

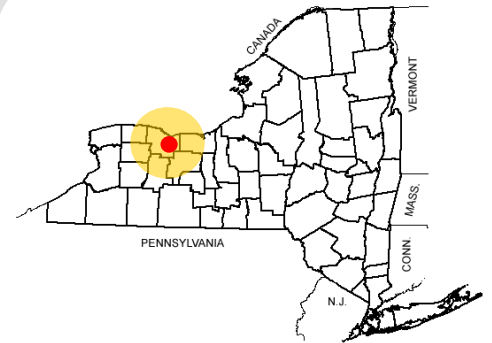


City of Rochester
Department of Environmental Services
30 Church Street
Room 300B
Rochester, New York 14614

West River Wall Improvements City of Rochester Monroe County

City PC 16245
DOS #C1000688

Stormwater Pollution Prevention Plan MARCH 2020



In Association With:



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STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

MARCH 2020

City CP #16245

**West River Wall Improvements – Phase 1
Ford Street to Mark IV Canalway Trail Property
WALL IMPROVEMENTS AND PARK PROJECT**

**CITY OF ROCHESTER
MONROE COUNTY**

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I. Introduction

A stormwater management assessment has been conducted for the proposed project in order 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 (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001 and the New York State Stormwater Management Design Manual. As required, the Stormwater Pollution Prevention Plan (SWPPP) 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, road construction or reconstruction projects 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 **3.3 acres** of soil disturbance is expected during the construction of this project. Therefore, this project requires the development of a full SWPPP, including 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, see **Appendix E**) for itself and all applicable subcontractors at the preconstruction 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 changes made to reflect changes in the design, construction, and operation or in the 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.

(1) Scope of the Project:

The West River Wall project includes redevelopment of an existing park along the Genesee Riverway Trail between Exchange Boulevard and the Genesee River in Rochester, NY.

(2) Location of Project (Narrative):

The project is located in Rochester, Monroe County. The project extends from the Ford Street /Exchange Blvd intersection to the southern boundary of the Mark IV property which includes the Corn Hill Landing Development. The project impacts the following properties: 102 Violetta Street and Exchange Blvd numbers 300, 392, 400, 420, 424, 430, 436, 446, 452, 466, 476,

482, 492, 494, 496, 500-504, and 508. See project drawings for a detailed extents of the project impacts.

The existing storm drain system within the project area is owned and maintained by the City of Rochester. There is one primary drainage system that drains the proposed project site. In both existing and proposed conditions, runoff from the project site will enter the Storm Sewer system owned by the City of Rochester in Exchange Boulevard. The Storm System then outlets directly into the Genesee River upstream of Court Street.

Table 1: Location Table

Approximate Coordinate Position at Center of Project	
Latitude	43.145191 N
Longitude	77.613283 W

(3) Project Type and Size:

The project is a park redevelopment and involves approximately **3.3 acres** of disturbed area within the existing City of Rochester property limits.

(4) Project Description:

The work under this contract involves removing an existing park & trail system and replacing it with a lighted trail system with public plaza area. The project will connect the Genesee Riverway Trail south of the Ford Street bridge overpass to the south end of the Corn Hill Landing (Mark IV) property. The existing flood wall along the river will be partially removed and replaced with a semi-natural shoreline and berm system.

(5) Cultural Resources:

A preliminary review of the New York State Historic Preservation Office (SHPO)'s online Cultural Resource Information System (CRIS) indicated that the project is located in an archaeologically sensitive area. After reviewing the preliminary site plan submission, the Division of Historic Preservation determined that the project activities have No Adverse Effect on historic properties, in a letter dated July 12th, 2019. A copy of the letter is provided in **Appendix F**.

(6) Agency Approvals:

The following outside agency permits/approvals are underway:

Government Entity	Agency and Approval(s) Required	Application Date
a. City Council	Rochester Mayor and City Council	Summer 2019
d. Other local agencies	Rochester Zoning – Site Plan Review & MS4 Review	Summer 2019
e. County agencies	Monroe County Department of Health-Waterline taps	Fall 2019
	Monroe County Department of Transportation – Traffic Control Board Approval	Fall 2019
	Monroe County Pure Waters – Sewer Connection Permit (for stormwater)	Fall 2019
g. State agencies	NYS Department of Environmental Conservation (NYSDEC) – Section 401 Water Quality Certification Permit	Fall 2019
	NYSDEC – Article 15 Protection of Waters Permit	Fall 2019
	NYSDEC – Coverage under SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-15-002)	Fall 2019
	NYSDEC – Beneficial Use Determination	Fall 2019
	NYS Canal Corporation – Funding and Agreement	N/A
	NYS Department of State – Coastal Zone Consistency	Fall 2019
h. Federal agencies	U.S. Army Corps of Engineers – Section 10 NWP	Fall 2019

II. Project Maps and Plans**(1) Location Map:**

See Appendix A

(2) Soil Maps:

See Appendix B

(3) Erosion and Sediment Control Plans:

See Appendix C

(4) Existing and Proposed Subcatchment Maps:

See Appendix D

III. Project Soils

(1) ***NRCS Soil Map at Project Location: See Appendix B***

(2) ***Soil Types:***

The following soil types and hydrologic groups are present within the project area of disturbance:

Table 2: Soil Type

Soil Symbol, Name, % Slope Range	Hydrologic Group (HSG)	Texture	Character	Erosion Hazard Potential	% of Project Area
Ub, Urban Land		Urban Land		*not rated	100%

*The erosion hazard indicated in the table above was originally a consideration in the forestry industry and indicates the susceptibility of a soil to erode in a fully exposed condition. This information is being used to indicate areas of the project which may be of critical concern to the contractor during storm events).

(3) ***Discussion of Soil Characteristics and Soil Erosion Hazard Potential:***

The area of disturbance is comprised primarily entirely of urban land. Alton gravelly fine sandy loam comprises over 95% of the soil found on site. The surrounding area has high density urban development, with the project being bordered by a City Street and the Genesee River. A portion of the site contains previously polluted soils, and a BUD is being developed in parallel with the design process. The erosion potential within the project area is slight, and slopes in the area are very flat. Any areas that are disturbed with greater than 3:1 slopes will be treated accordingly to minimize erosion potential.

IV. Construction Phasing

(1) ***Sequence of Construction Activities:***

The Contractor is required to submit to the Engineer for approval, a construction/progress schedule showing the order in which the Contractor proposes to carry on the work, the date on which the work on the project will start, the major items of work (earth work, excavation, mobilization, soil erosion control measures, highway reconstruction etc.), the critical features and the completed dates for completing each task.

Pre-Phase 1: Setup and Stakeout Activities

Designated Construction Activities:

1. Install PVMS signs per project drawings. PVMS signs shall be in place for a minimum of two weeks before beginning any work or implementing any traffic control.
2. Install project approach signs per project drawings. Project approach signs shall be in place before beginning any work and remain in place for the duration of the contract.

3. Install erosion and sediment control devices.
4. Perform survey and stakeout activities.
5. Perform clearing and grubbing activities.
6. Perform necessary test pits to locate existing underground utilities.

Phase 1: Wall Demolition

Designated Construction Activities:

1. Install cofferdam along the project length in the Genesee River.
2. Partial demolition of existing flood wall, as shown on the contract drawings.
3. Grade new berm areas to proposed finished grade within project limits.
4. Install bank protection measures per contract drawings.

Phase 2: Site Construction

Designated Construction Activities:

1. Install trail sections on north and south end of proposed plaza area.
2. Final grade and seeding of proposed lawn areas adjacent to trail sections.
3. Excavate bioretention areas and install stormwater utilities prior to site work.
4. Mass grade of plaza area and installation of plaza structures, including: sidewalks, seating areas, lighting, etc.
5. Final installation of bioretention areas with imported soil per contract drawings.
6. Final grade, seeding, and plantings within the plaza area.

Finish Activities:

1. Raise all manhole frames and covers, drainage inlet frames and grates, etc. to finished grade.
2. Clean pavement surface, apply tack coat, place final asphalt wearing surface, and install permanent pavement markings.
3. Complete the installation of permanent signing throughout the project limits.
4. Redress all project restoration areas and establish healthy turf throughout the project limits. Remove temporary erosion and sediment control devices once turf has been established.
5. Complete project punch list as ordered by engineer.

Traffic Control Requirements:

1. The contractor shall maintain traffic in accordance with the plans, the contract proposal, NYSDOT Standard Specifications, NYSDOT Standard Sheets, and the M.U.T.C.D. at all times.
2. Maintain short-term traffic control in accordance with applicable NYSDOT 619 series standard sheets and the M.U.T.C.D. All short-term traffic control schemes shall be setup and removed daily unless approved by the Engineer and the City of Rochester.
3. All underground work within roadway or driveway areas shall be completed prior to the placement of permanent asphalt pavement.
4. The Contractor shall maintain access to all adjacent properties (ingress and egress) at all times.
5. Refer to the Traffic Control Notes on the TCN drawings and the special conditions in the contract project proposal for additional traffic control requirements.

V. Erosion and Sediment Control Measures

(1) *Erosion Control Plan:*

An erosion control plan has been developed in accordance with the NYSDOT's technical standards which are contained in the "New York Standards and Specifications for Erosion and Sediment Control". The erosion control plan limits the amount of area exposed prior to stabilization, diverts drainage runoff from adjacent areas away from and around the construction site area, and employs various sediment control methods such as silt fence, vegetation protection barrier, check dams and turbidity curtains.

All temporary erosion and sediment controls will be inspected and maintained in accordance with Section 209 of NYSDOT's 2008 Standard Specification and all addendums.

Locations of off-site material, waste, borrow or equipment storage have not been determined during the design phase of the project. The following sections, but not limited to these sections, of the Department's Standard Specifications address provisions for locations of off-site material, waste, borrow or equipment storage: Sections 107-08, 107-10, and 107-11. Erosion and sediment controls will be utilized as necessary for any incidental disturbances that may result from construction activities.

Construction and waste materials expected to be stored on-site consists of materials and equipment typically used to construct highways. Materials generally consist of soil, stone, guiderails, sign materials, drainage pipes, and concrete drainage structures. Equipment generally consists of heavy earth moving, paving and pavement striping equipment. The following sections, but not limited to these sections, of the NYSDOT Standard Specifications address provisions for construction and waste materials expected to be stored on site: Sections 104-07, and 107-12. The project's Erosion and Sediment Control Notes address provisions for construction and waste materials expected to be stored on site and additional temporary disturbances associated with the contractor's staging and spoil areas will not result in any change to the design or function of any permanent practices described in this report.

Drainage Inlet Protection: Silt fence or gravel bag barriers will be placed around existing and proposed drainage inlets to filter sediment laden discharge prior to entering the drainage inlets.

Temporary Surface Stabilization: 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. Area's remaining unpaved for more than five (5) 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.

Construction Entrance: If required, a stabilized construction entrance will be constructed to access the Contractors Staging/Storage Area. This entrance/area shall conform to the NYSDOT's Standard Specifications and Standard Sheets.

Surface Stabilization: Stabilizing of the graded surfaces will be accomplished by using various seed mix for vegetation. The item for this work shall be progressed under Item 209.1003, Establishing Turf.

Rolled Erosion Control Product: Stabilizing of slopes greater than 4:1 will be accomplished using rolled erosion control product to provide erosion resistance. The item for this work shall be progressed under Item 209.1901, Rolled Erosion Control Product.

Dust Control: The contractor will be required to minimize dust generation during the construction activities. Provisions such as watering, the use of cover materials, and the application of calcium chloride have proven effective in dust control and can be approved by the Engineer for use in the affected areas.

Final Inspection: Prior to the project being finally accepted by the NYSDOT, 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 according to a schedule agreed to by the NYSDOT and the Contractor.

The Erosion Control Plans are included in **Appendix C**.

(2) Applicable Standard Sheets and Special Details:

Dimensions and installation details for erosion and sediment control practices are shown in the NYSDOT Standard Sheets, drawing numbers 209-1 through 209-9 as well as the details included in **Appendix C**. Material specifications, including a maintenance schedule for erosion control measures are described in Section 209 of the NYSDOT Standard Specifications. Siting and sizing of temporary erosion control measures is based on the standards in the “New York State Standards and Specifications for Erosion and Sediment Control”.

(3) Permanent Erosion and Sediment Control Measures:

Table 3: List of Permanent Erosion & Sediment Control Measures

Permanent Feature	Converted Temporary Practice?	Location: ECP Plan #	Receiving Waterbody Protected (where applicable)
Bank Armoring/Stabilization	N/A	1-5	Genesee River
Turf Reinforced Matting	N/A	1-5	Genesee River

(4) Installation Sequence:

SWPPP implementation responsibilities will follow standard contract provisions. The City will be responsible for overseeing and inspecting the Contractor's operations. Section 105 of the NYSDOT Standard Specifications describes the expectations of the contractor and the inspection responsibilities. *See the intended sequence of construction activities noted in Section IV above.*

(5) Maintenance Schedule:

All inspection and maintenance of erosion and sediment control devices shall be in conformance with the Section 209 specifications and the General Permit GP-0-20-001.

Daily Inspections

The Contractor is required to 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 conditions at all times. If deficiencies are identified, the contractor shall begin implementing corrective actions within one (1) business day and shall complete the corrective actions in a reasonable time frame.

Weekly Inspections – (Disturbance < 5 acres)

The contractor is required to have a qualified inspector conduct site inspections where soil disturbance activities are on-going, at least once every seven (7) days. At 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.

The qualified inspector is required to prepare an inspection report (MURK 6 – See **Attachment E**), after each inspection. Within one (1) work day, the qualified inspector must notify the appropriate contractor or subcontractor of any corrective actions that need to be taken.

Within one (1) work day from the completion of the inspection, the contractor shall:

- Repair or rebuild the practice to function as originally intended.
- Remove sediment deposition which reaches one half the height of the practice

The qualified inspector is also required to monitor the amount of open disturbance area at the project site. Temporary stabilization shall be required as soon as practical in all disturbed areas where construction activities have temporarily or permanently ceased.

Temporary Shutdown (Winter Shutdown)

In the event 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. Prior to the reduction of inspections, the City of Rochester must provide approval and notification to NYSDEC (Form HC 210, see **Attachment E**).

The reporting and maintenance requirements are the same as those for the Weekly Inspections.

(6) *SWPPP Implementation Responsibilities:*

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

VI. Existing Watershed Information

(1) *Receiving Waterbodies:*

Table 4: Receiving Waterbodies

Stormwater Structure	Receiving Waterbody	NYSDEC Regulated
Bioretention Area	Genesee River	Class B - Yes

(2) *Existing Watershed Information:*

The existing park land runoff runs overland within the project limits to the east along the Genesee River. The runoff is intercepted by the existing floodwall and collects in large pools, primarily to the south of the project. There is a catch basin on the south end of the project limits that appeared clogged during preliminary inspections. The runoff within Exchange Boulevard is collected by a curb/drain system which conveys stormwater in a closed conduit to the North, where it eventually discharges directly into the Genesee River adjacent to the Court Street Dam.

The drainage system collects primarily street drainage and some of the immediate offsite drainage. The area surrounding the project area is very flat and poorly drained. See the Existing Watershed Map in **Appendix D** for additional information.

VII. Green Infrastructure

(1) *Runoff Reduction Techniques:*

This project is a redevelopment project that contains both new and redevelopment activities. The project results in an increase of approximately 0.2 acres of impervious area. The minimum Runoff Reduction Volume (RRV) for the proposed plaza areas was determined to be 0.003 ac-ft (145 cf).

Infiltration devices are proposed to provide stormwater treatment. These devices allow for 100% of their standard treatment volumes to count as Runoff Reduction volumes; therefore, 100% of the WQV_{target} will be reduced using these devices. The proposed infiltration devices treat approximately 10% of the WQV_{initial} . Stormwater calculations are included in **Appendix D**.

Table 5: Post-Construction Practices

Reduction of Contributing Volume Practices	Description
Bioretention Areas	Two Bioretention areas that receive the split drainage of the proposed plaza area

The nature of parkland/roadway projects limit the use of standard green infrastructure and runoff reduction practices due to the limitations of public parcel ownership (minimum width, site distances, easements, public/private partnership, etc.) and the limited right-of-way width; therefore, methods of maximizing runoff reduction to treat water quality are not applicable to this project. However, using standard practices with runoff reduction potential, the entire water quality volume will be treated with a combination of Runoff Reduction Volume and Water Quality Treatment.

VIII. Post Construction Stormwater Control Practices

(1) *Table of Post Construction Practices: See Table 5 above.*

(2) *Post Construction Practices Plan:*

See **Appendix C** (drawing MSD-13) for bioretention area details.

(3) *Hydraulic Analysis of Stormwater Control Practices Including Pre-Development and Post-Development Conditions:*

The following table is a summary of the Watershed Physical Parameters for the proposed Stormwater Control Practices.

Table 6: Stormwater Management Plan Summary – Water Quality

Stormwater Volume Parameters	
Disturbed Area	3.3 acres
Existing Impervious Area	0.0 acres
Proposed Impervious Area	0.2 acres
Redeveloped Impervious Area	0.0 acres
New Impervious Area	0.2 acres
Water Quality Volume Required (WQv _{initial})	0.017 ac-ft / 724 cf
Minimum Runoff Reduction Volume (RRv) Required	0.003 ac-ft / 145 cf
RRv Provided	0.007 ac-ft / 298 cf
WQv Provided	0.010 ac-ft / 426 cf
Total RRv and WQv Provided	0.017 ac-ft / 724 cf

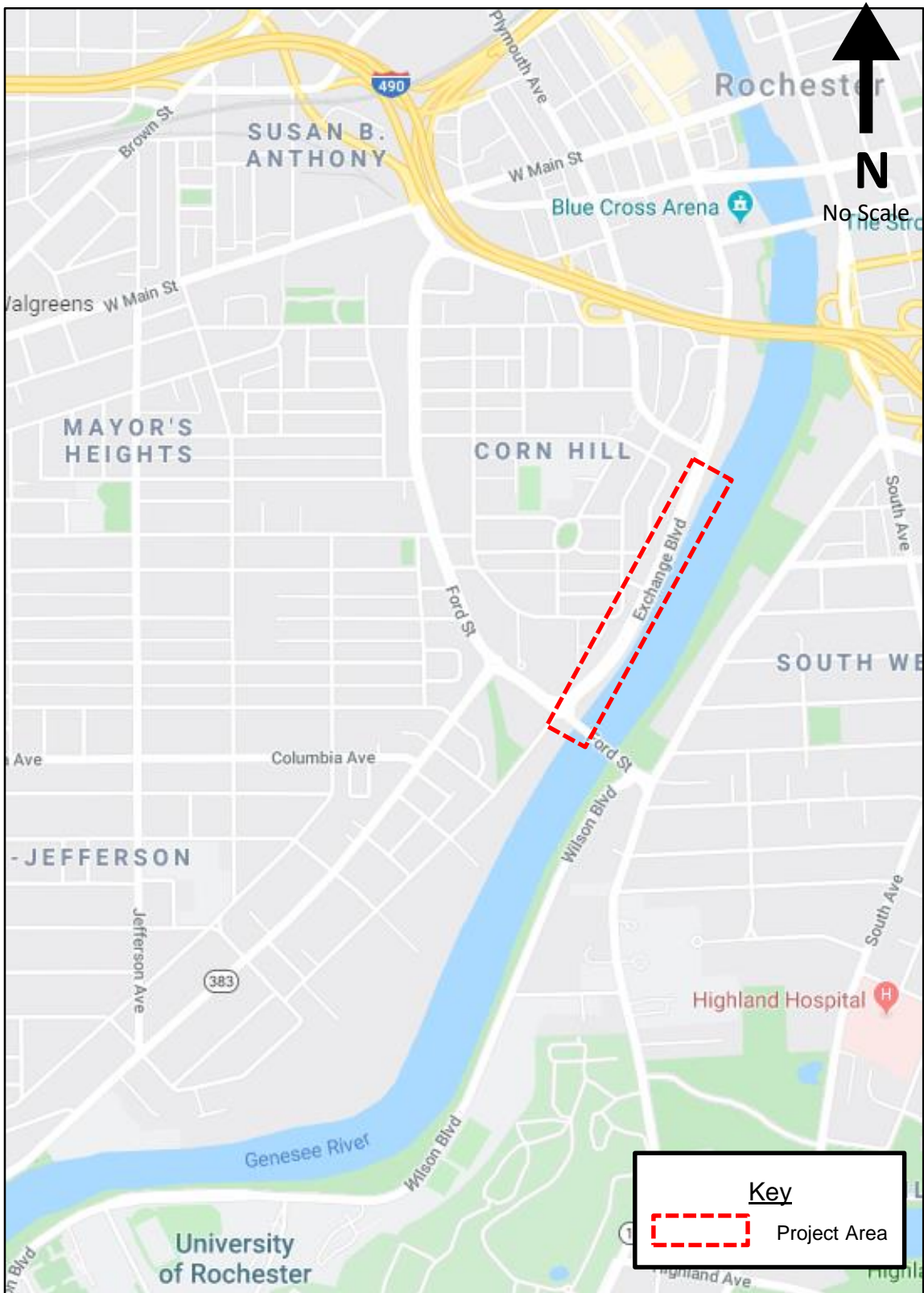
The proposed drainage system will collect the runoff from the plaza area and direct flow to two bioretention areas. The bioretention areas will discharge via separate storm laterals into the existing stormwater trunk main in Exchange Boulevard. The NYSDEC provided Bergmann guidance on the treatment of trails on the project site and advised to exclude them from the Water Quality calculations. There is a very minor increase in the overall impervious area. The increase is not enough to cause an increase in the Curve Number, nor is it a more than 10% increase in the overall drainage area. While this would typically serve as criteria for voiding quantity control measures, the site discharges directly to the Genesee River, and therefore does not require Quantity Control.

(4) Maintenance Schedule of Post-construction Stormwater Control Practices:**Table 7: Maintenance Schedule of Post-Construction Stormwater Management Facilities**

Maintenance Schedule	
Maintained by	City of Rochester
Name, Address, Phone of Responsible Party	City of Rochester – City Hall 30 Church Street Rochester, NY 14614
Facilities to be Maintained	Bioretention Areas
Description of Maintenance Activity for each Facility and Frequency	Monitor annually and clean filter material if inspections return signs of failure.
Description of Applicable Easements	Stormwater Facilities are located within City of Rochester property and right-of-way
Description of funding source	City of Rochester maintenance funds
Access and safety issues	City of Rochester maintenance forces have access to all drainage facilities within the right-of-way and parkland
Testing and disposal of sediments	Responsibility of City of Rochester
Local and non-local permits	N/A
Legal agreements	N/A

APPENDIX A

Location Map



Project Location Map

SWPPP Appendix A
City PC # 16245
West River Wall
Improvements



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

December 2019

APPENDIX B

Soils Information



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 **Monroe County, New York**

West River Wall



September 16, 2019

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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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

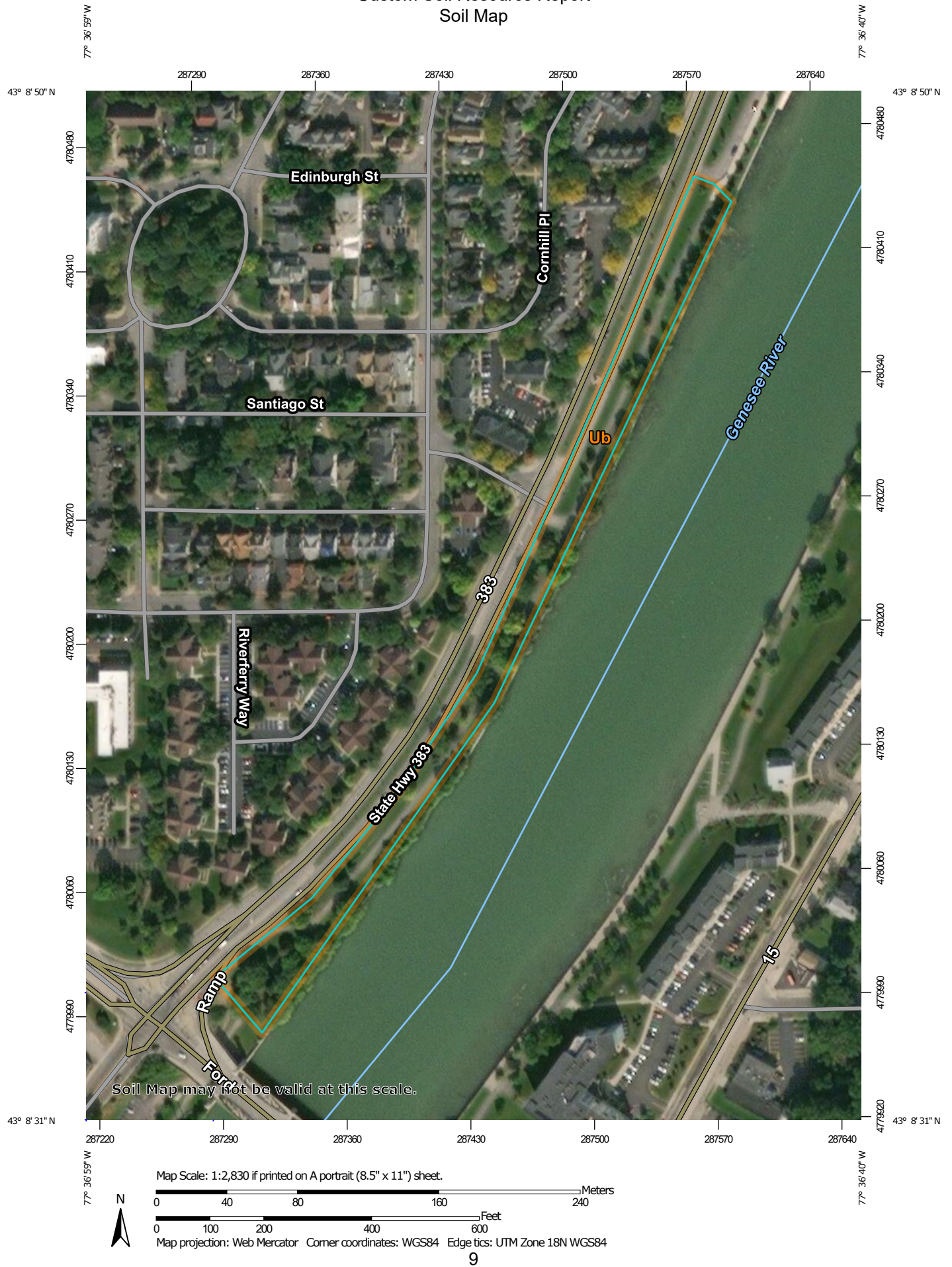
Custom Soil Resource Report

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



Custom Soil Resource Report

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: Monroe County, New York

Survey Area Data: Version 17, Sep 3, 2018

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 16, 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
Ub	Urban land	2.8	100.0%
Totals for Area of Interest		2.8	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.

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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.

Monroe County, New York

Ub—Urban land

Map Unit Setting

National map unit symbol: 9tn8

Mean annual precipitation: 30 to 35 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 145 to 190 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Alton

Percent of map unit: 5 percent

Hydric soil rating: No

Madrid

Percent of map unit: 5 percent

Hydric soil rating: No

Sun

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Brockport

Percent of map unit: 5 percent

Hydric soil rating: No

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Geotechnical Engineering Report

West River Wall Reconstruction Project – Segment 1

Rochester, New York

August 1, 2018 ■ Terracon Project No. J5185078



EXPLORATION AND TESTING PROCEDURES

Field Exploration

Exploration Number	Boring Depth (feet)	Location
Seven Structural Borings designated as SB-1/1A ¹ , SB-4, SB-7, SB-9, A-5, A-6, and A-7	15.4 to 54.4	Behind (Landside) of Existing West River Wall
^{1.} At SB-1 auger refusal encountered at 14 feet upon a boulder. Boring was then moved approximately 10 feet away from river and re-drilled as SB-1A		

Exploration Layout and Elevations: The boring layout was performed by others.

Subsurface Exploration Procedures: NWECC performed the soil subsurface explorations. The borings were drilled with a rotary drilling rig using continuous flight, hollow-stemmed augers to advance the boreholes. Samples were obtained using split-barrel sampling procedures. In the split-barrel sampling procedure, a standard 2-inch O.D. split-barrel sampling spoon is driven into the ground with a 140-pound hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the middle 12 inches of a normal 24-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths.

When auger refusal was encountered upon bedrock, rock cores were obtained at SB-1A, SB-4, SB-9, A-5, and A-7 to investigate the nature and quality of the underlying bedrock. The percent recovery and the Rock Quality Designation (RQD) for the recovered sample were recorded. The percent recovery is the ratio of the length of rock recovered over the length of coring. The RQD is the ratio of the sum of the length of recovered rock core 4 inches or greater in length, over the length of rock core recovered. The RQD is useful in providing a qualitative and quantitative evaluation of the engineering quality of bedrock. Representative portions of the soil samples and rock cores recovered from the test borings were transported to our office for visual classification by a geotechnical engineer and select portions of the rock cores were laboratory tested for compressive strength.

The sampling depths, penetration distances, and other sampling information are recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for laboratory testing.

Laboratory Testing

Terracon reviewed the field data and assigned various laboratory tests to better understand the engineering properties of the various soil and rock strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to

Geotechnical Engineering Report

West River Wall Reconstruction Project – Segment 1

Rochester, New York

August 1, 2018 ■ Terracon Project No. J5185078



methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D6913 Standard Test Method for Particle-Size Distribution (Gradation) of Soil Using Sieve Analysis
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D7012 Standard Test Methods for Compressive Strength and Elastic Modulus of Intact Rock Core Specimens

Soil and rock classification and borings logs were prepared by NWECC. The soils samples and rock cores recovered from the borings were transported to Terracon laboratory for visual observations by a geotechnical engineer and laboratory testing. Rock classification was conducted using locally accepted practices for engineering purposes; petrographic analysis may reveal other rock types. Rock core samples typically provide an improved specimen for this classification. Boring log rock classification was determined using the Description of Rock Properties.

SITE LOCATION AND EXPLORATION PLANS

SITE LOCATION

West River Wall - Segment 1 ■ Rochester, NY
August 1, 2018 ■ Terracon Project No. J5185078

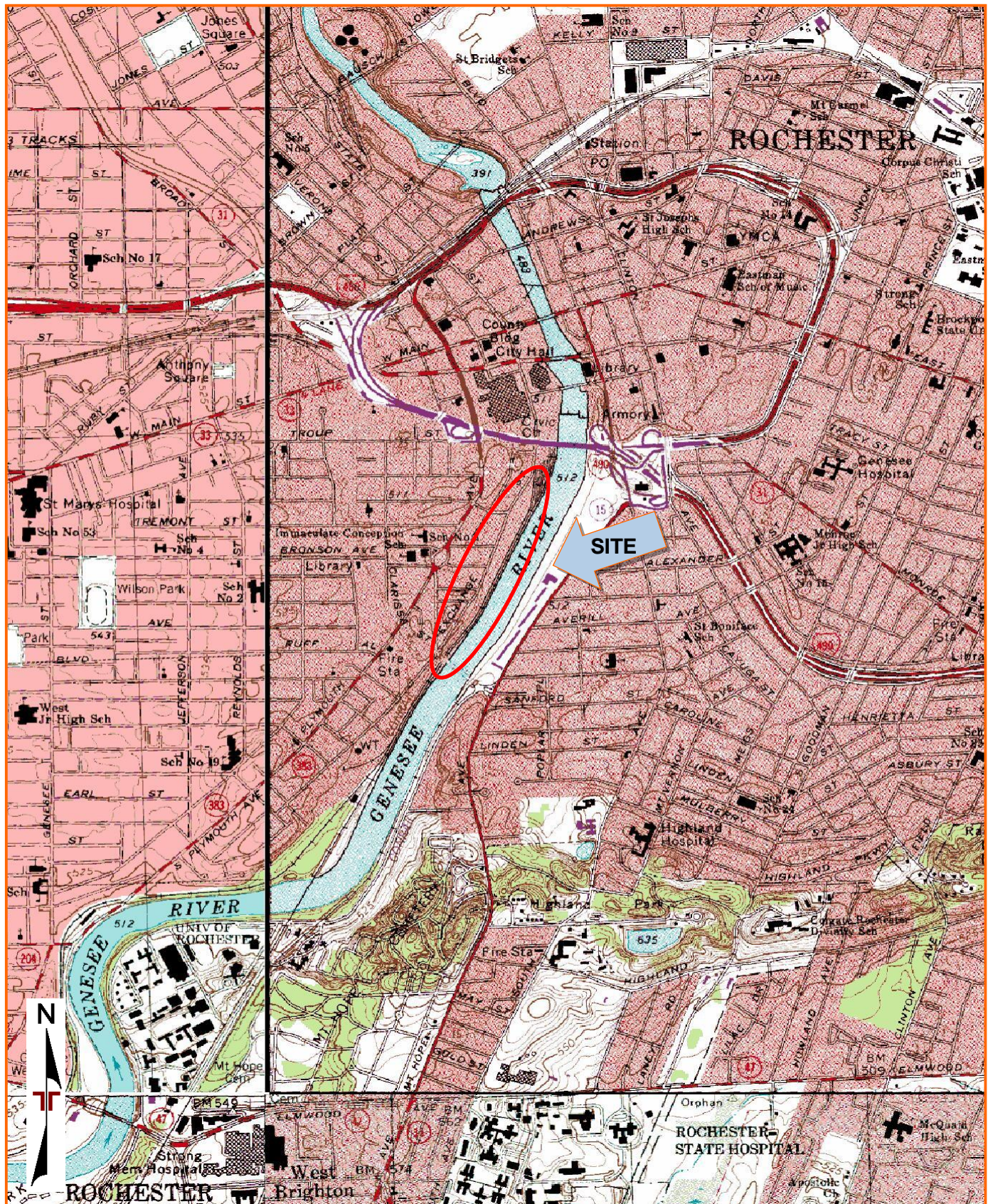


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS
NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: ROCHESTER WEST, NY (1/1/1994), ROCHESTER EAST,
NY (1/1/1978), WEST HENRIETTA, NY (1/1/1978) and PITTSFORD, NY (1/1/1994).

EXPLORATION PLAN

West River Wall - Segment 1 ■ Rochester, NY
August 1, 2018 ■ Terracon Project No. J5185078



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS
NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED
BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Hole Number: SB-1

ELEVATION: _____

DATE: 5/15/18

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR: _____

BORING LOCATION: Bergmann Associates

[illegible]

LOGGED BY: Dale M. Gramza, P.G.

PAGE 1 of 1



3553 Crittenden Road
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Hole Number: SB-1A

DATE: 5/15/18

ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR: _____

BORING LOCATION: Bergmann Associates

SN	0/ 6	6/ 12	12/ 18	18/ 24	N	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
0							Advanced NW casing without sampling to 14.0' bgs		Below 14.0' - Sandy slack water sediment with some silt to 18.0 feet over water sorted and deposited sand and gravel with little to some silt to 19.4 feet over dolostone boulder to 22.4 feet over silty glacial drift to 25.0 feet over sandy glacial drift to 27.9 feet over dolostone bedrock to end of coring
5									
10									
15	9	4	2		4		Wet, gray (SILTY-SAND) with very fine size sand, some silt, loose to very loose, thinly bedded with fibrous wood material	0.5'	
	10	2						1.0'	
		1			2				
			1						
				2					
	11	16					Wet, gray, very gravelly (SILTY-SAND) with 40 to 50% gravel, very fine size sand, little to some silt, very dense, stratified	0.4'	
		50/5"			>50				
20							See next sheet		

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PAGE 1 of 3

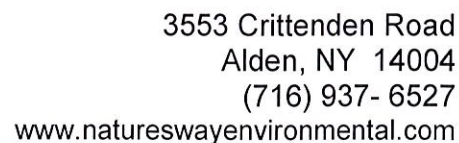


ELEVATION:

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

BORING LOCATION: Bergmann Associates

LOGGED BY: Dale M. Gramza, P.G.



ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

BORING LOCATION: Bergmann Associates

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Hole Number: SB-4

DATE: 5/18/18

ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR: _____

BORING LOCATION: Bergmann Associates

SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
1	4						Moist, dark gray (SILT) topsoil / fill with trace very fine size sand, loose, with fine size roots	1.0'	Topsoil / fill to 0.4 foot over sand and gravel fill with cobbles and occasional boulders to 6.0 feet over silty soil fill with some gravel to 10.0 feet over silty slack water sediment with trace sand to 16.0 feet over water sorted and deposited sand and gravel with little silt to 21.0 feet over silty glacial till to 26.3 feet over dolostone bedrock to end of coring
2	8						Moist, dark gray to brown, very gravelly (SILTY-SAND) fill with 40 to 50% gravel and slag with cobbles and occasional boulders, very fine to coarse size sand, little silt, loose to compact	0.8'	
3	9							0.3'	
4	4						Extremely moist to wet, brown and dark gray, gravelly (SILT) fill with 20 to 40% gravel with occasional cobbles and boulders, trace very fine size sand, compact	0.8'	
5	5							0.8'	
6	WH						Extremely moist, gray to brown (SILT) with trace very fine size sand, compact to loose, thinly bedded	1.0'	▼ Water Level at 8.6' bgs on 5/21/18 in AM
7	3							1.0'	▼ Water Level at 9.7' bgs at end of day on 5/18/18 with HSA at 16.0'
8	1							1.2'	WH - Sampler Penetration with weight of Rods and Hammer
9	18						Wet, gray, very gravelly (SILTY-SAND) with 40 to 50% gravel, very fine to medium size sand, little silt, very dense to compact, stratified	1.3'	
10	5							1.5'	

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PAGE 1 of 3



ELEVATION:

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

BORING LOCATION: Bergmann Associates

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DATE: 5/18/18

ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements

Exchange Street, Rochester, NY

PREPARED FOR:

BORING LOCATION: Bergmann Associates

[illegible]

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PAGE 3 of 3



ELEVATION:

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

BORING LOCATION: Bergmann Associates

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ELEVATION:

PREPARED FOR: _____
BORING LOCATION: _____ Bergmann Associates

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Hole Number: A-5

ELEVATION: _____

DATE: 5/22/18

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR: _____

BORING LOCATION: Bergmann Associates

SN	0/6	6/12	12/18	18/24	N	LITH	DESCRIPTION AND CLASSIFICATION	REC	COMMENTS
1	2						Moist, dark gray (SILT) topsoil / fill with trace very fine size sand, loose, with fine size roots	0.4'	
		4			10		Moist, brown, gravelly (SILTY-SAND) fill with 15 to 25% gravel, very fine size sand, loose	2.0'	
2	5						Moist, brown (CLAYEY-SILT) fill with little clay, firm	3.0'	
		5			8		Moist, dark gray, gravelly (SAND) fill with 20 to 40% gravel and cinders, very fine to very coarse size sand, loose	1.3'	
			3						
				6					
3	5								
		4			8				
			4						
				3					
4	2						Extremely moist, brown (SILT) fill with 5 to 15% red brick fragments, trace very fine size sand	6.0'	
		4			8				
			4						
				3					
5	2						Cinder and ash fill	7.5'	
		1			1				
			0						
				1					
6	WH						Wet, olive gray (SILTY-SAND) with very fine size sand, some silt, very loose, thinly bedded	9.5'	
		WH							
			WH						
				1					
7	WH						Wet, faintly mottled, olive brown to gray (SILT) with trace very fine size sand, very loose, thinly bedded	12.0'	
		WH							
			WH						
				1					
8	WH								
		WH							
			2						
				1					
9	WH						Wet, gray (SILTY-SAND) with very fine size sand, little silt, very loose, thinly bedded	16.0'	
		1			7				
			6						
				47					
10	12						Wet, brown, very gravelly (SILTY-SAND) with 40 to 50% gravel, very fine to coarse size sand, little silt, very dense, massive soil structure to weakly stratified	18.0'	
		52							
			50/4"		>102				

▼ Water Level at 9.5' bgs prior to Coring
WH - Sampler Penetration with weight of Rods and Hammer

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ELEVATION:

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BORING LOCATION: _____ Bergmann Associates

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ELEVATION: _____

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HOLE NUMBER: A-6 / SB-18

DATE: 5/25/18

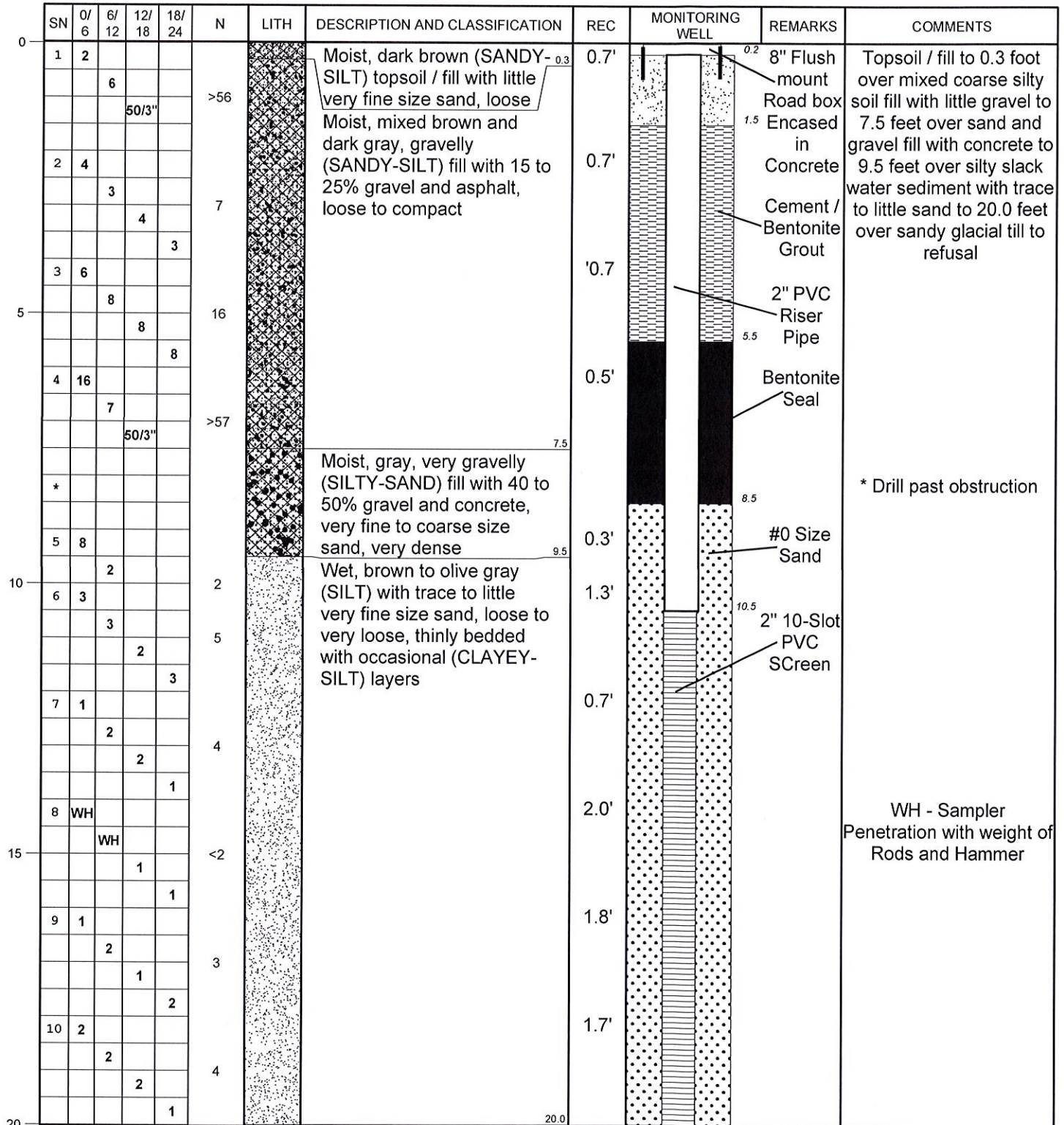
ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements

Exchange Street, Rochester, NY

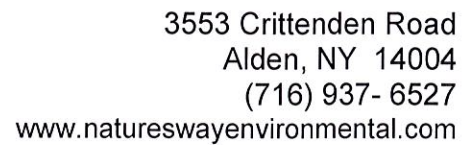
PREPARED FOR: _____

BORING LOCATION: Bergmann Associates



LOGGED BY: Dale M. Gramza, P.G.

PAGE 1 of 2



ELEVATION:

BORING LOCATION: Bergmann Associates

LOGGED BY: Dale M. Gramza, P.G. PAGE 2 of 2



3553 Crittenden Road
Alden, NY 14004
(716) 937- 6527
www.natureswayenvironmental.com

HOLE NUMBER: A-7

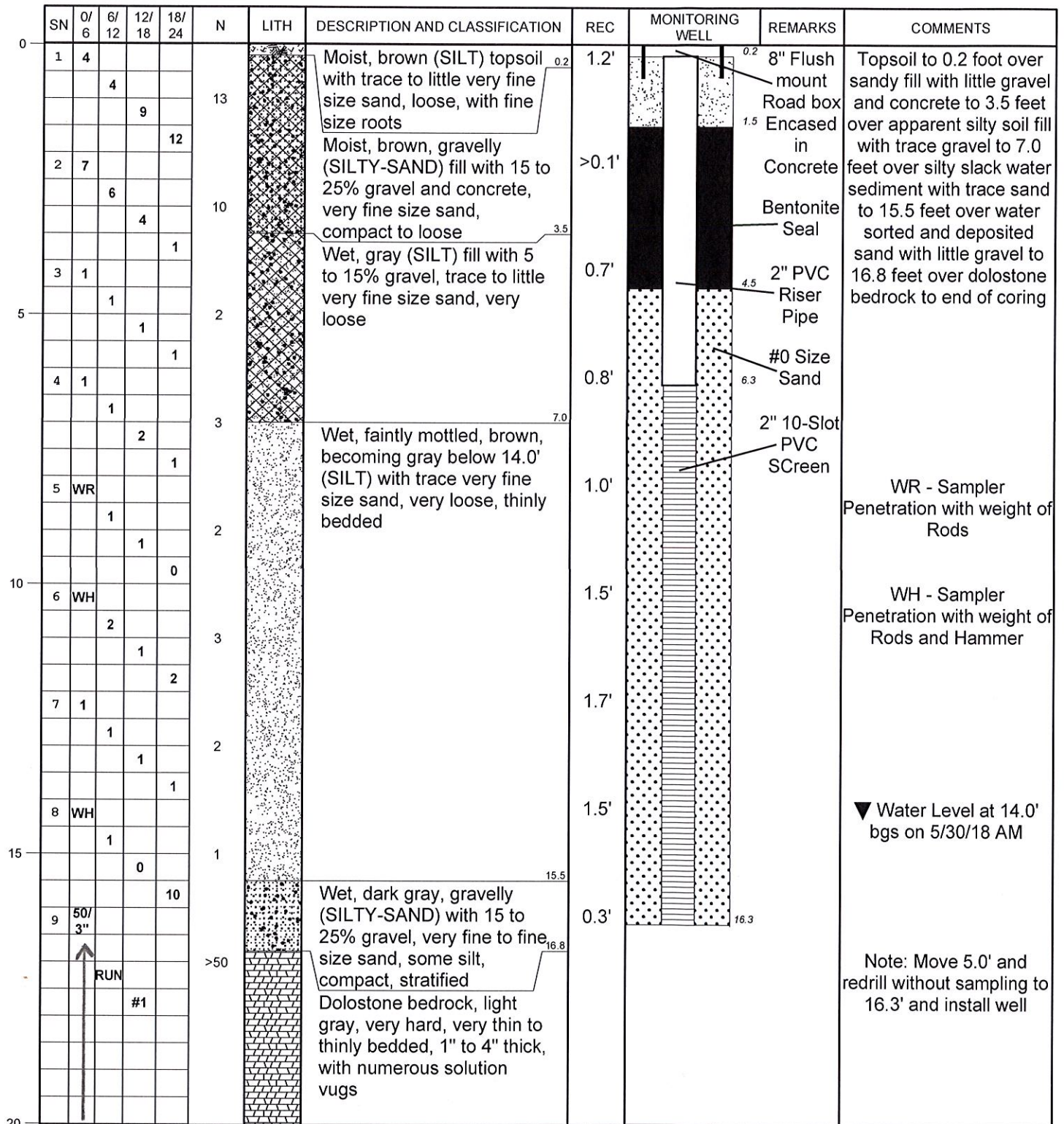
DATE: 5/29/18

ELEVATION: _____

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR: _____

BORING LOCATION: Bergmann Associates



LOGGED BY: Dale M. Gramza, P.G.

PAGE 1 of 3

DATE: 5/29/18

ELEVATION:

PROJECT: Subsurface Investigation for the Proposed West River Wall Improvements
Exchange Street, Rochester, NY

PREPARED FOR:

BORING LOCATION: Bergmann Associates

[illegible]

LOGGED BY: Dale M. Gramza, P.G.

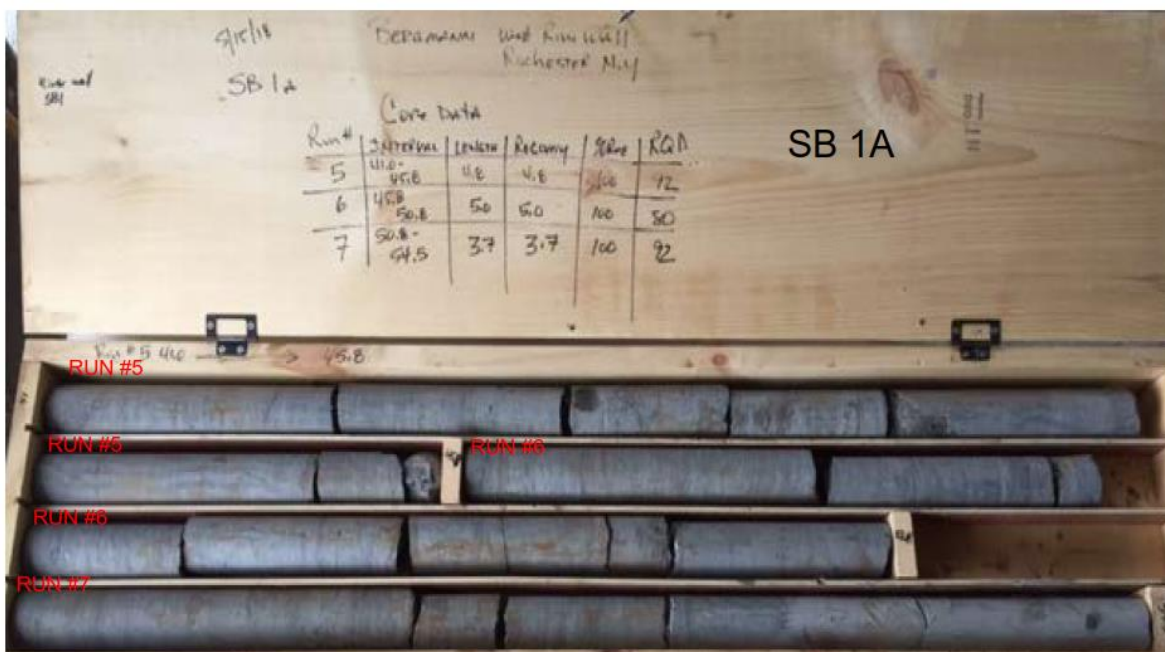
PAGE 3 of 3

ROCK CORE PHOTOS

West River Wall Reconstruction Project – Segment 1 ■ Rochester, Monroe County, New York
August 1, 2018 ■ Terracon Project No. J5185078



Rock cores extracted at boring: SB-1A - Runs 1 to 4



Rock cores extracted at boring: SB-1A – Runs 5 to 7

Boring	Run No.	Depth (ft)	Recovery (%)	RQD (%)
SB-1A	1	19.4-22.4	43	0 (Boulder)
SB-1A	2	27.9-32.4	96	76
SB-1A	3	32.4-37.0	100	78
SB-1A	4	37.0-41.0	95	87
SB-1A	5	41.0-45.8	100	92
SB-1A	6	45.8-50.8	100	80
SB-1A	7	50.8-54.5	100	92

ROCK CORE PHOTOS

West River Wall Reconstruction Project – Segment 1 ■ Rochester, Monroe County, New York
August 1, 2018 ■ Terracon Project No. J5185078



Rock cores extracted at boring: SB-4 - Runs 1 to 3



Rock cores extracted at boring: SB-4 – Runs 3 (continue) to 5

Boring	Run No.	Depth (ft)	Recovery (%)	RQD (%)
SB-4	1	26.3-31.7	98	77
SB-4	2	31.7-36.4	97	97
SB-4	3	36.4-41.1	100	94
SB-4	4	41.1-45.9	100	100
SB-4	5	45.9-50.9	100	80

ROCK CORE PHOTOS

West River Wall Reconstruction Project – Segment 1 ■ Rochester, Monroe County, New York
August 1, 2018 ■ Terracon Project No. J5185078



Rock cores extracted at boring: SB-9 - Runs 1 to 3



Rock cores extracted at boring: SB-9 – Runs 4 and 5

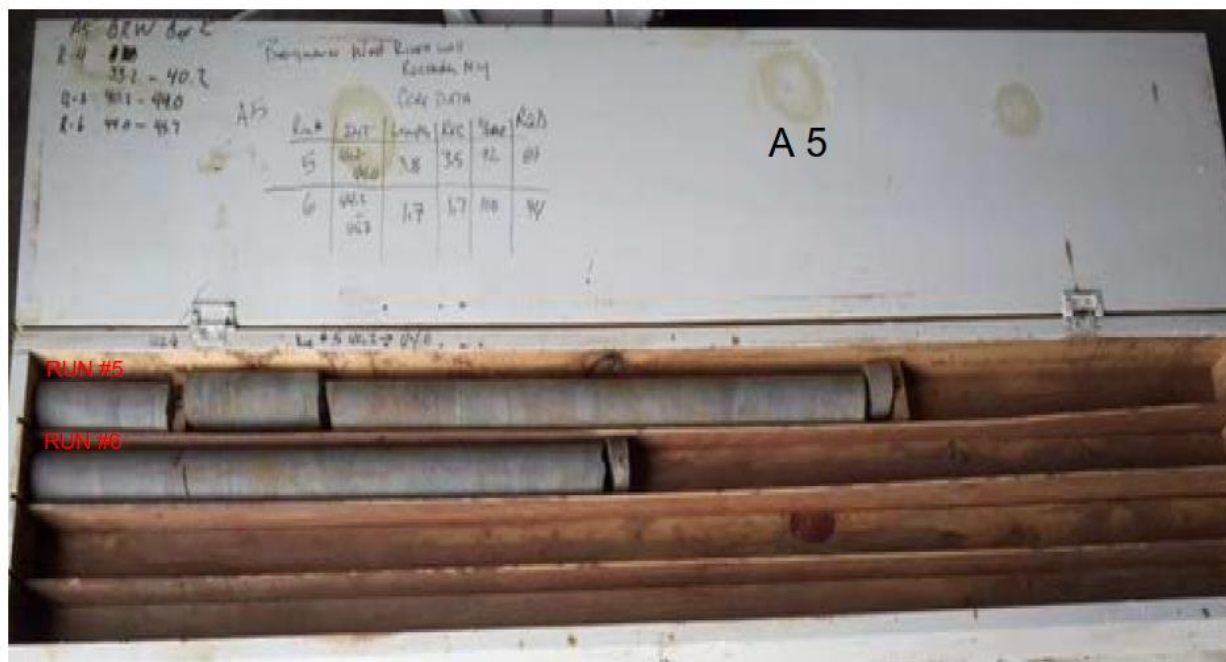
Boring	Run No.	Depth (ft)	Recovery (%)	RQD (%)
SB-9	1	14.8-19.7	100	69
SB-9	2	19.7-24.2	93	77
SB-9	3	24.2-29.0	100	79
SB-9	4	29.0-33.7	98	83
SB-9	5	33.7-38.7	100	94

ROCK CORE PHOTOS

West River Wall Reconstruction Project – Segment 1 ■ Rochester, Monroe County, New York
August 1, 2018 ■ Terracon Project No. J5185078



Rock cores extracted at boring: A-5 - Runs 1 to 4

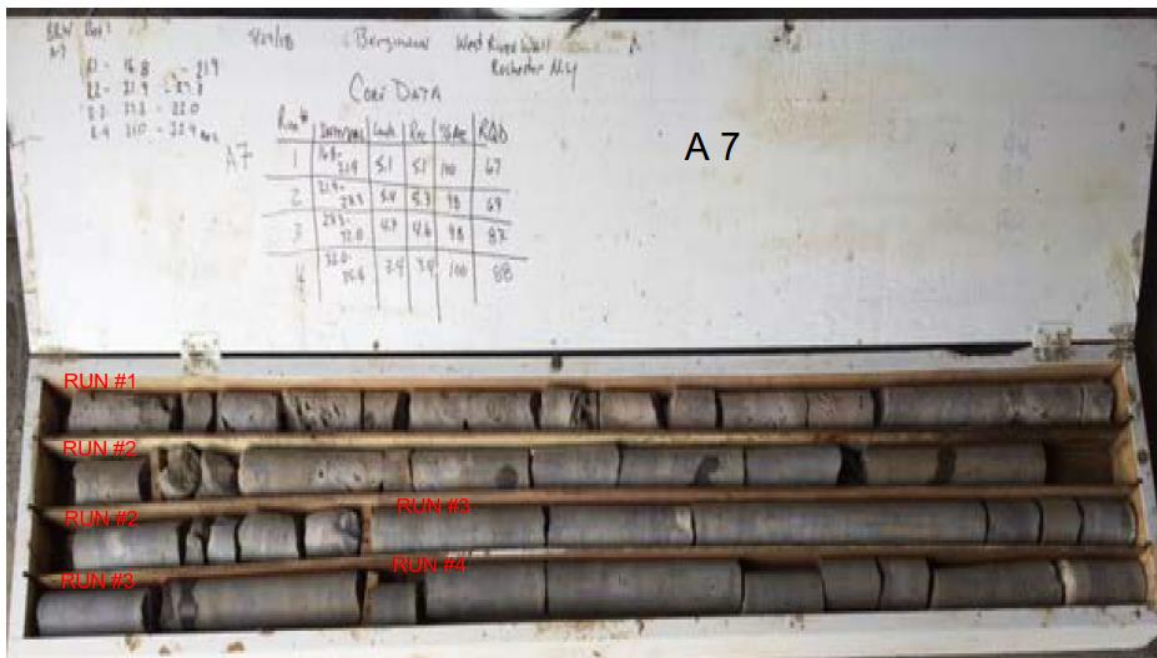


Rock cores extracted at boring: A-5 – Runs 5 and 6

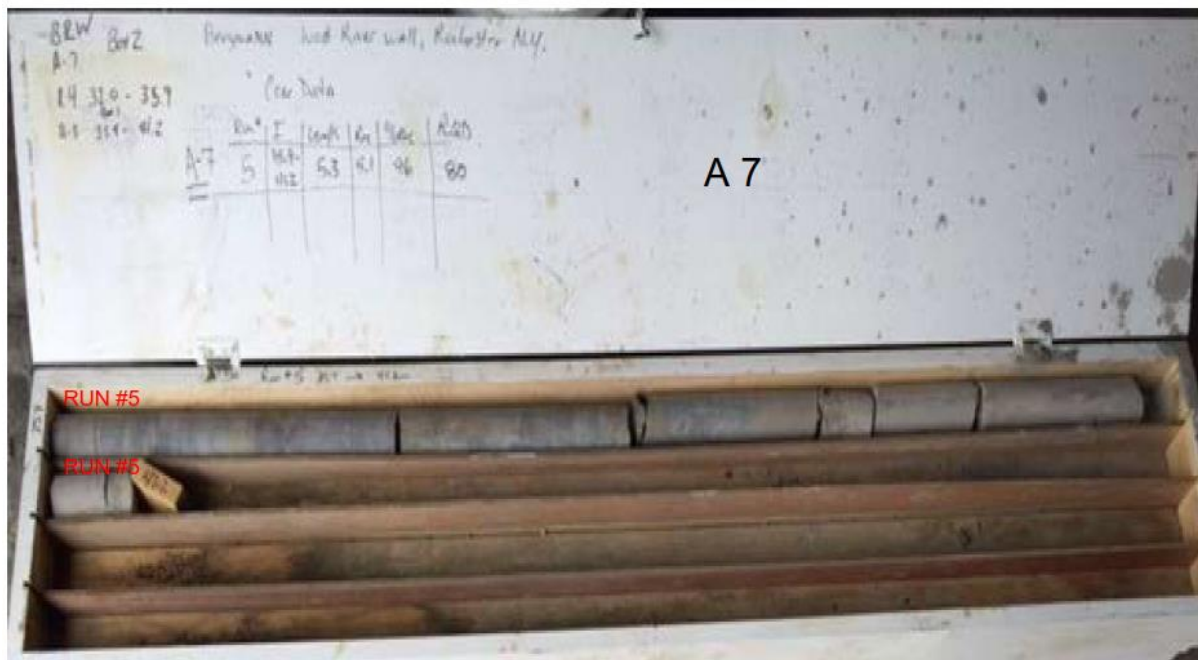
Boring	Run No.	Depth (ft)	Recovery (%)	RQD (%)
A-5	1	20.7-25.4	98	70
A-5	2	25.4-30.4	96	76
A-5	3	30.4-35.2	98	93
A-5	4	35.2-40.2	100	90
A-5	5	40.2-44.0	92	89
A-5	6	44.0-45.7	100	94

ROCK CORE PHOTOS

West River Wall Reconstruction Project – Segment 1 ■ Rochester, Monroe County, New York
August 1, 2018 ■ Terracon Project No. J5185078



Rock cores extracted at boring: A-7 - Runs 1 to 4



Rock cores extracted at boring: A-7 – Run 5

Boring	Run No.	Depth (ft)	Recovery (%)	RQD (%)
A-7	1	16.8-21.9	100	67
A-7	2	21.9-27.3	98	69
A-7	3	27.3-32.0	98	87
A-7	4	32.0-35.9	95	88
A-7	5	35.9-41.2	96	80

ASTM D7012 (Method C) Standard Test Method for Compressive Strength

Boring No.: SB-1
 Sample No.: C-1
 Sample Depth: 40'
 Sampling Date:

Lithology : Dolostone
 Moisture Content : N/A
 Lab Temperature :
 Loading Rate: 30 psi/s
 Time to Failure:

Diameter: 1.970 in
 Length: 8.080 in
 L/D: 4.1

Unit Weight of Rock : 160 pcf
 Maximum Axial Load at Failure: 24050 lb
 Compressive Strength: 54 Mpa
(7890) psi

Comments :

Project:	West River Wall-Segment 1
Project No	J5185078
Location:	Rochester, NY
Client :	NWECC

Terracon
 15 Marway Cir. Ste 2B
 Rochester, NY

Technician:	Zeru Kiffle
Test Date:	7/17/2018
Reviewed By :	MAF
Review Date :	7/17/2018

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ASTM D7012 (Method C) Standard Test Method for Compressive Strength

Boring No.: SB-4
 Sample No.:
 Sample Depth: 32'
 Sampling Date:

Lithology : Dolostone
 Moisture Content : N/A
 Lab Temperature :
 Loading Rate: 30 psi/s
 Time to Failure:

Diameter: 1.940 in
 Length: 8.330 in
 L/D: 4.3

Unit Weight of Rock : 160 pcf
 Maximum Axial Load at
 Failure: 47360 lb
 Compressive Strength: 110 Mpa
(16022) psi

Comments :

Project:	West River Wall-Segment 1	 15 Marway Cir. Ste 2B Rochester, NY	Technician:	Zeru Kiffle
Project No	J5185078		Test Date:	7/17/2018
Location:	Rochester, NY		Reviewed By :	MAF
Client :	NWECC		Review Date :	7/17/2018

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ASTM D7012 (Method C) Standard Test Method for Compressive Strength

Boring No.: SB-9
 Sample No.:
 Sample Depth: 23'
 Sampling Date:

Lithology : Dolostone
 Moisture Content : N/A
 Lab Temperature :
 Loading Rate: 30 psi/s
 Time to Failure:

Diameter: 1.980 in
 Length: 6.250 in
 L/D: 3.2

Unit Weight of Rock : 160 pcf
 Maximum Axial Load at
 Failure: 13200 lb
 Compressive Strength: 30 Mpa
(4287) psi

Comments :

Project:	West River Wall-Segment 1	 15 Marway Cir. Ste 2B Rochester, NY	Technician:	Zeru Kiffle
Project No	J5185078		Test Date:	7/17/2018
Location:	Rochester, NY		Reviewed By :	MAF
Client :	NWECC		Review Date :	7/17/2018

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ASTM D7012 (Method C) Standard Test Method for Compressive Strength

Boring No.: A-5
 Sample No.:
 Sample Depth: 37'
 Sampling Date:

Lithology : Dolostone
 Moisture Content : N/A
 Lab Temperature :
 Loading Rate: 30 psi/s
 Time to Failure:

Diameter: 1.980 in
 Length: 6.330 in
 L/D: 3.2

Unit Weight of Rock : 160 pcf
 Maximum Axial Load at Failure: 31370 lb
 Compressive Strength: 70 Mpa
(10188) psi

Comments :

Project:	West River Wall-Segment 1
Project No	J5185078
Location:	Rochester, NY
Client :	NWECC

Terracon
 15 Marway Cir. Ste 2B
 Rochester, NY

Technician:	Zeru Kiffle
Test Date:	7/17/2018
Reviewed By :	MAF
Review Date :	7/17/2018

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ASTM D7012 (Method C) Standard Test Method for Compressive Strength

Boring No.: A-7
 Sample No.:
 Sample Depth: 27'
 Sampling Date:

Lithology : Dolostone
 Moisture Content : N/A
 Lab Temperature :
 Loading Rate: 30 psi/s
 Time to Failure:

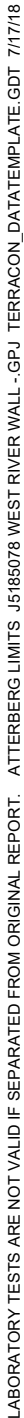
Diameter: 1.960 in
 Length: 6.500 in
 L/D: 3.3

Unit Weight of Rock : 160 pcf
 Maximum Axial Load at
 Failure: 30790 lb
 Compressive Strength: 70 Mpa
(10205) psi

Comments :

Project:	West River Wall-Segment 1	 15 Marway Cir. Ste 2B Rochester, NY	Technician:	Zeru Kiffle
Project No	J5185078		Test Date:	7/17/2018
Location:	Rochester, NY		Reviewed By :	MAF
Client :	NWECC		Review Date :	7/17/2018

The information contained in this report may not be reproduced except in its entirety without the express written consent of Terracon, Inc. Reports are relevant only to the items tested and may not be attributed to other work. Testing was performed in general accordance with the stated ASTM test method.

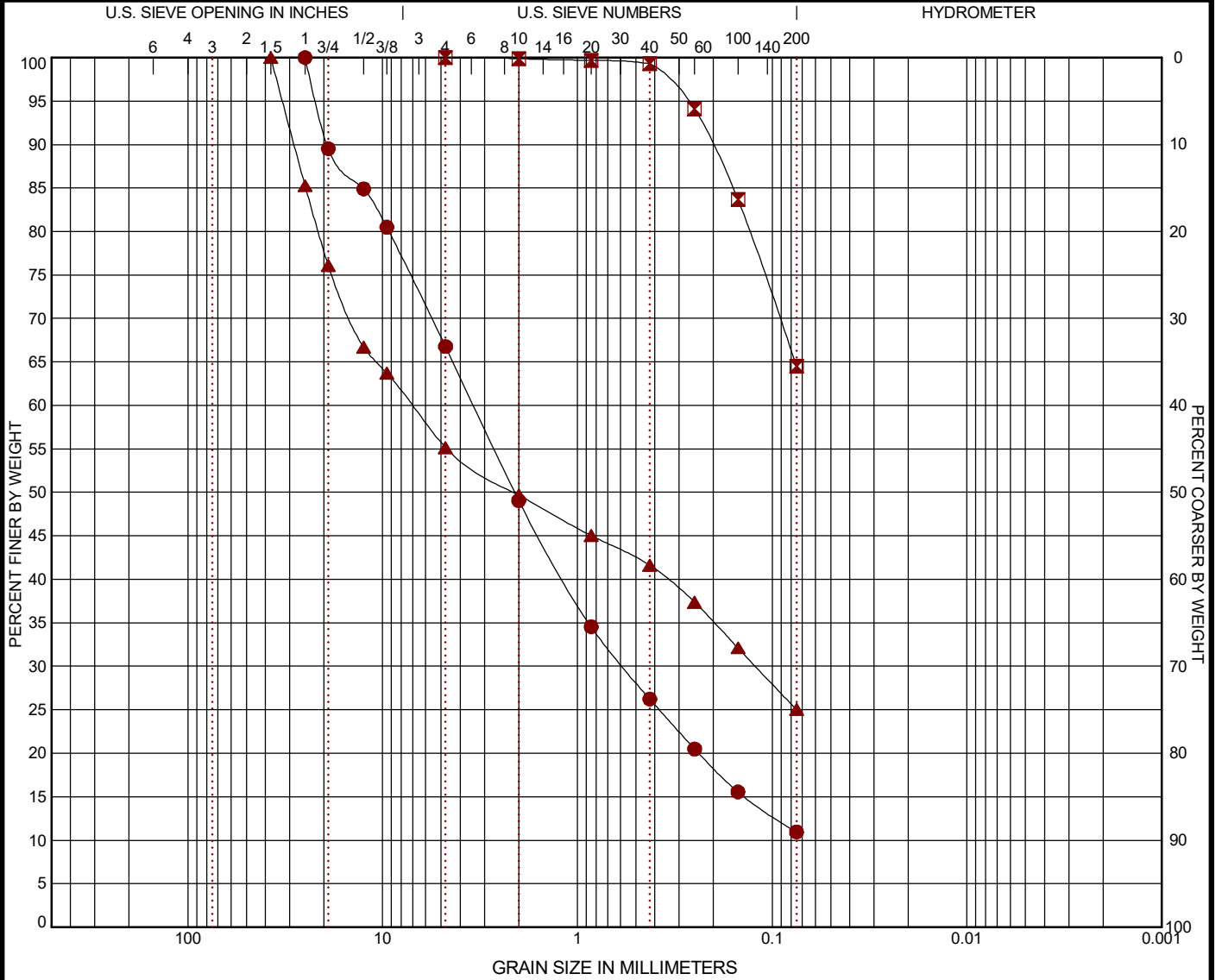
ASTM D4318

CLIENT: Nature's Way Environmental
Alden, NY

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136

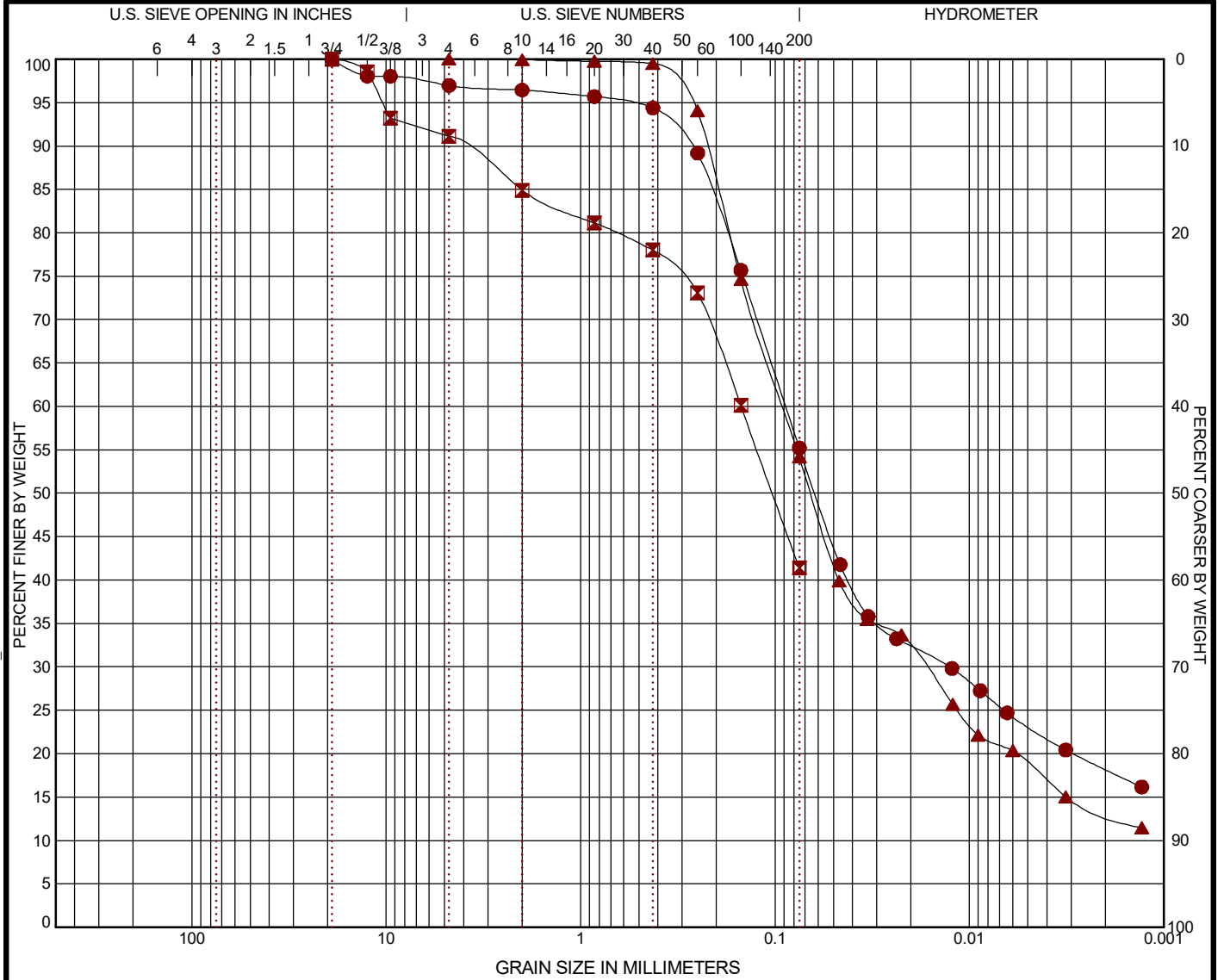
LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 J5185078 WEST RIVER WALL - GPJ TERRACON_DATATEMPLATE.GDT 7/17/18



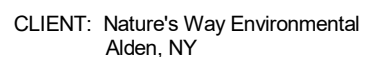
GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 J5185078 WEST RIVER WALL - GPJ TERRACON_DATATEMPLATE.GDT 7/17/18



ASTM D422 / ASTM C136

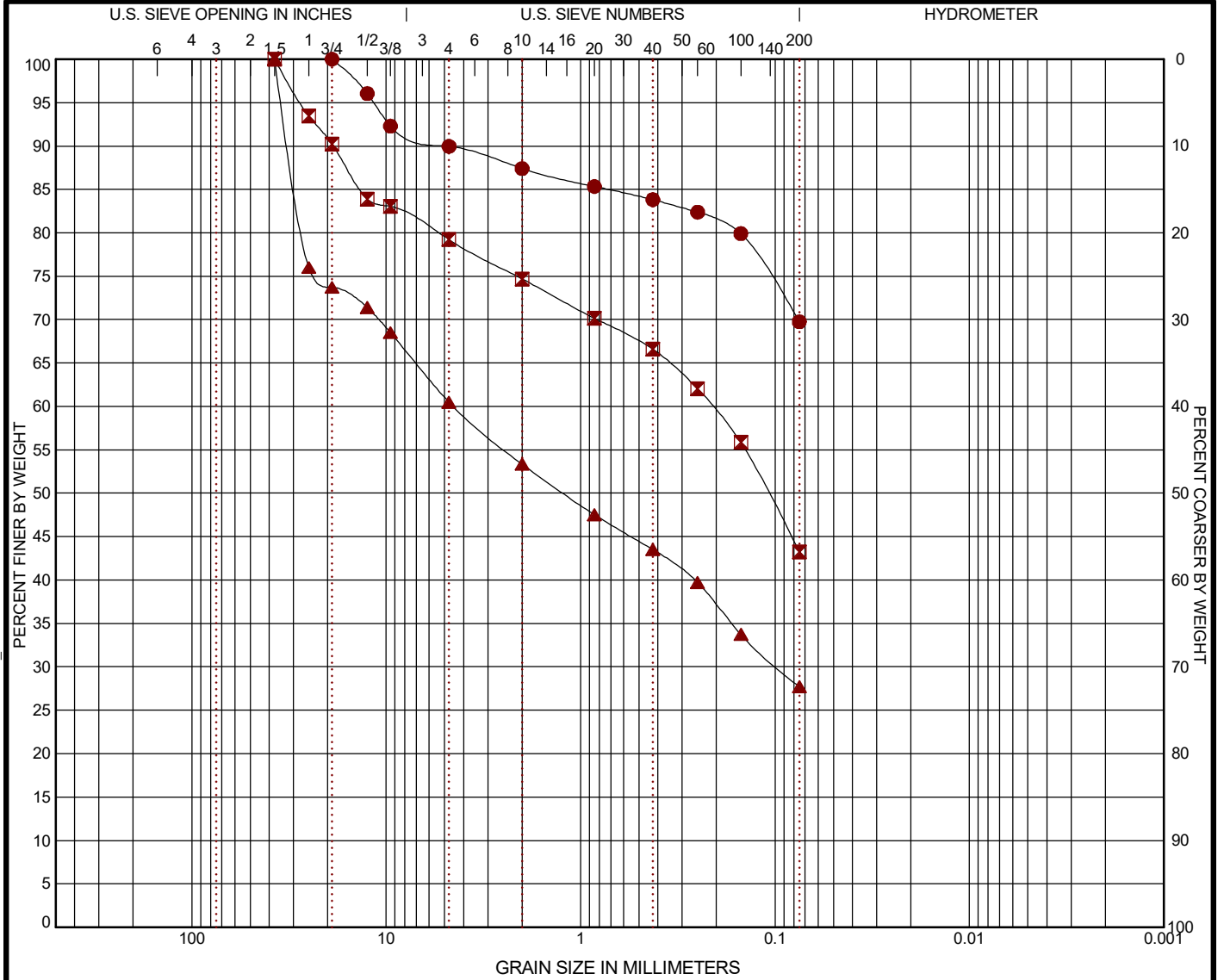


LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 J5185078 WEST RIVER WALL - GPJ TERRACON_DATATEMPLATE.GDT 7/17/18

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 J5185078 WEST RIVER WALL - GPJ TERRACON_DATATEMPLATE.GDT 7/17/18



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	SB-4	8	0.0	10.0	20.2		69.7		ML
☒	SB-4	22	0.0	20.8	36.0		43.3		ML
▲	SB-7	4	0.0	39.5	32.8		27.7		GW

GRAIN SIZE			
	●	☒	▲
D ₆₀		0.211	4.482
D ₃₀			0.097
D ₁₀			
COEFFICIENTS			
C _c			
C _u			

Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
3/4"	100.0	1 1/2"	100.0	1 1/2"	100.0
1/2"	96.04	1"	93.45	1"	76.0
3/8"	92.29	3/4"	90.24	3/4"	73.72
#4	89.96	1/2"	83.89	1/2"	71.38
#10	87.41	3/8"	83.05	3/8"	68.51
#20	85.33	#4	79.22	#4	60.48
#40	83.82	#10	74.69	#10	53.34
#60	82.37	#20	70.15	#20	47.53
#100	79.91	#40	66.6	#40	43.51
#200	69.75	#60	62.06	#60	39.71
		#100	55.84	#100	33.74
		#200	43.26	#200	27.72

SOIL DESCRIPTION	
●	Silt with Sand and Gravel (ML)
☒	Silty Sand with Gravel (ML)
▲	Sandy Gravel with Silt (GW)
REMARKS	
●	
☒	Sample combined from 22' - 26'
▲	

PROJECT: West River Wall - Segment 1

SITE: 700 exchange Street
Rochester, NY

Terracon
15 Marway Cir, Ste 2B
Rochester, NY

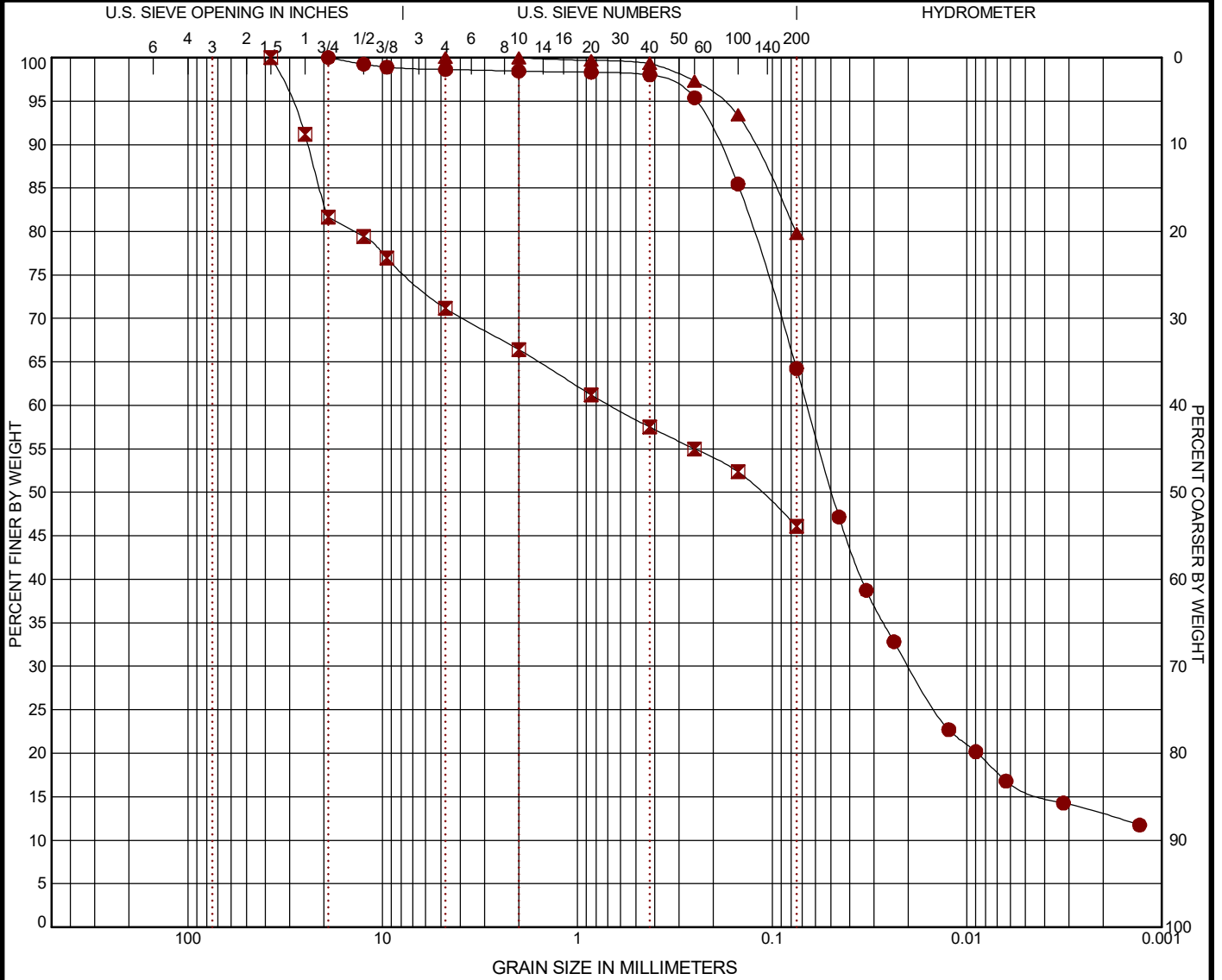
PROJECT NUMBER: J5185078

CLIENT: Nature's Way Environmental
Alden, NY

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 J5185078 WEST RIVER WALL - GPJ TERRACON_DATATEMPLATE.GDT 7/17/18



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	SB-7	12	0.0	1.4	34.4	48.3		15.9	ML
⊠	SB-9	4	0.0	28.8	25.0		46.1		GM
▲	SB-9	12	0.0	0.0	20.2		79.8		ML

GRAIN SIZE			
	●	⊠	▲
D ₆₀	0.066	0.677	
D ₃₀	0.02		
D ₁₀			
COEFFICIENTS			
C _c			
C _u			

Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
3/4"	100.0	1 1/2"	100.0	#4	100.0
1/2"	99.24	1"	91.16	#10	99.95
3/8"	98.9	3/4"	81.65	#20	99.69
#4	98.62	1/2"	79.4	#40	99.31
#10	98.44	3/8"	76.97	#60	97.3
#20	98.31	#4	71.16	#100	93.41
#40	98.02	#10	66.43	#200	79.79
#60	95.38	#20	61.21		
#100	85.46	#40	57.51		
#200	64.24	#60	55.01		
		#100	52.38		
		#200	46.12		

SOIL DESCRIPTION	
●	Sandy Silt (ML)
⊠	Silty Gravel with Sand (GM)
▲	Silt with Sand (ML)
REMARKS	
●	Sample combined from 12'-16'
⊠	
▲	

PROJECT: West River Wall - Segment 1

SITE: 700 exchange Street
Rochester, NY

Terracon
15 Marway Cir, Ste 2B
Rochester, NY

PROJECT NUMBER: J5185078

CLIENT: Nature's Way Environmental
Alden, NY

SUPPORTING INFORMATION

UNIFIED SOIL CLASSIFICATION SYSTEM

West River Wall Reconstruction Project – Segment 1 ■ Rochester, New York

July 30, 2018 ■ Terracon Project No. J5185078



Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A					Soil Classification	
					Group Symbol	Group Name ^B
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels:	Cu ≥ 4 and 1 ≤ Cc ≤ 3 ^E		GW	Well-graded gravel ^F
		Less than 5% fines ^C	Cu < 4 and/or 1 > Cc > 3 ^E		GP	Poorly graded gravel ^F
		Gravels with Fines:	Fines classify as ML or MH		GM	Silty gravel ^{F, G, H}
		More than 12% fines ^C	Fines classify as CL or CH		GC	Clayey gravel ^{F, G, H}
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands:	Cu ≥ 6 and 1 ≤ Cc ≤ 3 ^E		SW	Well-graded sand ^I
		Less than 5% fines ^D	Cu < 6 and/or 1 > Cc > 3 ^E		SP	Poorly graded sand ^I
		Sands with Fines:	Fines classify as ML or MH		SM	Silty sand ^{G, H, I}
		More than 12% fines ^D	Fines classify as CL or CH		SC	Clayey sand ^{G, H, I}
Fine-Grained Soils: 50% or more passes the No. 200 sieve	Silts and Clays: Liquid limit less than 50	Inorganic:	PI > 7 and plots on or above “A”		CL	Lean clay ^{K, L, M}
			PI < 4 or plots below “A” line ^J		ML	Silt ^{K, L, M}
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K, L, M, N}
			Liquid limit - not dried		Organic silt ^{K, L, M, O}	
	Silts and Clays: Liquid limit 50 or more	Inorganic:	PI plots on or above “A” line		CH	Fat clay ^{K, L, M}
			PI plots below “A” line		MH	Elastic Silt ^{K, L, M}
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K, L, M, P}
			Liquid limit - not dried		Organic silt ^{K, L, M, Q}	
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

^A Based on the material passing the 3-inch (75-mm) sieve

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

$$^E Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

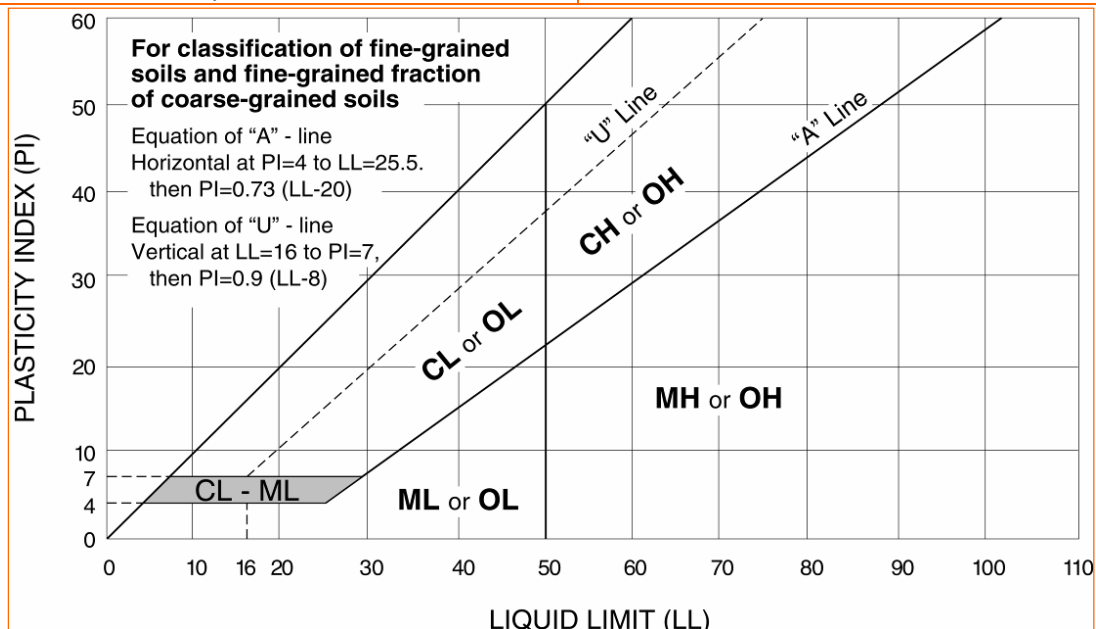
^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



DESCRIPTION OF ROCK PROPERTIES

West River Wall Reconstruction Project – Segment 1 ■ Rochester, New York

July 30, 2018 ■ Terracon Project No. J5185078



WEATHERING	
Term	Description
Unweathered	No visible sign of rock material weathering, perhaps slight discoloration on major discontinuity surfaces.
Slightly weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.
Moderately weathered	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a continuous framework or as corestones.
Highly weathered	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Residual soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.

STRENGTH OR HARDNESS		
Description	Field Identification	Uniaxial Compressive Strength, psi (MPa)
Extremely weak	Indented by thumbnail	40-150 (0.3-1)
Very weak	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	150-700 (1-5)
Weak rock	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	700-4,000 (5-30)
Medium strong	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	4,000-7,000 (30-50)
Strong rock	Specimen requires more than one blow of geological hammer to fracture it	7,000-15,000 (50-100)
Very strong	Specimen requires many blows of geological hammer to fracture it	15,000-36,000 (100-250)
Extremely strong	Specimen can only be chipped with geological hammer	>36,000 (>250)

DISCONTINUITY DESCRIPTION			
Fracture Spacing (Joints, Faults, Other Fractures)		Bedding Spacing (May Include Foliation or Banding)	
Description	Spacing	Description	Spacing
Extremely close	< ¾ in (<19 mm)	Laminated	< ½ in (<12 mm)
Very close	¾ in – 2-1/2 in (19 - 60 mm)	Very thin	½ in – 2 in (12 – 50 mm)
Close	2-1/2 in – 8 in (60 – 200 mm)	Thin	2 in – 1 ft. (50 – 300 mm)
Moderate	8 in – 2 ft. (200 – 600 mm)	Medium	1 ft. – 3 ft. (300 – 900 mm)
Wide	2 ft. – 6 ft. (600 mm – 2.0 m)	Thick	3 ft. – 10 ft. (900 mm – 3 m)
Very Wide	6 ft. – 20 ft. (2.0 – 6 m)	Massive	> 10 ft. (3 m)

Discontinuity Orientation (Angle): Measure the angle of discontinuity relative to a plane perpendicular to the longitudinal axis of the core. (For most cases, the core axis is vertical; therefore, the plane perpendicular to the core axis is horizontal.) For example, a horizontal bedding plane would have a 0-degree angle.

ROCK QUALITY DESIGNATION (RQD) ¹	
Description	RQD Value (%)
Very Poor	0 - 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 - 100

1. The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.

Reference: U.S. Department of Transportation, Federal Highway Administration, Publication No FHWA-NHI-10-034, December 2009
Technical Manual for Design and Construction of Road Tunnels – Civil Elements

APPENDIX C

Erosion Control Plans, Details, Notes

SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE DOT ROW MUST BE IMPLEMENTED, INSPECTED, MONITORED, AND MAINTAINED AS SPECIFIED IN THE NYSDOT SPECIFICATIONS. ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES PLACED OUTSIDE THE DOT ROW SHALL CONFORM TO THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK).
- THE LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED IN THE CONTRACT DOCUMENTS MAY REQUIRE FIELD ADJUSTMENTS DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS AND/OR ACTUAL FIELD CONDITIONS.
- THE ENGINEER IN CHARGE SHALL BE NOTIFIED OF ANY SIGNIFICANT CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER IN CHARGE HIS WRITTEN SCHEDULE AND PROPOSED MEASURES FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL WORK AND SCHEDULE OF OPERATIONS AS REQUIRED BY SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS.
- ALL EXCAVATED MATERIAL THAT IS DISPOSED OF ON AN UPLAND SITE SHALL BE SUITABLY STABILIZED WITH SEED AND MULCH IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY OR WETLAND AREA.
- INSPECTION, PERIODIC CLEANING AND MAINTENANCE OF TEMPORARY SOIL EROSION AND POLLUTION DEVICES SHALL BE PERFORMED ON A SCHEDULED BASIS IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS. THE COST OF INSTALLING, CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE PAID FOR UNDER THE ITEMS SHOWN.
- ALL CONTROL MEASURES SHALL BE PLACED PRIOR TO STARTING EARTH WORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING, MULCH AND/OR SLOPE PROTECTION, IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS.
- REFER TO NYSDOT STANDARD SHEETS 209-1 THRU 209-7 FOR SOIL EROSION AND SEDIMENT CONTROL DETAILS.
- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO ADJACENT ROADWAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF ANY STREAM OR WATERWAY BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLAND OR WATERS.
- DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WHICH ARE PRONE TO BLOWING FROM THE WIND WILL BE COVERED BY A TARPAULIN.
- IF CONSTRUCTION ACTIVITIES ARE DISCONTINUED IN AREAS OF SOIL DISTURBANCE BEFORE FINAL GRADING IS COMPLETE, THEN TEMPORARY GRADING SHALL INCLUDE TEMPORARY SEEDING AND MULCH (ITEM 209.1003) THAT WILL BE STABILIZED WITHIN 7 DAYS OF EXPOSURE. MULCH SHALL BE MAINTAINED UNTIL SUITABLE VEGETATIVE COVER IS ESTABLISHED. THIS PAY ITEM IS ESTIMATED AND THE QUANTITY MAY VARY BASED ON ACTUAL CONSTRUCTION CONDITIONS. IN NO CASE SHALL MORE THAN ONE PAYMENT BE MADE FOR THE APPLICATION OF ITEM 209.1003 IN ANY GIVEN AREA, REGARDLESS OF THE NUMBER OF APPLICATIONS REQUIRED TO ESTABLISH OR RE-ESTABLISH SUITABLE VEGETATIVE COVER.
- CONTAIN ANY TEMPORARY STOCKPILES OF TOPSOIL OR FILL WITH SILT FENCES AS SHOWN IN THE SILT FENCE DETAIL IN THE NYSDOT STANDARD SHEETS AND STANDARD SPECIFICATIONS. PILES EXPOSED FOR LONGER THAN TWO WEEKS SHALL BE STABILIZED BY SEEDING, MULCH AND OR SLOPE PROTECTION IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS. ALL COSTS SHALL BE INCLUDED IN THE PRICE BID FOR THE CORRESPONDING STOCK PILED MATERIAL.
- ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER IN CHARGE.
- AT THE COMPLETION OF CONSTRUCTION AND PERMANENT SOIL STABILIZATION, SEDIMENT SHALL BE REMOVED FROM NEW DRAINAGE PIPES, DRAINAGE STRUCTURES, AND CHECK DAMS. THE COST FOR SEDIMENT REMOVAL SHALL BE INCLUDED IN THE COST BID FOR THE EROSION CONTROL ITEMS.
- THE LOCATION OF EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED IN THE CONTRACT DOCUMENTS, MAY REQUIRE FIELD ADJUSTMENTS DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS AND/OR ACTUAL FIELD CONDITIONS. NO MODIFICATIONS WILL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
- THE HIGHWAY MUST BE KEPT CLEAN OF MUD, DIRT, AND OTHER DEBRIS AT ALL TIMES.
- REFER TO DUST CONTROL REQUIREMENTS IN STANDARD SPECIFICATIONS 203 AND 619.
- ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
- ANY GRADED AREAS NOT SUBJECT TO FURTHER DISTURBANCE OR CONSTRUCTION TRAFFIC SHALL BE ESTABLISHED WITH PERMANENT VEGETATIVE COVER, AS PER CONTRACT SPECIFICATIONS, WITHIN 14 DAYS OF FINAL GRADING.
- THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL DEVICES.
- TEMPORARY SEDIMENT FILTER BAGS SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES, WITHIN THE LIMITS OF EXCAVATION, AS LISTED IN THE DRAINAGE STRUCTURE TABLE. ALL COSTS SHALL BE INCLUDED IN ITEM 209.11010011, ONE (1) EACH. NO ADDITIONAL PAYMENT WILL BE MADE FOR SEDIMENT FILTER BAGS REMOVED PRIOR TO AND RE-INSTALLED AFTER WINTER SHUT DOWN, AND FOR REPLACEMENT SEDIMENT FILTER BAGS DUE TO DAMAGE.

RECONSTRUCTION NOTES

- THE CONTRACTOR SHALL EXAMINE AND VERIFY, IN THE FIELD, ALL CONDITIONS AND DIMENSIONS. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS TO ENSURE PROPER FIT OF THE FINISHED WORK, AND THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS, AS APPROVED BY THE ENGINEER. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS MADE SHALL BE INDICATED ON THE SHOP DRAWINGS SUBMITTED FOR REFERENCE OF THE REVIEWER. THE COST OF FIELD VERIFYING DIMENSIONS SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS, AS ORDERED BY THE ENGINEER.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING FACILITY CAUSED BY HIS OPERATIONS WHICH IS NOT INCLUDED AS PART OF THE INTENDED WORK. ALL DAMAGE TO THE EXISTING FACILITY WHICH IS NOT PART OF THE INTENDED WORK SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER, AND TO THE SATISFACTION OF THE ENGINEER.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND STORED OR DISPOSED OF, THE COST OF SUPPLYING A STORAGE OR DISPOSAL AREA AND TRANSPORTATION TO/FROM THAT AREA SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THOSE ITEMS.
- THE CONTRACTOR SHALL NOT APPLY A CONSTRUCTION EQUIPMENT SURCHARGE LOAD GREATER THAN 250 PSF WITHIN A DISTANCE OF 35 FEET FROM THE RIVER WALL, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONCRETE NOTES

- WHERE INDICATED ON THE PLANS, ALL DETERIORATED STRUCTURAL CONCRETE SHALL BE REMOVED TO THE DEPTH INDICATED, OR TO THE DEPTH ORDERED BY THE ENGINEER. BEFORE STARTING THIS WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A PLAN SHOWING THE PROPOSED METHOD, EQUIPMENT, AND SEQUENCE FOR THE REMOVAL WORK. CONCRETE REMOVALS WITHIN 24 INCHES OF INDICATED LIMITS SHALL BE PERFORMED WITH EQUIPMENT TO LIMIT DAMAGES TO EXISTING CONCRETE TO REMAIN AS REQUIRED BY ITEM 202.1991--12.
 - A SAW CUT SHALL BE MADE ALONG ALL LIMITS OF CONCRETE REMOVAL/DEMOLITION WHERE ADJACENT SURFACE CONCRETE IS TO REMAIN. SAW CUT DEPTH SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 202.1991--12.
 - THE MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.
 - FINISHING CAST-IN-PLACE CONCRETE SURFACES: IMMEDIATELY AFTER FORMS HAVE BEEN REMOVED, SURFACES EXPOSED TO VIEW SHALL HAVE ALL PROJECTIONS AND IRREGULARITIES REMOVED AND ALL CAVITIES NEATLY FILLED WITH MORTAR OF THE PROPORTION USED IN THE CONCRETE. ALL OTHER REQUIREMENTS OF SUBSECTION 555-3.11 OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SHALL ALSO APPLY.
 - ALL FORMING HARDWARE SUCH AS TIES AND "ALL-THREADS" THAT ARE TO REMAIN IN THE CONCRETE SHALL BE ELECTROPLATED OR MADE OF A NONFERROUS MATERIAL TO PREVENT CORROSION.
 - WHEN JOINING FRESH CONCRETE TO NEW CONCRETE WHICH HAS ALREADY SET, OR TO EXISTING CONCRETE, THE CONCRETE IN PLACE SHALL HAVE ITS SURFACE PREPARED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
 - WHEN CONCRETE IS DOWELED OR BONDED TO PREVIOUSLY PLACED CONCRETE, SPECIAL PROVISIONS TO MAINTAIN THE NEW CONCRETE TEMPERATURE CLOSE TO OR PREFERABLY LOWER THAN THE TEMPERATURE OF THE EXISTING CONCRETE, ARE NECESSARY TO LESSEN THE SEVERITY OF CRACKS DUE TO THERMAL DIFFERENCES BETWEEN THE EXISTING CONCRETE AND NEW CONCRETE.
- THE GENERAL PROVISIONS OF SECTIONS 501 AND 555 SHALL APPLY, EXCEPT FOR THE FOLLOWING PROVISIONS:
- A. SET ACCELERATING ADMIXTURES SHALL NOT BE ALLOWED.
- B. IF SECTION 555-3.08C, PROVISIONS FOR CURING I NCOLD WEATHER APPLY:
- PRIOR TO NEW CONCRETE PLACEMENT, THE EXISTING CONCRETE SHALL BE PRE-HEATED OR MAINTAINED AT A TEMPERATURE BETWEEN 45°F AND 60°F (AS MEASURED AT THE CONCRETE FACE).
 - NEW CONCRETE SHALL BE CURED FOR THE SEVEN-DAY WET CURE PERIOD IN ACCORDANCE WITH SECTION 555-3.08C, PROVISIONS FOR CURING IN COLD WEATHER, UTILIZING EITHER LIVE STEAM OR CONTINUOUS BURLAP WETTING ONLY. NO CURING COMPOUNDS SHALL BE ALLOWED.
 - AT THE END OF THE SEVEN-DAY WET CURE, AN ADDITIONAL 12-HOUR MINIMUM DRY CURE IS REQUIRED TO ALLOW FOR GRADUAL CONCRETE DRYING PRIOR TO ITS POTENTIAL EXPOSURE TO FREEZING TEMPERATURES.
 - IF THE AVERAGE AMBIENT AIR TEMPERATURE IS EXPECTED TO REMAIN ABOVE 50°F (10°C) FOR A MINIMUM OF 24 HOURS AFTER THE COMPLETION OF THE SEVEN (7) DAY WET CURE, THE REQUIREMENTS FOR THE 12-HOUR DRY CURE MAY BE WAIVED.
- C. FOLLOWING COMPLETION OF THE NEW CONCRETE PLACEMENT, ANY EXPOSED CONCRETE SURFACE SHALL BE KEPT CONTINUOUSLY WET USING CONTINUOUS BURLAP WETTING OR OTHER METHODS APPROVED BY THE ENGINEER.
- D. IF FORMS ARE REMOVED PRIOR TO COMPLETION OF THE REQUIRED SEVEN (7) DAY WET CURING PERIOD, THE CONCRETE SURFACES SHALL BE IMMEDIATELY COVERED WITH PRE-WETTED BURLAP AND SHALL BE KEPT CONTINUOUSLY AND UNIFORMLY WET THROUGHOUT THE DURATION OF THE CURING PERIOD IN A MANNER APPROVED BY THE ENGINEER. NO CURING COMPOUNDS SHALL BE ALLOWED. FOR CONCRETE SURFACES EXPOSED TO THE RIVER, FORMS SHALL NOT BE REMOVED FOR THE ENTIRE DURATION OF THE SEVEN (7) DAY WET CURING PERIOD, UNLESS APPROVED BY THE ENGINEER.

REINFORCING NOTES

- REINFORCEMENT SHALL BE GALVANIZED AND PAID FOR UNDER ITEM 556.0203.
- ALL BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60. BARS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A767.
- MINIMUM COVER ON ALL REINFORCING BARS SHALL BE 3", UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- ALL METAL REINFORCING BAR CHAIRS AND SUPPORTS SHALL HAVE PLASTIC SHOES.
- PROVIDE SINGLE REINFORCEMENT BAR DEVELOPMENTS IN NEW CONCRETE AND REINFORCEMENT LAP SPLICES PER TABLE BELOW, WHEN SPlicing BARS OF DIFFERENT SIZES, PROVIDE LENGTH BASED ON THE SMALLER BAR, UNLESS NOTED OTHERWISE.

BAR SIZE	MINIMUM LAP SPLICE LENGTHS (INCHES)		MINIMUM DEVELOPMENT LENGTHS (INCHES)	
	OTHER BAR	TOP BAR *	OTHER BAR	TOP BAR
*4	18	23	14	18
*5	22	28	17	22
*6	26	34	20	26
*7	38	49	29	38
*8	43	56	33	43
*9	49	63	38	49

* TOP BAR DEFINED AS HORIZONTAL REINFORCING BAR THAT HAS MORE THAN 12" OF FRESH CONCRETE CAST BELOW IT.

- PROVIDE DOWEL DRILL AND GROUT EMBEDMENT INTO SOUND CONCRETE TO THE MINIMUM DEPTHS INDICATED ON THE PLANS. DRILLING AND GROUTING OF DOWELS INTO EXISTING CONCRETE SHALL BE PAID UNDER ITEM 586.0201 UNLESS NOTED OTHERWISE. GROUT MATERIAL SHALL CONFORM TO SECTION 701-07, UNLESS OTHERWISE NOTED ON THE PLANS.

West River Wall
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CP #16245

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GENERAL NOTES

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Project Manager:

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SEK

Drawn By:

DWT

Checked By:

SEK

Drawing Number:

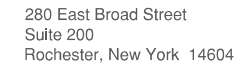
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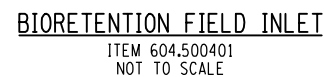
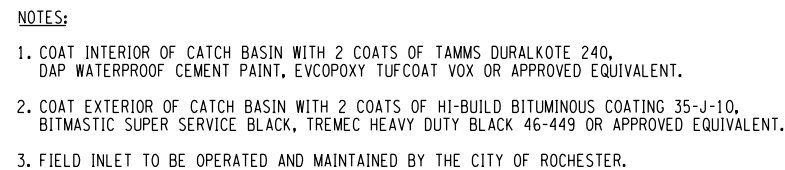
NOTES:

1. ALL EDGES ARE TO BE SAW CUT FULL DEPTH ALONG NEARLY STRAIGHT LINES, PARALLEL AND PERPENDICULAR TO FLOW OF TRAFFIC. PATCHES ARE NOT TO BE IRREGULAR IN SHAPE, OR HAVE ANGLED SIDES.
2. WHERE BACKFILL OF EXCAVATION CANNOT BE PROPERLY COMPLETED WITHIN SINGLE WORKDAY, STEEL PLATE(S) ARE TO BE INSTALLED TO PRESERVE TRAFFIC FLOW.
3. IF STEEL PLATE(S) ARE NOT TO BE UTILIZED, EXCAVATION IS TO BE FINISHED WITH TEMPORARY PAVEMENT SECTION. TEMPORARY PAVEMENT IS TO BE MAINTAINED IN SMOOTH RIDEABLE NON-HAZARDOUS CONDITION UNTIL PERMANENT PAVEMENT RESTORATION CAN BE DONE.

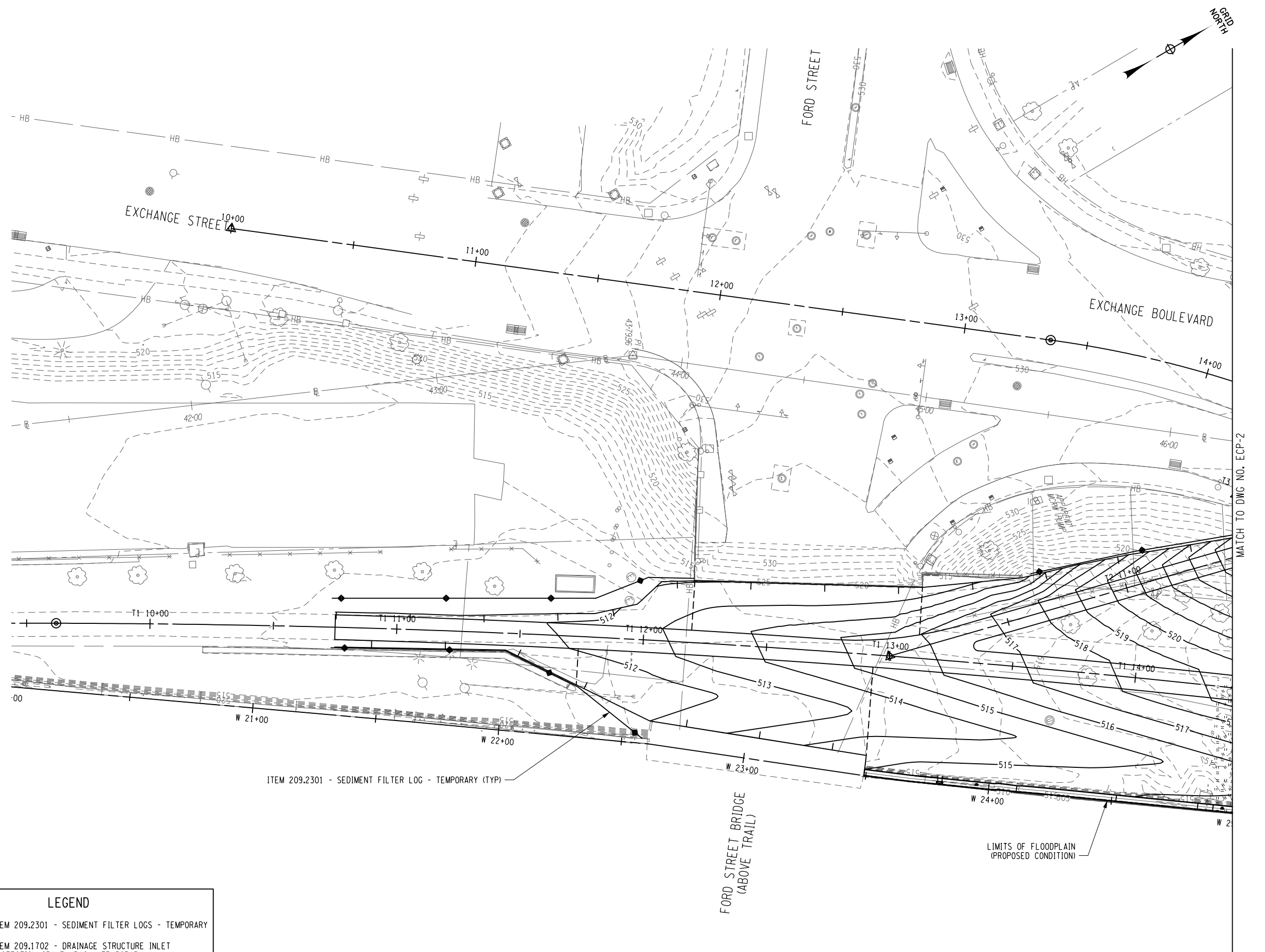
MISCELLANEOUS DETAILS

AJB	
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KRA	NO SCALE

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- NOTES:
1. THE PLANTING SOIL SHOULD BE A SANDY LOAM MIX (SHOULD CONTAIN A MINIMUM 35% TO 60% SAND, BY VOLUME).
 2. THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME.
 3. SOILS SHOULD FALL WITHIN THE "SM" OR "ML" CLASSIFICATIONS OF THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS).
 4. A PERMEABILITY OF AT LEAST 1.0 FOOT PER DAY (0.5"/HR) IS REQUIRED.
 5. THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER, BRUSH OR SEEDS FROM NOXIOUS WEEDS.
 6. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET).
 7. AREAS DEVOID OF MULCH SHALL BE RE-MULCHED ON AN ANNUAL BASIS. DEAD OR DISEASED PLANT MATERIAL SHALL BE REPLACED.
 8. THE UNDERDRAIN FILTER SHALL BE EXTENDED TO THE TOP OF EXISTING GRADE IN FILL AREAS.



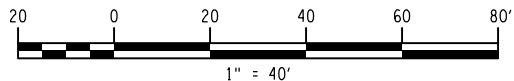
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ITEM 209.2301 - SEDIMENT FILTER LOGS - TEMPORARY

ITEM 209.1702 - DRAINAGE STRUCTURE INLET
PROTECTION GRAVEL BAG - TEMPORARY

ITEM 209.1901 - ROLLED EROSION CONTROL PRODUCT,
CLASS II TYPE A, SHALL BE USED ON ALL SLOPES
STEEPER THAN 1:4

NOTES:
1. REFER TO DWG NO. GN-2 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES.



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EROSION CONTROL
& STORMWATER
TREATMENT
PLAN

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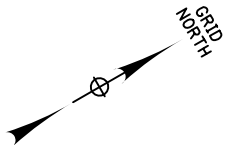
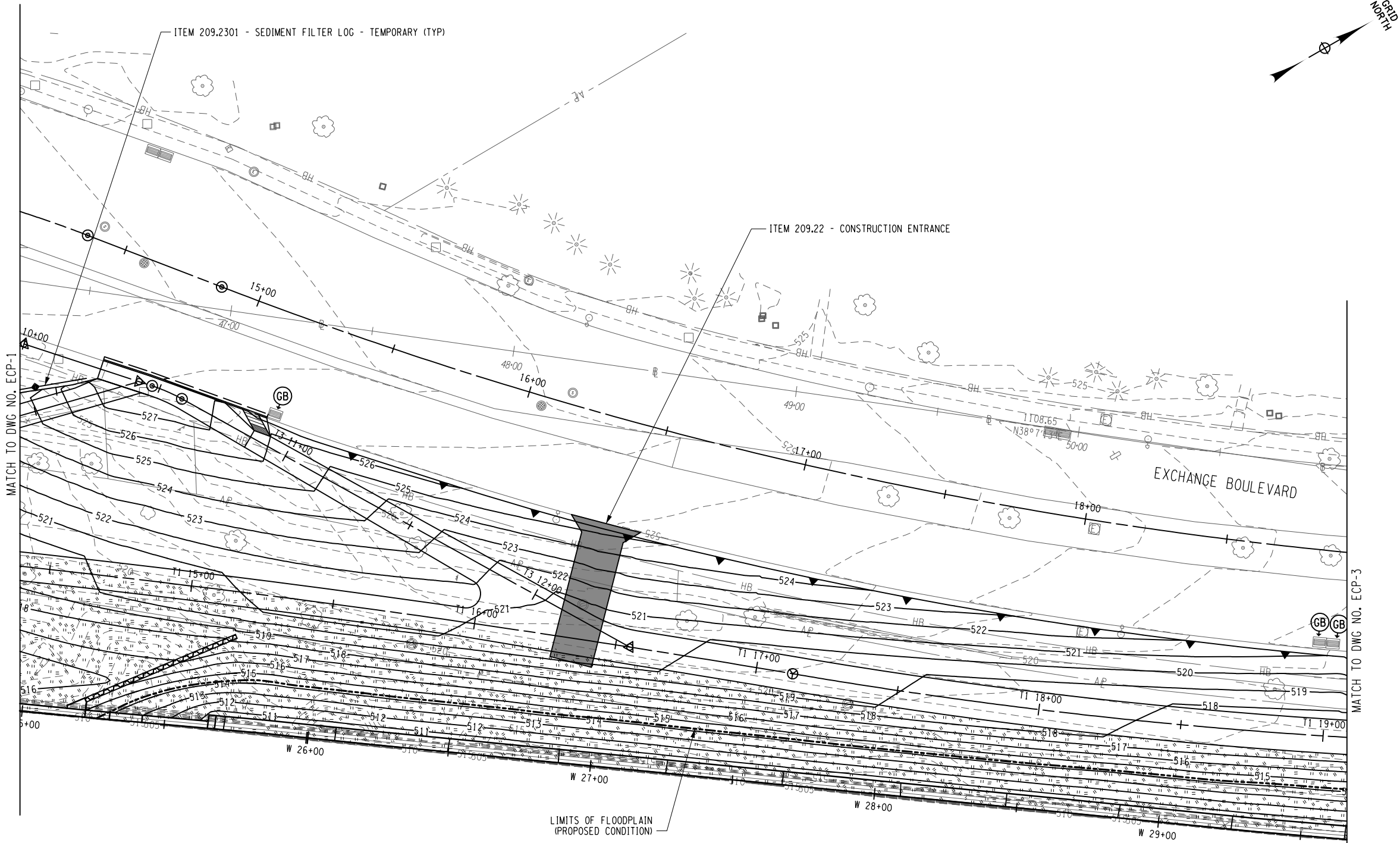
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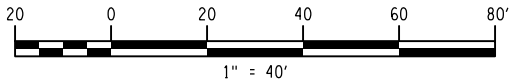
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ITEM 209.1702 - DRAINAGE STRUCTURE INLET PROTECTION GRAVEL BAG - TEMPORARY

ITEM 209.1901 - ROLLED EROSION CONTROL PRODUCT, CLASS II TYPE A, SHALL BE USED ON ALL SLOPES STEEPER THAN 1:4

NOTES:
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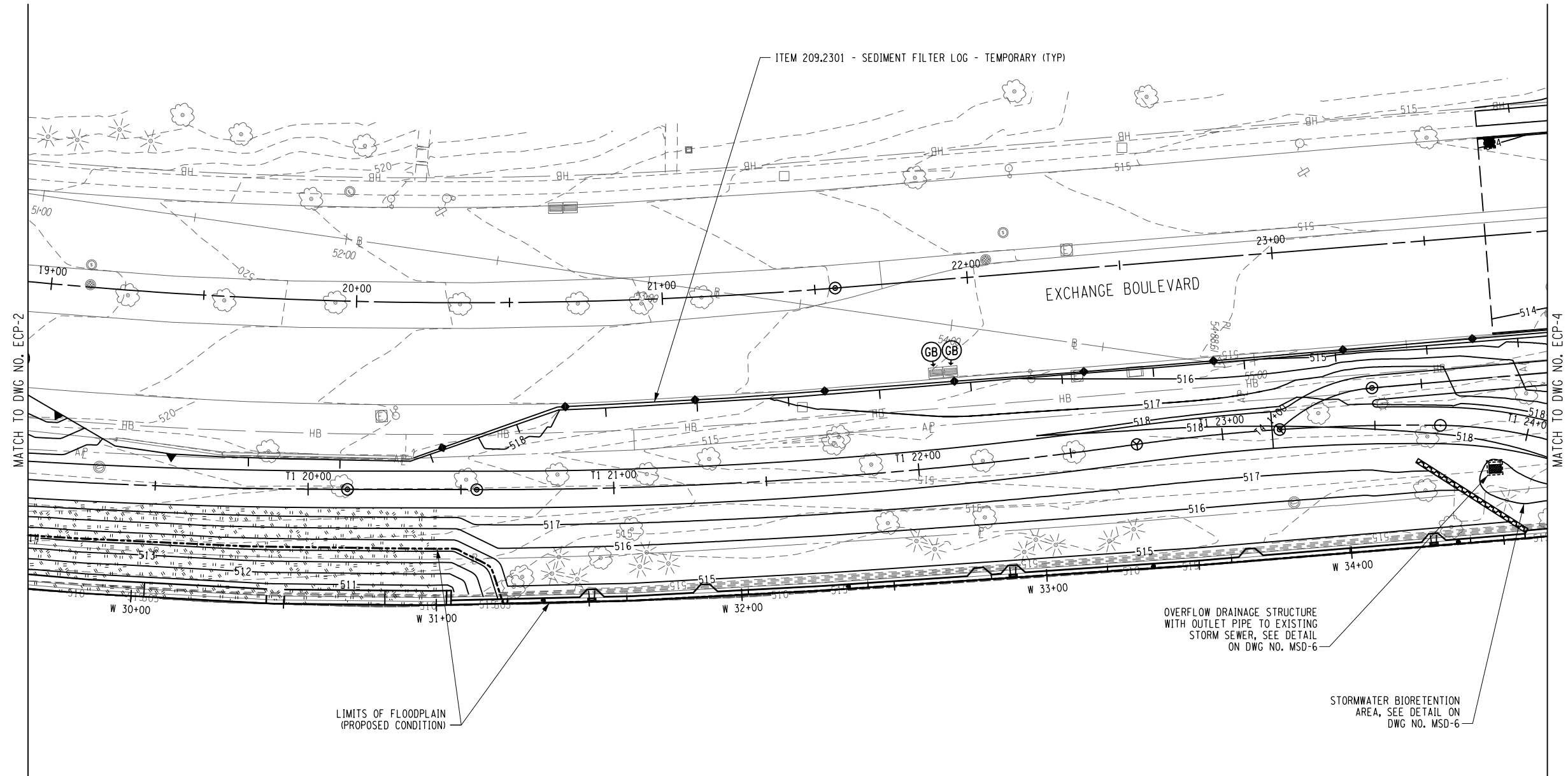
EROSION CONTROL & STORMWATER TREATMENT PLAN

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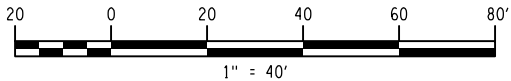
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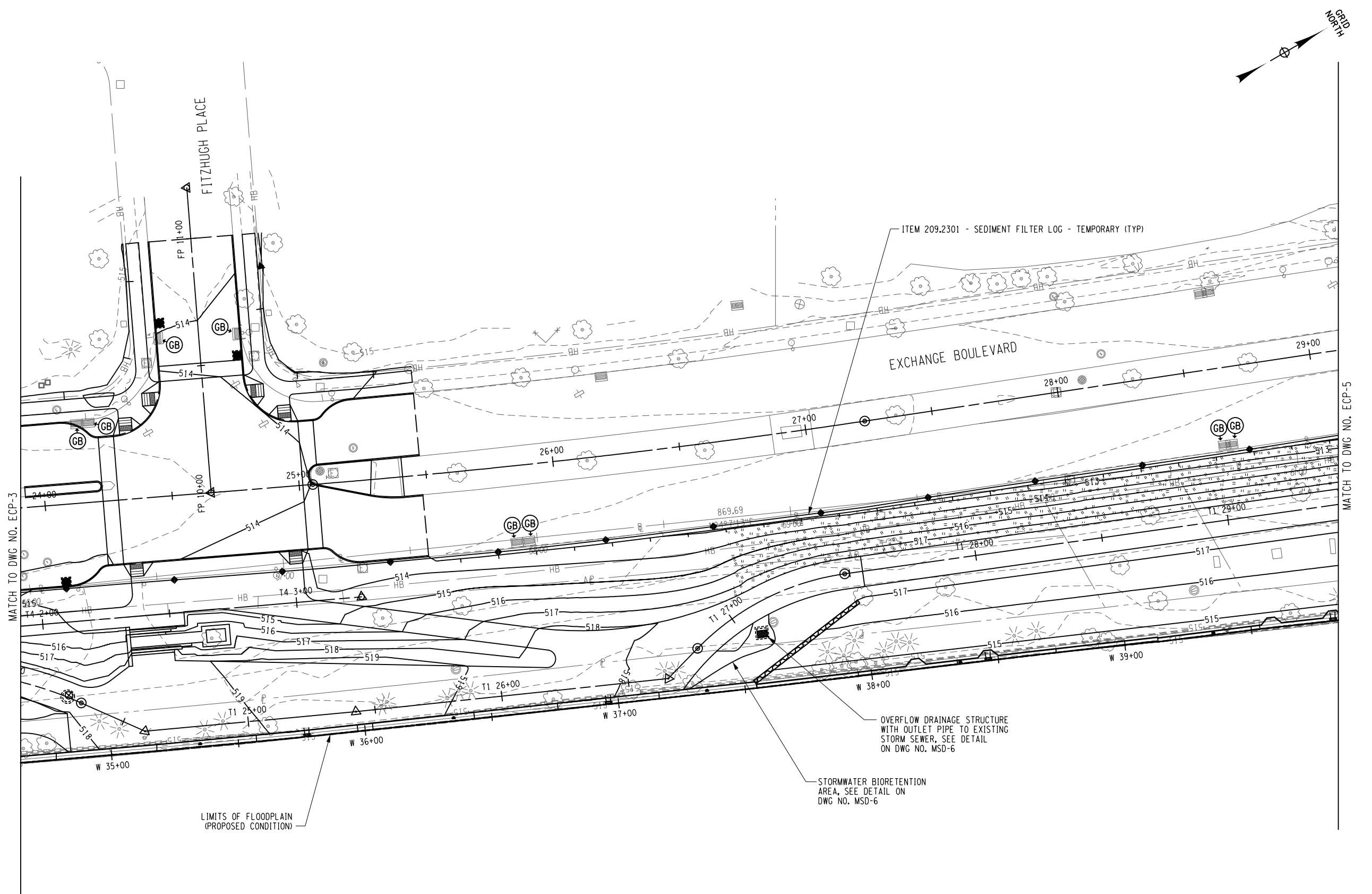


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EROSION CONTROL & STORMWATER TREATMENT PLAN

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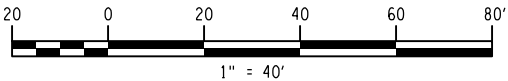
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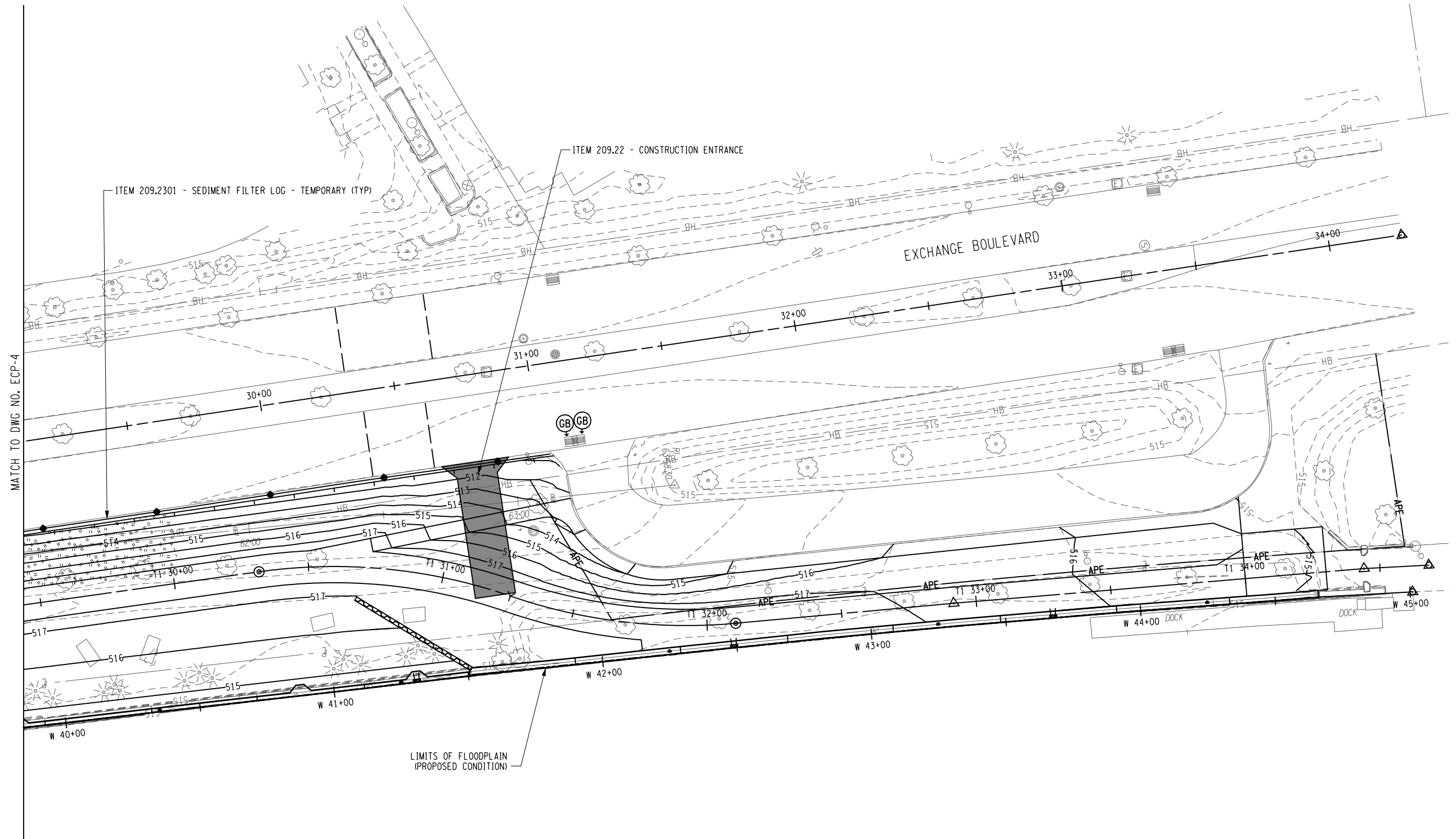


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**EROSION CONTROL
& STORMWATER
TREATMENT
PLAN**

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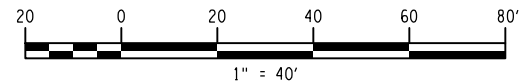
LEGEND

ITEM 209.2301 - SEDIMENT FILTER LOGS - TEMPORARY

ITEM 209.1702 - DRAINAGE STRUCTURE INLET PROTECTION GRAVEL BAG - TEMPORARY

ITEM 209.1901 - ROLLED EROSION CONTROL PRODUCT, CLASS II TYPE A, SHALL BE USED ON ALL SLOPES STEEPER THAN 1:4

NOTES:
1. REFER TO DWG NO. GN-2 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES.



280 East Broad Street
Suite 200
Rochester, New York 14604
office: 585.232.5135
fax: 585.232.4652
www.bergmannpc.com

REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D

The underground structures and utilities shown on this drawing have been plotted from available surveys or utility record maps. They are not certified to the accuracy of their location or their completeness. It is the Contractor's responsibility to verify the location and extent of all underground structures and utilities.



03/13/20
Date

**EROSION CONTROL
& STORMWATER
TREATMENT
PLAN**

Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

Project Manager:
AJB
Designed By:
TCB
Drawn By:
DWT
Checked By:
KRA
Project Number:
012642.00
Date Issued:
MARCH 2020
Scale:
1" = 40'
Drawing Number:

APPENDIX D

Stormwater Calculations

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....

Design Point:

P=

1.00

inch

Breakdown of Subcatchments

Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Description
1	0.10	0.10	100%	0.95	335	
2	0.09	0.09	100%	0.95	317	
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.19	0.19	100%	0.95	652	Subtotal 1
Total	0.19	0.19	100%	0.95	652	Initial WQv

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area	Contributing Impervious Area	Notes
	(Acre)	(Acre)	
Conservation of Natural Areas	0.00	0.00	minimum 10,000 sf
Riparian Buffers	0.00	0.00	maximum contributing length 75 feet to 150 feet
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	Up to 100 sf directly connected impervious area may be subtracted per tree
Total	0.00	0.00	

Recalculate WQv after application of Area Reduction Techniques

	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Runoff Coefficient Rv	WQv (ft ³)
"<<Initial WQv"	0.19	0.19	100%	0.95	652
Subtract Area	0.00	0.00			
WQv adjusted after Area Reductions	0.19	0.19	100%	0.95	652
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.19	0.19	100%	0.95	652
WQv reduced by Area Reduction techniques					0

Minimum RRv

Enter the Soils Data for the site

Soil Group	Acres	S
A		55%
B		40%
C		30%
D	3.30	20%
Total Area	3.3	

Calculate the Minimum RRv

S =	0.20	
Impervious =	0.19	acre
Precipitation	1	in
Rv	0.95	
Minimum RRv	130	ft3
	0.00	af

Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

$$A_f = WQ_v * (d_f) / [k * (h_f + d_f)(t_f)]$$

A_f	Required Surface Area (ft ²)		The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: Sand - 3.5 ft/day (City of Austin 1988); Peat - 2.0 ft/day (Galli 1990); Leaf Compost - 8.7 ft/day (Claytor and Schueler, 1996); Bioretention Soil (0.5 ft/day (Claytor &
WQ_v	Water Quality Volume (ft ³)		
d_f	Depth of the Soil Medium (feet)	k	
h_f	Average height of water above the planter bed		
t_f	Volume Through the Filter Media (days)		

Design Point: <input type="text"/>							
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Precipitation (in)	Description
1	0.10	0.10	1.00	0.95	334.50	1.00	
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	335	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						ft ³	
Soil Information							
Soil Group		D					
Soil Infiltration Rate		0.00	in/hour	Okay			
Using Underdrains?		Yes	Okay				
Calculate the Minimum Filter Area							
				Value	Units	Notes	
WQv				335	ft ³		
Enter Depth of Soil Media				d_f	2.5	ft	2.5-4 ft
Enter Hydraulic Conductivity				k	0.5	ft/day	
Enter Average Height of Ponding				h_f	0.5	ft	6 inches max.
Enter Filter Time				t_f	2	days	
Required Filter Area				A_f	279	ft²	
Determine Actual Bio-Retention Area							
Filter Width		10	ft				
Filter Length		28	ft				
Filter Area		280	ft ²				
Actual Volume Provided		336	ft ³				
Determine Runoff Reduction							
Is the Bioretention contributing flow to another practice?				Select Practice			
RRv		134					
RRv applied		134	ft³	This is 40% of the storage provided or WQv whichever is less.			
Volume Treated		200	ft ³	This is the portion of the WQv that is not reduced in the practice.			
Volume Directed		0	ft ³	This volume is directed another practice			
Sizing V		OK	Check to be sure Area provided ≥ A_f				

Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

$$A_f = WQ_v * (d_f) / [k * (h_f + d_f)(t_f)]$$

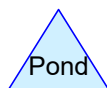
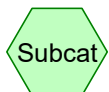
A_f	Required Surface Area (ft ²)	
WQ_v	Water Quality Volume (ft ³)	
d_f	Depth of the Soil Medium (feet)	k
h_f	Average height of water above the planter bed	
t_f	Volume Through the Filter Media (days)	

The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: **Sand** - 3.5 ft/day (City of Austin 1988); **Peat** - 2.0 ft/day (Galli 1990); **Leaf Compost** - 8.7 ft/day (Claytor and Schueler, 1996); **Bioretention Soil** (0.5 ft/day (Claytor & Schueler, 1996)

Design Point:							
Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	Total Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (ft ³)	Precipitation (in)	Description
2	0.09	0.09	1.00	0.95	317.26	1.00	
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	317	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						ft ³	
Soil Information							
Soil Group		A					
Soil Infiltration Rate		0.00	in/hour	Okay			
Using Underdrains?		Yes	Okay				
Calculate the Minimum Filter Area							
			Value	Units	Notes		
WQv			317	ft ³			
Enter Depth of Soil Media			d_f	2.5	ft	2.5-4 ft	
Enter Hydraulic Conductivity			k	0.5	ft/day		
Enter Average Height of Ponding			h_f	0.5	ft	6 inches max.	
Enter Filter Time			t_f	2	days		
Required Filter Area			A_f	264	ft²		
Determine Actual Bio-Retention Area							
Filter Width		10	ft				
Filter Length		26.5	ft				
Filter Area		265	ft ²				
Actual Volume Provided		318	ft ³				
Determine Runoff Reduction							
Is the Bioretention contributing flow to another practice?				Select Practice			
RRv		127					
RRv applied		127	ft³	This is 40% of the storage provided or WQv whichever is less.			
Volume Treated		190	ft ³	This is the portion of the WQv that is not reduced in the practice.			
Volume Directed		0	ft ³	This volume is directed another practice			
Sizing V		OK	Check to be sure Area provided ≥ A_f				



WRW Pre



Routing Diagram for WRW Pre Post Calcs

Prepared by Bergmann, Printed 3/11/2020

HydroCAD® 10.00-19 s/n 03498 © 2016 HydroCAD Software Solutions LLC

WRW Pre Post Calcs

Prepared by Bergmann

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Page 2

Area Listing (selected nodes)

Area (acres)	C	Description (subcatchment-numbers)
3.500	0.20	Lawn/Park Area (PRE)
3.500	0.20	TOTAL AREA

WRW Pre Post Calcs

Prepared by Bergmann

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Page 3

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	3.500	3.500	Lawn/Park Area	PRE
0.000	0.000	0.000	0.000	3.500	3.500	TOTAL AREA	

WRW Pre Post Calcs

Prepared by Bergmann

HydroCAD® 10.00-19 s/n 03498 © 2016 HydroCAD Software Solutions LLC

NY-Rochester 1-yr Duration=5 min, Inten=3.12 in/hr

Printed 3/11/2020

Page 4

Summary for Subcatchment PRE: WRW Pre

Runoff = 2.13 cfs @ 0.08 hrs, Volume= 0.015 af, Depth= 0.05"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

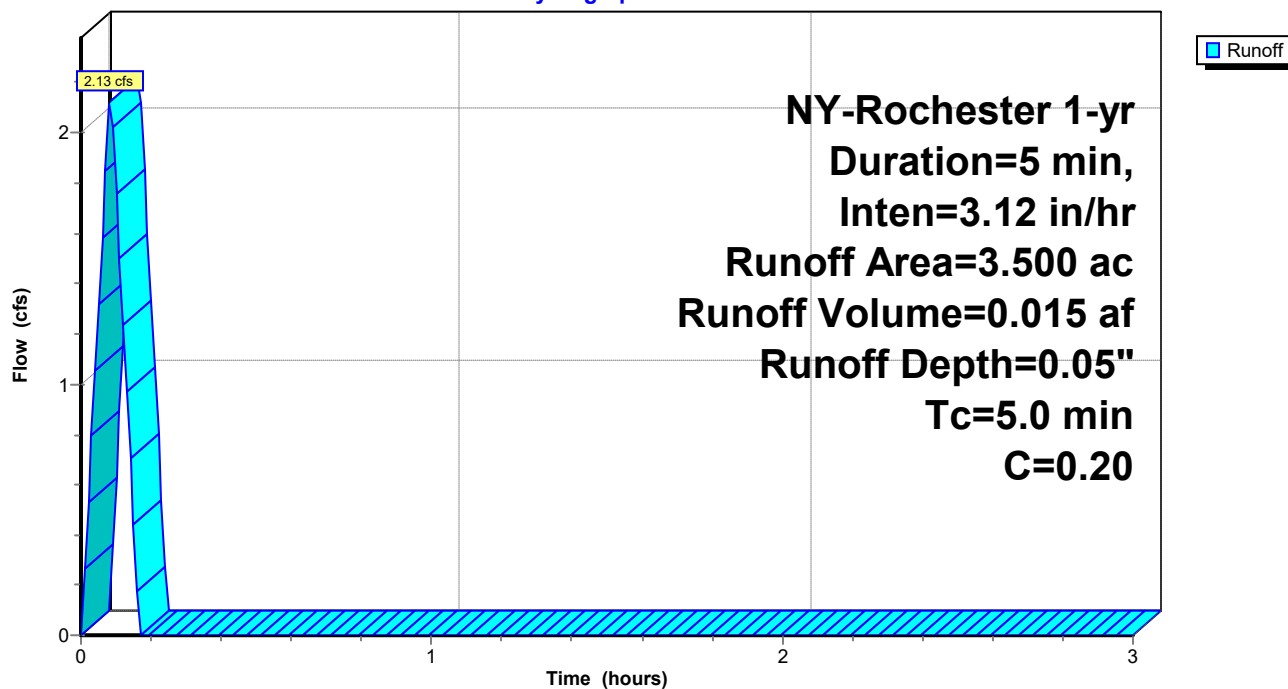
NY-Rochester 1-yr Duration=5 min, Inten=3.12 in/hr

Area (ac)	C	Description
3.300	0.20	Lawn/Park Area
0.200	0.20	Lawn/Park Area
3.500	0.20	Weighted Average
3.500		100.00% Pervious Area

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

Subcatchment PRE: WRW Pre

Hydrograph



WRW Pre Post Calcs

Prepared by Bergmann

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NY-Rochester 10-yr Duration=5 min, Inten=5.04 in/hr

Printed 3/11/2020

Page 5

Summary for Subcatchment PRE: WRW Pre

Runoff = 3.43 cfs @ 0.08 hrs, Volume= 0.024 af, Depth= 0.08"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

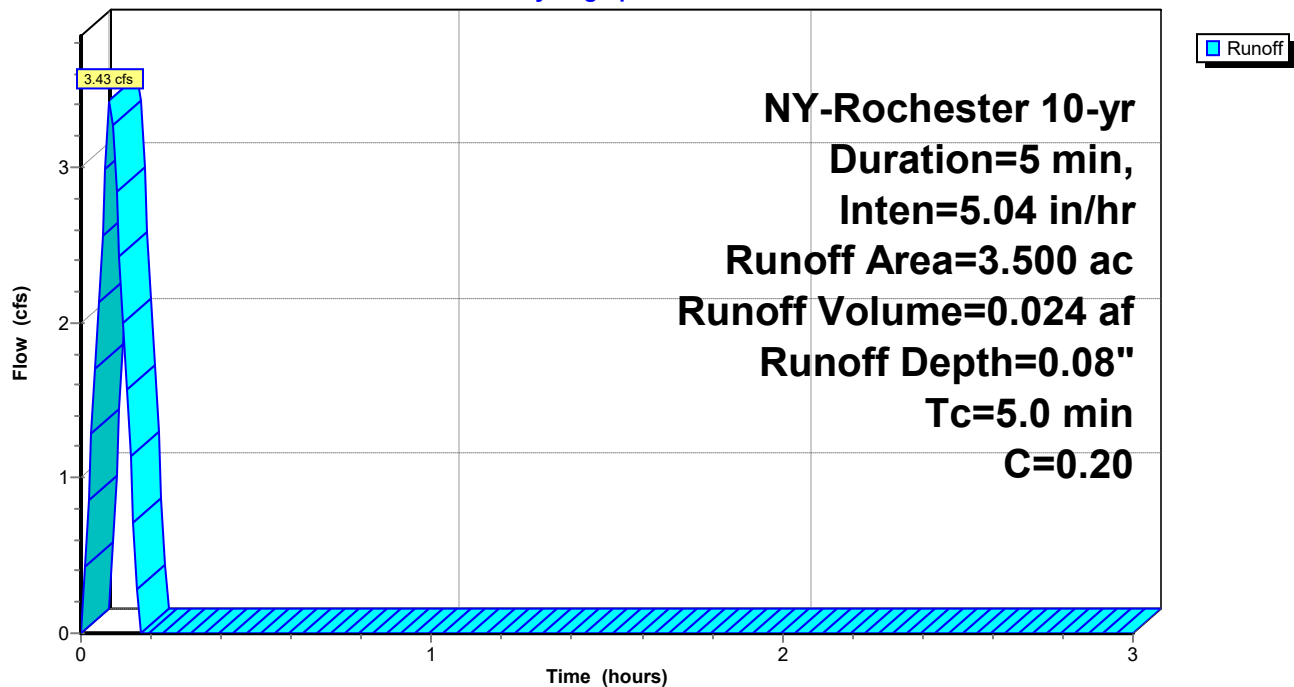
NY-Rochester 10-yr Duration=5 min, Inten=5.04 in/hr

Area (ac)	C	Description
3.300	0.20	Lawn/Park Area
0.200	0.20	Lawn/Park Area
3.500	0.20	Weighted Average
3.500		100.00% Pervious Area

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

Subcatchment PRE: WRW Pre

Hydrograph



WRW Pre Post Calcs

Prepared by Bergmann

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NY-Rochester 100-yr Duration=5 min, Inten=8.16 in/hr

Printed 3/11/2020

Page 6

Summary for Subcatchment PRE: WRW Pre

Runoff = 5.56 cfs @ 0.08 hrs, Volume= 0.040 af, Depth= 0.14"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

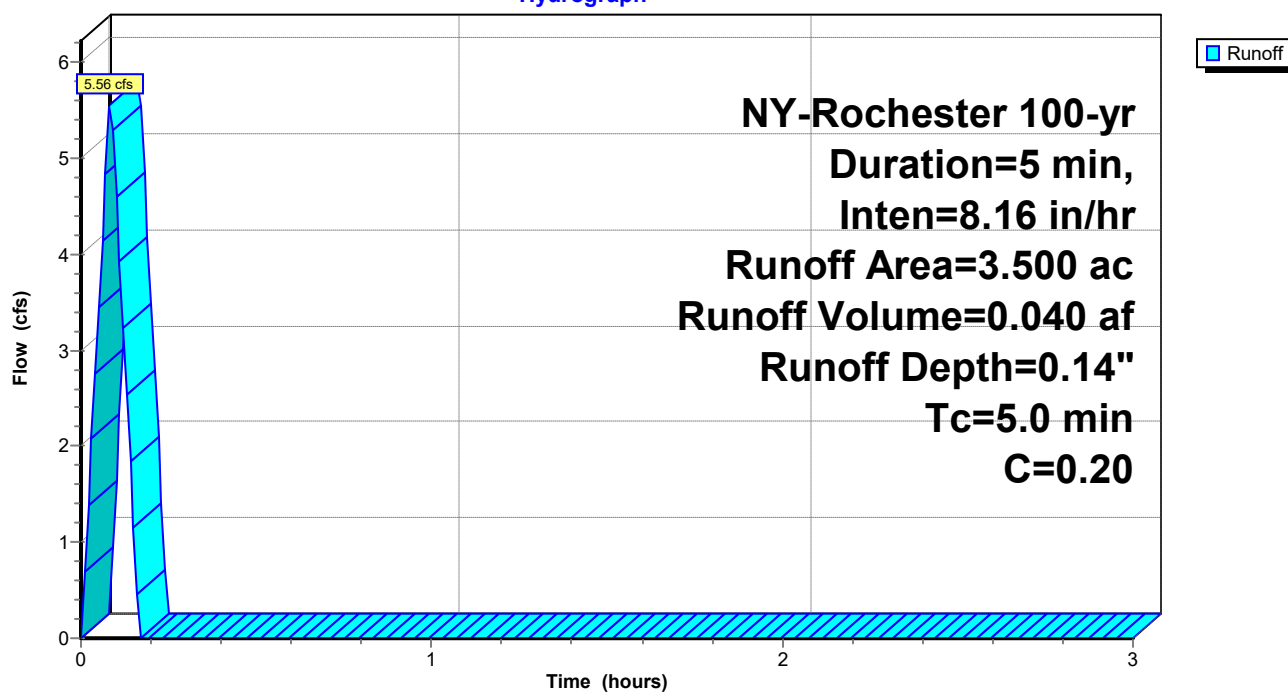
NY-Rochester 100-yr Duration=5 min, Inten=8.16 in/hr

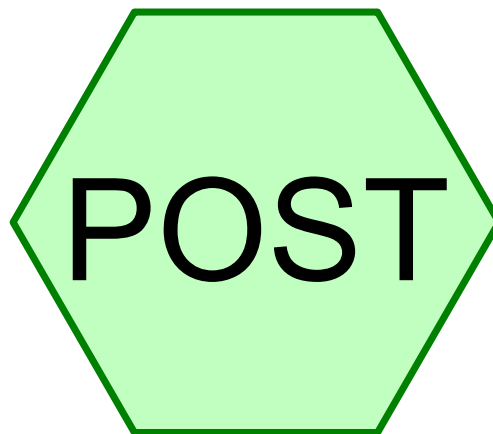
Area (ac)	C	Description
3.300	0.20	Lawn/Park Area
0.200	0.20	Lawn/Park Area
3.500	0.20	Weighted Average
3.500		100.00% Pervious Area

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

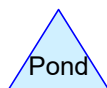
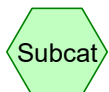
Subcatchment PRE: WRW Pre

Hydrograph





WRW Post



Routing Diagram for WRW Pre Post Calcs

Prepared by Bergmann, Printed 3/11/2020

HydroCAD® 10.00-19 s/n 03498 © 2016 HydroCAD Software Solutions LLC

WRW Pre Post Calcs

Prepared by Bergmann

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Printed 3/11/2020

Page 2

Area Listing (selected nodes)

Area (acres)	C	Description (subcatchment-numbers)
3.300	0.15	Lawn/Park Area (POST)
0.200	0.95	Plaza Area (POST)
3.500	0.20	TOTAL AREA

WRW Pre Post Calcs

Prepared by Bergmann

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Page 3

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	3.300	3.300	Lawn/Park Area	POST
0.000	0.000	0.000	0.000	0.200	0.200	Plaza Area	POST
0.000	0.000	0.000	0.000	3.500	3.500	TOTAL AREA	

WRW Pre Post Calcs

Prepared by Bergmann

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NY-Rochester 1-yr Duration=5 min, Inten=3.12 in/hr

Printed 3/11/2020

Page 4

Summary for Subcatchment POST: WRW Post

Runoff = 2.13 cfs @ 0.08 hrs, Volume= 0.015 af, Depth= 0.05"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

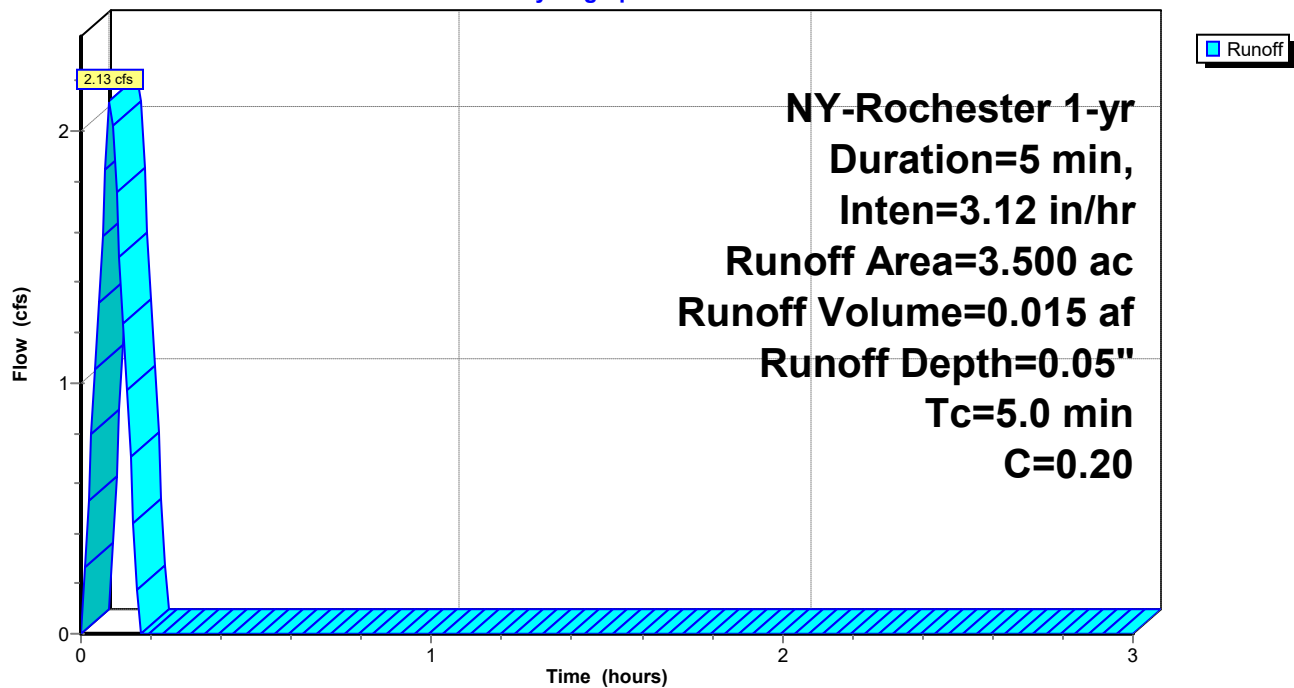
NY-Rochester 1-yr Duration=5 min, Inten=3.12 in/hr

Area (ac)	C	Description
3.300	0.15	Lawn/Park Area
0.200	0.95	Plaza Area
3.500	0.20	Weighted Average
3.300		94.29% Pervious Area
0.200		5.71% Impervious Area

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

Subcatchment POST: WRW Post

Hydrograph



WRW Pre Post Calcs

Prepared by Bergmann

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NY-Rochester 10-yr Duration=5 min, Inten=5.04 in/hr

Printed 3/11/2020

Page 5

Summary for Subcatchment POST: WRW Post

Runoff = 3.43 cfs @ 0.08 hrs, Volume= 0.024 af, Depth= 0.08"

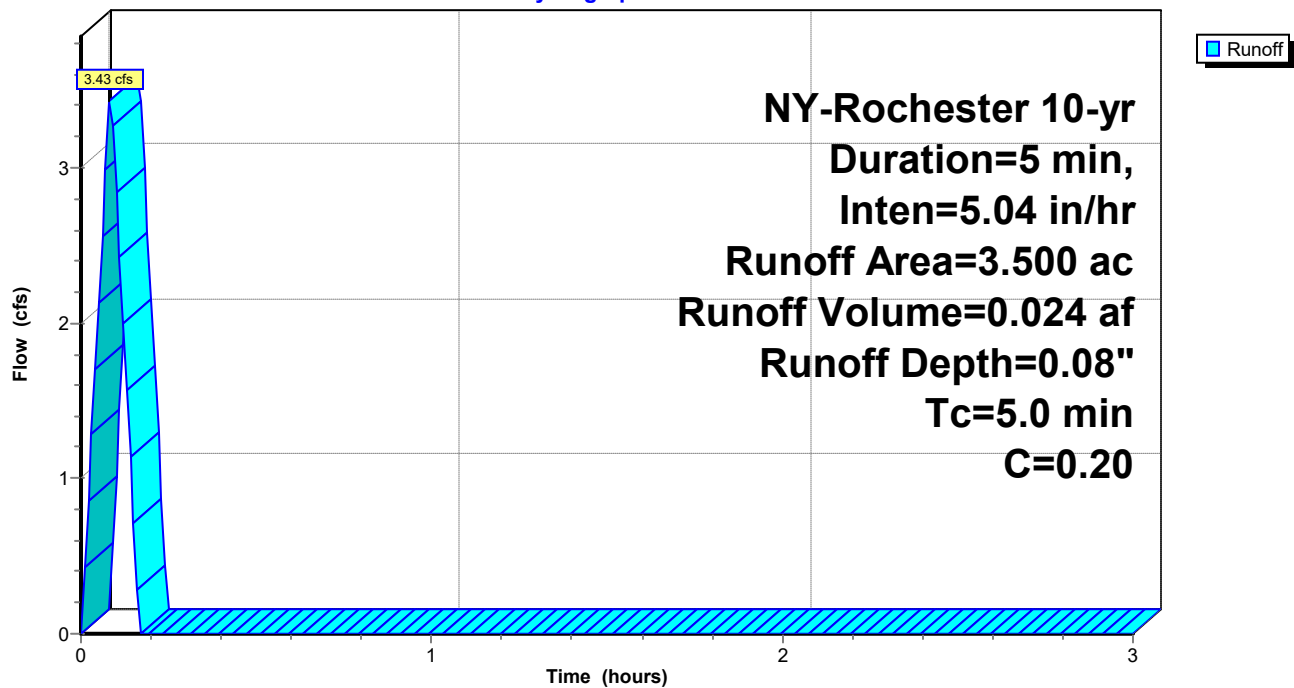
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
NY-Rochester 10-yr Duration=5 min, Inten=5.04 in/hr

Area (ac)	C	Description
3.300	0.15	Lawn/Park Area
0.200	0.95	Plaza Area
3.500	0.20	Weighted Average
3.300		94.29% Pervious Area
0.200		5.71% Impervious Area

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

Subcatchment POST: WRW Post

Hydrograph



WRW Pre Post Calcs

Prepared by Bergmann

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NY-Rochester 100-yr Duration=5 min, Inten=8.16 in/hr

Printed 3/11/2020

Page 6

Summary for Subcatchment POST: WRW Post

Runoff = 5.56 cfs @ 0.08 hrs, Volume= 0.040 af, Depth= 0.14"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

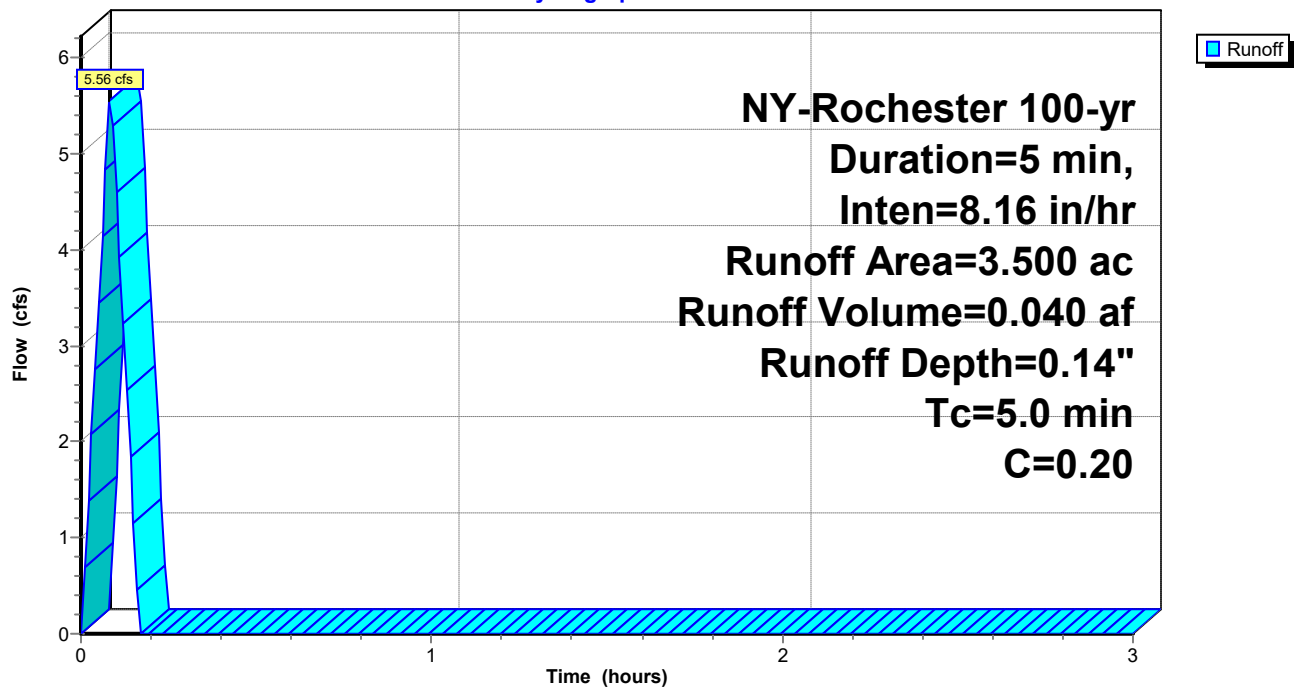
NY-Rochester 100-yr Duration=5 min, Inten=8.16 in/hr

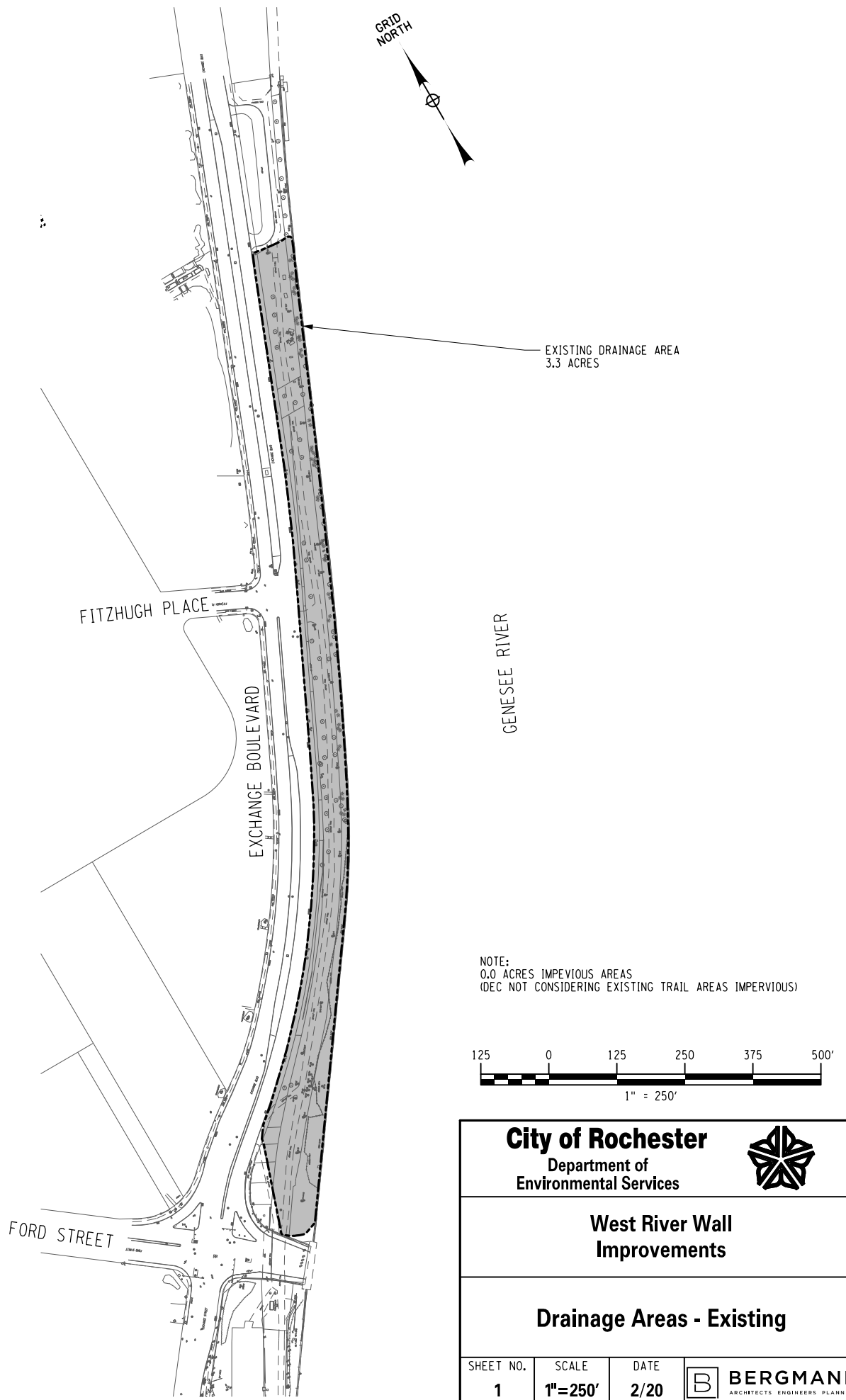
Area (ac)	C	Description
3.300	0.15	Lawn/Park Area
0.200	0.95	Plaza Area
3.500	0.20	Weighted Average
3.300		94.29% Pervious Area
0.200		5.71% Impervious Area

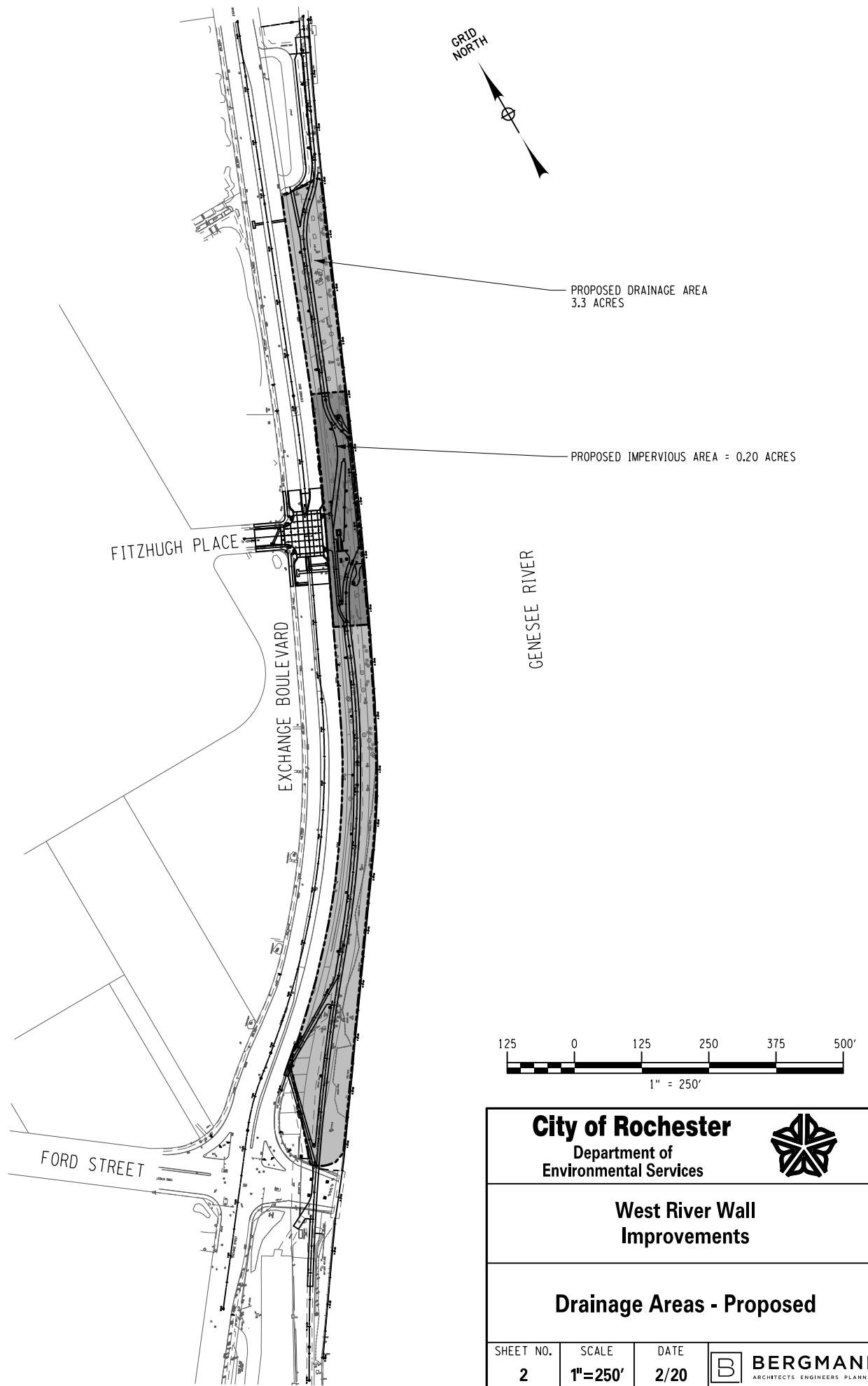
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

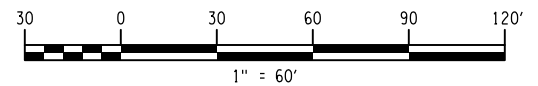
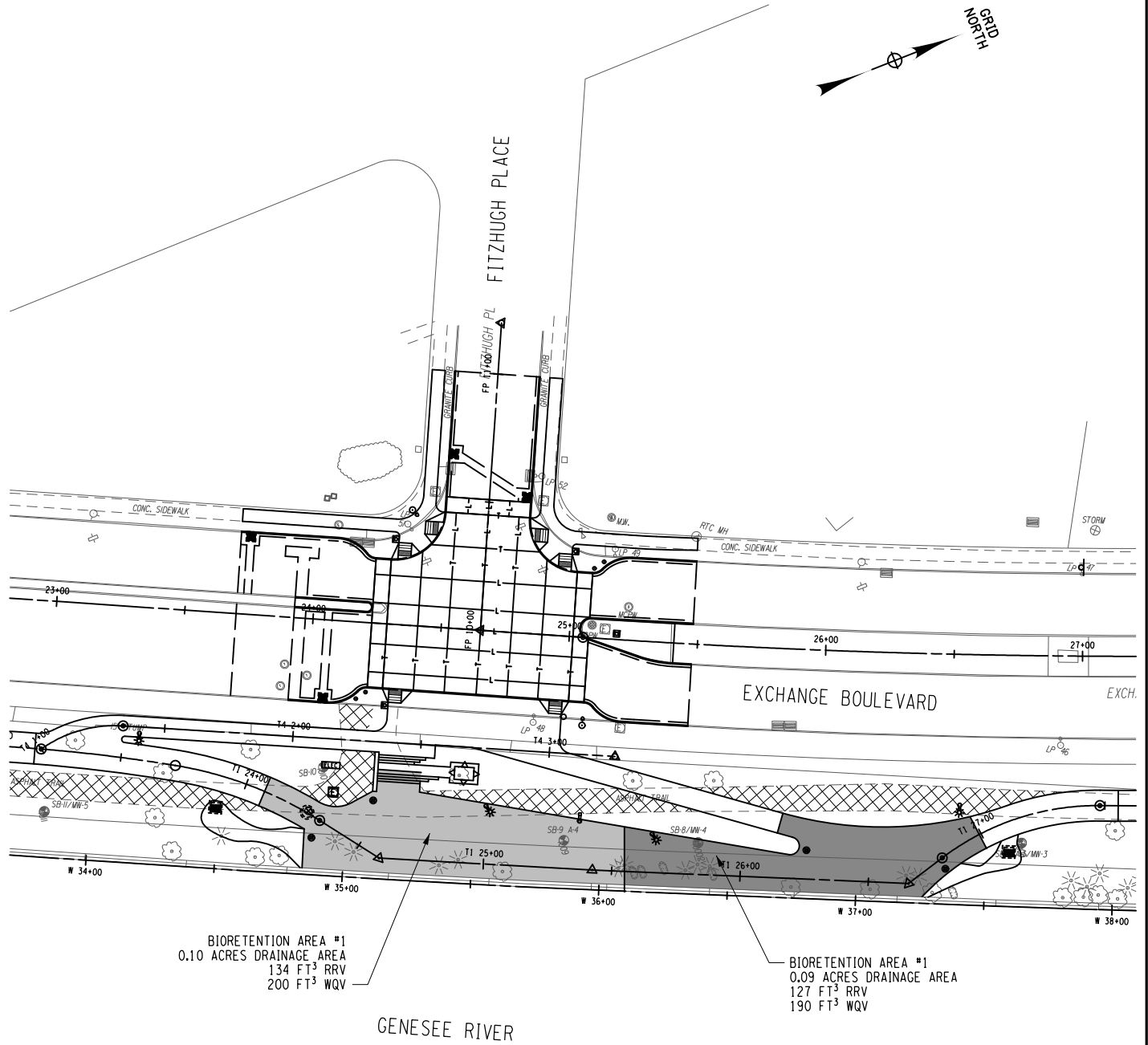
Subcatchment POST: WRW Post

Hydrograph










City of Rochester
 Department of
 Environmental Services



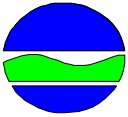
**West River Wall
 Improvements**

Drainage Areas - Dry Swales

SHEET NO.	SCALE	DATE	
3	1"=60'	2/20	 BERGMANN ARCHITECTS ENGINEERS PLANNERS

APPENDIX E

Miscellaneous Forms

NOTICE OF INTENT**New York State Department of Environmental Conservation****Division of Water****625 Broadway, 4th Floor****Albany, New York 12233-3505****NYR**

--	--	--	--	--	--

(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-**RETURN THIS FORM TO THE ADDRESS ABOVE****OWNER/OPERATOR MUST SIGN FORM****Owner/Operator Information**

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

C i t y o f R o c h e s t e r

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

C r u e s

Owner/Operator Contact Person First Name

K a m a l

Owner/Operator Mailing Address

3 0 C h u r c h S t r e e t

City

R o c h e s t e r

State

N Y

Zip

1 4 6 1 4 -

Phone (Owner/Operator)

5 8 5 - 4 9 8 - 7 3 4 3

Fax (Owner/Operator)

- -

Email (Owner/Operator)

K a m a l . C r u e s @ C i t y o f R o c h e s t e r . g o v

FED TAX ID

- (not required for individuals)

Project Site Information

Project/Site Name

West River Wall - Phase 1

Street Address (NOT P.O. BOX)

Exchange Blvd - Multiple

Side of Street

☐ North ☐ South ☐ East ☐ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

City of Rochester

State

NY

Zip

14614 -

County

Monroe

DEC Region

8

Name of Nearest Cross Street

Fitzhugh Place South

Distance to Nearest Cross Street (Feet)

50

Project In Relation to Cross Street

☐ North ☐ South ☒ East ☐ West

Tax Map Numbers

Section-Block-Parcel

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

<https://gisservices.dec.ny.gov/gis/stormwater/>

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

-7 7 6 1 3

Ex. -73.749

Y Coordinates (Northing)

4 3 1 4 6

Ex. 42.652

2. What is the nature of this construction project?

☐ New Construction☒ Redevelopment with increase in impervious area☐ Redevelopment with no increase in impervious area

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

SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- ☐ FOREST
☐ PASTURE/OPEN LAND
☐ CULTIVATED LAND
☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☒ BIKE PATH/TRAIL
☐ LINEAR UTILITY
☐ PARKING LOT
☐ OTHER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Post-Development
Future Land Use**

- ☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ MUNICIPAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☒ BIKE PATH/TRAIL
☐ LINEAR UTILITY (water, sewer, gas, etc.)
☐ PARKING LOT
☐ CLEARING/GRADING ONLY
☐ DEMOLITION, NO REDEVELOPMENT
☐ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
☐ OTHER

Number of Lots

--	--	--	--

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area																								
<table border="1"><tr><td></td><td></td><td></td><td>3</td><td>.</td><td>5</td></tr></table>				3	.	5	<table border="1"><tr><td></td><td></td><td></td><td>3</td><td>.</td><td>3</td></tr></table>				3	.	3	<table border="1"><tr><td></td><td></td><td></td><td>0</td><td>.</td><td>0</td></tr></table>				0	.	0	<table border="1"><tr><td></td><td></td><td></td><td>0</td><td>.</td><td>2</td></tr></table>				0	.	2
			3	.	5																						
			3	.	3																						
			0	.	0																						
			0	.	2																						

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

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

A	B	C	D												
<table border="1"><tr><td></td><td></td><td></td></tr></table> %				<table border="1"><tr><td></td><td></td><td></td></tr></table> %				<table border="1"><tr><td></td><td></td><td></td></tr></table> %				<table border="1"><tr><td>1</td><td>0</td><td>0</td></tr></table> %	1	0	0
1	0	0													

7. Is this a phased project? ☐ Yes ☒ No

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

Start Date	End Date																
<table border="1"><tr><td>0</td><td>5</td></tr></table> / <table border="1"><tr><td>2</td><td>5</td></tr></table> / <table border="1"><tr><td>2</td><td>0</td><td>2</td><td>0</td></tr></table>	0	5	2	5	2	0	2	0	- <table border="1"><tr><td>1</td><td>2</td></tr></table> / <table border="1"><tr><td>3</td><td>1</td></tr></table> / <table border="1"><tr><td>2</td><td>0</td><td>2</td><td>1</td></tr></table>	1	2	3	1	2	0	2	1
0	5																
2	5																
2	0	2	0														
1	2																
3	1																
2	0	2	1														

[illegible][illegible][illegible]

- ☐ Regulatory Map
- ☐ Delineated by Consultant
- ☐ Delineated by Army Corps of Engineers
- ☐ Other (identify)

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

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

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

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ☐ **Yes** ☒ **No**
If no, skip question 13.

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

If Yes, what is the acreage to be disturbed?

.

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

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

16. What is the name of the municipality/entity that owns the separate storm sewer system?

[illegible]

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ☐ Yes ☒ No ☐ Unknown

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

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

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

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☒ Yes ☐ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ☒ Yes ☐ No
- If No, skip questions 23 and 27-39.**

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☒ Yes ☐ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ☒ Professional Engineer (P.E.)
☐ Soil and Water Conservation District (SWCD)
☐ Registered Landscape Architect (R.L.A.)
☐ Certified Professional in Erosion and Sediment Control (CPESC)
☐ Owner/Operator
☐ Other

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

[illegible]

Mailing Address

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City

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State Zip

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Phone

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Fax

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Email

t	b	u	r	k	e	@	b	e	r	g	m	a	n	n	p	c	.	c	o	m
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[illegible]

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[illegible]

MI

C

Last Name

[illegible]

Signature

74 B

Date _____

$$\boxed{0} \boxed{3} / \boxed{1} \boxed{2} / \boxed{2} \boxed{0} \boxed{2} \boxed{0}$$

25. Has a construction sequence schedule for the planned management practices been prepared? ☒ Yes ☐ No

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

Temporary Structural

- ☐ Check Dams
- ☐ Construction Road Stabilization
- ☒ Dust Control
- ☐ Earth Dike
- ☐ Level Spreader
- ☐ Perimeter Dike/Swale
- ☐ Pipe Slope Drain
- ☐ Portable Sediment Tank
- ☐ Rock Dam
- ☐ Sediment Basin
- ☐ Sediment Traps
- ☒ Silt Fence
- ☒ Stabilized Construction Entrance
- ☒ Storm Drain Inlet Protection
- ☐ Straw/Hay Bale Dike
- ☐ Temporary Access Waterway Crossing
- ☐ Temporary Stormdrain Diversion
- ☐ Temporary Swale
- ☒ Turbidity Curtain
- ☐ Water bars

Biotechnical

- Brush Matting
- Wattling

Other

[illegible]

Vegetative Measures

- ☐ Brush Matting
- ☐ Dune Stabilization
- ☐ Grassed Waterway
- ☒ Mulching
- ☒ Protecting Vegetation
- ☐ Recreation Area Improvement
- ☒ Seeding
- ☐ Sodding
- ☐ Straw/Hay Bale Dike
- ☐ Streambank Protection
- ☐ Temporary Swale
- ☒ Topsoiling
- ☐ Vegetating Waterways

Permanent Structural

- ☐ Debris Basin
- ☐ Diversion
- ☐ Grade Stabilization Structure
- ☐ Land Grading
- ☐ Lined Waterway (Rock)
- ☐ Paved Channel (Concrete)
- ☐ Paved Flume
- ☐ Retaining Wall
- ☐ Riprap Slope Protection
- ☐ Rock Outlet Protection
- ☐ Streambank Protection

Post-construction Stormwater Management Practice (SMP) Requirements

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

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☐ Preservation of Undisturbed Areas
- ☐ Preservation of Buffers
- ☐ Reduction of Clearing and Grading
- ☐ Locating Development in Less Sensitive Areas
- ☐ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☐ Building Footprint Reduction
- ☐ Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☒ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

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

Total WQv Required

0 . 0 1 6 **acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

**Table 1 - Runoff Reduction (RR) Techniques
and Standard Stormwater Management
Practices (SMPs)**

<u>RR Techniques (Area Reduction)</u>	<u>Total Contributing Area (acres)</u>	<u>Total Contributing Impervious Area (acres)</u>
<input type="radio"/> Conservation of Natural Areas (RR-1) ...	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Sheetflow to Riparian Buffers/Filters Strips (RR-2)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Tree Planting/Tree Pit (RR-3)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Disconnection of Rooftop Runoff (RR-4) ..	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<u>RR Techniques (Volume Reduction)</u>		
<input type="radio"/> Vegetated Swale (RR-5)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Rain Garden (RR-6)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Stormwater Planter (RR-7)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Rain Barrel/Cistern (RR-8)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Porous Pavement (RR-9)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Green Roof (RR-10)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<u>Standard SMPs with RRv Capacity</u>		
<input type="radio"/> Infiltration Trench (I-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Infiltration Basin (I-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Dry Well (I-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Underground Infiltration System (I-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="radio"/> Bioretention (F-5)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Dry Swale (O-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<u>Standard SMPs</u>		
<input type="radio"/> Micropool Extended Detention (P-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Pond (P-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Extended Detention (P-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Multiple Pond System (P-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Pocket Pond (P-5)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Surface Sand Filter (F-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Underground Sand Filter (F-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Perimeter Sand Filter (F-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Organic Filter (F-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Shallow Wetland (W-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Extended Detention Wetland (W-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Pond/Wetland System (W-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Pocket Wetland (W-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Swale (O-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>

Alternative SMP

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			■			
			■			
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0	0	6
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acre-feet

- | | | |
|--|--|---|
| | | 0 |
|--|--|---|
- .
- | | | |
|---|---|---|
| 0 | 0 | 3 |
|---|---|---|
- acre-feet

-
- Page 10 of 14

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0 . 0 1 0 acre-feet

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

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

0 . 0 1 6

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☒ **Yes** ☐ **No**

If Yes, go to question 36.

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

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

CPv Required

. acre-feet

CPv Provided

. acre-feet

- 36a. The need to provide channel protection has been waived because:

- ☒ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

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

Total Overbank Flood Control Criteria (Qp)

Pre-Development

. CFS

Post-development

. CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

. CFS

Post-development

. CFS

37a. The need to meet the Qp and Qf criteria has been waived because:

- ☒ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ☒ Yes ☐ No

If Yes, Identify the entity responsible for the long term
Operation and Maintenance

[illegible]

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a)
This space can also be used for other pertinent project information.

Park/roadway projects limit the ability to implement runoff reduction measures due to limited space. Park design, layout, and right-of-way requirements don't allow for expansion of green area into the existing roadway.

Park/roadway projects limit the ability to implement runoff reduction measures due to limited space. Park design, layout, and right-of-way requirements don't allow for expansion of green area into the existing roadway.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

○ Air Pollution Control

○ Coastal Erosion

☐ Hazardous Waste

○ Long Island Wells

○ Mined Land Reclamation

○ Solid Waste

○ Navigable Waters Protection / Article 15

○ Water Quality Certificate

○ Dam Safety

○ Water Supply

○ Freshwater Wetlands/Article 24

○ Tidal Wetlands

☐ Wild, Scenic and Recreational Rivers

○ Stream Bed or Bank Protection / Article 15

☐ Endangered or Threatened Species (Incidental Take Permit)

- Individual SPDES

○ SPDES Multi-Sector GP	N	Y	R						
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☐ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ☐ ☐ ☐ ☐ ☐ ☐

☐ Yes ☒ No

If Yes, Indicate Size of Impact.				
.				

42. Is this project subject to the requirements of a regulated, traditional land use control MS4?
(If No, skip question 43)

☒ Yes ☐ No

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

☒ Yes ☐ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

N	N	D				
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N	Y	R						
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Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

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Print Last Name

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Owner/Operator Signature

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Date

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Contractor / Subcontractor SPDES Permit Certification

Contract No.: _____ PIN: _____

Description: _____

Town, Village, City: _____

County: _____ 

Check Applicable Box: ☐ Prime Contractor ☐ Subcontractor

Name of Contractor/
Subcontractor: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____ Fax: _____

Core Pay Item Groups for which the Contractor/Subcontractor will be responsible (e.g. 203, 207, 209, etc.): _____

Mandatory Certification: The SPDES General Permit for Stormwater Discharges from Construction Activities requires the Prime Contractor and subcontractors to certify they understand the Stormwater Pollution Prevention Plan (SWPPP), the General Permit conditions, and their responsibilities for compliance. The certification must be signed prior to performing any contract work. The certification shall be signed by an Owner, Principal, President, Secretary or Treasurer of the firm in accordance with the signature requirements of 102-05 *Proposal Submission* of the Standard Specifications.

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

Signature: _____ Date: _____

Name: _____ Title: _____

Required Training: Effective April 30, 2010, the SPDES General Permit also requires the Prime Contractor and all subcontractors **performing earthwork or soil-disturbing activities** to identify at least one trained individual **from each company** who will be responsible for implementing the SWPPP and who shall be on-site on a daily basis when the company is performing soil disturbance activities. These activities include clearing, grubbing, grading, filling, excavation, stockpiling, demolition, landscaping, and installation and maintenance of Erosion & Sediment Control practices. Training must consist of 4 hours of NYSDEC-endorsed Erosion & Sediment Control Training every 3 years. (Training is not required if the individual is a licensed Professional Engineer, registered licensed Landscape Architect, or CPESC.) Provide the information below for trained individuals who will be on-site and responsible for SWPPP implementation on this Contract (attach a separate sheet if needed for additional Trained Individuals):

Trained Individual Name/Title : _____

Name of Training Course: _____

Trainee Number: _____ Date of Training: _____

Trained Individual Name/Title : _____

Name of Training Course: _____

Trainee Number: _____ Date of Training: _____

Print Form

Make Form Read-Only (Cannot be undone)

SPDES STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REVISION

Clear Form

JOB STAMP

Date: _____

Day of Week:

S	M	T	W	T	F	S
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Sheet No. ____ of ____

This form is to be used when revisions to the current Stormwater Pollution Prevention Plan (SWPPP) are required by SPDES General Permit for Stormwater Discharges from Construction Activity. The completed form must be filed in the Engineer's Field Office.

Reason for the Revision(s): Revision(s) were requested by NYSDEC: ☐ Yes ☐ No

Describe the Revision(s) to the SWPPP:

Engineer-in-Charge Signature: _____

EICs Name & Title: _____

Date
Completed: _____

Make Form Read-Only (Cannot be undone)

Print Form

Copy to
Contractor: _____

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NOTICE TO DISTURB GREATER THAN 5 ACRES OF SOIL

SPDES General Permit for Stormwater Discharges from Construction Activity

Part II.C.3 of the SPDES General Permit for Stormwater Discharges from Construction Activity, requires written authorization from the New York State Department of Environmental Conservation (NYSDEC) prior to disturbing more than 5 AC of soil. Executive management at the New York State Department of Transportation (NYSDOT) and NYSDEC have mutually agreed that prior authorization is not required for NYSDOT contracts, provided adequate control measures are implemented and site inspections are conducted in accordance with the SPDES General Permit. The NYSDOT hereby notifies NYSDEC that more than 5 AC of soil will be disturbed at this site.

A Qualified Inspector will conduct at least 2 site inspections every 7 calendar days whenever more than 5 AC of soil has been disturbed. Inspections during this period will be separated by a minimum of 2 full calendar days.

This notification will be filed with the Stormwater Pollution Prevention Plan (SWPPP).

Contract No.: _____ PIN: _____

Description: _____

Town, Village, City: _____

County: _____ 

Approximate date soil disturbance
will exceed 5 AC : _____

Total soil disturbance: _____

Signature _____

Name: _____

Title: _____

Phone: _____

E-Mail: _____

Date Submitted to NYSDEC: _____

NOTICE TO REDUCE FREQUENCY OF SPDES SITE INSPECTIONS

SPDES General Permit for Stormwater Discharges from Construction Activity

In accordance with Part IV.C.2.c of the SPDES General Permit for Stormwater Discharges from Construction Activity, the New York State Department of Transportation hereby notifies the New York State Department of Environmental Conservation that work on this Contract will be temporarily suspended and temporary stabilization measures have been applied to all disturbed areas.

A Qualified Inspector will conduct a site inspection at least once every 30 calendar days during this period. The standard site inspection frequency will resume when construction activities recommence.

Contract No.: _____ PIN: _____

Description: _____

Town, Village, City: _____

County: _____ 

Reason for temporary suspension of work:

☐ Winter Shutdown

☐ Other _____

Approximate date work will be suspended: _____

Approximate date work will resume: _____

Signature _____

Name: _____

Title: _____

Phone: _____

E-Mail: _____

Date Submitted to NYSDEC: _____

SPDES STORMWATER INSPECTION REPORT

JOB STAMP

Date: _____

Day of Week:

S	M	T	W	T	F	S
---	---	---	---	---	---	---

Sheet No. ____ of ____

	AM	PM
Weather	<input type="text"/>	<input type="text"/>
Temperature	<input type="text"/> ° F	<input type="text"/> ° F
Soil Condition	<input type="text"/>	

This form is to be used on contracts covered by the SPDES General Permit for Stormwater Discharges from Construction Activity. The completed form must be filed in the Engineer's Field Office and distributed to contractors.

Reason for this Inspection:

- ☐ 7-calendar day inspection ☐ 30-day inspection (temporary shut-down)
- ☐ Second inspection in 7-calendar-day period due to soil disturbance exceeding 5 Acres

Codes for Erosion and Sediment control measures and Stormwater Management Practices to be inspected: (1) mulch, (2) seed and mulch, (3) check dams, (4) straw bales, (5) silt fence, (6) sediment trap, (7) turbidity curtains, (8) pipe slope drains, (9) drainage structure inlet protection, (10) rolled erosion control products, (11) soil stabilizers, (12) construction access/exits, (13) pipe inlet/outlet protection, (14) water diversion structures, (15) sedimentation basins, (16) coffer dams, (17) staging area, (18) stockpile stabilization, (19) Other _____

List ONLY those practices that require repair, maintenance, reinstallation or replacement. Attach COLOR copies of photographs to this report **with accurate date stamp** that shows the condition of practices **identified** as needing corrective action within 7 calendar days of the inspection. Attach COLOR copies of photographs to this report with **accurate date stamp** showing the condition of the practice(s) after completion of the corrective actions that document the completion of the **corrective** actions within a reasonable timeframe after the inspection.

ID	Location of Practice (Use stations or descriptions)	Practice		Remarks (Describe Specific Maintenance Required)(Including sediment removal, replacement, replacement or installation of practice)
		Code #	Temp or Perm? (T or P)	
1		<input type="text"/>	<input type="text"/>	
2		<input type="text"/>	<input type="text"/>	
3		<input type="text"/>	<input type="text"/>	
4		<input type="text"/>	<input type="text"/>	
5		<input type="text"/>	<input type="text"/>	
6		<input type="text"/>	<input type="text"/>	
7		<input type="text"/>	<input type="text"/>	
8		<input type="text"/>	<input type="text"/>	
9		<input type="text"/>	<input type="text"/>	
10		<input type="text"/>	<input type="text"/>	

ID	Location of Practice (Use stations or descriptions)	Practice		Remarks (Describe Specific Maintenance Required)(Including sediment removal, replacement, replacement or installation of practice)
		Code #	Temp or Perm? (T or P)	
11		<div></div>	<div></div>	
12		<div></div>	<div></div>	
13		<div></div>	<div></div>	
14		<div></div>	<div></div>	
15		<div></div>	<div></div>	

Attach a location map showing **all** disturbed areas and areas stabilized since the last inspection.

Identify all locations where stormwater is discharged from the site to a Water of the U.S. (e.g. streams, lakes, wetlands, etc.) within or adjacent to the limits of construction, and all locations where stormwater exits the construction site. Describe the condition of the stormwater and the condition of the receiving waterbodies. Add Form MURK 6-2 for continuation as necessary.

	Location of Outlet (STA / OFFSET)	Type of Outlet (e.g. pipe, ditch, overland flow,etc.)	Does this discharge to a Water of the US?	Describe Runoff (if any) (e.g. clear, turbid, oily)	Describe Receiving Water (if any) (e.g. clear, turbid, oily, unknown)
1			<div></div>	<div></div>	<div></div>
2			<div></div>	<div></div>	<div></div>
3			<div></div>	<div></div>	<div></div>

Number of Acres currently disturbed: _____

If more than 5 Acres of soil disturbed at any one time, was NYSDEC advised? (Form HC209 may apply)

Describe existing deficiencies in the SWPPP. Specify for each location using row ID number from front

Were significant deficiencies identified that require the SWPPP to be revised: ☐ Yes ☐ No

If Yes, complete a CONR-8 SWPPP Revision Form and file in the Engineer's Field Office

NOTE: Within 1 business day of completion of this inspection, the Contractor(s) must be notified of any corrective actions required. The Contractor(s) or identified Sub-Contractor(s) shall begin corrective actions within 1 business day of notification, and shall complete corrective actions within 1 business day of notification or within a reasonable timeframe for complex corrective actions.

Qualified Inspector Name/Title
Company Name (If Consultant) _____

Qualified Inspector Signature: _____

Prepared: _____
(Date)

Copy to Contractor: _____
(Date)

Date Reviewed: _____
(Date)

Reviewed By: _____

☐ MURK 6-1 SPDES Stormwater Inspection Report - Continuation attached

- ☐ Engineer-in-Charge
☐ Resident Engineer
☐ Area Supervisor
☐ MURK 6-2 SPDES Stormwater Outlets to Waters of the U.S. - Continuation attached



































SPDES STORMWATER INSPECTION REPORT - CONTINUATION

JOB STAMP

Date: _____ Sheet No. ____ of ____

Codes for Erosion and Sediment control measures and Stormwater Management Practices to be inspected: (1) mulch, (2) seed and mulch, (3) check dams, (4) straw bales, (5) silt fence, (6) sediment trap, (7) turbidity curtains, (8) pipe slope drains, (9) drainage structure inlet protection, (10) rolled erosion control products, (11) soil stabilizers, (12) construction access/exits, (13) pipe inlet/outlet protection, (14) water diversion structures, (15) sedimentation basins, (16) coffer dams, (17) staging area, (18) stockpile stabilization, (19) Other _____

List **ONLY** those practices that require repair, maintenance, reinstallation or replacement.

ID	Location of Practice (Use stations or descriptions)	Practice		Remarks (Describe Specific Maintenance Required)(Including sediment removal, replacement, replacement or installation of practice)
		Code #	Temp or Perm? (T or P)	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				

ID	Location of Practice (Use stations or descriptions)	Practice		Remarks (Describe Specific Maintenance Required)(Including sediment removal, replacement, replacement or installation of practice)
		Code #	Temp or Perm? (T or P)	
33		<input type="text"/>	<input type="text"/>	
34		<input type="text"/>	<input type="text"/>	
35		<input type="text"/>	<input type="text"/>	
36		<input type="text"/>	<input type="text"/>	
37		<input type="text"/>	<input type="text"/>	
38		<input type="text"/>	<input type="text"/>	
39		<input type="text"/>	<input type="text"/>	
40		<input type="text"/>	<input type="text"/>	
41		<input type="text"/>	<input type="text"/>	
42		<input type="text"/>	<input type="text"/>	
43		<input type="text"/>	<input type="text"/>	
44		<input type="text"/>	<input type="text"/>	
45		<input type="text"/>	<input type="text"/>	
46		<input type="text"/>	<input type="text"/>	
47		<input type="text"/>	<input type="text"/>	
48		<input type="text"/>	<input type="text"/>	
49		<input type="text"/>	<input type="text"/>	
50		<input type="text"/>	<input type="text"/>	
51		<input type="text"/>	<input type="text"/>	
52		<input type="text"/>	<input type="text"/>	
53		<input type="text"/>	<input type="text"/>	
54		<input type="text"/>	<input type="text"/>	
55		<input type="text"/>	<input type="text"/>	
56		<input type="text"/>	<input type="text"/>	
57		<input type="text"/>	<input type="text"/>	

Qualified Inspector Initials:: _____

**New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505**

(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized
under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ____ _

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. ☐ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. ☐ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ____ _

(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. ☐ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? ☐ yes ☐ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? ☐ yes ☐ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? ☐ yes ☐ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- ☐ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- ☐ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- ☐ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.
- ☐ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? ☐ yes
☐ no
(If Yes, complete section VI - "MS4 Acceptance" statement)

V. Additional Information/Explanation:
(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

APPENDIX F

Cultural Resource Information



**Parks, Recreation,
and Historic Preservation**

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

July 12, 2019

Mr. Tom Hack
Chief Structural Engineer
City of Rochester
City Hall Room 300B
30 Church Street
Rochester, NY 14614

Re: USACE
West River Wall Reconstruction - Segment 1, Corn Hill
City of Rochester, Monroe County, NY
18PR02863

Dear Mr. Hack:

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of SHPO and relate only to Historic/Cultural resources.

We have reviewed the submission received on 6/20/2019, including the project overview and site plans. Based upon our review, it is the SHPO's opinion that the proposed project will have No Adverse Effect upon historic resources.

If there are substantive changes to the project, consultation with our office should resume. If you have any questions, I can be reached at (518) 268-2217.

Sincerely,

A handwritten signature in black ink, reading "Christina Vagvolgyi".

Christina Vagvolgyi
Historic Preservation Technical Specialist
e-mail: christina.vagvolgyi@parks.ny.gov

via e-mail only

APPENDIX G

General Permit for Construction Activity



Department of
Environmental
Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

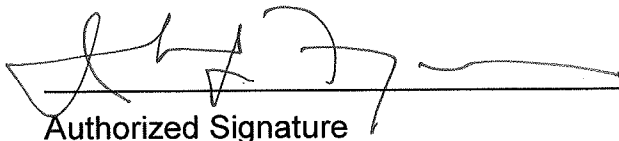
Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20
Date

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

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

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

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM
CONSTRUCTION ACTIVITIES**

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

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

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants to surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

Discharges authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize the discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:
- (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*;
 - (ii) Control stormwater *discharges*, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;
 - (iii) *Minimize* the amount of soil exposed during *construction activity*;
 - (iv) *Minimize* the disturbance of *steep slopes*;
 - (v) *Minimize* sediment *discharges* from the site;
 - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, unless *infeasible*;
 - (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;
 - (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
 - (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
- d. **Pollution Prevention Measures.** Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:
 - (i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;
 - (ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and
 - (iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
- e. **Prohibited Discharges.** The following *discharges* are prohibited:
 - (i) Wastewater from washout of concrete;
 - (ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

- (iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;
 - (iv) Soaps or solvents used in vehicle and equipment washing; and
 - (v) Toxic or hazardous substances from a spill or other release.
- f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual (“Design Manual”), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices (“SMPs”) are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

- (i) Runoff Reduction Volume (“RRv”): Reduce the total Water Quality Volume (“WQv”) by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.
- (ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (“Cpv”): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site discharges directly to tidal waters, or fifth order or larger streams.
- (iv) *Overbank* Flood Control Criteria (“Qp”): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (“Qf”): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site discharges directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watershed

- (i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

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

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

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

- (iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
 - (1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
 - (2) The site *discharges* directly to tidal waters, or fifth order or larger streams.
- (iv) Overbank Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.
- (v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
 - (1) the site *discharges* directly to tidal waters or fifth order or larger streams, or
 - (2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

- (i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.
 - (1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or
 - (2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or
 - (3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or
 - (4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

- (ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iii) Overbank Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.
- (iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

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

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

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

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

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

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

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharges*; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.
3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

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

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

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

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

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.
7. *Construction activities* for linear transportation projects and linear utility projects:
 - a. Where the *discharges* from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and
 - b. Which are undertaken on land with no existing *impervious cover*; and
 - c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:
- a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.
 - 1-5 acres of disturbance - 20 feet
 - 5-20 acres of disturbance - 50 feet
 - 20+ acres of disturbance - 100 feet, or
 - b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
 - (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
 - (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
 - (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
 - (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or
 - c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

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

d. Documentation that:

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

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

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

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

B. Notice of Intent (NOI) Submittal

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

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 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 not subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
 - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
 - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

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

D. General Requirements For Owners or Operators With Permit Coverage

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

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

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

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

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

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

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

F. Change of Owner or Operator

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

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

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

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

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
 - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

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

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

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

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

B. Required SWPPP Contents

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

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge(s)*;
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;
- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

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

- j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and
 - l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

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

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

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
- c. A Stormwater Modeling and Analysis Report that includes:
 - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;
 - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;
 - (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;
 - (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;
 - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and
 - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;
- d. Soil testing results and locations (test pits, borings);
- e. Infiltration test results, when required; and
- f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

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

C. Required SWPPP Components by Project Type

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

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

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

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

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

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

- licensed Professional Engineer,
 - Certified Professional in Erosion and Sediment Control (CPESC),
 - New York State Erosion and Sediment Control Certificate Program holder
 - Registered Landscape Architect, or
 - someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].
1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:
 - a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

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

- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
 - c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
 - d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:
- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.
 - b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

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

- a. Date and time of inspection;
- b. Name and title of person(s) performing inspection;
- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
- f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;
- g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;
- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);
- k. Identification and status of all corrective actions that were required by previous inspection; and

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

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

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

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

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

B. Addresses

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

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

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

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

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

B. Continuation of the Expired General Permit

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

C. Enforcement

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

D. Need to Halt or Reduce Activity Not a Defense

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

E. Duty to Mitigate

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

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

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

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) the chief executive officer of the agency, or
 - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

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

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

I. Property Rights

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

J. Severability

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

K. Requirement to Obtain Coverage Under an Alternative Permit

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

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

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

L. Proper Operation and Maintenance

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

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

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

N. Permit Actions

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

O. Definitions

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

P. Re-Opener Clause

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

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

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

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

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

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

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

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

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

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

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

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

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

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

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

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

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

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

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

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

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

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

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

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

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

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

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

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

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

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

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

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

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

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

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

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

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

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

Steep Slope – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

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

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

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

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

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

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> 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 <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <p>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.</p>
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• 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

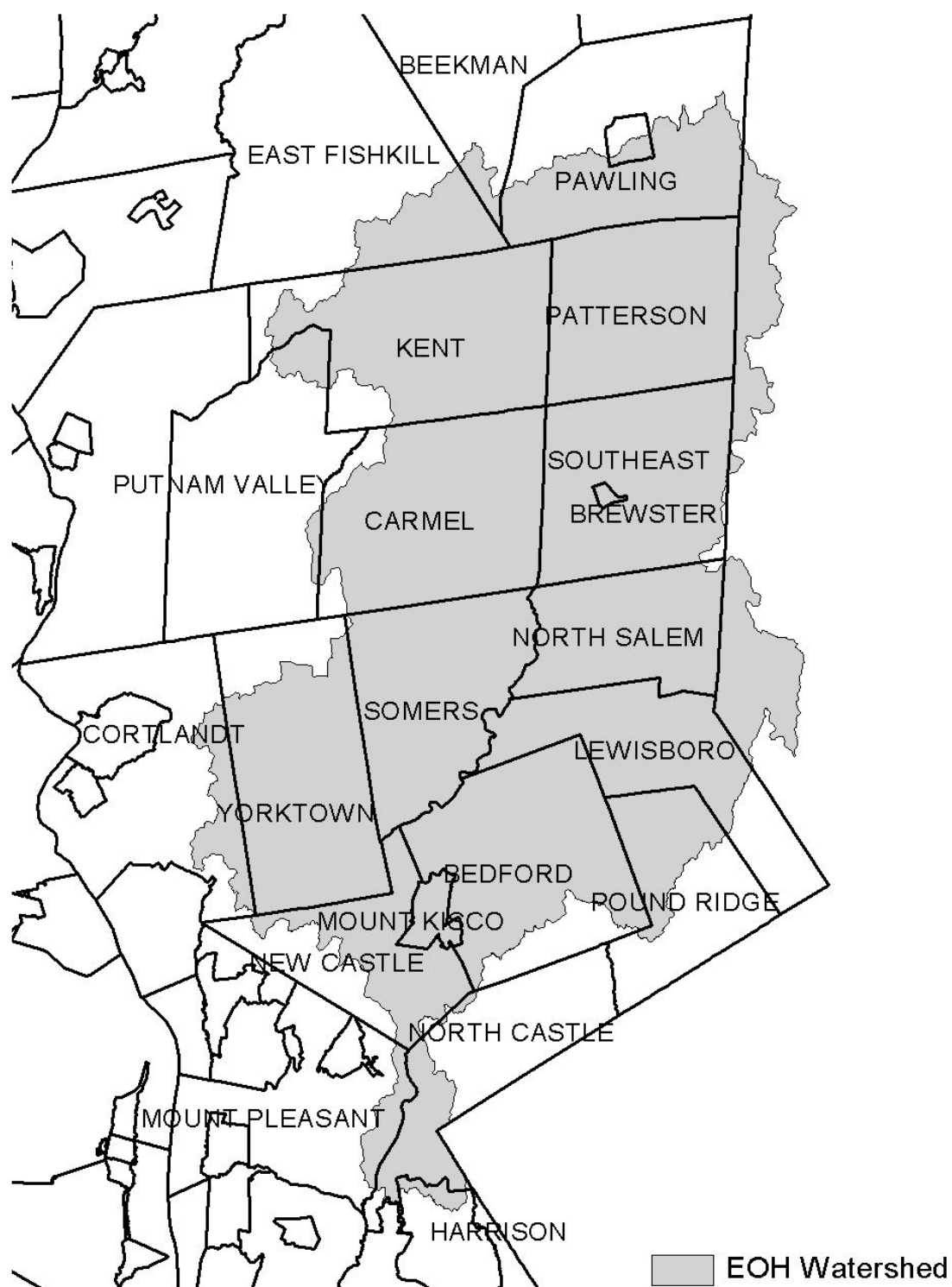
Figure 1 - New York City Watershed East of the Hudson

Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

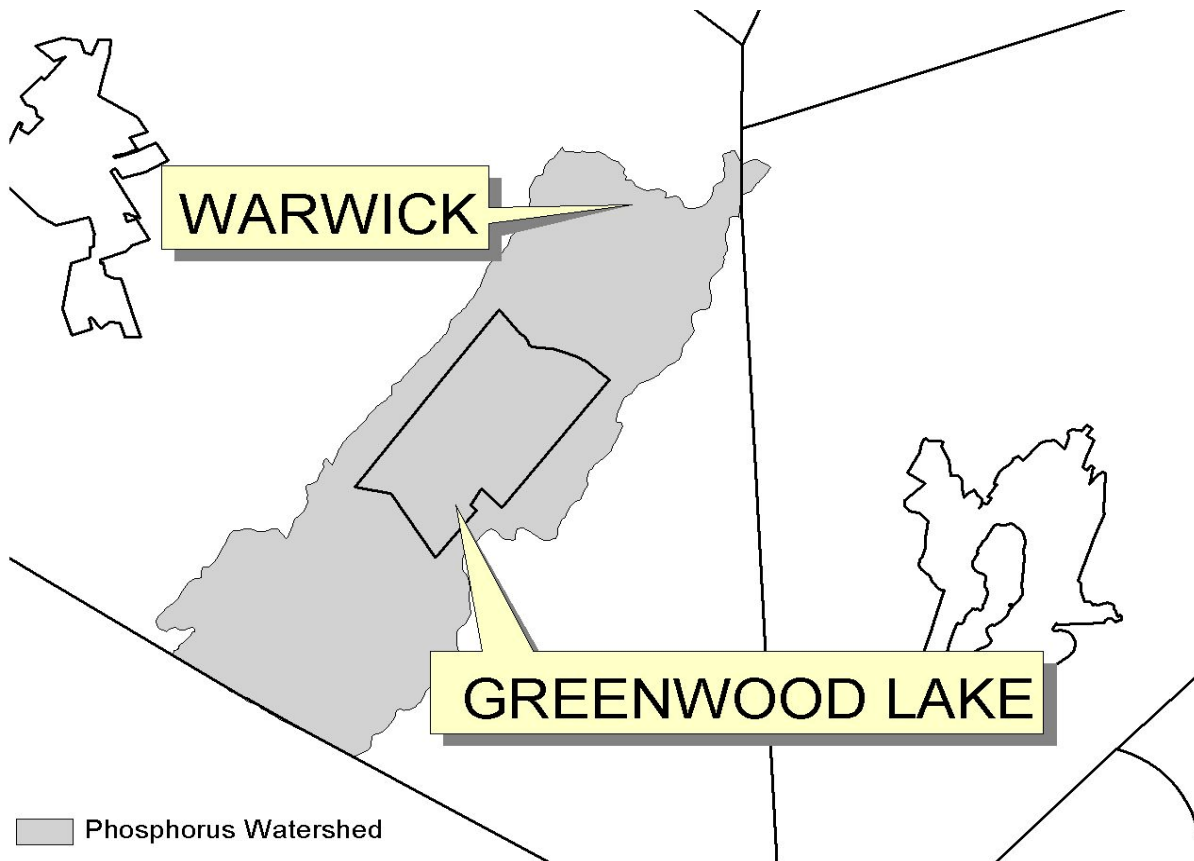


Figure 4 - Oscawana Lake Watershed

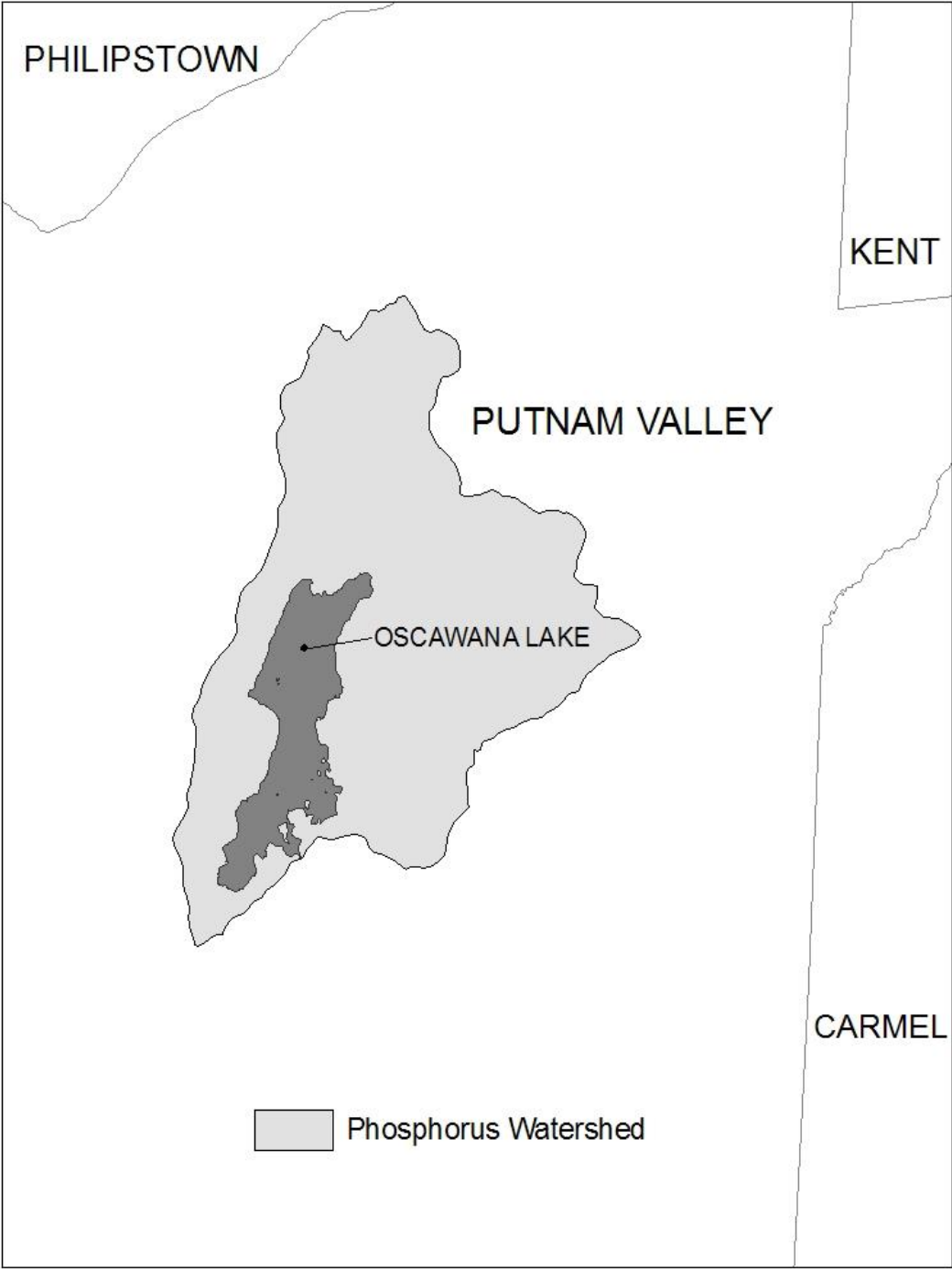
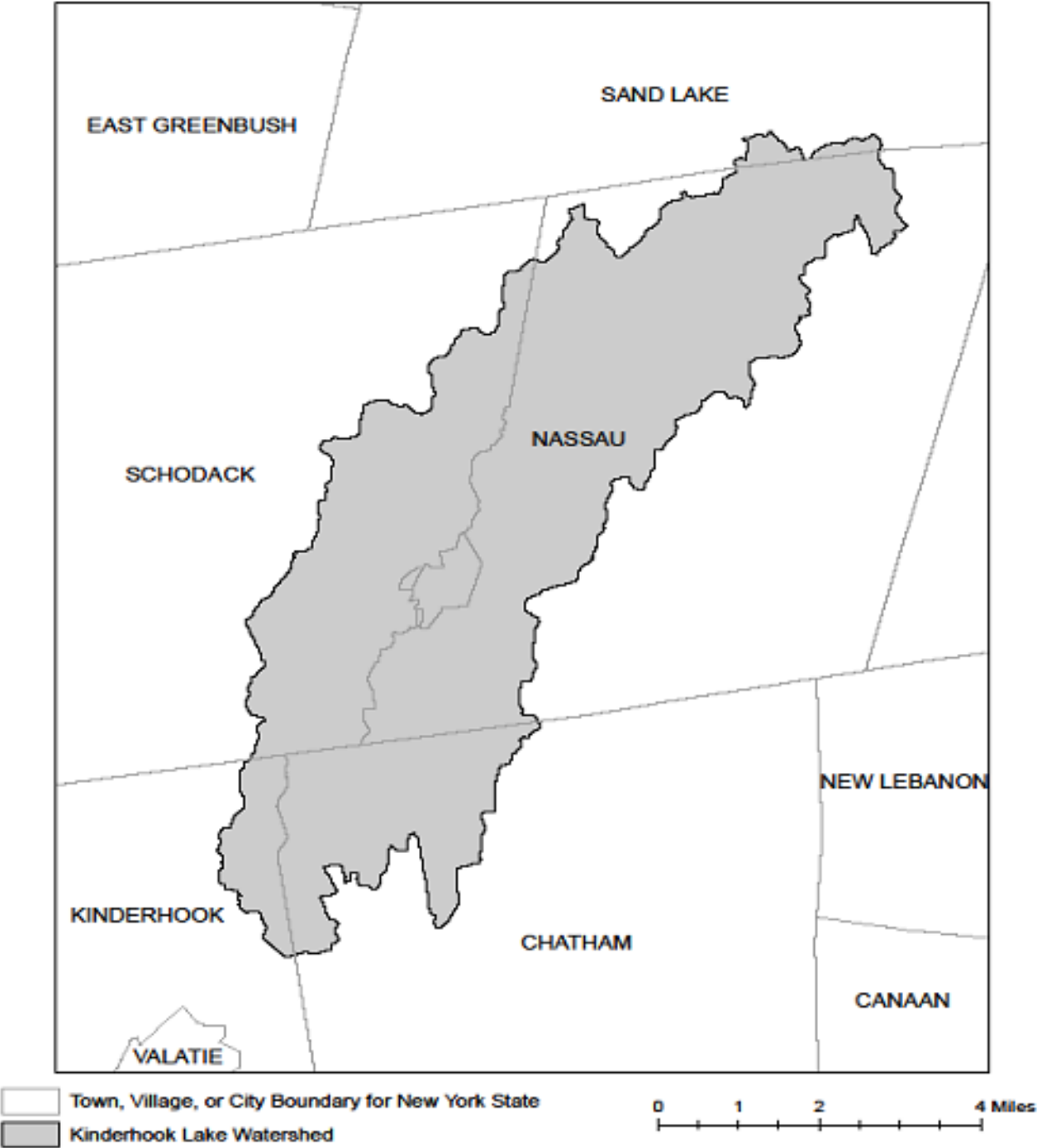


Figure 5 - Kinderhook Lake Watershed



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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX F – List of NYS DEC Regional Offices

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, Po Box 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070