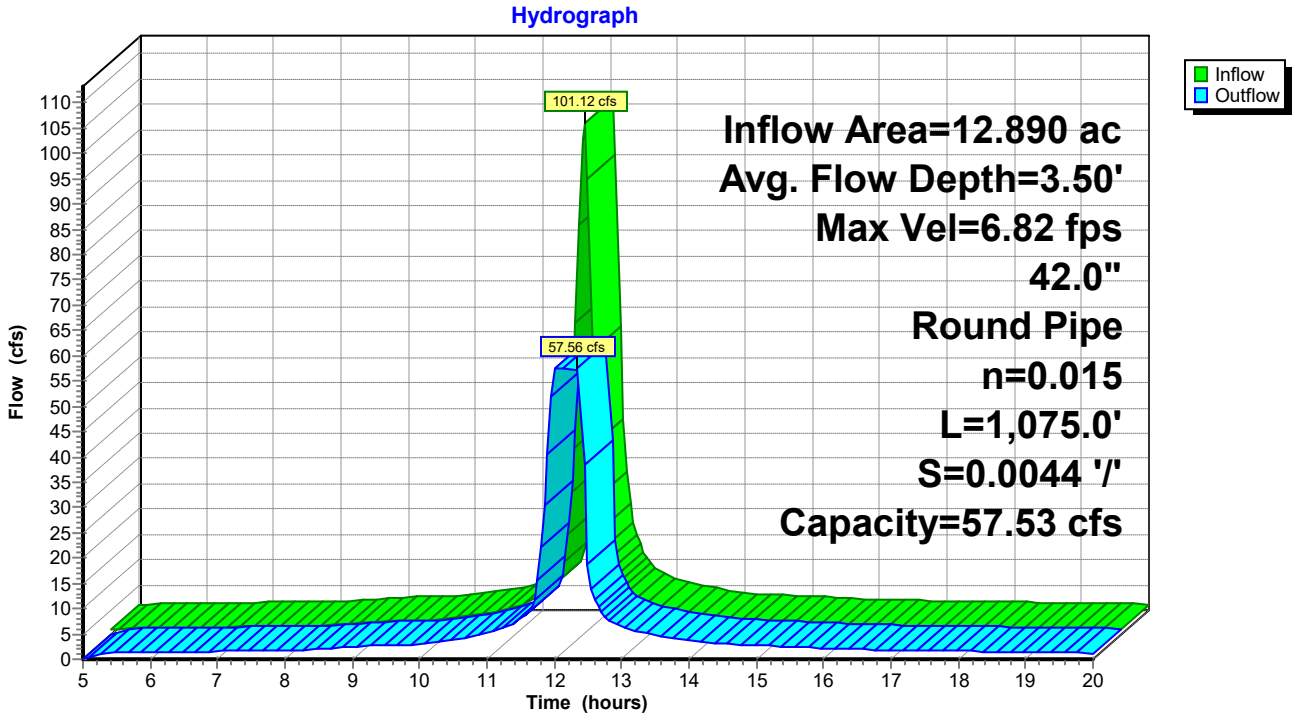
Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 5.88" for 100-Year event
Inflow = 101.12 cfs @ 12.03 hrs, Volume= 6.315 af
Outflow = 57.56 cfs @ 12.35 hrs, Volume= 6.296 af, Atten= 43%, Lag= 19.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.82 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 5.7 min

Peak Storage= 10,343 cf @ 11.95 hrs
Average Depth at Peak Storage= 3.50'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 57.53 cfs

42.0" Round Pipe
n= 0.015 Concrete sewer w/manholes & inlets
Length= 1,075.0' Slope= 0.0044 '/'
Inlet Invert= 5.68', Outlet Invert= 1.00'



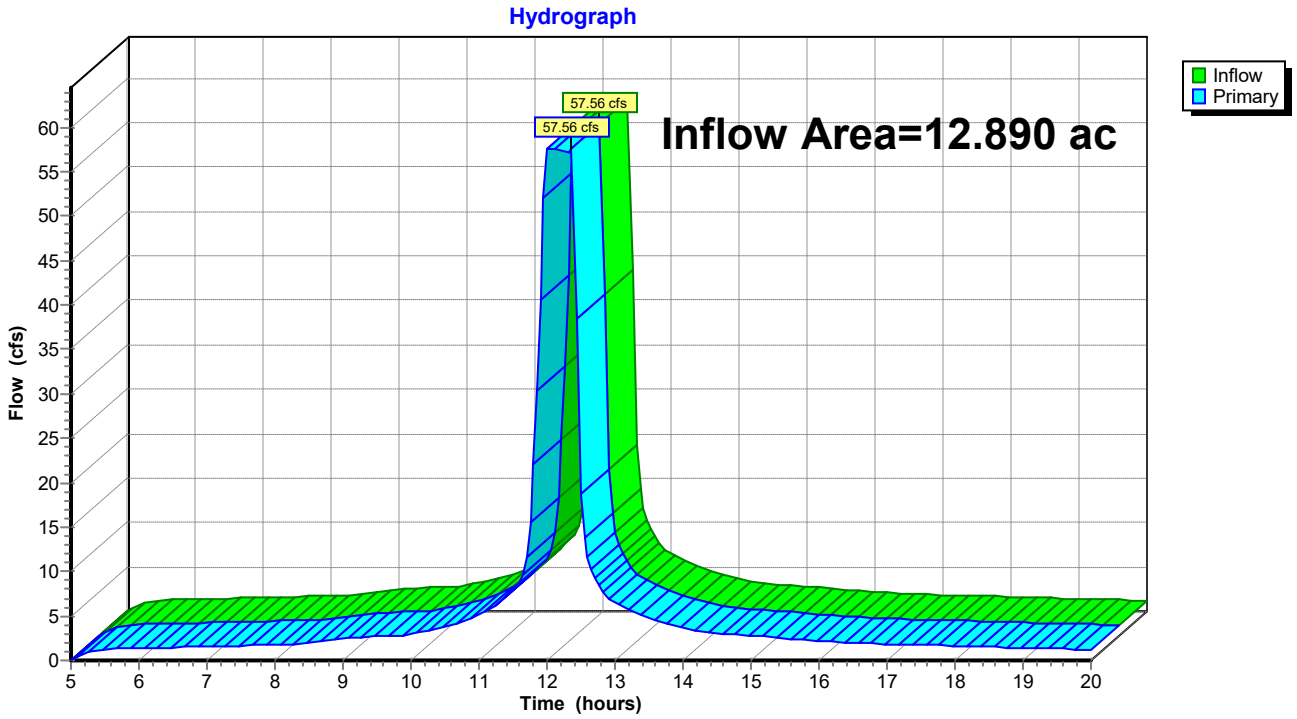


Summary for Pond AP-1: Hudson River

Inflow Area = 12.890 ac,100.00% Impervious, Inflow Depth > 5.86" for 100-Year event
Inflow = 57.56 cfs @ 12.35 hrs, Volume= 6.296 af
Primary = 57.56 cfs @ 12.35 hrs, Volume= 6.296 af, Atten= 0%, Lag= 0.0 min

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

Pond AP-1: Hudson River



APPENDIX E

WATER QUALITY CALCULATIONS

McFarland Johnson

PROJ.	Port of Albany Site Infrastructure Improvements		
SHEET NO.	1	OF	1
CALCULATED BY	NSO	DATE	10/25/2021
CHECKED BY		DATE	
TITLE	Water Quality Volume		

Initial Water Quality Volume

WQv = [(P)(Rv)(A)]/12

Where:

Rv = 0.05 + 0.009(I)

I = impervious cover in percent

P = 90% rainfall (see Figure 4.1)

A = site area in acres

% WQv Treatment by Alternative Practice

%WQv = (25 - (% IC Reduction + %WQv treatment by Standard practice + %runoff reduction))*3

Where:

%WQv treatment by Standard practice = 0

%runoff reduction = 0

Target Water Quality Volume for Redevelopment Projects with Alternative SMPs

WQv(target) = (N) (WQv) + (0.75)(R)(WQv)

Where:

N = New Impervious Area/Total Impervious Area

R = Replaced Impervious Area/Total Impervious Area

Site Area (ac)	Existing Impervious Area (ac)	New Impervious Area (ac)	Replaced Impervious Area (ac)	% Impervious	Rv	Rainfall (P) (inches)	% IC Reduction	% WQv by Alt. Practice	Initial WQv (ac-ft)	Target WQv (ac-ft)	Target WQv (cf)
12.98	12.98	0.00	12.98	100.0%	0.95	1.20	0.0%	75%	1.228	0.921	**40118**

Date: 10/25/2021
Project: Port of Albany - 700 Smith Boulevard
Location: Albany, NY
Prepared For: Natalie S. Olivieri

Purpose: To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.2 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

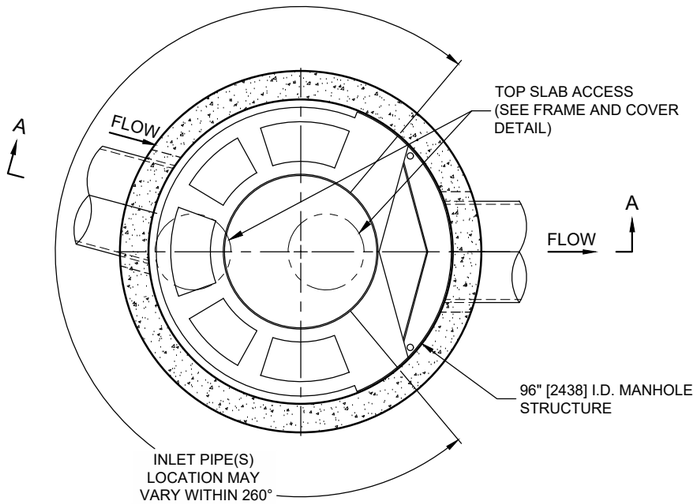
$$R_v = (0.05+0.009(I)$$

$$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$$

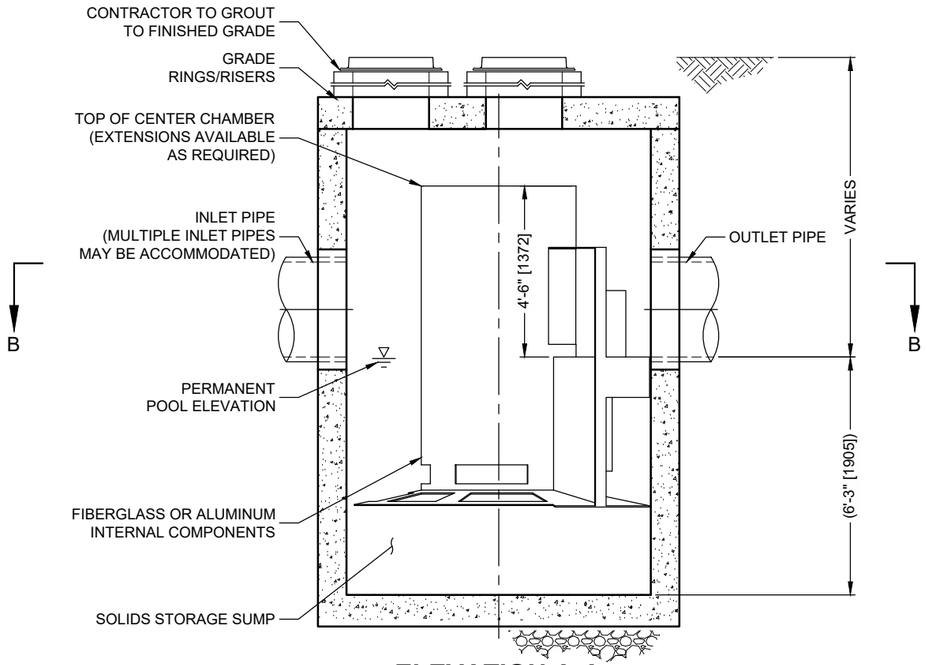
$$Qwq = (q_u)*(A)*(Qa)$$

Structure: WQU

P	1.20	in.
A	12.980	ac
I	100.00	%
t_c	10.0	min.
t_c	0.167	hr.
R_v	0.95	
90% WQv	1.233	ac-ft
90% WQv	53713.84	ft^3
Qa	1.140	in.
CN	99.48	
I_a	0.041	
I_a/P	0.034	
qu	830	(csm/in)
A	0.02028	$miles^2$
Qwq	19.19	cfs



PLAN VIEW B-B
NOT TO SCALE



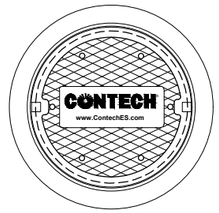
ELEVATION A-A
NOT TO SCALE

CASCADE
separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-8 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (cfs [L/s])	
PEAK FLOW RATE (cfs [L/s])	
RETURN PERIOD OF PEAK FLOW (yrs)	
RIM ELEVATION	

PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-8
CASCADE SEPARATOR
STANDARD DETAIL

APPENDIX F

SITE MANAGEMENT PLAN (SMP)

Site Management Plan

Port of Albany
700 Smith Boulevard
Albany, New York

NYSDEC Site No. 401080(P)

CHA Project Number: 28952.1201.31000

Prepared for:
Port of Albany
106 Smith Boulevard
Albany, New York 12202

Prepared by:

III Winners Circle
Albany, New York 12205
Phone: (518) 453-4500
Fax: (518) 453-4773

February 14, 2019
Revised March 2020

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LIST OF ACRONYMS & ABBREVIATIONS

APDC	Albany Port District Commission
bgs	Below Ground Surface
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
CHA	Clough Harbour & Associates LLP
cis-1,2-DCE	cis-1,2-Dichloroethene
CNS	Central Nervous System
CY	Cubic Yards
DER	Division of Environmental Remediation
1,1-DCE	1,1-Dichloroethene
DOL	United States Department of Labor
EC	Engineering Control
EPA	United States Environmental Protection Agency
ESC	Erosion and Sediment Control
EWP	Excavation Work Plan
FPS	Feet per Second
HASP	Health & Safety Plan
IC	Institutional Control
mg/m^3	Milligrams per Cubic Meter
SDS	Safety Data Sheet
MTBE	Methyl Tert Butyl Ether
NRC	National Response Center
NYCRR	New York Code, Rules & Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
OSHA	Occupational Safety & Health Administration
PAH	Polyaromatic Hydrocarbon
PCBs	Polychlorinated Biphenyls
PM	Particulate Matter
PPE	Personal Protective Equipment
PPB	Parts Per Billion
PPM	Parts Per Million
RAP	Reclaimed Asphalt Pavement
RI	Remedial Investigation
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SO	Safety Officer
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TOGs	Technical and Operational Guidance Series
TSCA	Toxic Substances Control Act

$\mu g/m^3$	Micrograms per Cubic Meter
µm	Micrometers or microns
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
VOC	Volatile Organic Compound

1.0 INTRODUCTION & DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

CHA Consulting, Inc. (CHA) has prepared this Site Management Plan (SMP) to address the management of soil impacted with polychlorinated biphenyls (PCBs) in exceedance of applicable Toxic Substance Control Act (TSCA) regulations that will remain in place on an approximate 12.14-acre portion of a 14.5-acre parcel located at 700 Smith Boulevard in the Port of Albany, City of Albany, New York (the Site) following implementation of the PCB Risk-Based Cleanup and Disposal Application (CHA, March 2020), hereafter referred to as "Application". The Site was formerly in the NYSDEC Spills Program and is now being classified as a potential New York State Superfund Site (Site No. 401080P). An Order on Consent (Order) was executed as between the APDC and DEC on May 5, 2020 regarding 700 Smith Boulevard (CO 4-20200424-56). In accordance with the Order, the requirements of the Risk-Based Cleanup and Disposal Application are integrated in the Order by reference.

1.1.1 SMP Organization

This SMP has been divided into seven (7) major sections, including:

- Section 1: Summarizes the purpose of the SMP, provides the Site background, and summarizes the investigations completed at the Site
- Section 2: Summarizes the proposed remedial actions to be completed
- Section 3: Engineering and Institutional Control Plan
- Section 4: Site Monitoring Plan (including Site-Wide Inspection requirements)
- Section 5: Provides requirements for inspections of the Site and reporting & certification requirements
- Section 6: Excavation Work Plan (for all intrusive Site activities)
- Section 7: Health and Safety Plan Requirements (minimum requirements)

1.1.2 General

The Site is owned by the Albany Port District Commission (APDC) and is a portion of the greater APDC property which makes up the Port of Albany and is currently zoned for industrial use. A Site location map is provided as Figure 1, and the boundaries of this Site are provided on Figure 2. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work described in the Revised PCB Risk-Based Cleanup and Disposal Application, some contamination will be left in the subsurface at this Site, which is hereafter referred to as 'remaining contamination." This SMP has been prepared to manage remaining contamination at the Site until the Deed Restriction is extinguished in accordance with state and federal law and addresses the means for implementing the required Institutional Controls (ICs) and Engineering Controls (ECs). Reports associated with the Site can be viewed by contacting the NYSDEC and the EPA Region 2 Administrator.

1.1.3 Purpose

The Site contains contamination which will be left after completion of the remedial action. ECs will be incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site for the protection of public health and the environment. A Deed Restriction, to be completed in accordance with New York State law, granted to the EPA Region 2 Administrator, and recorded with the Albany County Clerk, will include an Environmental Easement document that will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP was prepared to specify the methods necessary for compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) maintenance and management of all ECs/ICs and (2) performance of periodic inspections, certification of results, and submittal of Annual Monitoring Reports.

To address these needs, this SMP includes five plans: (1) Description of Remedial Activities, (2) an EC/IC Control Plan for implementation and management of EC/ICs upon development of the Site; (3) a Site Monitoring Plan for monitoring of the Site capping and fencing; (4) required inspections, reporting and certifications, and (5) an Excavation Work Plan (EWP).

This SMP also includes a description of Annual Monitoring Reports for the periodic submittal of data, information, recommendations, and certifications to EPA.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement;

- Failure to comply with this SMP is a violation of applicable TSCA regulations pursuant to 40 CFR 761.61, and thereby subject to applicable penalties.

1.1.4 Revisions

Revisions to this plan will be proposed in writing to the EPA Region 2 Administrator and NYSDEC Project Manager. Any approved revisions to this SMP must be denoted on the cover page of the plan. In accordance with the Environmental Easement for the Site, the EPA and NYSDEC will be provided copies of the approved and revised SMP document for its files.

Proposed changes to the allowable Site uses in the Environmental Easement should only be considered under extraordinary circumstances due to the fact that the cleanup levels achieved at the Site were specific to the proposed use of the Site, and therefore, may limit other types of uses, particularly lighter type uses, such as residential use. However, any such changes would require the explicit, written authorization by the EPA as well as significant modifications to both this SMP and the Environmental Easement for the Site, at a minimum.

1.2 SITE BACKGROUND

1.2.1 Site Location & Description

The Site is located in the Port of Albany, City of Albany, Albany County, New York and is identified as Tax Map Parcel No.87.10-4-1 on the City of Albany Tax Map. The property totals approximately 14.5 acres of industrial land (see Figure 2); however, only approximately 12.14 of these acres are subject to the remedial actions proposed in the Application. The Deed Restriction, Environmental Easement and compliance with this SMP, however will pertain to the entire 14.5 acre parcel.

The Site is bounded by industrial land also owned by APDC, including a scrapyard (Ben Weitsman of Albany) to the north, Capital Scrap Metal Company and Albany Port Railroad Corp. to the south, Westway Feed Products to the east, and railroad tracks to the west (see Figure 2 – Site Plan). The boundaries of the Site are more fully described in Appendix A – Environmental Easement. The owner of the Site parcel at the time of issuance of this SMP is APDC.

1.2.2 Site History

The Site has been owned by the ADPC since approximately 1925, with no prior industrial usage. Prior to ownership by ADPC, the area surrounding the subject Site was mostly agricultural with commercial development to the north and south of the subject Site. Sometime after 1937 the Site was used by Atlantic Steel Corporation and as a rail yard until 1951. Subsequently, the Site was used for metal recycling operations since at least 1964. Two existing one-story structures located on the east side of the Site were built in the early 1950s. During this time period, the Port of Albany to the north and south of the Site continued to transition from agricultural land to industrial/commercial properties.

On or about 2013, metal recycling operations ceased and the most recent tenant of the property, Sims Metal Management, screened the surficial soils to remove metal, plastic, wood, and other debris. The Site is currently vacant with the exception of a few remaining buildings and structures, including the scale house/office building, maintenance/storage building, which are located on the eastern portion of the Site, rail siding in the central area of the Site and exiting through the eastern property boundary, and an emergency generator located in the south area of the Site.

1.2.3 Geologic Conditions

The United States Department of Agriculture (USDA) Soil Survey for Albany County indicates that the soils of the subject Site are classified as Urban Land. The Urban Land designation is assigned to areas where 85 percent or greater of the surfaces are covered by impervious materials. Previous subsurface investigations at the Site have indicated that the first several feet of soil consists of brown sand mixed with variable amounts of organics and fill debris, followed by brown to gray fine to coarse sand to silt to a depth of 13 feet or greater. Bedrock geologic maps compiled by the New York State Geological Survey indicate that the unconsolidated deposits are underlain by bedrock of the Snake Hill Shale, which consists of silty micaceous shale with occasional interbeds of siltstones, mudstones, and fine-grained sandstones.

Based on previous investigations, groundwater is estimated to exist between six (6) to 16 feet below ground surface (bgs), and the apparent direction of shallow groundwater flow is generally to the southeast towards the Hudson River. As inferred from regional topography, surface water likely flows in an east/southeasterly direction toward the Hudson River, with storm water runoff directed in a southeasterly direction to storm drains along bordering streets.

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

Site Characterization activities have been performed to characterize the nature and extent of contamination at the Site. The results of the Site Characterization activities are described in detail in the following reports and transmittals:

- Supplemental Phase II Investigation Report (CHA, April 2015)
- Supplemental Groundwater Analytical Data Transmittal (CHA, May 2015)
- Supplemental Groundwater Analytical Data Transmittal (CHA, June 2015)
- Progress Report and Work Plan Addendum (Sterling Environmental Engineering, September 2015)
- Additional Site Characterization Report (CHA, February 2019)

1.3.1 Nature & Extent of Contamination

Soil

Based on analytical results to-date, PCB contamination at concentrations of 1.0 parts per million (ppm) or greater is present throughout the majority of the Site in surficial (i.e., 0-1 feet bgs) and subsurface soils to a maximum depth of five (5) feet bgs, although the majority of concentrations are situated at three (3) feet or less. PCB detections in soils range from 0.07 ppm to 2,170 ppm, although most concentrations are less than 25 ppm. A total of eleven localized hot spot areas (having total PCBs > 25 ppm) have been identified near soil borings SS-11, GP-15, GP-26, GP-32, GP-45, GP-46, GP-79, GP-81, GP-90, GP-91, and GP-100.

Secondary contaminants of concern in soil include the following metals: arsenic, lead, and mercury, and polyaromatic hydrocarbons (PAHs) which extend to depths of five (5) feet bgs (metals) and four (4) feet bgs (PAHs) but are primarily located in soil at a depth of 0 - 1 feet bgs, and thus will be removed and/or covered as part of the proposed PCB remediation. Volatile organic compounds (VOCs) were not detected above Title 6 of the New York Codes, Rules and Regulations (NYCRR), Part 375 - Soil Cleanup Objectives (SCO) – Restricted Industrial Use in soil.

Groundwater

Groundwater has not been significantly impacted by Site conditions. VOCs detected in groundwater include methyl tert butyl ether (MTBE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethene

(1,1-DCE) and vinyl chloride. The concentrations are relatively low-level, are isolated, and may be attributable to off-site sources, as such compounds have either not been detected in Site soils to-date or were detected at low-level concentrations well below the NYCRR Industrial SCOs. Semi-volatile organic compounds (SVOCs) have not been detected above the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS) in Site groundwater. Although total metals were detected in exceedance in groundwater, the results of the dissolved metals analysis have indicated that only iron, magnesium, manganese, nickel and sodium were detected above NYSDEC TOGS Standards.

There were no detected concentrations of dissolved PCBs in the 11 on-site monitoring wells when last sampled in 2015. The conclusion, at that time with the concurrence of the NYSDEC Spills Project Manager, was and still is that there are no PCB impacts to groundwater and that no further action is required regarding groundwater at the Site. Furthermore, the Site and properties in the vicinity currently utilize public water. There is no current or anticipated future use of groundwater at the site for potable or non-potable uses.

2.0 REMEDIAL ACTIVITIES

2.1 REMEDIAL ACTION OBJECTIVES

The proposed remedial approach will include the excavation and off-Site disposal of PCB impacted soils with concentrations greater than 25 ppm and the placement of a cap of 12 inches of RAP on the entire site with the exception of the areas currently improved with buildings or currently paved. This remediation is detailed in the Revised Risk-Based Cleanup and Disposal Application (CHA, March 2020) which has been submitted for approval by EPA. The following sections provide a general overview of the proposed remediation.

2.2 EXCAVATION AND OFFSITE DISPOSAL

The proposed remedial activities will include excavation and off-Site disposal of PCB impacted soils with concentrations greater than 25 ppm. Proposed areas of excavation were developed based on the concentrations of PCBs observed during Site characterization activities. Eleven hot spots were identified, including SS-11, GP-15, GP-26, GP-32, GP-45, GP-46, GP-79, GP-81, GP-90, GP-91, and GP-100, as shown on Figure 3. Anticipated excavation dimensions and volumes are summarized as follows:

Hot Spot	Dimensions (ft)	Depth (ft)	Total Volume (CY) PCBs > 25 ppm, < 50 ppm	Total Volume (CY) PCBs > 50 ppm
SS-11	15 x 15	2	0	20
GP-15	7.5 x 7.5	4	10	0
GP-26	See Figure 3a	2	40	30
GP-32	15 x 15	4	0	35
GP-45	15 x 15	2	0	20
GP-46	7.5 x 7.5	2	5	0
GP-79	10 x 15	2	0	15
GP-81	10 x 10	2	10	0
GP-90	10 x 15	4	25	0
GP-91	10 x 10	4	15	0
GP-100	10 x 15	2	15	0
		TOTAL:	120	120

ft = feet
CY = cubic yards

Lateral excavation dimensions for SS-11, GP-15, GP-32 GP-45, GP-46, GP-79, GP-81, GP-90, GP-91, and GP-100 are depicted on Figure 3. Lateral excavation dimensions for GP-26 are depicted on Figure 3a.

Following removal, PCB-impacted soils with concentrations greater than 25 ppm but less than 50 ppm will be removed and transported off-Site to a licensed disposal facility in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(ii), and impacted soils classified as hazardous waste (greater than 50 ppm), will be disposed of at a hazardous waste landfill in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(iii). Disposal facilities will be identified prior to the implementation of the remedial work. Verification samples will be collected following excavation activities in each of the hot spot excavation areas. Excavated areas will be backfilled and/or graded to the surrounding elevation. At the fence line, property boundaries, and paved areas impacted soil will be cut and graded back to allow for the cap to match the elevation of the surrounding grade. A cap of 12 inches of RAP will then be placed over the soil that remains following the excavation and grading work. Backfill and cap material will consist of clean fill or RAP. Documentation will be obtained confirming the clean fill material that is not clean gravel, rock or stone, or is recycled concrete or brick consistent with 6 NYCRR Part 360. Backfill imported to the Site will be subject to chemical testing in accordance with the table below or will be subject to the allowable exemptions for specified beneficial use materials per 6 NYCRR Part 360 – 1.15(b), if such materials are approved by the Owner. The RAP to be used for the cap will be compliant with the NYSDEC approved BUD. Any other soils imported will meet the chemical testing requirements.

2.3 REMAINING CONTAMINATION

Table 1 summarizes the results of PCBs and Table 2 summarizes the results of metals and PAHs which will remain in Site soils after completion of remedial activities. In summary, the following constituents will remain in Site-wide soils at concentrations exceeding applicable criteria at the indicated concentration ranges and depths:

Compound	Applicable Criteria (ppm)	Site Concentration Range Exceeding Criteria (ppm)	Depth Range (ft bgs)
Total PCBs	1[1]	1 - 25	0 - 5
Benzo(a)pyrene	1[2]	1 - 3.87	0 - 4
Dibenzo(a,h)anthracene	1[2]	1 - 1.77	0 - 1
Arsenic	16[2]	16 - 65.2	0 - 5
Lead	3,900[2]	3,900 - 4,800	0 - 3
Mercury	5.7[2]	5.7 - 42	0 - 3

Ft = feet

[1] TSCA High-Occupancy Cleanup Level
[2] NYCRR Industrial SCO

In addition, the following constituents are known to be present in groundwater at concentrations exceeding applicable criteria at the indicated concentration ranges (highest historic concentration shown):

Compound*	NYSDEC TOGs Standard (ug/L)	Site Concentration Range (ug/L)
1,1-Dicloroethene	5	ND – 15
cis-1,2-Dichloroethene	5	ND – 15.3
Methyl Tert Butyl Ether	10	ND – 52.5
Vinyl Chloride	2	ND – 31
Iron (Dissolved)	300	ND – 2,600
Magnesium (Dissolved)	35,000	2,100 – 107,000
Manganese (Dissolved)	300	16 – 4,900
Nickel (Dissolved)	100	ND - 760
Sodium (Dissolved)	20,000	7,700 – 289,000

ND = Non-detect
*For non-VOC compounds, only dissolved concentrations of constituents are shown. Refer to Section 1.3.1 regarding discussions of total PCBs as well as total metals detected historically in groundwater.

The Site is currently secured by a six (6) foot tall chain link fence affixed with barbed wire, although there are currently areas where the fence either is not present or is compromised. Such areas will be secured in the near future. Access is restricted through a locked gate located on the eastern property line, thereby limiting vehicular and pedestrian traffic to the Site.

3.0 ENGINEERING & INSTITUTIONAL CONTROL PLAN

3.1 INTRODUCTION

The goal of the remedial program is to redevelop the Site or portions of the Site to high-occupancy industrial usage. Pursuant to 40 CFR 761.3, a high occupancy area means "any area where PCB remediation waste has been disposed of on-Site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a school class room, a cafeteria in an industrial facility, a control room, and a work station at an assembly line." Pursuant to 40 CFR 761.61(a)(4)(i)(A), the cleanup level for bulk PCB remediation waste in high occupancy areas is ≤1 ppm.

Because soils will remain on-Site which contain PCBs at concentrations > 1 ppm and ≤ 25 ppm, the implementation of ECs/ICs are required in any high-occupancy area to be protective of human health and the environment.

3.1.1 General

This EC/IC Plan describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by the EPA.

3.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs that will be set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;

- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the EWP for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the EPA.

3.2 ENGINEERING CONTROLS

ECs to be implemented include placement of a protective cap consisting of a 12" layer of RAP and fencing to control exposure to remaining contamination left in place. This activity is outlined in the Revised Risk-Based Cleanup and Disposal Application. .

3.2.1 Engineering Control Systems

3.2.1.1 Site Protective Capping (High-Occupancy Areas)

Exposure to remaining PCB-impacted soil/fill within portions of the Site which are deemed high-occupancy usage will be prevented by placement of protective capping. At this time the areas to receive a cap are identified as all unpaved areas and unimproved areas (areas without buildings) of the 12.14 acre Site. Per the Application, the cap will consist of 12 inches of RAP which satisfies the requirements of 6NYCRR Part 360.12(d) for a Beneficial Use Determination. A cap must have of sufficient strength to maintain its effectiveness and integrity during the use of the cap surface which is exposed to the environment. A cap shall not be contaminated at a level ≥ 1 ppm PCB per Aroclor™ (or equivalent) or per congener. Repairs shall begin within 72 hours of discovery for any breaches which would impair the integrity of the cap."

In the future if the current cap is changed, altered or replaced in areas deemed to be high-occupancy, it shall be comprised of one or more of the following:

- **Asphalt Cap**: Six (6) inches of asphalt (or similar material) (Detail #1 on Figure 4);
- **Concrete/Building Cap:** Six (6) inches of concrete (Detail #2 on Figure 4);
- **Soil Cap:** Ten (10) inches of clean, compacted soil with high clay and/or silt content and meeting the parameters listed in 40 CFR 761.75(b)(1)(ii) through 40 CFR 761.75(b)(1)(v) (Detail #3 on Figure 4); or,
- **Reclaimed Asphalt Pavement (RAP) Cap**: Twelve (12) inches of compacted RAP (Detail #4 on Figure 4).

3.2.2 Fencing (Low-Occupancy Areas)

In addition to protective capping, any areas of the Site which will become low-occupancy and which will not be improved with one of the above caps will be surrounded by chain-link fencing to restrict individual access of these areas to less than 6.7 hours per week. The installation of fencing is more than what is required to control risk in low occupancy areas but will serve as an important visual and physical control to delineate low and high occupancy areas, which will be clear to all on Site. It is anticipated that future Site development will consist of minimal low occupancy areas and will likely be limited to areas such as stormwater retention ponds or other such areas that would not be occupied regularly.

3.2.3 Criteria for Removal of Capping System

The protective capping system and fencing are permanent controls and the quality and integrity of these systems will be inspected at defined, regular intervals in perpetuity, until such time that the EPA and/or NYSDEC agrees in writing that inspection of the ECs is no longer required and/or if soils have been removed to ≤ 1.0 ppm PCBs at the site or a portion of the site and appropriate environmental easement and deed restriction changes have been made and approved by EPA.

3.3 INSTITUTIONAL CONTROLS

A series of ICs is required to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to restricted high-occupancy and/or low-occupancy industrial uses only.

3.3.1 Environmental Easement/Deed Restriction

Adherence to all ECs on the Site will be guaranteed by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement and the Deed Restriction with the prior approval of EPA and NYSDEC. These ICs are:

- The property may only be used for industrial use provided that the long-term ECs/ICs included in this SMP are employed;
- Low-occupancy areas (if applicable) shall maintain appropriate ECs (i.e., fencing) and ICs. Individuals are not permitted to occupy these areas for greater than 6.7 hours per week unless appropriate dermal and respiratory protection are worn.

- High-occupancy areas (i.e., areas of the Site occupied by an individual greater than 6.7 hours per week) shall maintain appropriate ECs (i.e., protective capping) and ICs.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP, including any excavation on Site;
- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in this SMP;
- Soil and other environmental or public health monitoring must be performed as defined in this SMP; and,
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;
- Access to the Site must be provided to agents, employees, or other representatives of the EPA and NYSDEC with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.

ICs identified in the Environmental Easement/Deed Restriction may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

3.3.2 Excavation Work Plan

The proposed site remedy allows for high-occupancy industrial usage, provided that ECs/ICs are implemented. Any future intrusive work that will penetrate the protective capping, or encounter or disturb the PCB impacted soils that remain, including any modifications or repairs to the existing cover system will be performed in compliance with Section 6.0, Excavation Work Plan (EWP). Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. HASP requirements are summarized in Section 7.0 of this SMP and shall be prepared in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, a HASP and CAMP will be prepared and submitted with the notification provided in the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (Section 5.0).

The Site owner and associated parties preparing the remedial documents submitted to the EPA and/or NYSDEC, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). Site development activities shall not interfere with, or otherwise impair or compromise, the ECs described in this SMP.

3.4 INSPECTIONS & NOTIFICATIONS

3.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive Site-wide inspection will be conducted annually, regardless of the frequency of the Annual Monitoring Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

Inspections will be conducted in accordance with the procedures set forth in the Site Monitoring Plan (Section 4.0). The reporting requirements are outlined in the Annual Monitoring Reporting section of this plan (Section 5.0).

If an emergency, such as a natural disaster or an unforeseen failure of an EC occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site. Repairs shall begin within 72 hours of discovery for any breaches or damage which would impair the integrity of the ECs, pursuant to 40 CFR 761.61(a)(7).

3.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

3.5.1 Emergency Telephone Numbers

In the event of an environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to CHA. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 3. Emergency Contact Numbers

Contact	Phone Number
Medical, Fire, and Police:	**911**
One Call Center:	(800) 272-4480; **811** (3-day notice required for utility markout)
Poison Control Center:	(800) 222-1222
National Response Center (for Pollution Toxic Chemical Oil Spills):	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362
CHA, Seth Fowler:	(518) 453-4547
APDC, Patrick Jordan:	(518) 463-8763
EPA, Dr. James Haklar:	(212) 637-3037

3.5.2 Map and Directions to Nearest Health Facility

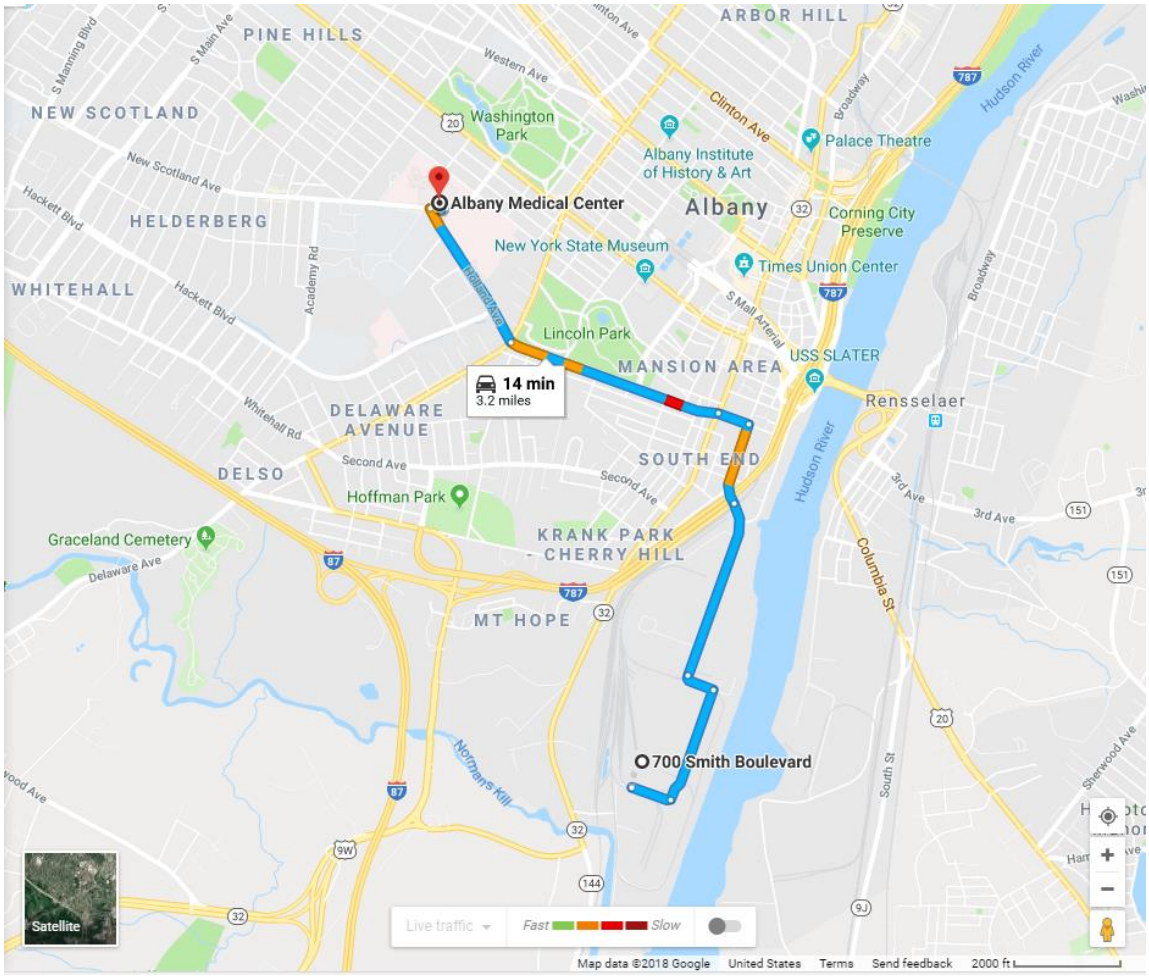
Site Location: 700 Smith Blvd, Albany, NY
Nearest Hospital Name: Albany Medical Center Hospital
Hospital Location: 43 New Scotland Avenue, Albany, NY
Hospital Telephone: (518) 262-1200
Directions to the Hospital:

1. Head north on Smith Blvd.
2. Turn left onto Boat Street
3. Continue onto Church Street
4. Continue onto Green St/Vine St
5. Turn left onto Rensselaer St

6. Continue onto Morton Ave
7. Continue onto Holland Ave
8. Turn right onto New Scotland Ave
9. Turn left into Albany Medical Center

Total Distance: 3.2 miles

Total Estimated Time: 14 minutes



3.5.3 Response Procedures

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 3). The list will also be posted prominently at the Site and made readily available to all personnel at all times.

3.5.3.1 Spill Response Procedures

1. Immediately upon evidence that a spill or release has occurred, facility personnel shall call the APDC Emergency Contact (Table 3) and inform them of the pertinent facts related to the spill event (i.e., location, source of spill, immediate threats).
2. Secure the spill Site.
3. Check for immediate threats or people in danger.
4. Evaluate exposures to response personnel, the public, and the environment.
5. Call environmental services contractor, as necessary, for assistance with spill containment and cleanup.
6. Begin to contain the spill using spill containment equipment. All cleanup personnel will utilize appropriate personal protective equipment (PPE), such as gloves, boots, coveralls, eye protection, etc. in accordance with the HASP.
7. Barricade the point of release and the point at which the discharge exits the building (if applicable) with oil absorbent materials.
8. Prevent the flow into storm drains or other points of concern using oil absorbent booms and other materials to the extent possible.
9. Call Emergency Response (Fire Department) for assistance if necessary or if the surrounding community is affected.
10. Call the State Spill Hotline at (800) 457-7362 for spills or releases that exceed Federal or State reportable quantities, within two hours of discovery of the spill.
11. Call the National Response Center (NRC) at (800) 424-8802 if the spill has reached navigable water or adjoining shorelines.

In some situations, an accidental discharge can be discovered without knowing the source of the spill. An example of this would be someone reporting an oil sheen on a surface water body. In these cases, the following spill alert procedures will be implemented:

1. Call APDC and inform them of the pertinent facts related to the spill event (i.e., location, extent, immediate threats).
2. Contain the spill as much as possible. For example, if an oil discharge is discovered on a surface water body, use an oil absorbent boom to surround the affected area to the extent practical.
3. Trace the spill either upstream or up-gradient to locate the source. Look for culverts which may be conveying the oil or chemical, areas of sloped ground from which there may be a seep of oil or evidence of chemical staining, or storm sewer catch basins, grates, or pipes that may have evidence of oil or chemicals present.

4. If the release cannot be traced back to a definite source, a systematic check of all potential on-site sources should be performed (see items 5 through 8 below), while some response team members stay at the Site of the detected spill to begin cleanup and continue containment.
5. Begin checking vehicles or maintenance equipment closest to where the spill was detected. Examine the area for staining, odors, or corrosion.
6. Check parking areas that have storm drainage that discharges to the affected area.
7. If the source of the release is found, implement the spill response procedures outlined above.
8. If cause of the release is not found and the discharge is continuing, response and containment should continue, and the fire department should be contacted. Appropriate authorities should also be contacted (state and NRC).

3.5.3.2 Methods of Disposal of Recovered Materials

Materials recovered from spill response measures will be appropriately containerized and labeled as to contents, including the date and nature of the contamination. APDC or designated representatives will make a hazardous waste evaluation of the containerized waste in accordance with the requirements of 6 NYCRR Part 371. In the event that the material is determined to be a regulated hazardous waste, it will be managed and disposed of in accordance with the appropriate requirements of 6 NYCRR Part 374 and 376, including manifesting of the hazardous waste. If the material is being disposed of by APDC, the facility will need to apply to EPA to create an ID number. Any waste generated under a different potential future owner will require application to the EPA for another ID number.

In the event that the recovered material is determined to be non-hazardous, it will be managed and transported in accordance with the requirements of 6 NYCRR Part 364. Only appropriately trained and/or certified vendors and/or contractors will be utilized to perform cleanup and disposal services. APDC will retain a spill response contactor to perform such services.

3.5.3.3 Spill Incident Reporting

All spills will be reported to the NYSDEC Spill Hotline at (800) 457-7362 unless they meet all of the following criteria:

- The spill amount does not exceed a reportable quantity;

For spills of petroleum products only:

- The spill is a petroleum product and known to be less than 5 gallons;
- The spill is contained and under control;
- The spill has not and will not reach the State's waterways or land; and
- The spill is cleaned up within 2 hours of discovery.

When reporting a spill, the following information should be documented and provided to the NYSDEC for each reportable spill:

- The facility address and phone number;
- Date and time of the discharge;
- Type of material discharged;
- Estimated total quantity of material discharged;
- Source and/or cause of the discharge;
- A description of all affected media;
- Any damages or injuries caused by the discharge;
- Actions being used to stop, remove, and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and
- The names of the individuals and/or organizations who have also been contacted.

3.5.3.4 Evacuation Procedures

It is not always necessary to evacuate the Site during an emergency. However, if there is a catastrophic failure of the Site engineering controls, a significant release that poses a threat to human health, or a significant weather event that poses a threat to the Site, evacuation may become necessary. It is important that occupants on the Site are prepared and plan for such evacuations in advance.

Evacuation from the Site

In the event that it becomes necessary to evacuate the Site, the following procedures will be utilized:

1. Stay calm.
2. Safely stop work.

3. Gather personal belongings only if it is safe to do so (Reminder: take prescription medications with you if at all possible, as it may be hours before you are allowed back in the Site).
4. Evacuate persons with disabilities first if possible. Always ask someone with a disability how you can assist BEFORE attempting any rescue technique or giving assistance.
5. Proceed to the designated gathering point, which is the main gate at Smith Blvd., and report to the appropriate roll taker. All persons should remain at the gathering point until released. Call 911 if emergency responders have not already been contacted.
6. Wait for instructions from emergency responders.
7. Do not re-enter the Site until emergency responders indicate it is safe to do so.

In the event it is necessary to evacuate the Site, emergency responders (e.g. police or fire departments) will coordinate such evacuations and determine when it is safe to return to the Site. If an evacuation is ordered, all persons on the Site should heed all safety personnel instructions relative to evacuation routes from the Site and/or follow the general flow of traffic.

3.5.3.5 Contingency Plan Amendments

APDC will notify the EPA of any amendments or changes to the Contingency Plan a minimum of 60-days prior to implementing the proposed changes. The procedures noted in this SMP are general in nature given that the Site was vacant at the time the SMP was prepared. However, as the Site is developed, more detailed plans, particularly evacuation plans, will be prepared.

4.0 SITE MONITORING PLAN

4.1 INTRODUCTION

4.1.1 General

The Site Monitoring Plan describes the measures for evaluating the performance and effectiveness of the protective cover system and fencing. This SMP may only be revised with the approval of EPA.

4.1.2 Purpose & Schedule

This Site Monitoring Plan describes the methods to be used for:

- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Site Monitoring Plan provides information on:

- Reporting requirements; and
- Site-wide inspection and periodic certification.

Monitoring of the performance of the remedy will be conducted on an annual basis until a time at which based on prior monitoring results a relaxation in that frequency is warranted, at which time such a request will be made to EPA for approval prior to any change in the monitoring schedule. The monitoring program is summarized in Table 4 below and outlined in detail in Sections 4.2 and 4.3 below.

Table 4. Schedule of Monitoring/Inspection Reports

Monitoring Program	Frequency[1]	Analysis
Site Protective Capping, Fencing, and Site Wide Inspection	Annually	Visual Inspection

Note: 1. The frequency of events will be conducted as specified until otherwise approved by EPA.

4.2 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or

monitoring devices. During these inspections, an inspection form will be completed (Appendix B). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- Confirm that Site records are up to date.

As part of the site-wide inspection, ECs, including site protective capping and Site fencing, will be inspected to evaluate the condition and the performance of the remedy. This will include a visual inspection to identify deficiencies associated with the ECs. An inspection checklist, as included in Appendix B, will be completed during each of the annual inspections, and submitted to the EPA. If at any time, the protective capping is damaged, it will be repaired in accordance with the capping specifications outline in Section 3.2, and fencing should be repaired appropriately to its original usable condition. Repairs which require the removal of impacted soils with PCBs concentrations greater than 1.0 ppm must comply with the EWP as outlined in Section 6.0.

The following list provides a summary of the types of damage that are most typical for RAP or soil capping systems and the recommended repair procedures.

1. **Shallow depressions (less than 12 inches):** In areas where shallow depressions are discovered in the capping system, the capping system may be repaired by placing additional soil/RAP in the area of the depression, grading to maintain positive drainage, and compacting the material prior to re-establishing the finished surface.

2. **Deep depressions and/or sink holes:** Deep depressions may be attributable to subsurface erosion and scouring which will need to be investigated prior to making repairs to reduce the likelihood of future reoccurrence. Following the requirements of the EWP (Section 6.0), the area should be excavated to explore for the cause of the depression. All imported materials will be RAP or clean fill and tested in accordance with the EWP (Section 6.0) prior to use.

3. **Eroded areas of the soil cover, scour or ruts:** Areas where erosion of the capping is observed will be repaired by replacing the eroded soil and compacting it prior to re-establishing the vegetative cover. Drainage paths should be rerouted to prevent future erosion problems, and appropriate erosion and sedimentation controls (ESCs) should be

temporarily installed (e.g. silt fence, rock check dams, etc.) until vegetative cover has been reestablished.

4. **Bare spots:** Bare spots on the top of the soil capping system will be repaired by re-working soil capping, re-seeding, fertilizing and mulching.

5. **Vector activity:** The annual Site-wide inspection will identify the presence of any live vectors, dead vectors, animal tracks, droppings, feeding areas, or dens. If the visual observations determine that there is a presence of burrowing vectors on-site, a professional exterminator will be contacted to develop and implement a plan to control the vector population.

6. **Overgrowth of vegetation:** The lawn/grass areas of the soil capping shall be mowed periodically to prevent establishment of "woody" vegetation that may potentially damage the soil capping system.

Damaged soil capping should be repaired with the specified materials indicated in Section 3.2. Maintenance requirements for each protective capping type are described below:

1. **Buildings/Asphalt/Concrete/RAP**- Owner or Owner's contractor will maintain buildings and asphalt in good condition, repairing any damage or exposed subsurface soils. The cause of the damage will also be identified so future damage can be avoided.
2. **Landscaped/Green Space Areas**- Owner or Owner's contractors will maintain landscaped or green space areas. Damaged or eroded protective capping soils will be repaired and replaced as necessary, in accordance with the EWP. The cause of all damage will be assessed as to avoid future erosion or damage.

Damaged fencing should be repaired to its original usable condition. Common problems or deficiencies which may occur with the fencing include storm damage, corrosion, frost heaving, animals (e.g. deer), vegetation growth, and damage due to trespassing. The area around the fence shall be mowed and clear and prevent establishment of "woody" vegetation that could damage the fencing.

4.3 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular inspections will be kept on file at the ADPC offices. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by EPA and (2) submitted at the time of the Annual Monitoring Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to EPA on an annual basis in the Annual Monitoring Report and will include, at a minimum:

- Date of event;
- Personnel conducting the visual inspection;
- Description of the activities performed;
- Copies of all field forms completed (e.g., inspection forms); and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy and/or digital format as determined by EPA. Maintenance reports and any other information generated during regular operations at the Site will be kept on-file on-Site. All reports, forms, and other relevant information generated will be available upon request to the EPA and submitted as part of the Annual Monitoring Report, as specified in Section 5.0 of this SMP.

5.0 INSPECTIONS, REPORTING & CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

Inspections will be conducted at the frequency specified in the schedules provided in Section 4.0 (Site Monitoring Plan) of this SMP. As previously described, a Site-wide inspection of ECs will be conducted annually. Inspections of ECs will also be conducted after a severe condition has taken place, such as an erosion or flooding event that may affect the ECs. The table below describes the inspection schedule for the Site.

Table 5. Inspection Schedule

Monitoring Program	Frequency[1]
Site Protective Capping, Fencing, and Site Wide Inspection	Annually

Note: 1. The frequency of events will be conducted as specified until otherwise approved by EPA.

5.1.2 Inspection Forms

Inspections and monitoring events will be recorded on the appropriate site management forms provided in Appendix B. These forms are subject to EPA revision. Applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Annual Monitoring Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Site Monitoring Plan is being implemented;
- The Site remedy continues to be protective of public health and the environment.

5.2 CERTIFICATION OF ENGINEERING & INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, an annual monitoring report will be prepared that will include the following certification:

For each EC or IC identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the ECs/ICs required by the remedial program was performed under my direction;
- The IC and/or EC employed at this Site is unchanged from the date the control was put in place, or last approved by the EPA;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;
- Access to the Site will continue to be provided to the EPA and/or NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the Environmental Easement;
- The EC systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

The signed certification will be included in the Annual Monitoring Report described below.

5.3 ANNUAL MONITORING REPORT

Annual Monitoring Report will be submitted to the EPA every year, beginning with the end of the first full calendar year following the completion of the Site protective capping installation. The report will be submitted within 45 days of the end of each certification period. Media sampling results will also be incorporated into the Annual Monitoring Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;

- Results of the required annual Site inspections and severe condition inspections, if applicable;
- Applicable inspection forms and other records generated for the Site during the reporting period in electronic format; and
- A Site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the Risk-Based Cleanup and Disposal Work Plan (CHA, February 2019);
  - Recommendations regarding any necessary changes to the Monitoring Plan; and
  - The overall performance and effectiveness of the remedy.

The Annual Monitoring Report will be submitted in electronic format to the EPA Region 2 Administrator.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, a corrective measures plan will be submitted to the EPA and NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the EPA and NYSDEC.

6.0 EXCAVATION WORK PLAN

As previously indicated, the Site contains contamination left after the completion of the remedial action. This Excavation Work Plan (EWP) will be implemented for all intrusive activities (as defined in Section 3.3.1) at the Site. Specifically, all activities that involve intrusive activities beneath the protective capping, or that will encounter or disturb the PCB impacted soils that remain, including any modifications or repairs to the existing site protective capping, will necessitate the implementation of this EWP as well as the preparation of a HASP.

6.1 NOTIFICATION

At least 60 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the EPA and NYSDEC. Currently, this notification will be made to:

Chief, Corrective Action Section
Hazardous Waste Programs Branch
Land, Chemicals and Redevelopment Division
United States Environmental Protection Agency Region 2
290 Broadway
New York, NY 10007-1866
(212) 637-3030

John Grathwol, DEC Project Manager (1 hard copy (unbound for work plans) & 1 electronic copy)
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, Albany, N.Y. 12233
john.grathwol@dec.ny.gov

These notifications will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for Site re-grading, intrusive elements or utilities to be installed below the Site protective cap, estimated volumes of contaminated soil to be excavated and any work that may impact an EC;

- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's HASP, in electronic format, in accordance with Section 7.0, Health and Safety Plan Requirements;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

6.2 SOIL SCREENING METHODS

It is anticipated that following hot spot area excavations, the residual concentrations of PCBs on-Site will be less than 25 ppm. Visual, olfactory and instrument-based soil screening will be performed during all remedial and development excavations into known or potentially contaminated material (remaining contamination). This screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work below the Site protective cap performed during development, such as excavations for foundations and utility work.

Soils will be segregated based on previous environmental data and visual, olfactory and instrument-based soil screening results into material that requires off-Site disposal, material that requires further testing, and material that can be returned to the subsurface. Should free product (e.g., oil) be encountered it will be containerized immediately. Material encountered that exhibits staining or odors will be sampled in-situ and analyzed for PCBs. Work in this area will not continue until the PCB concentrations are determined. Though not anticipated, if material containing PCBs at concentrations exceeding 25 ppm is encountered it will be disposed of off-Site in accordance with local, State and Federal regulations and the underlying/surrounding soil will also be sampled for PCBs.

6.3 STOCKPILE METHODS

If temporary stockpiling of Site soils is determined to be necessary, all excavated materials beneath the Site protective cap will be required to be stockpiled on a temporary containment pad. The temporary containment pad will be of sufficient size to store a minimum of 110 percent of the maximum amount of soil that will be stockpiled prior to re-use or off-Site disposal. At a minimum, any soil containment pads will include the following:

- A sufficiently large area with accessibility for trucks and construction equipment. The area shall be relatively flat and away from drainage inlets;
- A 20-mil thick polyethylene sheeting liner with a minimum of two-foot wide overlaps between successive rows;
- A minimum of a one-foot high soil berm shall be constructed around the perimeter of each pad to control runoff/run-on to and from the stockpiles. Gravel/stone ramps with gentler slopes will be constructed at locations of ingress and egress for each pad;
- Soil stockpiles that will remain in place for more than one (1) week will also be continuously encircled with silt fence;
- Hay bales and other erosion and sediment controls will be installed as needed near catch basins and other discharge points;
- Stockpiles will be kept covered at all times with appropriately anchored 10-mil polyethylene sheeting. Stockpiles will be routinely inspected, and damaged tarp covers will be promptly replaced;
- Stockpiles shall be maintained at a maximum height of 15 feet above surrounding surface subgrade elevation with a maximum slope of 1.5:1 to maintain stability. However, the appropriate slope may vary by material and the contractor performing stockpiling activities will be responsible for determining the safe allowable slopes for each material stockpiled on Site in accordance with all applicable regulations; and,
- Material will be stockpiled for no more than 180 days.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

6.4 MATERIAL EXCAVATION & LOAD OUT

The Owner's engineer or Contractor's engineer will oversee all invasive work and the excavation and load-out of all excavated material. If both an engineering consultant and a contractor consultant are part of the excavation work team, the roles of each party will be identified to the EPA as part of the notification process.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. The presence of utilities and easements on the Site will be investigated. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYS Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).
A truck wash will be operated on-Site if the trucks come in contact with contaminated soils at the Site. All outbound trucks which come into contact with remaining contamination will be decontaminated at the truck wash before leaving the Site until the activities performed under this section are complete. Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site soil tracking. Truck wash water will be collected and disposed of off-Site in accordance with Section 6.8.

The Owner and/or Contractor's engineer is responsible for coordinating that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

6.5 MATERIAL TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows: All trucks shall utilize Smith Boulevard to enter and exit the Site. Upon exiting the Site, trucks shall proceed to Church Street and then enter Green Street for access to Interstate 787. All trucks loaded with Site materials will exit the vicinity of the Site using only this approved truck route. This is the most appropriate route and takes into account: (a) limiting transport through residential areas; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the directly outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site development activities.

Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

6.6 MATERIAL DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. Impacted soils will be removed and transported off-site to a licensed disposal facility in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(ii). If disposal of soil/fill from this Site is proposed for unregulated off-Site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the EPA. Unregulated off-Site management of materials from this Site will not occur without formal EPA approval.

Off-Site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility, if appropriate (i.e. hazardous waste disposal facility, solid waste landfill, etc.). Actual disposal quantities and associated documentation will be reported to the EPA in the Annual Monitoring Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

6.7 MATERIAL RE-USE ON-SITE

Following remedial activities identified in the PCB Risk-Based Cleanup and Disposal Application, "reuse on-Site" means reuse on-Site of material that originates from the Site, contains less than 25 ppm PCBs and which does not leave the Site during the excavation. The Owner's engineer or Contractor's engineer will check that procedures defined for material reuse in this SMP are followed and that unacceptable material, including organic matter (including, but not limited to, vegetation, wood, roots, and stumps), does not remain on-site. Unacceptable material will be disposed of off-Site in accordance with local, State and Federal regulations based upon the concentration of PCBs in the area where the organic matter originated. PCB-impacted soil that is acceptable for reuse on-site (i.e. less than 25 ppm PCBs) must be placed below the Site protective cap and the cap restored.

6.8 FLUIDS MANAGEMENT

Liquids to be removed from the Site, including excavation dewatering and truck wash water, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site but will be managed off-Site. Pre-treatment may be used in lieu of off-Site disposal if appropriate permits from the local sewer authority are obtained and is accepted by the Owner. The concentrations of PCBs in the liquid to be disposed of at the local sewer authority will be no more than 3 parts per billion (ppb) in accordance with CFR 761.79(b)(1)(ii). Liquids which are pending off-site disposal of which have not yet been treated prior to discharging to the local sewer authority will be temporarily held in appropriate containers (e.g., 55-gallon drums) in accordance with local, State, and Federal regulations.

6.9 SITE PROTECTIVE CAPPING RESTORATION

After the completion of soil removal and any other invasive activities, the Site protective cap will be restored in a manner that complies with the Engineering Control Systems defined in Section 3.2.1. If the type of cap system changes from that which exists prior to the excavation or intrusive activities (i.e., RAP replaced by asphalt), a figure showing the modified surface will be included in the subsequent Annual Monitoring Report and in any updates to the SMP.

6.10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the Owner's engineer and will be in compliance with provisions in this SMP prior to receipt at the Site. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

Backfill and cap material will consist of clean fill, determined as follows, or RAP. Documentation will be obtained confirming the clean fill material that is not clean gravel, rock or stone, or is recycled concrete or brick consistent with 6 NYCRR Part 360. Backfill imported to the Site will be subject to chemical testing in accordance with the following table or will be subject to the allowable exemptions for specified beneficial use materials per 6 NYCRR Part 360 – 1.15(b), if such materials are approved by the Owner. The RAP to be used for the cap will be compliant with the NYSDEC approved BUD, any other soils imported will meet the chemical testing requirements. Any other soils imported will meet the chemical testing requirements. Please note that at the request of EPA, this table has been modified from NYSDEC regulations to require that PCBs be analyzed from discrete intervals rather than from composite samples.

Table 6. Sampling Frequency Requirements for Imported Soils

	VOCs & PCBs	**SVOCs, Inorganics & Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1,000	7	2	
1,000	Add an additional 2 VOC/PCB discrete samples and 1 composite sample for each additional 1,000 Cubic yards		

The analytical results for imported soil must meet the "industrial use" values provided in Appendix 5 of DER-10, Allowable Constituent Levels for Imported Fill or Soil. As such, imported material will not contain PCB concentrations exceeding 1 ppm.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases. Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Bills of lading should be provided to the Site Owner or Owner's representative to document that the fill was delivered from an approved source. The bills of lading will be included with Annual Monitoring Reports.

6.11 STORMWATER POLLUTION PREVENTION

Prior to beginning any intrusive activities, appropriate ESCs will be installed. This section is intended to provide general guidelines for installing and maintaining ESCs; however, the appropriate ESCs need to be selected on a case-by-case basis given the location of the activity, the size on the disturbance, the proximity of the activity to discharge points, etc. All erosion and sediment controls should be designed and installed in accordance with the NYSDEC's Standards and Specifications for Erosion and Sediment Control, dated August 2005 or later.

Proven soil conservation practices will be incorporated in future work plans involving intrusive activities to mitigate soil erosion, off-Site sediment migration, and water pollution from erosion. These practices may combine both vegetative and structural measures. Some measures will be permanent in nature and become part of the completed project (design features such as drainage channels and grading). Other measures will be temporary and serve only during the construction stage. The Contractor will remove temporary measures at the completion of construction and stabilization of the Site. The selection of ESC measures will be based on several general principles, including:

- The minimization of erosion through project design (maximum slopes, phased construction, etc.).
- The incorporation of temporary and permanent erosion control measures.
- The removal of sediment from sediment-laden storm water before it leaves the Site.

The use of appropriate temporary erosion control measures such as silt fencing and/or hay bales will be required around all soil/fill stockpiles and un-vegetated soil surfaces during construction activities. These methods are described below. Stockpiles shall be graded and compacted as necessary to provide positive surface water runoff and dust control. Stockpiles of soil/fill will be placed a minimum of twenty feet from the Site boundaries and as far away from discharge points as practical.

6.12 TEMPORARY EROSION CONTROL MEASURES

Prior to any intrusive activity, temporary ESC measures shall be installed and maintained until such time that permanent ESC measures are installed and effective. Additional sediment control measures may also be necessary. Structural measures, such as those described below, will be designed and installed to provide the required ESC:

- Silt fencing
- Straw bales
- Temporary vegetation/mulching

Re-grading and cover activities may result in sheet flow to various areas of the Site, and therefore, silt fencing will be used as the primary sediment control measure for disturbed areas. Prior to extensive clearing, grading, excavation, and placement of cover/capping soils, silt fences will be installed along all construction perimeter areas to prevent sedimentation in low areas and drainage areas. The location and orientation of silt fencing will be determined based upon the planned intrusive activities, drainage pathways, etc. Breaks and overlaps in the silt fencing may be required to allow construction vehicles access to the construction areas but will be minimized. Intermediate silt fencing will be used upslope of perimeter areas where phased construction activities are occurring. This measure will effectively lower sheet flow velocities and reduce sediment loads to perimeter fencing. In addition, silt fencing around soil stockpiles will be required. The perimeter silt fences will remain in place until construction activities in the area are completed and vegetative cover or other erosion control measures are adequately established.

Straw bales will be used to intercept sediment-laden runoff from storm water channels as needed during various phases of intrusive activities. Additional straw bale dikes may be necessary in some areas during some phases of construction. Use of straw bales will be limited to swales and/or diversion ditches where the anticipated flow velocity will not be greater than five (5) feet per second (FPS). Where flows may eventually exceed five (5) FPS along a swale or diversion ditch, an intermediate straw bale barrier will be installed up-gradient of the final bale barrier. The intermediate bale barrier will effectively reduce flow velocities and sediment load to the final barrier. Straw bale barriers will remain in place until construction activities contributing sediment to the barrier are complete and vegetative cover or other erosion control measures are adequately established.

In areas where activities will not resume for a period in excess of two weeks, the disturbed areas will be seeded with a quick germinating variety of grass or covered with a layer of straw mulch. The temporary cover will act to stabilize the soil and reduce erosion. As construction progresses, areas containing temporary vegetation or straw mulch can be covered without removal of the temporary vegetation or mulch.

The following minimal checks will be made throughout the duration of intrusive activities to ensure the continued performance of the ESCs:

- Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection. All necessary repairs shall be made immediately;
- Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Accumulated sediment will be removed when fifty (50) percent of the storage capacity of the straw bale barrier has been reached in order to maintain performance of the barrier and prevent overtopping or failure of the straw bale barrier;
- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Accumulated sediment on the up-gradient side of the silt fence will be removed whenever fifty (50) percent of the storage capacity of the fence has been reached in order to maintain performance of the fence and reduce the likelihood of a structural failure of the fence;
- Removed sediment and sediment laden straw bales will be stockpiled, dewatered and disposed of off-Site in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(ii);
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering;
- ESC measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters; and,
- Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

6.13 PERMANENT EROSION CONTROL MEASURES

Permanent erosion control measures and facilities will be incorporated into the Site as part of all future intrusive activities as appropriate. Permanent ESCs and facilities will be installed as early as possible during construction phases. Preventing erosion and scour of the site protective capping (e.g., soil cover) system will be a critical component of all future intrusive activities.

Final site protective capping system requirements are detailed in Section 3.2.1.1.

6.14 COMMUNITY AIR MONITORING PLAN

Air monitoring will be performed at the Site during all intrusive activities conducted below Site protective capping and within any uncapped Site "low-occupancy" areas in accordance with the New York State Department of Health (NYSDOH) *Generic CAMP,* and Appendix 1A and 1B of DER-10. All air monitoring will be conducted on a real-time basis using both hand-held field instruments and perimeter air monitoring stations. All air monitoring readings will be recorded in a logbook and/or recorded by data loggers and made available for review by the EPA. The CAMP developed for the Site consists of two primary components, fugitive dust control plan and vapor control plan. Air monitoring will be conducted both upwind and downwind of the intrusive activities and will be compared to assess if the activities are causing potential airborne migration of particulates and/or gases.

The CAMP is not intended for use in establishing action levels for worker respiratory protection that are otherwise described in Site-specific HASPs prepared for the intrusive Site activities. Rather, its intent is to provide a measure of protection for the downwind community (i.e. off-Site receptors including residences and businesses and on-Site workers not directly involved with the subject work activities) from potential airborne releases as a direct result of the proposed work activities. Reliance on the CAMP should not preclude simple, common-sense measures to keep dust and odors at a minimum around the work areas, and supplements to the CAMP may be required depending on the nature of the planned intrusive activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP will assist in preventing the intrusive activities from spreading contamination off-Site through the air. Actions necessary to respond to exceedances of the action levels will be included in the EWP.

Particulate air monitoring will be performed during excavation activities to evaluate fugitive dust generated by excavating. An air monitoring program will be prepared to provide for real-time air monitoring of particulates at the downwind perimeter of each designated work area during the remedial excavation. The particulate monitoring will use visual assessment as well as real-time

monitoring equipment capable of measuring particulate matter less than ten (10) micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. Sampling stations will be situated upwind and downwind of the largest dust producing activity occurring at the Site at the boundary of the work zone. The sampling locations will be periodically adjusted to account for observed changes in wind direction. Instruments will be calibrated in accordance with HASP and the instrument manufacturer's recommendations.

Each set of equipment will be equipped with audible alarms to indicate exceedance(s) of action levels indicated in the NYSDOH Generic Community Air Monitoring Plan CAMP. The downwind action level is 100 micrograms per cubic meter (ug/m3) greater than background (as measured from the upwind station) and measured over a 15-minute average. If particulate levels are detected in excess of this value or if fugitive dust is observed leaving the Site, dust suppression techniques will then be implemented to reduce the generation of fugitive dust and corrective action taken to protect Site personnel and reduce the potential for contaminant migration. Work may resume under the condition that dust suppression and other measures are undertaken and particulate levels do not exceed 150 ug/m3 (15-minute average) above the upwind level and provided no visible dust is observed leaving the Site.

Air monitoring of particulate concentrations will be documented using an air monitoring field form. This form will be completed on a daily basis and records of this form will be available for regulatory agency review upon request. Response actions to observed exceedances of action levels will be documented using a field form that will be available for regulatory agency review upon request.

6.15 ODOR CONTROL PLAN

The odor control plan will be implemented as warranted to control emissions of nuisance odors off-Site and on-Site. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. EPA will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the Owner's engineer and/or Contractor and Contractor's engineer, and any measures that are implemented will be discussed in the Annual Monitoring Report.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, the following specific odor control measures will be used on a routine basis:

1. Limiting the area of open excavations and size of soil stockpiles.

2. Reducing the speed of excavation activities.
3. Shrouding open excavations with tarps and other covers.
4. Considering weather factors when planning daily activities.
5. Using foams to cover exposed odorous soils.
6. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include:
    a. Direct load-out of soils to trucks for off-Site disposal.
    b. Use of chemical odorants via spray or misting systems.
    c. Use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

6.16 DUST CONTROL PLAN

Dust emissions may occur at the project Site during intrusive activities, including but not limited to, excavation activities. Therefore, fugitive dust control measures will be implemented during intrusive excavation activities conducted below the Site protective cap. A dust suppression plan that addresses dust management during invasive on-Site work may include the items listed below:

1. Dust suppression through the use of a dedicated on-Site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles. Fire hoses and/or garden hoses equipped with sprayers will be utilized for smaller type projects. All water utilized for dust control must be potable water from municipal water systems. The use of groundwater from the Site will not be permitted;
2. Clearing and grubbing of larger sites will be done in stages to limit the size of the area of exposed, un-vegetated soils vulnerable to dust production;
3. Gravel will be used on access roadways to provide a clean and dust-free road surface;
4. On-Site roads will be limited in total area to minimize the area required for water truck sprinkling;
5. Traffic speeds, particularly for construction traffic, will be reduced; and,

6. Stockpiles and excavations will be covered with tarps and polyethylene sheets, as previously described, to reduce the potential for dust generation.

Appendix 1B – Fugitive Dust Suppression and Particulate Monitoring as provided in the NYSDEC's DER-10 provides guidance for monitoring particulate matter at impacted Sites and suppressing fugitive dust that will be implemented for intrusive activities performed at this Site.

7.0 HEALTH & SAFETY PLAN REQUIREMENTS

All individuals performing intrusive activities at the Site that will penetrate the Site protective capping, or encounter or disturb the PCB impacted soils that remain in soils, including any modifications or repairs to the existing Site protective capping will be required to prepare and implement a Site-specific and activity-specific HASP. The activities that may require a HASP include, but are not limited to: redevelopment, improvement, maintenance, monitoring, or other intrusive activities on the Site. The HASP must be prepared by a qualified person in accordance with the most recently adopted and applicable general industry (29 CFR 1910) and construction (29 CFR 1926) standard of the federal Occupational Safety and Health Administration (OSHA), U.S. Department of Labor (DOL), as well as any other federal, state or local applicable statutes and regulations.

Because it is not feasible to prepare a HASP that is inclusive of all possible activities that may occur on the Site, a separate HASP will be prepared for each project or activity. The persons performing the annual Site wide inspection and monitoring activities will be responsible for preparing a HASP to cover such activities.

Contractors performing work at the Site will be responsible for preparing their own task-specific HASP. While much of the information contained in this SMP may be sufficient, the need for additional hazard analyses is expected to change based upon the type of work to be performed (e.g. hot work permits, confined space entry, etc.) and the equipment (e.g. heavy machinery, ladders, scaffolding, etc.) that is to be used. Additionally, some of the emergency contact info may change, Safety Data Sheets (SDSs) may need to be added, etc. The contractors' HASP must be submitted to the Site Owner and/or the Site representative prior to the commencement of intrusive activities for review.

This section provides only the minimum requirements for a HASP, but should not be construed as the HASP, as it is not activity specific, nor hazard specific. The Contractor will not be permitted to commence with construction/intrusive activities until the HASP has been received by the EPA and Site Owner's representative.

Acceptance of the Plan does not waive any responsibility of the Contractor to ensure that the HASP is adequate to comply with all regulations or compliance by personnel. Neither the Site owner, nor the EPA, assume, in any manner, the control or responsibility of the Contractor to provide safe working conditions of the contractor's employees or subcontractors in requiring the Contractor to

follow general safety requirements. The contractors shall maintain the following items on the Site, at a minimum, when conducting intrusive Site activities:

- A copy of the HASP
- First aid kit
- Fire extinguisher(s)
- Personal protective equipment (PPE)
- Air monitoring equipment and calibration equipment
- Spill containment equipment and cleanup materials

7.1 COMPLIANCE

Disregard for the provisions of the HASP by the remedial Contractor and/or his subcontractors or employees shall be deemed just and sufficient to cause for stoppage of work by the Owner and/or EPA. Furthermore, compliance with the minimum requirements in this document does not relieve the Contractor from the responsibility for implementing proper health and safety procedures during unanticipated conditions throughout the duration of the work at the Site covered by this SMP.

All on-Site workers must comply with the requirements of the HASP. The Contractor's HASP must comply with all applicable federal (including 29 CFR 1910.120 and 29 CRF 1926) and state regulations protecting human health and the environment from the hazards posed by activities during intrusive Site activities.

7.2 RESPONSIBILITIES

The Contractor shall:

1. Be responsible and liable for the health and safety of all on-Site personnel and off-Site community impacted by the Site redevelopment activities;
2. Ensure all OSHA health and safety requirements are met (29 CFR 1910 – General Industry Safety and Health Standards and 29 CFR 1926 – Construction Industry Safety and Health Standards) and be responsible for compliance with all federal and state regulations;
3. Ensure that all project personnel have been trained in accordance with 29 CFR 1910.120;
4. Perform all work in a safe and environmentally acceptable manner. The Contractor will provide for the safety of all project personnel and make all reasonable efforts to protect

the environment and community during the remedial activities. Barricades, warning lights, roped-off areas, and proper signs shall be furnished in sufficient amounts and locations to safeguard the project personnel and public at all times;

5. Employ a Safety Officer (SO) who shall be assigned full-time responsibility for all tasks herein described under this HASP and be on-Site during all remedial activities. In the event the SO cannot meet his or her responsibilities, the Contractor shall be responsible for obtaining the services of an "alternate" SO meeting the minimum requirements and qualifications. No work will proceed on this project in the absence of an approved SO;
6. Ensure that all project personnel have obtained the required physical examination prior to and at the termination of work covered by the contract;
7. Be responsible for the pre-job indoctrination of all project personnel with regard to the HASP and other safety requirements to be observed during work, including but not limited to (a) potential hazards, (b) personal hygiene principles, (c) personal protection equipment, (d) respiratory protection equipment usage and fit testing, and (e) emergency procedures dealing with fire and medical situations;
8. Be responsible for the implementation of this HASP and the Emergency Contingency and Response Plan;
9. Provide and ensure that all project personnel are properly clothed and equipped and that all equipment is kept clean and properly maintained in accordance with the manufacturer's recommendations or replaced as necessary;
10. Will perform all Site redevelopment work in a safe and environmentally acceptable manner. The Contractor will provide for the safety of all project personnel and the community for the duration of the redevelopment activities;
11. Have sole and complete responsibility for safety conditions for the project, including safety of all persons (including employees);
12. Maintain a chronological log of all persons entering the project Site. It will include organization, date, and time of entry and exit. Each person must sign in and out;
13. Maintain and keep available safety records, up-to-date copies of all pertinent safety rules and regulations, material safety data sheets, the Contractor’s Site-specific HASP, and the emergency response plan;
14. Hold safety meetings, including routine on-Site safety meetings; and,

15. Stop work whenever a work procedure or a condition at the work Site is deemed unsafe by the SO.

7.3 ELEMENTS OF A HEALTH AND SAFETY PLAN

A Site-specific HASP will be prepared in accordance with OSHA regulations and 29 CFR 1910.120. The HASP will contain the following elements at a minimum:

- All items identified in OSHA regulations 29 CFR 1910.120(b)(4);
- Organization and responsibilities of the project/health and safety team along with emergency phone numbers;
- Characterization of the chemical, biological, and physical hazards present at the Site;
- Identification and evaluation of all Site hazards/risks associated with each task to be completed;
- A description of the medical monitoring program for on-Site personnel;
- A summary of the real-time air-monitoring program or CAMP to be conducted during intrusive activities. The CAMP is intended to provide a measure of protection for the downwind community rather than for use in establishing action levels for worker respiratory protection. The CAMP requires that particulate levels are visually monitored within the exclusion zone, and if dust levels are observed to be increasing, to conduct real-time monitoring at the upwind and downwind perimeters of the Exclusion Zone. The CAMP should establish a downwind action level and discuss the measures to be employed (e.g., dust suppression) if an exceedance of the action level is observed;
- Site control measures;
- Instructions on the selection and use of PPE and action levels for upgrading or downgrading PPE.
- Proper delineation of work zones;
- Decontamination procedures for both equipment and on-Site personnel;
- An accident prevention and contingency plan; and,
- Other applicable procedures relative to Hazard Communication (Right-to-Know) Program, first aid procedures, cold/heat stress, confined space entry, hot work permits, lockout/tagout, spill containment program, etc. and material safety data sheets for all chemicals brought onto the project Site.

7.4 POTENTIAL SITE HAZARDS

7.4.1 Physical Hazards

Physical hazards such as the following may be encountered on Site:

- Slip/Trip/Fall (e.g. from animal burrows, debris, steep topography, ice, etc.)
- Ultraviolet rays
- Lifting strains (e.g., equipment)
- Heavy machinery and vehicles (e.g. excavator)
- Flying debris (e.g. debris from excavation equipment)
- Noise (e.g. elevated noise levels associated with excavation equipment)
- Heat/cold stress

7.4.2 Biological Hazards

Biological hazards such as the following may be encountered on Site:

- Poisonous plants – poison ivy, poison oak, poison sumac
- Insects/animals – deer ticks, mosquitoes, rabid animals, snakes, turkeys, stray animals

7.4.3 Chemical Hazards

Based upon past environmental investigations completed at the Site, Site personnel may be exposed to the following chemical hazards during intrusive activities.

Table 7. Possible Chemical Hazard Exposures

Chemical	Target Organ
Arsenic	Liver, kidneys, skin, lungs, lymphatic system
Benzo(a)pyrene	Skin, respiratory system, bladder, kidneys
Dibenzo(a,h)anthracene	Skin, respiratory system, bladder, kidneys
1,1-Dicloroethene	Eyes, skin, respiratory system, central nervous system (CNS), liver, kidneys
Iron	Eyes, skin, respiratory system, liver, GI tract
Lead	Eyes, gastrointestinal (GI) tract, CNS, kidneys, blood, gingival tissue
PCBs	Skin, eyes, liver, reproductive system
Magnesium	Eyes, respiratory system
Manganese	Respiratory system, CNS, blood, kidneys
Methyl Tert Butyl Ether	Liver, CNS, kidneys
Mercury	Eyes, skin, respiratory system, CNS, kidneys

Chemical	Target Organ
Sodium	Eyes, CNS, cardiovascular system, GI tract
Vinyl Chloride	Liver, CNS, blood, respiratory system, lymphatic system

The potential exposure mechanism that can transport particulates from the areas of the inspection and monitoring to other areas of the Site as well as beyond the boundaries of the Site are:

- Soil from intrusive activities projected by air currents; and
- Contact with the soil and/or groundwater.

TABLES

Table 1
Summary of Contamination to Remain in Soil - PCBs
700 Smith Boulevard
Port of Albany, NY

Location or Sample ID	Sampled By	Date	Validated?	Sample Depths 0-1'	1-2'	2-3'	3-4'	4-5'	5-7'	7-10'	Sample/Drilling Comments
SS-1	Plumley	8/12/2014	No	15.46 a	--	--	--	--	--	--	
SS-2	Plumley	8/12/2014	No	15.16	--	--	--	--	--	--	
SS-3	Plumley	8/12/2014	No	11.01	--	--	--	--	--	--	
SS-4	Plumley	8/12/2014	No	11.43 a	--	--	--	--	--	--	
SS-5	Plumley	8/12/2014	No	9.7 a	--	--	--	--	--	--	
SS-6	Plumley	8/12/2014	No	6.84	--	--	--	--	--	--	
SS-7	Plumley	8/12/2014	No	11.78	--	--	--	--	--	--	
SS-8	Plumley	8/12/2014	No	2.914 a	--	--	--	--	--	--	
SS-9	Plumley	8/12/2014	No	10.77 a	--	--	--	--	--	--	
SS-10	Plumley	8/12/2014	No	1.15 a	--	--	--	--	--	--	
SS-11	Plumley	8/12/2014	No	----------Excavate to 2 ft----------		--	--	--	--	--	
SS-11	CHA	10/16/2018	Yes	----------Excavate to 2 ft----------		3.49 J	--	0.0357 U	--	--	
11N	Sterling	6/17/2015	No	4.48	--	--	--	--	--	--	
11E	Sterling	6/17/2015	No	4.55	--	--	--	--	--	--	
11EDup	Sterling	6/17/2015	No	4.5	--	--	--	--	--	--	
11W	Sterling	6/17/2015	No	4.58	--	--	--	--	--	--	
SS-12	Plumley	8/12/2014	No	7.76 a	--	--	--	--	--	--	
B-1	Plumley	8/12/2014	No	--	8.14	--	--	--	0.039 U		
B-2	Plumley	8/12/2014	No	--	--	5.11			--	--	
B-3	Plumley	8/12/2014	No	1.078					--	--	
B-4	Plumley	8/12/2014	No	0.942 a					--	--	
B-5	Plumley	8/12/2014	No	0.040 U					0.041 U		
B-6	Plumley	8/12/2014	No	--	--	5.64		--	--	--	
B-7	Plumley	8/12/2014	No	--	--	--	--	--	0.042 U		
B-8	Plumley	8/12/2014	No	2.301 a			--	--	--	--	
B-9	Plumley	8/12/2014	No	1.11 a					--	--	
B-10	Plumley	8/12/2014	No	1.917					0.041 U		
B-11	Plumley	8/12/2014	No	--	--	--	--	--	0.037 U		
S-1	Plumley	8/12/2014	No	--	--	--	17.61* a	--	--	--	*Sample obtained from 3.5'
DB-1	Plumley	8/12/2014	No	0.469 a	--	--	--	--	--	--	
GP-1	CHA	12/2/2014	Yes	7.9	--	0.27 U	--	--	--	--	
GP-2	CHA	12/2/2014	Yes	18.2 J	--	0.21 U	--	--	--	--	
GP-3	CHA	12/2/2014	Yes	20.2	--	0.21 U	--	--	--	--	
GP-4	CHA	12/2/2014	Yes	3.08	--	--	0.27* U	--	--	--	*Sample obtained from 2'8"-3'7"
GP-5	CHA	12/2/2014	Yes	6.23 J	--	0.22 U	--	--	--	--	
GP-6	CHA	12/2/2014	Yes	13.5 J	--	0.25 U	--	--	--	--	
GP-7	CHA	12/2/2014	Yes	14.5	--	0.24 U	--	--	--	--	
GP-8	CHA	12/2/2014	Yes	17 J	--	0.21 U	--	--	--	--	
GP-9	CHA	12/2/2014	Yes	21.2	--	0.24 U	--	--	--	--	
GP-10	CHA	12/2/2014	Yes	18.3 J	--	0.28 U	--	--	--	--	
GP-11	CHA	12/2/2014	Yes	17.6 J	--	0.36 J	--	2.9 J	--	--	
GP-12	CHA	12/2/2014	Yes	14	--	3.71 J	--	0.28 U	--	--	
GP-13	CHA	12/2/2014	Yes	18.3 J	--	0.24 U	--	--	--	--	
GP-14	CHA	12/2/2014	Yes	7.23 J	--	0.23 U	--	--	--	--	
GP-15	CHA	12/3/2014	Yes	----------Excavate to 4 ft----------				9.8	0.26 U	--	
15W	Sterling	6/17/2015	No	--	--	3.48	--	--	--	--	
15N	Sterling	6/17/2015	No	--	--	10.4	--	--	--	--	
15E	Sterling	6/17/2015	No	--	--	13.6	--	--	--	--	
GP-16	CHA	12/3/2014	Yes	8.7	--	0.7 J	--	0.25 U	--	--	
GP-17	CHA	12/3/2014	Yes	9.4 J	--	--	--	4.8 R	--	--	

Table 1
Summary of Contamination to Remain in Soil - PCBs
700 Smith Boulevard
Port of Albany, NY

Location or Sample ID	Sampled By	Date	Validated?	Sample Depths 0-1'	1-2'	2-3'	3-4'	4-5'	5-7'	7-10'	Sample/Drilling Comments
GP-18	CHA	12/3/2014	Yes	7.8 J	--	5.9 J	--	0.23 U	--	--	
GP-19	CHA	12/3/2014	Yes	22.5 J	--	--	--	3.6	0.23 U	--	
GP-20	CHA	12/3/2014	Yes	8.4	--	1.15 J	--	2.52	--	--	
GP-21	CHA	12/3/2014	Yes	11.2 J	--	0.24 U	--	--	--	--	
GP-22	CHA	12/3/2014	Yes	10.4 J	--	0.19 U	--	--	--	--	
GP-23	CHA	12/3/2014	Yes	21.5 J	--	0.22 U	--	--	--	--	
GP-24	CHA	12/3/2014	Yes	17.4	--	10.8 J	--	0.23 U	--	--	
GP-25	CHA	12/3/2014	Yes	5.7	--	11.8 J	--	0.069 J	--	--	
GP-26	CHA	12/3/2014	Yes	----------Excavate to 2 ft----------		0.23 U	--	--	--	--	
26N	Sterling	6/17/2015	No	14.4	--	--	--	--	--	--	
26E-2	Sterling	7/9/2015	No	10.6	--	--	--	--	--	--	
26W-2	CHA	10/17/2018	Yes	--	--	0.0136 J	--	0.00725 J	--	--	
SS-100	Sterling	9/15/2015	No	9.22	--	--	--	--	--	--	
SS-100 Dup	Sterling	9/15/2015	No	6.7	--	--	--	--	--	--	
SS-101	Sterling	9/15/2015	No	4.28	--	--	--	--	--	--	
SS-102	Sterling	9/15/2015	No	3.83	--	--	--	--	--	--	
SS-103	Sterling	9/15/2015	No	6.56	--	--	--	--	--	--	
SS-104	Sterling	9/15/2015	No	4.19	--	--	--	--	--	--	
SS-105	Sterling	9/15/2015	No	4.8	--	--	--	--	--	--	
SS-106	Sterling	9/15/2015	No	6.04	--	--	--	--	--	--	
SS-107	Sterling	9/15/2015	No	4.75	--	--	--	--	--	--	
SS-108	Sterling	9/15/2015	No	4.33	--	--	--	--	--	--	
SS-109	Sterling	9/16/2015	No	12.7	--	--	--	--	--	--	
SS-110	Sterling	9/16/2015	No	9.23	--	--	--	--	--	--	
SS-124	Sterling	9/16/2015	No	21.6	--	--	--	--	--	--	
SS-123	Sterling	9/16/2015	No	8.2	--	--	--	--	--	--	
SS-122	Sterling	9/16/2015	No	11.8	--	--	--	--	--	--	
GP-27	CHA	12/3/2014	Yes	8 J	--	6.9 J	--	0.4 J	--	--	
GP-28	CHA	12/3/2014	Yes	18 J	--	--	--	0.72 J	0.26 U	--	
GP-29	CHA	12/3/2014	Yes	15.7 J	--	10.6 J	--	0.27 U	--	--	
GP-30	CHA	12/3/2014	Yes	16 J	--	0.23 U	--	--	--	--	
GP-31	CHA	12/3/2014	Yes	3.2 J	--	24 J	--	19	--	--	
GP-32	CHA	12/4/2014	Yes	----------Excavate to 4 ft----------				13.5	0.29 U	--	
32W	Sterling	6/17/2015	No	--	--	4.9	--	--	--	--	
32E	Sterling	6/17/2015	No	--	--	0.835	--	--	--	--	
32N	Sterling	6/17/2015	No	--	--	4.56	--	--	--	--	
GP-33	CHA	12/4/2014	Yes	10.2 J	--	15.3 J	--	20.5 J	--	--	
GP-34	CHA	12/4/2014	Yes	11 J	--	0.3 U	--	--	--	--	
GP-35	CHA	12/4/2014	Yes	9.59	--	--	--	8.1	--	--	
GP-36	CHA	12/4/2014	Yes	3.4	--	0.21 U	--	--	--	--	
GP-37	CHA	12/4/2014	Yes	9.6 J	--	0.2 U	--	--	--	--	
GP-38	CHA	12/4/2014	Yes	24 J	--	0.27 J	--	0.74	--	--	
GP-39	CHA	12/4/2014	Yes	25*	--	0.21 U	--	--	--	--	*Collected from 7" - 18"
GP-40	CHA	12/4/2014	Yes	6.4 J	--	--	--	0.25 U	0.2 U	--	
GP-41	CHA	12/4/2014	Yes	12.6 J	--	0.2 U	--	--	--	--	
GP-42	CHA	12/4/2014	Yes	6.1 J	--	1.12 J	--	0.16 JN	0.25 U	--	
GP-43	CHA	12/4/2014	Yes	12.2 J	--	2.5 J	--	3.51	--	--	

Table 1
Summary of Contamination to Remain in Soil - PCBs
700 Smith Boulevard
Port of Albany, NY

				Sample Depths							
Location or Sample ID	**Sampled By**	**Date**	**Validated?**	**0-1'**	**1-2'**	**2-3'**	**3-4'**	**4-5'**	**5-7'**	**7-10'**	**Sample/Drilling Comments**
GP-44	CHA	12/4/2014	Yes	23 J	--	0.26 U	--	--	--	--	
GP-45	CHA	12/4/2014	Yes	----------Excavate to 2 ft----------		0.56 J	--	3.58	--	--	
45S	Sterling	6/17/2015	No	23.3	--	--	--	--	--	--	
45N	Sterling	6/17/2015	No	4.7	--	--	--	--	--	--	
45W	Sterling	6/17/2015	No	7.76	--	--	--	--	--	--	
GP-46	CHA	12/5/2014	Yes	----------Excavate to 2 ft----------		0.23 U	--	--	--	--	
46W	Sterling	6/17/2015	No	14.8	--	--	--	--	--	--	
46S	Sterling	6/17/2015	No	5.24	--	--	--	--	--	--	
46E	Sterling	6/17/2015	No	3.38	--	--	--	--	--	--	
GP-47	CHA	12/5/2014	Yes	13.9 J	--	4.6	--	0.26 U	--	--	
GP-48	CHA	12/5/2014	Yes	6.4 J	--	0.22 U	--	--	--	--	
GP-49	CHA	12/5/2014	Yes	2.21	--	0.23 U	--	--	--	--	
GP-50	CHA	12/5/2014	Yes	15.8	--	4.9	--	0.27 U	--	--	
GP-51	CHA	12/5/2014	Yes	3.92	--	1.41	--	0.28 U	--	--	
GP-52	CHA	12/5/2014	Yes	20.7	--	1.44	--	0.22 U	--	--	
GP-53	CHA	12/5/2014	Yes	10.1 J	--	23.7	--	0.24 U	--	--	
GP-54	CHA	12/5/2014	Yes	12	--	0.25 U	--	--	--	--	
GP-55	CHA	12/5/2014	Yes	7.5	--	0.22 U	--	--	--	--	
GP-56	CHA	12/5/2014	Yes	3.5	--	0.23 U	--	--	--	--	
GP-57	CHA	12/5/2014	Yes	13.6	--	2.23	--	0.25 U	--	--	
GP-58	CHA	12/5/2014	Yes	3.85	--	0.21 U	--	--	--	--	
GP-59	CHA	12/5/2014	Yes	12.5	--	0.175 J	--	0.25 U	--	--	
GP-60	CHA	12/5/2014	Yes	5.6	--	0.24 U	--	--	--	--	
GP-61	CHA	12/5/2014	Yes	7.0	--	5.6	--	0.19 U	--	--	
GP-61	CHA	10/19/2018	Yes	7	--	6.2 J	--	0.0408 U	--	--	
DUP-04	CHA	10/19/2018	Yes	8.5	--	--	--		--	--	Parent sample GP-61_0-1
DUP-05	CHA	10/19/2018	Yes	--	--	9.6 J	--		--	--	Parent sample GP-61_2-3
GP-62	CHA	10/19/2018	Yes	3.9	--	0.0207 J	--	0.0107 J	--	--	
GP-63	CHA	10/16/2018	Yes	0.0538	--	0.0428 U	--	0.0382 U	--	--	
GP-64	CHA	10/16/2018	Yes	0.0334 U	--	0.0418 U	--	NA	--	--	
GP-65	CHA	10/16/2018	Yes	4.57	--	0.119 J	--	0.0408 U	--	--	
GP-66	CHA	10/16/2018	Yes	10.1	--	7.11	--	0.00444 JR	--	--	
GP-67	CHA	10/19/2018	Yes	4.74	--	10.5	--	6.33	--	--	
GP-68	CHA	10/19/2018	Yes	5.8	--	0.447	0.04 U	--	--	--	Refusal @ 4 ft, no sample 4 5 ft
GP-69	CHA	10/18/2018	Yes	5.26	--	0.619	--	0.0404 U	--	--	
GP-70	CHA	10/18/2018	Yes	4.43	--	0.0344 U	--	0.0405 U	--	--	
GP-71	CHA	10/18/2018	Yes	0.168	--	0.0389 U	--	0.0384 U	--	--	
GP-72	CHA	10/18/2018	Yes	0.0347 U	--	0.0338 U	--	NA	--	--	
GP-73	CHA	10/18/2018	Yes	13.1	--	0.0114 J	--	0.039 U	--	--	
GP-74	CHA	10/18/2018	Yes	3.58	--	7.14	0.0384 U	--	--	--	Refusal @ 4 ft, no sample 4-5 ft
GP-75	CHA	10/19/2018	Yes	3.08 J	--	4.18	--	0.0362 U	--	--	
DUP-03	CHA	10/19/2018	Yes	6.47 J	--	--	--	--	--	--	Parent sample GP-75_0-1
GP-76	CHA	10/19/2018	Yes	4.3 J	--	9.72	--	0.0351 U	--	--	
GP-77	CHA	10/19/2018	Yes	7.1	--	4.53 J	--	0.263	--	--	
DUP-06	CHA	10/19/2018	Yes	7.17	--	--	--	--	--	--	Parent sample GP-77_0-1
DUP-07	CHA	10/19/2018	Yes	--	--	7.29 J	--	--	--	--	Parent sample GP-77_2-3
GP-78	CHA	10/16/2018	Yes	4.17	--	0.0242 J	--	0.0362 U	--	--	

Table 1
Summary of Contamination to Remain in Soil - PCBs
700 Smith Boulevard
Port of Albany, NY

				Sample Depths							
Location or Sample ID	**Sampled By**	**Date**	**Validated?**	**0-1'**	**1-2'**	**2-3'**	**3-4'**	**4-5'**	**5-7'**	**7-10'**	**Sample/Drilling Comments**
GP-79	CHA	10/16/2018	Yes	----------Excavate to 2 ft----------		0.159	--	0.0145 J	--	--	
GP-79_E5	CHA	11/26/2018	Yes	14.8	--	NA	--	NA	--	--	
GP-79_N5 (RE)	CHA	11/26/2018	Yes	0.0154 J	--	--	--	--	--	--	Re-analysis of GP-79_N5_0-1
DUP-09 (RE)	CHA	11/26/2018	Yes	5.92 J	--	--	--	--	--	--	
GP-79_N10	CHA	11/26/2018	Yes	0.116 J	--	NA	--	NA	--	--	
GP-79_W5	CHA	11/26/2018	Yes	14.3	--	NA	--	NA	--	--	
DUP-10	CHA	11/26/2018	Yes	22.3 J	--	NA	--	NA	--	--	Parent sample GP-79_W5_0-1
GP-79_S5	CHA	11/26/2018	Yes	----------Excavate to 2 ft----------		0.0184 J	--	NA	--	--	
GP-79_S10	CHA	11/26/2018	Yes	7.91	--	0.0207 J	--	NA	--	--	
GP-80	CHA	10/16/2018	Yes	1.55	--	0.0203 J	--	0.005 J	--	--	
GP-81	CHA	10/16/2018	Yes	----------Excavate to 2 ft----------		0.00421 J	--	0.0339 U	--	--	
GP-81_E5	CHA	11/27/2018	Yes	2.19	--	NA	--	NA	--	--	
GP-81_N5	CHA	11/27/2018	Yes	0.627 J	--	NA	--	NA	--	--	
DUP-11	CHA	11/27/2018	Yes	1.0 J	--	NA	--	NA	--	--	Parent sample GP-81_N5_0-1
GP-81_W5	CHA	11/27/2018	Yes	4.83	--	NA	--	NA	--	--	
GP-81_S5	CHA	11/27/2018	Yes	2.06	--	NA	--	NA	--	--	
GP-82	CHA	10/17/2018	Yes	3.79	--	5.64	--	0.0338 U	--	--	
GP-83	CHA	10/17/2018	Yes	3.99 J	--	0.0644 J	--	0.0372 U	--	--	
GP-84	CHA	10/17/2018	Yes	3.88 J	--	0.00681 J	--	0.0344 U	--	--	
GP-85	CHA	10/18/2018	Yes	1.47	--	5.04	--	0.0337 U	--	--	
GP-86	CHA	10/18/2018	Yes	11.5	--	20.5	--	0.0388 U	--	--	
GP-87	CHA	10/18/2018	Yes	11	--	0.121	--	0.0398 U	--	--	
GP-88	CHA	10/18/2018	Yes	21.7	--	0.128	--	0.0386 U	--	--	
GP-89	CHA	10/18/2018	Yes	8.9	--	13.7	--	10.1	--	--	
GP-90	CHA	10/18/2018	Yes	----------Excavate to 4 ft----------				0.133 J	--	--	
GP-90_E5	CHA	11/28/2018	Yes	----------Excavate to 4 ft----------				NA	--	--	
GP-90_E10	CHA	11/28/2018	Yes	6.52	--	NA	--	NA	--	--	
GP-90_N5	CHA	11/28/2018	Yes	4.41	--	1.07	--	NA	--	--	
GP-90_W5	CHA	11/28/2018	Yes	7.05	--	3.56	--	NA	--	--	
GP-90_S5	CHA	11/28/2018	Yes	8.4	--	4.6	--	NA	--	--	
GP-91	CHA	10/17/2018	Yes	----------Excavate to 4 ft----------				0.0308 J	--	--	
GP-91_E5	CHA	11/28/2018	Yes	2.53	--	0.0138 J	--	NA	--	--	
GP-91_N5	CHA	11/27/2018	Yes	7.7	--	1.45 J	0.775	NA	--	--	
GP-91_W5	CHA	11/27/2018	Yes	8.15	--	5.06	--	NA	--	--	
GP-91_S5	CHA	11/28/2018	Yes	5.3	--	1.7	--	NA	--	--	
GP-92	CHA	10/17/2018	Yes	2.08 J	--	0.0346 U	--	0.0363 U	--	--	
GP-93	CHA	10/17/2018	Yes	11.4 J	--	0.0451	--	0.037 U	--	--	
GP-94	CHA	10/16/2018	Yes	18.9 J	--	0.0205 J	--	0.0163 J	--	--	
GP-95	CHA	10/16/2018	Yes	13.7	--	19.7	--	0.0375 U	--	--	
GP-96	CHA	10/16/2018	Yes	3.54	--	1.13	--	0.0385 U	--	--	
GP-97	CHA	10/19/2018	Yes	0.0884	--	0.0345 U	--	--	--	--	Hand auger. Refusal @ 3 ft, no sample 4-5 ft
DUP-01	CHA	10/19/2018	Yes	0.0884	--	--	--	--	--	--	Parent sample GP-97_0-1
DUP-02	CHA	10/19/2018	Yes	--	--	0.0332 U	--	--	--	--	Parent sample GP-97_2-3
GP-98	CHA	10/19/2018	Yes	0.109	--	0.0346 U	--	0.0333 U	--	--	
GP-99	CHA	10/19/2018	Yes	2.96	--	1.88	--	0.394	--	--	
DUP-08	CHA	10/19/2018	Yes	4.15	--	--	--	--	--	--	Parent sample GP-99_0-1
GP-100	CHA	10/19/2018	Yes	----------Excavate to 2 ft----------		0.607	--	0.0346 U	--	--	

Table 1
Summary of Contamination to Remain in Soil - PCBs
700 Smith Boulevard
Port of Albany, NY

				Sample Depths							
Location or Sample ID	**Sampled By**	**Date**	**Validated?**	**0-1'**	**1-2'**	**2-3'**	**3-4'**	**4-5'**	**5-7'**	**7-10'**	**Sample/Drilling Comments**
GP-100_E5	CHA	11/29/2018	Yes	13.1	--	NA	--	NA	--	--	
GP-100_N5	CHA	11/29/2018	Yes	8.71	--	NA	--	NA	--	--	
GP-100_W5	CHA	11/29/2018	Yes	----------Excavate to 2 ft----------		7.47	--	NA	--	--	Insufficient recovery to collect 4-5 ft sample
GP-100_W10	CHA	11/29/2018	Yes	2.04 J	--	NA	--	NA	--	--	Refusal @ 2 ft. No 2 - 3' or 4 -5' sample
GP-100_S5	CHA	11/29/2018	Yes	10.2	NA	--	--	--	--	--	Terminated at 2 ft due to utilities
GP-101	CHA	10/16/2018	Yes	1.43	--	8.26	--	0.0325 U	--	--	
GP-102	CHA	10/16/2018	Yes	1.13	--	3.96 J	--	0.293	--	--	
GP-103	CHA	10/18/2018	Yes	5.3	--	9.09	--	0.0384 U	--	--	
GP-104	CHA	10/17/2018	Yes	2.15	--	0.2	--	0.00635 J	--	--	
GP-105	CHA	10/17/2018	Yes	18.9	23.3	--	--	--	--	--	Refusal @ 2 ft, no samples 2-3 ft and 4-5 ft
GP-106	CHA	10/17/2018	Yes	1.49	--	13.5	--	0.0538 J	--	--	
GP-107	CHA	10/17/2018	Yes	6.66	--	0.0393 U	--	0.0403 U	--	--	
GP-108	CHA	10/17/2018	Yes	2.7	5.43	--	--	--	--	--	Refusal @ 2 ft, no samples 2-3 ft and 4-5 ft
GP-109	CHA	10/17/2018	Yes	3.99	--	0.0297 J	--	0.0394 U	--	--	
GP-110	CHA	10/18/2018	Yes	3.96	--	6.74	--	0.0065 J	--	--	
GP-111	CHA	10/17/2018	Yes	0.0137 J	--	0.0336 U	--	0.00525 J	--	--	

Notes:

All results are in parts per million (ppm = mg/kg).

"--" Denotes no sample taken at the indicated depth interval.

NA: Sample collected, but not analyzed

U: Sample analyzed for but not detected at the specified concentration.

a: Estimated value due to the presence of other Aroclor pattern.

J: Estimated value. Refer to the corresponding Category B Report and/or DUSR for further details.

N: Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence of absense during future sampling events.

R: Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

5.6 Gray highlighted values exceed the TSCA High-Occupany Cleanup Level of 1.0 ppm Total PCBs.

Table 2
Summary of Contamination to Remain in Soil - PAHs and Metals
700 Smith Boulevard
Port of Albany, NY

Location / Sample ID	Analyte	Sample Depths 0-1'	1-2'	2-3'	3-4'	4-5'	5-7'
SS-1	Benzo(a)pyrene	1.96	--	--	--	--	--
	Dibenzo(a,h)anthracene	1.1 U	--	--	--	--	--
	Arsenic	19.2 b	--	--	--	--	--
	Lead	2210	--	--	--	--	--
	Mercury	6.1	--	--	--	--	--
SS-2	Benzo(a)pyrene	1.77	--	--	--	--	--
	Dibenzo(a,h)anthracene	0.59 U	--	--	--	--	--
	Arsenic	18.0 b	--	--	--	--	--
	Lead	2030	--	--	--	--	--
	Mercury	6.3	--	--	--	--	--
SS-3	Benzo(a)pyrene	3.87	--	--	--	--	--
	Dibenzo(a,h)anthracene	1.12	--	--	--	--	--
	Arsenic	20.9 b	--	--	--	--	--
	Lead	1480 b	--	--	--	--	--
	Mercury	7.1	--	--	--	--	--
SS-5	Benzo(a)pyrene	1.17	--	--	--	--	--
	Dibenzo(a,h)anthracene	1.1 U	--	--	--	--	--
	Arsenic	11.4 b	--	--	--	--	--
	Lead	946 b	--	--	--	--	--
	Mercury	6.3	--	--	--	--	--
SS-7	Benzo(a)pyrene	1.69	--	--	--	--	--
	Dibenzo(a,h)anthracene	0.55 U	--	--	--	--	--
	Arsenic	16.4 b	--	--	--	--	--
	Lead	6490	--	--	--	--	--
	Mercury	42	--	--	--	--	--
SS-12	Benzo(a)pyrene	2.6 U	--	--	--	--	--
	Dibenzo(a,h)anthracene	2.6 U	--	--	--	--	--
	Arsenic	16.1 b	--	--	--	--	--
	Lead	1180 b	--	--	--	--	--
	Mercury	6	--	--	--	--	--
S-1	Benzo(a)pyrene	--	--	--	1.68	--	--
	Dibenzo(a,h)anthracene	--	--	--	0.485	--	--
	Arsenic	--	--	--	19.6 b	--	--
	Lead	--	--	--	1520 b	--	--
	Mercury	--	--	--	4.3	--	--
GP-3	Benzo(a)pyrene	NA	--	NA	--	--	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	17.1	--	3.9	--	--	--
	Lead	1860	--	9.9	--	--	--
	Mercury	5.4	--	0.025	--	--	--
GP-23	Benzo(a)pyrene	NA	--	NA	--	--	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	21.5	--	4.4	--	--	--
	Lead	1470	--	40.7	--	--	--
	Mercury	6.2	--	0.025	--	--	--
GP-28	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	16.4	--	3.4	--	6.9	--
	Lead	1220		46.4	--	27.8	--
	Mercury	6.5	--	0.19 H	--	0.18 H	--
GP-30	Benzo(a)pyrene	NA	--	NA	--	--	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	16.6	--	2.4	--	--	--
	Lead	744	--	7.7	--	--	--
	Mercury	2.9	--	0.015 J	--	--	--
GP-31	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	8.8	--	31.4	--	29.8	--
	Lead	448	--	4050	--	3880	--
	Mercury	1.1	--	10.4	--	1.7 H	--
	Benzo(a)pyrene	NA	--	NA	--	NA	--

Table 2
Summary of Contamination to Remain in Soil - PAHs and Metals
700 Smith Boulevard
Port of Albany, NY

Location / Sample ID	Analyte	Sample Depths 0-1'	1-2'	2-3'	3-4'	4-5'	5-7'
GP-33	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	15.6	--	10.1	--	10.7	--
	Lead	1610	--	642	--	650	--
	Mercury	3.2	--	2.4	--	1.7 H	--
GP-34	Benzo(a)pyrene	NA	--	NA	--	--	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	18.9	--	5.8	--	--	--
	Lead	2300	--	113	--	--	--
	Mercury	2	--	0.29	--	--	--
GP-37	Benzo(a)pyrene	NA	--	NA	--	--	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	17.8	--	3.6	--	--	--
	Lead	4400	--	10.1	--	--	--
	Mercury	25.5	--	0.03	--	--	--
GP-38	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	14.5	--	65.2	--	3.6	--
	Lead	4800	--	213	--	44	--
	Mercury	4.8	--	0.084	--	0.13 H	--
GP-40	Benzo(a)pyrene	NA	--	--	--	NA	NA
	Dibenzo(a,h)anthracene	NA	--	--	--	NA	NA
	Arsenic	19.1	--	--	--	4.3	2.5
	Lead	1320	--	--	--	17.4	5.8
	Mercury	5.2	--	--	--	0.039 H	0.02 UH
GP-41	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	--	--
	Arsenic	20.4	--	2.4	--	--	--
	Lead	1410	--	6.2	--	--	--
	Mercury	3.3	--	0.023 U	--	--	--
GP-43	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	15.5	--	3.5	--	3.5	--
	Lead	967	--	105	--	88.2	--
	Mercury	2.9	--	0.086	--	0.27 H	--
GP-47	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	15.7	--	8.2	--	7.7	--
	Lead	1320	--	4530	--	14.6	--
	Mercury	2.5	--	0.33	--	0.044 H	--
GP-51	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	19.9	--	12.4	--	9.7	--
	Lead	372	--	70.8	--	21	--
	Mercury	1.3	--	0.089	--	0.032 H	--
GP-52	Benzo(a)pyrene	NA	--	NA	--	NA	--
	Dibenzo(a,h)anthracene	NA	--	NA	--	NA	--
	Arsenic	17.1	--	9.7	--	2.2 J	--
	Lead	1930	--	74.9	--	9.7	--
	Mercury	4.3	--	0.31	--	0.037 H	--

Notes:

All results are in parts per million (ppm = mg/kg).

"--" denotes no sample taken at the indicated depth interval.

NA - Sample not analyzed for the indicated parameter.

30.3 Yellow highlighted and bold values exceed the 6 NYCRR Part 375 Restricted Industrial Soil Cleanup Objectives.

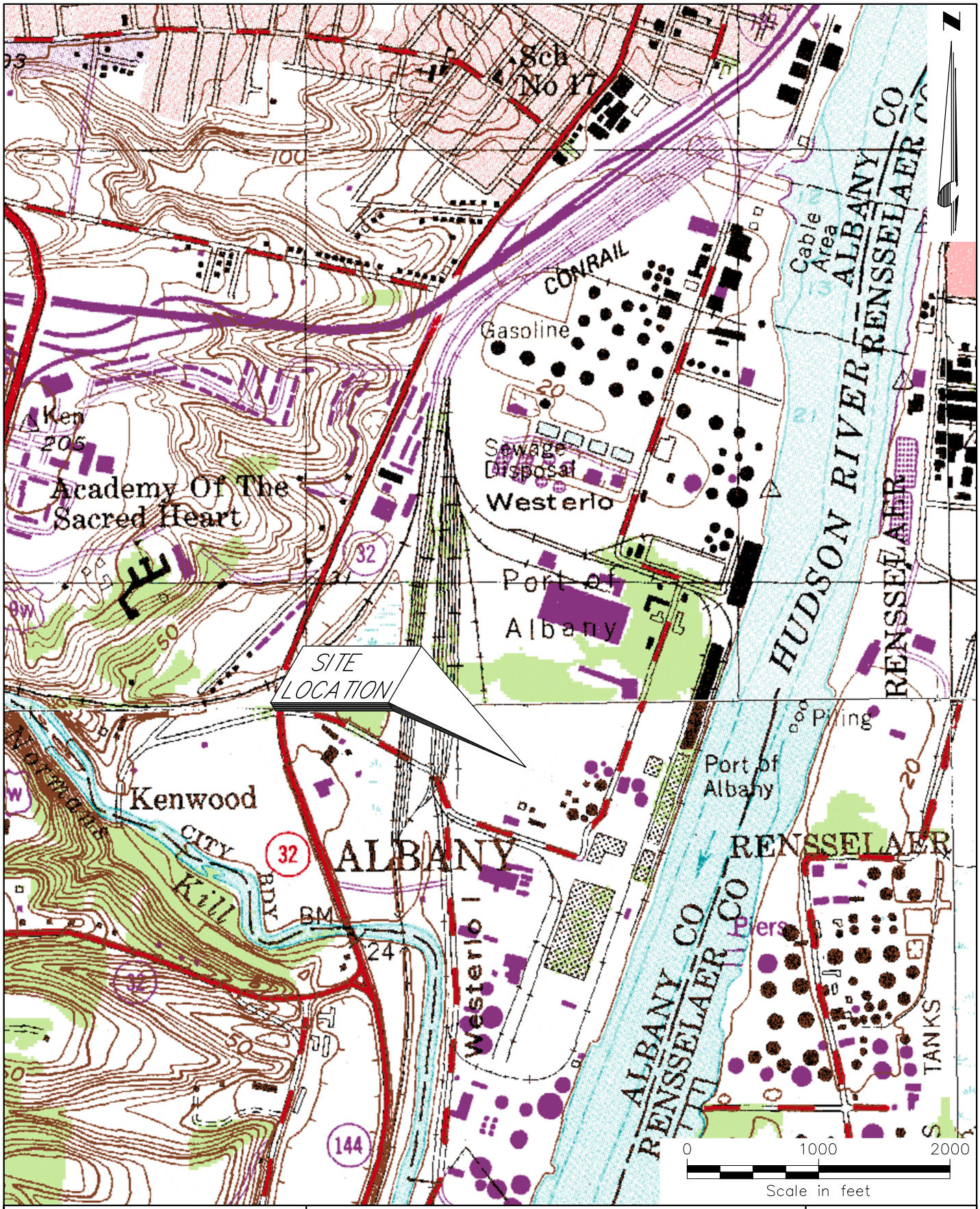
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Sample analyzed for but not detected at the specified concentration.

H - Sample was prepped or analyzed beyond the specified holding time.

b - Elevated RL due to dilution required for high interfering element.

FIGURES



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SITE LOCATION MAP

700 SMITH BLVD, ALBANY NY

PROJECT NO. 28952

DATE: 01/2018

FIGURE 1

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SITE PLAN

700 SMITH BLVD, ALBANY NY

PROJECT NO. 28952

DATE: 12/19/18

FIGURE 2

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HOT SPOT ID	EXCAVATION EXTENTS	
	HORIZONTAL (FT)	VERTICAL (FT)
SS-11	15 x 15	2
GP-15	7.5 x 7.5	4
GP-26	SEE FIGURE 3A	2
GP-32	15 x 15	4
GP-45	15 x 15	2
GP-46	7.5 x 7.5	2
GP-79	10 x 15	2
GP-81	10 x 10	2
GP-90	10 x 15	4
GP-91	10 x 10	4
GP-100	10 x 15	2

LEGEND

- APPROXIMATE SITE BOUNDARY
- SOIL BORING/MONITORING WELL, 2014 (PLUMLEY)
- SOIL SAMPLE, 2014 (PLUMLEY)
- SOIL BORING, 2014 (CHA)
- DELINEATION SOIL SAMPLE, 2015 (STERLING)
- SOIL BORING, 2018 (CHA)
- DELINEATION SOIL BORING, 2018 (CHA)
- PROPOSED HOT SPOT EXCAVATION

0 80 160
Scale in feet

*Location SS-11 was originally sampled by Plumley in August 2014. Due to high PCB concentrations encountered, CHA completed a soil boring at the same location in October 2018 to obtain vertical delineation samples.

[1] Collected December 2014

[2] Collected October 2018

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EXCAVATION PLAN

700 SMITH BLVD, ALBANY NY

PROJECT NO. 28952

DATE: 01/10/19

FIGURE 3

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SS-104
SS-105
SS-124
SS-112
SS-106
SS-103
26W2-B
26N
26W2-A
SS-123
26W-2*
26W
GP26
SS-111
26W1-B
26E
SS-107
G26W-1
26-E1
26W1-A
26-E2
26-E1B
26-E1A
SS-102
SS-122
SS-110
SS-108
SS-109
SS-101
SS-100

*Location 26W-2 was originally sampled by Sterling in July 2015. Due to high PCB concentrations encountered, CHA completed a soil boring at the same location in October 2018 to obtain vertical delineation samples.

LEGEND

- SOIL BORINGS, CHA (2014)
- SOIL BORINGS, CHA (2018)

SOIL SAMPLES (STERLING ENVIRONMENTAL)

- SAMPLED JUNE 17, 2015
- SAMPLED JULY 9, 2015
- SAMPLED JULY 28, 2015
- SAMPLED SEPTEMBER 15 & 16, 2015

LEGEND:

PROPOSED EXCAVATION

0 8 16
Scale in feet

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EXCAVATION PLAN
GP-26

700 SMITH BLVD, ALBANY NY

PROJECT NO. 28952

DATE: 01/08/19

FIGURE 3A

File: V:\PROJECTS\ANY\K3\28952\CADD\FIGURES\RISK-BASED WORK PLAN\2019-01 UPDATES\FIG-4-4A_28952_EXCAVATION PLAN.DWG
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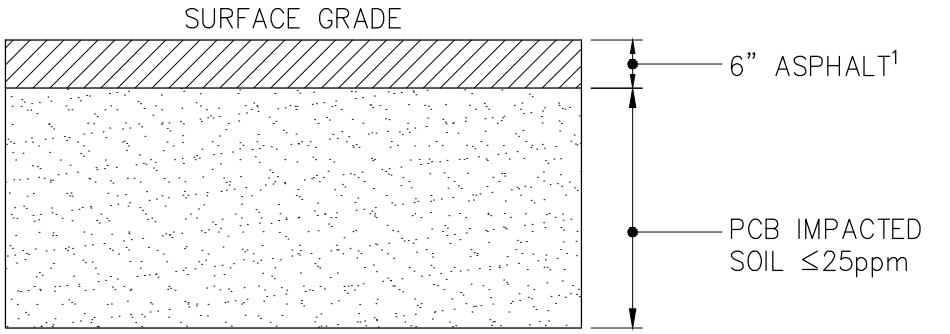
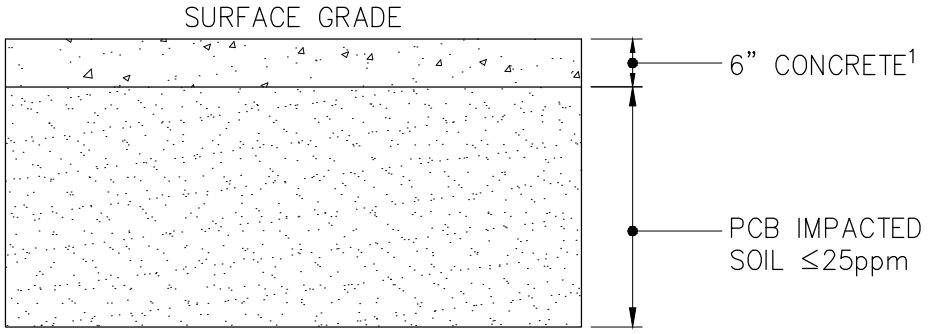
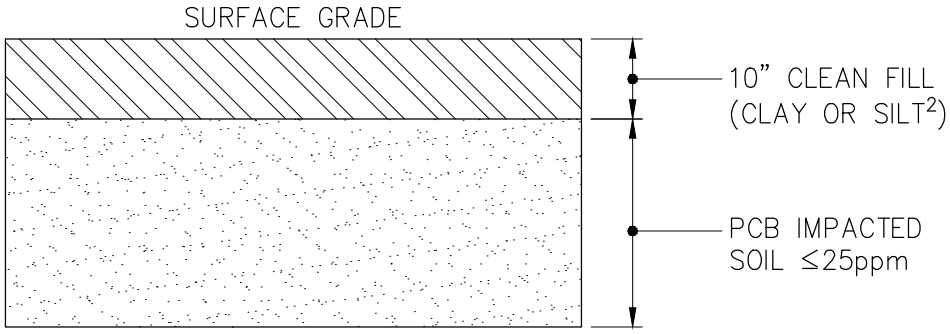


1 ASPHALT CAP
NOT TO SCALE



2 CONCRETE/BUILDING CAP
NOT TO SCALE



[1] MINIMUM THICKNESS 6 INCHES, NOT INCLUDING ANY NECESSARY SUBBASE/COMPACTED FILL FOR SUPPORT BENEATH (NOT SHOWN IN DETAIL)

[2] MUST MEET THE FOLLOWING REQUIREMENTS IN ACCORDANCE WITH 40 CFR 761.75(b)(1)(ii–v)
1. PERMEABILITY ≤ $1X10^{-7}$ CM/SEC;
2. PERCENT SOIL PASSING No. 200 SIEVE > 30;
3. LIQUID LIMIT > 30; AND
4. PLASTICITY INDEX > 15

3 SOIL CAP
NOT TO SCALE

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PROTECTIVE CAPPING DETAIL

700 SMITH BLVD. ALBANY NY

PROJECT NO. 28952

DATE: 02/11/19

FIGURE 4

APPENDIX A

Environmental Easement (To be Included in Final SMP)

APPENDIX B

Site Wide/Covering/Fencing Checklist

SITE-WIDE / CAPPING / FENCING ANNUAL INSPECTION CHECKLIST

Report No.	
Page 1 of 2	
Date:	Time:

Site Name: Port of Albany – 700 Smith Blvd.	Project No.
Address: 700 Smith Blvd, Albany, NY	Weather:
Inspector(s):	
Type of Inspection: ☐ Routine ☐ Post Severe Condition	Temp.: Hi Low

SITE ACCESSIBILITY INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
Site accessible and passable.	☐	☐	☐	

SITE RECORDS INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
Site Records are up to date with latest revisions or changes to SMP	☐	☐	☐	

INSTITUTIONAL CONTROL INSPECTION

ITEM/CONDITION	YES	NO	N/A	COMMENTS
The Site continues to be utilized for industrial uses only.	☐	☐	☐	
Low-occupancy areas (if applicable) continue to be occupied by individuals < 6.7 hours per week OR appropriate dermal and respiratory protection is worn.	☐	☐	☐	

FENCE INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Is a gate present at the entrance?	☐	☐	☐	
Is the gate locked and secured?	☐	☐	☐	
Evidence of damaged fencing?	☐	☐	☐	

SOIL CAP SYSTEM INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Evidence of erosion of cover soils?	☐	☐	☐	
Evidence of cracks or depressions in cover soils?	☐	☐	☐	
Evidence of exposed or damaged subgrade soils?	☐	☐	☐	

ASHPALT/CONCRETE CAP SYSTEM INSPECTION

ITEM/CONDITION	YES	NO	NA	COMMENTS
Evidence of damaged asphalt or concrete?	☐	☐	☐	
Evidence of pitting, rutting, cracks or depressions in asphalt or concrete cover?	☐	☐	☐	

DRAINAGE SYSTEM INSPECTION				
ITEM/CONDITION	**YES**	**NO**	**NA**	**COMMENTS**
Evidence of erosion in drainage structures?	☐	☐	☐	
Presence of siltation in drainage structures?	☐	☐	☐	
Evidence of settlement in drainage structures?	☐	☐	☐	
Evidence of restrictions of water flow in drainage ditches and structures?	☐	☐	☐	
VECTOR INSPECTION				
ITEM/CONDITION	**YES**	**NO**	**NA**	**COMMENTS**
Were any vectors observed?	☐	☐	☐	
Evidence of vector activity (tracks, droppings, dens, etc.)	☐	☐	☐	
Evidence of damage due to vector activity?	☐	☐	☐	
VEGETATIVE INSPECTION (if applicable)				
ITEM/CONDITION	**TRUE**	**FALSE**	**N/A**	**COMMENTS**
Vegetation is well established over greenspace areas.	☐	☐	☐	
There is no evidence of stressed vegetation.	☐	☐	☐	
There is no evidence of bare or thin vegetative cover.	☐	☐	☐	
There is no evidence of overgrowth or areas that need to be mowed.	☐	☐	☐	
There is no evidence of recent areas of excavation or disturbed areas.	☐	☐	☐	

ADDITIONAL NOTES & OBSERVATIONS		
Signature:	Time Charged:	Mileage Charged:

APPENDIX G

MAINTENANCE INSPECTION CHECKLISTS

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (Annual)		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaters between storms		
4. Sediment Cleanout of Trench (Annual)		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

Comments:

Actions to be Taken:

Sand/Organic Filter Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
Filtration facility clean of debris		
Inlet and outlets clear of debris		
2. Oil and Grease (Monthly)		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
3. Vegetation (Monthly)		
Contributing drainage area stabilized		
No evidence of erosion		
Area mowed and clipping removed		
4. Water Retention Where Required (Monthly)		
Water holding chambers at normal pool		
No evidence of leakage		
5. Sediment Deposition (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Filter chamber free of sediments		
Sedimentation chamber not more than half full of sediments		
6. Structural Components (Annual)		
No evidence of structural deterioration		
Any grates are in good condition		
No evidence of spalling or cracking of structural parts		
7. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion (if draining into a natural channel)		
8. Overall Function of Facility (Annual)		
Evidence of flow bypassing facility		
No noticeable odors outside of facility		

Comments:

Actions to be Taken:

Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
2. Check Dams or Energy Dissipators (Annual, After Major Storms)		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
3. Vegetation (Monthly)		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
4. Dewatering (Monthly)		
Dewaters between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Sediment deposition (Annual)		
Clean of sediment		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion		

Comments:

Actions to be Taken:

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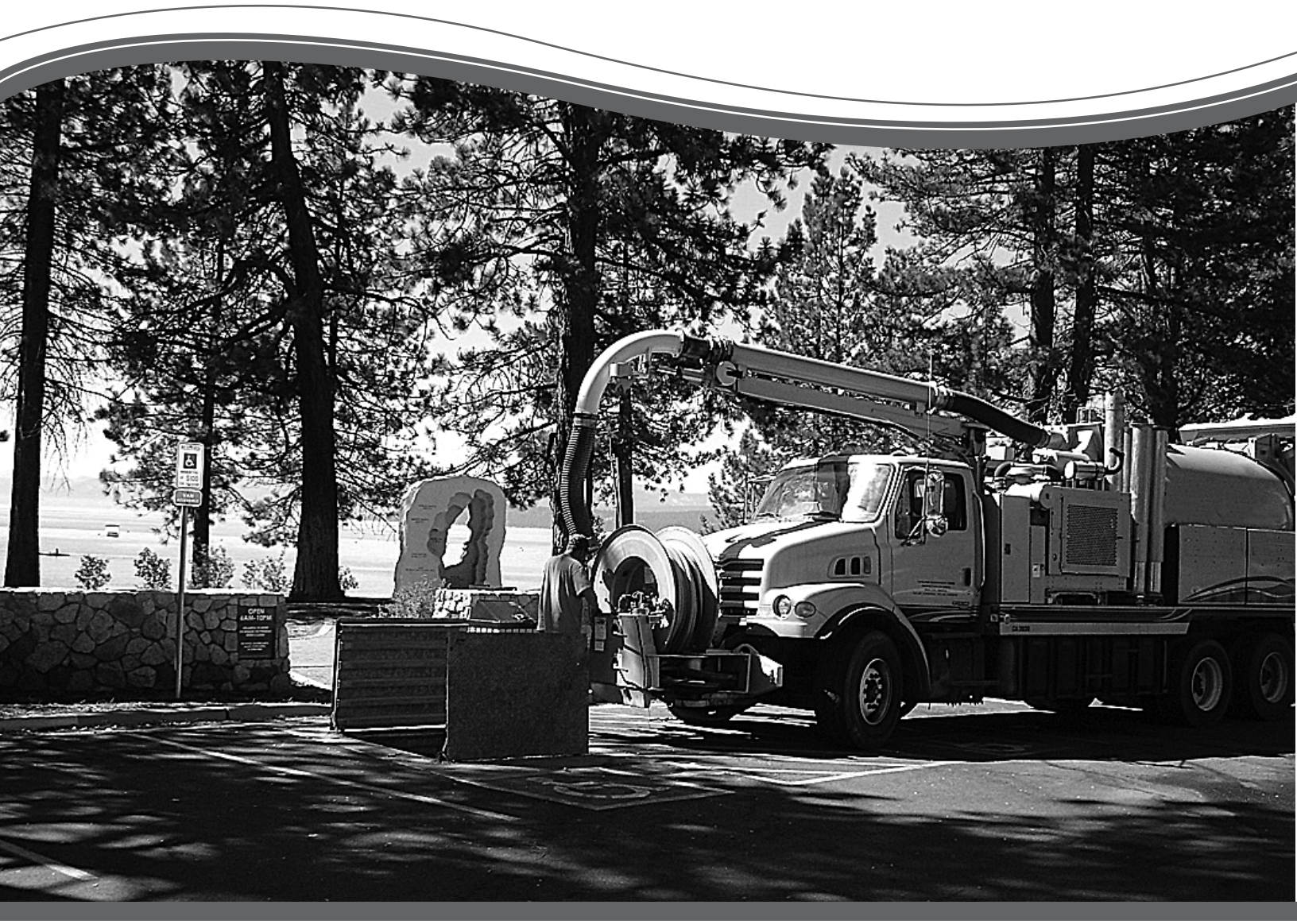
ENGINEERED SOLUTIONS

Cascade Separator® Inspection and Maintenance Guide



CASCADE
separator®

Maintenance

The Cascade Separator® system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects sediment and debris will depend upon on-site activities and site pollutant characteristics. For example, unstable soils or heavy winter sanding will cause the sediment storage sump to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (i.e. spring and fall). However, more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment wash-down areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

A visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet chamber, flumes or outlet channel. The inspection should also quantify the accumulation of hydrocarbons, trash and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided in this Inspection and Maintenance Guide.

Access to the Cascade Separator unit is typically achieved through one manhole access cover. The opening allows for inspection and cleanout of the center chamber (cylinder) and sediment storage sump, as well as inspection of the inlet chamber and slanted skirt. For large units, multiple manhole covers allow access to the chambers and sump.

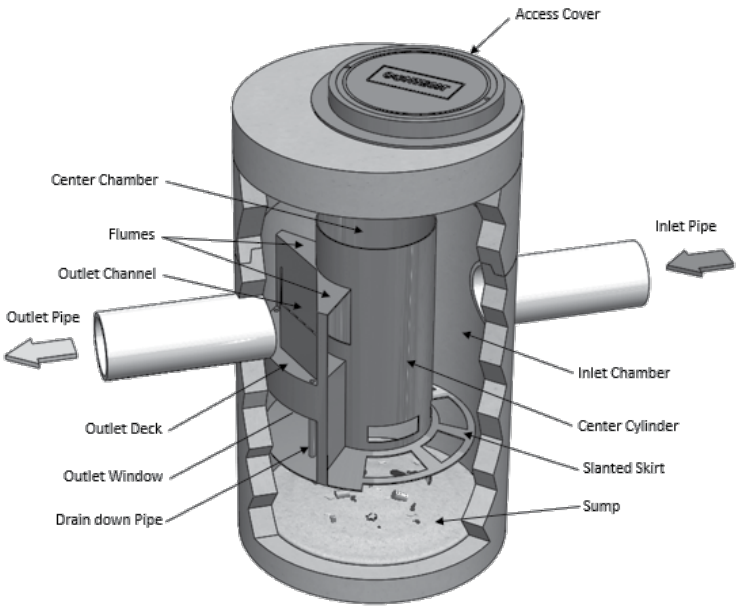
The Cascade Separator system should be cleaned before the level of sediment in the sump reaches the maximum sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance may be impacted when maximum sediment storage capacity is exceeded. Contech recommends maintaining the system when sediment level reaches 50% of maximum storage volume. The level of sediment is easily determined by measuring the distance from the system outlet invert (standing water level) to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the chart in this document to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage.

Cleaning

Cleaning of a Cascade Separator system should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole cover and insert the vacuum tube down through the center chamber and into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The areas outside the center chamber and the slanted skirt should also be washed off if pollutant build-up exists in these areas.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. Then the system should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and to ensure proper safety precautions. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the Cascade Separator system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal. If any components are damaged, replacement parts can be ordered from the manufacturer.



Cascade Separator® Maintenance Indicators and Sediment Storage Capacities

Model Number	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CS-3	3	0.9	1.5	0.5	0.4	0.3
CS-4	4	1.2	2.5	0.8	0.7	0.5
CS-5	5	1.3	3	0.9	1.1	0.8
CS-6	6	1.8	3.5	1	1.6	1.2
CS-8	8	2.4	4.8	1.4	2.8	2.1
CS-10	10	3.0	6.2	1.9	4.4	3.3
CS-12	12	3.6	7.5	2.3	6.3	4.8

Note: The information in the chart is for standard units. Units may have been designed with non-standard sediment storage depth.

A Cascade Separator unit can be easily cleaned in less than 30 minutes.

A vacuum truck excavates pollutants from the systems.

Cascade Separator® Inspection & Maintenance Log

Cascade Model:			Location:		
Date	Depth Below Invert to Top of Sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The depth to sediment is determined by taking a measurement from the manhole outlet invert (standing water level) to the top of the sediment pile. Once this measurement is recorded, it should be compared to the chart in the maintenance guide to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.
2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, and earth stabilization products. For information, visit www.ContechES.com or call 800.338.1122

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800-925-5240
www.ContechES.com

APPENDIX H

SPDES 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

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

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

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*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

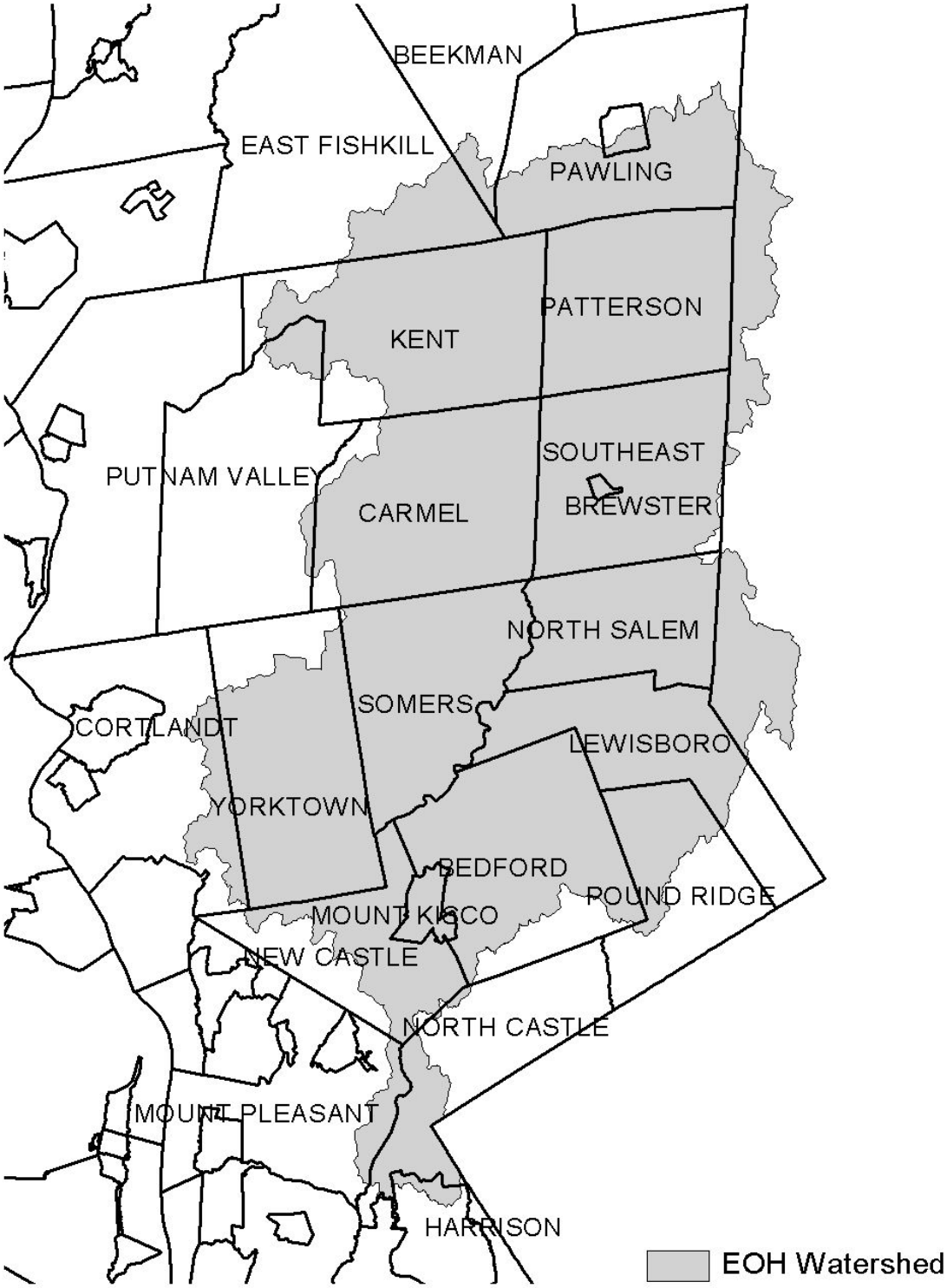


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

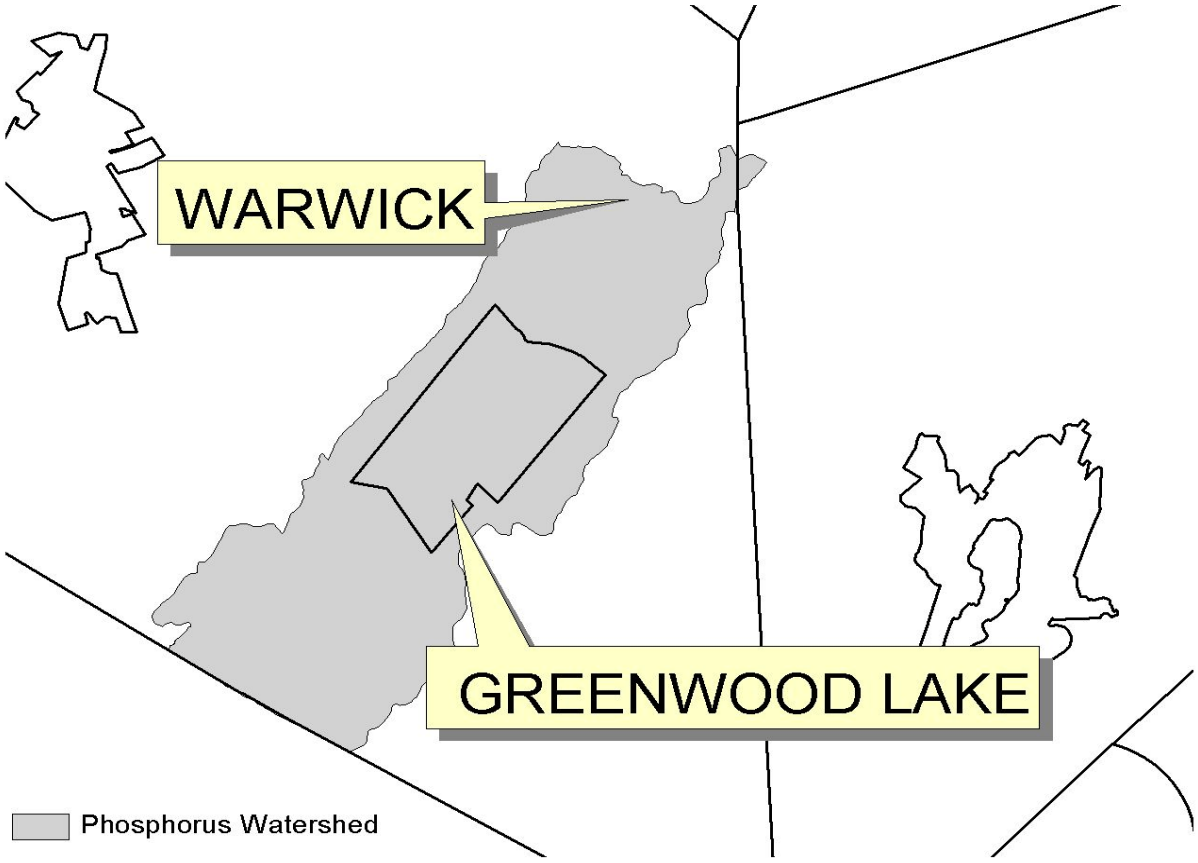


Figure 4 - Oscawana Lake Watershed

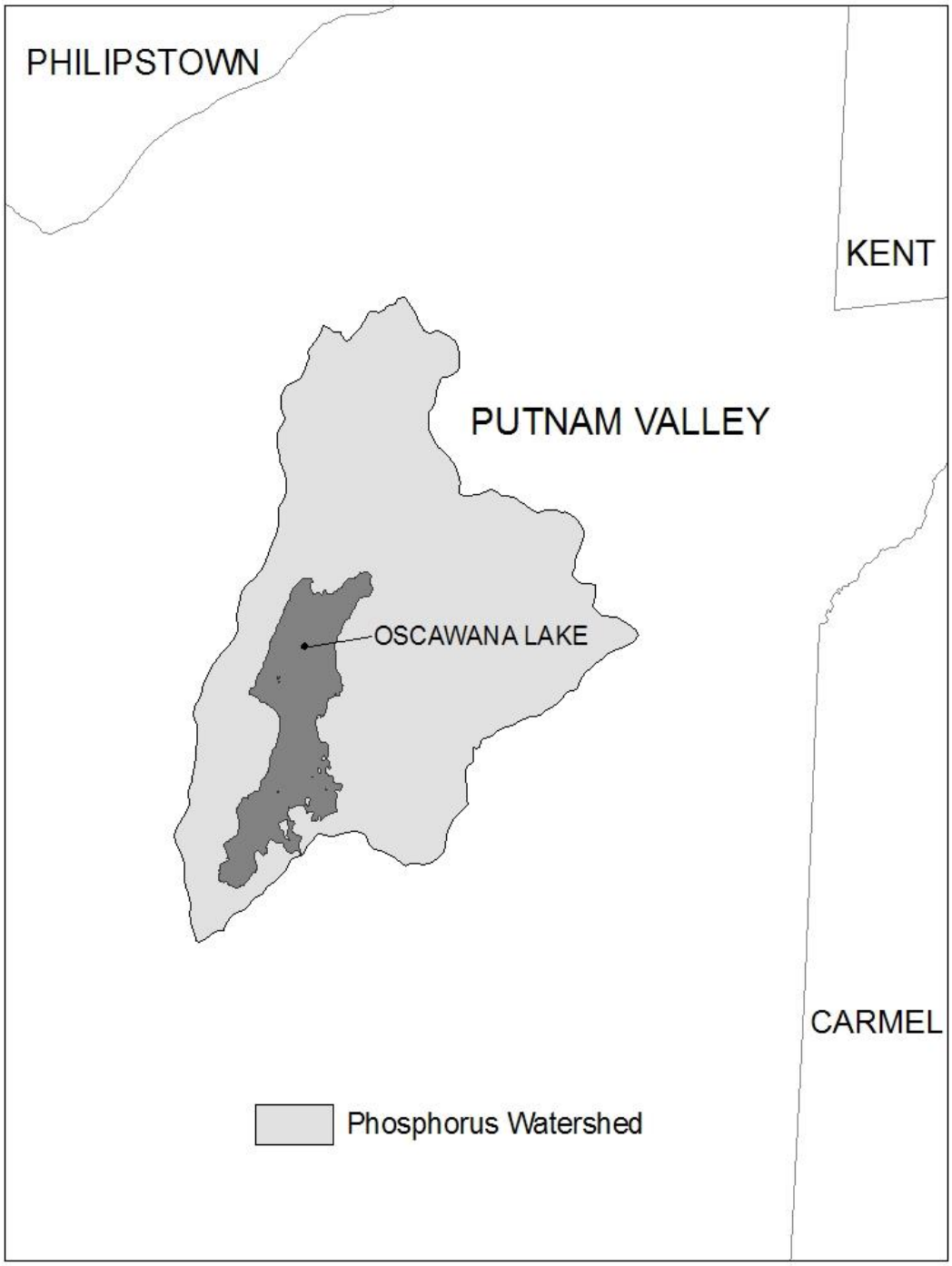
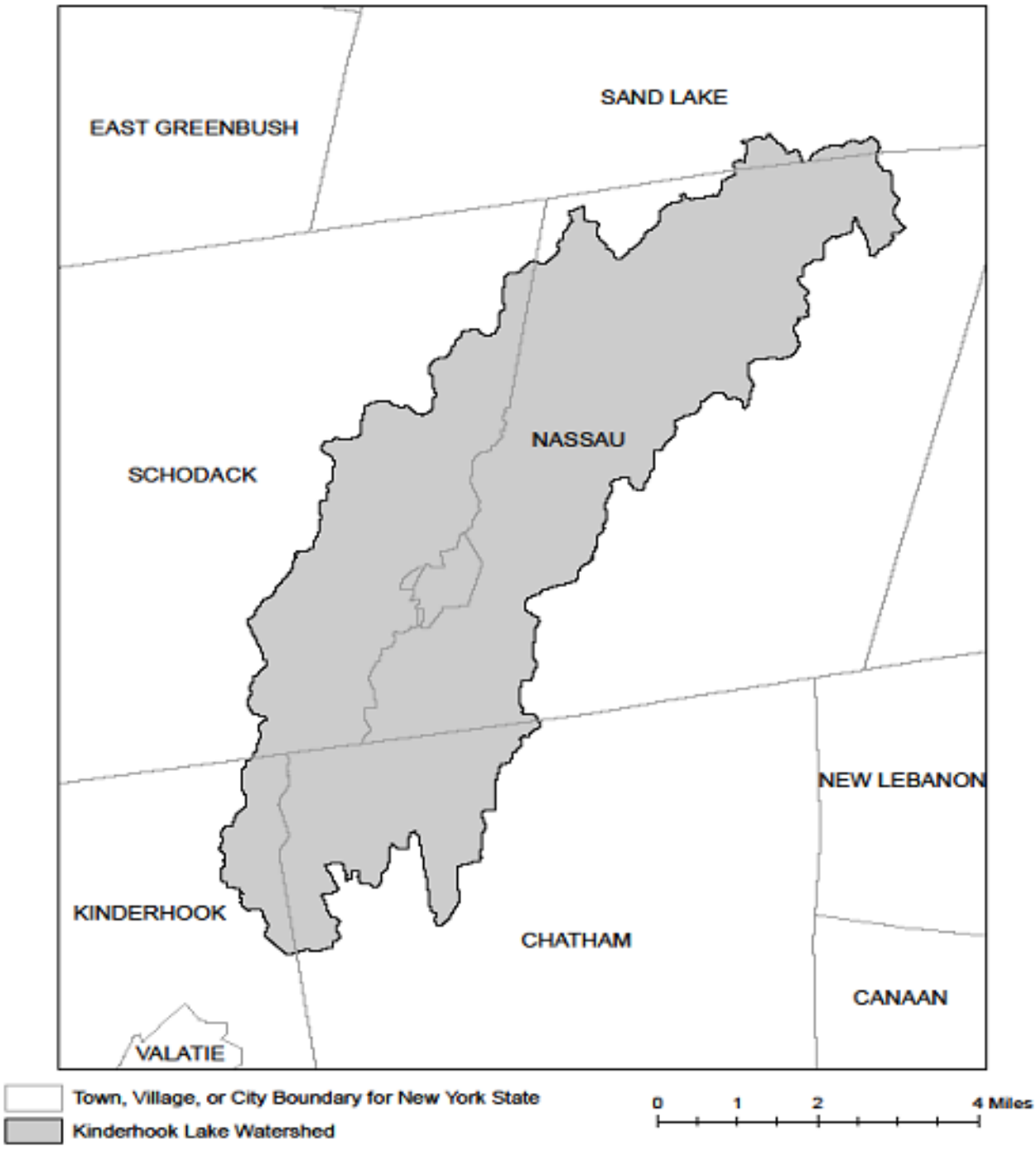


Figure 5 - Kinderhook Lake Watershed



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

APPENDIX I

NEW YORK STATE HISTORIC PRESERVATION OFFICE (SHPO) LETTER

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

September 13, 2019

Mr. Andrew Dangler
USACE Update Regulatory Field Office
1 Buffington Street
Building 10, 3rd Floor North
Watervliet, NY 12819

Re: USACE
Albany Port District Commission Industrial Park Project
City of Albany, Town of Bethlehem, Albany County, NY
18PR07273

Dear Mr. Dangler:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the visual simulation and the August 6, 2019 McFarland Johnson letter noting that the proposed building height has changed and could reach 85 feet in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

The visual simulation of the proposed building shows that the roof will be visible from the National Register eligible Papscanee Island Historic District. As noted in our November 2009 Determination of Eligibility for Papscanee Island, "Papscanee Island is historically and archaeologically significant for its association with the Upper Hudson Valley's predominate native people, the Mohican…"The rich soil along the flats and on Papscanee Island were flooded annually and generations of Mohicans cleared and cultivated these areas."

While some buildings have been introduced into the landscape, these buildings are not directly across from one of the few remaining cultivated areas on the Island. Since only the top of the building will be visible, the SHPO continues to recommend that this undertaking will have **No Adverse Effect** on historic properties with the **condition** that non-reflective, earth toned roofing materials are utilized. Maintaining a non-reflective roof will minimize any visual intrusions and help maintain the agricultural setting of the Papscanee Island Historic District.

If you have any questions, I can be reached at (518) 268-2179.

Sincerely,

Nancy Herter

Nancy Herter
Archaeology Unit Program Coordinator